



Highway Safety Improvement Program
Data Driven Decisions

Connecticut
Highway Safety Improvement Program
2014 Annual Report

Prepared by: CT

Disclaimer

Protection of Data from Discovery & Admission into Evidence

23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section [HSIP], shall not be 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 identified or addressed in the reports, surveys, schedules, lists, or other data.”

23 U.S.C. 409 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be 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.”

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Executive Summary

The reporting period for 2014 is from October 1, 2012 to September 30, 2013.

The Highway Safety Improvement Program (HSIP) is administered and managed by the Safety Engineering Section located with the Division of Traffic Engineering-Bureau of Engineering and Construction.

This reporting period, ConnDOT has obligated more systematic safety improvements in the HSIP program. While ConnDOT's traditional site analysis approach, known as the Suggested List of Surveillance Study Sites (SLOSSS), results in safety investments at specific locations, the systematic approach leads to widespread implementation of projects to reduce the potential for fatalities and/or serious injuries, whether or not crashes have occurred at any given site. Because many of CT's fatal and serious injury crashes are spread out, the systematic approach provides an alternate method to identify and implement low-cost safety countermeasures addressing specific risk factors across the roadway network. Systematic analysis is a complement to site-specific analysis, and can be very effective in implementing low-cost safety improvements. CT is currently updating its SHSP and it is likely that additional emphasis will be placed on systematic improvements.

Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP MAP-21 Reporting Guidance dated February 13, 2013 and consists of four sections: program structure, progress in implementing HSIP projects, progress in achieving safety performance targets, and assessment of the effectiveness of the improvements.

Program Structure

Program Administration

How are Highway Safety Improvement Program funds allocated in a State?

Central

District

Other

Describe how local roads are addressed as part of Highway Safety Improvement Program.

Local Roads are addressed by the Local Road Accident Reduction Program (LRARP). The LRARP provides federal funding for safety-related improvements not on the state-numbered highway system, to address hazardous elements identified at specific locations and along roadway sections. The Crash Data and Analysis Office commenced coding all local road accidents effective with 2007 accidents and complete local road accident information is now available through December 2013. Since traffic volume data for the majority of local roads is not available, an analytical analysis of crashes on non-state maintained

roadways to determine project selection has not been possible. Therefore, the Department annually solicits the Regional Planning Organizations (RPO) for recommended improvements on behalf of their member towns, to address identified hazardous elements. These improvements may include signal enhancements, minor geometric improvements, roadside obstacles, sight line conditions, hazards to pedestrians and poor or unmarked roadways. In the future when more local road data is available, the methodology for selection of improvements under the LRARP will be reevaluated. In the interim, the Department has expanded the Local Road Program in order to consider system-wide improvement projects designed to address run-off-road fixed-object collisions on local roads. The project cost eligible for federal participation is currently capped at \$500,000 per location. All locations are reviewed and investigated by the Division of Traffic Engineering and the Division of Highway Design.

Identify which internal partners are involved with Highway Safety Improvement Program planning.

- Design
- Planning
- Maintenance
- Operations
- Governors Highway Safety Office
- Other: Other-Traffic Engineering

Briefly describe coordination with internal partners.

Responsibility for carrying out the administration of the HSIP within the Department is assigned to the Division of Traffic Engineering and the Bureau of Policy and Planning-Crash Data and Analysis Section. The Department actively collects and compiles crash data with the intent of addressing problematic conditions that are identified. Identification and surveillance of locations displaying higher than expected accident rates on the state highway system are accomplished primarily through a computerized surveillance system utilizing traffic record files maintained by the Bureau of Policy and Planning. Those files consist of (1) a crash record file, (2) an average daily traffic file, (3) an inventory of

certain roadway characteristics. The inventory file identifies locations as being either rural or urban, as either a section of highway, section of expressway, intersection with another state highway, intersection with a town road (or signalized drive) or expressway interchange and further by number of lanes and control of access. Some groups having few locations are merged with similar groups. The Bureau of Policy and Planning runs a computer program utilizing the three files described above. The results are lists of locations that appear to have an unusually high crash rate. These lists are referred to as SLOSSS lists (Suggested List of Surveillance Study Sites). In that computer program, average crash rates and number of crashes are computed for the various groups of locations described in the preceding paragraph. Based upon those average values, a threshold of abnormally high numbers and rates is developed for each location. Locations equaling or exceeding the threshold are reviewed. The thresholds are changed occasionally based upon prior experience with these lists. The process described above is not intended to be the sole determinant in identifying locations having problematic characteristics. Many locations with crash rates not abnormally high will demonstrate crash type or severity patterns symptomatic of the problematic characteristic for a particular location. An example would be a pattern of run-off-the-road crashes at a curve. Some other locations may have design characteristics similar to a design characteristic determined to be problematic (e.g., rigid sign posts, poor sight line). These may also be considered for safety improvement.

Identify which external partners are involved with Highway Safety Improvement Program planning.

- Metropolitan Planning Organizations
- Governors Highway Safety Office
- Local Government Association
- Other:

Identify any program administration practices used to implement the HSIP that have changed since the last reporting period.

- Multi-disciplinary HSIP steering committee
- Other: Other-The Department has begun investigating low cost systematic proven safety countermeasures to enhance the HSIP program

Describe any other aspects of Highway Safety Improvement Program Administration on which you would like to elaborate.

Projects can qualify for the Department's HSIP funds and placement on the HSIP Safety Project Plan when they are initiated from the following sources:

- Suggested List of Surveillance Study Sites (SLOSSS)
- Local Road Accident Reduction Program (LRARP)
- Railway-Highway Grade Crossing Program (RHGCP)
- Projects supporting SHSP Emphasis Areas
- Section 402 Safety Programs (NHTSA)
- Section 154 (Open Container Requirements)
- High Risk Rural Roads

Program Methodology

Select the programs that are administered under the HSIP.

- | | | |
|--|---|---|
| <input type="checkbox"/> Median Barrier | <input type="checkbox"/> Intersection | <input type="checkbox"/> Safe Corridor |
| <input type="checkbox"/> Horizontal Curve | <input type="checkbox"/> Bicycle Safety | <input type="checkbox"/> Rural State Highways |
| <input type="checkbox"/> Skid Hazard | <input type="checkbox"/> Crash Data | <input type="checkbox"/> Red Light Running Prevention |
| <input type="checkbox"/> Roadway Departure | <input type="checkbox"/> Low-Cost Spot Improvements | <input type="checkbox"/> Sign Replacement And Improvement |
| <input checked="" type="checkbox"/> Local Safety | <input type="checkbox"/> Pedestrian Safety | <input type="checkbox"/> Right Angle Crash |
| <input type="checkbox"/> Left Turn Crash | <input type="checkbox"/> Shoulder Improvement | <input type="checkbox"/> Segments |
| <input type="checkbox"/> Other: | | |

Program: Local Safety

Date of Program Methodology: 7/1/2008

What data types were used in the program methodology?

Crashes

- All crashes
- Fatal crashes only
- Fatal and serious injury crashes only
- Other-As supplied by the applicant

Exposure

- Traffic
- Volume
- Population
- Lane miles
- Other

Roadway

- Median width
- Horizontal curvature
- Functional classification
- Roadside features
- Other

What project identification methodology was used for this program?

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types

Excess proportions of specific crash types

Other

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

No

If yes, are local road projects identified using the same methodology as state roads?

Yes

No

If no, describe the methodology used to identify local road projects as part of this program.

Submittals by the regional planning organizations. The submittals that meet the program's criteria are funded.

How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other

Other-Submittals are checked for accuracy and if the improvement yields a b/c ratio greater than 1.0, the submittals are forwarded to financial to obtain funding

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

- | | |
|--|----|
| <input checked="" type="checkbox"/> Ranking based on B/C | 50 |
| <input checked="" type="checkbox"/> Available funding | 50 |
| <input type="checkbox"/> Incremental B/C | |
| <input type="checkbox"/> Ranking based on net benefit | |
| <input type="checkbox"/> Other | |

What proportion of highway safety improvement program funds address systemic improvements?

28

Highway safety improvement program funds are used to address which of the following systemic improvements?

- | | |
|--|---|
| <input type="checkbox"/> Cable Median Barriers | <input checked="" type="checkbox"/> Rumble Strips |
| <input checked="" type="checkbox"/> Traffic Control Device Rehabilitation | <input type="checkbox"/> Pavement/Shoulder Widening |
| <input checked="" type="checkbox"/> Install/Improve Signing | <input checked="" type="checkbox"/> Install/Improve Pavement Marking and/or Delineation |
| <input checked="" type="checkbox"/> Upgrade Guard Rails | <input type="checkbox"/> Clear Zone Improvements |
| <input type="checkbox"/> Safety Edge | <input type="checkbox"/> Install/Improve Lighting |
| <input checked="" type="checkbox"/> Add/Upgrade/Modify/Remove Traffic Signal | <input type="checkbox"/> Other |

What process is used to identify potential countermeasures?

Engineering Study Road Safety Assessment Other:

Identify any program methodology practices used to implement the HSIP that have changed since the last reporting period.

 Highway Safety Manual Road Safety audits Systemic Approach Other:

Describe any other aspects of the Highway Safety Improvement Program methodology on which you would like to elaborate.

ConnDOT has partnered with the University of Connecticut, CT Transportation Institute to develop a safety analysis strategic plan. The plan will evaluate state of the art safety analysis tools/techniques/methods and identify how best to incrementally phase in new safety processes considering the current gaps in traffic and roadway data on local roads in CT. Moving forward, it is envisioned that project planning, programming, development and evaluation will be more comprehensive for all public roads.

Progress in Implementing Projects

Funds Programmed

Reporting period for Highway Safety Improvement Program funding.

- Calendar Year
- State Fiscal Year
- Federal Fiscal Year

Enter the programmed and obligated funding for each applicable funding category.

Funding Category	Programmed*		Obligated	
HSIP (Section 148)	14112079	78 %	15614049	75 %
HRRRP (SAFETEA-LU)	0	0 %	75000	0 %
HRRR Special Rule	0	0 %	0	0 %
Penalty Transfer - Section 154	4058340	22 %	5065447	24 %
Penalty Transfer - Section 164	0	0 %	0	0 %
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)	0	0 %	0	0 %
State and Local Funds				

Totals	18170419	100%	20754496	100%
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How much funding is programmed to local (non-state owned and maintained) safety projects?

\$1,568,739.00

How much funding is obligated to local safety projects?

\$2,359,208.00

How much funding is programmed to non-infrastructure safety projects?

\$1,231,650.00

How much funding is obligated to non-infrastructure safety projects?

\$1,531,650.00

How much funding was transferred in to the HSIP from other core program areas during the reporting period?

\$0.00

How much funding was transferred out of the HSIP to other core program areas during the reporting period?

\$14,046,984.00

Discuss impediments to obligating Highway Safety Improvement Program funds and plans to overcome this in the future.

There are numerous needs and deficiencies in CT and the HSIP is just one of ConnDOT's priorities. In September 2013, ConnDOT created a Safety Engineering Unit located with the Division of Traffic Engineering, Bureau of Engineering and Construction dedicated to the SHSP and the HSIP. One of the goals of the unit is to fully program and obligate the HSIP monies in CT.

Describe any other aspects of the general Highway Safety Improvement Program implementation progress on which you would like to elaborate.

CT's Strategic Highway Safety Plan (SHSP) is currently being updated to meet the requirements of MAP-21.

General Listing of Projects

List each highway safety improvement project obligated during the reporting period.

Project	Improvement Category	Output	HSIP Cost	Total Cost	Funding Category	Functional Classification	AADT	Speed	Roadway Ownership	Relationship to SHSP	
										Emphasis Area	Strategy
0034-0344CN Danbury--Osborne Street at Fifth Street	Intersection traffic control Intersection traffic control - other	1 Numbers	255060	283400	HSIP (Section 148)	Urban Minor Arterial	16000	30	City of Municipal Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0017-0182RW Bristol--Rte 6 from Brook & Mix Streets to Camp Street	Intersection geometry Auxiliary lanes - add auxiliary through lane	1 Numbers	2146500	2385000	HSIP (Section 148)	Urban Principal Arterial - Other	22000	35	State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0034-0338CN Danbury--Lake Avenue at	Intersection traffic control Intersection	1 Numb	337500	384959	HSIP (Section 148)	Urban Minor	12000	25	City of Municipal	Spot safety improve	Improving the design and

