Washington State Department of Transportation

GETTING TO

ERO

WSDOT's Highway Safety Improvement Program Implementation Plan 2025

September 30, 2025

Ralph Rizzo, FHWA Division Administrator
711 Capitol Way S.
Olympia Washington, 98501

Administrator Rizzo,

The Washington State Department of Transportation is proud to submit to FHWA its 2026 HSIP Implementation Plan – Getting to Zero. Washington saw fatal and serious crash increases from 2013 to 2023 before shifting downward in 2024and continuing this trend in 2025.

In 2024, with direction from former Secretary of Transportation Roger Miller, WSDOT adopted its new Strategic Highway Safety Plan. The 2024 plan (Target Zero) focused on the Safe Systems Approach, which WSDOT will further advance and implement ongoing revisions to design and operational policies. Priority areas include complete street guidelines, Safe System Speeds, and Safer Land Use approaches. WSDOT has applied a roundabout first policy, speed safety cameras in work zones, and new safety subcategories in active transportation and speed management as steps in achieving its ambitious goals.

Washington is challenged with critical unfunded needs on our transportation system, including both state and local Safety Programs. WSDOT took active steps in the 2025 legislative session, recommending the Governor's budget proposal include an increase in safety funding from $100 million to $475 million. With $475 million targeted toward legacy highways within population centers, proven countermeasures on rural roads and in work zones—WSDOT remains cautiously optimistic about its funding prospects.

I have asked the Assistant Secretary for Multimodal Development and Delivery to lead the Highway Safety Executive Committee on my behalf. The focus in 2026 is to continue emphasizing project effectiveness, including updating our priority programming process, refining design policies with orientation toward the safe system and maintaining a proactive emphasis on road safety while encouraging data driven practical design solutions.

You will find that we have provided a data-driven assessment and approach to reducing fatal and serious crashes with sound strategies to reduce crashes. WSDOT's newly obligated projects for 2026 are shown in the appendix. These projects have resulted from careful identification, prioritization, and initial scoping. I approve of this document and its contents and cordially submit to FHWA as meeting the requirements comply with the provisions set forth in 23 U.S.C. 148(i).

Sincerely,

Julie Meredith, PE
Secretary of Transportation

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Acknowledgements

WSDOT, together with all partner agencies and safety stakeholders, strives to reach zero fatal and serious injury crashes. This Highway Safety Improvement Program Implementation Plan was developed through the effort of multiple individuals and divisions across WSDOT. The Transportation Safety and Systems Analysis division is thankful for the collaborative efforts, participation, and time producing and reviewing this document. Leaders in data analysis, assembling and reviewing the document for submission (in alphabetical order):

- **Zhila Dehdari**
- **Sreenath Gangula**
- **Joe Irwin**
- **John Milton**
- **Dustin Motte**
- **Gabe Phillips**
- **Amy Shaffer**
- **Ida van Schalkwyk**
- **Kun Yi**

The Transportation Safety Systems Analysis division would also like to thank the following individuals and their divisions for providing working documents for inclusion in the implementation plan (in alphabetical order):

- **Anissa Allen, Capital Program Development**
- **Barb Chamberlain, Active Transportation Division**
- **Charlotte Claybrooke, Active Transportation Division**
- **Matthew Enders, Local Programs**
- **Dina Swires, Transportation Operation**
- **Ida van Schalkwyk, Development Division**

List of Acronyms

AASHTO	American Association of State Highway and Transportation Officials
CAR	Crash Analysis Report
CMF	Crash Modification Factor
CPDM	WSDOT Capital Program Development and Management
FARS	Fatal Analysis Reporting System
FAST	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
HSEC	Highway Safety Executive Committee
HFST	High Friction Surface Treatments
HSIG	Highway Safety Issues Group
HSIP	Highway Safety Improvement Program
HSP	Highway System Plan
HSM	AASHTO Highway Safety Manual
I-2	WSDOT Investment Category: Improvement Program - Safety Sub-Program
JOPS	Joint Operations Policy Statement
LCE	WSDOT Low-Cost Enhancement
LRSP	Local Road Safety Plan
MAP-21	Moving Ahead for Progress in the 21st Century Act
MPO	Metropolitan Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
NHTSA	National Highway Traffic Safety Administration
RCW	Revised Code of Washington
RTPO	Regional Transportation Planning Organization
SHSP	Strategic Highway Safety Plan
SPF	Safety Performance Function
VRU	Vulnerable Road User (Pedestrians and Bicyclists)
VRUCI	Vulnerable Road User Characterstic Index
WA	Washington state
WSDOT	Washington State Department of Transportation
WSP	Washington State Patrol
WTSC	Washington Traffic Safety Commission

Exhibits

Executive Summary

The Washington State Department of Transportation has set safety as one of the top priorities in carrying out its transportation mission. Safety is also a transportation system policy goal for WSDOT (RCW 47.04.280(1)(b)). The goal in Washington state is to achieve zero fatal and serious injury crashes by 2030. Under the Highway Safety Improvement Program (HSIP) (23 U.S.C. §148) WSDOT is required to set five safety performance targets. These are:

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles traveled
- Number of suspected serious injuries
- Rate of suspected serious injuries per 100 million vehicle miles traveled
- Number of fatalities and serious injuries among people walking and biking (nonmotorized) in motor vehicle crashes

To set targets for 2025, WSDOT, together with the Washington Traffic Safety Commission (WTSC) and Metropolitan Planning Organizations (MPO) used the "Target Zero method." This method reviews safety performance measures during the previous five-year period to determine the current annual rolling average performance and then plots a trend line to zero fatal and serious injury crashes in 2030.

The resulting 2022 targets and 2024 outcomes are summarized in **Exhibit 1.** Based on the FHWA determination that WSDOT failed to make significant progress, the agency is required to develop this HSIP Implementation Plan.

Exhibit 1. Summary of Significant Progress for MAP-21 Safety Performance Measures
2020 through 2024
Sources: Fatalities from the Coded Fatal Crash Data, preliminary 2024, WTSC; Serious injuries from the WSDOT Engineering Crash Datamart, 2024 year end

Performance Measure	Target: 2020 2024 rolling average	Outcome: 2020 2024 rolling average	Baseline: 2018 2022 rolling average	Target/ Baseline Met?	Significant Progress?
Number of fatalities	461.3	705.2	612.6	No/No	No
Rate of Fatalities per 100 million VMT on all public roads	0.787	1.213	1.045	No/No	
Number of serious injuries	1,939.4	3,034	2589.6	No/No	
Rate of serious injuries per 100 million VMT on all public roads	3.309	5.214	4.419	No/No	
Number of non-motorized fatalities and serious injuries	465.6	700.0	621.0	No/No	

FHWA requires that states failing to make significant progress must:

1. Submit an annual HSIP Implementation Plan, which describes the actions WSDOT will take to make significant progress toward meeting safety targets in order to address its failure to meet targets.

2. Obligate federal HSIP funds based on previous year's allocations.

WSDOT safety subcategories

To reduce the potential for fatal and serious injury crashes across each of the emphasis areas, WSDOT has set up subcategories for targeted investment. The sidebar on the right summarizes the current and proposed subcategories for the WSDOT subprogram.

Based on the vulnerable road user assessment, WSDOT is using its Vulnerable Road User Characteristic Index, which includes demographic, economic and traffic variables to develop a ranked list of safety project locations for further consideration by the agency's regions. This list will inform VRU project selection within the safety subprogram.

Speed Management will be a focus area within WSDOT's road safety approach. This includes changes to the subcategories: target speed setting, speed safety cameras, and speed management methods.

I-2 Safety Program Subcategories

- Crash Analysis Locations
- Rumble Strips
- Breakaway Cable Terminal Replacement
- Lane Departure Systemic Treatments
- High Friction Surface Treatment Program
- Active Transportation, Vulnerable Road Users
- Safety Decision-Making and Performance Improvement
- Speed Reduction Countermeasures
- Compact Roundabouts

*A key principle of the safe system approach is **Speed Management**. WSDOT will focus on this subcategory, aiming to lower speeds and reduce crash forces.*

Introduction

The Highway Safety Improvement Program is a core federal-aid program that aims to reduce fatalities and serious injuries on all public roads regardless of ownership. This Implementation Plan addresses both federal and state expenditures for road safety, as required by the HSIP.

WSDOT's strategic highway safety plan (SHSP) is called "Target Zero" and was updated in 2024. Washington was the first in the United States to set and actively pursue achieving a goal of zero fatal crashes. The state's efforts to reduce exposure, likelihood, and the severity of fatal and serious injury crashes make it more likely that our families, friends, and the public will arrive home safely.

WSDOT continues to integrate the Safe System Approach into its project development process, which is essential in reducing fatal and serious crashes in Washington's highways.

Key Takeaways

- WSDOT is required to set five targets as part of the Highway Safety Improvement Program.
- WSDOT did not make significant progress towards Target Zero goals in 2024.

Target setting and special rules

MAP-21, under 23 U.S.C. 150(b), directs state DOTs to set five safety targets focused on fatal and serious injuries, and to report on progress toward these targets annually. The WSDOT safety targets address:

- Number of fatalities,
- Fatality rate (per 100 million vehicle miles traveled),
- Number of serious injuries,
- Serious injury rate (per 100 MVMT), and
- Number of non-motorized fatal and serious injuries.

WSDOT did not meet or make significant progress in 2024 in any of the target areas, and as a result is required to develop this HSIP Implementation Plan, that under 23 U.S.C. §148 must:

- Identify roadway features that constitute hazards to road users
- Identify highway safety improvement projects on the basis of crash experience, crash potential, or other data-supported means
- Describe how HSIP funds will be allocated, including projects, activities, and strategies to be implemented
- Describe how the proposed projects, activities, and strategies funded under the HSIP will allow Washington state to make progress toward achieving safety performance targets
- Describe the actions Washington state will undertake to achieve the performance targets

Target Zero

- Sets statewide priorities for all traffic safety partners through a collaborative effort.
- Provides a resource for potential strategies to address each of the priority areas.
- Monitors outcomes at a statewide level.

Federal laws

The Highway Safety Improvement Program is a Federal Aid program administered through the Federal Highway Administration (FHWA). The HSIP requires a data-driven, strategic approach to reducing fatalities and serious injuries. HSIP is legislated under Section 148 of Title 23 and regulated under 23 CFR Part 924.

The main components of HSIP are:

- The Strategic Highway Safety Plan, which is called Target Zero in Washington.
- The State HSIP, or program of highway safety improvement projects.
- Railway-Highway Crossing Program (RHCP), which provides funds to address hazards at railway-highway crossings under 23 U.S.C. §130.
- High Risk Rural Roads, which are local (county) rural roads with an increased fatality rate.
- Vulnerable Road User Assessment, a statewide assessment of the safety performance and treatment strategies for pedestrians and bicyclists, required by 23 U.S.C. 148(l). (23 U.S.C. 148(a)(16)).

State laws

RCW 47.04.280: Transportation System Policy Goals establishes six transportation goals for Washington, including a goal for Safety: "To provide for and improve the safety and security of transportation customers and the transportation system."

- RCW 47.05: Priority Programming for Highway Development Target Zero requires projects to be selected according to factual need and evaluation of cost and benefit.
- RCW 43.59 Traffic Safety Commission establishes the Washington Traffic Safety Commission and designates this body to serve as the Governor's Highway Safety Representative as required by the federal Highway Safety Act of 1966 (Public Law 89-564; 80 Stat. 731).

Washington state safety leadership

The Washington Traffic Safety Commission is Washington's designated state highway safety office (SHSO). The commission is chaired by the Governor of Washington and consists of chief executive officers from agencies responsible for road safety in Washington. More about the commissioners and what they do can be found here.

Washington State Department of Transportation

To provide centralized, dedicated leadership for road safety, WSDOT created the Transportation Safety Office (TSO), and reformed both the Highway Safety Executive Committee (HSEC) and the Highway Safety Issues Group (HSIG). These safety groups and their collaborative work are described in greater detail in the Stakeholder Engagement section.

WSDOT's TSO and other offices within the agency with safety responsibilities continue to develop an action plan for safety. The offices are prioritizing measures to address the ongoing trend of disproportionate serious injury/fatal crashes involving pedestrians and bicyclists.

Decision framework

The HSIP uses the Target Zero emphasis areas to develop subcategories which focus on eliminating fatal and serious injuries on the state's roadways. The subcategories span a 10-year horizon for planning purposes to develop ranked lists within each of the subcategories; the methods and processes are described in the Safety Subcategories Methods Section. Each emphasis area has associated strategies for reducing fatalities and serious injuries and focuses on incorporating the Safe System principles. Target Zero also recognizes the need for leadership in achieving safety goals and creating the appropriate safety culture within an organization. WSDOT is currently reviewing the entire highway safety program to better align with both the Safe System Approach, and equity-based principles.

Complete Streets implementation at WSDOT

In the 2022 Move Ahead Washington transportation investment package (ESSB 5974), the legislature expressed an intent to improve the safety, mobility, and accessibility of state highways. They directed WSDOT to incorporate the principles of Complete Streets with facilities that provide street access with all users in mind, including pedestrians, bicyclists, and public transportation users. Further details along with steps WSDOT has taken toward successful integration to connect with the agency's highway safety goals are provided in the Complete Streets section.

As part of the work for the Washington State Active Transportation Plan, state routes within the boundaries of population centers (defined as incorporated cities and towns and census designated places) were assessed for level of traffic stress. Level of traffic stress (LTS) provides a quantitative measure of roadway characteristics including posted speed, number of lanes, and traffic volumes; higher LTS corresponds to locations with higher crash potential for vulnerable road users.

Safety priorities

Target Zero 2024 evaluated data for 2020-2022 to identify emphasis areas related to fatalities and serious injuries.

Exhibit 2 shows the Target Zero 2024 Emphasis Areas as presented in the Washington State Strategic Highway Safety Plan. The table provides the number and percent of fatal and serious injury crashes that occurred during the three-year period from 2020 to 2022. Though not identified as safety subcategories, WSDOT offices and regions may make investments in the monitored areas of Target Zero to address vehicle-train crashes, school active transportation, and work zone safety.

Exhibit 2. Strategic Highway Safety Plan, Target Zero 2024 Emphasis Areas

Source: Target Zero 2024

Emphasis Area	Fatalities 2020-22	Fatalities, % of total	Change in average fatalities, 2017-19 to 2020-22	Serious injuries 2020-22	Serious injuries, % of total	Change in average serious injuries, 2017-19 to 2020-22
All areas	**1,991**	**100%**	**+21%**	**8,440**	**100%**	**+26%**
High risk behavior						
Impairment involved	1,188	60%	+29%	1,928	23%	+40%
Speeding	633	32%	+25%	2,090	25%	+33%
Unrestrained occupant	417	21%	+31%	978	12%	+48%
Distracted road user	347	17%	-17%	1,525	18%	-19%
Crash type/location						
Lane departure	877	44%	+10%	3,363	40%	+35%
Intersection related	472	24%	+33%	2,822	33%	+23%
Road users by age						
Young driver (15-24)	519	26%	+23%	2,419	29%	+27%
Older driver (70+)	251	13%	+11%	838	10%	+26%
Road users by mode of travel						
Active transportation	428	21%	+19%	1,456	17%	+2%
Motorcyclists	318	16%	+25%	1,440	17%	+18%
Heavy vehicle	255	13%	+10%	506	6%	+17%

Notes: Attributes are not mutually exclusive. For updates to fatalities after 2022, refer to the WTSC Fatalities Dashboard. For updates to serious injuries after 2022, refer to WSDOT Crash Data Portal.

The emphasis areas identified in Target Zero provide the basis for subcategory development in the I-2 safety subprogram, with each area representing broad categories of crash types. **Appendix A on page 54** provides updated performance information and presents the top seven emphasis areas (crash types and road users) by jurisdiction.

Appendix B on page 61 summarizes the statewide safety performance and safety performance for state routes distinguishes between facilities under WSDOT jurisdiction and those under local jurisdiction.

Note that state routes in cities with populations over 30,000 are under local jurisdiction and do not receive Safety Subprogram investments from WSDOT—these locations are eligible for funding through the safety grant program for local agencies. Per RCW 47.24.020(13) these state routes are local jurisdiction. Summaries for the latter do not include any limited access facilities or crashes related to ramp terminals or crossroads at interchanges within these city boundaries.

The strategies used to address emphasis areas (specific crash types or groups of crash types) are commonly known as crash countermeasures. The countermeasures become the subcategories for investment. WSDOT uses the subcategories to develop a method for ranking, prioritizing, and implementing projects.

Stakeholder Engagement

WSDOT works closely with its safety partners and has achieved a high level of cooperation and coordination at the federal, state, and local levels. The Transportation Safety Office uses these collaboration opportunities to share information and updates about the safety program as well as solicit feedback.

Transportation Performance Management

WSDOT has established a strong partnership with the Metropolitan Planning Organizations (MPOs) in Washington to coordinate safety performance target setting. Each spring, WSDOT initiates an engagement process with the Statewide Safety Transportation Performance Management Technical Group, consisting of staff from MPOs and safety-related subject matter experts from state agencies. This group collaboratively reviews past safety performance and develops target setting methodology. The methodology is then presented to the Transportation Performance Management Framework Group, consisting of MPO Executive Directors and WSDOT Division Directors, to make a final recommendation on the methodology to be used for the annual targets. The recommendation is then presented to the WSDOT Executive Leadership team for the targets to be finalized.

Careful coordination on the annual safety targets with the MPOs is critical because they are responsible for taking action relative to these safety targets once they are finalized by WSDOT. The MPOs can choose to either plan and program in support of the state targets or commit to their own quantifiable targets. To date, the MPOs in Washington have all elected to support the state targets.

In addition to the formal Technical Team/Framework Group processes, WSDOT's Transportation Safety Office attends MPO Policy Board meetings as requested to help inform board members of the decisions they make regarding target setting.

External Engagement

WSDOT collaborates with external partners to provide information about the safety program as well as receive feedback on how it should invest in safety. The Transportation Safety Office has engaged with multiple partners during the development of the Highway Safety Improvement Program Implementation Plan.

On February 19, 2025, the Transportation Safety Office gave a presentation to the Washington State Transportation Commission, which gave an overview of WSDOT's approach to transportation safety and also highlighted the initial proposal for the safety subcategories WSDOT anticipated investing in. This was a valuable opportunity for WSDOT and the Washington State Transportation Commission to coordinate safety priorities as the Commission prepared to update the Washington Transportation Plan.

On March 13, 2025, the Transportation Safety Office held a webinar for MPOs and RTPOs in Washington to learn about WSDOT's budget subprogram for safety (I-2). The webinar discussed traditional investment levels for safety budget subcategories and how projects are identified for ranking, prioritization, and funding. WSDOT also shared the proposed investment levels to be included in the Highway Safety Improvement Program Implementation Plan. MPOs and RTPOs offered thoughtful feedback and were generally supportive of the proposed investment levels.

The Transportation Safety Office attended the Affiliated Tribes of Northwest Indians Transportation Committee on May 13, 2025 to give an overview of the Safety Investment Plan.

Safety Coordination

WSDOT meets quarterly with the Washington Traffic Safety Commission to coordinate on Safe System Approach implementation. During these coordination meetings WSDOT addresses common issues such as safety programs, progress in implementing Target Zero, and monitoring legislation related to safety.

WSDOT also hosts quarterly coordination meetings with the MPOs and Regional Transportation Planning Organizations (RTPOs) in Washington. Representatives from the Federal Highway Administration and the Federal Transit Administration also participate, along with various representatives from the different divisions and regions within WSDOT. During these meetings, WSDOT provides updates related to the safety program and reviews methodologies related to ranking and prioritizing safety investments. MPO and RTPO staff can provide feedback on WSDOT's processes as well as gather information to share with their policy boards.

Internal Engagement and Coordination

The Transportation Safety Office works closely with divisions and regions within WSDOT to align safety priorities. Much of this coordination is done informally, through check-ins, status updates, and ad hoc meetings. However, WSDOT also has a formal process for aligning safety priorities within the agency: The Highway Safety Executive Committee.

Highway Safety Executive Committee

The Highway Safety Executive Committee (HSEC) develops safety policies to implement the WSDOT safety subprogram (I-2). They also recommend and/or approve project development processes to align with Target Zero and provide safety policy and direction to incorporate in various statewide plans.

HSEC responsibilities include:

- Providing executive support for Target Zero.
- Approving project budgets and expenditures.
- Approving project scopes, objectives, and strategies.
- Resolving organizational, policy and procedural issues.
- Supporting an environment of collaboration and cooperation.
- Approving and supporting resource commitments to projects.

Highway Safety Issues Group

The HSEC is supported by the Highway Safety Issues Group (HSIG). HSIG is an interdisciplinary team of transportation professionals with an interest in and responsibility for reducing fatal and serious injury crash potential on Washington's roadways. HSIG serves as a forum—which includes WSDOT region representation—to discuss safety performance, implement the safety subprogram, and provide technical support to HSEC for solving technical safety issues. All interested parties are welcome to participate in HSIG meetings.

The responsibilities of the HSIG include:

- Identifying highway safety issues.
- Developing proposed highway safety policies for HSEC consideration.
- Recommending proposed project scope and requirements.
- Providing technical and engineering support to the HSEC.

Safety Investment Strategy

WSDOT manages funding for reducing fatal and serious injury crash potential through a combination of its capital programs, operational program and its Safety Subprogram (I-2). The WSDOT design manual guides how project development occurs when funded through different program areas. As of 2025, Complete Streets are a requirement for projects in excess of $1,000,000 within urbanized areas. Other funding programs and subprograms may also address crash potential if there is a benefit/cost opportunity within the boundaries of the project (e.g., a preservation project might include a lane departure systemic treatment).

Key Takeaways

- HSIP funds are allocated to local and state roadways based on the proportion of fatal and serious injury crashes in Target Zero priority areas.
- Currently, HSIP funding is distributed as 70% to local roadways and 30% to state roadways.

Integration of HSIP and Target Zero

Federal safety funds from the Highway Safety Improvement Program (HSIP) are split between state highways and local roads in a data-driven process that follows the Target Zero framework. The funds are split according to the proportion of fatal and serious injury crashes that occurred on local roadways (cities and counties) versus roadways under WSDOT jurisdiction. Allocation of funding is based on the most recent five-year period.

Available Funds and Allocation Goals

For federal fiscal year 2025, Washington state will receive approximately $53.2 million for the HSIP program. Of this, approximately $16.0 million will be allocated to state roadways and $37.3 million to local roadways. **Exhibit 3** shows the federal funding allocation for FFY 2021 through FFY 2025. Current funding distribution is approximately 70% to local roads, and 30% to state highways.

Exhibit 3. Allocation of HSIP funding
Federal Fiscal Years 2021 through 2025

	Total	State	Local Programs
FFY 2021	$40,194,531	$13,406,425	$26,788,106
FFY 2022	$49,811,957	$14,943,587	$34,868,370
FFY 2023	$51,109,000	$15,333,000	$35,776,000
FFY 2024	$52,119,500	$15,232,683	$36,886,817
FFY 2025	$53,238,510	$15,971,553	$37,266,957

Local Roadways

Funding for local roadways is divided into two programs: the County Safety Program and the City Safety Program. All safety projects must address fatal or serious injury crashes per HSIP funding requirements.

County Safety Program

The County Safety Program methodology requires counties to apply only for systemic safety projects. Systemic safety involves a data-driven, prioritized approach to address crash potential (typically lower-cost and widespread improvements). Due to the widely dispersed nature of fatal and serious injury crash locations across 39,200 centerline miles, WSDOT and counties have agreed a systemic approach is the best way to advance Target Zero.

Since 2014, WSDOT has required counties to submit a Local Road Safety Plan (LRSP) as part of their application to be eligible for HSIP funds. These plans describe the data-driven prioritization process for each county, including identification of common roadway characteristics associated with fatal and serious injury crashes.

The County Safety Program has a call for projects every two years. Once counties submit their funding applications and Local Road Safety Plans, WSDOT Local Programs staff identify projects for funding based on fatal and serious injury crash history, common roadway characteristics associated with fatal and serious injury crashes, cost effectiveness of the countermeasures proposed, and the project delivery record of agencies applying.

