Highway Safety Improvement Program

Data Driven Decisions

South Carolina
Highway Safety Improvement Program
2015 Annual Report

Prepared by: SC

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."

Table of Contents

Executive Summary

This report provides an overview of SCDOT's administration of the Highway Safety Improvement Program (HSIP). SCDOT's HSIP has a primary focus on state-maintained roads since nearly 96 percent of fatal crashes and the vast majority of severe crashes occur on the state system. This report covers funding obligations from October 1, 2014 to May 31, 2015.

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.

In South Carolina, the vast majority (~96%) of fatal crashes occur on state-maintained roadways. Due to this statistic, our primary focus for safety has been on state-maintained roadways. However, we have recently planned for some intersection improvement projects where a local road intersects with a state-owned road. Additionally, as our crash data is improving in accessibility and completeness, we will incorporate local roads into our safety funding if a viable need is observed.

It is also worth noting that South Carolina maintains the fifth largest highway system in the nation at over 41,000 center-line miles of roadway, despite a land area of roughly 30,000 square miles.

Furthermore, 19% of all public roads in the nation are state maintained while South Carolina's public roads encompass 63% of its total roadway miles.

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

☒Design

☒Planning

☒Maintenance

☒Operations

☐Governors Highway Safety Office

☐Other:

Briefly describe coordination with internal partners.

Several partners within SCDOT and consultants are involved thoughout the process of HSIP planning. Many of our safety improvements are designed by our Safety Project group within Traffic Engineering and they are involved with project design or oversight on all projects to ensure proper designs. Our Planning office is consulted during the selection process to determine if any qualifying projects have been identified for improvements through other funding sources such as the Metropolitan Planning Organizations (MPOs) or Council of Governments (COGs). Our Maintenance office is also contacted to ensure that there are no conflicting maintenance activities such as resurfacing or pavement marking contracts that involve overlapping work. Operations are monitored through other Traffic Engineering offices or consultants to ensure that all projects include consideration of proper traffic operations by conducting traffic volume counts, Synchro analysis, signal operations, etc.

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-No changes have been made since the last reporting period

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

Highway Safety Improvement Program Process

Every state is required by the federal government to administer a Highway Safety Improvement Program (HSIP). Part 924 of Title 23 of the Code of Federal Regulations (CFR) states, in part:

924.5Policy. *"Each state shall develop and implement, on a continuing basis, a highway safety improvement program which has the overall objective of reducing the number and severity of accidents and decreasing the potential for accidents on all highways."*

924.7 Program Structure. *"The highway safety improvement program in each state shall consist of components for planning, implementation, and evaluation of safety programs and projects."*

The purpose of the South Carolina HSIP is to establish guidelines for the effective use of available funds, to reduce the number and severity of crashes and to decrease the potential for crashes on highways in the state.

The program consists of the following three components: planning, implementation, and evaluation.

1. PLANNING

a. Data Management

In order to locate hazardous locations the following information is essential:

- Crash data – Crash reports are provided by ***DPS***.
- Traffic data – Traffic volumes are provided by the ***Traffic Engineering***.
- Roadway Data – Road characteristics are provided by the ***Traffic Engineering***.

b. Identify Hazardous Locations

Using the information listed above, potential locations are identified by:

- Recommendations from SCDOT and FHWA personnel.
- Requests from governmental units other than SCDOT and FHWA.
- Requests from citizens.
- Ongoing research of all fatal crash reports received from DPS.
- Ongoing research of the HSIP database.

The HSIP database has been established to identify, prioritize, and provide guidance for selecting potential projects. The information gathered for a location is analyzed using the following methods:

- Crash Rate – Equates frequency of crashes to traffic volumes (and length of roadway if section). A typical crash rate would be expressed in # of crashes per million vehicles entering (if intersection) or per one hundred million vehicle miles of travel (if section).

Severity Rate – A weighted calculation for determining the severity of the crashes. It is based on the EPDO (Equivalent Property Damage Only) method from studies performed by the National Safety Council and the Traffic Institute at Northwestern University. The severity indices used are listed below: (from the Traffic Institute at Northwestern University)

Fatality = 12

Injury = 3

Property Damage Only = 1

- Rate Quality

This method entails the calculation of the crash rate at each location and a statistical test to determine if that rate is significantly higher than crash rates for other locations with similar characteristics.

The critical rate is compared to the actual crash rate for each location. If the actual crash rate exceeds the critical rate, then the location may be considered for improvement.

- Number-Rate

Combines crash frequency and crash rate methods by first ranking by the number of crashes. Establishes a frequency threshold and then re-ranks the locations. Based on a crash rate threshold, locations with lower crash rates are eliminated.

c. Conduct Engineering Studies

Once a potential project location has been identified, the following steps are taken to determine if geometric improvements can be implemented that will reduce the volume and severity of the crashes reported at the location.

- Analyze Project Location

Crash reports are obtained and analyzed for locations selected for detailed review. Results from analyses along with engineering judgment are used to determine if further investigation is needed along with site review.

- Develop Candidate Countermeasures and Project Proposals

Site reviews are conducted to determine characteristics of locations relative to types of crashes occurring. Improvements are recommended to address patterns in crashes.

- Establish Project Priorities

Estimate costs for recommended improvements at each site along with expected reduction in crashes for these improvements. Summarize estimated costs and benefits for improvements and determine the most cost effective improvement alternative for a location using the ***Net Benefit Method*** along with engineering judgment.

The ***net benefit method*** compares the estimated annual costs of implementing the selected countermeasure to the expected annual benefits. The expected annual benefit is calculated using the most current "***comprehensive costs***" of motor vehicle traffic crashes and the

estimated crash reduction percentage expected as a result of implementing the selected countermeasure.