Shannon Ridge Road	traffic control - other	ers			n 148)	Arterial			Highway Agency	ment	operation of highway intersections
0037-0101CN Durham--Bear Rock Road	Roadway Superelevation / cross slope	1 Numbers	244500	244500	Penalty Transfer - Section 154	Rural Local Road or Street		25	Town or Township Highway Agency	Roadway Department	Keeping vehicles in the roadway
0042-0315PE East Hartford--Rte 44 from Rte 5 to Mary Street	Roadway Roadway narrowing (road diet, roadway reconfiguration)	3 Miles	462600	514000	HSIP (Section 148)	Urban Minor Arterial	11000	30	State Highway Agency	Pedestrians	Reducing risk for pedestrians and bicyclists
0042-0315RW East Hartford--Rte 44 from Rte 5 to Mary Street	Roadway Roadway narrowing (road diet, roadway reconfiguration)	3 Miles	198000	220000	HSIP (Section 148)	Urban Minor Arterial	11000	30	State Highway Agency	Pedestrians	Reducing risk for pedestrians and bicyclists
0092-0640CN New Haven--Rte 10 at Lambertson Street	Intersection traffic control Intersection traffic control - other	1 Numbers	703900	703900	HSIP (Section 148)	Urban Principal Arterial - Other	18100	35	State Highway Agency	Spot safety improvement	Improving the design and operation of highway

											intersections
0093-0191PL Statewide--Crash Data Repository	Non-infrastructure Data/traffic records	1 Numbers	27000 0	30000 0	HSIP (Section 148)	Statewide			Statewide	Data	Improving the timeliness, completeness, accuracy, uniformity and accessibility of crash data
0098-0103CN North Branford-- Rte 139 vicinity of Marbar Street and Valley Road	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	19719 18	21910 20	HSIP (Section 148)	Urban Minor Arterial	890 0	35	State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0148-0205CN Wallingford--Rte 68 at Rte 150	Intersection geometry Auxiliary lanes - add auxiliary through lane	1 Numbers	61200 0	68000 0	HSIP (Section 148)	Urban Principal Arterial - Other	143 00	30	State Highway Agency	Spot safety improvement	Improving the design and operation of highway

											intersections
0151-0317CN Waterbury-- Washington Street at Sylvan Avenue	Intersection traffic control Intersection traffic control - other	1 Numbers	23029 2	25588 0	HSIP (Section 148)	Urban Minor Arterial		30	City of Municipal Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0170-3057CN Districts 1 & 2-- School signing	Roadway signs and traffic control Roadway signs (including post) - new or updated	716 Numbers	89648 0	89648 0	HSIP (Section 148)	Districtwide			State Highway Agency	Pedestrians	Systematic approach to increase motorists awareness of school- aged pedestrians in or adjacent to the roadway
0170-3086CN Districts 3 & 4-- School signing	Roadway signs and traffic control Roadway signs (including post) -	1668 Numbers	82136 0	82136 0	HSIP (Section 148)	Districtwide			State Highway Agency	Pedestrians	Systematic approach to increase

	new or updated										motorists awareness to school-aged pedestrians in or adjacent to the roadway
0170-3184PL Statewide Study for SLOSSS locations	Non-infrastructure Transportation safety planning	1 Numbers	450000	500000	HSIP (Section 148)	Statewide			State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0170-3186PL Statewide-- Develop new SHSP	Non-infrastructure Outreach	1 Numbers	675000	750000	Penalty Transfer - Section 154	Statewide			Statewide	Data	Review and update SHSP strategies
0170-3217PE Statewide-- Review and develop wrong-way driving	Roadway signs and traffic control Roadway signs and traffic control - other	700 Numbers	1000000	1000000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Intersections	Systematic approach to reduce the occurrence

countermeasures											s of wrong-way entries on limited access highways
0170-3219PL Statewide-- Review of applications submitted under the Local Road Accident Reduction Program	Roadway Roadway - other	1 Numbers	400000	400000	Penalty Transfer - Section 154	Statewide			Town or Township Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0170-3232PE Statewide---HRRR Stop sign replacement project on local roads	Roadway signs and traffic control Roadway signs (including post) - new or updated	500 Numbers	50000	50000	Penalty Transfer - Section 154	Rural Local Road or Street			Town or Township Highway Agency	Intersections	Systematic approach to enhance visibility of STOP signs on local roads
0170-3254PE Statewide-- review and design locations	Roadway delineation Roadway delineation - other	270 Numbers	455000	455000	HSIP (Section 148)	Statewide			State Highway	Roadway Departure	Keeping vehicles in the

where there are flashers on signs									Agency		roadway
0170-3260PE Statewide--edge line rumble strips on expressways/centerline rumble strips on secondary roadways	Roadway Rumble strips - unspecified or other	55 Miles	60000	60000	HSIP (Section 148)	Statewide			State Highway Agency	Roadway Departure	Keeping vehicles in the roadway
0171-0310CN District 1--Guide Rail installation--non-NHS routes	Roadside Barrier-metal	2 Miles	1488840	1488840	Penalty Transfer - Section 154	Statewide --non-NHS			State Highway Agency	Roadway Departure	Keeping vehicles in the roadway
0171-0356RW District 1--SLOSSS Traffic Signals	Intersection traffic control Modify traffic signal - modernization/replacement	1 Numbers	75000	75000	Penalty Transfer - Section 154	Districtwide			State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0171-0372PE District 1--Accessible	Pedestrians and bicyclists Pedestrian signal - audible	125 Numb	1714750	1714750	HSIP (Section	Districtwide			State Highway	Pedestrians	Enhancing pedestrian amenities

Pedestrian Signals (APS)	device	ers			n 148)				Agency		at signalized intersections
0173-0412CN District 3--SLOSSS traffic signals	Intersection traffic control Modify traffic signal - modernization/replacement	10 Numbers	1472180	1472180	HSIP (Section 148)	Districtwide			State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersection
0173-0418RW District 3--SLOSSS traffic signals	Intersection traffic control Modify traffic signal - modernization/replacement	8 Numbers	50000	50000	Penalty Transfer - Section 154	Districtwide			State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0173-442PE District 3-- guiderail for non-NHS routes	Roadside Barrier-metal	5 Numbers	50000	50000	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	Keeping vehicles in the roadway
0173-0291RW-- project modification--	Roadway Roadway - other	1 Numb	20000	20000	HSIP (Section 148)	Urban Principal Arterial -			State Highway Agency	Spot safety improve	Improving the design and

Bridgeport--Rte 1 improvements		ers			n 148)	Other			Agency	ment	operation of highway intersections
0025-0138PE--project modification--Cheshire--Rte 42 at King Road	Roadway Superelevation / cross slope	1 Numbers	90000	100000	HSIP (Section 148)	Urban Minor Arterial	6000	25	State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0014-0167RW--project modification--Branford--Rte 1 at Cherry Hill Road and SR 740	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	1094	1216	HSIP (Section 148)	Urban Principal Arterial - Other	16300	40	State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0047-0117CN--project modification--Ellington--Rte 74 at Rte 286 and Skinner Road	Intersection traffic control Modify control - all-way stop to roundabout	1 Numbers	35000	35000	HSIP (Section 148)	Urban Minor Arterial			State Highway Agency	Spot safety improvement	Improving the design and operation of highway

											intersections
0098-0103PE-- project modification-- North Branford-- Rte 139 vicinity of Marbar Street and Valley Road	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	81000	90000	HSIP (Section 148)	Urban Minor Collector	890 0	35	State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0174-0355CN-- project modification-- District 4--SLOSS signals	Intersection traffic control Modify traffic signal - modernization/replacement	10 Numbers	14548	14548	HSIP (Section 148)	Districtwide			State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0015-0335PE-- project modification-- Bridgeport--Rte 127 at Evers Road	Alignment Horizontal curve realignment	1 Numbers	60330 6	67034 0	HSIP (Section 148)	Urban Minor Arterial	109 00	35	State Highway Agency	Roadway Departure	Keeping vehicles in the roadway
0034-0305PE-- project modification-- Danbury--Rte 37	Intersection traffic control Intersection traffic control - other	1 Numbers	13500 0	15000 0	HSIP (Section 148)	Urban Minor Arterial	151 00	35	State Highway Agency	Spot safety improvement	Improving the design and operation

at Stacey Road									Agency	ment	of highway intersections
0092-0640PE-- project modification-- New Haven--Rte 10 at Lamberton Street	Intersection traffic control Intersection traffic control - other	1 Numbers	150000	150000	HSIP (Section 148)	Urban Principal Arterial - Other	18100	35	State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0094-0245CN-- project modification-- New London--Bank Street at Howard Street	Intersection traffic control Modify traffic signal - modernization/replacement	1 Numbers	4770	17500	HSIP (Section 148)	Urban Minor Arterial		25	Town or Township Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0173-403CN-- project modification-- District 3--SLOSSS signals	Intersection traffic control Modify traffic signal - modernization/replacement	19 Numbers	114553	114553	HSIP (Section 148)	Districtwide			State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections

											ns
0120-0086RW-- project modification-- Salem--Rte 82 at Rte 85	Intersection traffic control Modify control - traffic signal to roundabout	1 Numb ers	15000 0	15000 0	HSIP (Sectio n 148)	Rural Major Collector	123 00	40	State Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio ns
0017-0182PE-- project modification-- Bristol--Rte 6 from Mix & Brook Streets to Camp Street	Intersection geometry Auxiliary lanes - add auxiliary through lane	1 Numb ers	52470 0	58300 0	HSIP (Sectio n 148)	Urban Principal Arterial - Other	220 00	35	State Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio ns
0172-0383PE-- project modification-- District 2-- upgrade guiderail	Roadside Barrier-metal	5 Miles	56875	56875	HSIP (Sectio n 148)	Districtwi de			State Highwa y Agency	Roadway Departur e	Keeping vehicles in the roadway
0173-0375CN-- project modification-- District 3--SLOSSS	Intersection traffic control Modify traffic signal - modernization/repla	7 Numb ers	82956	82956	HSIP (Sectio n 148)	Districtwi de			State Highwa y Agency	Spot safety improve ment	Improving the design and operation of

signals	cement										highway intersections
0034-0344CN--project modification-- Danbury-- Osborne Street at Fifth Street	Intersection traffic control Intersection traffic control - other	1 Numbers	12330	13700	HSIP (Section 148)	Urban Minor Arterial	16000	30	City of Municipal Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0173-0368CN--project modification-- District 3-- Guiderail replacement on Rte 1 and Rte 113	Roadside Barrier-metal	10 Numbers	71382	71382	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	Keeping vehicles in the roadway
0151-0317CN--project modification-- Waterbury-- Washington Street @ Sylvan Avenue	Intersection traffic control Intersection traffic control - other	1 Numbers	90	100	HSIP (Section 148)	Urban Minor Arterial		30	City of Municipal Highway Agency	Spot safety improvement	Improve the design and operation of highway intersections

0092-0640CN-- project modification-- New Haven--Rte 10 at Lamberton Street	Intersection traffic control Intersection traffic control - other	1 Numb ers	59974	59974	HSIP (Sectio n 148)	Urban Principal Arterial - Other	181 00	35	State Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio ns
0034-0338PE-- project modification-- Danbury--Lake Avenue @ Shannon Ridge Road	Intersection traffic control Intersection traffic control - other	1 Numb ers	50000	50000	Penalty Transfe r - Section 154	Urban Principal Arterial - Other			City of Municip al Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway operations
0057-0116PE-- project modification-- Griswold--Stone Hill Road at Roode Road	Intersection traffic control Intersection traffic control - other	1 Numb ers	29250	32500	Penalty Transfe r - Section 154	Rural Local Road or Street	320 0	30	Town or Townshi p Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio ns
0094-0245PE-- project modification-- New London--	Intersection traffic control Modify traffic signal - modernization/repla	1 Numb ers	27900	31000	Penalty Transfe r - Section	Urban Minor Arterial		25	Town or Townshi p Highwa	Spot safety improve ment	Improving the design and operation

Bank Street at Howard Street	cement				154				y Agency		of highway intersections
0151-0317PE--project modification--Waterbury--Washington Street @ Sylvan Avenue	Intersection traffic control Intersection traffic control - other	1 Numbers	23000	23000	Penalty Transfer - Section 154	Urban Minor Arterial		30	City of Municipal Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0171-0310PE--project modification--District 1--guide rail installations	Roadside Barrier-metal	20 Miles	250000	250000	Penalty Transfer - Section 154	Districtwide			State Highway Agency	Roadway Departure	Keeping vehicles in the roadway
0173-0291RW--project modification--Bridgeport--Rte 1	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	100000	100000	HSIP (Section 148)	Urban Principal Arterial - Other			State Highway Agency	Spot safety improvement	Improving the design and operation of highway intersections
0092-0640PE--project	Intersection traffic control Intersection	1 Number	15000	15000	Penalty Transfer	Urban Principal	181	35	State Highway	Spot safety	Improving the design

modification-- New Haven--Rte 10 @ Lamberton Street	traffic control - other	ers			r - Section 154	Arterial - Other	00		y Agency	improve ment	and operation of highway intersectio ns
0148-0202PE-- project modification-- Wallingford--Rte 68 @ Rte 150	Intersection geometry Auxiliary lanes - add auxiliary through lane	1 Numb ers	19500 0	19500 0	Penalty Transfe r - Section 154	Urban Principal Arterial - Other	143 00	30	State Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio ns
0037-0101CN-- project modification-- Durham--Bear Rock Road	Roadway Superelevation / cross slope	1 Numb ers	76050	76050	HSIP (Sectio n 148)	Rural Local Road or Street		25	Town or Townshi p Highwa y Agency	Roadway Departur e	Keeping vehicles in the roadway
0012-0095PE-- project modification-- Bolton--SR 533 vicinity of Box Mountain Road	Roadway Roadway widening - curve	1 Numb ers	49195 7	54661 9	Penalty Transfe r - Section 154	Urban Minor Arterial	520 0	30	State Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio

											ns
0173-0412CN-- project modification-- District 3--SLOSS traffic signals	Intersection traffic control Modify traffic signal - modernization/replacement	4 Numb ers	20448 1	20448 1	HSIP (Sectio n 148)	Districtwi de			State Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio ns
0017-0182PE-- project modification-- Bristol--Rte 6 from Brook & Mix Streets to Camp Street	Intersection geometry Auxiliary lanes - add auxiliary through lane	1 Numb ers	13950 00	15500 00	HSIP (Sectio n 148)	Urban Principal Arterial - Other	220 00	35	State Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio ns
0015-0334PE-- project modification-- Bridgeport--Rte 1 @ Lindley Street	Intersection traffic control Modify traffic signal - modernization/replacement	1 Numb ers	76000	76000	HSIP (Sectio n 148)	Urban Principal Arterial - Other	110 00	35	State Highwa y Agency	Spot safety improve ment	Improving the design and operation of highway intersectio ns
0172-0383CN-- project	Roadside Barrier-	10	54677	59677	HSIP (Sectio	Districtwi			State Highwa	Roadway Departur	Keeping vehicles in

modification-- District 2 guide rail installations	metal	Miles			n 148)	de			y Agency	e	the roadway
0170-3055PE-- project modification-- Statewide HRRR	Roadway delineation Roadway delineation - other	168 Numb ers	75000	75000	HRRRP (SAFET EA-LU)	Rural Minor Collector			State Highwa y Agency	Roadway Departur e	Keeping vehicles in the roadway