Exhibit 4. WSDOT Local Safety Countermeasures for 2013-2024

City	County
Intersections (46%)	Lane Departure Systemic (64%)
Signal Operations/Visibility	Guardrail
Roundabouts	Signing
New Traffic Signals	High Friction Surface Treatments
Illumination	Shoulders
Signing	Slope Flattening
Active Transportation (42%)	Clear Zone Improvements
Rapid Flashing Beacons	Bridge Rail
Road Diets	Widening
Pedestrian Hybrid Beacons	Pavement Markings
Refuge Islands	Delineation
High Visibility Crosswalks	Intersections (32%)
Bike Lanes/Cycle Tracks	Roundabouts
Leading Pedestrian Intervals	Signing
Curb Extensions	New Traffic Signals
Lane Departure Systemic (10%)	Signal Operations/Visibility
Guardrail	Active Transportation (2%)
Signing	Refuge Islands
High Friction Surface Treatments	Data Improvement (1%)
Illumination	Data Collection
Speeding (1%)	Speeding (1%)
Speed Feedback Signs	Speed Feedback Signs

City Safety Program

The City Safety Program methodology has remained consistent since 2012 and addresses safety on 17,639 centerline miles of city roadways. That methodology requires cities to apply for spot location projects or systemic safety projects. Since 2012, about half of the City Safety Program funds have been awarded to spot location projects and about half to systemic safety projects. As of 2020, all cities were required to submit a LRSP as part of their application to be eligible for HSIP funds.

The City Safety Program has a call for projects every two years. Once cities submit their funding applications and LRSPs, WSDOT Local Programs staff identify projects for funding.

- For systemic safety projects, funding is based on fatal and serious injury crash history, common roadway characteristics associated with fatal and serious injury crashes, cost effectiveness of proposed countermeasures, and the agency's delivery record based upon prior project selections.
- For spot location projects, funding is based on the benefit/cost ratio of the project (expected safety benefits are based on Crash Modification Factors and crash history compared to total project cost). To maintain consistency, WSDOT calculates all benefit/cost ratios and considers agencies' project delivery records before awarding funds.

Exhibit 5. Planned FFY 2025 Local Safety Project Obligations

City	County
Active Transportation (24%)	Intersections (31%)
Rapid Flashing Beacons	Roundabouts
Pedestrian Hybrid Beacons	Real-Time Warning Systems
Bike Lanes/Cycle Tracks	Signing
Sidewalks	Sight Distance
Road Diets	Left Turn Lanes
Leading Pedestrian Intervals	Illumination
Refuge Islands	Lane Departure Systemic (21%)
High Visibility Crosswalks	Guardrail
Intersections (18%)	Shoulders
Signal Operations/Visibility	Widening
Roundabouts	Slope Flattening
New Traffic Signals	Clear Zones
Illumination	Active Transportation (2%)
Signing	Rapid Flashing Beacons
Lane Departure Systemic (3%)	Sidewalks
Illumination	
Signing	
Data Improvement (1%)	
Data Collection	

WSDOT Local Safety Grant Program: Strategies and Implementation

Local agency strategies follow the guidance found in Target Zero. Refer to **Exhibit 4** for recent Target Zero emphasis areas and the primary strategies addressed by cities and counties. Refer to **Exhibit 5** for safety fund distribution in FFY 2025.

Exhibit 6. Current I-2 Safety Funding Targets

Subcategory: Crash Reduction (ID)
Crash Analysis Locations
Subcategory: Crash Prevention (IE)
Intersections – 15%
Intersection Systemic Safety (angle/ high speed) (Compact Roundabouts)
Lane Departure Systemic – 20%
Rumble Strips
High Friction Surface Treatments
BCTs
Guardrail Infill
Speed Management – 15%
Active Transportation – 15%
Pedestrians and Bicyclists (active transportation)
Motorcycles
Decision Making & Performance Improvement – 5%
MIRE FDE
AASHTO Highway Safety Manual Predictive Method Tools
ISHDM Crash Prediction Module
MPO/WTSC Planning/Target Setting

State Highways Under WSDOT Jurisdiction

Ten-Year Implementation Plan

WSDOT uses a 10-year planning horizon for the safety subprogram and reviews, assesses, and ranks the respective subcategories within investment categories from the priorities and strategies within Target Zero. The subcategory ranking helps WSDOT determine relative priority and potential budget levels in the Safety subprogram shown in **Exhibit 6**. The percentages shown indicate the current target for HSIP funding.

WSDOT typically programs projects over a six-year period, or three consecutive two-year biennial cycles. Because projects are previously programmed, implementing them within a new subcategory is not immediate. In general, from ranking to implementing a typical project can take six years or more. Therefore, implementing new subcategories often spans more than one biennium.

WSDOT also uses state funds to provide a combined federal and state allocation to state highways of approximately $100 million per biennium. WSDOT recommended to the legislature a planning-level needs-based estimate of $475 million per biennium, though it is unlikely that amount of investment will occur.

Priority Programming for Highway Development

In RCW 47.05, the Washington State Legislature recognized the complexity and diversity of transportation needs were becoming increasingly challenging. The law states the needs of the transportation system outweighed the ability to fund every location. As such, the RCW requires projects be selected based on a policy of priority programming where objectives are defined within available resources, and based on factual need and evaluation of the life-cycle costs and benefits.

WSDOT selects strategies for the state highway system that include fatal and serious injury crash prevention and reduction elements. This step in the process uses several different screening methods to identify a set of locations within all highways that have potential for fatal and serious injury crash reduction when addressed with an engineering countermeasure.

Target Zero requires WSDOT to use a values-based, data-driven approach to analyzing crashes and their contributing factors to determine how best to modify the road system to reduce fatal and serious injury crashes as much as possible within available resources.

WSDOT I-2 Safety Subprogram

Safety projects within WSDOT's scope of responsibility are programmed through the WSDOT Safety Subprogram (I-2) using a ranking and prioritization process.

Countermeasures

WSDOT's approach to investments in highway safety is value- and data-driven, as well as science based. The approach focuses on proven infrastructure countermeasures expected to reduce the potential for fatal and serious injury crashes, including pilot projects, new technology, and test applications to understand performance. These countermeasures are classified by investment type in **Exhibit 7** and have several common characteristics:

- Target fatal and serious injury crashes.
- Have been evaluated and shown to have a proven benefit in net overall reduction in the societal cost of fatal and serious injury crashes.
- Are the result of a statewide approach that requires analysis of benefit-cost.

Exhibit 7. Summary of WSDOT's I-2 Investment Types, Emphasis Areas, and Strategies/Subcategories
Target Zero emphasis areas; Washington state; 2016-2020

Type of Investment	Emphasis area	Strategies/Subcategories
Reactive	Intersection-related	Crash Analysis Locations
	Lane Departure Systemic	Crash Analysis Locations
Proactive	Intersection Systemic Safety	Compact roundabouts
	Lane Departure Systemic	Rumble Strips
		High Friction Surface Treatment Program
		Breakaway Cable Terminal Replacement
		Guardrail Infill and Retrofit
	Speed Management	Speed Reduction Countermeasures
	Active Transportation	Pedestrians and Bicyclists
	Decision-making and Performance Improvement	MIRE FDE
		AASHTO HSM Predictive Method Tools
		MPO/WTSC Planning/Target Setting

Notes: The emphasis areas identified in Target Zero provide the direction for subcategory development in the I-2 safety program. Each of these emphasis areas represent broad categories of crash types and road users. Subcategories focus on specific individual crash types and contributing factors. The expectation is that investments will reduce fatal and serious injury crash severity for individual or groups of crash types.

Crash Reduction

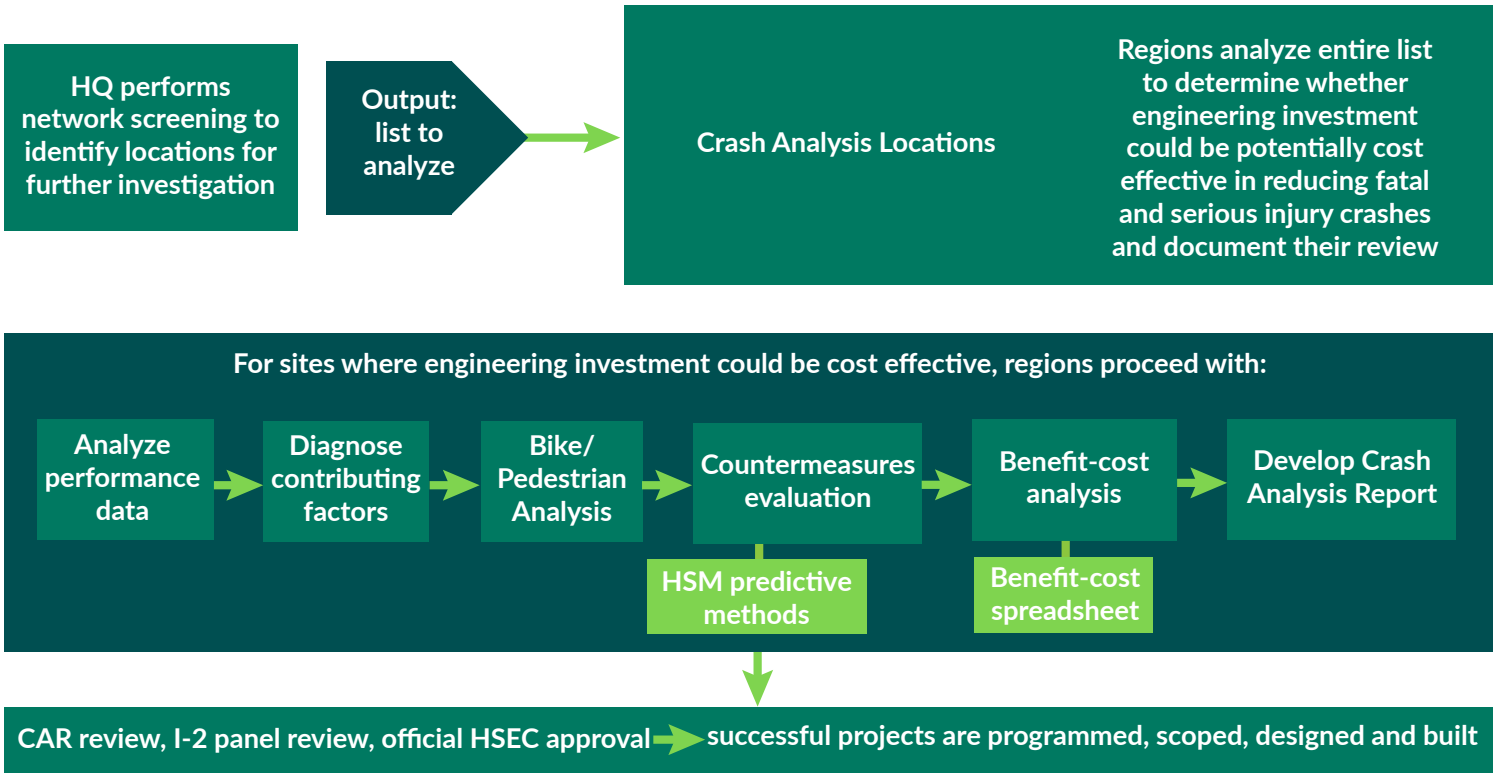
Reduction countermeasures are selected based on the historic safety performance of segments and intersections. The process selection steps include:

- Screening the statewide network using respective methods of each subcategory.
- Assessing subsets of sites selected during the screening for infrastructure investment based on cost-effectiveness.
- Identifying potential countermeasures to reduce fatal and serious injury crash outcomes.
- Completing a crash analysis report (CAR). WSDOT regional staff analyze locations and complete a CAR, which is used in the priority programming process to develop a benefit/cost ratio.
- Programming projects as appropriate.

The potential projects are considered for funding based on a rigorous review of:

- The effectiveness of countermeasure(s) in addressing factors contributing to crash types typical of the location
- Location context, and
- The cost effectiveness of the proposed investment.

Exhibit 8. Process flow for the WSDOT I-2 Safety Subprogram Crash Reduction Category



Crash Prevention

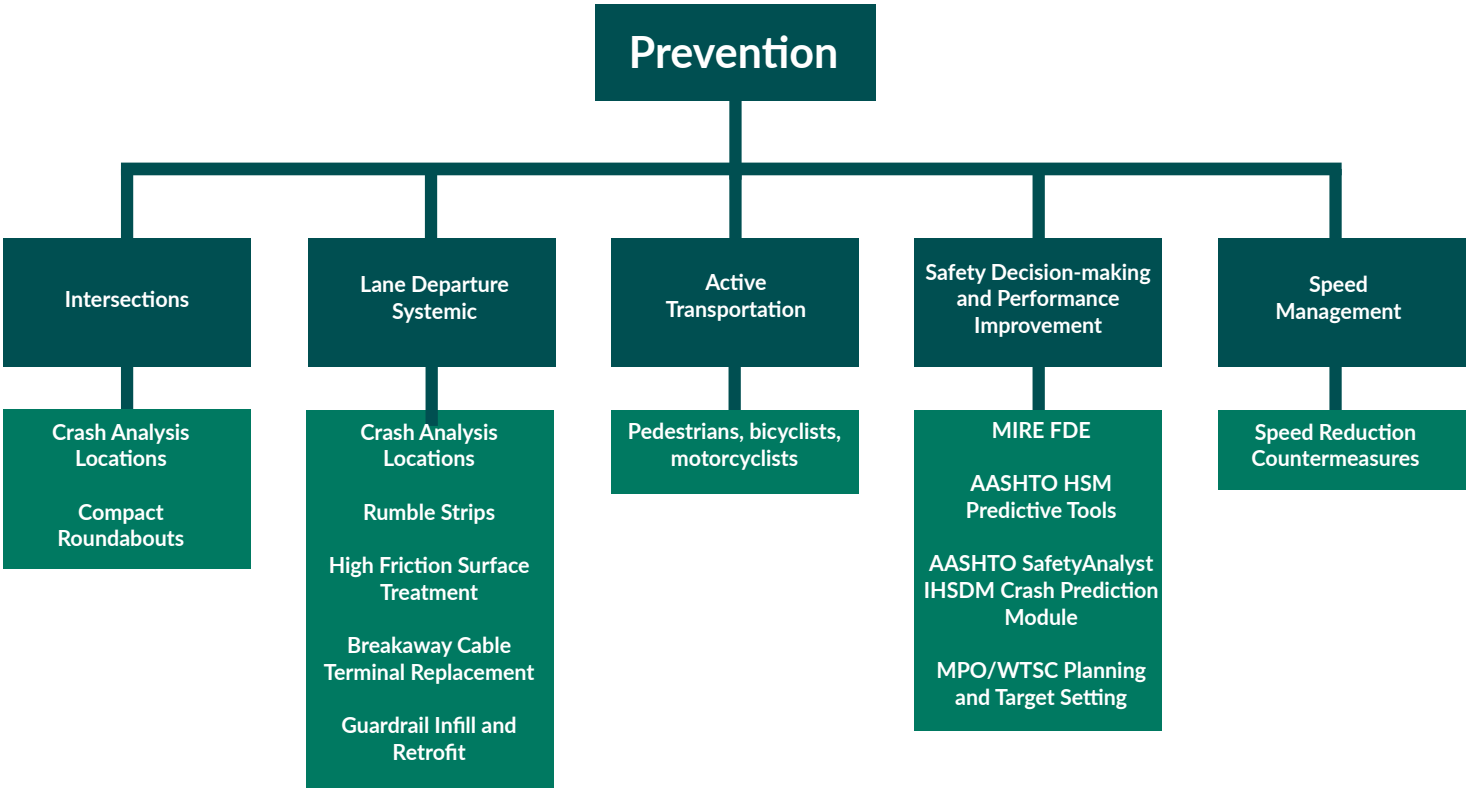
Crash prevention subcategories are associated with the emphasis areas in Target Zero. Under the current plan, the subcategories include:

- Lane departure crashes
- Intersection related crashes focusing on compact roundabouts, reduced left-turn conflict intersections
- Speed management focusing on reducing crash forces, and
- User types.

Discussion (white) papers are developed for each subcategory and approved by the Highway Safety Executive Committee.

The proactive measures generally represent lower cost per mile or per location investments with higher returns on investment. In recent years, WSDOT has found the cost of some countermeasures can vary greatly, based on location, road characteristics and reapplication of the safety countermeasure. In those cases, a benefit/cost analysis is performed to confirm the investment will still meet the minimum benefit/cost thresholds. The implementation sections provide additional information about each subcategory.

Exhibit 9. Safety Program Crash Prevention Category Subcategories



Each prevention subcategory has a different method for ranking a location for potential project consideration. The subcategory benefit/cost may either be for a location or as a system benefit/cost. A systemic approach recognizes that crashes are scattered across the system, and may occur at different locations due to different factors, such as weather, driver behavior or errors. In other words, selection is based on an evaluation of the countermeasures relevant to the subcategory, as shown in **Exhibit 10**.

The I-2 safety subprogram funding is distributed between the reduction and prevention categories based on the Target Zero emphasis areas. WSDOT targets 70% of the I-2 funding toward preventive systemic subcategories and 30% toward reduction. **Exhibit 11** summarizes the distribution of funding. There are significant year-to-year variances. In this year's allocation, the focus will be on intersections and the installation of roundabouts.

Exhibit 10. Process flow for the WSDOT I-2 Safety Subprogram Crash Prevention Category

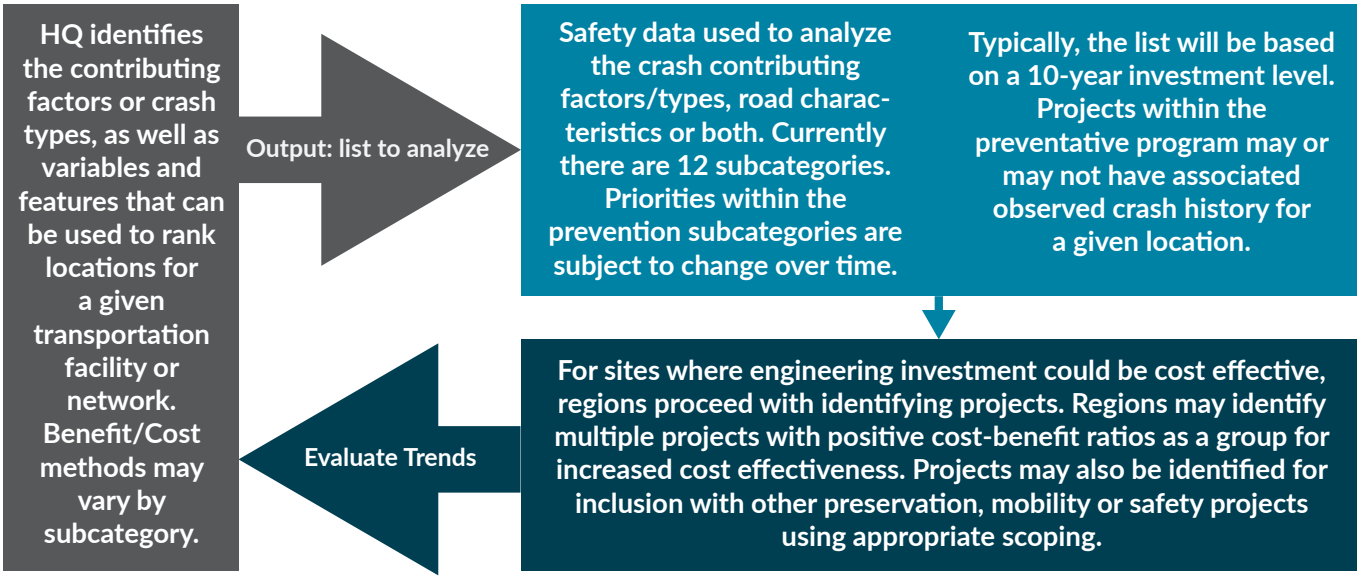
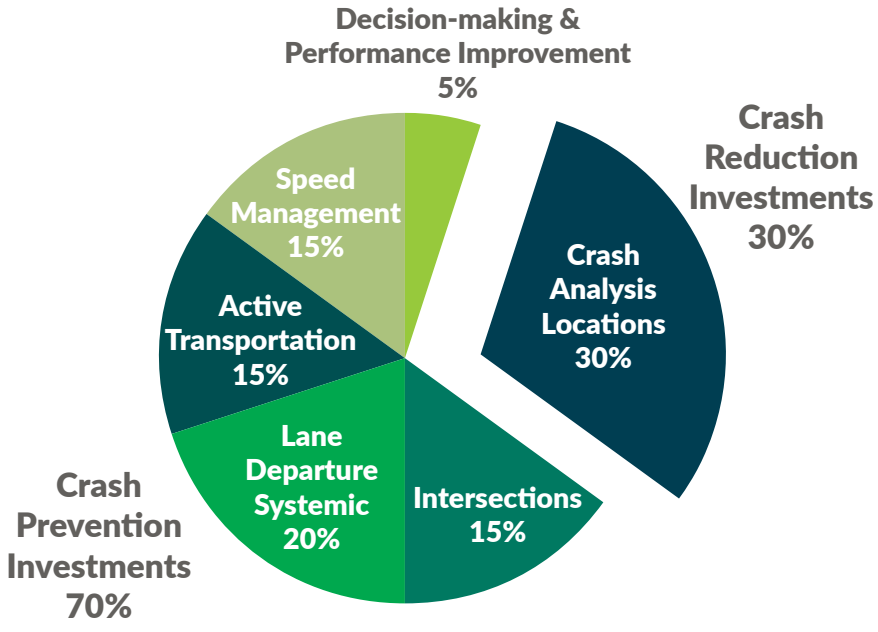


Exhibit 11. Distribution targets of I-2 Safety Funding to Target Zero Emphasis areas

Federal Fiscal Year 2025



Decision-making and performance improvement

Target Zero includes an emphasis area for decision-making and performance improvement. Activities may include:

- Examining roles and responsibilities related to safety within WSDOT
- Improving the availability, access, and/or quality of data needed to support analysis and performance management, and
- Improving the availability, access, and/or quality of tools to improve the consistency and quality of safety management and project development and delivery.

Work conducted in support of decision-making and performance improvement is funded through the agency's operating budget provided for agency staff and programs.

WSDOT is currently funding a large scale lidar data collection effort through its safety program. Other areas of emphasis are upgrades to WSDOT linear reference system and intersection identification efforts.

With the Safe System approach, WSDOT is considering a speed management subcategory for future programming and may use this subcategory to improve its equity-based assessment capabilities as it relates to safety.

Projects and funding allocation

Priority programming for state and local roads results in a prioritized list of potential projects within the Capital Program Development and Management Division. Adjustments may occur to align with other programmed work (e.g., pavement or mobility improvements) and workforce capacity.

For federal fiscal year 2025, $69.7 million (70%) of available funding is expected to be obligated to local roadways under city and county jurisdiction and $32.6 million (30%) is expected to be allocated to state routes under WSDOT jurisdiction.

For federal fiscal year 2025, $66.4 million (65%) of available funding is expected to be obligated for intersection investments, $17.3 million (17%) for lane departure investments, and $18.2 million (18%) is expected for pedestrian and bicyclist investments.

The list of programmed projects identified for FFY 2026 is provided in **Appendix C: Detailed Project List on page 68**. Benefit - Cost effectiveness of programmed projects in Prevention/Reduction categories is demonstrated in **Exhibits 30 and 31 on page 76**.

Exhibit 12. I-2 Safety Program General Process Flow

Performance Trends

Project Review points

Review effectiveness of previously implemented projects, countermeasures, and programs to determine needs for further considerations elaborating on:

- What countermeasures were implemented?
- Where were those countermeasures implemented?
- What crash types or severities were those countermeasures addressing?
- Were those crash types and pertinent countermeasures identified as a priority in the SHSP?
- Were those countermeasures effective in reducing fatal and serious injury crashes?

Washington State Performance Trends

The 2024 Target Zero Plan is the seventh version of this safety road map and it is now more important than ever given the increasing crash trends.