Comprehensive costs are a measure of motor vehicle accident costs that include the effects of injury on people's entire lives. This is the most useful measure of accident cost since it includes all cost components and places a dollar value on each one. Comprehensive life values are estimated by examining risk reduction costs from which the market value of safety is inferred. The 11 components of the comprehensive cost are: property damage, lost earnings, lost household production, medical costs, emergency services, travel delay, vocational rehabilitation, workplace costs, administrative, legal, pain, and lost quality of life.

2. IMPLEMENTATION

Given that the overall charge of the HSIP program is to reduce the number and severity of crashes, it is imperative that the implementation phase be carried out in a timely manner. Once the project has been approved for funding, it is necessary to design and schedule the project to implement the improvements. All HSIP Projects are managed by one of the following offices:

- Preconstruction
- Traffic Engineering
- Consultant

Given the appropriate conditions, *a Participation Agreement* may be arranged with other governmental entities. A participation agreement is a contractual partnership between the SCDOT and one or more other governmental entities where funding is combined to complete a project. The agreement includes the specifying of the roles, responsibilities, and financial obligations of each participant.

3. EVALUATION

To Determine the Effect of Highway Safety Improvements

Before and After Studies are conducted on all HSIP projects to evaluate the effectiveness of the overall program by observed changes in crash number, rate and severity resulting from program implementation. The HSIP office conducts studies three years after final inspection of a project. The studies include:

- Photographs of existing conditions at the site prior to improvements.
- After a period of no less than 3 years after the completion of the project, crash data and the most recent traffic volumes are collected for the location.

- The data collected *before* implementing safety improvements is then compared with the data collected *after* the improvements have been completed.
- The information described above is used to calculate the resulting crash rate reduction factor for the improved site. The total cost of the project along with the reduction factor is used to conduct a *Benefit Cost Analysis* to determine the overall effectiveness of the project.
- Photographs of the improved conditions are recorded along with all *Benefit Cost Analysis.* This information is used to help with the selection of future projects.

Program Methodology

Select the programs that are administered under the HSIP.

☐ Median Barrier	☐ Intersection	☐ Safe Corridor
☐ Horizontal Curve	☐ Bicycle Safety	☐ Rural State Highways
☐ Skid Hazard	☐ Crash Data	☐ Red Light Running Prevention
☐ Roadway Departure	☐ Low-Cost Spot Improvements	☐ Sign Replacement And Improvement
☐ Local Safety	☐ Pedestrian Safety	☐ Right Angle Crash
☐ Left Turn Crash	☐ Shoulder Improvement	☐ Segments
☒ Other: Other-Safety Program		

Program: **Other-Safety Program**

Date of Program Methodology: **1/1/2015**

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
☒ All crashes	☒ Traffic	☒ Median width

☒ Fatal crashes only	☒ Volume	☐ Horizontal curvature
☒ Fatal and serious injury crashes only	☐ Population	☒ Functional classification
☐ Other	☒ Lane miles	☐ Roadside features
	☐ Other	☐ 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

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process

☐ selection committee

☐ Other

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

☒ Ranking based on B/C	3
☒ Available funding	2
☐ Incremental B/C	
☒ Ranking based on net benefit	3
☒ Cost Effectiveness	1

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

30

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

☐ Cable Median Barriers

☒ Rumble Strips

☐ Traffic Control Device Rehabilitation

☐ Install/Improve Signing

☐ Upgrade Guard Rails

☒ Safety Edge

☒ Add/Upgrade/Modify/Remove Traffic Signal

☒ Pavement/Shoulder Widening

☐ Install/Improve Pavement Marking and/or Delineation

☐ Clear Zone Improvements

☐ Install/Improve Lighting

☐ 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.

Projects selected for the HSIP have historically been based on one of the following analysis methods:

1. Crash Rate Method
2. Rate Quality Control Method
3. Crash Severity Method
4. Number Rate Method

In addition to these methods, the Highway Safety Manual provides additional statistical methods and safety performance functions that are also being incorporated in the selection process.
All of the HSIP projects are selected under the guise of the SCDOT Strategic Highway Safety Plan (SHSP) where “Safety” is identified as a top priority for the agency. SCDOT released an update to the SHSP in early 2015, which covers the performance period from 2015 to 2018 and includes updated performance goals and emphasis areas based on Moving Ahead for Progress in the 21st Century (MAP-21) requirements. SCDOT has adopted the Target Zero initiative as the State's main goal in addressing traffic-related deaths.

HSIP projects are developed in collaboration with the following emphasis areas identified in the 2015 SHSP which are:

1. Roadway Departure
2. Unrestrained Motor Vehicle Occupants
3. Age-Related
4. Speed-Related
5. Vulnerable Roadway Users
6. Intersection and Other High-Risk Roadway Locations
7. Impaired Driving
8. Commercial Motor Vehicles/ Heavy Trucks
9. Safety Data Collection, Access, and Analysis

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)	52313270	73 %	22790697	73 %
HRRRP (SAFETEA-LU)	45715	0 %	54428	0 %
HRRR Special Rule				
Penalty Transfer - Section 154				
Penalty Transfer – Section 164	12000000	17 %	6051868	19 %
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)	759049	1 %	806998	3 %
State and Local Funds	6381966	9 %	1440286	5 %

Totals	71500000	100%	31144277	100%

How much funding is programmed to local (non-state owned and maintained) safety projects?

$0.00

How much funding is obligated to local safety projects?

$0.00

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

$4,653,465.00

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

$4,653,465.00

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

$14,000,000.00

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

$2,000,000.00

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

The obligations shown in the above chart cover a period from October 1, 2014 to May 31, 2015. SCDOT currently has advance construction funds on the books to be obligated in June, July, August, and September on various safety projects to utilize remaining HSIP allocations. The $14,000,000 in funding from question #20 refers to the estimated amount that SCDOT will receive by the end of this Federal Fiscal Year (September 30th). This amount is not available as a whole at the beginning of the fiscal year, it is provided in portions throughout the year.

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

None.