Progress in Achieving Safety Performance Targets

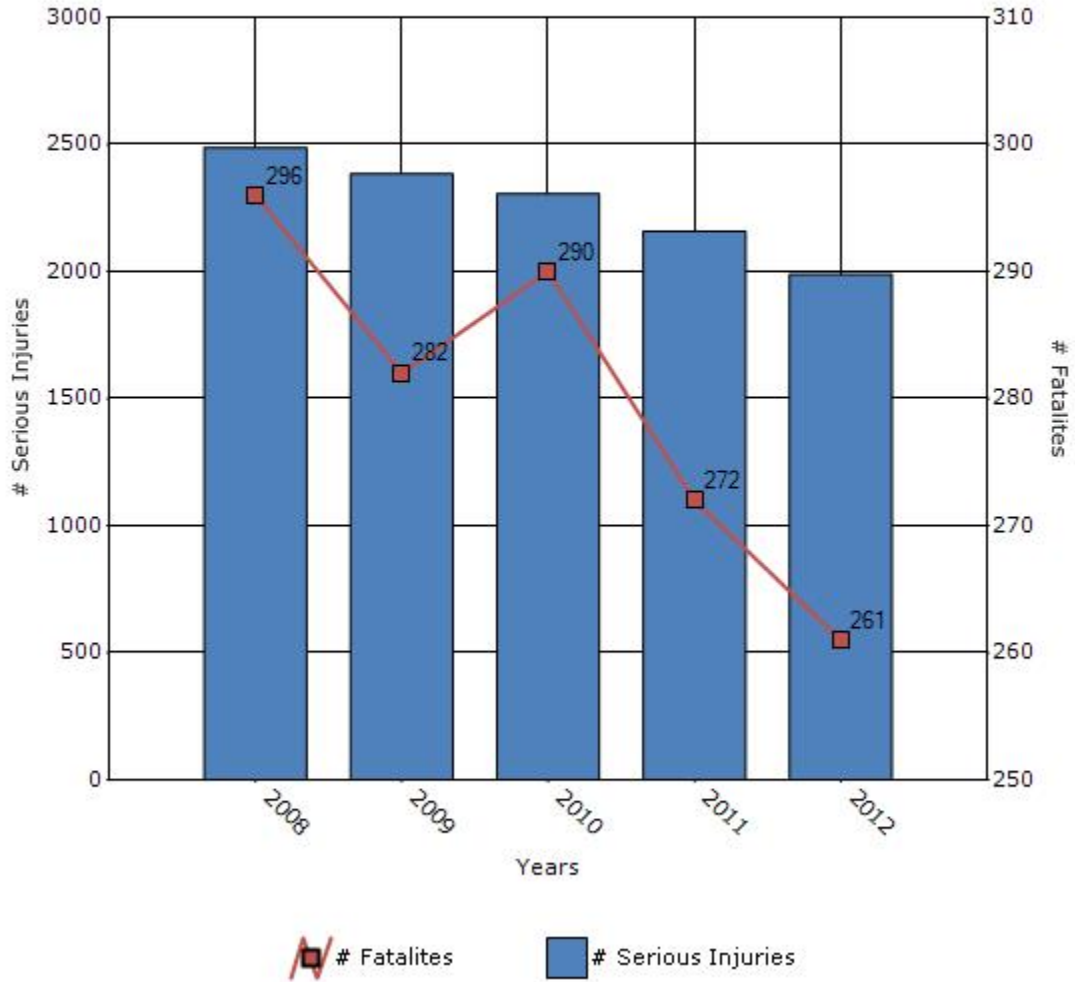
Overview of General Safety Trends

Present data showing the general highway safety trends in the state for the past five years.

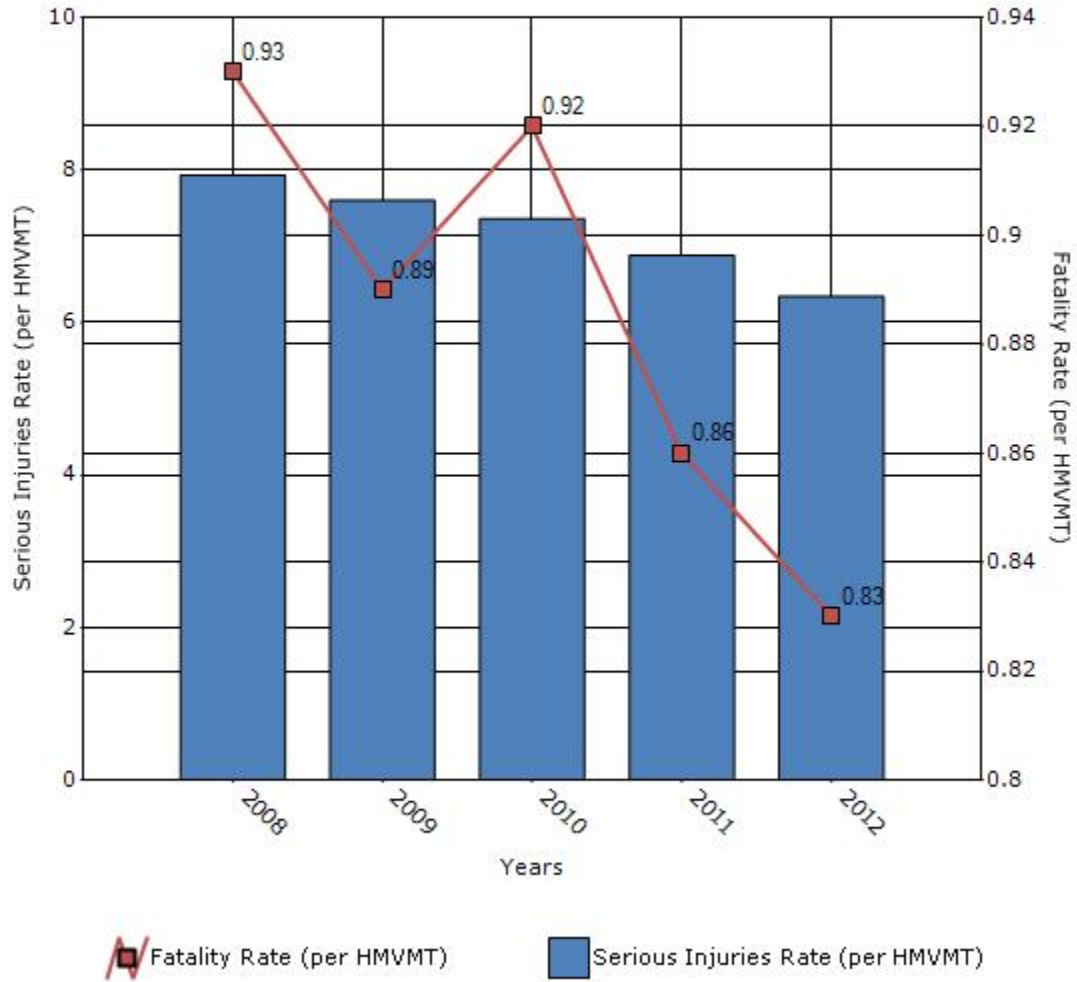
Performance Measures*	2008	2009	2010	2011	2012
Number of fatalities	296	282	290	272	261
Number of serious injuries	2488	2384	2307	2159	1990
Fatality rate (per HMVMT)	0.93	0.89	0.92	0.86	0.83
Serious injury rate (per HMVMT)	7.93	7.6	7.36	6.88	6.34

*Performance measure data is presented using a five-year rolling average.

Number of Fatalities and Serious injuries for the Last Five Years



Rate of Fatalities and Serious injuries for the Last Five Years



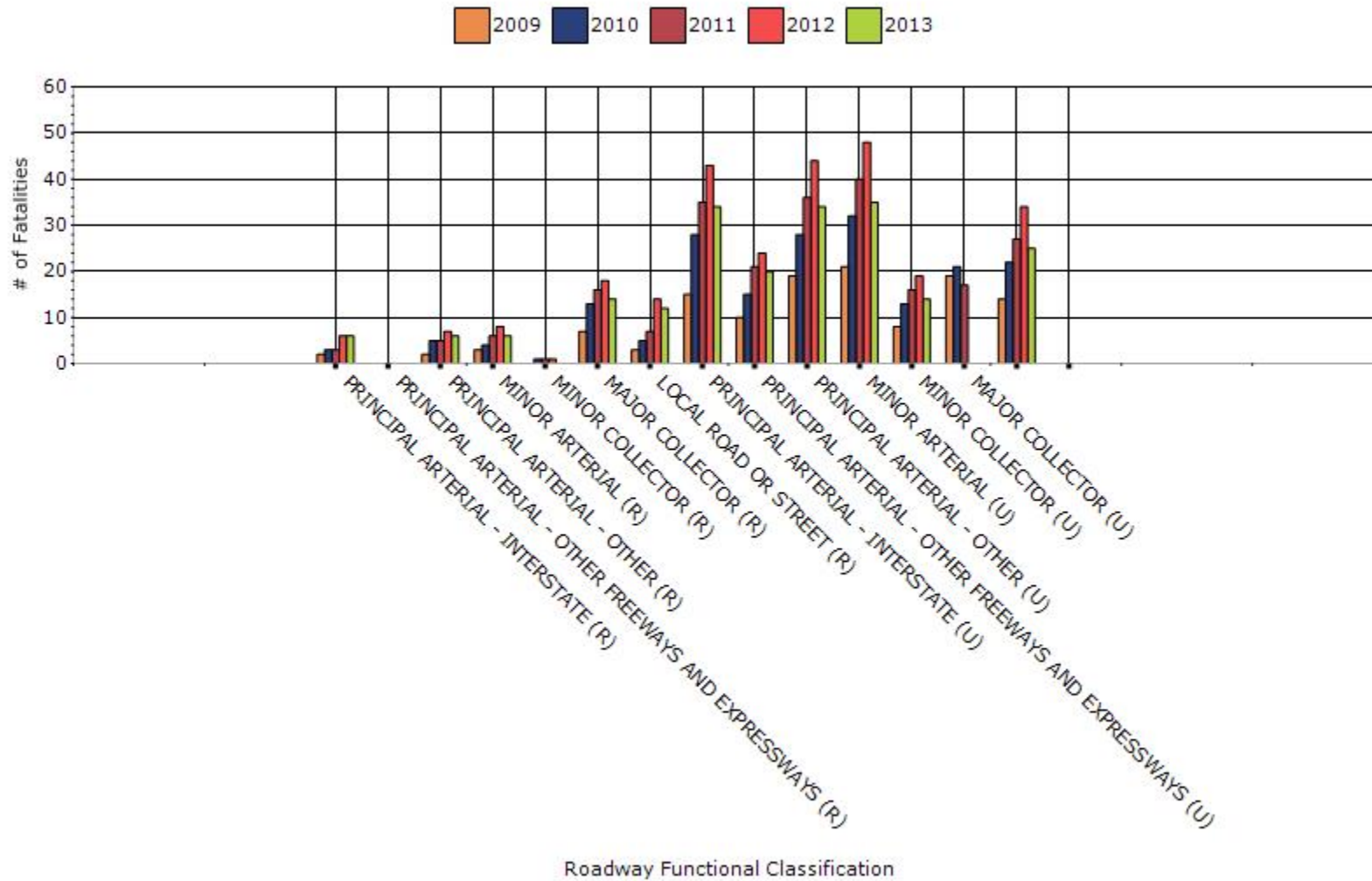
To the maximum extent possible, present performance measure* data by functional classification and ownership.

Year - 2013

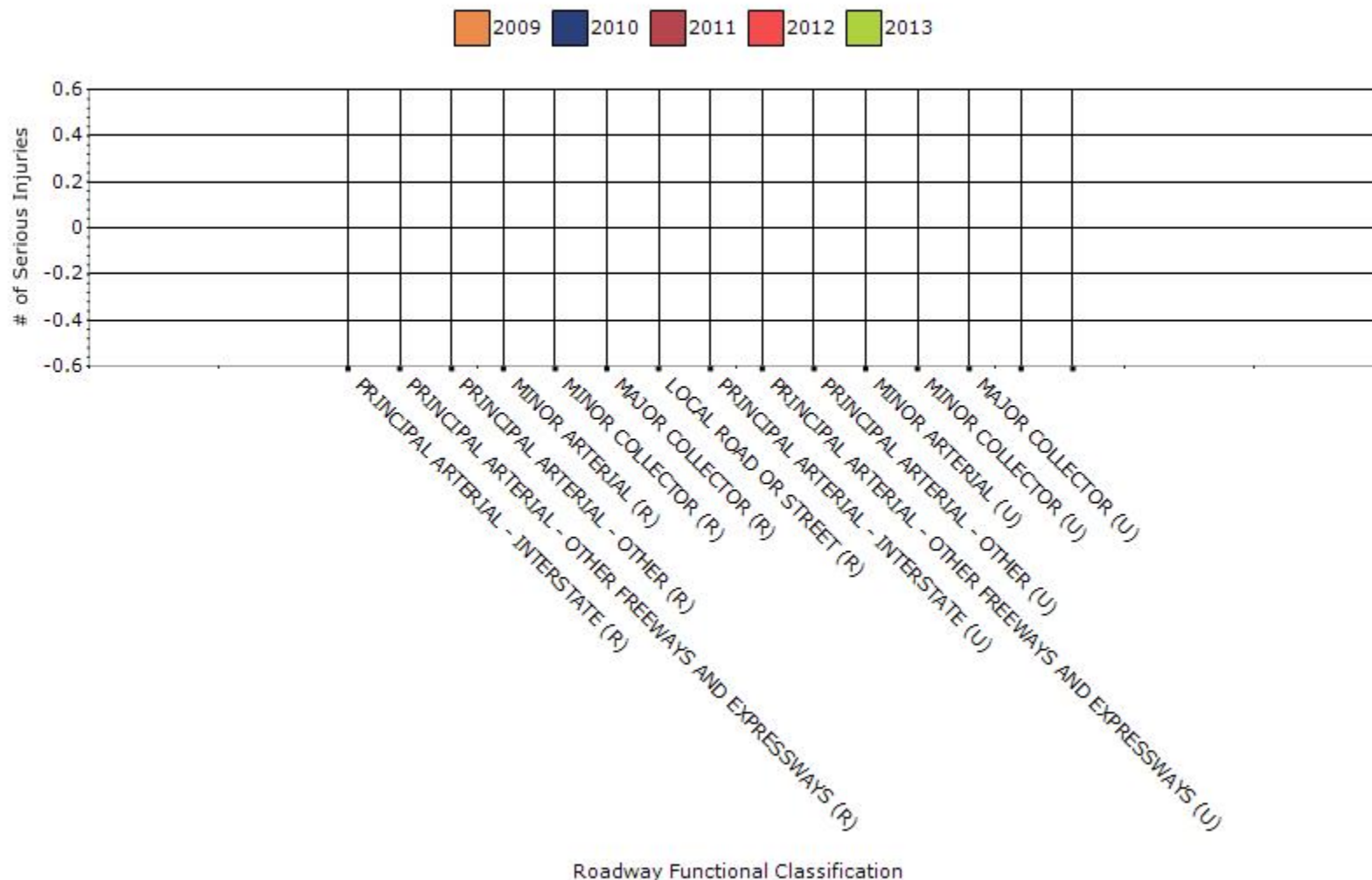
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	6	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER	6	0	0	0
RURAL MINOR ARTERIAL	6	0	0	0
RURAL MINOR COLLECTOR	0	0	0	0
RURAL MAJOR COLLECTOR	14	0	0	0
RURAL LOCAL ROAD OR STREET	12	0	0	0
URBAN PRINCIPAL	34	0	0	0