Data from 2015–2024 show Washington's traffic fatalities and serious injuries are increasing.

Safety performance management through analysis, evaluation, and diagnosis is critical for understanding and reducing fatal and serious injury crashes. Washington is required by FHWA to set performance targets for the following metrics:

- Number of fatalities - The total number of persons dying in a motor vehicle crash during a calendar year
- Rate of fatalities per 100 million vehicle miles travelled (VMT) - the ratio of total number of fatalities to the number of vehicle miles travelled (VMT expressed in 100 million VMT) in a calendar year
- Number of serious injuries - The total number of persons suffering a serious injury in a motor vehicle crash during a calendar year
- Rate of serious injuries per 100 million VMT - The ratio of total number of serious injuries to the number of VMT (VMT expressed in 100 million VMT) in a calendar year
- Number of non-motorized fatalities and number of non-motorized serious injuries combined - The combined total number of fatalities and serious injuries among pedestrians and bicyclists during a calendar year

WSDOT and WTSC elected to report consistent targets for the first three metrics as part of the Highway Safety Plan.

WSDOT sets targets and monitors performance for highway safety by a yearly assessment of safety data. Safety performance is reported in WSDOT's Gray Notebook, the agency's quarterly accountability report and, in accordance with the Safe System Executive Order, on a formal basis to the Washington State Secretary of Transportation.

WSDOT's Approach to Target Setting

WSDOT and WTSC work together to determine how best to set highway safety targets for Washington state.

WSDOT uses aspirational targets such as the Target Zero method. Targets were set using the last five-year rolling average (baseline) and projecting to zero fatal and serious injury crashes in 2030.

Exhibit 13 summarizes the trends and the targets, including the number of highway fatalities and serious injuries, the rate of occurrence per 100 million vehicle miles traveled (VMT), and the number of fatal and serious injuries among people walking or biking (non-motorist). **Exhibit 14** lists trends for fatalities and serious injuries for older active transportation users and drivers.

Exhibit 13. Washington State Performance Across Five Required Safety Performance Metrics and Targets

Actual annual values, rolling five-year averages, and rates per 100 million VMT; 2015 through 2024; 2025 and 2026 targets
Source: WTSC, preliminary 2024; WSDOT Engineering Crash Datamart, 2024 year end

Performance Measure	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 TARGET	2026 TARGET
Number of Fatalities	550	535	562	538	537	573	673	742	808	730	N/A	N/A
Number of Fatalities, rolling five-year	467.2	483.6	508.6	529.2	544.4	549.0	576.6	612.6	666.6	705.2	**477.0**	**470.1**
Rate of Fatalities	0.924	0.881	0.915	0.863	0.859	1.071	1.164	1.268	1.351	1.209	N/A	N/A
Rate of Fatalities, rolling five-year	0.811	0.827	0.856	0.876	0.888	0.918	0.974	1.045	1.143	1.213	**0.818**	**0.800**
Number of Serious Injuries	2,099	2,217	2,221	2,236	2,252	2,431	2,922	3,107	3,410	3,300	N/A	N/A
Number of Serious Injuries, rolling five-year	2,071.0	2,087.4	2,091.4	2,155.4	2,205.0	2,271.4	2,412.4	2,589.6	2,824.4	3,034.0	**2,016.9**	**2,022.7**
Rate of Serious Injuries	3.519	3.643	3.616	3.585	3.601	4.543	5.056	5.308	5.702	5.464	N/A	N/A
Rate of Serious Injuries, rolling five-year	3.591	3.570	3.516	3.563	3.593	3.798	4.080	4.419	4.842	5.214	**3.458**	**3.476**
Number of Non-Motorized Fatalities and Serious Injuries	494	597	573	642	575	520	669	699	807	805	N/A	N/A
Number of Non-Motorized Fatalities and Serious Injuries, rolling five-year	481.6	504.8	512.2	559.8	576.2	581.4	595.8	621.0	654.0	700.0	**469.3**	**466.7**

Note. Values represent five-year rolling averages ending in the year shown in the header. For example, the 2024 rolling average (2020 through 2024) fatality count is 705.2.

Exhibit 14. Trends for older individual fatalities and serious injuries across user types

The rate of occurrence per 100 million vehicle miles traveled (VMT)
Source: WTSC, preliminary 2024; WSDOT Engineering Crash Datamart, 2024 year end

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
65 plus Pedestrian Fatalities	22	22	28	18	27	28	33	27	42	32
65 plus Pedestrian Suspected Serious Injuries	36	45	51	54	54	44	53	48	72	78
65 plus Bicyclist Fatalities	2	2	3	5	3	4	3	4	3	3
65 plus Bicyclist Suspected Serious Injuries	3	9	5	14	8	4	5	7	8	18
Motor vehicle driver 65 plus fatalities	68	63	62	52	71	56	68	82	68	75
65 plus Motor Vehicle Driver Suspected Serious Injuries	132	144	135	136	156	173	186	212	225	265

Historical Performance

Since 2013, the safety performance across the current Target Zero Emphasis areas declined as fatalities and serious injuries increased until 2023. Some small reductions have been observed during 2023 and 2024.

For many years Washington has been undertaking numerous safety related activities that included safety legislation and proactive countermeasures installed by WSDOT and behavioral programs managed by WTSC, and the state saw large reductions until 2013. Post 2013, fatalities and serious injuries increased annually across the emphasis areas, and peaking in 2023. It is likely that the increase in population, travel, and economic growth, coupled with numerous congestion relief projects may have contributed to these increases.

With the introduction of cannabis laws in 2013, and subsequently COVID-19 behavioral changes in road users, the number of fatalities and serious injuries have increased. During and after COVID-19, behaviors such as DUI, speeding, and distracted driving increased, and restraint usage decreased leading to a rapid increase in the number of fatalities and serious injuries on Washington's public roads. With roads seeing fewer vehicles, speeds increased in many locations across the system.

WSDOT does not have sufficient data to statistically determine that critical factors leading to the reduction seen in 2024, but fatalities and serious injuries across most emphasis areas decreased. Specialized work in unhoused encampment removal from WSDOT, roundabouts, roadside safety hardware and subsequent increases in law enforcement likely contributed to these positive effects. Results with speed safety cameras is beginning and any data review remains to early to tell.

Evaluation of Countermeasures

If an observational before/after evaluation is conducted without any consideration of non-treatment sites (i.e., with no safety performance frameworks and no comparison group), this is referred to as a simple or naive before/after evaluation. Such evaluations do not compensate for regression-to-the-mean bias or compensate for general time trends in the crash data. For more information, Refer to the Highway Safety Manual, 1st Edition. 2010, AASHTO.

Data from the most recent three years (2022–2024) show Washington's traffic fatal and serious injury crashes are increasing in 2022 and 2023, with a slight decrease in 2024. Refer to **Exhibit 13 on page 18.**

Exhibit 24 on page 24 shows the percentage change across the reporting periods of the state's Target Zero plans for 2019 and 2024. Fatal and serious injury crash increases were the largest in intersection related crashes, crashes involving people biking, motorcyclists, crashes involving older drivers, and crashes involving younger drivers.

Exhibit 25 on page 24 portrays the emphasis area as a portion of the total fatal and suspected serious injury crashes for 2020-2024. The data show lane departure, intersection related, crashes involving people walking and biking, crashes involving motorcyclists, and those involving heavy trucks were the top five contributors to fatal and serious injury crashes for the five-year period.

Other notable trends

- For 2024, combined pedestrian and cyclist involved crashes remained high, and accounted for 20% of total fatalities and serious injuries in the state.

Washington state traffic-related fatalities in 2023 reached a high not seen since the 1990s but 2024 showed an improvement. VMT increased and both fatal and serious injury crashes decreased in 2024. The distribution of fatal and serious injury crashes across jurisdictions are presented on **page 21**.

Fatal and Serious Injury Crashes Across All Public Roadways

There were 16,216 fatal and serious injury crashes in Washington state between 2020 and 2024. Refer to **Appendix B on page 61.**

The five-year average annual societal cost for crashes in Washington between 2020 and 2024 was $23.3 billion. **Exhibit 15** presents the Target Zero emphasis areas with the largest portions of fatal and serious injury crashes for all public roadways. Note in subsequent subsections how these percentages are different across the emphasis areas when considering specific jurisdictions.

Exhibit 15. Emphasis areas for all public roadways in Washington State by total and percentage fatal and serious injury crashes, 2020-2024 (Source: WSDOT Engineering Crash Datamart, 2024 Year End)

Top Emphasis Areas	Total Fatal and Serious Injury Crashes	% Fatal and Serious Injury Crashes
Lane departure	6,281	39%
Intersection related	5,530	33%
Involving people walking or biking	3,514	22%
Involving motorcyclists	2,989	18%
Involving heavy trucks	1,021	6%

Note. Statewide centerline miles from the 2023 Miles and Daily Vehicle Miles Travelled (DVMT) Information web page at https://wsdot.wa.gov/mapsdata/travel/hpms/annualmileage.htm.

Fatal and Serious Injury Crashes Across Jurisdictions

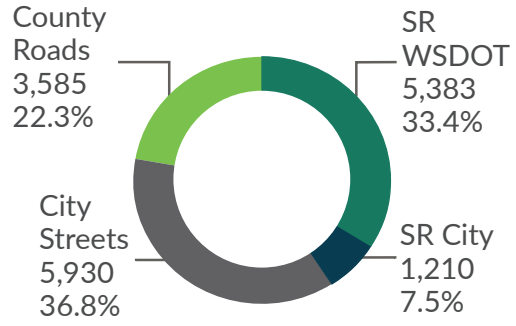
The distribution of fatal and serious injury crashes along with the societal cost of these crashes across jurisdictions provide insight as to the safety performance of the different parts of the system and identify jurisdiction specific priorities for the Target Zero emphasis areas. This is valuable input into decisions regarding the relative investment levels likely to support effective overall reductions in fatal and serious injury crashes.

Between 2020 and 2024, 66.4% of the fatal and serious injury crashes occurred under local jurisdiction on public roadways in Washington state. These roadways include city streets, county roads, and state routes within cities with a population over 30,000. Refer to **Exhibit 16.**

The pie chart in **Exhibit 17** demonstrates the distribution of fatal and serious injury crashes from 2020 through 2024 across Washington: 5,383 (33.4%) crashes occurred on state routes under WSDOT jurisdiction, 5,930 (36.8%) crashes occurred on city streets, 3,585 (22.3%) crashes occurred on county roads, and 1,210 (7.5%) crashes occurred on state routes within cities with a population of over 30,000.

Exhibit 16. Distribution of fatal and serious injury crashes across jurisdiction (Source: WSDOT Engineering Crash Datamart, 2024 Year End)

Exhibit 17. Distribution of fatal and serious injury crashes across WSDOT jurisdiction (Source: WSDOT Engineering Crash Datamart, 2024 Year End)



Local Jurisdiction

Local jurisdiction fatal and serious injury crashes represent 66.6% of statewide fatal and serious injury crashes between 2020 and 2024. **Exhibit 18** presents the top emphasis areas for fatal and serious injury crashes in Washington state under local jurisdictions.

Exhibit 18. Emphasis areas under local jurisdiction in Washington state by total and percentage fatal and serious injury crashes, 2020-2024 (Source: WSDOT Engineering Crash Datamart, 2024 Year End)

Top Emphasis Areas	Total Fatal and Serious Injury Crashes	% Fatal and Serious Injury Crashes
Intersection related	4,193	39.1%
Lane departure	3,852	35.9%
Involving people walking or biking	2,826	26.3%
Involving motorcyclists	1,936	18.1%
Involving heavy trucks	416	3.9%

WSDOT Jurisdiction

Between 2020 and 2024, 33.4% of the fatal and serious injury crashes in the state occurred on roadways under WSDOT jurisdiction. **Exhibit 19** presents the top emphasis areas for fatal and serious injury crashes for roadways under WSDOT jurisdiction.

Exhibit 19. Emphasis areas under WSDOT jurisdiction in Washington state by percentage fatal and serious injury crashes, 2020-2024 (Source: WSDOT Engineering Crash Datamart, 2024 Year End)

Top Emphasis Areas	Total Fatal and Serious Injury Crashes	% Fatal and Serious Injury Crashes
Lane departure	2,409	44.8%
Intersection related	1,138	21.1%
Involving motorcyclists	1,051	19.5%
Involving heavy trucks	600	11.1%
Involving people walking or biking	605	11.2%

City Streets (excluding state routes within cities with a population over 30,000)

Between 2020 and 2024, 36.8% of the fatal and serious injury crashes in the state occurred on city streets (excluding state routes within cities with a population over 30,000). **Exhibit 20** presents the top emphasis areas for fatal and serious injury crashes for city streets in Washington state.

Exhibit 20. Emphasis areas for city streets, excluding state routes within cities with a population over 30,000, in Washington state by percentage fatal and serious injury crashes, 2020-2024 (Source: WSDOT Engineering Crash Datamart, 2024 Year End)

Top Emphasis Areas	Total Fatal and Serious Injury Crashes	% Fatal and Serious Injury Crashes
Intersection related	2,777	46.8%
Involving people walking or biking	2,032	34.3%
Lane departure	1,614	27.2%
Involving motorcyclists	1,015	17.1%
Involving heavy trucks	200	3.4%

Note. Statewide centerline miles from the 2022 Miles and Daily Vehicle Miles Travelled (DVMT) Information web page at https://wsdot.wa.gov/mapsdata/travel/hpms/annualmileage.htm.

State Routes within cities with a population over 30,000 (local jurisdiction)

Between 2020 and 2024, 7.5% of the fatal and serious injury crashes in the state occurred on state routes within cities with a population over 30,000, i.e. local jurisdiction. In 2024, there were 4.49 fatal and serious injury crashes per mile on state routes under city jurisdiction. This is much higher than any other parts of the system. The main contributors to this high density are intersection related crashes and crashes involving people walking and biking. **Exhibit 21** presents the top emphasis areas for fatal and serious injury crashes for state routes under local jurisdiction.

Exhibit 21. Emphasis areas for state routes within cities with a population over 30,000 (local jurisdiction) in Washington state by total and percentage fatal and serious injury crashes, 2020-2024 (Source: WSDOT Engineering Crash Datamart, 2024 Year End)

Top Emphasis Areas	Total Fatal and Serious Injury Crashes	% Fatal and Serious Injury Crashes
Intersection related	596	49.3%
Involving people walking or biking	430	35.5%
Involving motorcyclists	218	18.0%
Lane departure	214	17.7%
Involving heavy trucks	59	4.9%

City Jurisdiction (city streets and state routes within cities with a population over 30,000)

Between 2020 and 2024, 44.3% of the fatal and serious injury crashes in the state occurred on city streets and state routes within cities with a population over 30,000, under city jurisdiction. **Exhibit 22** presents the top emphasis areas for fatal and serious injury crashes for roads under city jurisdiction.

Exhibit 22. Emphasis areas for city jurisdiction (city streets and state routes within cities with a population over 30,000) in Washington state by total and percentage fatal and serious injury crashes, 2020-2024 (Source: WSDOT Engineering Crash Datamart, 2024 Year End)

Top Emphasis Areas	Total Fatal and Serious Injury Crashes	% Fatal and Serious Injury Crashes
Intersection related	3,373	47.2%
Involving people walking or biking	2,462	34.5%
Lane departure	1,828	25.6%
Involving motorcyclists	1,233	17.3%
Involving heavy trucks	259	3.6%

County Roads

Between 2020 and 2024, 22.3% of the fatal and serious injury crashes in the state occurred on county roads. **Exhibit 23** presents the emphasis areas for fatal and serious injury crashes for county roads.

Exhibit 23. Emphasis areas for county roads jurisdiction (city streets and state routes within cities with a population over 30,000) in Washington state by percentage fatal and serious injury crashes, 2020-2024 (Source: WSDOT Engineering Crash Datamart, 2024 Year End)

Top Emphasis Areas	Total Fatal and Serious Injury Crashes	% Fatal and Serious Injury Crashes
Lane departure	2,024	56.5%
Intersection related	820	22.9%
Involving motorcyclists	703	19.6%
Involving people walking or biking	364	10.2%
Involving heavy trucks	157	4.4%

Exhibit 24. Percent change in number of Fatal and Suspected Serious Injury Crashes

Washington state; 2019-2021 to 2022-2024; Percentages rounded up
Source: WSDOT Engineering Crash Datamart, 2024 year end

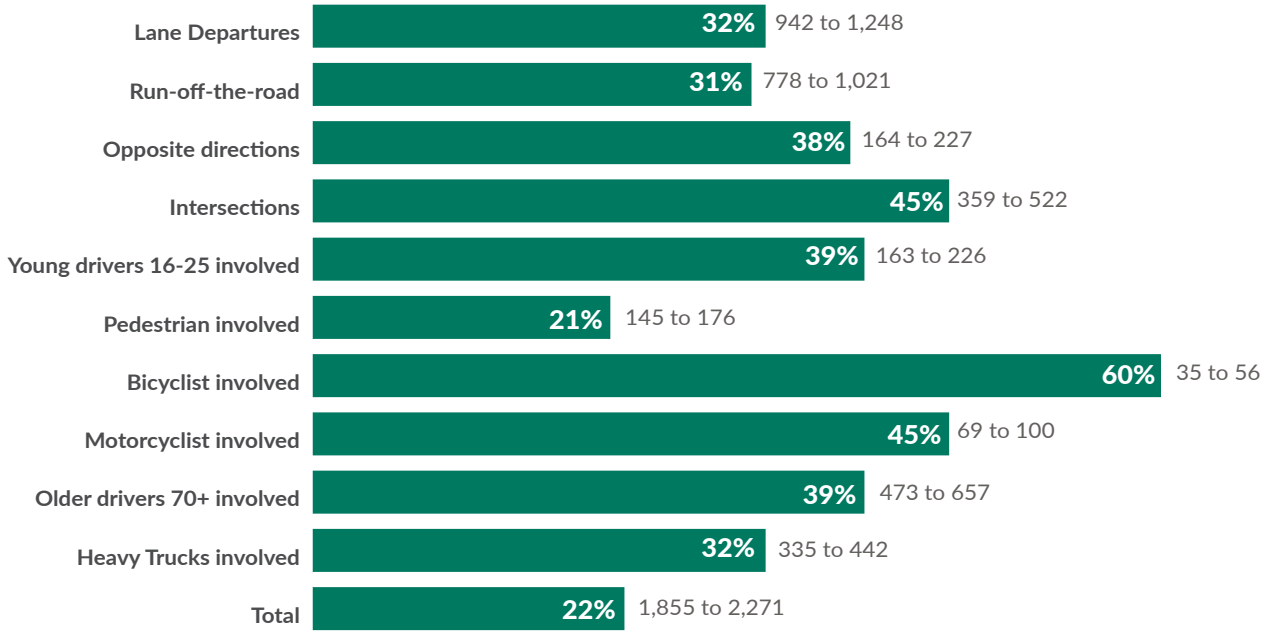
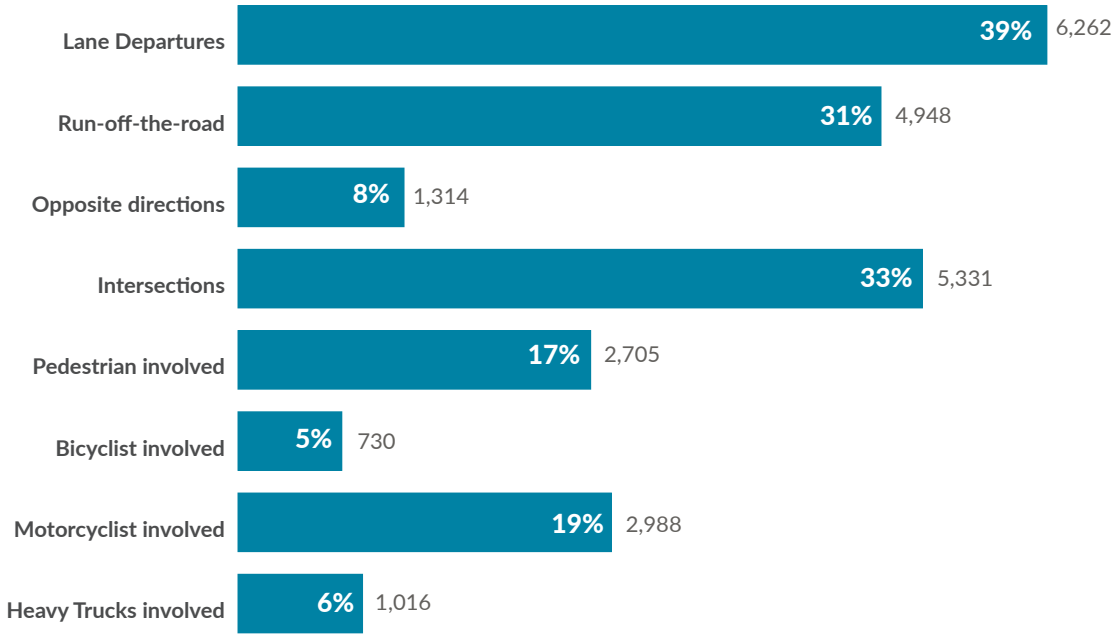


Exhibit 25. Target Zero Emphasis Areas as a Percentage of Fatal and Suspected Serious Injury Crashes

Washington state: Number and percentage fatal and serious injury crashes for each emphasis areas within Target Zero (2020-2024)
Source: WSDOT Engineering Crash Datamart, 2024 year end



Safe System Approach

WSDOT began its journey towards the Safe System Approach in 2013 and focused on proactive ways to address the contributing factors and crash types that lead to fatal and serious injury crashes. This approach also aims to install systems to reduce potential crash forces (such as roadside safety systems, roundabouts, and target speeds), and change design practices to consider context and modal priority on the state highway system.

Remaining consistent with the Cooper Jones Active Transportation Safety Council, WSDOT and its partners incorporated the Safe System Approach into the Washington State Target Zero plan in 2024. WSDOT's Active Transportation Plan provides additional analysis concerning the disproportionate crashes for vulnerable road users, particularly in certain neighborhoods with wide, fast, and busy roadways that lack pedestrian facilities.

WSDOT incorporates Complete Streets designs using the Safe System Approach for all projects greater than $1,000,000. WSDOT is taking an equity-based approach to the safe system—recognizing that legacy routes and past decisions have left portions of the population reliant on walking, biking and rolling in areas without the sidewalks, separation, or medians that are often necessary for Complete Streets and adhering to the Safe System Approach. WSDOT has added Safe Land Use to the elements for the safe system to recognize that land use and road interactions are critical, and need to provide for reduced vehicle demand, transit accessibility and connections to other modes of transportation.

WSDOT continues to evolve the implementation of Complete Streets, and sees the efforts as being beneficial to successfully applying the Safe System Approach. To further these efforts, the agency held a safety town hall meeting in 2024 informing staff of the urgency needed in addressing fatal and serious injury crashes. Key initiatives highlighted in that town hall included implementing speed management/ injury minimization policy and advancing systemic safety for active transportation users with an equity lens. In addition, policy and guidance development prioritized implementing of the Safe System Executive Order (EO 1085.01), updating the Strategic Highway Safety Plan within the Safe System Approach, and developing a roundabout-first policy. As appropriate, WSDOT will fully incorporate the concept of the Safe System approach in all design and operations training.

WSDOT's updated Executive Order 1085, Road Safety – Advancing the Safe System Approach for All Road Users was published in April 2023. In this update, WSDOT varies from FHWA in describing the Safe System Principles to be more in alignment with the international approach as it provides a more active description of the Safe System Approach.

