

Local Road Safety Plans

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November 12, 2025

Agenda

- 2026 City Safety Program Basics
- Safety Trends
- Local Road Safety Plans (in 7 steps)
- Resources for Local Road Safety Plans
- Open Q&A Session 10:00-11:00

Local Road Safety Plan

Provides a data driven risk-based framework for identifying, analyzing, and prioritizing transportation safety improvements on local roads.



2026 City Safety Program

- **Key Dates**

- Call for projects opened October 2025
- Applications are due **March 6, 2026**
- Funding to be awarded fall 2026
- 100% funding for all phases authorized prior to 4/30/29

- **Estimated Funds: \$30 million** in federal Highway Safety Improvement Program (HSIP) funds.

- **Call for Projects**

<https://wsdot.wa.gov/business-wsdot/support-local-programs/funding-programs/highway-safety-improvement-program/highway-safety-improvement-program-call-projects>

City Safety Program

Training Series:

Module 1: Local Road Safety Plans

November 12, 2025 (9:00am to 11:00am)

Module 2: Effective Safety Countermeasures and Project Development

December 10, 2025 (9:00am to 11:00am)

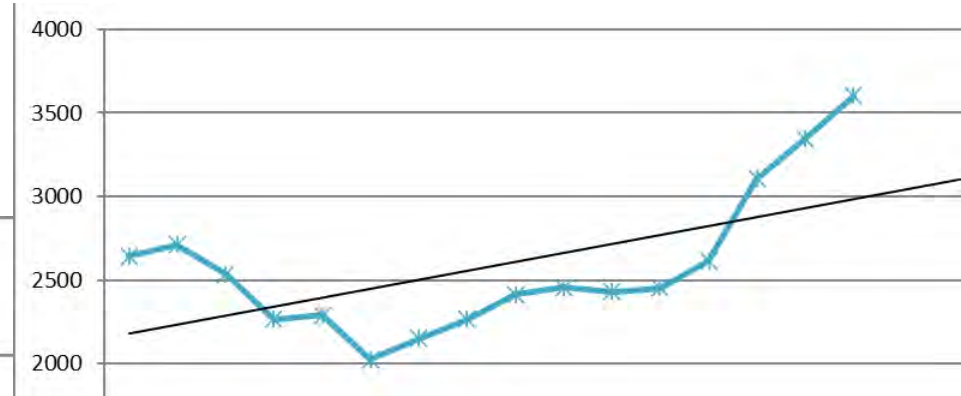
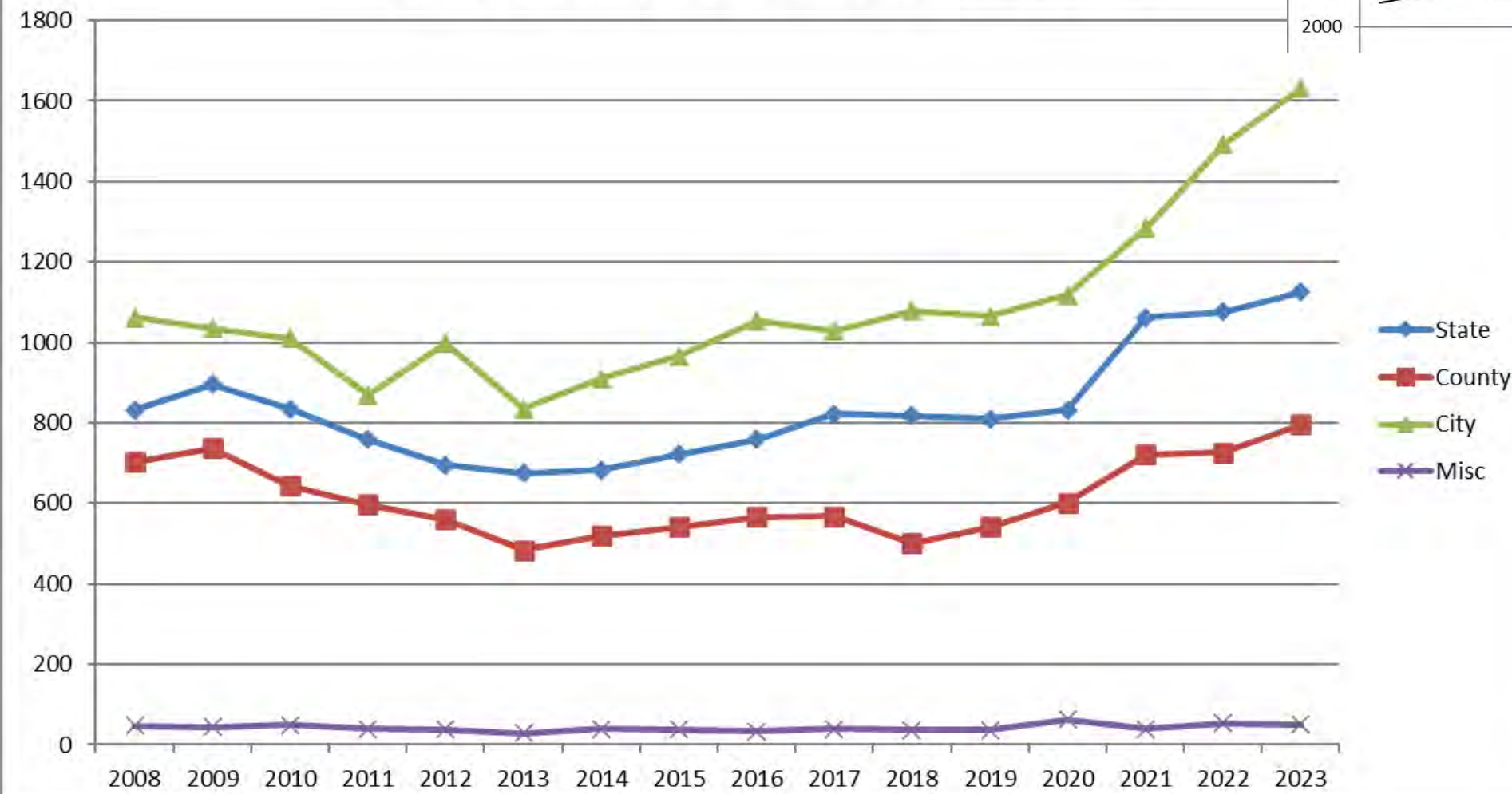
Module 3: Application Completeness and Project Delivery Considerations

January 14, 2026 (9:00am to 11:00am)

* Webinar recordings and copies of presentations will be posted on the City Safety Program Call for Projects webpage.

Safety Trends

Fatal / Suspected Serious Injury Crashes



In 2013 the number of fatalities was 436.

Total Fatalities
 2024 = 733
 2023 = 809
 2022 = 743

These are all higher than any year since 1990 (825).

Target Zero: Safe System Approach

Core Elements of the Safe System:

- Safer Roads
- Safer Speeds
- Safer Road Users
- Safer Vehicles
- Safer Land Use
- Post-Crash Care



Local Road Safety Plans Overview

FHWA Proven Safety Countermeasure

Focus on **Systemic Safety**

- Proactive
- Data-Driven
- Risk Factor Based
- Cost Effective

Local Road Safety Plans

A local road safety plan (LRSP) provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads. The LRSP development process and content are tailored to local issues and needs. The process results in a prioritized list of issues, risks, actions, and improvements that can be used to reduce fatalities and serious injuries on local roads. FHWA has developed several resources including an LRSP Do-It-Yourself website which further explains the process and includes resources local agencies and their partners need to create and implement an LRSP.¹

Safety Benefits:
Agencies have experienced the following benefits after LRSP implementation:

- 25%** reduction in county road fatalities in Minnesota.
- 17%** reduction in fatal and serious injury crashes on county-owned roads in Washington State.
- 35%** reduction in severe curve crashes in Thurston County, WA.

Approximately 75 percent of rural roads are owned by local agencies.² While local roads are less traveled than State highways, they have a much higher rate of fatal and serious injury crashes.³ Developing an LRSP is an effective strategy to improve local road safety for all road users and support the goals of a State's overall Strategic Highway Safety Plan (SHSP).

Although the development process and resulting plan can vary depending on the local agency's needs, available resources, and targeted crash types, aspects common to LRSPs include:

- Stakeholder engagement representing the 4E's: engineering, enforcement, education, and emergency medical services.
- Collaboration among municipal, county, Tribal, State, and/or Federal entities to leverage expertise and resources.
- Identification of target crash types and crash risk with corresponding recommended proven safety countermeasures.
- Timeline and goals for implementation and evaluation.

Local road agencies should consider developing an LRSP to be used as a tool for reducing roadway fatalities, injuries, and crashes.³ LRSPs can help agencies create a prioritized list of improvements. LRSPs are also a proactive risk management technique to demonstrate an agency's responsiveness. The plan should be viewed as a living document that can be updated to reflect changing local needs and priorities.

LOCAL ROAD SAFETY PLANS:
The LRSP development process includes: 1. Identify local road safety issues and needs. 2. Analyze and prioritize issues and needs. 3. Develop a plan of action. 4. Implement and evaluate the plan. 5. Update the plan as needed.

Infographic showing the LRSP process. Source: FHWA

For more information on this and other FHWA Proven Safety Countermeasures, please visit <https://highways.dot.gov/safety/proven-safety-countermeasures> and <https://highways.dot.gov/safety/local-rural/local-road-safety-plans>.

FHWA-SA-21-033

1 <https://highways.dot.gov/safety/local-rural/local-road-safety-plans>
2 Anderson et al. Noteworthy Practices: Addressing Safety on Locally-Owned and Maintained Roads. A Domestic Scan. FHWA-SA-09-019. (2010).
3 Developing Safety Plans: A Manual for Local Road Owners. FHWA-SA-12-017. provides guidance on developing an LRSP.

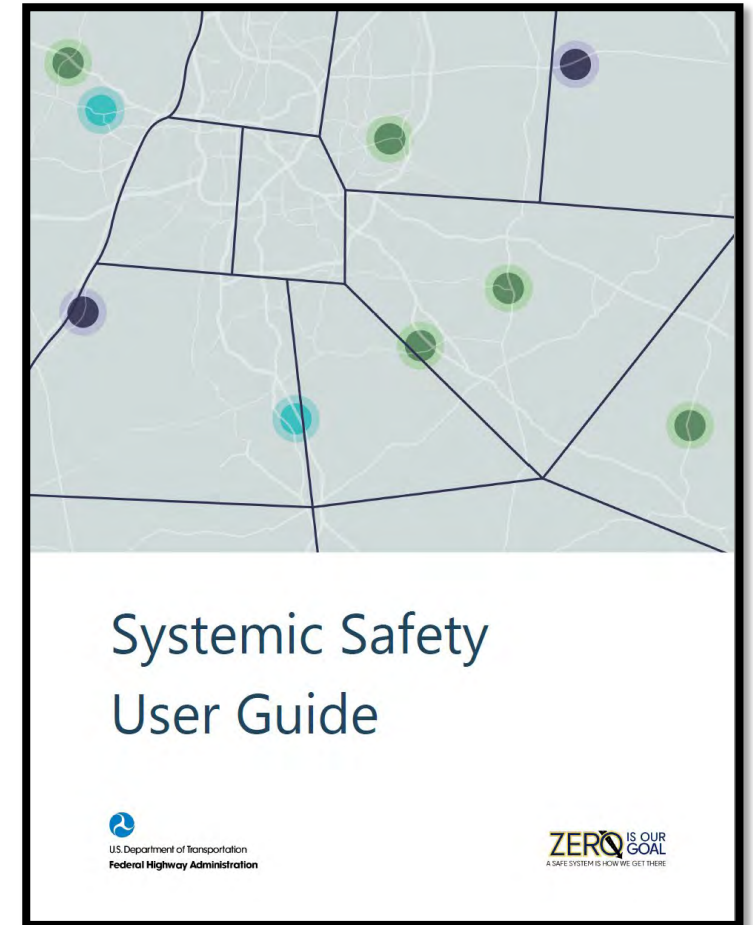
OFFICE OF SAFETY
Proven Safety Countermeasures

ZERO IS OUR GOAL
SAFER PEOPLE. SAFER PLACES.