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
US 21 @ SC 170 & S-761	Access management Change in access - close or restrict existing access	1 Numbers	100000	100000	HSIP (Section 148)	Urban Principal Arterial - Other	29200	0	State Highway Agency	Intersections	
Target Zero Media Campaign MOA-1-15	Non-infrastructure Educational efforts	1 Numbers	1200000	1200000	Penalty Transfer – Section 164		0	0		Engineering, enforcement, and education	
Target Zero Campaign FY15-16 TRA-1-15	Non-infrastructure Enforcement	1 Numbers	2000000	2000000	Penalty Transfer – Section 164		0	0		Engineering, enforcement, and education	
Richland I-77 Feasibility Study	Non-infrastructure Transportation safety planning	1 Numbers	50000	50000	HSIP (Section 148)		0	0		Corridor Study	

SC 153 Feasibility Study	Non-infrastructure Transportation safety planning	1 Numbers	100000	100000	HSIP (Section 148)		0	0		Corridor Study	
2015-2016 Road Safety Audits	Non-infrastructure Road safety audits	1 Numbers	200000	200000	HSIP (Section 148)		0	0		Road Safety Audit	
SC 56 Feasibility Study	Non-infrastructure Transportation safety planning	1 Numbers	100000	100000	HSIP (Section 148)		0	0		Corridor Study	
FY 15 Admin Safety Improvement Program	Non-infrastructure Training and workforce development	1 Numbers	750000	750000	HSIP (Section 148)		0	0		Employee Compensation	
S-179 (E McIver Road)	Shoulder treatments Shoulder treatments - other	2.93 Miles	403206.26	403206.26	Penalty Transfer – Section 164	Rural Major Collector	6400	0	State Highway Agency	Roadway Departure	
S-13 (E National Cemetery Rd)	Shoulder treatments Shoulder treatments - other	9.87 Miles	858066.33	858066.33	Penalty Transfer – Section 164	Rural Major Collector	2139	0	State Highway Agency	Roadway Departure	
S-627 (Pleasant	Shoulder treatments Shoulder treatments -	6.34 Miles	1032399.74	1474856.77	Penalty Transfe	Rural Major	646	0	State Highwa	Roadway Departure	

View Dr/ Redmond Rd)	other				r – Section 164	Collector			y Agency		
S-60 (Wire Rd)	Shoulder treatments Shoulder treatments - other	2.88 Miles	558196.03	1116392.06	Penalty Transfer – Section 164	Rural Major Collector	3500	0	State Highway Agency	Roadway Departure	
S-47 (White Pond Road/ Porter Cross Road)	Shoulder treatments Shoulder treatments - other	3.9 Miles	762867.45	762867.45	HSIP (Section 148)	Rural Major Collector	687	0	State Highway Agency	Roadway Departure	
S-485 (Three and Twenty Rd/ St Paul Rd)	Shoulder treatments Shoulder treatments - other	6.34 Miles	1737964.69	1737964.69	HSIP (Section 148)	Rural Major Collector	1500	0	State Highway Agency	Roadway Departure	
SC 9 @ Foster Road	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	50000	50000	HSIP (Section 148)	Rural Minor Arterial	8400	0	State Highway Agency	Intersections	
SC9/S-664	Intersection geometry Intersection geometry - other	1 Numbers	9100	9100	HSIP (Section 148)	Rural Principal Arterial - Other	5150	0	State Highway Agency	Intersections	

SC 9/ Flag Patch Road	Intersection geometry Intersection geometry - other	1 Numbers	4400	4400	HSIP (Section 148)	Rural Principal Arterial - Other	5500	0	State Highway Agency	Intersections	
US 321 Safety Section Project	Shoulder treatments Shoulder treatments - other	7 Miles	23632.89	23632.89	HSIP (Section 148)	Rural Minor Arterial	3200	0	State Highway Agency	Roadway Departure	
SC 34 Safety Section Widening Project	Shoulder treatments Shoulder treatments - other	3.36 Miles	229791.2	229791.2	HSIP (Section 148)	Rural Minor Arterial	4900	0	State Highway Agency	Roadway Departure	
S-29 Safety Section Widening Project	Shoulder treatments Shoulder treatments - other	1.85 Miles	33672.52	33672.52	HSIP (Section 148)	Rural Major Collector	3000	0	State Highway Agency	Roadway Departure	
S-34 S-1848 AND S-1910 (PLATT SPRGS@KYZER & MCLEE)	Intersection traffic control Intersection traffic control - other	1 Numbers	100000	100000	HSIP (Section 148)	Urban Major Collector	5850	0	State Highway Agency	Intersections	
US 21 @ S-499	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	19000	19000	HSIP (Section 148)	Rural Major Collector	5420	0	State Highway Agency	Intersections	

FY14 STWD PE - ADMIN HWY SAFETY IMPROV PROG NON-RR	Non-infrastructure Training and workforce development	1 Numbers	612026.31	612026.31	HSIP (Section 148)		0	0		Employee Compensation	
S- 62 INTERSEC. IMPROVEMENT	Access management Change in access - close or restrict existing access	1 Numbers	200000	200000	HSIP (Section 148)	Urban Minor Arterial	41550	0	State Highway Agency	Intersections	
S- 146 WIDENING	Shoulder treatments Shoulder treatments - other	1 Miles	14000	14000	HRRRP (SAFETEA-LU)	Rural Local Road or Street	1680	0	State Highway Agency	Roadway Departure	
S-272 SAFETY IMPROVEMENT	Shoulder treatments Shoulder treatments - other	4.06 Miles	8007.27	8007.27	HRRRP (SAFETEA-LU)	Rural Major Collector	1400	0	State Highway Agency	Roadway Departure	
S-25/S-522 Intersection Improvement	Intersection traffic control Modify control - all-way stop to roundabout	1 Numbers	111878.8	111878.8	HSIP (Section 148)	Urban Major Collector	9400	0	State Highway Agency	Intersections	
S- 52 OTHER	Roadway Roadway widening - add lane(s) along segment	1.55 Miles	175000	175000	HSIP (Section 148)	Rural Principal Arterial -	18200	0	State Highway	Section/ Corridor	