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	20	0	0	0
URBAN PRINCIPAL ARTERIAL - OTHER	34	0	0	0
URBAN MINOR ARTERIAL	35	0	0	0
URBAN MINOR COLLECTOR	14	0	0	0
URBAN MAJOR COLLECTOR	0	0	0	0
URBAN LOCAL ROAD OR STREET	25	0	0	0
OTHER	0	0	0	0

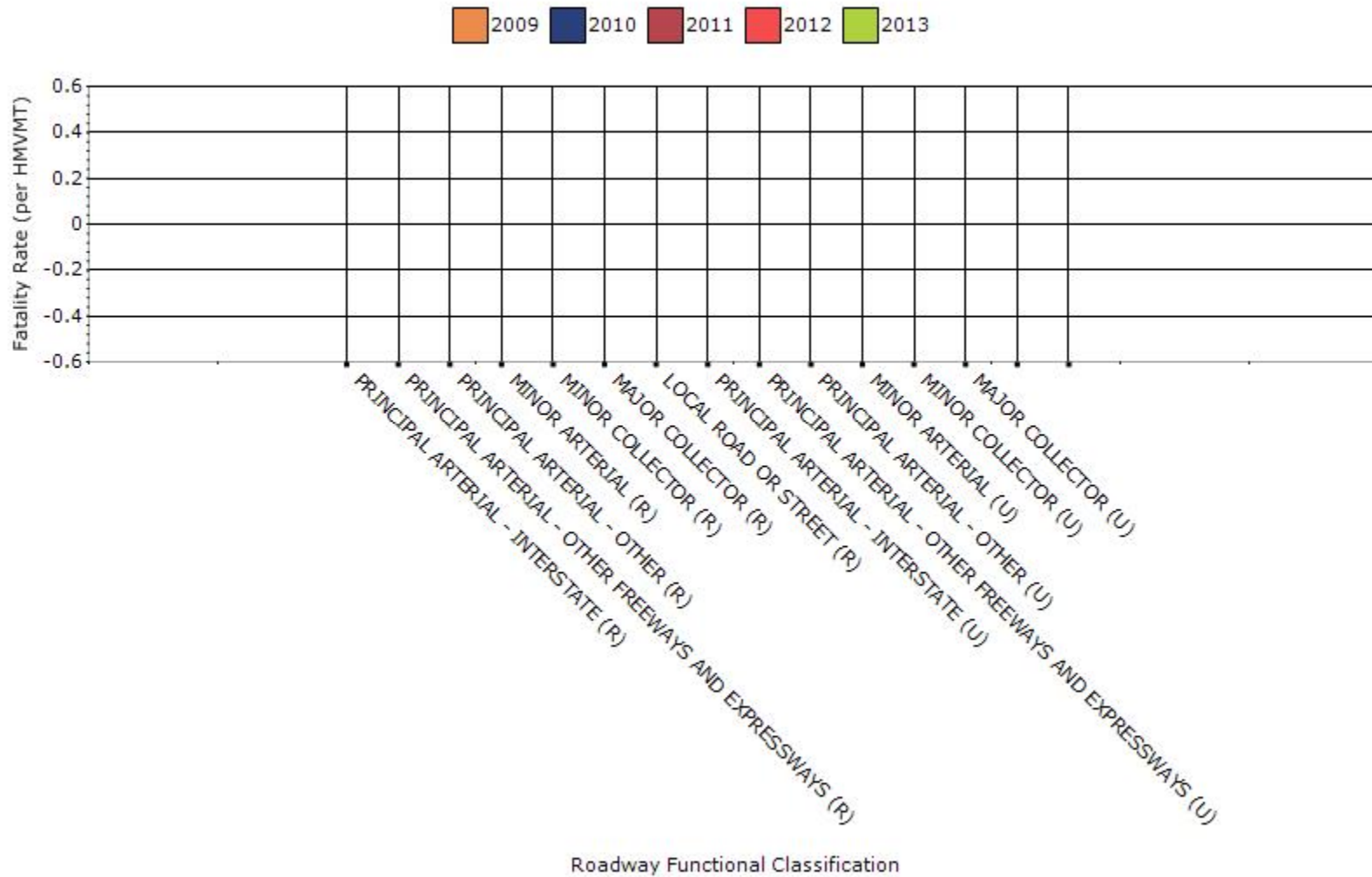
Fatalities by Roadway Functional Classification



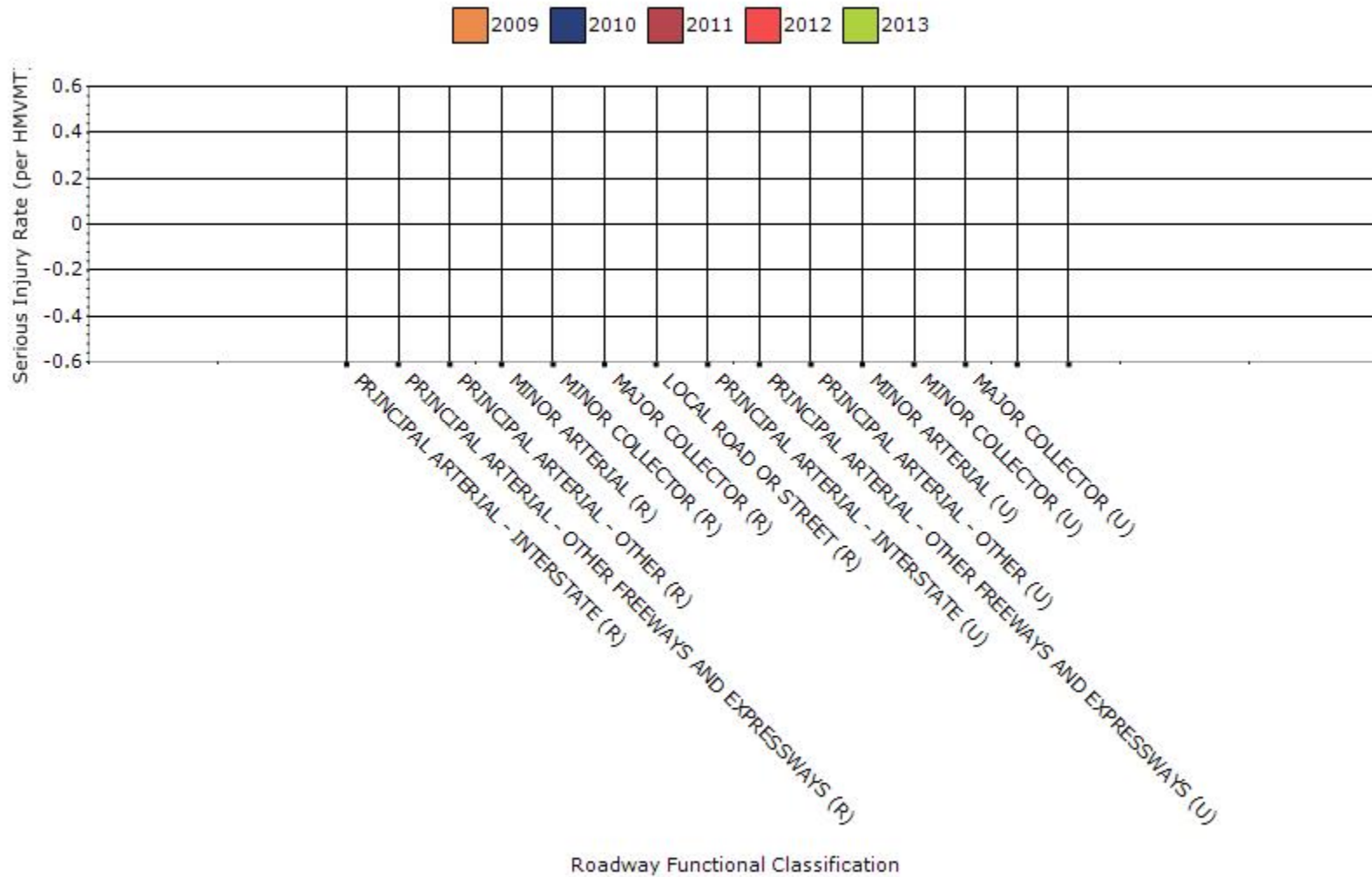
Serious Injuries by Roadway Functional Classification



Fatality Rate by Roadway Functional Classification



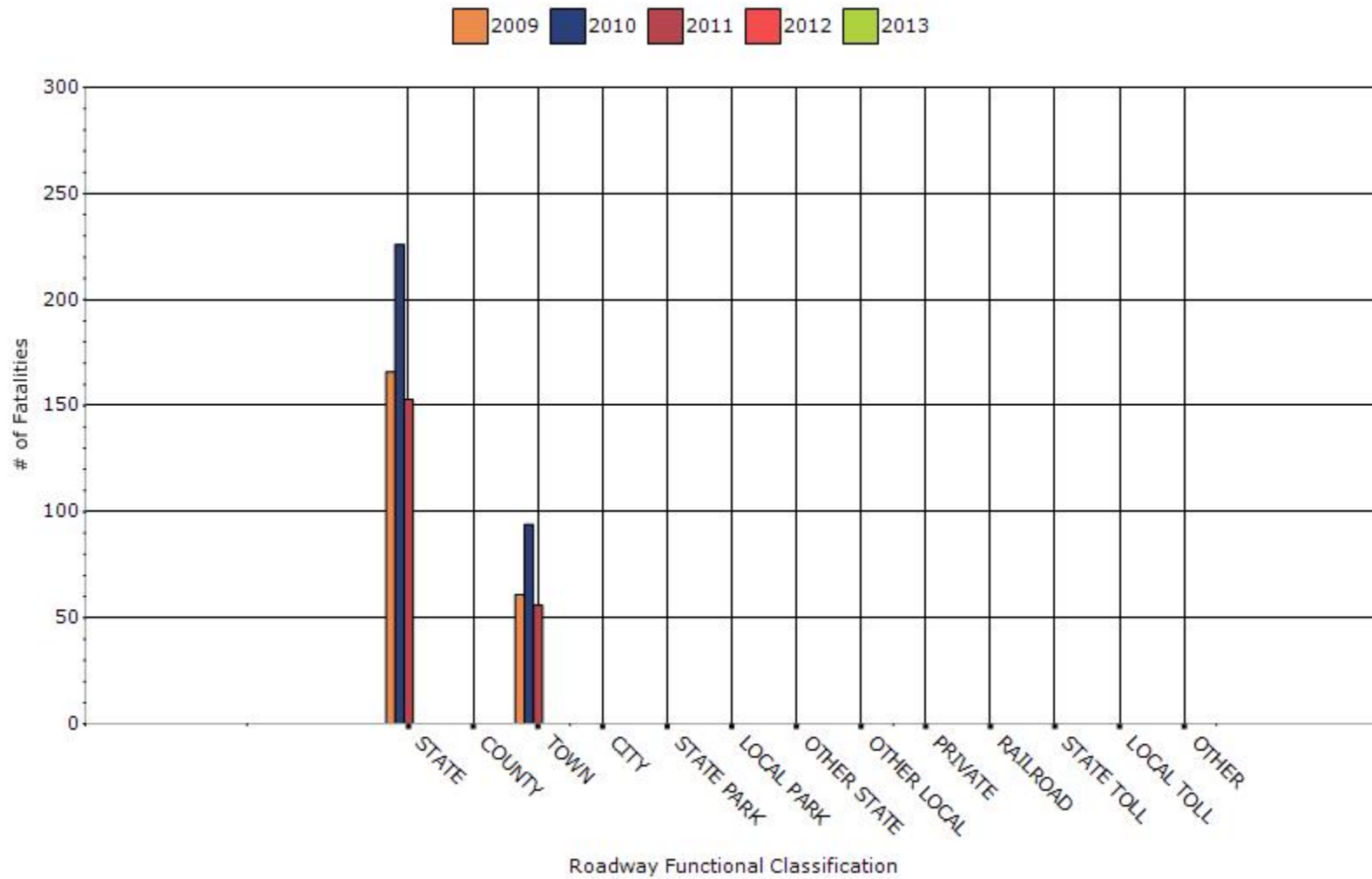
Serious Injury Rate by Roadway Functional Classification