Local Road Safety Plan Requirement

A safety planning process that includes a *Systemic Safety Analysis and Project Prioritization*:

- Vision Zero Plans
- Comprehensive Safety Action Plans
- Local Road Safety Plans



Local Road Safety Plans Additional Considerations

Stakeholder and Public Engagement

- Internal
 - Law Enforcement
 - EMS
 - Public Health
 - Elected Officials
- External Stakeholders and Community Engagement

Plan Approval– Agency specific (Not required for HSIP funding)

Local Road Safety Plans

Local Road Safety Plan Step		Plan Element
1	Analyze data to identify focus/priorities	List of crash priorities based on data
2	Analyze individual fatal/serious crashes to identify risk factors	Description of risk factors & selection process
3	Select most common risk factors	
4	Analyze roadway network for presence of risk factors	Prioritized list of roadway locations
5	Create a prioritized list of roadway locations	
6	Identify countermeasures to address prioritized locations	Description of countermeasures & selection process
7	Develop a prioritized list of projects	Prioritized list of projects

LRSP Step 1

Local Road Safety Plan Step		Plan Element
1	Analyze data to identify focus/priorities	List of crash priorities based on data
2	Analyze individual fatal/serious crashes to identify risk factors	Description of risk factors & selection process
3	Select most common risk factors	
4	Analyze roadway network for presence of risk factors	
5	Create a prioritized list of roadway locations	Prioritized list of roadway locations
6	Identify countermeasures to address prioritized locations	Description of countermeasures & selection process
7	Develop a prioritized list of projects	Prioritized list of projects

Step 1: Analyze Summary Data to Identify Focus/Priorities

WSDOT Local Programs Crash Data Summary																	
Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.																	
City Name																	
City Population: XXXXX																	
Summary Fatal-Serious Only								Summary All Injuries									
Summary		Total	%	2024	2023	2022	2020	Summary		Total	%	2024	2023	2022	2021	2020	
Count		12		1	2	5	4	Count		643		125	131	110	144	133	
# of Fatal Collisions		1	8%	0	0	0	1	# of Fatal Collisions		1	0%	0	0	0	0	1	
Total # of Fatalities		1	8%	0	0	0	1	Total # of Fatalities		1	0%	0	0	0	0	1	
# of Susp. Serious Inj. Collisions		11	92%	1	2	5	3	# of Susp. Serious Inj. Collisions		11	2%	1	2	5	0	3	
# of Alcohol-Related Collisions		0	0%	0	0	0	0	# of Alcohol-Related Collisions		43	7%	15	6	10	8	4	
Total # of Fatalities		1	8%	0	0	0	1	Total # of Fatalities		1	0%	0	0	0	0	1	
Total # of Injuries		12		1	2	6	3	Total # of Injuries		186		36	39	36	32	43	
Crash Type																	
Crash Type	Total	Count	%	2024	2023	2022	2020	Crash Type	Total	Count	%	2024	2023	2022	2021	2020	
Hit Pedestrian	7	7	58.33%		1	3	3	Angle (T)	262	262	40.75%	43	59	52	58	50	
Angle (T)	2	2	16.67%	1	1			Hit Parked Car	138	138	21.46%	37	31	23	31	16	
Angle (Left Turn)	1	1	8.33%			1		Hit Fixed Object	68	68	10.58%	14	11	7	18	18	
Hit Parked Car	1	1	8.33%			1		Rearend	45	45	7.00%	8	4	7	14	12	
Overturn	1	1	8.33%				1	Angle (Left Turn)	38	38	5.91%	5	7	7	7	12	
								Other	31	31	4.82%	5	7	4	6	9	
								Hit Pedestrian	14	14	2.18%	2	3	3	1	5	
								Sideswipe (Same Direction)	13	13	2.02%	3	1	2	6	1	
								Hit Cyclist	10	10	1.56%	4	2	1		3	
								Sideswipe (Opposite Direction)	9	9	1.40%			3	2	1	3
								Angle (Right)	7	7	1.09%	3	2		1	1	
								Overturn	3	3	0.47%		1	1		1	
								Head-On	2	2	0.31%			1		1	
								Wildlife/ Animal	2	2	0.31%	1			1		
								Railway	1	1	0.16%					1	
Roadway Surface Condition																	
Surface	Total	Count	%	2024	2023	2022	2020	Surface	Total	Count	%	2024	2023	2022	2021	2020	
Dry	7	7	58.33%	1	2	1	3	Dry	436	436	67.81%	82	95	76	93	90	
Wet	5	5	41.67%			4	1	Wet	188	188	29.24%	42	35	29	42	40	
								Unknown	8	8	1.24%	1	1	2	2	2	
								Snow/Slush	6	6	0.93%				5	1	
								Ice	5	5	0.78%			3	2		
Roadway Surface Type																	
Surface Type	Total	Count	%	2024	2023	2022	2020	Surface Type	Total	Count	%	2024	2023	2022	2021	2020	

WSDOT Local Programs Crash Data Report Summary

Report Overview

1	Purpose:
2	The purpose of this report is to show summarized Collision Data by requesting agency. This report is for analysis use only and should be used as a starting point for analyzing Collision Data and identifying possible safety concerns.
3	
4	
5	<i>Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.</i>
6	
7	
8	
9	
10	Data Derived From:
11	This report was created by the Washington State Department of Transportation Local Programs Engineering Services Division. Data contained in this report is from WSDOT's Crash Data and Reporting Branch COGNOS crash data portal. All of the information provided to you in this report is presented in a 5 year block, which means the latest complete years of data are shown.
12	
13	
14	
15	Report Organization:
16	This report is organized into individual tabs representing specific Crash Data Fields. Each tab is sorted by Fatal/Serious Crashes only and by All Reportable Crashes. Comparison data is displayed for further analysis.
17	
18	<i>COGNOS reports will only display attributes that contain data, so if some years of crash data do not show up in the report, it is because the jurisdiction experienced zero of those specific crash types for the given year.</i>
19	
20	
21	This report displays 17 individual Crash Data fields and their attributes.
22	For cities over 27,499 population, crashes on managed access state highways and some state highway ramp locations are included in the data summary
23	
24	Data Field Tabs:
25	Crash Summary:
26	The 'Crash Summary' tab displays summarized data for both Fatal/Serious and All Reportable Crashes. Data displayed on this tab is limited to only the requesting agency data.
27	
28	Individual Crash Field Tabs:
29	Each tab displays the reporting agencies data for a specific Crash Data Field. Summarized comparison data for additional analysis along with a visual graph of the reporting agencies data is displayed.
30	
31	Data Summary:
32	The 'Data Summary' tab show the raw data for the requesting agency only. The data on this tab is the Crash Data used to populate this report.
33	
34	

Report Overview

Crash City Summary

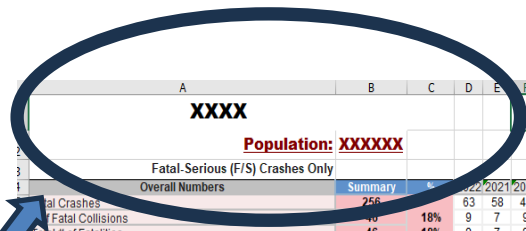
By Crash Type

By Roadway Surface

By Roadway Surface Type

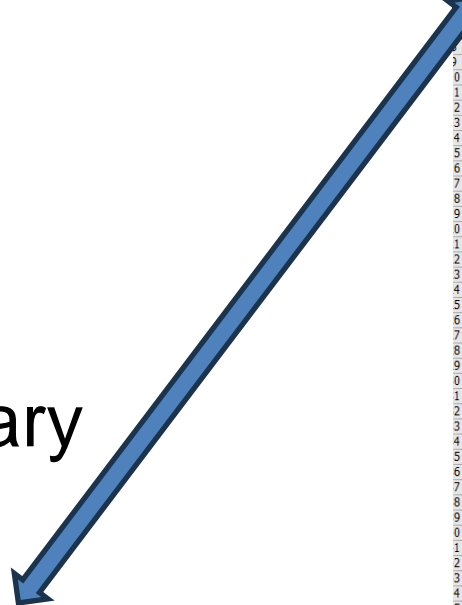
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Crash Data Report Summary



Population: XXXXXX

City/County Summary



Fatal-Serious (F/S) Crashes Only		Total Crashes (All)	
Overall Numbers		Overall Numbers	
Summary	2022 2021 2020 2019 2018	Summary	2022 2021 2020 2019 2018
Total Crashes	256	11,606	
Total # of Fatalities	46	46	
# of Susp. Serious Inj. Collisions	210	210	
Total # of Fatalities	46	46	
Total # of Injuries	335	4,624	

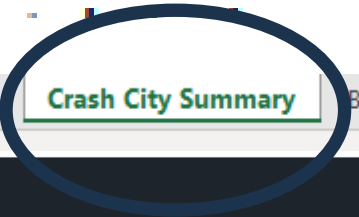
By Crash Type (F/S)		By Crash Type (All)	
Summary	2022 2021 2020 2019 2018	Summary	2022 2021 2020 2019 2018
Hit Pedestrian	78 30.47%	3,347 28.84%	
Angle (T)	48 18.75%	3,006 25.90%	
Hit Fixed Object	35 13.67%	1,291 11.12%	
Rearend	22 8.59%	1,273 10.97%	
Angle (Left Turn)	21 8.20%	1,093 9.42%	
Other	13 5.08%	447 3.85%	
Head-On	11 4.30%	313 2.70%	
Hit Cyclist	9 3.52%	284 2.45%	
Sideswipe (Opposite Direction)	8 3.13%	232 2.00%	
Overtake	5 1.95%	95 0.82%	
Hit Parked Car	2 0.78%	93 0.80%	
Sideswipe (Same Direction)	2 0.78%	77 0.66%	
Angle (Right)	1 0.39%	49 0.42%	
Railway	1 0.39%	5 0.04%	
		1 0.01%	

By Surface Condition (F/S)		By Surface Condition (All)	
Summary	2022 2021 2020 2019 2018	Summary	2022 2021 2020 2019 2018
Dry	185 72.27%	7,835 67.51%	
Wet	67 26.17%	3,482 30.00%	
Ice	2 0.78%	123 1.06%	
Snow/Slush	2 0.78%	60 0.52%	
		16 0.14%	
		3 0.03%	
		3 0.03%	
		2 0.02%	
		2 0.02%	