						Other			Agency		
SC 3 INTERSEC. IMPROVEMENT	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	175000	175000	HSIP (Section 148)	Rural Minor Arterial	3025	0	State Highway Agency	Intersections	
S- 82 INTERSEC. IMPROVEMENT	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	114600	114600	HSIP (Section 148)	Urban Major Collector	10544	0	State Highway Agency	Intersections	
US 501 INTERSEC. IMPROVEMENT	Intersection geometry Auxiliary lanes - modify left-turn lane offset	1 Numbers	658177.78	658177.78	HSIP (Section 148)	Urban Principal Arterial - Other	23050	0	State Highway Agency	Intersections	
S- 377 INTERSEC. IMPROVEMENT	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	175000	175000	HSIP (Section 148)	Urban Major Collector	14440	0	State Highway Agency	Intersections	
FY13 STWD PREL. ENGR. FOR HAZARD ELIM SYS (NON-RR)	Non-infrastructure Data/traffic records	1 Numbers	691438.91	691438.91	HSIP (Section 148)		0	0		Data	
SC 414 WIDENING	Shoulder treatments Shoulder treatments - other	8.42 Miles	60678.82	63622.14	HSIP (Section 148)	Rural Major Collector	1440	0	State Highway	Roadway Departure	

									Agency		
CHARLESTON SAFETY SIGNAL UPGRADES	Intersection traffic control Modify traffic signal - miscellaneous/other/unspecified	1 Numbers	34574.87	34574.87	HSIP (Section 148)	Varies	0	0	State Highway Agency	Intersections	
Rumble Stripes - Dist. 6 2014	Roadway Rumble strips - edge or shoulder	92.23 Miles	243523.07	243523.07	HSIP (Section 148)	Varies	0	0	State Highway Agency	Roadway Departure	
Rumble Stripes - Dist. 5 2014	Roadway Rumble strips - edge or shoulder	142.67 Miles	224243.39	224243.39	HSIP (Section 148)	Varies	0	0	State Highway Agency	Roadway Departure	
Rumble Stripes - Dist. 4 2014	Roadway Rumble strips - edge or shoulder	72.8 Miles	153378.31	153378.31	HSIP (Section 148)	Varies	0	0	State Highway Agency	Roadway Departure	
Rumble Stripes - Dist. 7 2014	Roadway Rumble strips - edge or shoulder	151.13 Miles	236517.59	236517.59	HSIP (Section 148)	Varies	0	0	State Highway Agency	Roadway Departure	
S- 24 WIDENING	Shoulder treatments Shoulder treatments -	2.15 Miles	1673	1673	HRRRP (SAFET	Rural Major	700	0	State Highway	Roadway Departure	

	other				EA-LU)	Collector			Agency		
VAR SIGNAL UPGRADE LOCATIONS THROUGHOUT DISTRICT 5	Intersection traffic control Modify traffic signal - miscellaneous/other/unspecified	1 Numbers	108963.72	108963.72	HSIP (Section 148)		0	0		Intersections	
SC 101 @ S-135 INTERSEC. IMPROVEMENTS	Intersection traffic control Modify control - traffic signal to roundabout	1 Numbers	124000	124000	HSIP (Section 148)	Urban Major Collector	6850	0	State Highway Agency	Intersections	
SC 146 @ SC 417 INTERSEC. IMPROVEMENTS	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	209599.68	209599.68	HSIP (Section 148)	Urban Minor Arterial	20600	0	State Highway Agency	Intersections	
SC 9 @ S-420	Intersection geometry Intersection geometry - other	1 Numbers	18200	18200	HSIP (Section 148)	Rural Principal Arterial - Other	6000	0	State Highway Agency	Intersections	
S- 70 INTERSEC. IMPROVEMENTS	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	790986.16	790986.16	HSIP (Section 148)	Urban Major Collector	9800	0	State Highway Agency	Intersections	
S- 106 INTERSEC.	Intersection traffic control Modify control -	1 Numb	981447.	981447.	HSIP (Sectio	Urban Major	100	0	State Highwa	Intersectio	

IMPROVEMENTS	two-way stop to roundabout	ers	5	5	n 148)	Collector	57		y Agency	ns	
US 21/S-52 Intersection Improvement	Intersection traffic control Intersection traffic control - other	1 Numbers	200630	200630	HSIP (Section 148)	Urban Minor Arterial	14900	0	State Highway Agency	Intersections	
S- 1274 INTERSEC. IMPROVEMENTS	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	728910.79	728910.79	HSIP (Section 148)	Urban Major Collector	5500	0	State Highway Agency	Intersections	
SC 38 INTERSEC. IMPROVEMENTS	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	1208224.76	1208224.76	HSIP (Section 148)	Urban Minor Arterial	7100	0	State Highway Agency	Intersections	
SC 118/S-105 INTERSEC. IMPROVEMENTS	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	37852.22	37852.22	HSIP (Section 148)	Urban Principal Arterial - Other	9450	0	State Highway Agency	Intersections	
SC 462 WIDENING RESURFACE	Shoulder treatments Shoulder treatments - other	35.7 Miles	35826.91	35826.91	HRRRP (SAFETEA-LU)	Rural Minor Arterial	3226	0	State Highway Agency	Roadway Departure	
Rumble Stripes - Dist.	Roadway Rumble strips - edge or shoulder	149.37 Miles	57181.84	57181.84	HSIP (Sectio	Varies	0	0	State Highwa	Roadway Departure	