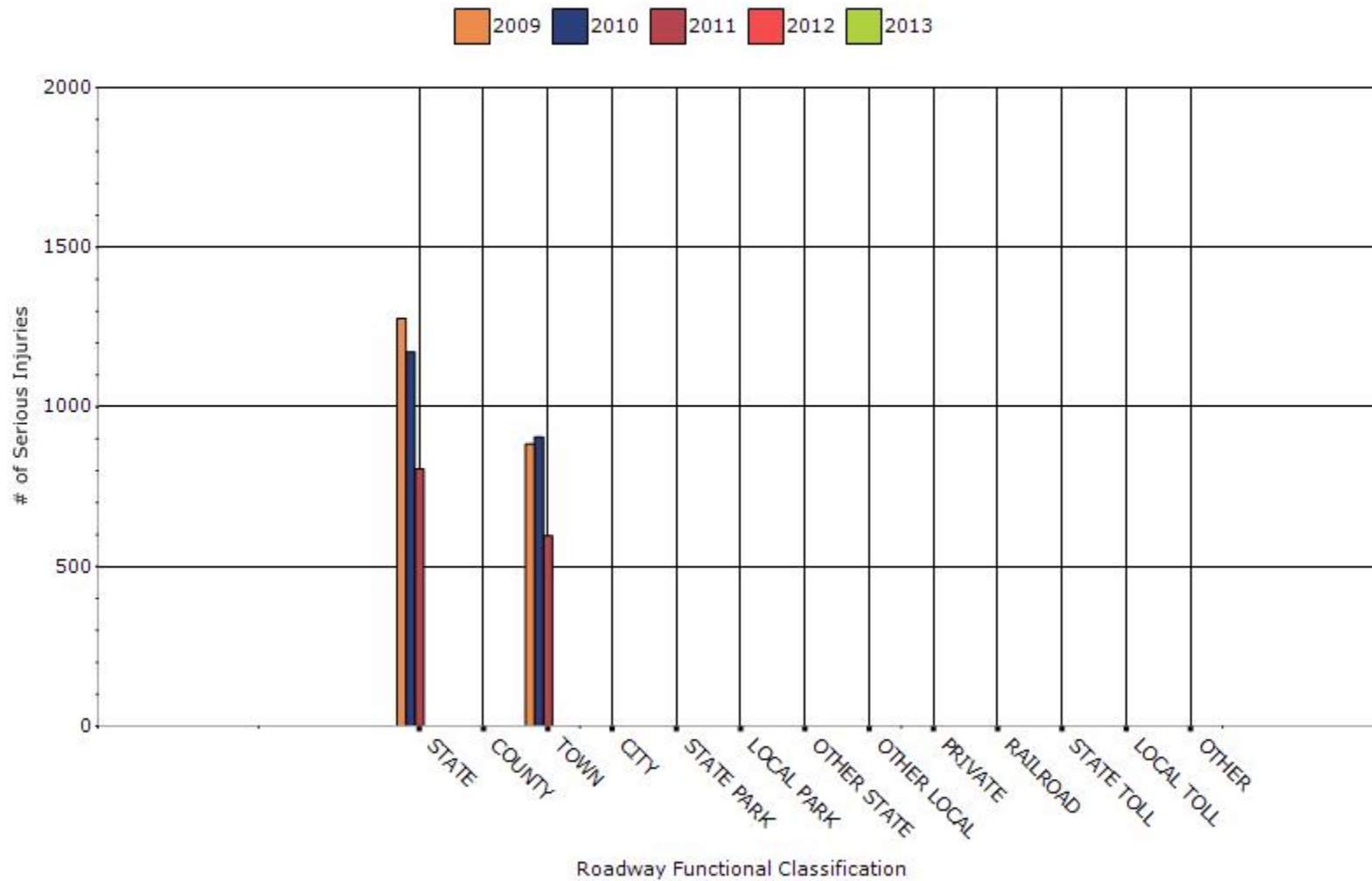
Year - 2011

Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	153	806	0	0
COUNTY HIGHWAY AGENCY	0	0	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	56	597	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	0	0	0	0
STATE PARK, FOREST, OR RESERVATION AGENCY	0	0	0	0
LOCAL PARK, FOREST OR RESERVATION AGENCY	0	0	0	0
OTHER STATE AGENCY	0	0	0	0
OTHER LOCAL AGENCY	0	0	0	0
PRIVATE (OTHER THAN RAILROAD)	0	0	0	0
RAILROAD	0	0	0	0
STATE TOLL AUTHORITY	0	0	0	0
LOCAL TOLL AUTHORITY	0	0	0	0
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)	0	0	0	0

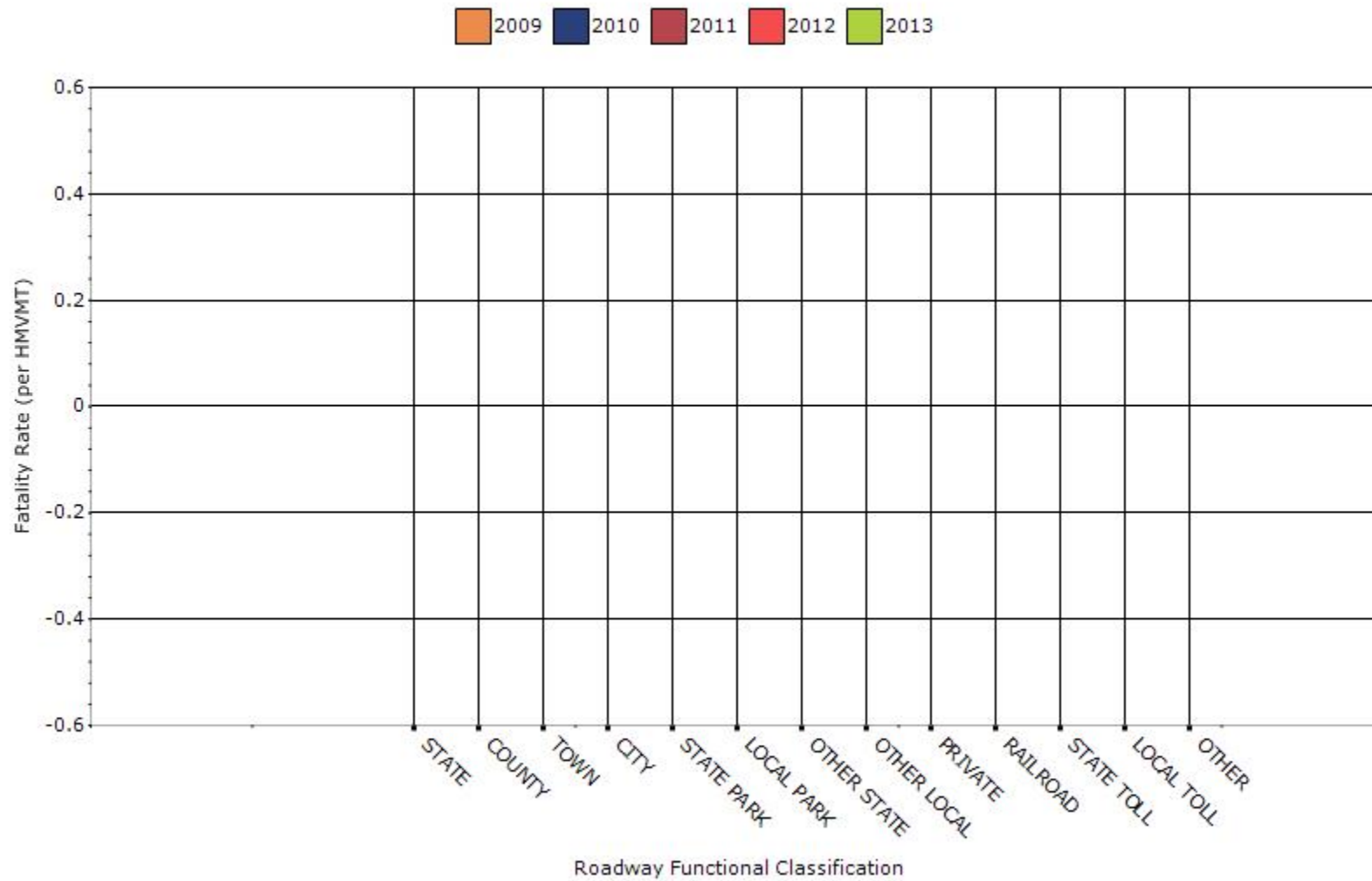
Number of Fatalities by Roadway Ownership



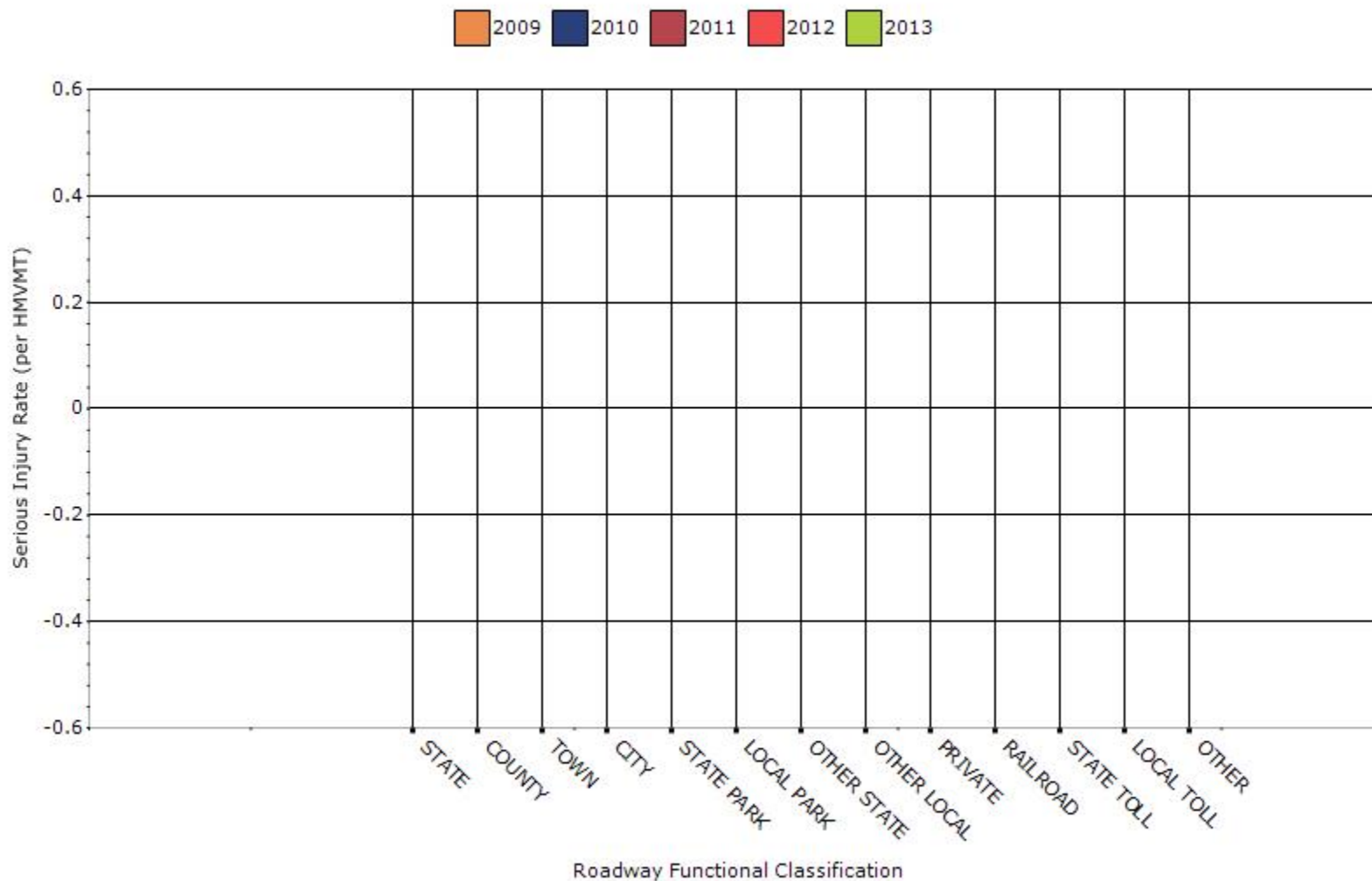
Number of Serious Injuries by Roadway Ownership



Fatality Rate by Roadway Ownership



Serious Injury Rate by Roadway Ownership



The source for the data entered is FARS. Data for 2013 is preliminary.

The number of serious injuries, serious injury rate, and fatality rate is not available for roadway functional class.

Describe any other aspects of the general highway safety trends on which you would like to elaborate.

See attached report prepared by the Department's Highway Safety Office.

Application of Special Rules

Present the rate of traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65.

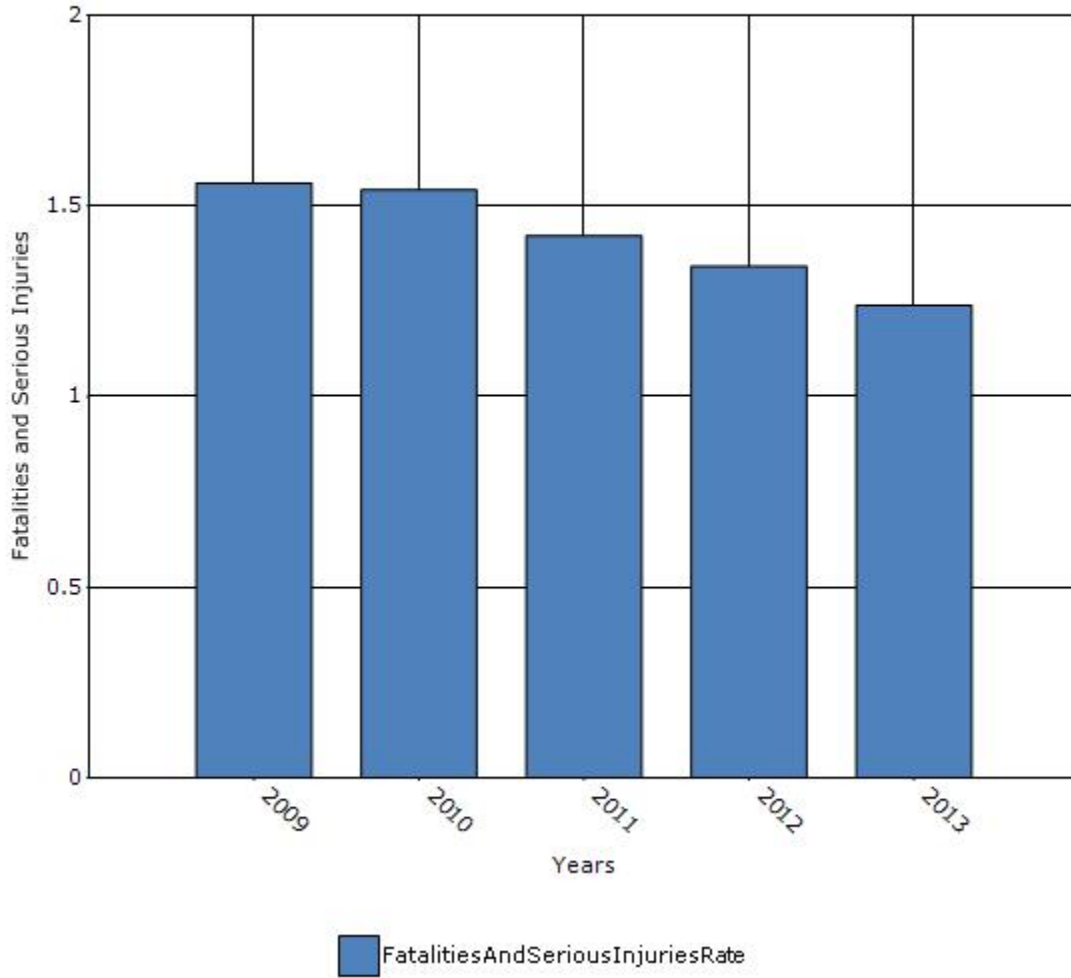
Older Driver Performance Measures	2009	2010	2011	2012	2013
Fatality rate (per capita)	1.56	1.542	1.422	1.342	1.24
Serious injury rate (per capita)	0.218	0.226	0.206	0.214	0.192
Fatality and serious injury rate (per capita)	1.56	1.542	1.422	1.342	1.24

*Performance measure data is presented using a five-year rolling average.