By Lighting Conditions (F/S)		By Lighting Conditions (All)	
Summary	2022 2021 2020 2019 2018	Summary	2022 2021 2020 2019 2018
Dark-Street Lights On	124 48.44%	7,596 65.45%	
Davlight	107 41.80%	3,151 27.15%	
Dark-No Street Lights	13 5.08%	318 2.74%	
Dusk	5 1.95%	218 1.88%	

City or County Name

Population: 123456

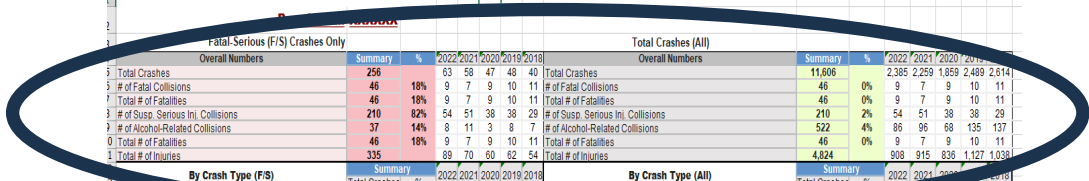
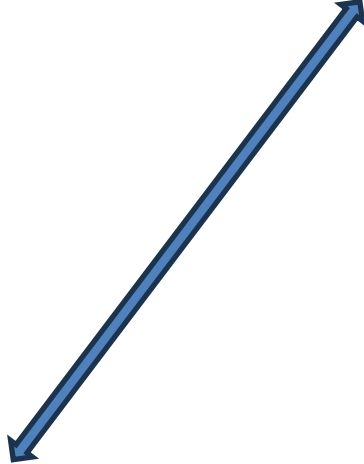


Crash Data Report Summary

City/County Summary

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Fatal-Serious (F/S) Crashes Only							Total Crashes (All)								
Overall Numbers	Summary	%	2022	2021	2020	2019	2018	Overall Numbers	Summary	%	2022	2021	2020	2019	2018
Total Crashes	256		63	58	47	48	40	Total Crashes	11,606		2,385	2,259	1,859	2,489	2,614
# of Fatal Collisions	46	18%	9	7	9	10	11	# of Fatal Collisions	46	0%	9	7	9	10	11
Total # of Fatalities	46	18%	9	7	9	10	11	Total # of Fatalities	46	0%	9	7	9	10	11
# of Susp. Serious Inj. Collisions	210	82%	54	51	38	38	29	# of Susp. Serious Inj. Collisions	210	2%	54	51	38	38	29
# of Alcohol-Related Collisions	37	14%	8	11	3	8	7	# of Alcohol-Related Collisions	522	4%	86	96	68	135	137
Total # of Fatalities	46	18%	9	7	9	10	11	Total # of Fatalities	46	0%	9	7	9	10	11
Total # of Injuries	335		89	70	60	62	54	Total # of Injuries	4,824		908	915	836	1,127	1,038



Fatal-Serious (F/S) Crashes Only							Total Crashes (All)								
Overall Numbers	Summary	%	2022	2021	2020	2019	2018	Overall Numbers	Summary	%	2022	2021	2020	2019	2018
Total Crashes	256		63	58	47	48	40	Total Crashes	11,606		2,385	2,259	1,859	2,489	2,614
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# of Alcohol-Related Collisions	37	14%	8	11	3	8	7	# of Alcohol-Related Collisions	522	4%	86	96	68	135	137
Total # of Fatalities	46	18%	9	7	9	10	11	Total # of Fatalities	46	0%	9	7	9	10	11
Total # of Injuries	335		89	70	60	62	54	Total # of Injuries	4,824		908	915	836	1,127	1,038

Crash City Summary

Crash Data Report Summary

City/County Summary

XXXX

Population: XXXXXX

Fatal Serious (F/S) Crashes Only						Total Crashes (All)											
Overall Numbers		Summary	%	2022	2021	2020	2019	2018	Overall Numbers		Summary	%	2022	2021	2020	2019	2018
Total Crashes	256	63	24.6%	58	47	48	40	40	Total Crashes	11,606	2,385	2,259	1,859	2,489	2,514	2,614	
# of Fatal Collisions	46	18%	9	7	9	10	11	11	# of Fatal Collisions	46	0%	9	7	9	10	11	
Total # of Fatalities	46	18%	9	7	9	10	11	11	Total # of Fatalities	46	0%	9	7	9	10	11	
# of Susp. Serious Inj. Collisions	210	82%	54	51	38	38	29	29	# of Susp. Serious Inj. Collisions	210	2%	54	51	38	38	29	
# of Alcohol-Related Collisions	37	14%	0	1	1	1	1	1	# of Alcohol-Related Collisions	522	4%	86	96	88	105	137	
Total # of Fatalities	46								Total # of Fatalities	46							
Total # of Injuries	89	35%	70	80	62	54	54	54	Total # of Injuries	908	8%	915	836	1,127	1,038	1,038	

By Crash Type (F/S)						By Crash Type (All)											
Total Crashes		Summary	%	2022	2021	2020	2019	2018	Total Crashes		Summary	%	2022	2021	2020	2019	2018
Hit Pedestrian	78	30.47%	14	18	15	17	14	14	Rearend	3,347	28.84%	616	660	515	725	831	
Angle (T)	48	18.75%	18	10	11	5	4	4	Angle (T)	3,006	25.90%	652	606	471	667	610	
Hit Fixed Object	35	13.67%	6	12	6	6	5	5	Angle (Left Turn)	1,291	11.12%	262	252	204	270	303	
Rearend	22	8.59%	8	5	3	4	2	2	Sideswipe (Same Direction)	1,273	10.97%	280	213	205	279	296	
Angle (Left Turn)	21	8.20%	6	3	2	5	5	5	Hit Fixed Object	1,093	9.42%	230	207	183	235	238	
Other	13	5.08%	2	2	4	2	3	3	Other	447	3.85%	91	98	78	77	103	
Head-On	11	4.30%	5	1	2	1	2	2	Hit Parked Car	313	2.70%	76	69	46	64	58	
Hit Cyclist	9	3.52%	1	4	1	2	1	1	Hit Pedestrian	284	2.45%	48	49	57	60	70	
Sideswipe (Opposite Direction)	8	3.13%		2	2	2	2	2	Angle (Right)	232	2.00%	60	37	49	41	45	
Overturn	5	1.95%	1		1	2	1	1	Sideswipe (Opposite Direction)	95	0.82%	23	20	13	16	23	
Hit Parked Car	2	0.78%		1					Hit Cyclist	93	0.80%	16	18	17	23	19	
Sideswipe (Same Direction)	2	0.78%					2		Head-On	77	0.66%	19	20	12	16	10	
Angle (Right)	1	0.39%	1						Overturn	49	0.42%	9	8	9	16	7	
Railway	1	0.39%	1						Wildlife/ Animal	5	0.04%	2	2			1	
									Railway	1	0.01%	1					

By Surface Condition (F/S)						By Surface Condition (All)											
Total Crashes		Summary	%	2022	2021	2020	2019	2018	Total Crashes		Summary	%	2022	2021	2020	2019	2018
Dry	185	72.27%	49	38	33	38	27	27	Dry	7,835	67.51%	1,720	1,476	1,232	1,686	1,721	
Wet	67	26.17%	13	19	12	10	13	13	Wet	3,482	30.00%	579	727	593	730	853	
Ice	2	0.78%	1		1				Ice	123	1.06%	38	18	14	40	13	
Snow/Slush	2	0.78%			1				Unknown	80	0.69%	25	24	12	13	6	
									Snow/Slush	60	0.52%	20	12	5	15	8	
									Standing Water	16	0.14%	3	1	2	1	9	
									Other	3	0.03%				1	2	
									Oil	3	0.03%				1	1	
									Other	2	0.02%				1	1	
									Sand/Mud/Dirt	2	0.02%				1	1	

By Lighting Conditions (F/S)						By Lighting Conditions (All)											
Total Crashes		Summary	%	2022	2021	2020	2019	2018	Total Crashes		Summary	%	2022	2021	2020	2019	2018
Dark-Street Lights On	124	48.44%	34	29	21	19	21	21	Daylight	7,596	65.45%	1,569	1,441	1,219	1,444	1,719	
Daylight	107	41.80%	24	22	23	22	16	16	Dark-Street Lights On	3,151	27.15%	663	630	511	644	727	
Dark-No Street Lights	13	5.08%	2	3	2	3	3	3	Dusk	318	2.74%	66	75	66	75	62	
Dusk	5	1.95%	2	1	2				Dark-No Street Lights	311	2.68%	43	50	25	56	44	

By Crash Type (F/S)			Summary						By Crash Type (All)			Summary					
Total Crashes		%	2022	2021	2020	2019	2018	Total Crashes		%	2022	2021	2020	2019	2018		
Hit Pedestrian	78	30.47%	14	18	15	17	14	Rearend	3,347	28.84%	616	660	515	725	831		
Angle (T)	48	18.75%	18	10	11	5	4	Angle (T)	3,006	25.90%	652	606	471	667	610		
Hit Fixed Object	35	13.67%	6	12	6	6	5	Angle (Left Turn)	1,291	11.12%	262	252	204	270	303		
Rearend	22	8.59%	8	5	3	4	2	Sideswipe (Same Direction)	1,273	10.97%	280	213	205	279	296		
Angle (Left Turn)	21	8.20%	6	3	2	5	5	Hit Fixed Object	1,093	9.42%	230	207	183	235	238		
Other	13	5.08%	2	2	4	2	3	Other	447	3.85%	91	98	78	77	103		
Head-On	11	4.30%	5	1	2	1	2	Hit Parked Car	313	2.70%	76	69	46	64	58		
Hit Cyclist	9	3.52%	1	4	1	2	1	Hit Pedestrian	284	2.45%	48	49	57	60	70		
Sideswipe (Opposite Direction)	8	3.13%		2	2	2	2	Angle (Right)	232	2.00%	60	37	49	41	45		
Overturn	5	1.95%	1		1	2	1	Sideswipe (Opposite Direction)	95	0.82%	23	20	13	16	23		
Hit Parked Car	2	0.78%		1			1	Hit Cyclist	93	0.80%	16	18	17	23	19		
Sideswipe (Same Direction)	2	0.78%					2	Head-On	77	0.66%	19	20	12	16	10		
Angle (Right)	1	0.39%	1					Overturn	49	0.42%	9	8	9	16	7		
Railway	1	0.39%	1					Wildlife/ Animal	5	0.04%	2	2			1		
								Railway	1	0.01%	1						

By Surface Condition (F/S)			Summary						By Surface Condition (All)			Summary					
Total Crashes		%	2022	2021	2020	2019	2018	Total Crashes		%	2022	2021	2020	2019	2018		
Dry	185	72.27%	49	38	33	38	27	Dry	7,835	67.51%	1,720	1,476	1,232	1,686	1,721		
Wet	67	26.17%	13	19	12	10	13	Wet	3,482	30.00%	579	727	593	730	853		
Ice	2	0.78%	1		1			Ice	123	1.06%	38	18	14	40	13		
Snow/Slush	2	0.78%			1			Unknown	80	0.69%	25	24	12	13	6		
								Snow/Slush	60	0.52%	20	12	5	15	8		
								Standing Water	16	0.14%	3	1	2	1	9		
								Other	3	0.03%				1	2		
								Oil	3	0.03%				1	1		
								Other	2	0.02%				1	1		
								Sand/Mud/Dirt	2	0.02%				1	1		