3 2012					n 148)				y Agency		
Rumble Stripes - Dist. 2 2012	Roadway Rumble strips - edge or shoulder	144.91 Miles	50000	50000	HSIP (Section 148)	Varies	0	0	State Highway Agency	Roadway Departure	
S- 1041 OTHER SAFETY IMPROVEMENT PROJECT	Shoulder treatments Shoulder treatments - other	0.75 Miles	25000	25000	HSIP (Section 148)	Urban Major Collector	3500	0	State Highway Agency	Roadway Departure	
Intersection Improvement @ SC 24 & SC 59	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	1319288.76	1319288.76	HSIP (Section 148)	Rural Minor Arterial	7500	0	State Highway Agency	Intersections	
S- 87/S-488	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	1454140.69	1454140.69	HSIP (Section 148)	Urban Major Collector	6250	0	State Highway Agency	Intersections	
US 178 INTERSEC. IMPROVEMENT	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	130000	130000	HSIP (Section 148)	Rural Minor Arterial	7570	0	State Highway Agency	Intersections	
SC 290 INTERSEC.	Intersection geometry Auxiliary lanes - add left-	1 Numb	62574.44	62574.44	HSIP (Sectio	Urban Minor	19000	0	State Highwa	Intersectio ns	

IMPROVEMENT	turn lane	ers			n 148)	Arterial			y Agency		
S- 1912 INTERSEC. IMPROVEMENT	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	40000	40000	HSIP (Section 148)	Urban Major Collector	8900	0	State Highway Agency	Intersections	
SC 763 INTERSEC. IMPROVEMENT	Intersection traffic control Intersection traffic control - other	1 Numbers	134219.7	134219.7	HSIP (Section 148)	Urban Minor Arterial	6550	0	State Highway Agency	Intersections	
S- 65/S-663/S-1471	Intersection traffic control Intersection traffic control - other	1 Numbers	1410933.55	1410933.55	HSIP (Section 148)	Rural Major Collector	2532	0	State Highway Agency	Intersections	
I- 85 INTERSEC. IMPROVEMENT	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	341284.02	341284.02	HSIP (Section 148)	Rural Principal Arterial - Interstate	28675	0	State Highway Agency	Intersections	
SC 19 INTERSEC. IMPROVEMENT	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	34526.15	34526.15	HSIP (Section 148)	Rural Principal Arterial - Other	10490	0	State Highway Agency	Intersections	
SC 38 INTERSEC. IMPROVEME	Intersection traffic control Modify control - two-way stop to	1 Numb	148200	148200	HSIP (Sectio	Rural Minor	6588	0	State Highway	Intersections	

NT	roundabout	ers			n 148)	Arterial			Agency		
US 17 INTERSEC. IMPROVEMENTS	Intersection geometry Intersection geometry - other	1 Numbers	661600	661600	HSIP (Section 148)	Urban Principal Arterial - Other	51300	0	State Highway Agency	Intersections	
S- 529 INTERSEC. IMPROVEMENT	Intersection traffic control Intersection traffic control - other	1 Numbers	129042.04	129042.04	HSIP (Section 148)	Urban Principal Arterial - Other	16425	0	State Highway Agency	Intersections	
RUMBLE STRIPS ON VARIOUS ROUTES IN DISTRICT 5	Roadway Rumble strips - edge or shoulder	320.66 Miles	62406.04	62406.04	HSIP (Section 148)	Varies	0	0	State Highway Agency	Roadway Departure	
HFSC om Various Routes (I-20, I-26, & I-77)	Roadway Pavement surface - high friction surface	8 Numbers	96000	96000	HSIP (Section 148)	Varies	0	0	State Highway Agency	Roadway Departure	
SC 24 INTERSEC. IMPROVEMENTS	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	223007.51	223007.51	HSIP (Section 148)	Rural Principal Arterial - Other	12150	0	State Highway Agency	Intersections	
S- 955 INTERSEC. IMPROVEME	Alignment Horizontal curve realignment	1 Numbers	23763.14	23763.14	HSIP (Section 148)	Urban Major Collector	3810	0	State Highway	Intersections	

NT									Agency		
SHSP MANAGEMENT POSITION @SCDPS	Non-infrastructure Training and workforce development	1 Numbers	150000	150000	HSIP (Section 148)		0	0		Employee Compensation	
S- 77 INTERSEC. IMPROVEMENT	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	148393.2	148393.2	HSIP (Section 148)	Rural Major Collector	4900	0	State Highway Agency	Intersections	
US 21 INTERSEC. IMPROVEMENT	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	22222.22	22222.22	HSIP (Section 148)	Urban Principal Arterial - Other	19550	0	State Highway Agency	Intersections	
I- 26 REHABILITATION	Roadway Superelevation / cross slope	3.27 Miles	106074.54	106074.54	HSIP (Section 148)	Rural Principal Arterial - Interstate	0	0	State Highway Agency	Roadway Departure	
S- 15 INTERSEC. IMPROVEMENT	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	44423.01	44423.01	HSIP (Section 148)	Urban Minor Arterial	8050	0	State Highway Agency	Intersections	
SC 81 INTERSEC. IMPROVEMENTS	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	175538.3	175538.3	HSIP (Section 148)	Rural Major Collector	3220	0	State Highway Agency	Intersections	

S- 30 INTERSEC. IMPROVEMENT	Intersection traffic control Intersection traffic control - other	1 Numbers	991576.35	991576.35	HSIP (Section 148)	Urban Minor Arterial	10650	0	State Highway Agency	Intersections	
SC 254 INTERSEC. IMPROVEMENT	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	33333.33	33333.33	HSIP (Section 148)	Urban Major Collector	8400	0	State Highway Agency	Intersections	
SC 291 INTERSEC. IMPROVEMENTS	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	250000	250000	HSIP (Section 148)	Urban Principal Arterial - Other	26300	0	State Highway Agency	Intersections	
I- 26 GUARDRAIL	Roadside Removal of roadside objects (trees, poles, etc.)	30 Miles	1910874.32	1910874.32	HSIP (Section 148)	Rural Principal Arterial - Interstate	37856	0	State Highway Agency	Roadway Departure	
US 52 INTERSECTION IMPROVEMENTS	Intersection geometry Intersection geometry - other	1 Numbers	20000	20000	HSIP (Section 148)	Rural Principal Arterial - Other	19642	0	State Highway Agency	Intersections	
S- 25 INTERSEC. IMPROVEMENT	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	20076.7	20076.2	HSIP (Section 148)	Urban Principal Arterial - Other	16813	0	State Highway Agency	Intersections	