Consistent with AASHTO's Action Plan of 2024, WSDOT defines safety within the safe system as:

- **Exposure** refers to all road users, in what number and for how long they are using the road therefore are exposed to a potential crash. What strategies—infrastructure, behavioral, or vehicular—will reduce exposure to fatalities and serious injuries, measurable by factors such as road user volumes, segment lengths and conditions, and conflicts between road users.
- **Likelihood** refers to factors affecting the probability of a crash occurring. What strategies will reduce the potential for fatal and serious injury crashes? What strategies will reduce the potential for—and improve road users' knowledge of—preventing physical damage to themselves and other roadway users? What countermeasure programs are being utilized to effectively plan data-driven programs focused on affected communities or high-risk road users? What patterns exist that demonstrate a need to address a safety issue within disadvantaged or historically under-invested communities and populations?
- **Severity** refers to factors affecting the probability of injury should a crash occur, with particular focus on fatal and serious injury crashes. How do we consider kinetic energy in crashes, the human body's tolerance of impacts, and protections from the system (vehicle, roadway environment, road users) to prioritize strategies that will limit crash severity? How do we effectively foster safe speeds relative to the context of the roadway and the surrounding environment?

Target Zero is focused around the principles and elements of the updated WSDOT Safe System Approach as outlined by **Exhibit 26**.

WSDOT recognizes the value of implementing the Safe System by updating its authoritative documents, such as the Design Manual, and safety analyses to include active transportation by explicitly requiring that all road users be considered when changes are made to improve vehicle operations.

Exhibit 26. WSDOT Safe System Approach Elements

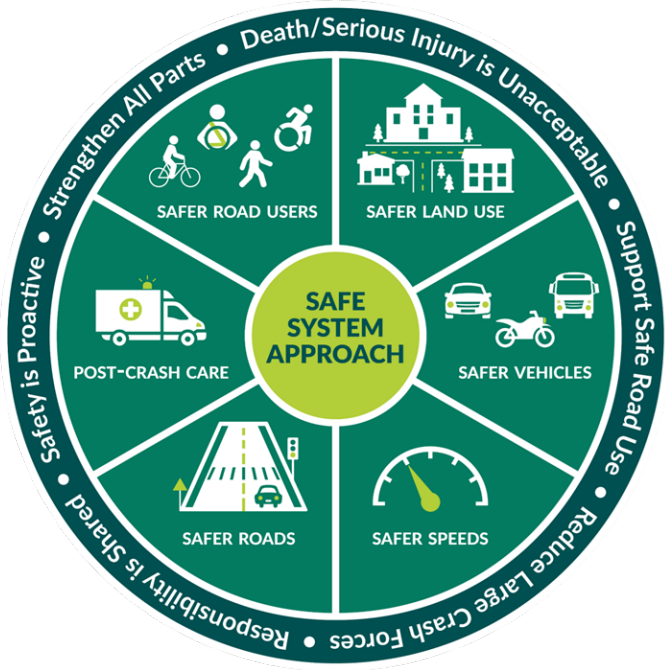


Exhibit 27. Safe System Alignment

Type of Investment	Strategy Subcategories	Safe System Approach		
		Exposure	Likelihood	Severity
Reactive	Intersection Analysis Locations	✓	✓	✓
	Crash Analysis Locations	✓	✓	✓
Proactive	Intersection Systemic Safety	✓	✓	✓
	Rumble Strips		✓	
	High Friction Surface Treatment		✓	✓
	Breakaway Cable Terminal Replacement			✓
	Cable Median Barriers			✓
	Lane Departure Systemic		✓	✓
	Active Transportation	✓	✓	✓
	Speed Management			✓
	Decision Making and Performance Improvement	✓	✓	✓

Exhibit 27 shows the WSDOT program is developed to address the Safe System holistically and comprehensively. The chart shows that the principles of *Death and Serious Injuries*, *Shared Responsibilities and Strengthen All Parts* are identified in all subcategories. The Safety Improvement Subprogram has been developed to reduce fatal and serious injury crashes across all subcategories.

WSDOT reviews the contributing factors to crashes. Common human behaviors are apparent in the factors that have led to a crash or are known to increase the potential for a crash. While the traditional approach to road safety might lead other agencies to determine that behavioral interventions should occur at that location as the sole countermeasure, WSDOT analyzes whether a crash reduction or crash prevention infrastructure countermeasure could be put in place to reduce the frequency of fatal and serious injury crash outcomes. These considerations are in recognition of the *Shared Responsibility and Strengthen All Parts* elements in the Safe System Approach. Approximately 70% of WSDOT's Safety Program addresses Proactive Safety.

Crash Analysis Locations

The CAL subcategory focuses on crash reduction. The elements addressed in these subcategories are safe roads, safe speeds, and road users. A common treatment for these locations is to reduce angle and higher speed rear end crashes to prevent large crash forces. Countermeasures often include adding roundabouts and turn lanes.

To support safe road user behaviors, lighting, signing, striping, and channelization consistent with crash contributing factors help increase awareness and understanding within the given context of the road. The subcategory allows for projects that separate users in space and time, reduce speeds, and remove signals.

Intersection Systemic Safety

This subcategory commonly installs compact roundabouts which help reduce large crash forces and support safe road user behaviors through speed management. WSDOT designs these intersections to reduce speeds to approximately 25 mph in the roundabout, greatly benefiting crossing treatments for those walking and biking while resulting in higher yielding rates by drivers.

Rumble Strips, High Friction Surface Treatments

This group of proactive treatments are directed towards reducing crashes related to a specific crash types such as lane departure, wet weather, and run off road crashes. WSDOT's goal within these subcategories is to reduce crash potential by supporting safe road use. Rumble strips help alert drivers to errors and lane departure; high friction surface treatment helps maintain traction that is beneficial to sudden stopping at intersections and control issues in curves.

Lane Departure Systemic Treatments

When drivers run off the road these roadside systems are installed to reduce fatal and serious injury outcomes by reducing the occupant forces in the crash. It is recognized by safety professionals that roadside crashes are often the result of behavioral factors, and roadside safety barrier is placed recognizing that should a crash occur, these systems can reduce injury outcomes. Roadside safety hardware provides system redundancy and are provided along with other road safety components, such as lane striping, rumble strips, and signage.

Active Transportation and Speed Management

The Active Transportation subcategory is provided to reduce potential crashes to those walking, biking, and rolling. The intent is to create systems that decrease exposure to large crash forces by reducing speeds, increasing the alertness and attentiveness for those in vehicles by providing crossings; and adding separation or facilities at appropriate locations. In doing so the subcategory intends to support safe road user behaviors and reduce exposure to large crash forces.

Decision Making and Performance Improvement

This subcategory recognizes the importance of the 5th E of Safety (Evaluation, Analysis and Diagnosis). In the Safe System Approach the 5th E is a critical component of Safety Management. Safety decisions are made based on the understanding of road systems contexts, priorities, and needs. These subcategories are used to assess potential opportunities where safety investments would be beneficial, as well as to evaluate, analyze, and diagnose what modifications could occur at a project, subcategory, or at the statewide level.

Complete Streets

WSDOT prioritizes Complete Streets tools and processes to support the agency's Target Zero commitment to ending fatal and serious injury traffic crashes on Washington's transportation network.

Complete Streets aligns with the Safe System Approach and Target Zero, which means that whether WSDOT is building new facilities or preserving an existing roadway, the agency will make design decisions that reduce the exposure, likelihood, and severity of crashes for all road users. Complete Streets creates appropriate and comfortable space for all users, and reduces conflicts between them in line with recommendations from WSDOT's Vulnerable Road User Safety Assessment and Injury Minimization and Speed Management Policy Elements and Recommendations.

The following outlines steps WSDOT has taken toward this successful integration over the past three years, and how these steps connect with the agency's highway safety goals:

Establishing organizational structures and internal knowledge bases that support this work:

- The initial stages of implementing Complete Streets required establishing organizational structures and teams that support cross-agency collaboration, improving WSDOT's ability to integrate Complete Streets projects while aligning with legislative requirements. WSDOT developed multidisciplinary Complete Streets teams, consisting of experts in project design and implementation, in each region to better embed the agency's approach. WSDOT also initiated staff training to strengthen internal understanding of the requirement and developed specific workflows for processing Complete Streets, which bolstered the agency's ability to deliver projects that accounted for every road user.

- As WSDOT created these organizational structures, it prioritized equity from the outset. There are a number of ways to implement Complete Streets improvements on a location-by-location basis. A core part of WSDOT's approach is to focus on communities and ensure collaboration with local partners—taking measures like reallocating existing roadways towards active transportation connections, reducing vehicle speeds, and other actions recommended for improved safety performance.

Improving internal knowledge of Complete Streets tools and practices:

- By leveraging its expertise in Complete Streets requirements and existing project workflows, WSDOT is developing and disseminating tools to help people across the agency integrate Complete Streets into their practices. These tools help staff fully understand needed changes to their design processes to account for Complete Streets, but also institutionalize the fact that Complete Streets—and consequently equitable multimodal considerations—are necessary to the way WSDOT designs streets. Tools include updates to agency standards, criteria, and guidance like WSDOT's design manual; agency-wide staff trainings on these design updates, as well as the Complete Streets approach; and communication strategies such as informational documents, talking points and videos that help staff convey the benefits of the Complete Streets approach to partners, community members and each other. WSDOT also uses a continuous improvement approach to ensure the direction employees are receiving carries through all steps of project delivery.
- In line with that approach, WSDOT is continuously enhancing understanding of design through updates to design policies that consider the unique needs of varied infrastructure—like ferries and intersections—while ensuring comprehension of safety performance design criteria such as level of traffic stress. WSDOT is expanding an internal database of webinars and trainings that serve as a living library of educational materials, as well as case studies of how Complete Streets are being implemented at the agency.

Moving projects forward:

- In addition to establishing the teams and tools required to advance Complete Streets, projects have moved forward through screening, pre-design and design processes. Every WSDOT region has projects being screened for Complete Streets. More than 780 screened to date, more than a third of these lend themselves towards walking and biking, and will be developed with a Complete Streets approach. Almost 70% of the 290 identified Complete Streets projects are preservation projects, but the majority of these are on hold due to a lack of funding. If WSDOT doesn't have project funding, the agency cannot make these Complete Streets improvements. Preserving Washington's transportation system and implementing Complete Streets are equally important, and WSDOT needs to deliver both. With insufficient funding for maintenance and preservation, WSDOT is falling further and further behind on the agency's ability to make the transportation system work well for everyone who uses it. Complete Streets provides the opportunity to use projects to preserve the system while meeting goals for safety, equity, greenhouse gas reduction, resilience, and thriving communities.
- Nationally and internationally, this is a time of rapid innovation in best practices in building, operating, and maintaining active transportation facilities. WSDOT is actively contributing to that knowledge development as well as keeping up to date on innovations led by others and appropriately incorporating them into agency guidance, criteria, standards, and business processes.

Crash Analysis Location

The Crash Reduction subcategory intends to reduce the number of fatal and serious injury crashes consistent with the goals outlined in Target Zero. Crash Analysis Locations is the primary method of analysis used to identify locations for further investigation on the state highway system.

Introduction

In 2011, WSDOT's Highway Safety Executive Committee formally adopted the Highway Safety Manual (HSM) for statewide implementation. The HSM provides information and tools to evaluate roadway sites and select those that have a high potential for countermeasures to reduce crash severity and frequency. The HSM helps assess potential countermeasures to mitigate the factors contributing to crashes.

Each biennium, WSDOT uses Crash Analysis Locations to create ranked potential project location lists for review by WSDOT's regional offices as a part of the capital project safety programming process for the I-2 program.

The CAL on state highway system strategy addresses crashes that fall within all Target Zero monitored emphasis areas: high risk behavior, crash type, road users, and other monitored emphasis areas.

Key Takeaways

- CAL on the state highway system screens corridors and intersections for project sites where crash severity and frequency could potentially be reduced.
- WSDOT estimates that constrained needs for this program are approximately $84 million, or 12.8% of the entire 10-year safety plan.

In 2024, WSDOT transitioned from AASHTOWare SafetyAnalyst® to the Safety Performance Function tool. In accordance with EO 1085.01, WSDOT will be reviewing and updating its practices related to network screening for the CAL processes as needed. In this transition, the agency will begin using the new SPF tool. WSDOT may also include quantitative tools related to the Safe System. Because of this the current CAL ranked lists will be retired and replaced as the Department reviews and updates the overall I-2 safety subprogram.

Methodology

- Identify sites where average fatal and injury crash frequency and severity could potentially be reduced.
- Perform network screening using a sliding window and peak searching to establish reference populations. Managed access highways within cities with a population over 30,000 are not included, as these rights of way are managed by the cities in which they are located.
- Rank sites from high to low based on the expected average crash frequency using Empirical Bayes (EB) adjustment—a type of statistical estimation that addresses randomness and provides increased statistical reliability compared to using a crash history for safety performance estimations.
- Screen locations using a cutoff criterion of 0.5 expected or 0.3 excess crashes per year.

The CAL lists are created and distributed to regions for the following actions:

- Determine if modifications are appropriate based on the context, type and contributing factors for the crashes. Consistent with the Safe System analyze the sites to determine whether education, enforcement or engineering countermeasures alone or together would be appropriate to address crashes at individual locations.
- If countermeasure(s) are determined to be appropriate, identify locations that can be addressed with Low Cost Enhancement (LCE) funding. If the action needed exceeds the LCE funding limit, analyze the location for possible inclusion in the I-2 program.
- Use the Crash Analysis Report (CAR) template to document an evaluation of the site and the benefit/cost analysis results for selected alternatives. This benefit/cost data will be considered in the priority ranking of projects. Document all proposed actions or reasons for no actions taken in the CAR report.
- Present the crash analysis report for proposed I-2 projects to the selected I-2 safety panel of senior and executive level traffic engineers, designers and safety experts from across the state. This group recommends modifications or acceptance of each project, emphasizing countermeasures that are both lower cost and cost-effective for CPDM's programming consideration.

Benefits

The implementation of a science-based, technical approach for selecting countermeasures with the highest benefit-cost ratio is in line with the agency's Safe Systems Safety Program. Additional benefits of the program include:

- Reducing the potential for and severity of crashes occurring on roadways
- Providing a reliable assessment of crash potential before and after modifications
- Considering how modifications might change crash potential for all types of road users, and
- Improving the skills and developing the abilities of WSDOT's workforce in crash analysis and in-field reviews, achieving increased consistency in crash analysis reporting across the state.

Costs and Benefit/Cost Ratios

Cost and benefit/cost ratios are developed after the regions develop Crash Analysis Reports that are endorsed by the I-2 Panel and programmed by CPDM.

Ten-Year Constrained Budget Outlook for the I-2 program

WSDOT currently intends to allocate approximately 30% (annually) of its 10-year safety plan funding to address Crash Analysis Location.

Note: Refer to **Appendix C** for FFY 2026 projects.

Intersection Systemic Safety

Intersection systemic modifications can result in substantial increases to intersection safety performance where investigation of speed, approach skew angle, crash history, traffic volumes, and other criteria indicate potential for improvement.

Key Takeaway

- Recently installed compact roundabouts have benefit/cost ratios ranging from 15:1 to 50:1.

Introduction

The Strategic Highway Safety Plan (SHSP) identifies intersection related crash types as a Target Zero "level one" priority, and further identifies the most common type of fatal and serious injury crashes at intersections as enter-at-angle. According to the 2024 SHSP, there were 472 fatal crashes and 2,822 suspected serious injury crashes related to intersections in Washington state. The SHSP states, "Some of the most effective strategies to reduce the likelihood or severity of crashes at intersections for all users include converting intersections to roundabouts." This effort is part of the I-2 Safety Program, Crash Prevention, intersection modifications (with compact roundabouts being a strategy).

WSDOT designs and installs compact roundabouts which are inscribed and have a diameter of approximately 90 feet. WSDOT developed a list of potential compact roundabout locations that ranked and screened intersections statewide for feasibility. Locations that are feasible for a compact roundabout will be identified and ranked within the safety program according to roadway characteristics such as average annual daily traffic, posted speed limit, biennial funding available and other projects being delivered.

Methodology

Intersection systemic safety modifications are intended to reduce fatal and serious injury crash potential by reducing operating speeds, conflict points, and impact angles as part of the Safe System Approach implementation. The screening criteria for potential compact roundabout installations includes intersections which:

- Experienced at least one fatal and serious injury at angle intersection-related crash between 2020 and 2024 (5-year period),
- Are on a facility with a posted speed limit of 45 mph or higher,
- Have a vertical grade of three degrees or less,
- Have a mainline annual average daily traffic of 12,000 or less,
- Have space for an approximately 90-foot diameter inscribed center island,
- Are categorized as four-way stop or yield-controlled intersections, and
- Are located on two-lane rural highways.

Using the screening criteria, a statewide list was developed and ranked based on fatal and serious injury at angle intersection-related crashes. In the fall of 2025, WSDOT engineers will further evaluate the locations based on design and operational feasibility. The locations meeting all criteria will form finalized the I-2 Crash Prevention – Compact Roundabout List.

In addition to four-way stop or yield-controlled intersections, the screening has also identified a subset of three-way intersections on rural two-lane highway (45 mph or higher) facilities with a grade of three degrees or less and a mainline AADT of 12,000 or less. These will be assessed for potential treatment with signage and/or markings. A fiscally-restrained subset of these locations will be assessed to determine if the addition of intersection warning signs may reduce at angle intersection-related crashes at these locations.

Benefits

For the analysis, a constrained Crash Modification Factor (CMF) of 0.3 was used. The benefit cost ratio is anticipated to range between 1.4 and 1.8.

Costs

To achieve BCRs above 1 for the systemic subgroup, compact roundabout costs will need to be restrained between $800,000 and $1 million, and the State Safety Engineer will consult with WSDOT divisions and regions to restrict expenditures to achieve this restrained cost. Preliminary engineering costs are low because all work is done in existing rights of way. In addition, environmental permitting is minimal, the risk of cost escalation during construction is low, and construction working days are few—so the impact to the public is minor. Because there are no moving parts to this intersection control type, maintenance costs are negligible, so adding this asset to WSDOT's inventory is essentially cost neutral.

Ten-Year Constrained Budget Outlook for the I-2 program

WSDOT currently intends to allocate approximately 15% (annually) of its 10-year safety plan funding to address Intersection Systemic Safety.

High Friction Surface Treatment

High Friction Surface Treatment is a widely applied countermeasure that addresses run-off-the-road crashes and wet weather crashes. The higher pavement friction helps drives maintain better vehicle control in both dry and wet driving conditions.

Introduction

High Friction Surface Treatment (HFST) has proven to be a valuable, low-cost tool for mitigating crashes at specific locations. This countermeasure is most often used at locations with a higher friction demand (i.e. ramps, horizontal curves) and is effective at sites with a history of wet weather crashes. The potential crash reduction benefits of HFST align with the Washington State Strategic Highway Safety Plan - Target Zero, as this treatment addresses two separate priority level 1 emphasis areas: Lane Departure and Speeding Involved crashes.

Key Takeaways

- High Friction Surface Treatment has reduced wet weather condition crashes by 85% to 95% in locations where WSDOT has used it.
- Benefit/cost estimates for WSDOT's identified potential HFST locations range from 3.7:1 to 13.4:1.

There has been significant debate over the potential for HFST to reduce pavement surface life due to the concerns about HFST epoxy and surface texture deterioration. Because of the potential for reduced service life, additional pavement treatment may be needed.

WSDOT has applied HFST to several ramps in its Northwest and Southwest regions over the past five years. As a result, wet weather condition crashes at these locations were reduced by 85% to 95%.

Methodology

I-2 Program

The following criteria are proposed for screening potential locations to implement HFST on the Washington state highway system:

- Locations are limited to horizontal curves. Other installations may be considered on a case-by-case basis (i.e. locations identified by CAL analysis).
- Locations have been paved within the last five years, with no upcoming paving scheduled within the next five years.
- Other countermeasures have been attempted at these locations prior to installing HFST (e.g. signing, delineation, etc.).

Locations will then be ranked by present worth value equivalent to societal cost of all fatal and serious injury crashes based on HFST service life.

HFST Applications and Advancements

The cost of applying HFST in 2015 and 2016 was approximately $150,000 per ramp, but the HFST industry and technology is dynamic. Recent advances in the application method are lowering project costs. WSDOT has updated its construction specifications to keep up with these industry changes. The intent of this proposal is to install HFST on more ramps, monitor HFST applications, keep pace with industry changes, and expand HFST application locations.

Benefits

WSDOT applied HFST on four ramps with average annual daily traffic between 11,000 and 24,000 vehicles in 2015 and 2016. These ramps showed an 85%-95% reduction in wet run-off-the-road crashes and coefficient of friction numbers above 70. WSDOT defines an acceptable coefficient of friction on the roadway surface as 30 to 35.

Using the methodology and ranking criteria described above, WSDOT's initial screening identified potential locations for implementing HFST on ramps. Implementing HFST at all identified locations would provide an estimated annual reduction of 3.2 fatalities and serious injuries. For the purposes of calculating benefit/cost ratios, the benefit is the estimated reduction in societal cost due to avoiding these fatalities and serious injuries.

Costs

Based on construction costs from projects statewide, initial HFST applications at each location will cost $50,000 to design and $150,000 to construct. If HFST is implemented at locations WSDOT has identified, the total cost will be approximately $22.4 million.

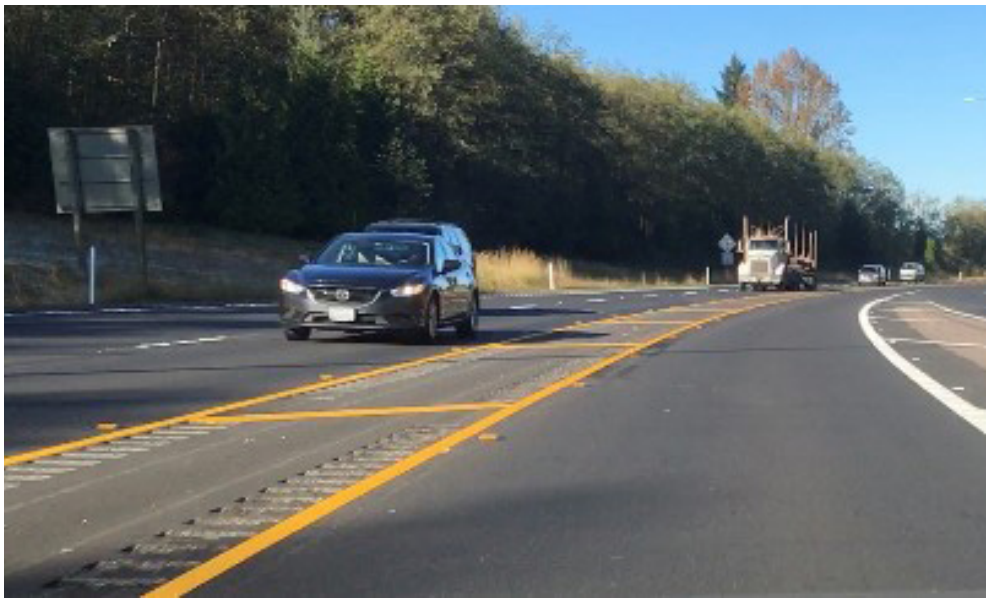
Benefit/Cost Ratios

Benefit/cost ratios will be developed on a location-by-location basis, and construction will be prioritized based on the individual benefit/cost values. Benefit/cost estimates for WSDOT's 13 identified potential HFST locations range from 3.7 to 13.4.

Ten-Year Constrained Budget Outlook for the I-2 program

WSDOT currently intends to allocate approximately 20% (annually) of its 10-year safety plan funding to address Lane Departure, which includes the HFST strategy.

Rumble Strips



WSDOT installs rumble strips on state highways to reduce the potential of lane departure. The benefits of both centerline and shoulder rumble strips have been well-established in retrospective studies, including those by WSDOT and FHWA. Research by the Federal Highway Administration (FHWA) shows rumble strips reduce the risk of crossover crashes by 30% and single-vehicle run-off-the-road crashes by 16%.

Introduction

WSDOT began installing rumble strips in the early 2000s because of their proven record of success in studies by FHWA. As of 2022, WSDOT had installed rumble strips on all multilane state highways and most rural highways in Washington. About 3,400 miles of centerline rumble strips and 710 miles of shoulder rumble strips have been installed on non-freeway rural highways in Washington state.