By Lighting Conditions (F/S)			Summary						By Lighting Conditions (All)			Summary					
Total Crashes		%	2022	2021	2020	2019	2018	Total Crashes		%	2022	2021	2020	2019	2018		
Dark-Street Lights On	124	48.44%	34	29	21	19	21	Daylight	7,596	65.45%	1,569	1,441	1,219	1,444	1,719		
Daylight	107	41.80%	24	22	23	22	16	Dark-Street Lights On	3,151	27.15%	663	630	511	644	727		
Dark-No Street Lights	13	5.08%	2	3	2	3	3	Dusk	318	2.74%	66	75	66	75	62		
Dusk	5	1.95%	2	1	2			Dark-No Street Lights	311	2.68%	43	50	25	56	44		

Crash City Summary

By Crash Type

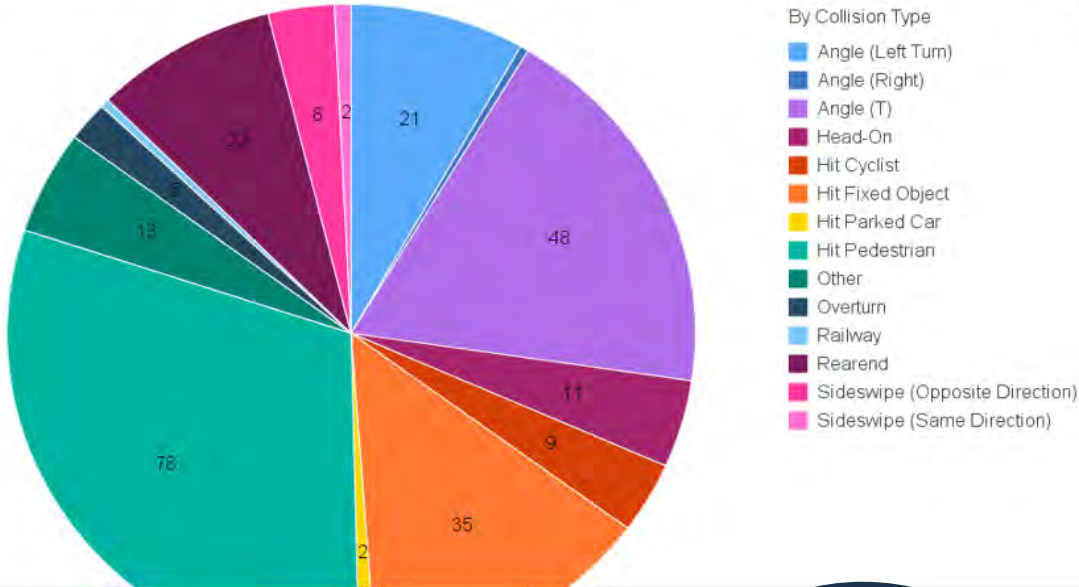
By Roadway Surface

By Roadway Surface Type ...



Crash Type (F/S)	All Rds		Crash Type (F/S)	All City Str		Crash Type (F/S)	West City Str		Crash Type (F/S)	East City Str		City or County Name							
	Total Crashes	%		Total Crashes	%		Total Crashes	%		Total Crashes	%	Crash Type (F/S)	Total Crashes	%	2022	2021	2020	2019	2018
Hit Fixed Object	3,871	27.79%	Hit Fixed Object	2,435	22.89%	Hit Pedestrian	1,032	27.03%	Hit Pedestrian	264	24.33%	Hit Pedestrian	78	30.47%	14	18	15	17	14
Hit Pedestrian	2,261	16.23%	Hit Pedestrian	2,009	18.89%	Hit Fixed Object	711	18.62%	Angle (T)	243	22.40%	Angle (T)	48	18.75%	18	10	11	5	4
Angle (T)	1,745	12.53%	Angle (T)	1,380	12.97%	Angle (T)	564	14.77%	Hit Fixed Object	180	16.59%	Angle (T)	35	13.67%	6	12	6	6	5
Rearend	1,077	7.73%	Rearend	937	8.81%	Hit Cyclist	376	9.85%	Angle (Left Turn)	101	9.31%	Hit Fixed Object	22	8.59%	8	5	3	4	2
Angle (Left Turn)	1,028	7.38%	Angle (Left Turn)	827	7.78%	Angle (Left Turn)	348	9.11%	Hit Cyclist	81	7.47%	Rearend	21	8.20%	6	3	2	5	5
Overturn	916	6.58%	Overturn	604	5.68%	Rearend	152	3.98%	Overturn	47	4.33%	Angle (Left Turn)	13	5.08%	2	2	4	2	3
Head-On	702	5.04%	Hit Cyclist	586	5.51%	Head-On	140	3.67%	Rearend	42	3.87%	Other	11	4.30%	5	1	2	1	2
Hit Cyclist	670	4.81%	Head-On	518	4.87%	Other	135	3.54%	Hit Parked Car	33	3.04%	Head-On	9	3.52%	1	4	1	2	1
Other	648	4.65%	Other	505	4.75%	Hit Parked Car	123	3.22%	Head-On	32	2.95%	Hit Cyclist	8	3.13%	1	2	2	2	1
Sideswipe (Same Direction)	338	2.43%	Sideswipe (Same Direction)	313	2.94%	Overturn	123	3.22%	Other	30	2.76%	Sideswipe (Opposite Direction)	5	1.95%	1	1	2	1	1
Sideswipe (Opposite Direction)	268	1.92%	Hit Parked Car	225	2.12%	Sideswipe (Same Direction)	48	1.26%	Sideswipe (Same Direction)	21	1.94%	Overturn	2	0.78%	2	1	1	2	1
Hit Parked Car	255	1.83%	Sideswipe (Opposite Direction)	197	1.85%	Sideswipe (Opposite Direction)	41	1.07%	Sideswipe (Opposite Direction)	7	0.65%	Hit Parked Car	2	0.78%	1	1	1	1	1
Wildlife/ Animal	94	0.67%	Wildlife/ Animal	55	0.52%	Angle (Right)	14	0.37%	Angle (Right)	3	0.28%	Sideswipe (Same Direction)	2	0.78%	2	1	1	1	1
Angle (Right)	45	0.32%	Angle (Right)	37	0.35%	Railway	8	0.21%	Wildlife/ Animal	1	0.09%	Angle (Right)	1	0.39%	1	1	1	1	1
Railway	12	0.09%	Railway	8	0.08%	Wildlife/ Animal	3	0.08%	Railway	1	0.09%	Railway	1	0.39%	1	1	1	1	1

City or County Name



Data Fields Reported in Summary– 18 Tabs

- **Crash Type**
- **Roadway Surface Condition**
- **Roadway Surface Type**
- **Lighting Condition**
- **Junction Relationship**
- **Roadway Character (Curvature)**
- **First Object Struck**
- **Driver Contributing Circumstances**
- **Vehicle Actions**
- **Vehicle Type**
- **Traffic Control**
- **Posted Speed**
- **Roadway Type**
- **Pedestrian Contributing Circumstances**
- **Pedestrian Was Using**
- **Pedalcycle Contributing Circumstances**
- **Pedalcycle Was Using**
- **Data Summary**

Level of Review (WSDOT Analyst)

Accept what the law enforcement officer submits.
WSDOT analyst to review and update as needed.

Accept: Submitted by Law Enforcement

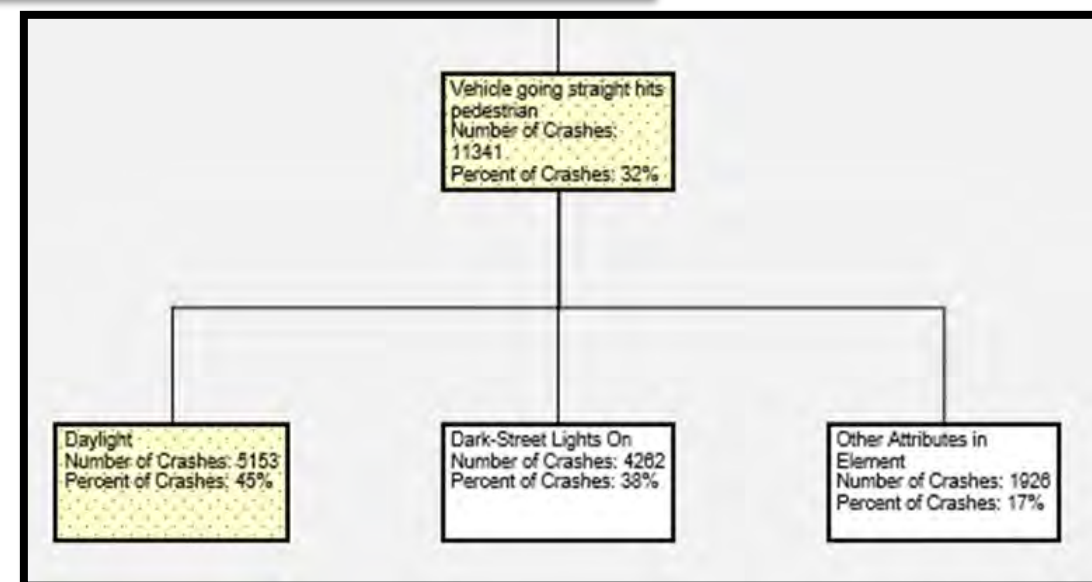
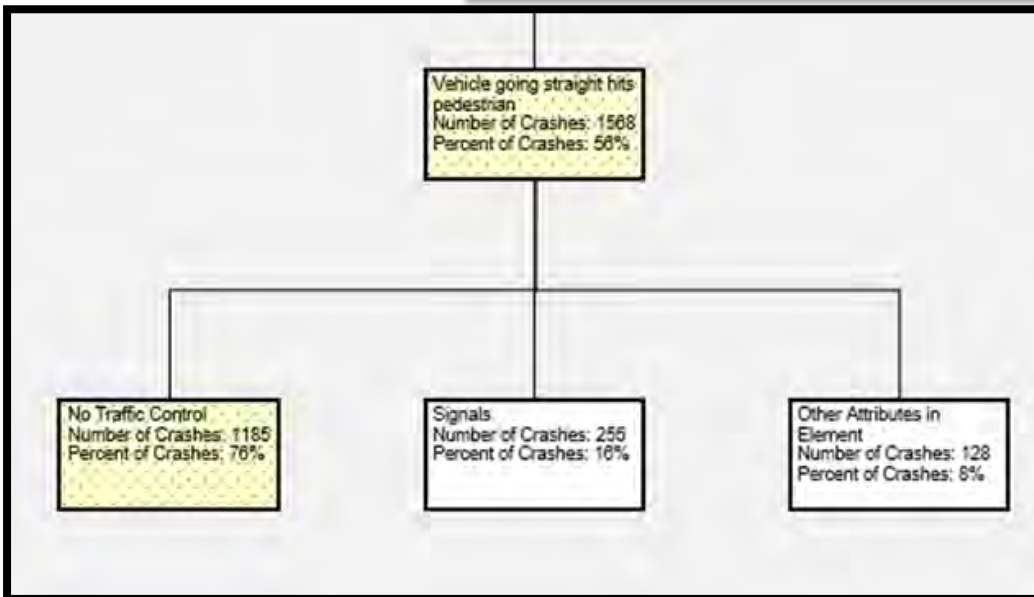
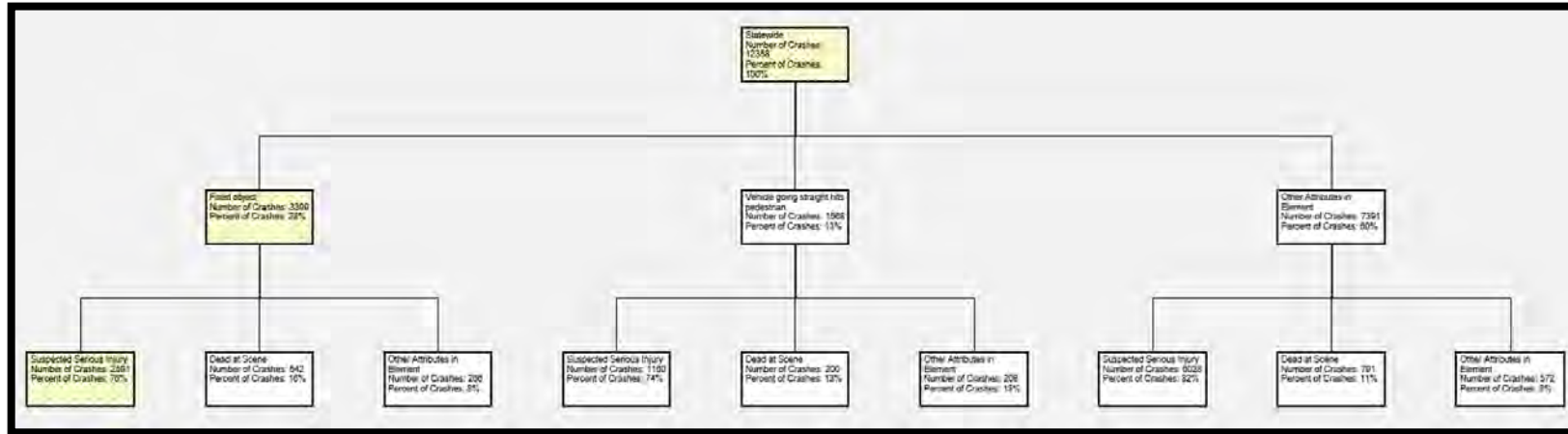
- Roadway Surface Condition
- Weather Conditions
- Lighting Conditions
- Work Zone Location & Type
- Location & Roadway Character
- Hazardous Materials
- Traffic Control
- Posted Speed*
- Type of Roadway
- Roadway Surface Type & Conditions
- Commercial Vehicle Classification
- Ped/Pedal Was Using, Clothing, Actions
- Driver CC's, Ped CC's, Bike CC's