S- 51 INTERSEC. IMPROVEMENT	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	10000	10000	HSIP (Section 148)	Urban Major Collector	12900	0	State Highway Agency	Intersections	
S- 166 INTERSEC. IMPROVEMENT	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	34886.23	33810.48	HSIP (Section 148)	Urban Minor Arterial	21750	0	State Highway Agency	Intersections	
S- 28 INTERSEC. IMPROVEMENT	Intersection traffic control Intersection traffic control - other	1 Numbers	138049.65	138049.65	HSIP (Section 148)	Urban Major Collector	12450	0	State Highway Agency	Intersections	
SC 116 INTERSEC. IMPROVEMENT	Intersection geometry Intersection geometry - other	1 Numbers	2922.14	2922.14	HSIP (Section 148)	Urban Major Collector	7391	0	State Highway Agency	Intersections	
S- 64 INTERSEC. IMPROVEMENT	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	489909.24	489909.24	HSIP (Section 148)	Rural Major Collector	3300	0	State Highway Agency	Intersections	
US 401 INTERSEC. IMPROVEMENT	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	71587.89	71587.89	HSIP (Section 148)	Rural Minor Arterial	4625	0	State Highway Agency	Intersections	

SC 6 INTERSEC. IMPROVEMENTS	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	7783.83	7783.83	HSIP (Section 148)	Rural Major Collector	9050	0	State Highway Agency	Intersections	
Low Cost Intersection Improvements	Intersection traffic control Intersection signing - miscellaneous/other/unspecified	2200 Numbers	150404.09	150404.09	HSIP (Section 148)	Varies	0	0	State Highway Agency	Intersections	
I-20 @ SC 215 RAMP EXTENSIONS	Interchange design Extend existing lane on ramp	1 Numbers	353779.62	353779.62	HSIP (Section 148)	Urban Principal Arterial - Interstate	98700	0	State Highway Agency	Intersections	
US 321 INTERSEC. IMPROVEMENTS	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	96.22	96.22	HSIP (Section 148)	Rural Principal Arterial - Other	7650	0	State Highway Agency	Intersections	