In 2022, 353 miles of centerline rumble strips were installed on the state highway network along with 240 miles of shoulder rumble strips as part of pavement preservation projects.

Methodology

When considering two-lane rural highways, there are approximately 1,700 miles of locations that are likely suitable for centerline rumble strip installation, and 2,400 miles potentially eligible for shoulder line rumble strip installations.

Key Takeaways

- WSDOT has identified approximately 1,500 centerline miles of state highways that are eligible for rumble strip installation.
- Installing centerline rumble strips in the identified locations is projected to provide $435 million in societal benefit over the next 16 years and cost $54.6 million.

Using the Highway Safety Manual predictive method WSDOT determines segments' eligibility for rumble strip installation by estimating the potential benefit to society and then dividing it by the projected costs of installation and maintenance over the rumble strips' 16-year estimated life span.

The costs of rumble strip installation and maintenance are affected by the type of pavement at the locations where the rumble strips are installed. A recent estimate indicated that the cost of rumble strip installation and maintenance on typical hot mix asphalt pavement is approximately $2,000 per mile, while the same work on roads with bituminous surface treatments (BST, also known as chip seal) costs approximately $35,000. Therefore, the type of pavement must be considered during location ranking and calculation of benefit/cost ratios.

Benefits

The agency performed predictive analysis on the two-lane rural state highway system to estimate societal benefits for existing and potential installation sites. This analysis identified 335 miles of centerline rumble strips and 1,568 miles of shoulder rumbles strips as eligible candidates for treatment. Statewide benefits were calculated by estimating the societal benefits of installing rumble strips at each eligible highway segments over 10 years. Societal benefit for centerline rumble strips is estimated at $259 million, and total benefits for shoulder rumble strips is estimated at $1.21 billion.

Costs

To develop a preliminary benefit-cost ratio, WSDOT assumed a cost of $35,000 per mile to install rumble strips, based on the higher costs required for BST roads.

Including 335 miles of centerline rumble strips and 1,568 miles of shoulder rumbles strips, the overall cost of this program is estimated to be $66.6 million, with anticipated overall benefits of $1.47 billion, resulting in an overall programmatic benefit/cost ratio of 22:1.

Ten-Year Constrained Budget Outlook for the preservation program

WSDOT currently intends to allocate approximately 20% (annually) of its 10-year safety plan funding to address Lane Departure, which includes the Rumble Strips strategy.

Cable Median Barriers

No expansion of the cable median barriers countermeasure is proposed at this time. Three to four strand high tension cable conversions were halted given that these systems perform similarly.

WSDOT has completed a detailed inventory of median locations that fit existing criteria (50 feet wide and less). The agency reviewed the median inventory and associated crash data. The agency will continue to monitor national research on this topic and the safety performance of medians greater than 50 feet wide. If WSDOT finds sufficient evidence that a change in policy and/or additional treatments appear to be appropriate, then the agency will prepare a proposal for a programmatic response.

Introduction

WSDOT determined in 2019 that it had installed or had plans to install cable median barriers on all state roadways with speed limits of 45 miles per hour or higher and median widths of up to 50 feet. Cable median barriers—including double sided w-beam, and pre-cast or cast-in-place concrete—reduce the potential for crashes with oncoming traffic when vehicles veer off the roadway and into the highway median. WSDOT completed a statewide inventory to verify that all appropriate locations have cable median barriers. No locations without barriers that fit the installation criteria (medians 50 feet wide or less, speeds of 45 mph or higher) were identified.

Key Takeaways

- WSDOT completed an in-service performance evaluation (ISPE) and compared performance of the three and four strand high tension cable.
- WSDOT is pausing conversions from three to four strand cable systems given that the ISPE indicated that the three and four strand cables performed similarly.

WSDOT conducted an in-service performance evaluation (ISPE) on all cable barrier systems installed on state highways, using the NCHRP 22-33 methodology. Using this analysis, WSDOT determined that three- and four-strand high tension cable performs similarly. Based on this finding, WSDOT halted any conversions from three to four strand systems that would have ultimately cost over $70 million.

Methodology

Installing cable median barriers on medians 50 feet wide or less is WSDOT's current policy and is accepted as a best practice in Washington and other states. In 2017, WSDOT reviewed this policy and analyzed crash statistics to determine whether installing barriers on medians greater than 50 feet wide was needed. The agency determined there were no crossover crash fatalities at medians between 50 and 60 feet wide from October 2011 through September 2016 and concluded that installing barriers on medians wider than 50 feet was not necessary.

WSDOT will continue monitoring national research findings and considers changes to its cable median barrier policy as new research-based recommendations are made.

Benefits and Costs

No further work is proposed given that the inventory did not identify any additional locations for installation.

Ten-Year Constrained Budget Outlook for the I-2 program

No fundamental change in policy or programming is proposed at this time.

Lane Departure Systemic Treatments

In 2025, WSDOT developed a systemic approach to lane departure crashes. The approach is not just limited to guardrail infill and retrofit but allows for systemic treatments that includes rumble strips, guardrail infill, slope flattening, and speed management treatments that target lane departure crashes.

On state highways under WSDOT jurisdiction, lane departure crashes represented 44% of all fatal and serious injury crashes between 2020 and 2024, with an average annual societal crash cost of $2.9 billion.

Introduction

Lane departure crashes are an emphasis area in the Target Zero Strategic Highway Safety Plan. Between 2017-2019 and 2020-2022, fatalities increased in this category statewide by 10%, and serious injuries increased by 35%. The severity of these crashes is higher in comparison to non-lane departure crashes—between 2020-2024, 5% of lane departure crashes were fatal and serious injury crashes compared to only 2% for non-lane departure crashes.

These crashes are complex in nature because they are usually scattered randomly across the system and contributing factors are typically related to risky human behavior, such as distracted or impaired driving or speeds too fast for conditions in adverse weather. The randomly dispersed nature of these behaviors makes it difficult to identify where crashes might occur. WSDOT also recognizes that guardrail should be carefully considered in its applications given the cost to install and maintain, so the agency uses benefit cost analysis to form this systemic approach. Research for the AASHTO Highway Safety Manual and other publications have demonstrated that their geometric characteristics can serve to help identify locations that may be associated with more lane departures, such as curves, and the potential effects of previously installed treatments such as rumble strips and traffic barriers.

WSDOT initiated a research project with Texas Tech University that included an in-depth look at lane departure crashes on two-lane rural highways. During this research project, the team developed advanced multifactor models aimed at supporting an improved understanding of the interaction between location-specific characteristics and the incidence of lane departure crashes.

The research showed that geometry (horizontal curve characteristics, vertical grade, and other characteristics) and the presence/absence of lane departure strategies (rumble strips, traffic barriers) in different combinations resulted in quite different safety performance results. It is important to note that this advanced modeling approach offers significant reliability improvements over HSM predictive method and systemic approaches.

One of the products of the research was the identification of a subset of locations that had experienced more lane departure crashes than similar sites. This method accounted for regression to the mean, showed more reliable model performance, and increased the reliability of the safety performance metrics as part of WSDOT's I-2 prevention subcategory – i.e. greater chances for success. A fiscally restrained short list from this subset is currently being evaluated for potential systemic treatment.

Lane Departure Systemic Treatments include:

- Rumble Strips
- Guardrail Infill and Retrofit
- Slope Flattening
- Speed Management
- Other roadway treatments targeting lane departures

Methodology

WSDOT estimates that 73% of weathering steel guardrail installed on state highways is showing accelerated deterioration. Locations with deterioration have been prioritized for replacement based on crash and traffic history.

The agency completed an updated inventory of guardrail on state highways in 2019 and is applying the Highway Safety Manual (HSM) predictive method to select cost-effective safety investments, instead of relying solely on previous crash data. The new tools acquired in 2019 include improved incident coding and a predictive analysis method from the Federal Highway Administration's new Interactive Highway Safety Design Model (HSDM) tool.

Benefits and Costs

Using previously available data, the agency has created plans to address all weathering steel guardrail locations of concern. Replacement cost is estimated at $34 million over 10 years in the five biennia for state highways excluding those in cities with a population over 30,000. Refer to **Exhibit 28**.

Exhibit 28: Estimated Cost For Replacing Weathering Steel Guardrail
Estimated cost in 2019; 2017-2019 through 2025-2027

Biennium	Estimated biennial cost
2017-2019	$5 million
2019-2021	$6 million
2021-2023	$7 million
2023-2025	$8 million
2025-2027	$8 million
Total	**$34 million**

Ten-Year Constrained Budget Outlook for the I-2 program

WSDOT currently intends to allocate approximately 20% (annually) of its 10-year safety plan funding to address Lane Departure.

Active Transportation

Fatal and serious injury crashes involving people walking and biking on the state system continue to increase. WSDOT's Highway Safety Executive Committee approved its approach to active transportation crashes ranking in 2025. WSDOT used the following as considerations in its approach:

- Safe Transportation for Every Pedestrian (STEP) Plan.
- Washington State Active Transportation Plan.
- Move Ahead Washington—approved by the Washington State Legislature in 2022—which adds Complete Streets requirements as defined in RCW 47.04.035.
- WSDOT Vulnerable Road User Safety Assessment.
- WSDOT allocated 15% of Highway Safety Improvement Program (HSIP) budget toward active transportation/VRU projects in 2024.
- The legislature allocated 24% of ongoing revenues from the Climate Commitment Act to a new Climate Active Transportation Account that will fund expansion of Safe Routes to School and pedestrian/bicyclist grants to local agencies, including some locations within WSDOT right of way.

Key Takeaways

- From 2018 through 2022, more than 14,700 crashes on the Washington state route system involved people walking or biking.
- Projects that address safety outcomes for pedestrians and bicyclists also provide crash reduction benefits for other road users.

WSDOT approach to active transportation ranked projects based on vulnerable road user characteristics related to community, transit proximity, poverty, crashes and needs as identified in the state Active Transportation Plan, and other relevant correlated criteria.

Introduction

Walking and biking are essential parts of an integrated, sustainable, multimodal transportation system. According to the 2017 National Household Travel Survey, an estimated 11.5% of all trips are conducted by walking or biking.

The Active Transportation subcategory is intended to address the increasing trend of fatal and serious injury crashes involving those who walk and bike by identifying factors associated with crash potential, equity and demand.

WSDOT will continue to focus on reducing driving speeds in contexts with a mix of users, modes, and destinations; providing a connected network of facilities for pedestrians and bicyclists; and appropriately designing crossing treatments with pedestrian-scale lighting, sited at the right frequency to serve the needs of people walking and biking.

Bicycle and Pedestrian preservation and maintenance

WSDOT estimates $163.3 million is needed for preservation and maintenance of pedestrian and bicyclist infrastructure for 2021-2031. The agency is working to collect and use VRU data to help refine its calculation methodology to understand lifecycle costs.

The Cooper Jones Active Transportation Safety Council studies specific issues and makes annual recommendations to the legislature. In 2020 and 2021, the council emphasized speed management to reduce serious and fatal crashes and advocated for the use of automated safety cameras.

Methodology

The Washington State Active Transportation Plan 2020 and Beyond includes a systematic analysis of the level of traffic stress (LTS) for vulnerable road users, which was developed into spatial data for use in active transportation project assessment and is available in WSDOT's GIS workbench. LTS defines and ranks traffic stress based on existing facility and associated road characteristics, posted speed, and vehicle volumes. The creation of spatial data helps identify the locations of active transportation gaps on the state system. These gaps may reflect a complete lack of facilities, limited or non- ADA-compliant facilities, or lack of data to determine whether they meet WSDOT's guidance and criteria. A concurrent analysis provided spatial data identifying active transportation route directness and the Vulnerable Road User Characteristic Index.

To develop a ranked list of locations as recommended in the HSIP Implementation Plan 2022, WSDOT conducted a systemic GIS analysis identifying locations on state jurisdiction roads:

- Where crash data (2010-2019) showed the locations of fatal and serious injury crashes involving active transportation,
- Within 400 feet of locations where high route directness index paths for active transportation road users intersect with high level of traffic scores,
- Within 400 feet of transit stops, as these are known active transportation user-generators.

WSDOT combined the resulting list of analysis locations with:

- Census tract data identifying percent minority, percent in poverty, percent disabled,
- Distance to the nearest school,
- WSDOT's VRU Characteristic Index, which was calculated as the maximum value of any of the demographic variables in **Exhibit 29**, and assigned to each census tract in Washington.

Exhibit 29. Criteria for Evaluating Vulnerable Road User Characteristic Index
(Source: Vulnerable Road User Safety Assessment, 2024; Target Zero, 2024)

Variable	Variable scoring
If Area of Persistent Poverty (USDOT)	0= no, 10 = yes
If tribal land	0= no, 10 = yes
Social Vulnerability Index (CDC)	A score of 12 converted to a score out of 10
Environmental Health Disparities Index (WA DOH)	1 to 10
Disadvantaged Communities score (USDOT)	1 to 10
Using census tracts, using range of highest and lowest values divided in equal parts to create a score out of 10 for school density.	1 to 10
Using census tracts, using range of highest and lowest values divided in equal parts to create a score out of 10 for transit stop density.	1 to 10
Using census tracts, using range of highest and lowest values divided in equal parts to create a score out of 10 for transit route mileage density	1 to 10

The Vulnerable Road User Safety Assessment evaluated the correlations between roadway and facility characteristics and crashes where active transportation users died or were seriously injured. The factors that form part of the VRUCI are all strongly correlated with the density of these crashes in census tracts.

The intent was to use these variables to further refine the analysis and increase understanding of potential correlations. Second, this analysis resulted in a dataset that includes locations—where fatal and serious injury crashes involving active transportation road users occurred—that can be used to help inform where project funds should be invested to best facilitate active transportation road user safety. The information will be shared with region staff to validate of costs and locations. Region scoping activities will include Active Transportation considerations in field reviews, which will be used as the basis for scoping.

Modifications at these locations may include proven treatments such as traffic safety cameras in school zones, road reconfigurations, raised pedestrian crossings, curb extensions, rectangular rapid flashing beacons, HAWK signals, separated/protected bicycle lanes, protected intersections, leading pedestrian intervals for traffic signals, roundabouts, sidewalks, shared use paths, etc.

Benefits

The benefits of projects that address safety outcomes for people who walk and bike can be measured by estimating the societal value of the deaths and serious injuries avoided by implementing the projects. WSDOT follows the FHWA guidance (Crash Costs for Highway Safety Analysis, 2018) to update the WSDOT societal crash costs for benefit cost analysis annually.

From 2020 through 2024, the societal cost of the 605 fatal and serious injury crashes involving pedestrians and bicyclists on state routes in Washington was approximately $609 million per year (2024 dollars); all public roads statewide had 3,514 fatal and serious injury crashes involving pedestrians and bicyclists resulting in a societal cost of $3.5 billion per year (2024 dollars).

Refer to **Appendix C** for FFY 2026 projects.

Ten-Year Constrained Budget Outlook for the I-2 program

WSDOT currently intends to allocate approximately 15% (annually) of its 10-year safety plan funding to address fatal and serious injury crashes involving pedestrians and bicyclists.

Safe System Speed

Speed is a key factor in determining the injury severity outcomes of a crash. Reducing speeds through road design and operations is complex. Human behavior is difficult to influence without a complete redesigning the road. This category is intended to provide for incremental smaller minor improvements related to localized speed management applications.

Introduction

The speed at which a driver operates a vehicle is a factor in all crashes. Higher speeds create larger crash forces and the greater the force the greater likelihood for serious injuries to both the occupants and people outside the vehicle. Reducing vehicle speeds can reduce potential crashes and the injury outcomes of those crashes. The Safe System Approach has safer speeds as one of its elements. The strategies applied in speed management are intended to affect speed and speeding behavior. in typical normal and adverse conditions. Current efforts exist outside of this subcategory including how we design and operate roads to reduce the potential for personal injury to achieve safe mobility.

For pedestrian crashes, vehicle speed, size and front shape are large predictors of injury severity during a crash. Under the Safe System Approach, safer speeds are targeted to levels where the prevalent crash type will result in fewer fatal and serious crashes given the context and modal priorities of the road. Even small reductions such as 30 MPH to 25 MPH would reduce severity outcomes. Though most of the public see speeding even at five or ten MPH above the limit as safe.

Methodology

WSDOT is in the process of reevaluating target speeds. Here known as Safe System Speed where designs are developed to the predominate crash type for the context.

WSDOT proposed to expand the context into the following eight categories, and assign a safe system speed to each context (this is an ongoing policy discussion that is subject to change):

- C1 - Natural
- C2 - Rural
- C2T - Rural Town
- C3R - Suburban Residential
- C3C - Suburban Commercial
- C4 - Urban General
- C5 - Urban Center
- C6 - Urban Core

Speed change requires significant redesigning of the road and this is outside of the scope of this effort. This subcategory will focus on incremental localized speed change. WSDOT plans to identify and rank segments for speed management treatments defined by the following criteria:

- Segments that have speed differential of greater than 5 mph between the Operating Speed and Posted Speed,
- Segments that have speed differential of greater than 5 mph between the Operating Speed and Target Speed, and
- Percentages of fatal and serious injury crashes compared to total crashes.

Ranked segments will be reviewed for the applicability of speed management countermeasures that intend to incrementally reduce the difference between operating speed to the target speed/safe speed.

Benefits

The benefit is generally calculated based on anticipated crash reduction and the societal cost associated with the crash injury severity. As this program is in development systemic benefit costs have not been calculated.

Costs

Cost of each safe system speed project will vary based on mitigation proposal, context, target crash types. The Transportation Safety Office has suggested targeting approximately 15% of the $100 million I-2 allocation. Though this number will vary over time.

Ten-year constrained budget outlook for the I-2 program

WSDOT currently intends to allocate approximately 15% (annually) of its 10-year safety plan funding to address Safe System Speed.

Decision-Making and Performance Improvement

The Decision-Making and Performance Improvement subcategory helps meet Target Zero goals by improving efficiency and enabling:

1. Safety performance-based planning, design, maintenance, operations, and asset management;

2. Timely and quality crash diagnosis, analysis, and evaluation;

3. Compliance with federal requirements.

Key Takeaways

- The benefit/cost ratio of investing in safety data and decision-making is 1.83:1.
- The data needed for safety diagnostics, analysis, and evaluation are also needed across WSDOT to support data-driven, performance-based approaches.

Introduction

WSDOT's approach to transportation safety continues to evolve from a standards-based to a quantitative, data-driven, and science-based approach. The transition to Sustainable Safety in 2013, Performance-Based Practical Solutions in 2015, Complete Streets in 2022 and finalizing the Safety System Approach Executive Order update in 2025 are indicative of this evolution.

WSDOT recognizes the value of data collection and analysis goes beyond safety and is vital to asset and performance management, which highlights a need for the integration of safety data into these efforts. Safety data evaluation, modeling, analysis, and diagnosis are a focus because the evolution of WSDOT's approach to the Safe System Approach creates a greater need for integrated safety data throughout the planning, programming, and project development processes.

The intent of this subcategory is to provide for timely data-driven decision making, and the ability to capture and use feedback for continual performance improvement. Work will focus on safety planning and target setting; collection and use of integrated safety data, including the fundamental Model Inventory of Roadway Elements (MIRE-FDE), using LIDAR data collection; the tools necessary to support data analysis and other uses; and consistency in policy implementation across divisions and regions will continue to occur.

WSDOT has developed a scalable approach to safety analysis that ranges from a detailed safety performance analysis of contributing factors, crash types, and development of targeted solutions to a simple estimation of the societal benefit for crash reduction and prevention due to implementation or changes to existing conditions. These are outlined in two documents for safety analysis, one with planning (WSDOT Safety Guidance for Corridor Planning Studies), the other in project development (WSDOT Safety Analysis Guide). Without such analysis, decisions are based on perceptions or past practice, limiting reliability in decision making and the effectiveness of safety investments.

These activities require integrated, high quality, timely, accessible and complete safety data that includes multimodal crashes, roadway and asset inventory, and traffic volume data.

When data drives the making of safety decisions that affect the lives and health of the traveling public, data quality is of the utmost importance. Quality data provides a level of certainty that the crashes are properly located, and the location characteristics are correct. Quality, well designed data promotes the ability to integrate and reuse data effectively and efficiently.

Both MAP-21 and the FAST Act increased federal requirements for safety data at state DOTs. These federal mandates require states to collect a minimum level of safety data, establish performance measurement targets and use data-driven safety analysis for projects using federal funding provided in the Highway Safety Improvement Program.

As part of the support state agency compliance and understanding of state-specific needs, several different types of national assessments related to safety data were carried out at WSDOT:

- 2010 Crash Data Improvement Program
- 2012 Roadway Safety Data Capability Assessment
- 2014 NHTSA Traffic Records Assessment
- 2015 Feasibility Study for GIS Based Roadway Data Integration
- 2018 Roadway Data Improvement Program (RDIP)

The agency has completed a roadside safety asset lifecycles and performance outcomes as part of asset management program and has made requests to pause or revise roadside based safety subcategories. This will require changes that support a greater ability to manage safety assets across programs and to optimize investment and decision making related to those assets, and these wins show the value of the Decision-Making and Performance Improvement subcategory.

Examples of decision and performance improvement include:

- Mobile LIDAR (intended to address linear reference system concerns, data quality and MIRE FDE)
- Minimum Inventory Roadway Environment Functional Data Elements (FHWA required data collection)
- Retiring SafetyAnalyst and implementing new network screening software, IHSDM, and predictive safety tools (planning, design and operational decision making)
- Evaluating vulnerable road users crash, roadway, and facility data collection and analysis
- Addressing outdated mainframe systems

The data needed for safety diagnostics, analysis, and evaluation are also needed across the agency to support data-driven, performance-based approaches. Therefore, the needs described in these assessments and plans represent what is adversely affecting WSDOT across divisions and regions as the agency plans, scopes, designs, and operates the system. This will be particularly true of understanding road user needs that have less data, such as active transportation.

Since 2019, WSDOT has made significant progress in the area of asset management of roadside barriers. The department developed an inventory of all barrier installations: cable barrier systems, concrete barriers, guardrails, end treatments, and impact attenuators. In-service performance evaluations (ISPEs) were also completed on the cable systems, concrete barriers, end treatments, and impact attenuators. Findings from the ISPEs have been instrumental in guiding decisions regarding three- to four-strand conversions of cable barrier systems, and potential areas for further study and investment.

Mobile LIDAR data collection of the state highway system started in June 2023 and was completed by September 2024. This data will be used, among others, to extract information for MIRE-FDE, roadside barrier and clear zones, and active transportation facilities.

Methodology

The WSDOT Safety Data Business Plan, as well as previous and future assessments will be used to identify needs.

Benefits

Implementing a coordinated enterprise approach to technology and data management provides the safety program with the ability to:

- Identify locations most likely to reduce fatal and serious injury crashes
- Scale investments appropriately in order to balance cost and societal benefit
- Optimize trade-offs during planning, design, and operations to provide for the Safe System Approach
- Evaluate how and if investments were successful in reducing fatal and serious injury crashes
- Provide feedback to refine policy, decision making and implementation practices

This is necessary for a strategic and coordinate performance and decision-making framework for the agency as a whole.

Benefit/Cost Ratios

According to FHWA the benefit/cost ratio of investing in safety data and decision-making is 1.83:1.

Ten-Year Constrained Budget Outlook for the I-2 program

WSDOT has estimated the need in the area of decision-making and performance improvement subcategory at 5% of the I-2 budget, or approximately $25 million over a 10-year period. This effort will include MIRE FDE and LIDAR Data Collection.

Conclusion

Noteworthy Practices

In 2024, WSDOT continued to advance road safety with changes throughout its design and operational process to incorporate Complete Streets legislation as outlined in WSDOT legislative budgets. Consistent with WSDOT Sustainable Safety and Practical Solutions Executive Orders, the agency has been incorporating the Safe System Approach into its design and operational policies and procedures. With specific funding and direction within the legislation the rate of implementation and institutionalization will be increased.

WSDOT updated the Safe System Executive Order 1085.01. The EO directs its safety subprogram to be consistent with the Safe System. Together with its partners WSDOT will do the same for the SHSP.