Reviewed and/or updated by (WSDOT Analyst)

- Unit Numbering
- Type of Intersection
- 1st & 2nd Impact Location
- First and/or Second Collision Type
- First and /or Section Object Struck
- Vehicle Type
- Vehicle Actions

FHWA Crash Tree Diagram Tool

<https://highways.dot.gov/safety/rwd/forrrwd/fhwa-crash-tree-diagram-tool>



Additional Resources and Information

For additional information on PTCR codes, Help with Data Summary Report or Creating Crash Trees:

Paul Snow

Safety Analyst

WSDOT Local Programs

paul.snow@wsdot.wa.gov

360-705-7380

Crash Data research:

Data Catalog:

<http://webapps.wsdot.loc/InformationTechnology/EnterpriseApplications/MetadataMgmt/>

FHWA Crash Tree Diagram Tool:

<https://highways.dot.gov/safety/rwd/forrrwd/fhwa-crash-tree-diagram-tool>

[FHWA Crash Tree Tool - Search](#)

LRSP Step 2

Local Road Safety Plan Step		Plan Element
1	Analyze data to identify focus/priorities	List of crash priorities based on data
2	Analyze individual fatal/serious crashes to identify risk factors	Description of risk factors & selection process
3	Select most common risk factors	
4	Analyze roadway network for presence of risk factors	
5	Create a prioritized list of roadway locations	Prioritized list of roadway locations
6	Identify countermeasures to address prioritized locations	Description of countermeasures & selection process
7	Develop a prioritized list of projects	Prioritized list of projects

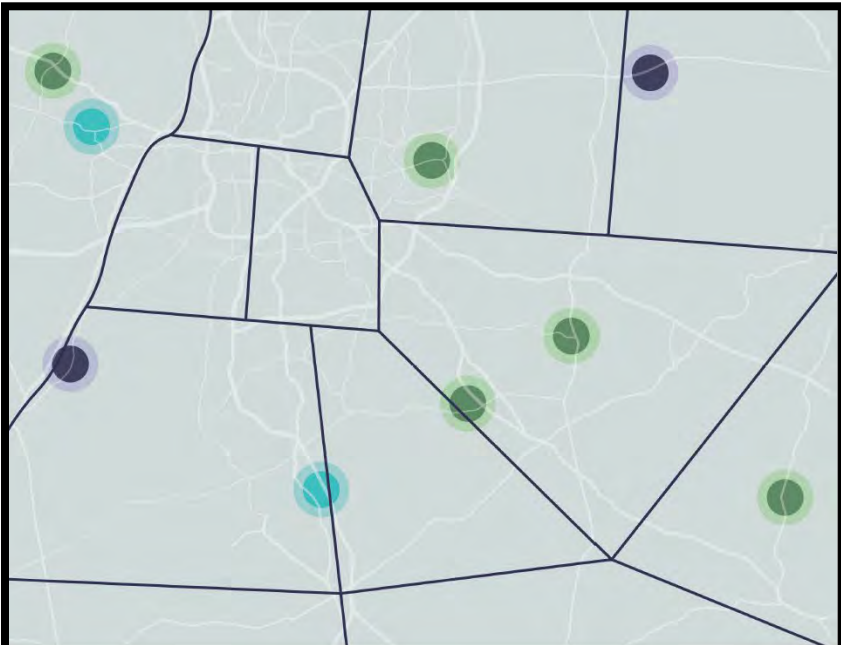
Step 2: Analyze Individual Fatal/Serious Crashes to Identify Risk Factors

Intersection

- Crash 1
- Crash 2
- Crash 3
- Crash 4
- Crash 61, etc.



Risk Factors



Systemic Safety User Guide



Typical Risk Factors

Agencies have used an extensive range of risk factors for systemic safety projects, including:

- Aberrant behavior (e.g., seat-belt surveys, distracted driving surveys).
- Access control.
- Area type (urban or rural).
- Bicycle facility type and presence.
- Bicyclist volume.
- Citations.
- Crosswalks.
- Demographic factors.
- Distance to trauma center.
- Edge drop-offs.
- Equity measures.
- Facility type.
- Friction availability or demand.
- Functional class.
- Geographic area.
- Horizontal curve geometry.
- Intersection skew angle.
- Lack of common countermeasures (e.g., lack of pavement markings, curve warning signage, stop bars at intersections).
- Land use.
- Lane or surface width.
- Lighting presence or type.
- Likelihood of associated crash types (e.g., impaired crashes for lane departure crashes, unbelted driving crashes for young driver crashes).
- Median type.
- Median width.
- Number of access points.
- Number of lanes.
- Pedestrian volume.
- Pedestrian facility type and presence.
- Posted speed limit.
- Presence of a visual trap.
- Proximity to interchange.
- Roadway ownership.
- Shoulder type.
- Shoulder width.
- Sidewalk presence.
- Slopes (roadside and median).
- Socioeconomic factors.
- Target crash frequency, severity, density, etc.
- Terrain.
- Traffic volume.
- Transit stops.
- Trip generators.
- Truck traffic.
- Vertical geometry.
- Weather data.