Progress in Achieving Safety Performance Targets

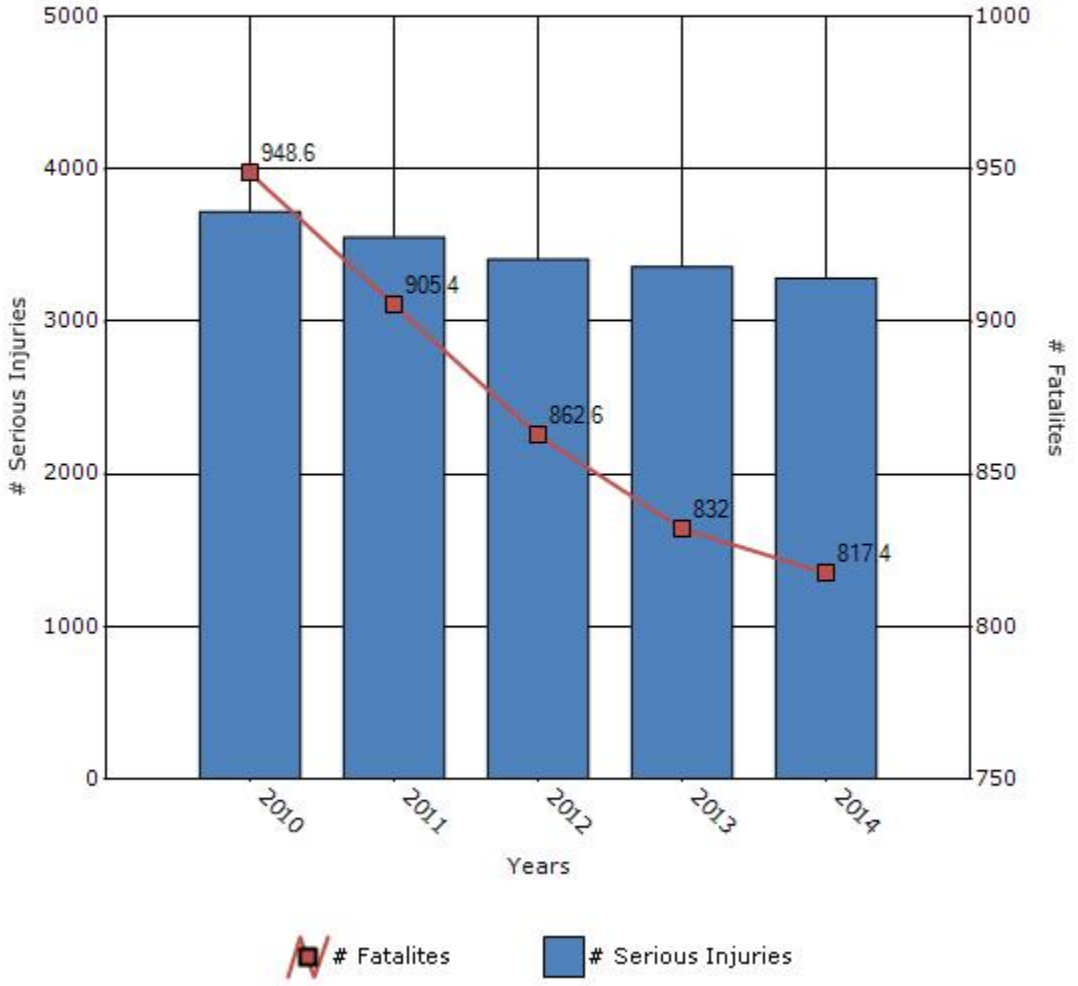
Overview of General Safety Trends

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

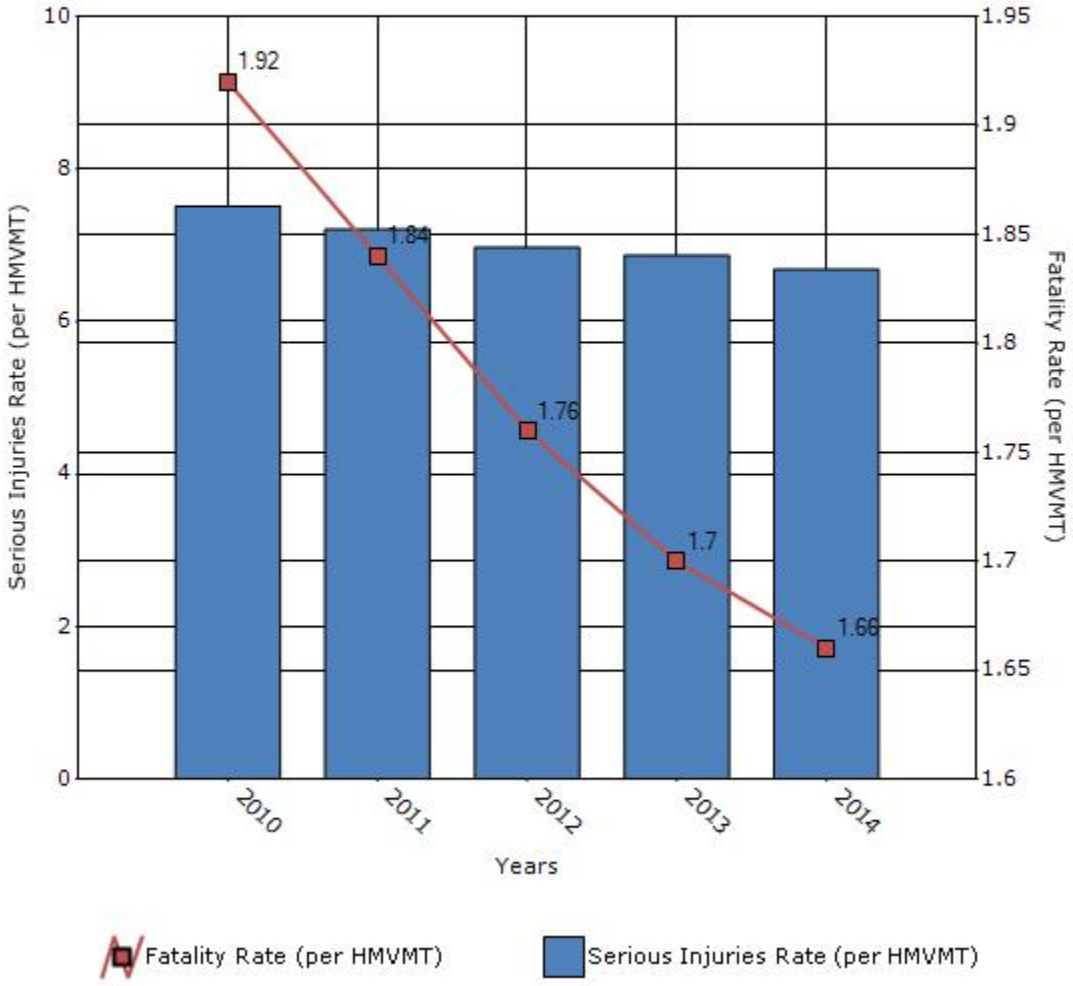
Performance Measures*	2010	2011	2012	2013	2014
Number of fatalities	948.6	905.4	862.6	832	817.4
Number of serious injuries	3718.4	3550.8	3408.6	3357.2	3282.4
Fatality rate (per HMVMT)	1.92	1.84	1.76	1.7	1.66
Serious injury rate (per HMVMT)	7.51	7.21	6.97	6.87	6.68