WSDOT intends to update its Safety Analysis Guide to provide guidance regarding expectations for safety analysis across WSDOT programs within each program area and consistent with the Safe System Approach.

Moving Forward

The goal of zero fatal and serious injuries is a daunting task that requires a commitment and understanding from the highest levels of WSDOT to every level of staff. WSDOT continues to emphasize that “Target Zero” is our guide and directive for our safety program.

The trend in fatal and serious injury crashes is troubling and has been increasing over many years. While investment in the Safety Program remains near the lower end of all programs, with the implementation of Complete Streets and associated funding for the Safe System Approach, as well as more federal and state safety grants to local agencies, reductions in fatal and serious injury crashes will occur over time. In addition, WSDOT is challenged by increases in vehicle travel, population growth, more instances of driving while intoxicated by drugs and alcohol, and increasing speeds, and will investigate how self-explaining and enforcing roads can lead to reductions in fatal and serious injury crashes. To achieve WSDOT's zero goals, the agency must be able to sustain progress in both the near-term and long-term, however, reversing statewide trends may not be immediate.

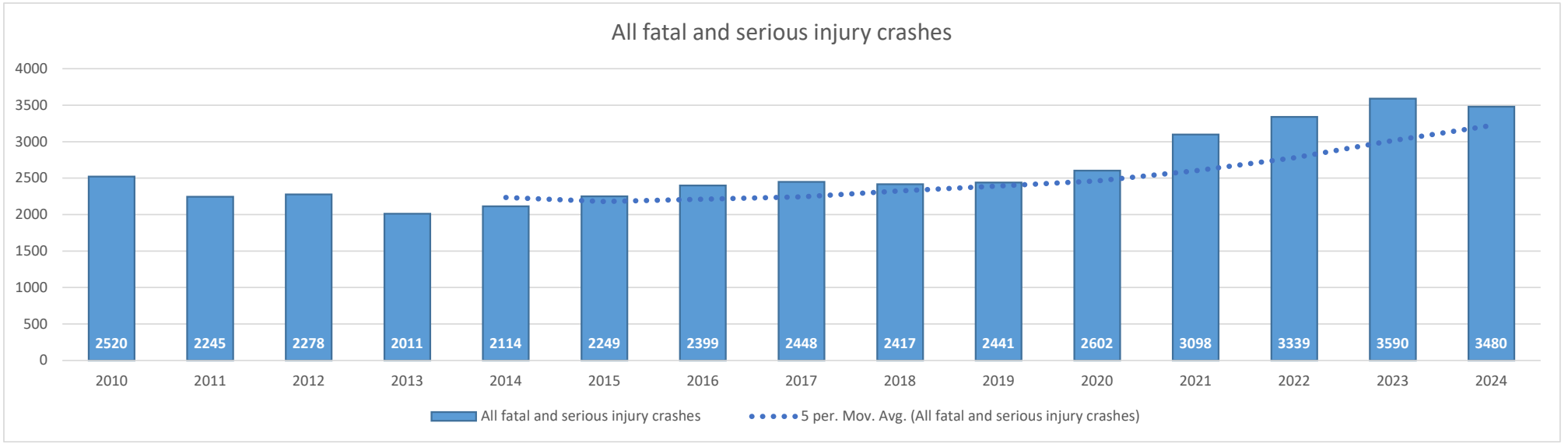
WSDOT’s “Safe System Approach” is intended to focus on the principles of the Safe System:

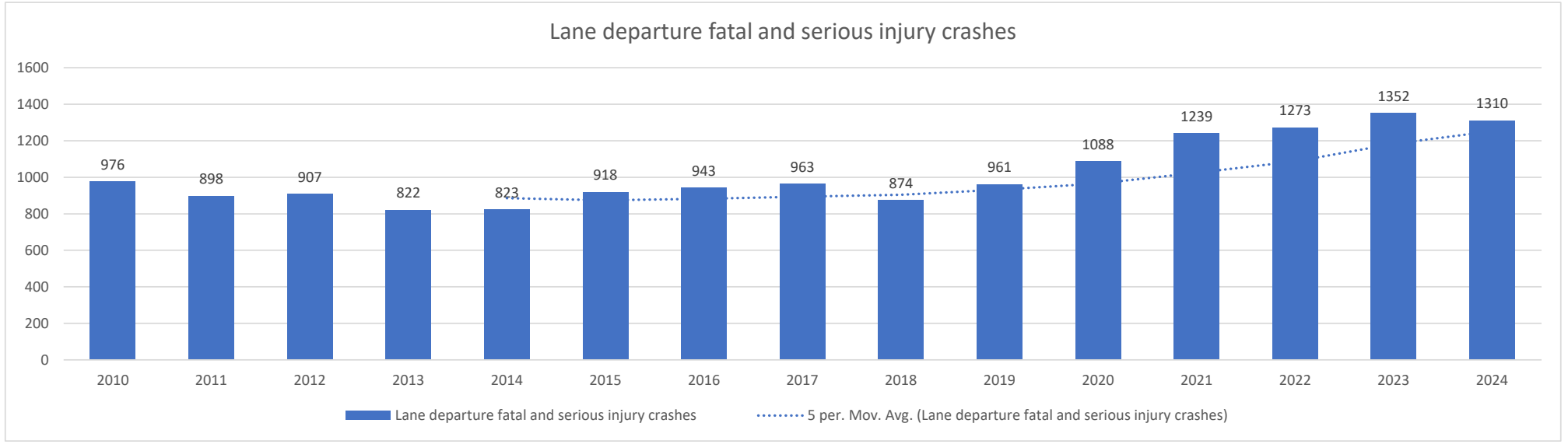
- Deaths and serious injuries are unacceptable,
- The agency supports safe road use,
- Reduce large crash forces,
- Responsibility is shared,
- Safety is proactive, and
- Project decisions strengthen all parts.

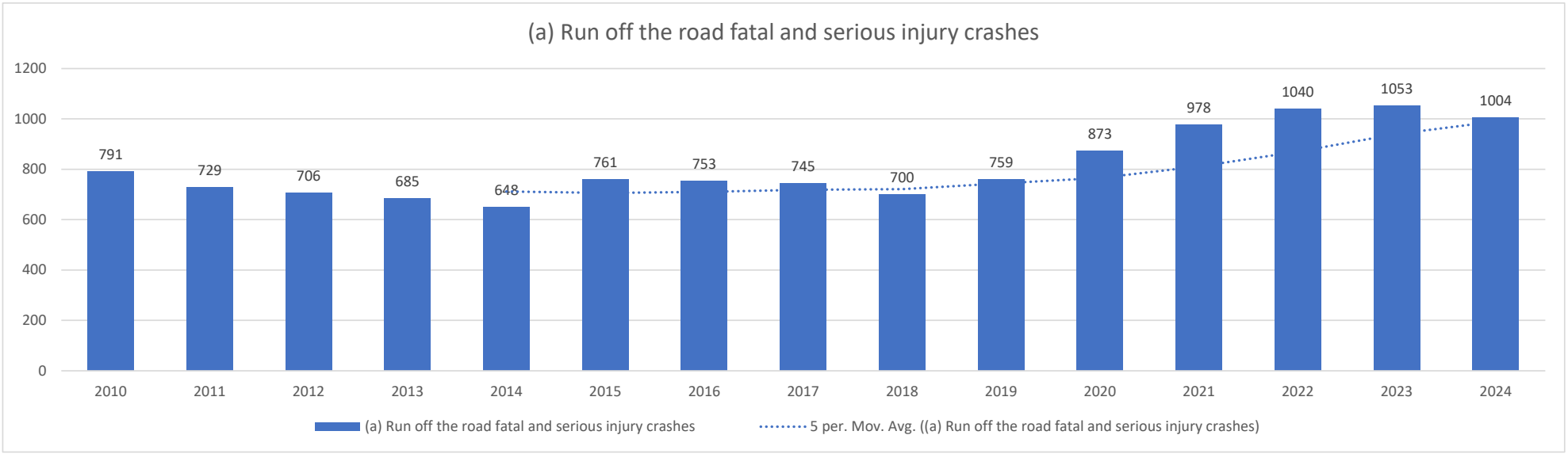
WSDOT continues to encourage safety assessments, in-service performance evaluations, and performance assessments across organizational boundaries and at all levels of the project development process as outlined in the new Safe System Executive Order. These reviews are critical in reducing rework, aligning objectives, and improving the overall flow of information and knowledge as projects make their way through the development process. Therefore, WSDOT’s success is contingent on our ability to work collaboratively within WSDOT and with our external partners and stakeholders. The ultimate goal of WSDOT's Safe System Approach is to reduce fatal and serious injury crashes and to do so in a matter that optimizes project planning, prioritization, design, and operation relationships to fatal and serious injury crash reduction and prevention. Through WSDOT's continued commitment to learning and improvement, the agency will achieve Target Zero to help ensure families, friends, and the public will arrive home safely.

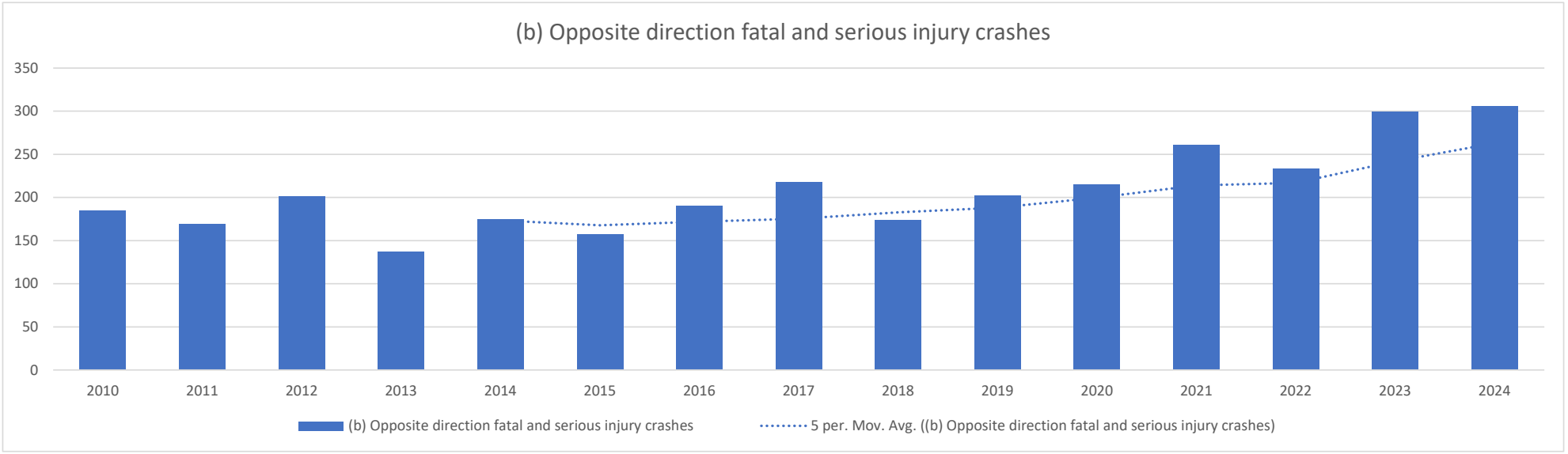
Appendix A: Emphasis Areas

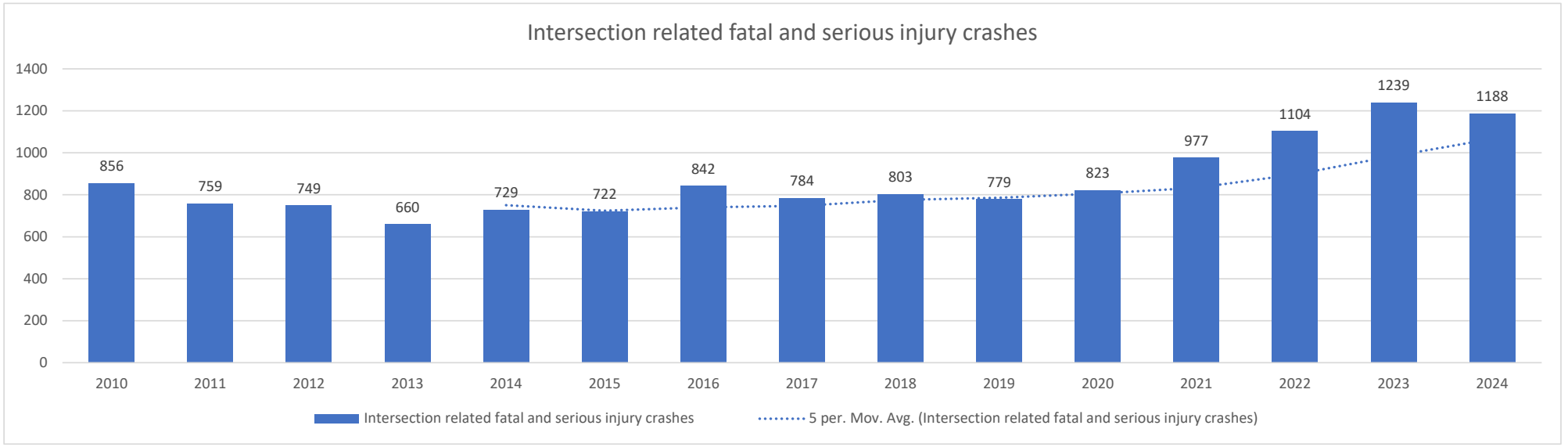
Emphasis Areas	Fatal and Serious Injury Crashes *Source: WSDOT Engineering Crash Datamart, 2024 year end*														
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
All fatal and serious injury crashes	2,520	2,245	2,278	2,011	2,114	2,249	2,399	2,448	2,417	2,441	2,602	3,098	3,339	3,590	3,480
Lane Departure Crashes	976	898	907	822	823	918	943	963	874	961	1,088	1,239	1,273	1,352	1,310
Run off the road	791	729	706	685	648	761	753	745	700	759	873	978	1,040	1,053	1,004
Opposite direction	185	169	201	137	175	157	190	218	174	202	215	261	233	299	306
Intersection Related Crashes	856	759	749	660	729	722	842	784	803	779	823	977	1,104	1,239	1,188
Involving people walking and biking	469	473	525	394	483	492	590	565	633	570	516	656	683	787	789
Involving people walking	347	348	404	300	374	370	447	458	495	457	409	543	533	611	609
Involving people biking	122	125	122	95	109	122	143	107	139	113	108	113	151	177	181
Motorcyclist Involved	442	412	453	400	401	456	441	456	452	490	476	541	639	684	648
Heavy Truck Involved	133	124	148	116	139	123	157	205	159	172	144	230	229	197	216
Younger driver (16-25) involved crashes	827	722	644	597	606	620	697	703	618	625	682	819	878	968	990
Older driver 70 (plus) involved crashes	227	169	191	184	206	234	223	235	243	293	275	317	345	384	417

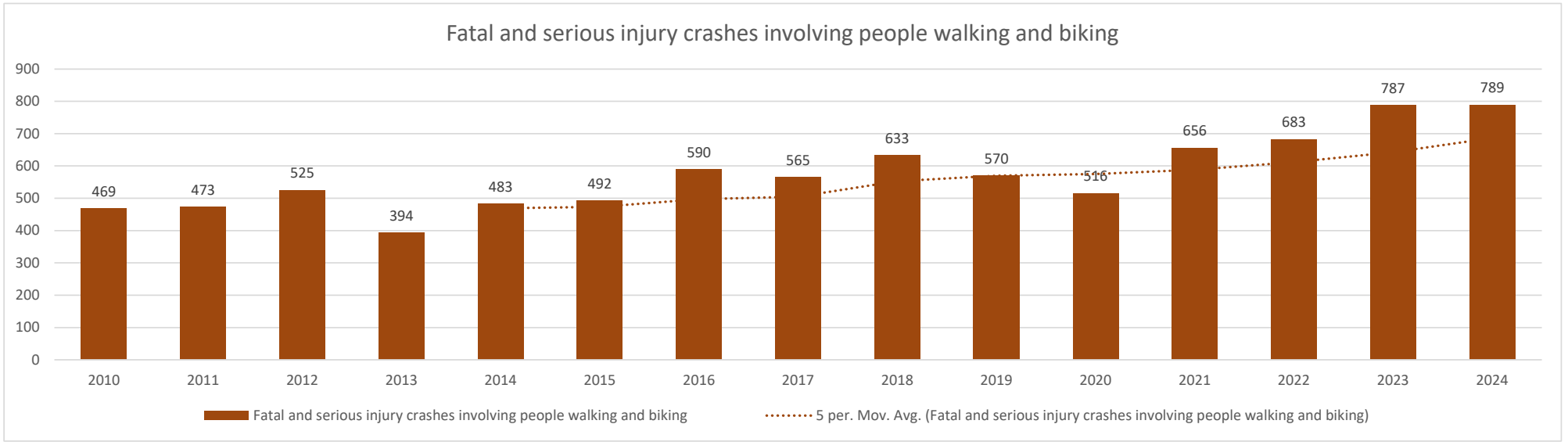

All fatal and serious injury crashes
4000
3500
3000
2500
2000
1500
1000
500
0
2520
2245
2278
2011
2114
2249
2399
2448
2417
2441
2602
3098
3339
3590
3480
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
All fatal and serious injury crashes
5 per. Mov. Avg. (All fatal and serious injury crashes)

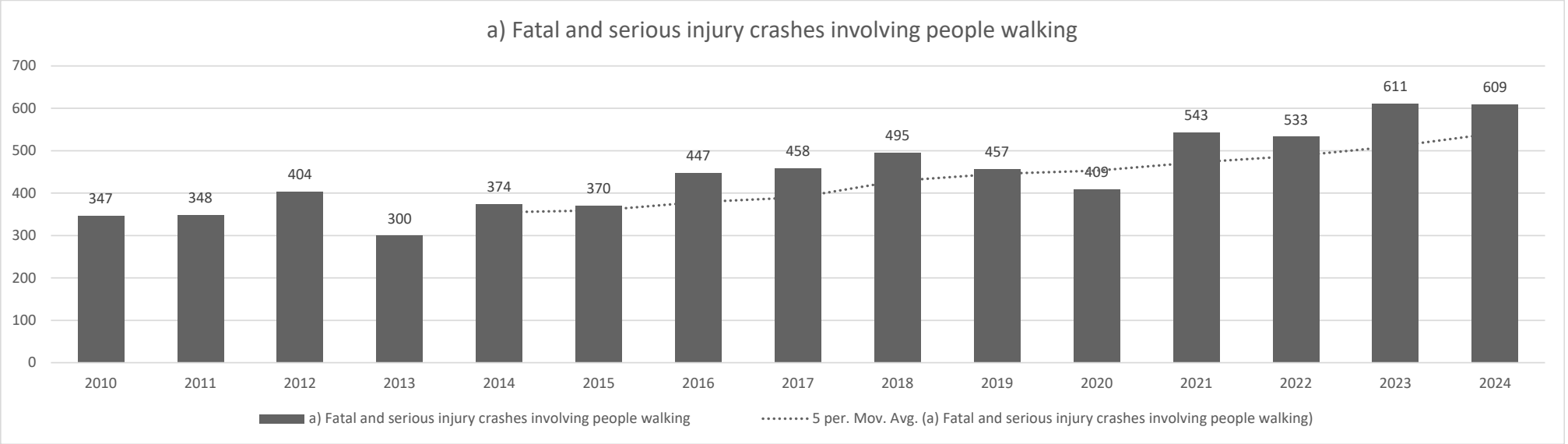

Lane departure fatal and serious injury crashes
1600
1400
1200
1000
800
600
400
200
0
976
898
907
822
823
918
943
963
874
961
1088
1239
1273
1352
1310
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Lane departure fatal and serious injury crashes
5 per. Mov. Avg. (Lane departure fatal and serious injury crashes)

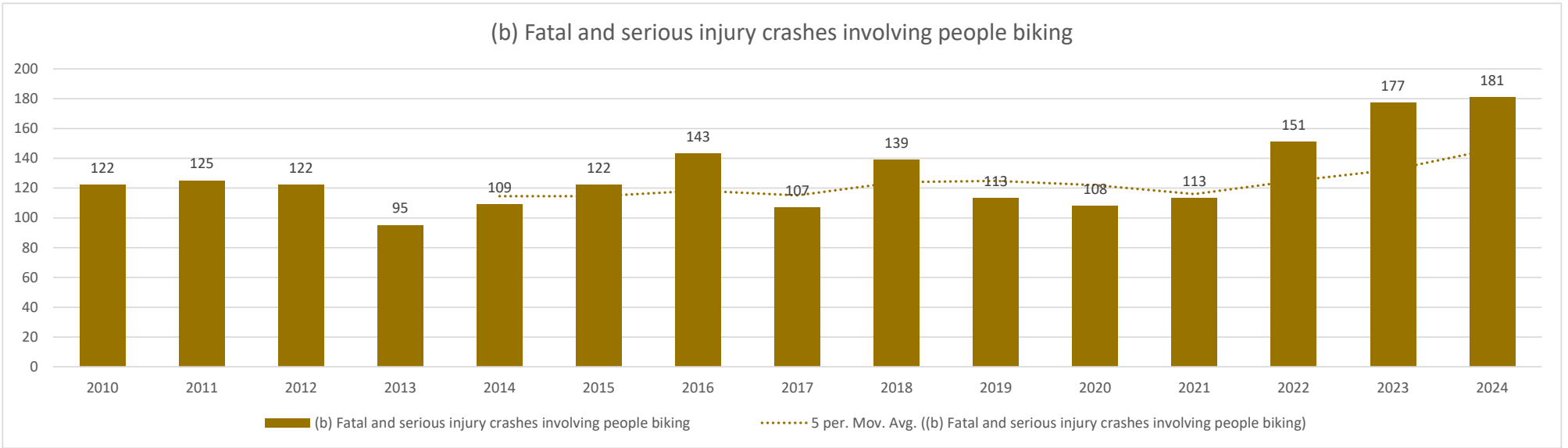

(a) Run off the road fatal and serious injury crashes
1200
1000
800
600
400
200
0
791
729
706
685
648
761
753
745
700
759
873
978
1040
1053
1004
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
(a) Run off the road fatal and serious injury crashes
5 per. Mov. Avg. ((a) Run off the road fatal and serious injury crashes)

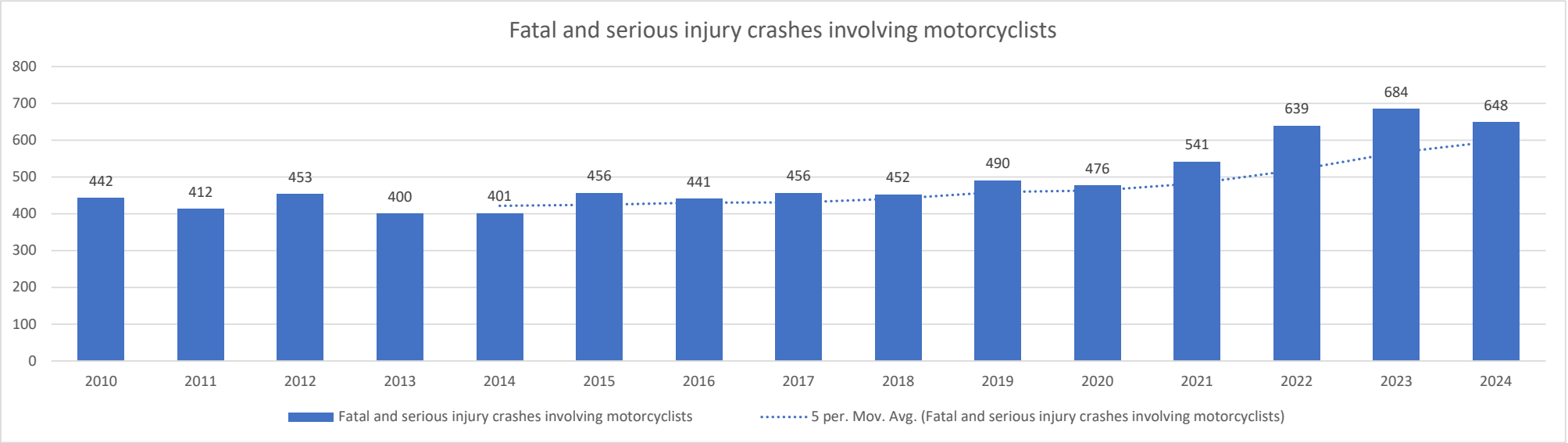

(b) Opposite direction fatal and serious injury crashes
350
300
250
200
150
100
50
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
(b) Opposite direction fatal and serious injury crashes
5 per. Mov. Avg. ((b) Opposite direction fatal and serious injury crashes)