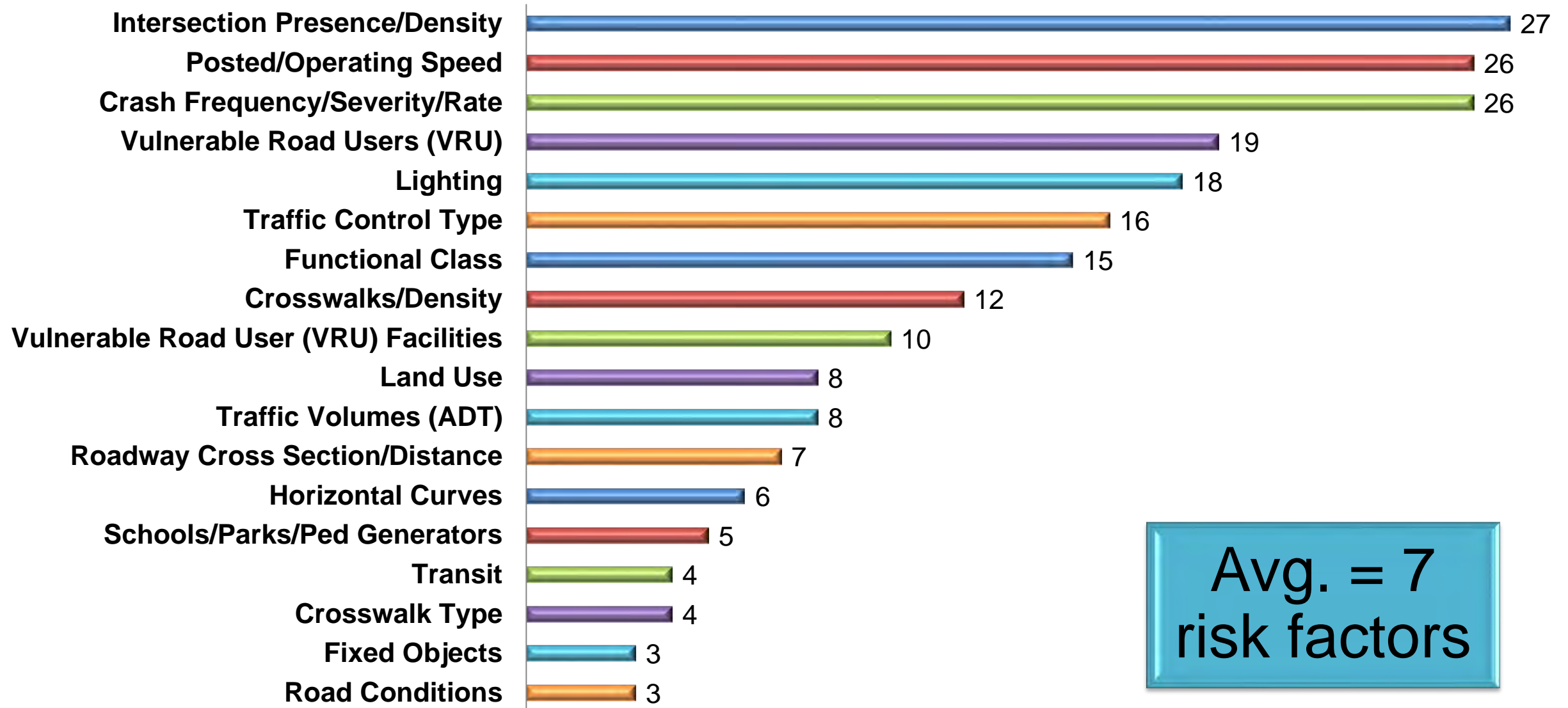


<https://highways.dot.gov/safety/data-analysis-tools/systemic>

Checklist

Sample Risk Factor Checklist	Specific Values				Ranges			
Roadway								
Number of Lanes	# Lanes				2-Lane		3+ Lanes	
Lane Width	Lane Width				< 10 Feet		10-12 Feet	
Roadway Gradient	Grade %				Level		Hilly	12+ Feet
Pavement Condition & Friction	Condition	Good/Fair/Poor	Friction Value		Low Friction		Avg Friction	Mountainous
Posted Speed Limit or Operating Speed	Posted Speed		Operating Speed		< 40 mph		40-45 mph	50+ mph
Functional Classification	FC				Arterial		Collector	Local
Roadway Surface Type	Type				Asphalt		BST	Gravel/Dirt
Recovery Area								
Shoulder Width	Width				0-2 Feet		2-4 Feet	4+ Feet
Shoulder Surface Type	Type							
Roadside or Edge Hazard Rating	Rating				Good		OK	Not So Good
Embankment Slope & Height	Slope		Height		1:1 to 1:3		1:3 to 1:5	1:5+
Presence of Safety Edge	Safety Edge	Yes / No						
Horizontal Curves								
Horizontal Curvature & Radius	Curve	Yes / No			< 500 Feet		500-1000 Feet	1000+ Feet
Superelevation	Super	Yes / No	Appropriate	Yes / No				
Horizontal Curve Presence of Delineation or Advance Warning Devices	Delineation	Yes / No	Advance Warning	Yes / No				
Horizontal Curve Density	# / Mile							
Horizontal Curve & Tangent Speed Differential	MPH Difference				5 mph		10 mph	15+ mph
Presence of a Visual Trap at a Curve or Combinations of Vertical Grade & Horizontal Curvature	Visual Trap	Yes / No	Vertical Grade	Yes / No				
Key Features								
Driveway Presence & Density	Driveway	Yes / No	Density		1-5 / Mile		6-10 / Mile	10+ / Mile
Presence of Shoulder or Centerline Rumble Strips	Shoulder RS	Yes / No	Centerline RS	Yes / No				
Presence of Lighting	Lighting	Yes / No						
Presence of Pedestrians or Bicycles	Peds	Yes / No	Bikes	Yes / No	Low Volume		Mid Volume	High Volume
Presence of Nearby Railroad Crossing	RR Xing	Yes / No						
Intersection Details								
Intersection Traffic Control Device	Traffic Control				2-Way Stop		4-Way Stop	
					Roundabout		Traffic Signal	
Intersection Skew Angle	Skew	Yes / No	Angle					
Presence of Advanced Warning Signs	Warning	Yes / No						
Intersection Located in or Near Horizontal Curve	Curve	Yes / No						
Presence of Left- or Right-Turn Lanes	Left Turn Lanes	Yes / No	Right Turn Lanes	Yes / No				
Crash & Traffic Data								
Number of Previous Crashes	# Crashes				0 Crashes		1-4 Crashes	5+ Crashes
Severity of Previous Crashes	Fatal/Serious	Yes / No			Fatal		Serious Injury	Minor Injury
Average Daily Traffic Volumes	Volume				< 250		250-1000	1000+
Percentage of Trucks	Truck %				Low Truck		Mid Truck	High Truck

Risk Factors Used (# Cities in 2024)





201

STOP

NEW HOMES
\$600's





HARRISON AVE

C.R. England

C.R. England



LRSP Step 3

Local Road Safety Plan Step		Plan Element
1	Analyze data to identify focus/priorities	List of crash priorities based on data
2	Analyze individual fatal/serious crashes to identify risk factors	Description of risk factors & selection process
3	Select most common risk factors	
4	Analyze roadway network for presence of risk factors	Prioritized list of roadway locations
5	Create a prioritized list of roadway locations	
6	Identify countermeasures to address prioritized locations	Description of countermeasures & selection process
7	Develop a prioritized list of projects	Prioritized list of projects

Step 3: Select Most Common Risk Factors

Intersection

- Traffic Control Type
- Traffic Volume
- Lighting
- Turn Lanes
- Posted Speed

Pedestrian

- Posted Speed
- Pedestrian Volume
- Crossing Distance
- Lighting
- Ped/Bike Facilities

Qualitative & Surrogate Data

- **Use the data that you have**
- **Use qualitative ratings when needed**
 - Good, Fair, Not-So-Good (curve radius, roadside, etc.)
 - Number per segment, roadway (curves, driveways, intersections, etc.)
 - High, Medium, Low (traffic volumes, pedestrian volumes, crash frequency, etc.)
- **Use surrogate data when needed**
 - Land use vs ped volume, functional class vs roadway cross section
- **It is important to include the risk factors that are key to your roadway network**

Pedestrian

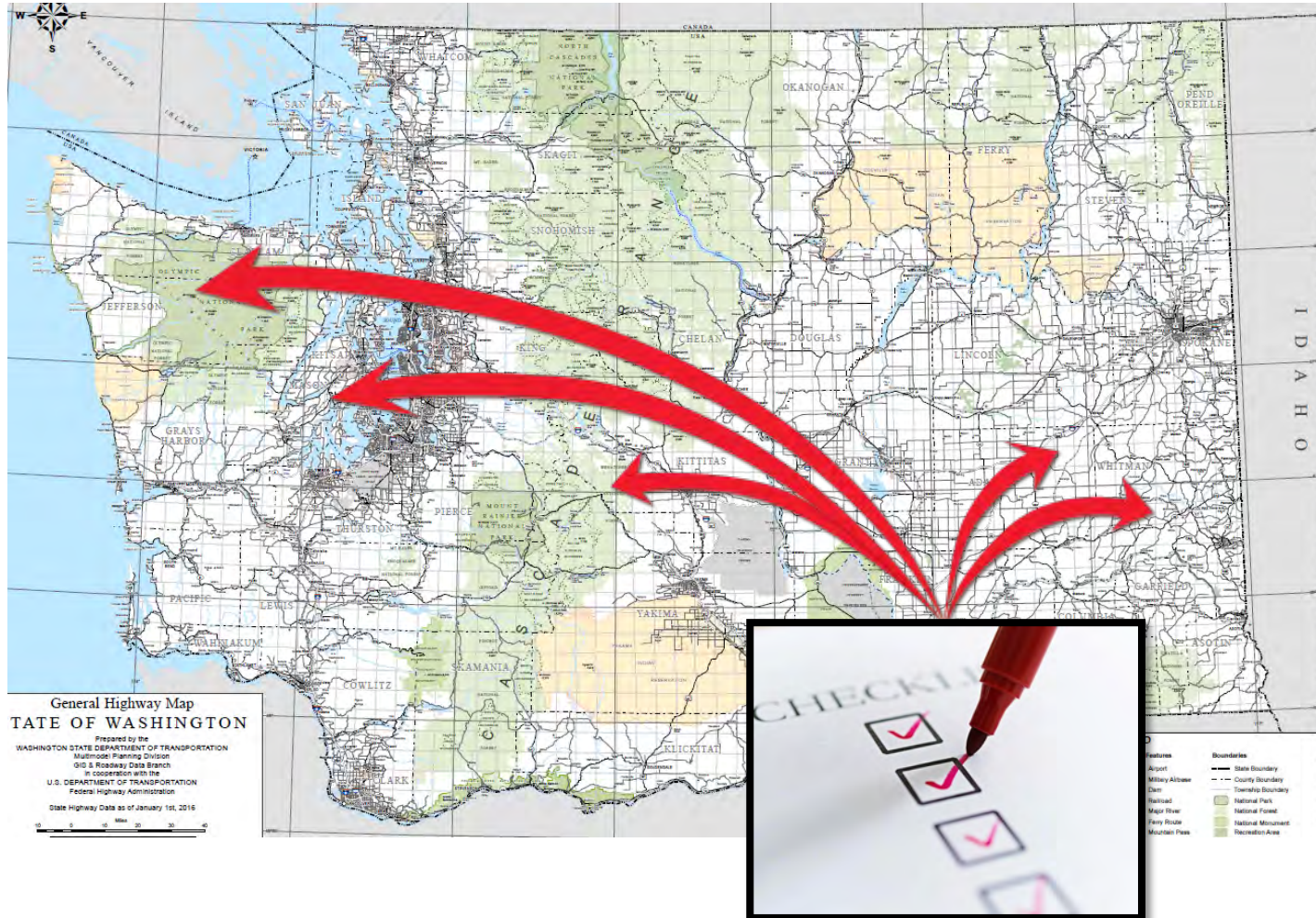
- Posted Speed
- **Pedestrian Volume**
- **Crossing Distance**
- Lighting
- Ped/Bike Facilities



LRSP Step 4

Local Road Safety Plan Step		Plan Element
1	Analyze data to identify focus/priorities	List of crash priorities based on data
2	Analyze individual fatal/serious crashes to identify risk factors	Description of risk factors & selection process
3	Select most common risk factors	
4	Analyze roadway network for presence of risk factors	
5	Create a prioritized list of roadway locations	Prioritized list of roadway locations
6	Identify countermeasures to address prioritized locations	Description of countermeasures & selection process
7	Develop a prioritized list of projects	Prioritized list of projects