Calculation and methodology used is consistent with Section 148: Older Drivers and Pedestrians Special Rule Interim Guidance issued on 2/13/13 by FHWA Office of Safety.

2013 data is preliminary.

Rate of Fatalities and Serious injuries for the Last Five Years



Does the older driver special rule apply to your state?

No

Assessment of the Effectiveness of the Improvements (Program

What indicators of success can you use to demonstrate effectiveness and success in the Highway Safety Improvement Program?

- None
- Benefit/cost
- Policy change
- Other:

What significant programmatic changes have occurred since the last reporting period?

- Shift Focus to Fatalities and Serious Injuries
- Include Local Roads in Highway Safety Improvement Program
- Organizational Changes
- None
- Other:

Briefly describe significant program changes that have occurred since the last reporting period.

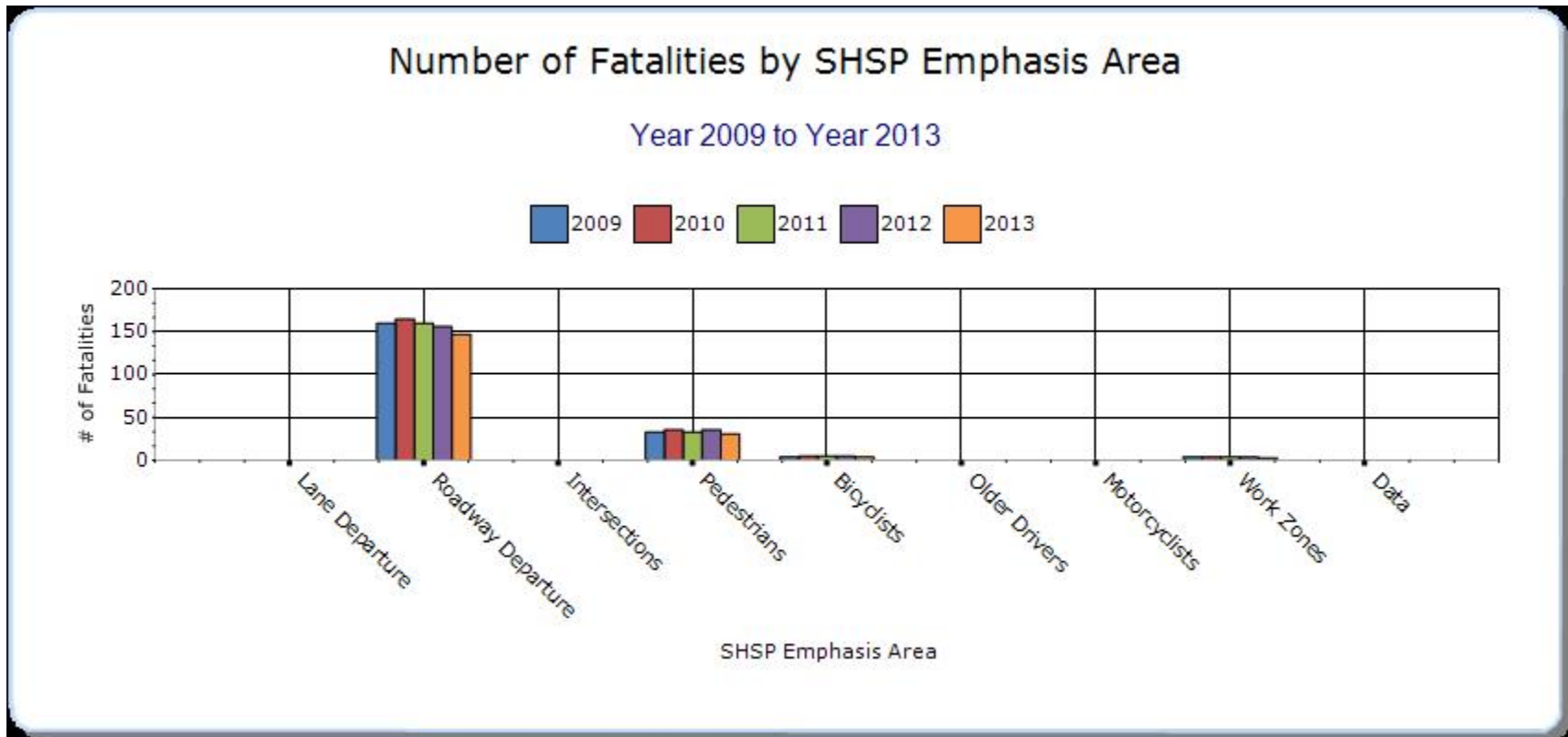
No major programmatic changes have occurred during the FY2014 reporting period.

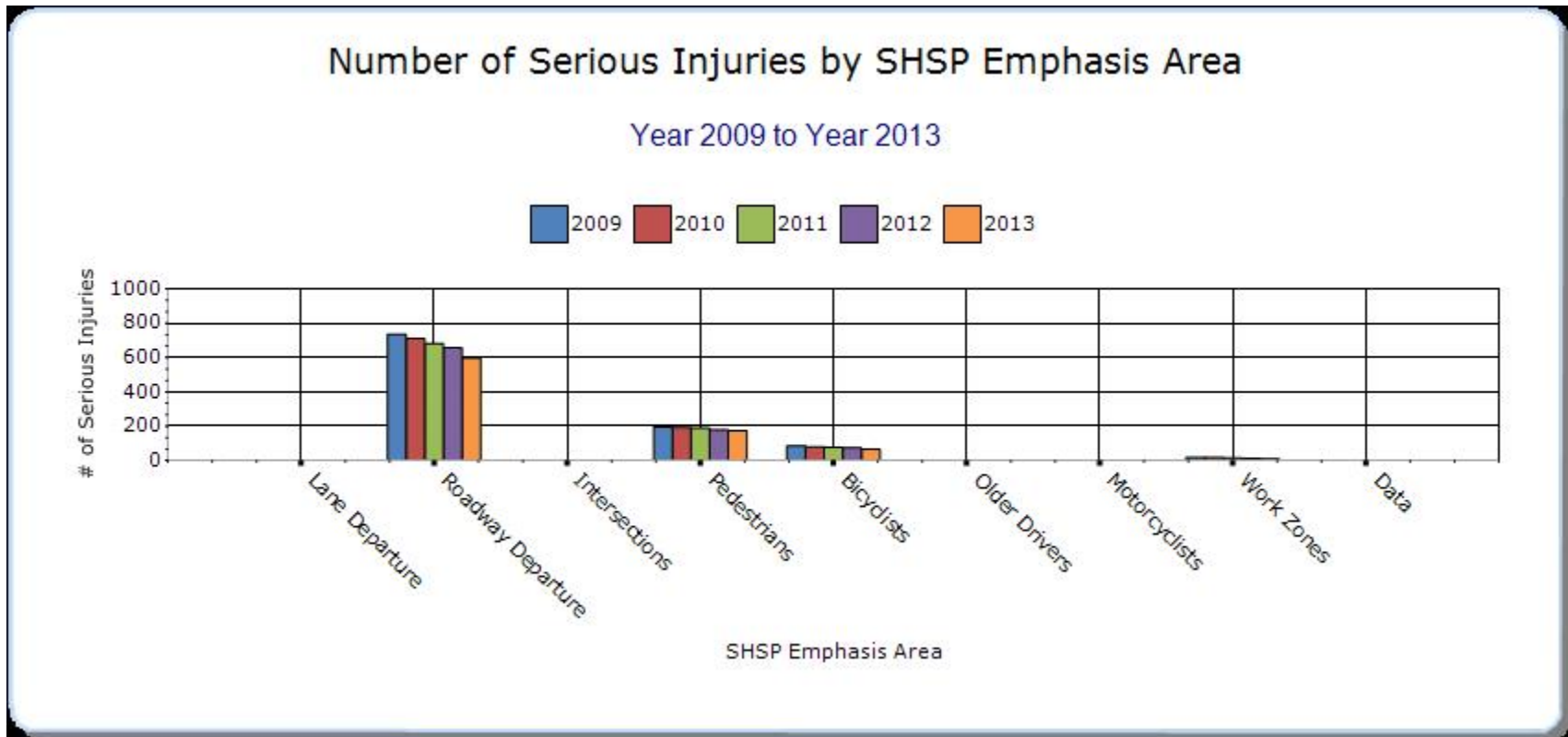
SHSP Emphasis Areas

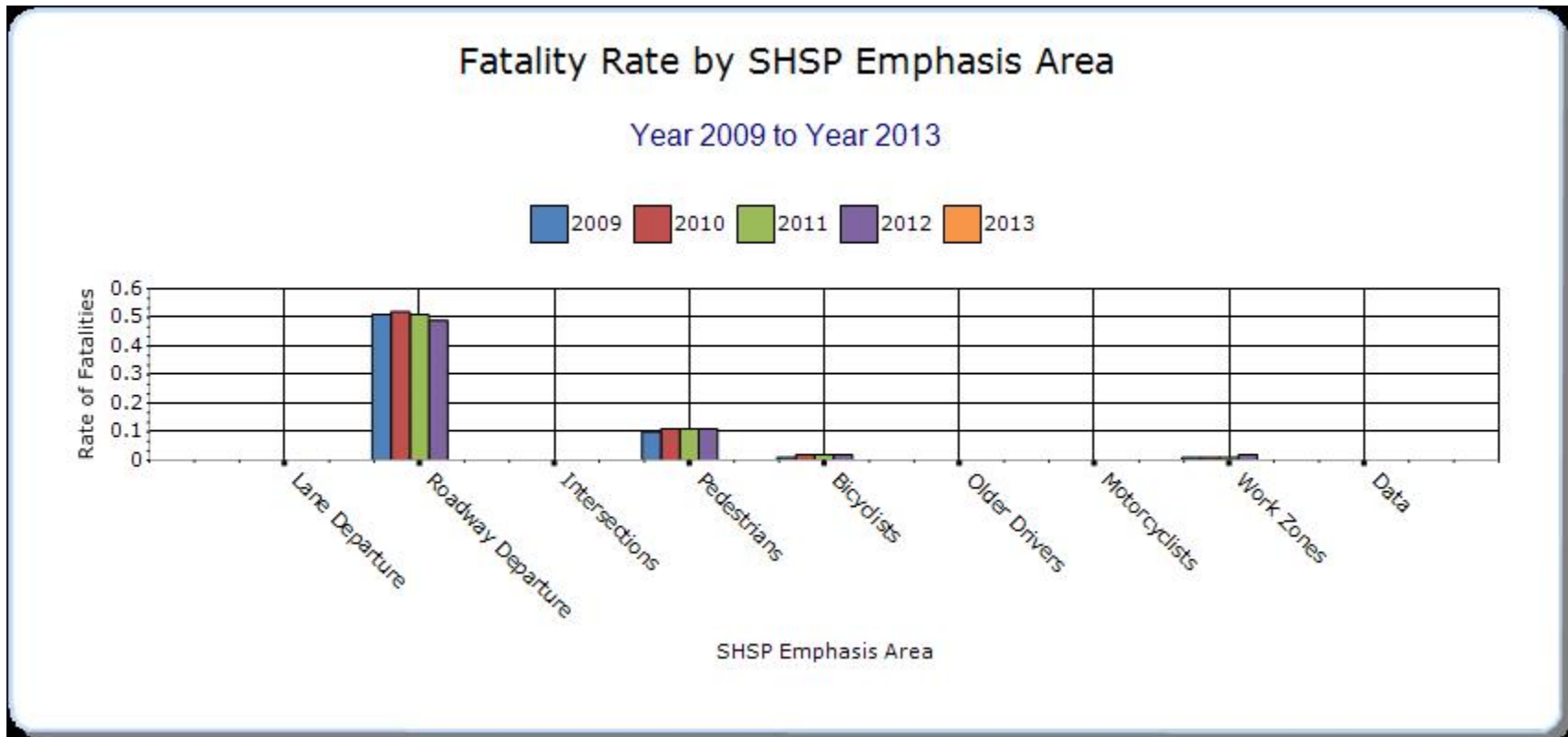
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