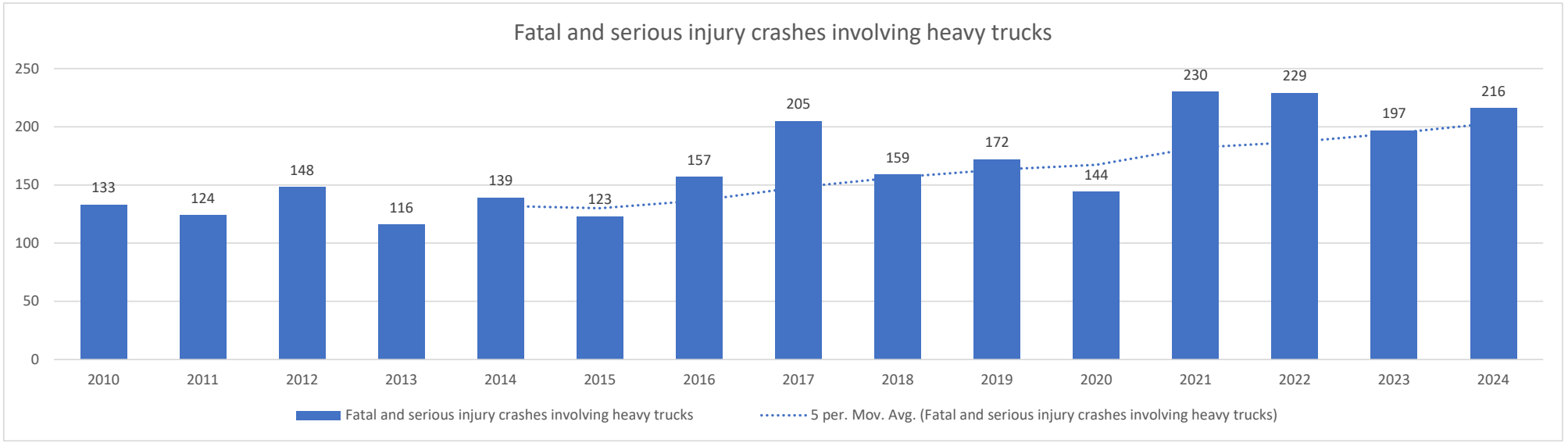

Intersection related fatal and serious injury crashes
1400
1200
1000
800
600
400
200
0
856
759
749
660
729
722
842
784
803
779
823
977
1104
1239
1188
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Intersection related fatal and serious injury crashes
5 per. Mov. Avg. (Intersection related fatal and serious injury crashes)

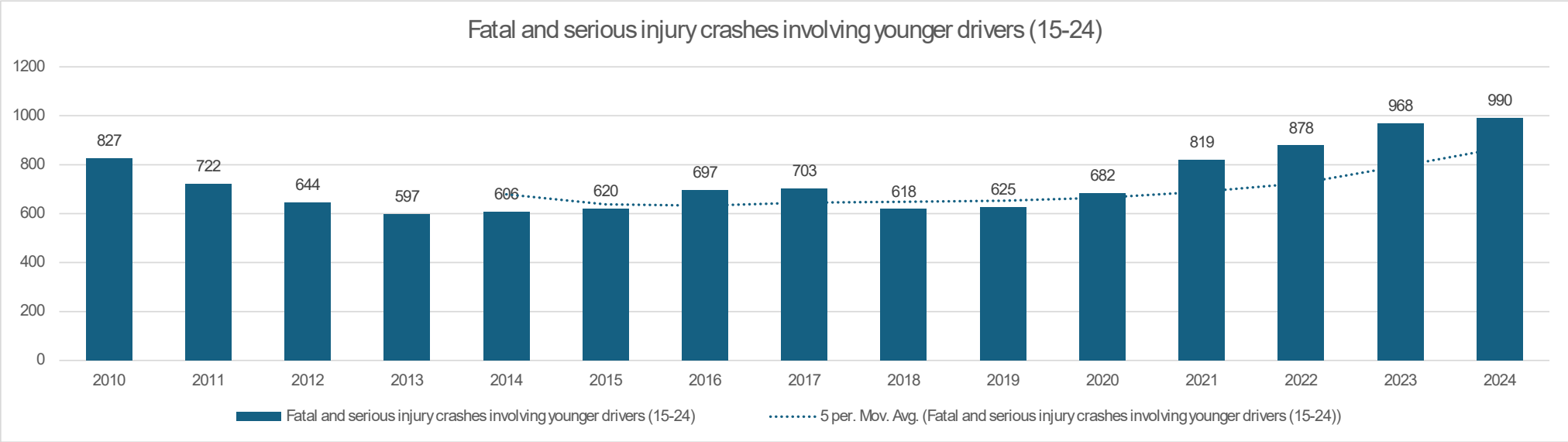

Fatal and serious injury crashes involving people walking and biking
900
800
700
600
500
400
300
200
100
0
469
473
525
394
483
492
590
565
633
570
516
656
683
787
789
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Fatal and serious injury crashes involving people walking and biking
5 per. Mov. Avg. (Fatal and serious injury crashes involving people walking and biking)

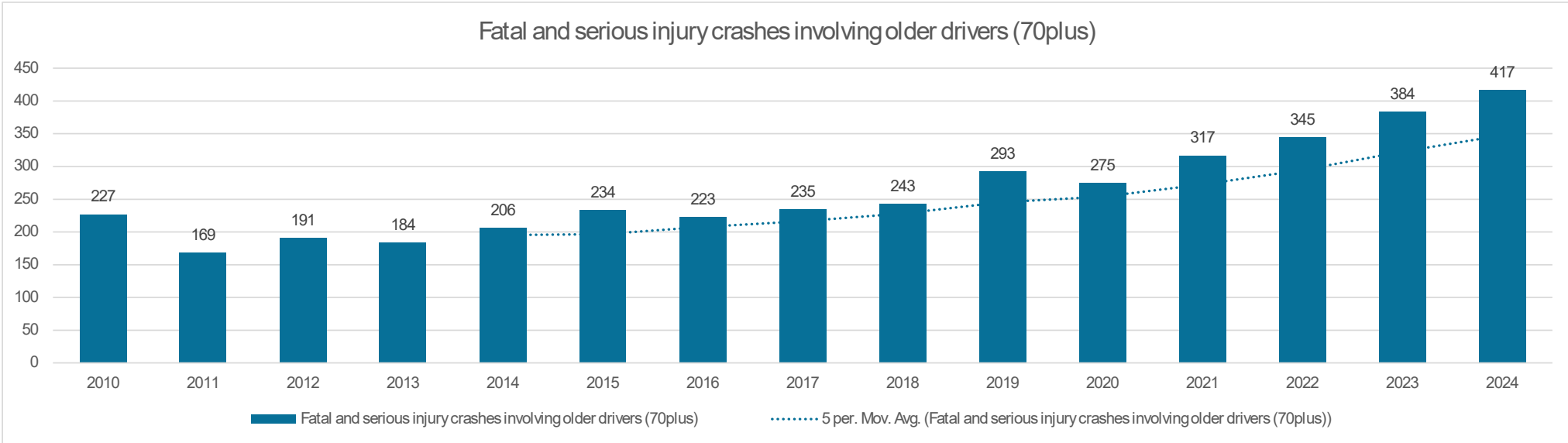

a) Fatal and serious injury crashes involving people walking
700
600
500
400
300
200
100
0
347
348
404
300
374
370
447
458
495
457
409
543
533
611
609
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
a) Fatal and serious injury crashes involving people walking
5 per. Mov. Avg. (a) Fatal and serious injury crashes involving people walking


(b) Fatal and serious injury crashes involving people biking
200
180
160
140
120
100
80
60
40
20
0
122
125
122
95
109
122
143
107
139
113
108
113
151
177
181
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
(b) Fatal and serious injury crashes involving people biking
5 per. Mov. Avg. ((b) Fatal and serious injury crashes involving people biking)


Fatal and serious injury crashes involving motorcyclists
800
700
600
500
400
300
200
100
0
442
412
453
400
401
456
441
456
452
490
476
541
639
684
648
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Fatal and serious injury crashes involving motorcyclists
5 per. Mov. Avg. (Fatal and serious injury crashes involving motorcyclists)


Fatal and serious injury crashes involving heavy trucks
250
200
150
100
50
0
133
124
148
116
139
123
157
205
159
172
144
230
229
197
216
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Fatal and serious injury crashes involving heavy trucks
5 per. Mov. Avg. (Fatal and serious injury crashes involving heavy trucks)


Fatal and serious injury crashes involving younger drivers (15-24)
1200
1000
800
600
400
200
0
827
722
644
597
606
620
697
703
618
625
682
819
878
968
990
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Fatal and serious injury crashes involving younger drivers (15-24)
5 per. Mov. Avg. (Fatal and serious injury crashes involving younger drivers (15-24))


Fatal and serious injury crashes involving older drivers (70plus)
450
400
350
300
250
200
150
100
50
0
227
169
191
184
206
234
223
235
243
293
275
317
345
384
417
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Fatal and serious injury crashes involving older drivers (70plus)
5 per. Mov. Avg. (Fatal and serious injury crashes involving older drivers (70plus))

Appendix B: Crashes Across Emphasis Areas and Jurisdictions, 2020-2024

Jurisdiction	All crashes, 2020 2024	Fatal and serious injury crashes	% of fatal and serious injury crashes for the jurisdiction	Fatal and serious injury crash density for the jurisdiction (# of crashes/mi)	% of statewide fatal and serious injury crashes	Fatal and Serious Injury Crash Cost (2024, annual 5 year average)	Total Crash Cost (2024, annual 5 year average)
All public roadways in Washington state Miles 79,541.57							
Crashes	501,799	16,109	100.0%	0.20	100.0%	$15,469,644,000	$23,299,295,200
Crash types							
Lane departure	124,834	6,262	38.9%	0.08	38.9%	$5,823,343,000	$7,458,274,900
Run off the road	114,906	4,948	30.7%	0.06	30.7%	$4,463,081,200	$5,903,381,700
Opposite direction	9,928	1,314	8.2%	0.02	8.2%	$1,360,261,800	$1,554,893,200
Intersection related	193,927	5,331	33.1%	0.07	33.1%	$5,281,016,400	$8,772,936,700
Users							
Involving people walking or biking	14,159	3,431	21.3%	0.04	21.3%	$3,507,341,700	$4,136,759,100
Involving people walking	9,171	2,705	16.8%	0.03	16.8%	$2,707,187,700	$3,081,392,600
Involving people biking	4,994	730	4.5%	0.01	4.5%	$804,599,300	$1,060,442,800
Involving motorcyclists	9,475	2,988	18.5%	0.04	18.5%	$2,880,554,400	$3,153,828,200
Involving heavy trucks	29,453	1,016	6.3%	0.01	6.3%	$960,184,800	$1,318,966,400

Jurisdiction	All crashes, 2020 2024	Fatal and serious injury crashes	% of fatal and serious injury crashes for the jurisdiction	Fatal and serious injury crash density for the jurisdiction (# of crashes/mi)	% of statewide fatal and serious injury crashes	Fatal and Serious Injury Crash Cost (2024, annual 5 year average)	Total Crash Cost (2024, annual 5 year average)
Local jurisdiction Miles 57,117.78							
Crashes	308,477	10,725		0.19	66.6%	$10,193,072,900	$15,296,841,900
Crash types							
Lane departure	76,658	3,852	35.9%	0.07	23.9%	$3,565,130,600	$4,574,447,400
Run off the road	69,377	3,094	28.8%	0.05	19.2%	$2,818,320,200	$3,677,738,400
Opposite direction	7,281	758	7.1%	0.01	4.7%	$746,810,400	$896,709,000
Intersection related	149,276	4,193	39.1%	0.07	26.0%	$4,160,800,800	$6,950,281,800
Users							
Involving people walking or biking	12,571	2,826	26.3%	0.05	17.5%	$2,898,335,600	$3,466,103,900
Involving people walking	8,035	2,199	20.5%	0.04	13.7%	$2,200,423,500	$2,535,222,200
Involving people biking	4,542	631	5.9%	0.01	3.9%	$702,357,400	$935,958,000
Involving motorcyclists	6,030	1,936	18.1%	0.03	12.0%	$1,853,690,100	$2,031,792,900
Involving heavy trucks	12,080	416	3.9%	0.01	2.6%	$377,850,500	$521,876,300

Jurisdiction	All crashes, 2020 2024	Fatal and serious injury crashes	% of fatal and serious injury crashes for the jurisdiction	Fatal and serious injury crash density for the jurisdiction (# of crashes/mi)	% of statewide fatal and serious injury crashes	Fatal and Serious Injury Crash Cost (2024, annual 5 year average)	Total Crash Cost (2024, annual 5 year average)
WSDOT Jurisdiction Miles 6,782.98							
Crashes	193,189	5,383		0.79	33.2%	$2,909,890,000	$4,602,796,400
Crash types							
Lane departure	48,146	2,409	44.8%	0.36	14.9%	$2,258,212,400	$2,883,790,300
Run off the road	45,500	1,853	34.4%	0.27	11.4%	$1,644,761,000	$2,225,606,100
Opposite direction	2,646	556	10.3%	0.08	3.4%	$613,451,400	$658,184,200
Intersection related	44,573	1,138	21.1%	0.17	7.0%	$1,120,215,600	$1,822,060,400
Users							
Involving people walking or biking	1,586	605	11.2%	0.09	3.7%	$609,006,100	$670,655,200
Involving people walking	1,134	506	9.4%	0.07	3.1%	$506,764,200	$546,170,400
Involving people biking	452	99	1.8%	0.01	0.6%	$102,241,900	$124,484,800
Involving motorcyclists	3,443	1,051	19.5%	0.15	6.5%	$1,026,864,300	$1,122,035,300
Involving heavy trucks	17,362	600	11.1%	0.09	3.7%	$582,334,300	$797,052,900

Jurisdiction	All crashes, 2020 2024	Fatal and serious injury crashes	% of fatal and serious injury crashes for the jurisdiction	Fatal and serious injury crash density for the jurisdiction (# of crashes/mi)	% of statewide fatal and serious injury crashes	Fatal and Serious Injury Crash Cost (2024, annual 5 year average)	Total Crash Cost (2024, annual 5 year average)
City Streets (excluding state routes within cities with a population over 30,000) Miles 17,612.15							
Crashes	205,863	5,930		0.34	36.6%	$5,707,765,200	$9,119,458,300
Crash types							
Lane departure	44,844	1,614	27.2%	0.09	10.0%	$1,462,503,700	$1,985,307,000
Run off the road	40,837	1,290	21.8%	0.07	8.0%	$1,155,778,000	$1,596,596,800
Opposite direction	4,007	324	5.5%	0.02	2.0%	$306,725,700	$388,710,200
Intersection related	104,800	2,777	46.8%	0.16	17.1%	$2,813,874,900	$4,804,372,400
Users							
Involving people walking or biking	9,928	2,032	34.3%	0.12	12.5%	$2,160,415,800	$2,628,428,000
Involving people walking	6,248	1,560	26.3%	0.09	9.6%	$1,631,425,100	$1,907,022,200
Involving people biking	3,686	476	8.0%	0.03	2.9%	$533,436,000	$726,482,100
Involving motorcyclists	3,437	1,015	17.1%	0.06	6.3%	$977,966,000	$1,084,053,500
Involving heavy trucks	7,947	200	3.4%	0.01	1.2%	$173,366,700	$267,802,300

Jurisdiction	All crashes, 2020 2024	Fatal and serious injury crashes	% of fatal and serious injury crashes for the jurisdiction	Fatal and serious injury crash density for the jurisdiction (# of crashes/mi)	% of statewide fatal and serious injury crashes	Fatal and Serious Injury Crash Cost (2024, annual 5 year average)	Total Crash Cost (2024, annual 5 year average)
State routes within cities with a population over 30,000 (local jurisdiction) Miles 269.34							
Crashes	37,796	1,210		4.49	7.5%	$1,146,887,400	$1,774,177,900
Crash types							
Lane departure	2,890	214	17.7%	0.79	1.3%	$222,265,000	$263,696,100
Run off the road	2,371	149	12.3%	0.55	0.9%	$146,694,900	$175,883,300
Opposite Direction	519	65	5.4%	0.24	0.4%	$75,570,100	$87,812,800
Intersection related	23,319	596	49.3%	2.21	3.7%	$573,443,700	$989,434,500
Users							
Involving people walking or biking	1,521	430	35.5%	1.60	2.7%	$413,412,900	$473,543,100
Involving people walking	1,091	365	30.2%	1.36	2.3%	$346,733,400	$385,751,100
Involving people biking	430	65	5.4%	0.24	0.4%	$66,679,500	$87,792,000
Involving motorcyclists	684	218	18.0%	0.81	1.3%	$226,710,300	$249,031,100
Involving heavy trucks	1,746	59	4.9%	0.22	0.4%	$48,898,300	$67,115,800

Jurisdiction	All crashes, 2020 2024	Fatal and serious injury crashes	% of fatal and serious injury crashes for the jurisdiction	Fatal and serious injury crash density for the jurisdiction (# of crashes/mi)	% of statewide fatal and serious injury crashes	Fatal and Serious Injury Crash Cost (2024, annual 5 year average)	Total Crash Cost (2024, annual 5 year average)
City jurisdiction (city streets and state routes within cities with a population over 30,000) Miles 17,881.49							
Crashes	243,659	7,140	100.0%	0.40	44.0%	$6,854,652,600	$10,893,636,200
Crash types							
Lane departure	47,734	1,828	25.6%	0.10	11.3%	$1,684,768,700	$2,249,003,100
Run off the road	43,208	1,439	20.2%	0.08	8.9%	$1,302,472,900	$1,772,480,100
Opposite Direction	4,526	389	5.4%	0.02	2.4%	$382,295,800	$476,523,000
Intersection related	128,119	3,373	47.2%	0.19	20.8%	$3,387,318,600	$5,793,806,900
Users							
Involving people walking or biking	11,449	2,462	34.5%	0.14	15.2%	$2,573,828,700	$3,101,971,100
Involving people walking	7,339	1,925	27.0%	0.11	11.9%	$1,978,158,500	$2,292,773,300
Involving people biking	4,116	541	7.6%	0.03	3.3%	$600,115,500	$814,274,100
Involving motorcyclists	4,121	1,233	17.3%	0.07	7.6%	$1,204,676,300	$1,333,084,600
Involving heavy trucks	9,693	259	3.6%	0.01	1.6%	$222,265,000	$334,918,100

Jurisdiction	All crashes, 2020 2024	Fatal and serious injury crashes	% of fatal and serious injury crashes for the jurisdiction	Fatal and serious injury crash density for the jurisdiction (# of crashes/mi)	% of statewide fatal and serious injury crashes	Fatal and Serious Injury Crash Cost (2024, annual 5 year average)	Total Crash Cost (2024, annual 5 year average)
County roads Miles 39,236.29							
Crashes	64,818	3,585	100.0%	0.09	22.1%	$3,338,420,300	$4,403,205,700
Crash types							
Lane departure	28,924	2,024	56.5%	0.05	12.5%	$1,880,361,900	$2,325,444,300
Run off the road	26,169	1,655	46.2%	0.04	10.2%	$1,515,847,300	$1,905,258,300
Opposite direction	2,755	369	10.3%	0.01	2.3%	$364,514,600	$420,186,000
Intersection related	21,157	820	22.9%	0.02	5.1%	$773,482,200	$1,156,474,900
Users							
Involving people walking or biking	1,122	364	10.2%	0.01	2.2%	$324,506,900	$364,132,800
Involving people walking	696	274	7.6%	0.01	1.7%	$222,265,000	$242,448,900
Involving people biking	426	90	2.5%	0.00	0.6%	$102,241,900	$121,683,900
Involving motorcyclists	1,909	703	19.6%	0.02	4.3%	$649,013,800	$698,708,300
Involving heavy trucks	2,387	157	4.4%	0.00	1.0%	$155,585,500	$186,958,200

Note: Statewide centerline miles from the 2019 Miles and Daily Vehicle Miles Travelled (DVMT) Information web page at https://wsdot.wa.gov/ mapsdata/travel/hpms/annualmileage.htm. The societal cost values were estimated using WSDOT specific crash costs derived using the methodology outlined in the FHWA Guide, Crash Costs for Highway Safety Analysis, 2018. Costs used are as follows (2024 dollars):

- Fatal Crash (K) - $4,445,300
- Serious Injury Crash (A) - $4,445,300
- Evident Injury Crash (B) - $ 315,500
- Possible Injury Crash (C) - $ 186,000
- Property Damage Only Crash (O) - $ 18,600

Appendix C: I-2 Detailed Project List

Projects funded through WSDOT HSIP and Local Program Funding for FFY 2026

Project Name	Project Number	Improvement Type	Project Cost	Program, Strategy or Activity	SHSP Emphasis Area	Functional Classification	Fund Code
Adams County - Herman Rd Safety Project	B014(002)	Shoulder Treatments (Widen Shoulder - Paved or Other - Includes Add Shoulder)	$2,380,000	Local Safety Program Lane Departure Widening	Lane Departure	Rural Major Collector	County
Adams County - High Volume Corridors Intersection Project	N/A	Roadway Signs & Traffic Control (Roadway Signs - Including Post - New or Updated)	$783,000	Local Safety Program Intersections Signing	Intersections	N/A	County
Benton County - Tier 1 Intersection Audio & Visual Upgrades	N/A	Roadway Signs & Traffic Control (Roadway Signs - Including Post - New or Updated)	$314,000	Local Safety Program Intersections Signing	Intersections	N/A	County
Chelan County - Easy St and School St - Intersection	9904(019)	Pedestrians & Bicyclists (Rectangular Rapid Flashing Beacons - RRFB)	$317,000	Local Safety Program Active Transportation Users RRFBs	Active Transportation Users	Rural Minor Arterial	County
City of Auburn - Roundabout Implementation at R Street SE and 21st Street SE	000S(654)	Intersection Traffic Control (Modify Control - Modern Roundabout)	$1,482,000	Local Safety Program Intersections Roundabouts	Intersections	Urban Minor Arterial	City
City of Auburn - Lake Tapps Parkway Street Lighting—Sumner Tapps Hwy E to 182nd Ave E	N/A	Lighting (Continuous Roadway Lighting)	$1,100,000	Local Safety Program Lane Departure Illumination	Lane Departure	N/A	City
City of Battle Ground - NW 20th Avenue and NW 9th Street Intersection	4457(001)	Intersection Traffic Control (Modify Control - Modern Roundabout)	$432,000	Local Safety Program Intersections Roundabouts	Intersections	Urban Major Collector	City
City of Battle Ground - Systemic Signalized Intersections	000S(706)	Intersection Traffic Control (Modify Traffic Signal - Other)	$285,000	Local Safety Program Intersections Signal Operations/ Visibility	Intersections	Urban Minor Arterial	City
City of Bellevue - High Visibility Crosswalks Markings	N/A	Pedestrians & Bicyclists (Modify Existing Crosswalk)	$825,000	Local Safety Program Active Transportation Users High Visibility Crosswalks	Active Transportation Users	N/A	City
City of Bellevue - NE 8th Street Complete Streets Safety Improvements	N/A	Pedestrians & Bicyclists (On Road Bicycle Lane)	$523,000	Local Safety Program Active Transportation Users Bike Lanes/Cycle Tracks	Active Transportation Users	N/A	City