Step 4: Analyze Roadway Network for Presence of Risk Factors

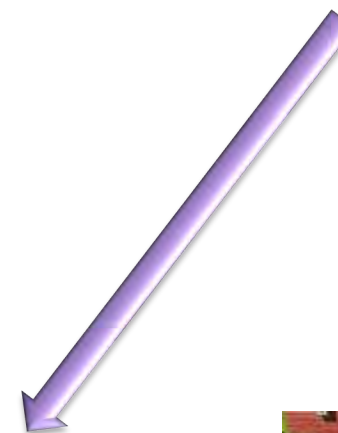


monster.com

Segmenting Your Network



Intersection by intersection



Block by block

Corridor by corridor



LRSP Step 5

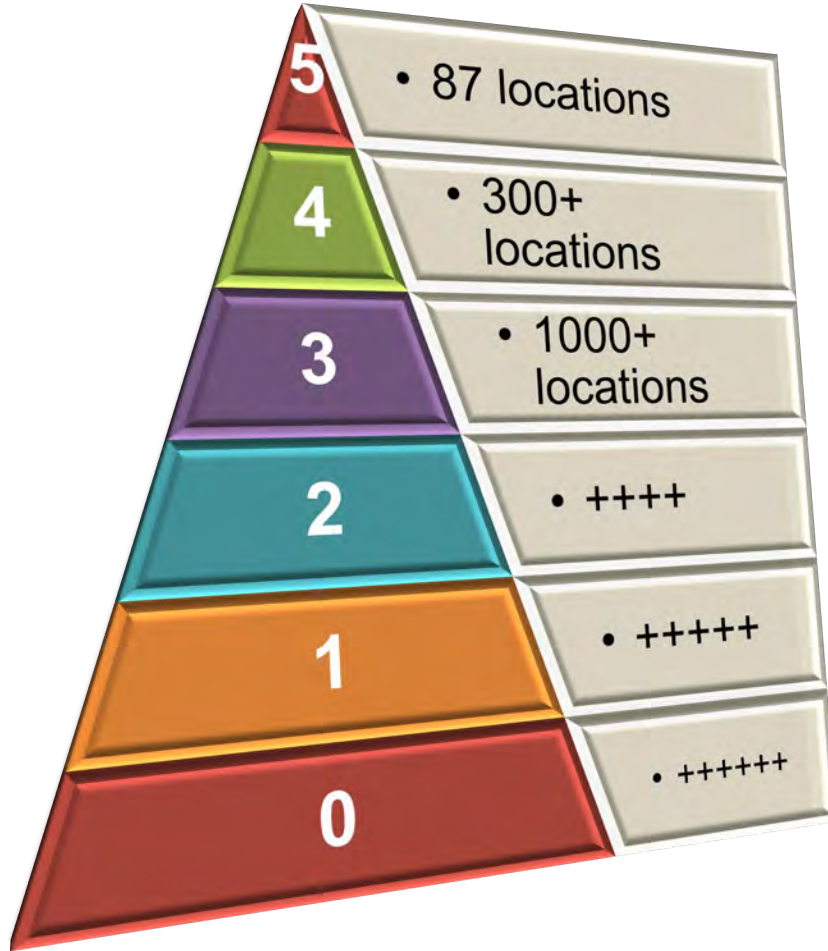
Local Road Safety Plan Step		Plan Element
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Step 5: Create Prioritized List of Roadway Locations



1. Intersection A & B, 5 risk factors
2. Intersection C & D, 5 risk factors
3. Road X, between Y & Z, 5 risk factors
4. Intersection E & F, 4 risk factors
5. Intersection B & G, 4 risk factors
6. Intersection B & H, 4 risk factors
7. Road V, between X & Y, 4 risk factors
8. Intersection I & J, 4 risk factors
9. Road W, between S & T, 4 risk factors
10. Road U, between A & C, 4 risk factors
11. Intersection J & K, 4 risk factors
12. Intersection J & L, 4 risk factors
13. Intersection J & M, 4 risk factors
14. Intersection A & E, 3 risk factors
15. Etc.

Number of Risk Factors



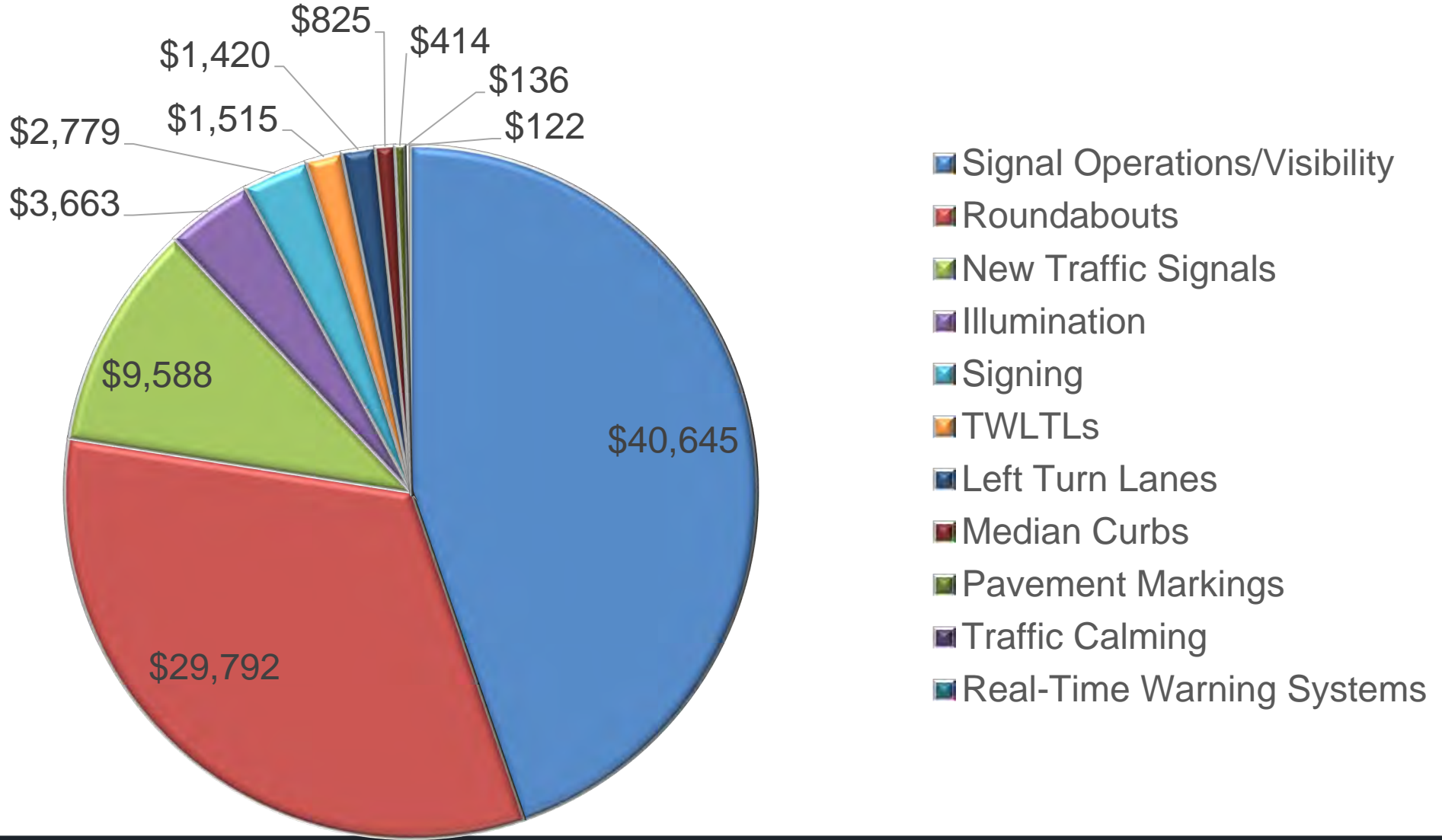
Add more risk factors!

LRSP Step 6

Local Road Safety Plan Step		Plan Element
1	Analyze data to identify focus/priorities	List of crash priorities based on data
2	Analyze individual fatal/serious crashes to identify risk factors	Description of risk factors & selection process
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4	Analyze roadway network for presence of risk factors	
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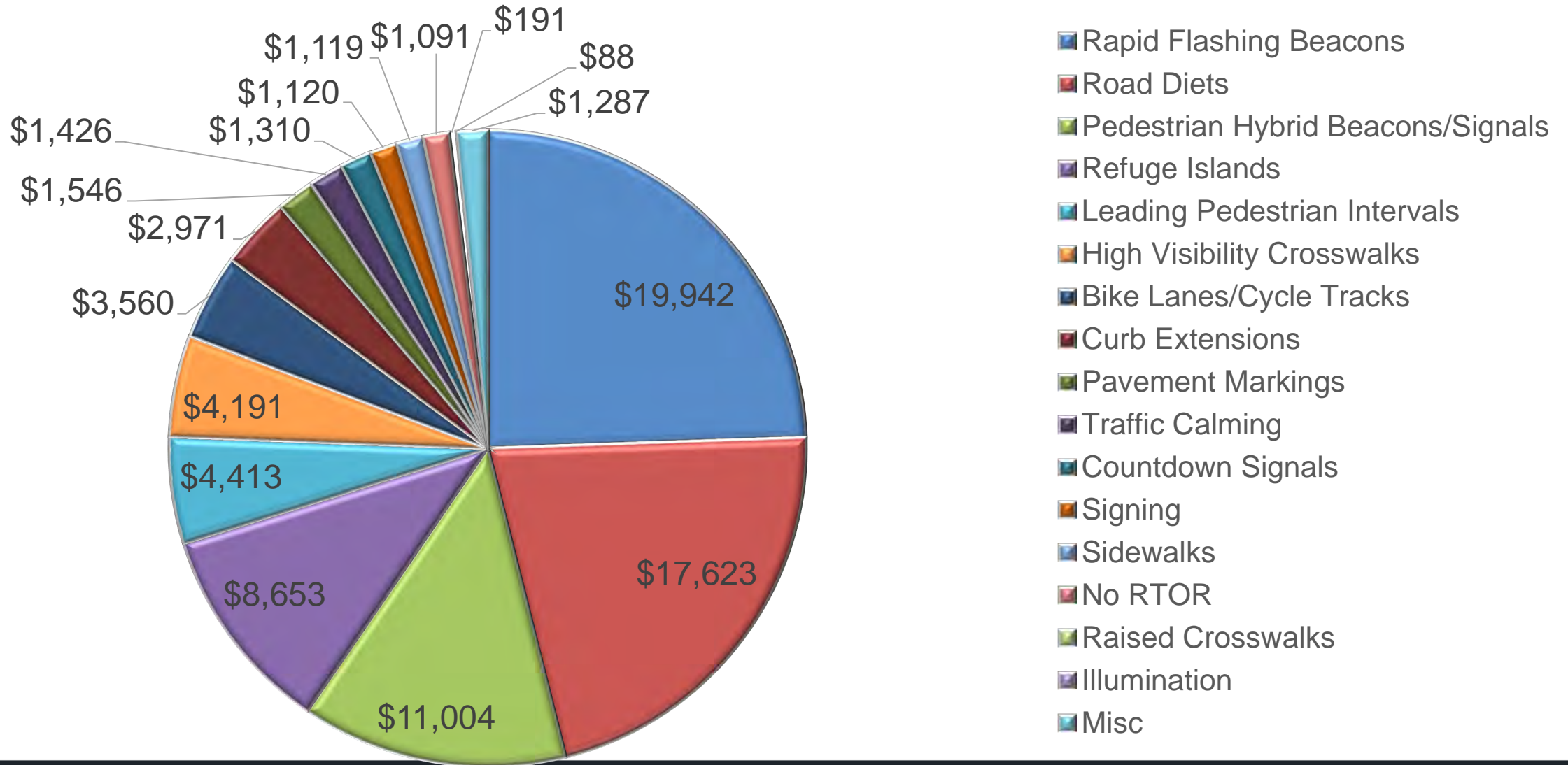
City Safety Program