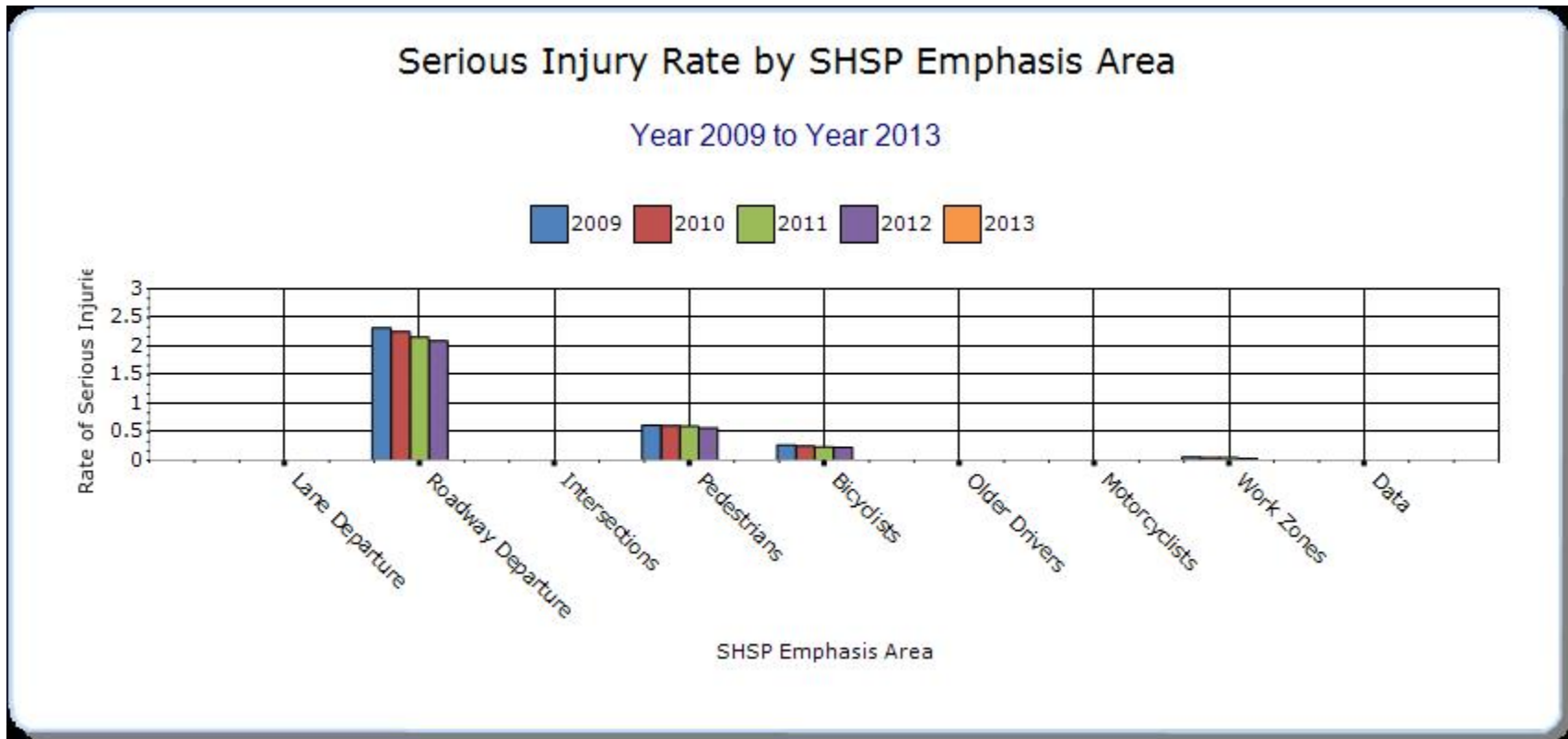
Year - 2013

HSIP-related SHSP Emphasis Areas	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Roadway Departure	All	147	598	0	0	0	0	0
Pedestrians	All	31	174	0	0	0	0	0
Bicyclists	All	4	65	0	0	0	0	0
Work Zones	All	3	9	0	0	0	0	0









Data source is ConnDOT crash file.

Data for 2013 is preliminary.

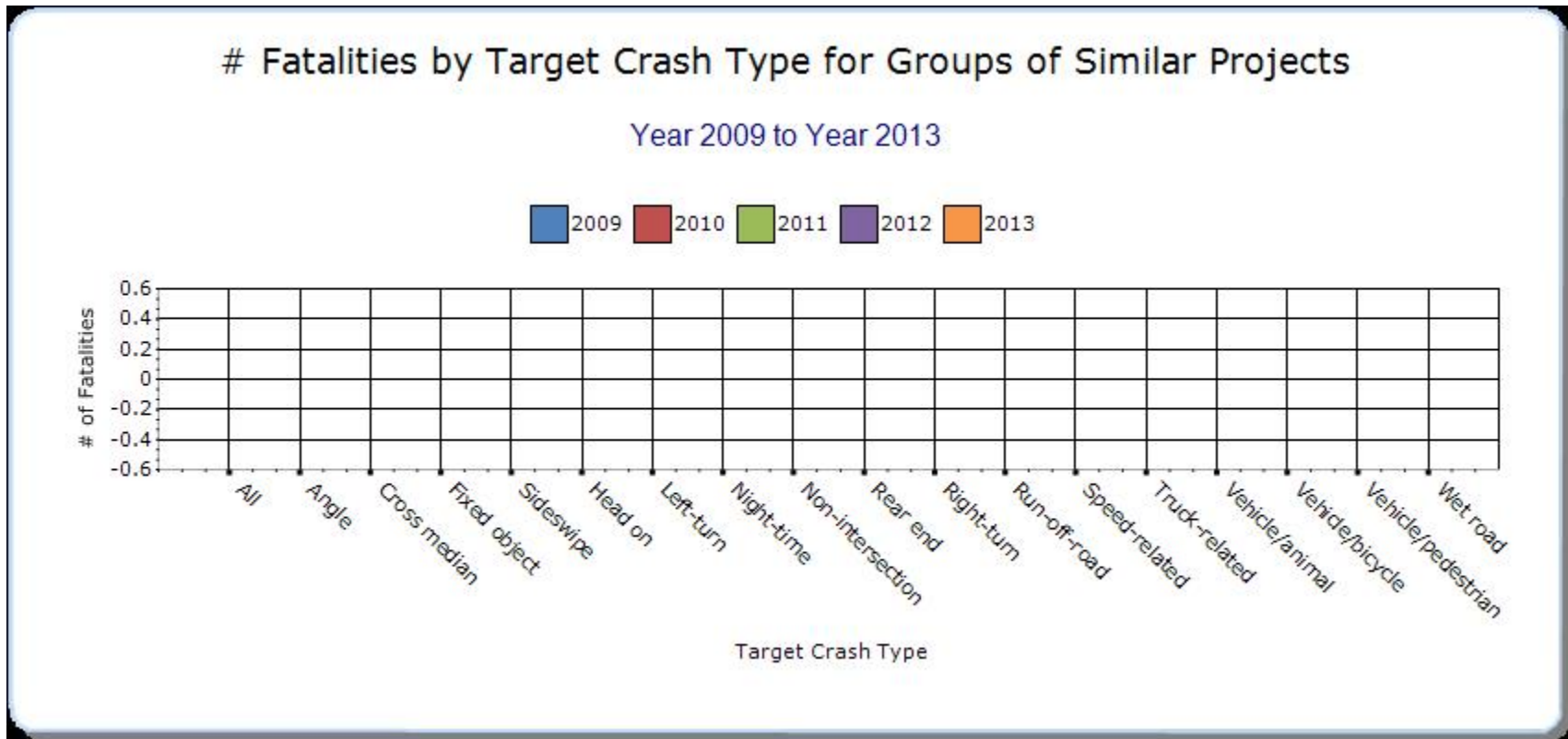
HMVMT data for 2013 is not available.

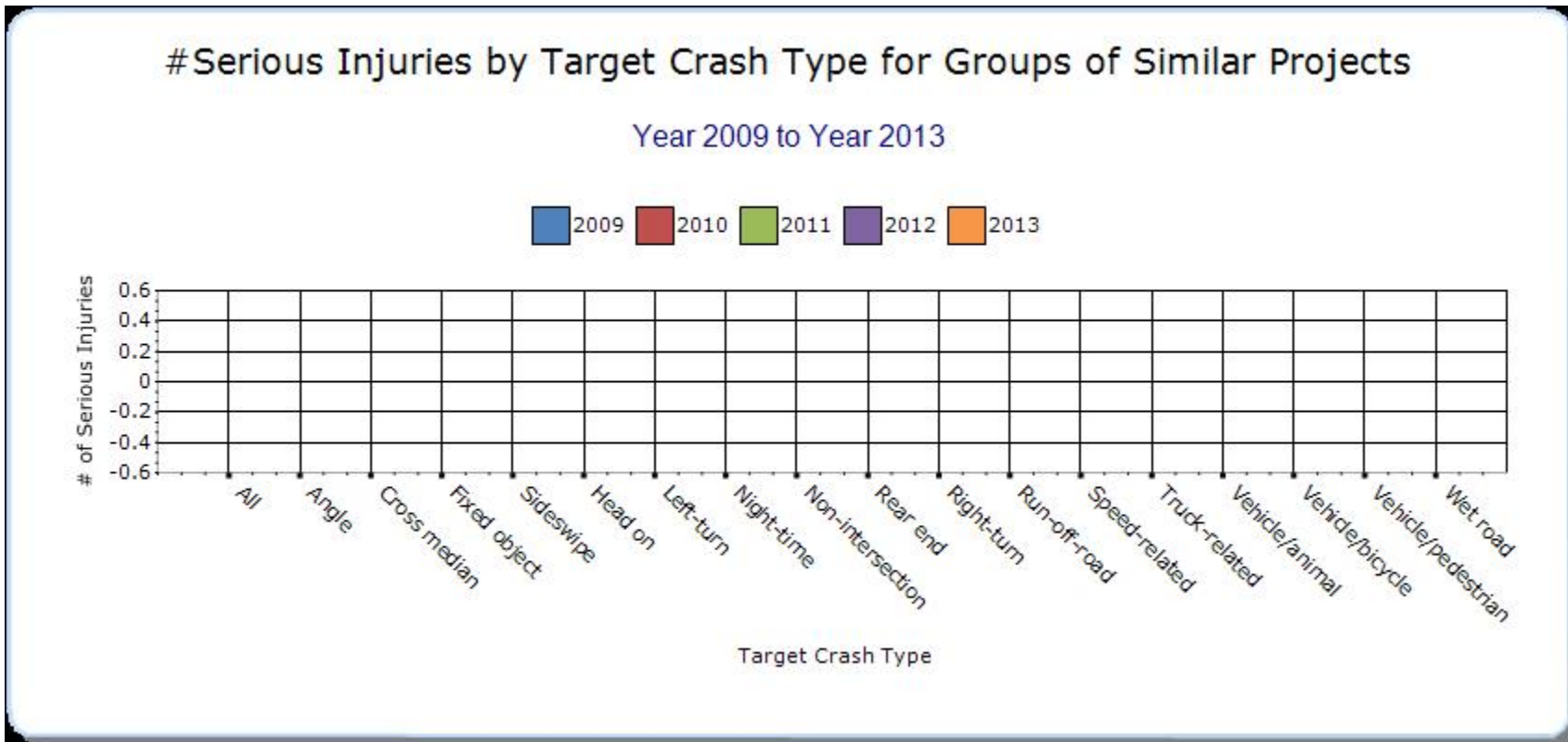
Groups of similar project types

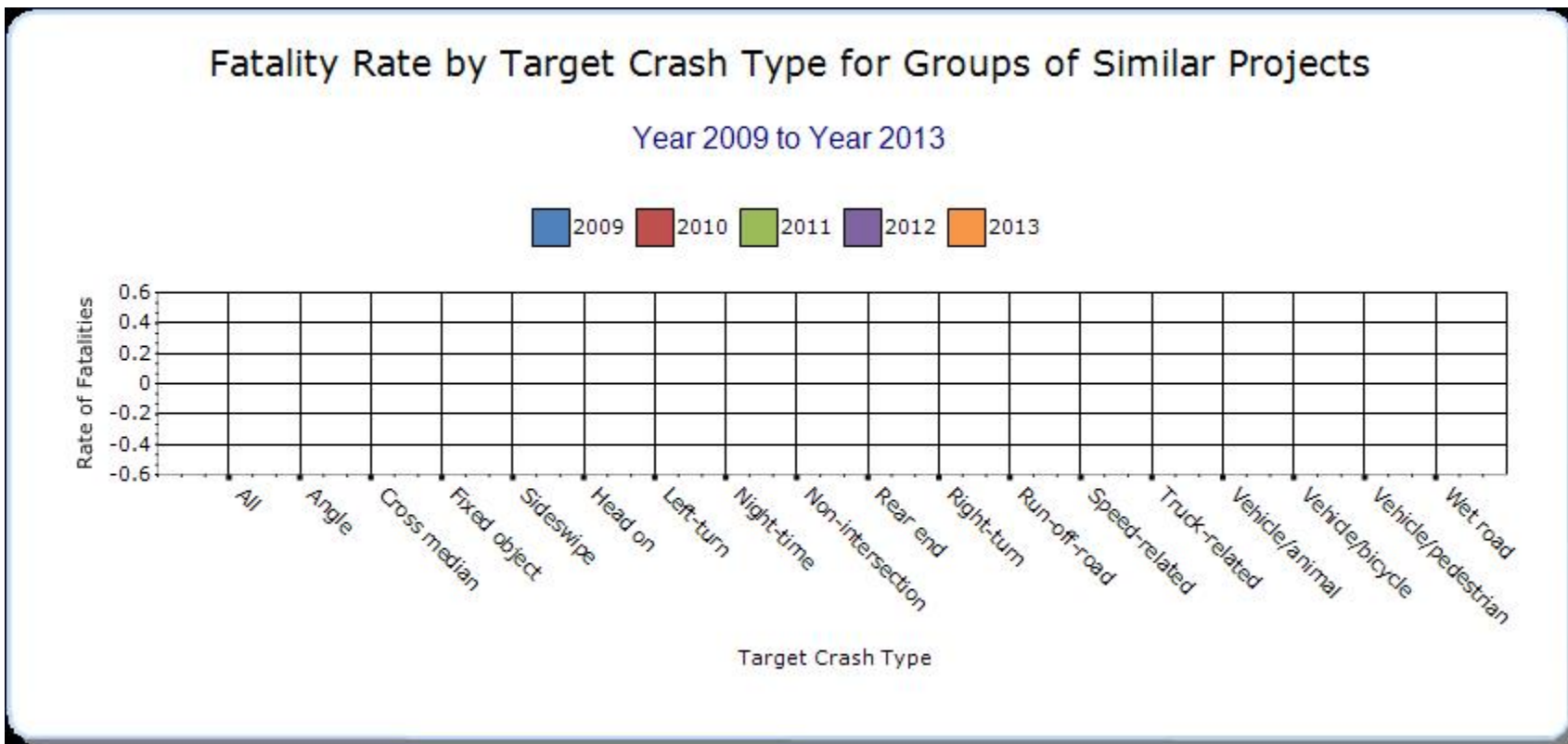
Present the overall effectiveness of groups of similar types of projects.