Projects funded through WSDOT HSIP and Local Program Funding for FFY 2026

Project Name	Project Number	Improvement Type	Project Cost	Program, Strategy or Activity	SHSP Emphasis Area	Functional Classification	Fund Code
City of Bellingham - Downtown Intersection Safety Improvements	N/A	Intersection Traffic Control (Modify Control - New Traffic Signal)	$1,489,000	Local Safety Program Intersections New Traffic Signals	Intersections	N/A	City
City of Camas - NW Lake Road Safety Improvements from NW Leadbetter Drive to NE Everett Street	N/A	Lighting (Continuous Roadway Lighting)	$930,000	Local Safety Program Lane Departure Illumination	Lane Departure	N/A	City
City of College Place - SW Davis Ave and Whitman Dr Pedestrian and Bicyclist Safety Improvements	N/A	Pedestrians & Bicyclists (On Road Bicycle Lane)	$933,000	Local Safety Program Active Transportation Users Bike Lanes/Cycle Tracks	Active Transportation Users	N/A	City
City of Edmonds - Citywide Lighting Improvements	N/A	Lighting (Intersection Lighting)	$600,000	Local Safety Program Intersections Illumination	Intersections	N/A	City
City of Everett - Casino Rd. and 5th Ave. W. Pedestrian Safety	2796(002)	Intersection Traffic Control (Modify Traffic Signal - Add Flashing Yellow Arrow)	$814,880	Local Safety Program Intersections Signal Operations/ Visibility	Intersections	Urban Principal Arterial - Other	City
City of Everett - Citywide Innovative Safety	000S(508)	Intersection Traffic Control (Modify Traffic Signal - Add Flashing Yellow Arrow)	$700,912	Local Safety Program Intersections Signal Operations/ Visibility	Intersections	Urban Principal Arterial - Other	City
City of Fife - Citywide Intersection Illumination	000S(669)	Lighting (Intersection Lighting)	$475,000	Local Safety Program Intersections Illumination	Intersections	Urban Major Collector	City
City of Fife - Citywide Safety Improvements	N/A	Pedestrians & Bicyclists (Pedestrian Hybrid Beacon)	$15,000	Local Safety Program Active Transportation Users Pedestrian Hybrid Beacons/Signals	Active Transportation Users	N/A	City
City of Issaquah - Pedestrian Crossing Safety Improvements	N/A	Pedestrians & Bicyclists (Rectangular Rapid Flashing Beacons - RRFB)	$1,586,000	Local Safety Program Active Transportation Users RRFBs	Active Transportation Users	N/A	City

Projects funded through WSDOT HSIP and Local Program Funding for FFY 2026

Project Name	Project Number	Improvement Type	Project Cost	Program, Strategy or Activity	SHSP Emphasis Area	Functional Classification	Fund Code
City of Kent - Pacific Hwy S (SR 99) Pedestrian Crossing Safety Improvements	N/A	Pedestrians & Bicyclists (Pedestrian Hybrid Beacon)	$800,000	Local Safety Program Active Transportation Users Pedestrian Hybrid Beacons/Signals	Active Transportation Users	N/A	City
City of Kirkland - Pedestrian and Bicyclist Safety	2072(006)	Pedestrians & Bicyclists (Medians and Pedestrian Refuge Areas)	$430,000	Local Safety Program Active Transportation Users Refuge Islands	Active Transportation Users	Urban Minor Arterial	City
City of Longview - Systemic Pedestrian Crossing	000S(705)	Pedestrians & Bicyclists (Rectangular Rapid Flashing Beacons - RRFB)	$1,543,000	Local Safety Program Active Transportation Users RRFBs	Active Transportation Users	Urban Minor Arterial	City
City of Marysville - Citywide Intersection Improvements	N/A	Intersection Traffic Control (Modify Traffic Signal - Add Flashing Yellow Arrow)	$394,000	Local Safety Program Intersections Signal Operations/ Visibility	Intersections	N/A	City
City of Olympia - Martin Way Pedestrian Safety Improvements	N/A	Pedestrians & Bicyclists (Medians and Pedestrian Refuge Areas)	$1,278,000	Local Safety Program Active Transportation Users Refuge Islands	Active Transportation Users	N/A	City
City of Pasco - Sandifur Parkway and Road 76 Intersection and Pedestrian Safety Enhancements	N/A	Intersection Traffic Control (Modify Control - New Traffic Signal)	$1,751,000	Local Safety Program Intersections New Traffic Signals	Intersections	N/A	City
City of Port Angeles - Systemic Intersection Control Safety Improvements	N/A	Intersection Traffic Control (Modify Control - Modern Roundabout)	$325,000	Local Safety Program Intersections Roundabouts	Intersections	N/A	City
City of Redmond - Citywide Speed Injury Minimization Data Collection	N/A	Miscellaneous (Data Collection)	$200,000	Local Safety Program Data Improvement Data Collection	Data	N/A	City
City of Redmond - 148th Avenue NE Safety Corridor Project	N/A	Pedestrians & Bicyclists (Pedestrian Hybrid Beacon)	$330,000	Local Safety Program Active Transportation Users Pedestrian Hybrid Beacons/Signals	Active Transportation Users	N/A	City

Projects funded through WSDOT HSIP and Local Program Funding for FFY 2026

Project Name	Project Number	Improvement Type	Project Cost	Program, Strategy or Activity	SHSP Emphasis Area	Functional Classification	Fund Code
City of Richland - Systemic Stop-controlled Intersections	N/A	Intersection Traffic Control (Modify Control - Modern Roundabout)	$1,362,000	Local Safety Program Intersections Roundabouts	Intersections	N/A	City
City of SeaTac - Systemic Intersection and Pedestrian Safety	N/A	Pedestrians & Bicyclists (Medians and Pedestrian Refuge Areas)	$787,000	Local Safety Program Active Transportation Users Refuge Islands	Active Transportation Users	N/A	City
City of Seattle - Pedestrian Crossing Safety	N/A	Pedestrians & Bicyclists (Rectangular Rapid Flashing Beacons - RRFB)	$1,100,000	Local Safety Program Active Transportation Users RRFBs	Active Transportation Users	N/A	City
City of Seattle - Vision Zero Leading Pedestrian Intervals (LPI) and No Turn on Red (NTOR) Restrictions	N/A	Pedestrians & Bicyclists (Leading Pedestrian Interval)	$1,870,000	Local Safety Program Active Transportation Users Leading Pedestrian Intervals	Active Transportation Users	N/A	City
City of Sequim - Systemic Signalized Intersections and Pedestrian Safety Improvements	N/A	Pedestrians & Bicyclists (Rectangular Rapid Flashing Beacons - RRFB)	$234,000	Local Safety Program Active Transportation Users RRFBs	Active Transportation Users	N/A	City
City of Shelton - Systemic Pedestrian Safety	N/A	Pedestrians & Bicyclists (Install Sidewalk)	$1,070,000	Local Safety Program Active Transportation Users Sidewalks	Active Transportation Users	N/A	City
City of Shoreline - NE 175th Street Road Diet from 5th Ave NE to 15th Ave NE	N/A	Roadway (Roadway Narrowing - Road Diet, Roadway Reconfiguration)	$317,000	Local Safety Program Active Transportation Users Road Diets	Active Transportation Users	N/A	City
City of Spokane Valley - Barker Road and 8th Avenue Roundabout	N/A	Intersection Traffic Control (Modify Control - Modern Roundabout)	$1,500,000	Local Safety Program Intersections Roundabouts	Intersections	N/A	City
City of Sumner - Roadway Curve Warning and Delineation	N/A	Roadway Signs & Traffic Control (Roadway Signs - Including Post - New or Updated)	$143,000	Local Safety Program Lane Departure Signing	Lane Departure	N/A	City

Projects funded through WSDOT HSIP and Local Program Funding for FFY 2026

Project Name	Project Number	Improvement Type	Project Cost	Program, Strategy or Activity	SHSP Emphasis Area	Functional Classification	Fund Code
City of Sumner - Neighborhood Traffic Calming and Intersection Data Collection	N/A	Miscellaneous (Data Collection)	$150,000	Local Safety Program Data Improvement Data Collection	Data	N/A	City
City of Tacoma - S 25th St Traffic Safety	3240(002)	Pedestrians & Bicyclists (On Road Bicycle Lane)	$1,569,000	Local Safety Program Active Transportation Users Bike Lanes/Cycle Tracks	Active Transportation Users	Urban Minor Collector	City
City of Walla Walla - Poplar Street Road Diet—5th Ave to 14th Ave	N/A	Roadway (Roadway Narrowing - Road Diet, Roadway Reconfiguration)	$1,500,000	Local Safety Program Active Transportation Users Road Diets	Active Transportation Users	N/A	City
City of Washougal - Systemic Stop Controlled Intersection Improvements	N/A	Roadway Signs & Traffic Control (Roadway Signs - Including Post - New or Updated)	$402,000	Local Safety Program Intersections Signing	Intersections	N/A	City
City of Wenatchee - SR 285 Couplet Signal Upgrades	N/A	Intersection Traffic Control (Modify Traffic Signal - Other)	$692,000	Local Safety Program Intersections Signal Operations/ Visibility	Intersections	N/A	City
Clark County - NE Ward & NE Davis Rds Roundabout	000S(640)	Intersection Traffic Control (Modify Control - Modern Roundabout)	$2,068,000	Local Safety Program Intersections Roundabouts	Intersections	Rural Minor Arterial	County
Franklin County - Taylor Flats & Ringold Rds Safety	000S(641)	Shoulder Treatments (Widen Shoulder - Paved or Other - Includes Add Shoulder)	$1,620,000	Local Safety Program Lane Departure Shoulders	Lane Departure	Rural Major Collector	County
Franklin County - Columbia River Road Elimination of Irrigation Ditch and Extension of Culverts	000S(702)	Roadside (Drainage Improvements)	$1,252,000	Local Safety Program Lane Departure Clear Zones	Lane Departure	Rural Minor Collector	County
Franklin County - Glade North Road Intersection Illumination Improvements	F114(004)	Lighting (Intersection Lighting)	$755,000	Local Safety Program Intersections Illumination	Intersections	Urban Major Collector	County
Franklin County - County-wide Guardrail Improvements	000S(699)	Roadside (Barrier - Metal)	$792,000	Local Safety Program Lane Departure Guardrail	Lane Departure	Rural Major Collector	County

Projects funded through WSDOT HSIP and Local Program Funding for FFY 2026

Project Name	Project Number	Improvement Type	Project Cost	Program, Strategy or Activity	SHSP Emphasis Area	Functional Classification	Fund Code
King County - S 360th St & Military Rd S Roundabout	N/A	Intersection Traffic Control (Modify Control - Modern Roundabout)	$450,000	Local Safety Program Intersections Roundabouts	Intersections	N/A	County
King County - SE Covington-Sawyer Road at 164th Place SE Sightline Improvements	1392(005)	Intersection Geometry (Intersection Geometry - Other)	$1,011,297	Local Safety Program Intersections Sight Distance	Intersections	Urban Minor Arterial	County
Kitsap County - Sidney & Pine	000S(680)	Intersection Traffic Control (Modify Control - Modern Roundabout)	$2,730,000	Local Safety Program Intersections Roundabouts	Intersections	Rural Major Collector	County
Lewis County - 2023 County Safety Program	000S(675)	Roadside (Slope Flattening)	$1,980,000	Local Safety Program Lane Departure Slope Flattening	Lane Departure	Urban Minor Arterial	County
Pend Oreille County - North County Guardrail	000S(632)	Roadside (Barrier - Metal)	$912,000	Local Safety Program Lane Departure Guardrail	Lane Departure	Rural Major Collector	County
Pend Oreille County - North County Guardrail Phase II - LeClerc Road North MP 16.2-32.4 and Boundary Road MP 4.0-10.2	N/A	Roadside (Barrier - Metal)	$2,204,000	Local Safety Program Lane Departure Guardrail	Lane Departure	N/A	County
Skagit County - Francis Road Section 1 - Construction Phase MP 5.05-5.66	F294(003)	Shoulder Treatments (Widen Shoulder - Paved or Other - Includes Add Shoulder)	$1,750,000	Local Safety Program Lane Departure Shoulders	Lane Departure	Rural Major Collector	County
Skagit County - Rosario Rd / Marine Dr / Marine Way Intersection Improvements	000S(686)	Intersection Traffic Control (Modify Control - Modern Roundabout)	$1,643,000	Local Safety Program Intersections Roundabouts	Intersections	Rural Major Collector	County
Skamania County - 2023 Regulatory Signs & Guardrail Project	000S(688)	Roadside (Barrier - Metal)	$2,022,000	Local Safety Program Lane Departure Guardrail	Lane Departure	Rural Major Collector	County
Snohomish County - 84th St NE & 123rd Ave NE Roundabout	000S(622)	Intersection Traffic Control (Modify Control - Modern Roundabout)	$2,946,200	Local Safety Program Intersections Roundabouts	Intersections	Rural Minor Arterial	County

Projects funded through WSDOT HSIP and Local Program Funding for FFY 2026

Project Name	Project Number	Improvement Type	Project Cost	Program, Strategy or Activity	SHSP Emphasis Area	Functional Classification	Fund Code
Snohomish County - S. Machias Rd and Dubuque Road Intersection Improvement	000S(681)	Intersection Traffic Control (Modify Control - Modern Roundabout)	$3,775,000	Local Safety Program Intersections Roundabouts	Intersections	Urban Minor Arterial	County
Snohomish County - 2023 Countywide Safety Spot Improvements	000S(682)	Intersection Traffic Control (Intersection Flashers - Sign-Mounted or Overhead)	$2,363,000	Local Safety Program Intersections Real-Time Warning Systems	Intersections	Urban Minor Arterial	County
Spokane County - Bruce Road and Peone Road Roundabout	M325(008)	Intersection Traffic Control (Modify Control - Modern Roundabout)	$1,603,000	Local Safety Program Intersections Roundabouts	Intersections	Rural Major Collector	County
Walla Walla County - Reser Road Complete Street Improvements, MP 0.49-0.97	7156(005)	Pedestrians & Bicyclists (Install Sidewalk)	$1,171,831	Local Safety Program Active Transportation Users Sidewalks	Active Transportation Users	Urban Minor Arterial	County
Whatcom County - Birch Bay Lynden & Kickerville Rds I/S	N/A	Intersection Geometry (Add/ Modify Auxiliary Lanes)	$940,000	Local Safety Program Intersections Left Turn Lanes	Intersections	N/A	County
SR 3/Division Ave & W Pleasant St Intersection - Roundabout	C00383R	Risk - Intersection / Roundabout (Single Lane)	$66,600	Intersection - Roundabout	Intersections	Principal Arterial, NHS	HSIP
SR 109/South of Taholah - Temporary Bypass	C10938R	Rural/Urban Mobility - General Purpose	$264,200	Crash Analysis Location/Crash Analysis Corridor	Lane Departure	Major Collector, non-NHS	HSIP
SR 546/Benson Road - Intersection Improvements	A54600I	Risk - Intersection / Roundabout (Single Lane)	$953,500	Intersection - Roundabout	Intersections	Principal Arterial, NHS	HSIP
US 12/Ackley Rd/Clover Lane - Intersection Safety Improvements	E01216Z	Risk - Intersection / Chanelization	$1,088,500	Intersection Analysis Location	Intersections	Principal Arterial, NHS	HSIP
SR 3/Pickering Rd Intersection - Compact Roundabout	C00309Q	Risk - Intersection / Roundabout (Single Lane)	$1,477,800	Intersection - Roundabout	Intersections	Principal Arterial, NHS	HSIP
US 12/Eschbach Rd - Intersection Safety Improvements	E01216X	Risk - Intersection / Chanelization	$1,667,700	Intersection Analysis Location	Intersections	Principal Arterial, NHS	HSIP

Projects funded through WSDOT HSIP and Local Program Funding for FFY 2026

Project Name	Project Number	Improvement Type	Project Cost	Program, Strategy or Activity	SHSP Emphasis Area	Functional Classification	Fund Code
SR 3/E Agate Rd Intersection - Compact Roundabout	C00309Q	Risk - Intersection / Roundabout (Single Lane)	$1,729,700	Intersection - Roundabout	Intersections	Principal Arterial, NHS	HSIP
SR 166/Wolves Rd - Compact Roundabout - CN Phase	C00309Q	Risk - Intersection / Roundabout (Single Lane)	$1,729,700	Intersection - Roundabout	Intersections	Minor Arterial, non-NHS	HSIP
US 12/Denmark St SW to E of Old Hwy 9 SW - Compact Roundabout	C01243R	Risk - Intersection / Roundabout (Single Lane)	$1,766,800	Intersection - Roundabout	Intersections	Principal Arterial, NHS	HSIP
SR 241/E Edison Rd Intersection - Intersection Safety	E24103I	Risk - Intersection / Roundabout (Single Lane)	$2,086,100	Intersection - Roundabout	Intersections	Minor Arterial, non-NHS	HSIP
SR 241/Allen Rd Intersection - Intersection Safety	E24103H	Risk - Intersection / Roundabout (Single Lane)	$2,136,400	Intersection - Roundabout	Intersections	Minor Arterial, non-NHS	HSIP
US 12/SR 7 - Intersection Improvements	D01223I	At Grade Intersections (Urban) - (NHS Multi-lane>45 mph)	$2,140,300	Collision Reduction	Intersections	Principal Arterial, NHS	HSIP
SR 7/S of 260th St E to N of SR 507 Intersection - Roundabouts & Paving	C00726R	Risk - Intersection / Roundabout (Single Lane)	$2,278,700	Intersection - Roundabout	Intersections	Principal Arterial, NHS	HSIP
SR 302/118th Ave NW Intersection - Roundabout	C30212R	Risk - Intersection / Roundabout (Single Lane)	$2,737,100	Intersection - Roundabout	Intersections	Principal Arterial, NHS	HSIP
SR 3 S of E Mason Lake Rd to S of E Ecler Rd - Roundabout	C00372R	Risk - Intersection / Roundabout (Single Lane)	$3,022,300	Intersection - Roundabout	Intersections	Principal Arterial, NHS	HSIP
SR 22/SR 223 Chambers Rd Intersection - Intersection Safety	E02202Z	Risk - Intersection / Roundabout (Single Lane)	$3,384,200	Intersection - Roundabout	Intersections	Major Collector, non-NHS	HSIP
SR 160/Long Lake Rd SE - Roundabout	C16011B	Risk - Intersection / Roundabout (Single Lane)	$4,026,700	Intersection - Roundabout	Intersections	Minor Arterial, non-NHS	HSIP

Exhibit 30. Estimated Funding and Benefits by Emphasis Area

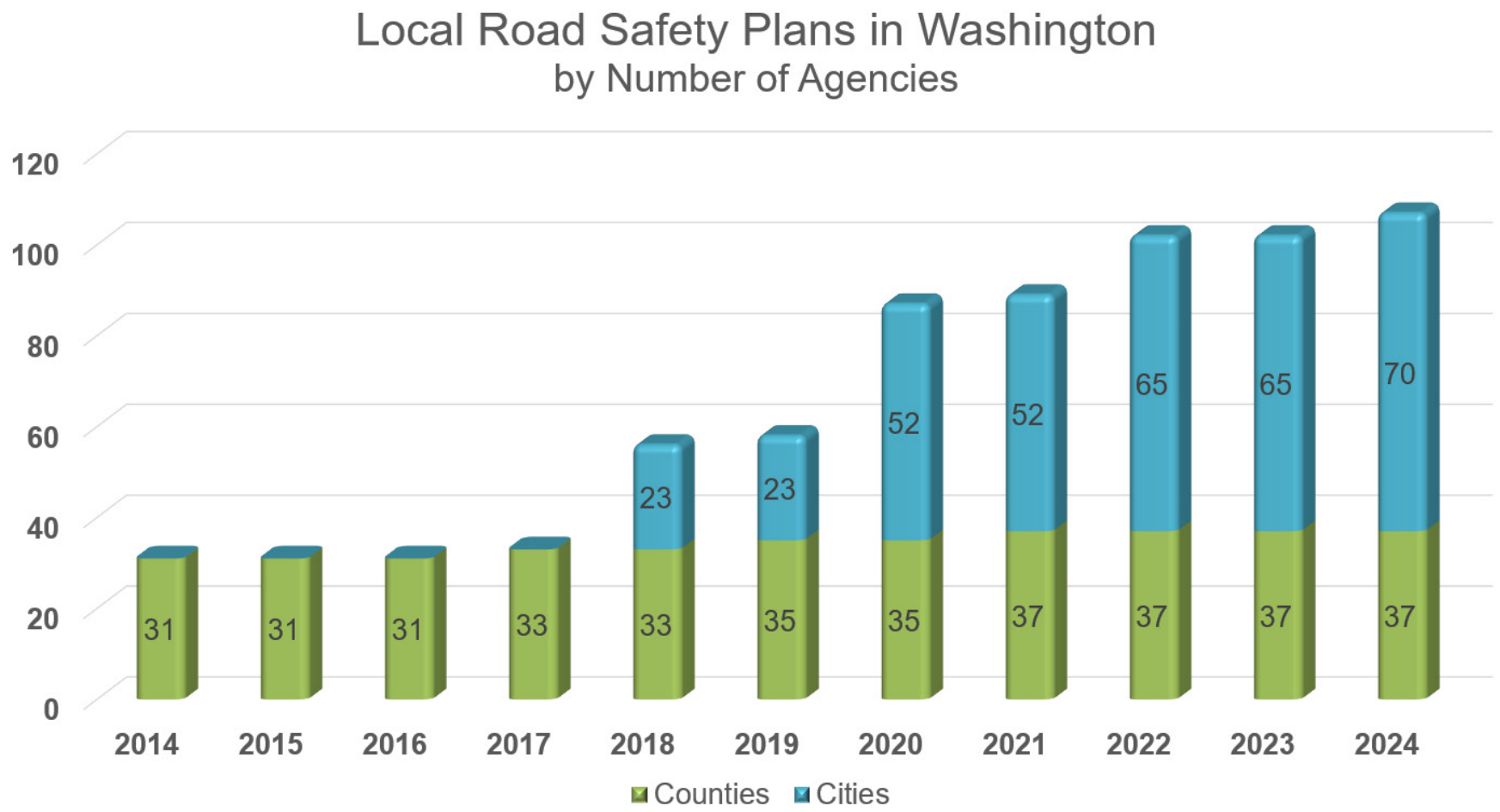
Program, Strategy or Activity	Estimated # Projects	Estimated Funding	Estimated Benefits*
Intersections	44	$66,378,389	$296,299,264
Lane Departure	13	$17,349,200	$140,654,300
Pedestrian and Bicyclists	20	$18,198,831	$140,613,993
Systemic Safety	2	$350,000	$640,500
Total	**79**	**$102,276,420**	**$578,208,057**

Exhibit 31. Funding Obligations and Benefits by Investment Subcategory

Combined State and Local Programs	Estimated # Projects	Estimated Funding	Estimated Benefits*
Prevention	74	$93,353,120	$542,514,857
Reduction	5	$8,923,300	$35,693,200
Total	**79**	**$102,276,420**	**$578,208,057**

*Note: For this Detailed Project List the societal cost values were estimated using WSDOT specific crash costs derived using the methodology outlined in the FHWA Guide, Crash Costs for Highway Safety Analysis, 2018. Using the countermeasure type, as shown on project list, a typical cost/benefit ratio was developed. Benefits were assumed for a typical installation, as drawn from each of benefit cost sections for the respective reduction and proactive subcategories.

Appendix D: Local Program Safety Plans



This chart shows the growth in the development of Local Road Safety Plans (LRSP) within the state over the past decade. LRSPs are a data-driven, risk-based approach to safety based on the identification of roadway characteristics common to locations with fatal and serious injury crashes. Those common roadway characteristics are identified across the network and then locations are prioritized based on the presence of those factors. The development of these LRSPs means that many agencies are now using a data-driven approach to identify safety priorities across their networks and are prioritizing projects for funding based on that process. The local safety program (HSIP) has established the development of a LRSP as a baseline requirement to apply for HSIP funding for safety projects, starting with counties in 2014, expanding to cities seeking systemic safety projects in 2018, and further expanding to all cities in 2020.

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