Intersection Countermeasures Funded (in \$1000s) 2013-2024



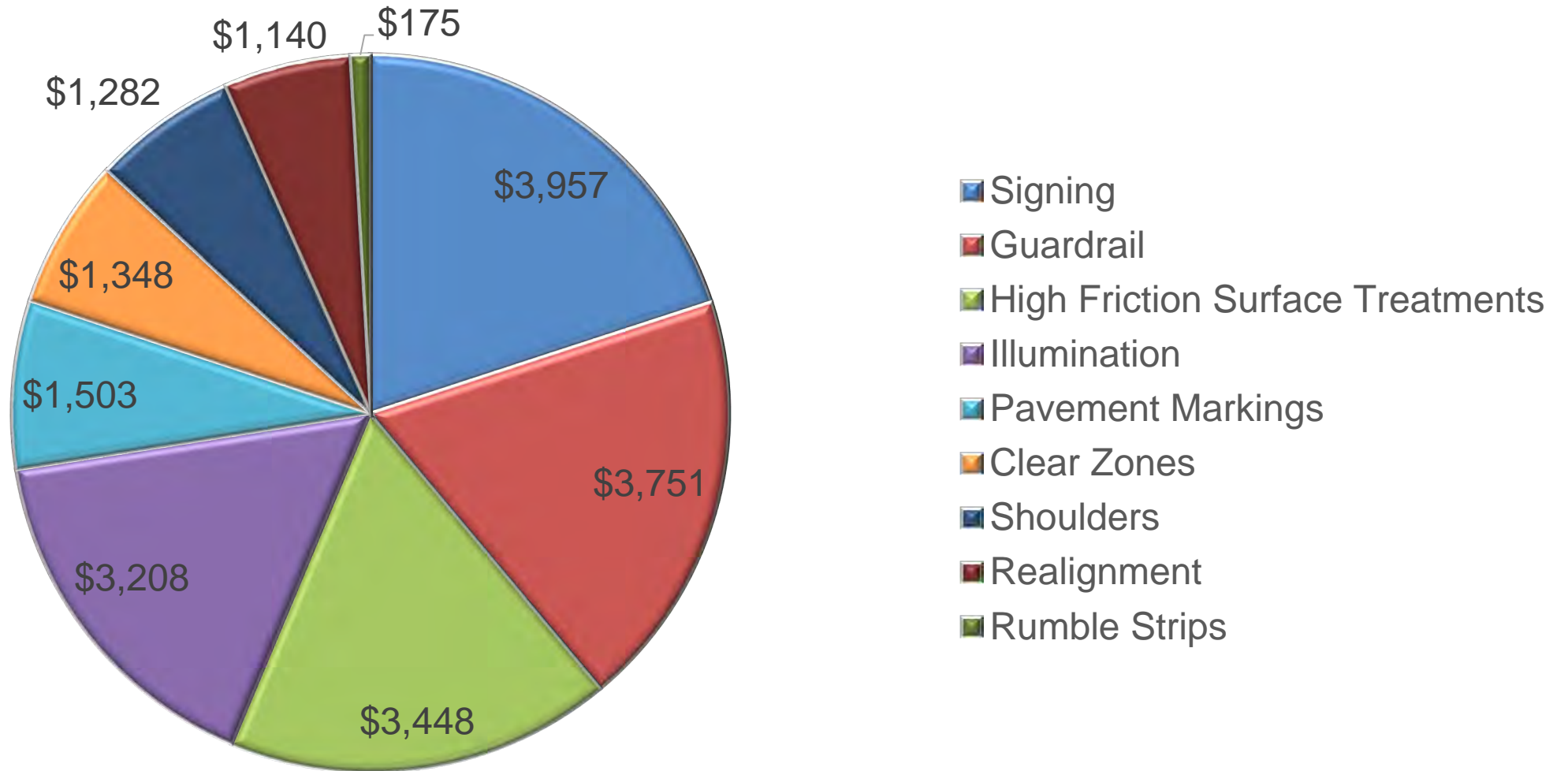
City Safety Program

Active Transportation Countermeasures Funded (in \$1000s) 2013-2024



City Safety Program

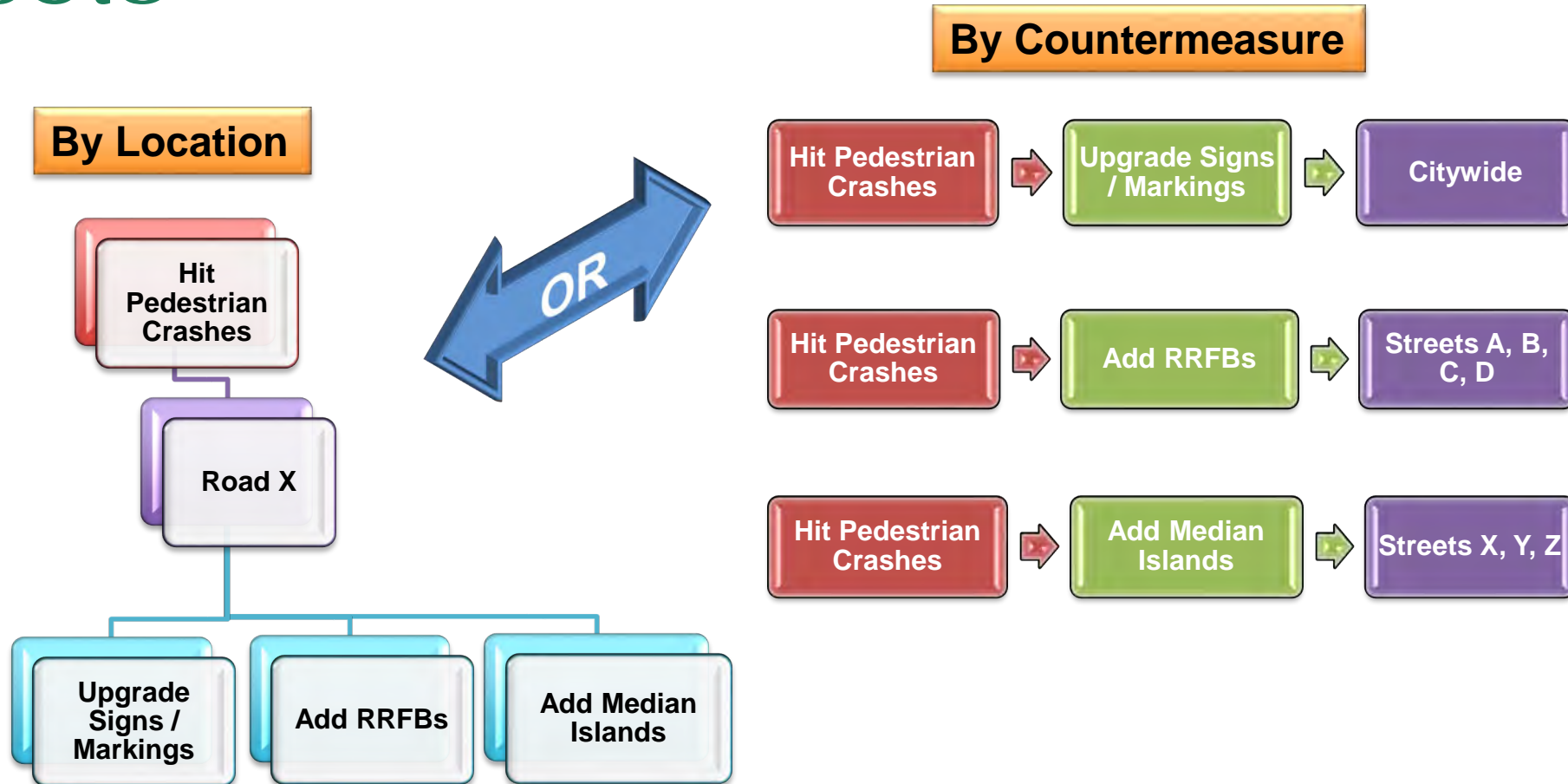
Lane Departure Countermeasures Funded (in \$1000s) 2013-2024



LRSP Step 7

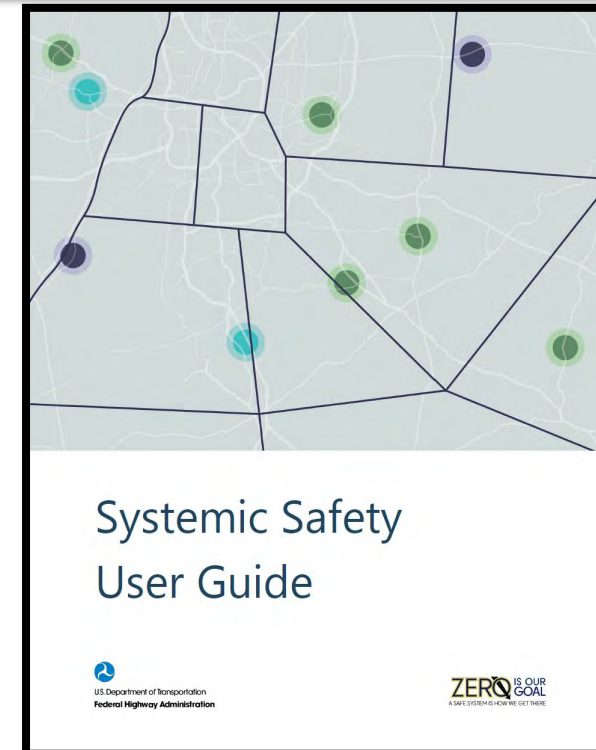
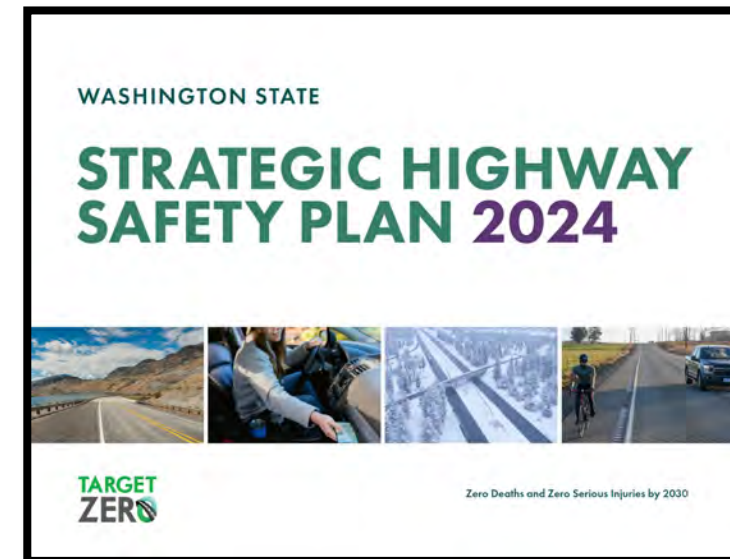
Local Road Safety Plan Step		Plan Element
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7	Develop a prioritized list of projects	Prioritized list of projects

Step 7: Develop a Prioritized List of Projects



Resources

- Systemic Safety User Guide
<https://highways.dot.gov/safety/data-analysis-tools/systemic>
- Target Zero
<http://www.targetzero.com/>
 - Safe System Approach (pages 23-33)
 - Lane Departure (page 81 & appendix B5)
 - Intersections (page 86 & appendix B6-B7)
 - Pedestrians & Bicyclists (page 104 & appendix B7-B10)
- CMF Clearinghouse
<https://cmfclearinghouse.fhwa.dot.gov/>
- FHWA Proven Safety Countermeasures
<https://highways.dot.gov/safety/proven-safety-countermeasures>
- Safe System Roadway Design Hierarchy
https://highways.dot.gov/sites/fhwa.dot.gov/files/2024-01/Safe_System_Roadway_Design_Hierarchy.pdf



Local Road Safety Plans

Questions?

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