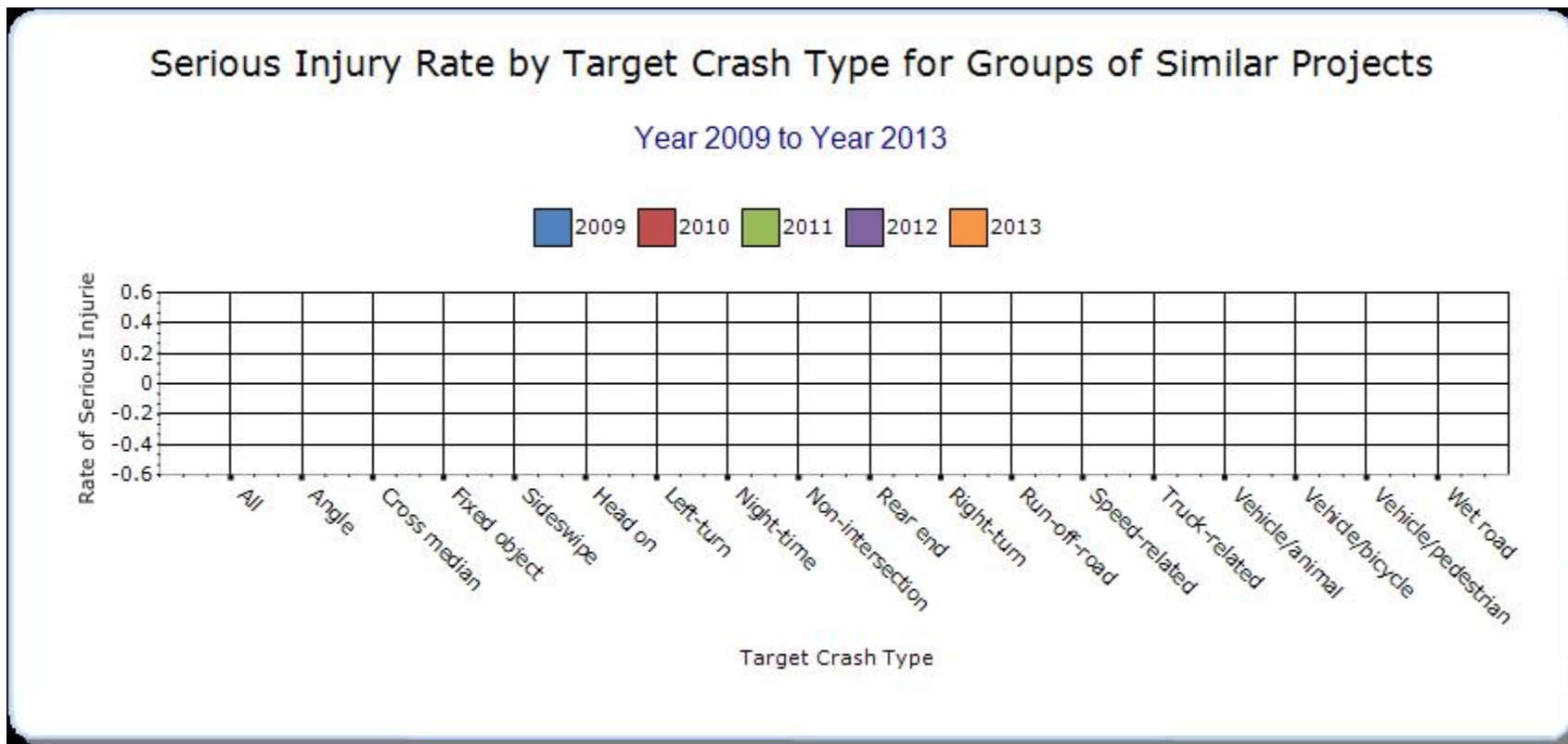
Year - 2009

HSIP Sub-program Types	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Local Safety	to be eval as data is available	0	0	0	0	0	0	0









During this reporting period, some systematic local safety projects intended to target certain crash types are in construction and crash data will be evaluated in the future.

Systemic Treatments

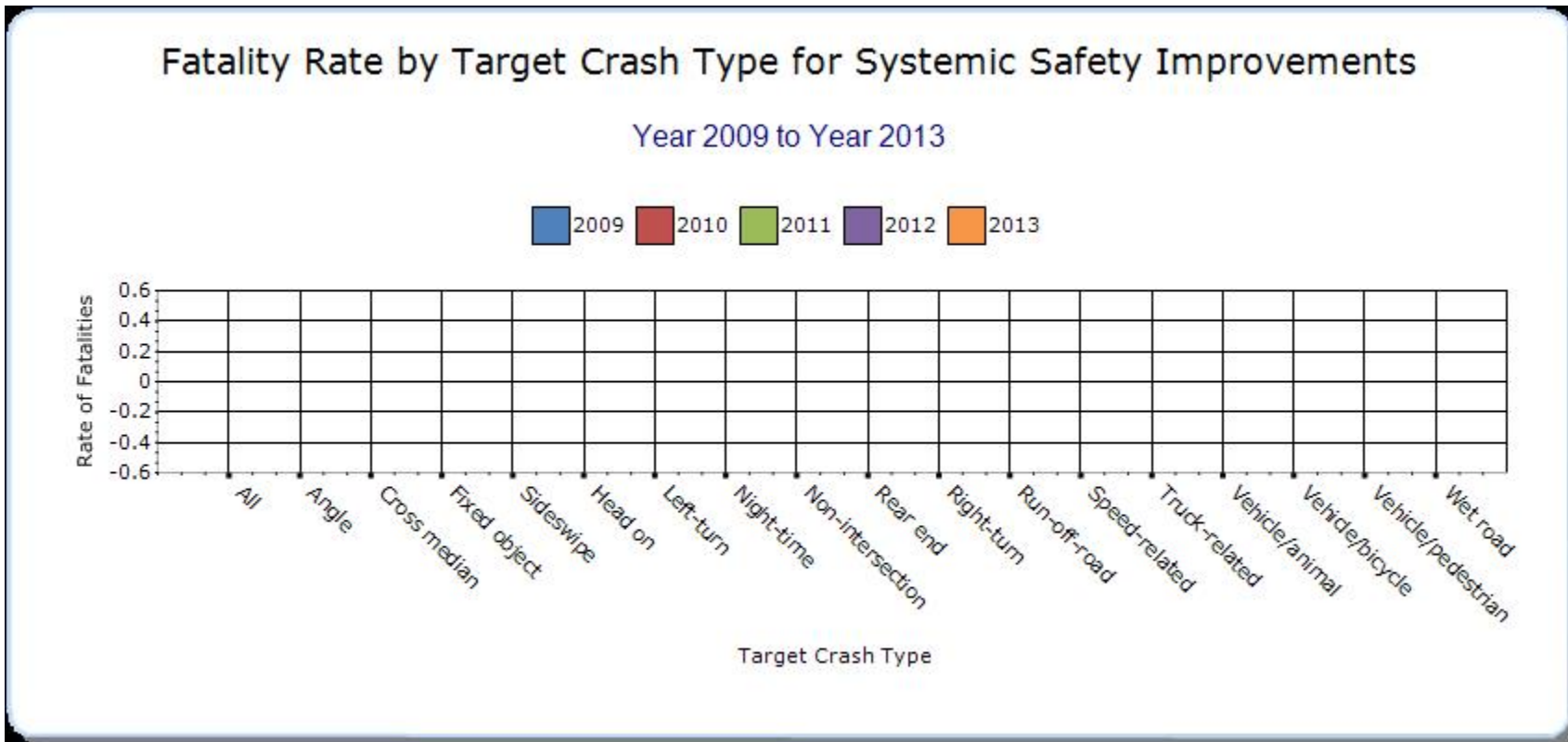
Present the overall effectiveness of systemic treatments.

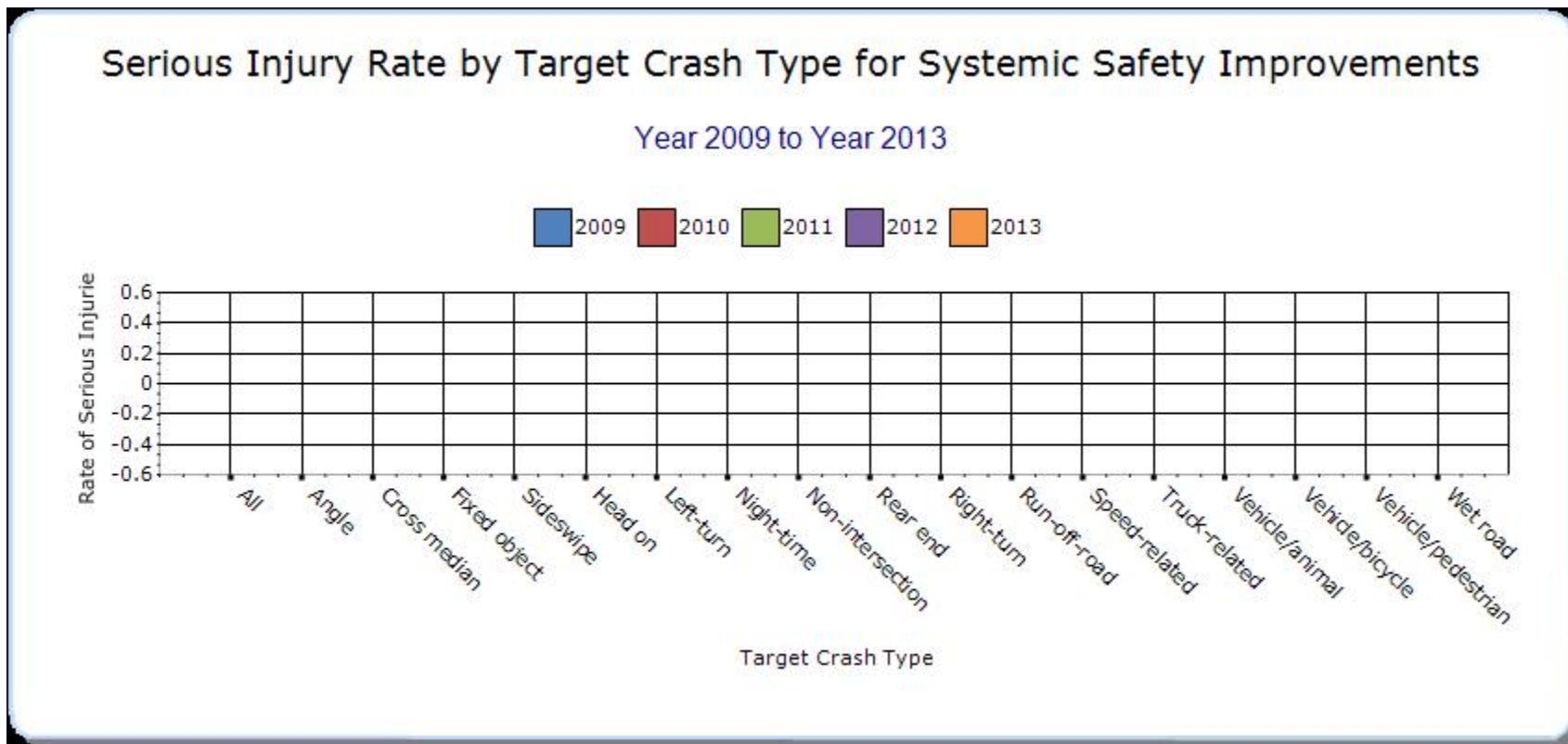
Year - 2013

Systemic improvement	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Rumble Strips	Run-off-road	0	0	0	0	0	0	0









ConnDOT's crash file currently does not have the capability of performing detailed queries. Beginning in 2015, the crash file will be MMUCC 4 compliant which enable ConnDOT to conduct detailed analysis. There is not ample data to report on the effectiveness on the few recently completed systematic safety improvements.

Describe any other aspects of the overall Highway Safety Improvement Program effectiveness on which you would like to elaborate.

HSIP funding has helped CT see a decreasing trend in most crash types over the last several years, not just fatalities and serious injuries. With the help of sustained funding and a renewed focus provided by an updated SHSP, CT expects meet or exceed its overall safety goal of reducing the number of fatalities and serious injuries.

Provide project evaluation data for completed projects (optional).

Location	Functional Class	Improvement Category	Improvement Type	Bef-Fatal	Bef-Serious Injury	Bef-Other Injury	Bef-PDO	Bef-Total	Aft-Fatal	Aft-Serious Injury	Aft-Other Injury	Aft-PDO	Aft-Total	Evaluation Results (Benefit/Cost Ratio)
none at this time														

Optional Attachments

Sections

Files Attached

**Progress in Achieving Safety Performance
Targets: Overview of General Safety Trends**

[Hwy Safety Trends Q26.pdf](#)

Progress in Achieving Safety Performance Targets:
Application of Special Rules

[special rules 65 and older for drivers and peds.xlsx](#)

Glossary

5 year rolling average means the average of five individual, consecutive annual points of data (e.g. annual fatality rate).

Emphasis area means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

Highway safety improvement project means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

HMVMT means hundred million vehicle miles traveled.

Non-infrastructure projects are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

Older driver special rule applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

Performance measure means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

Programmed funds mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

Roadway Functional Classification means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

Strategic Highway Safety Plan (SHSP) means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

Systemic safety improvement means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

Transfer means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.