*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

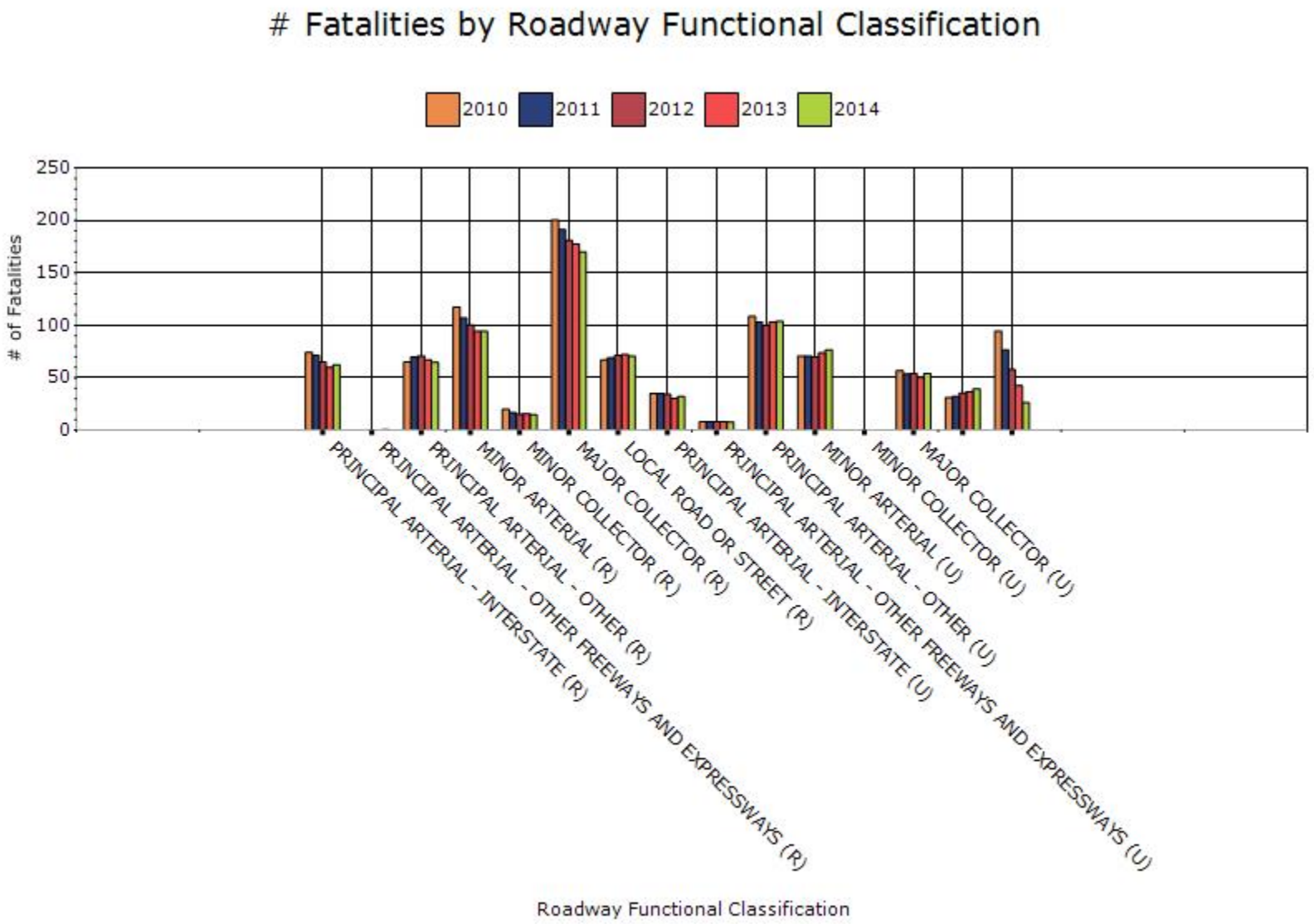


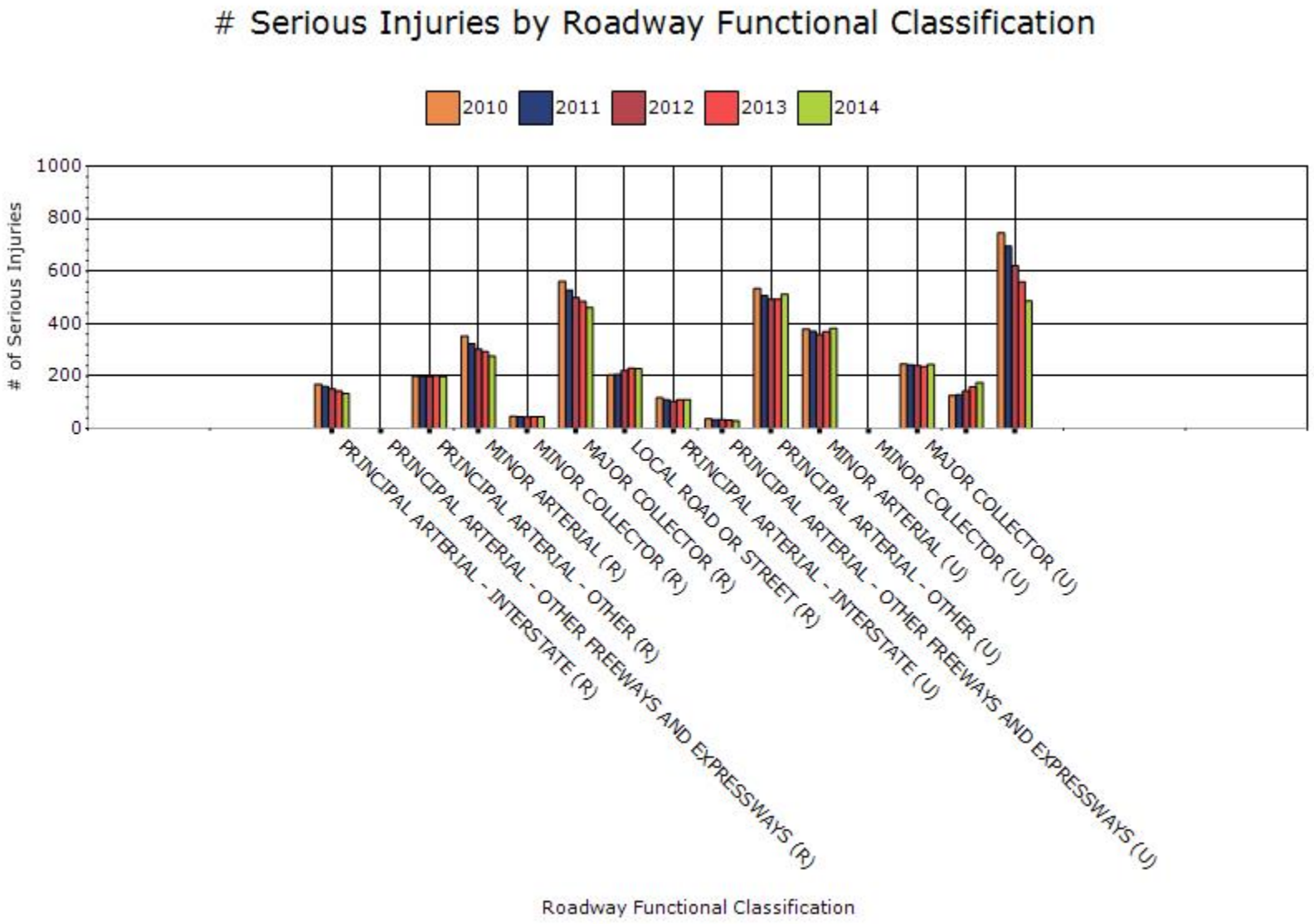
To the maximum extent possible, present performance measure* data by functional classification and ownership.

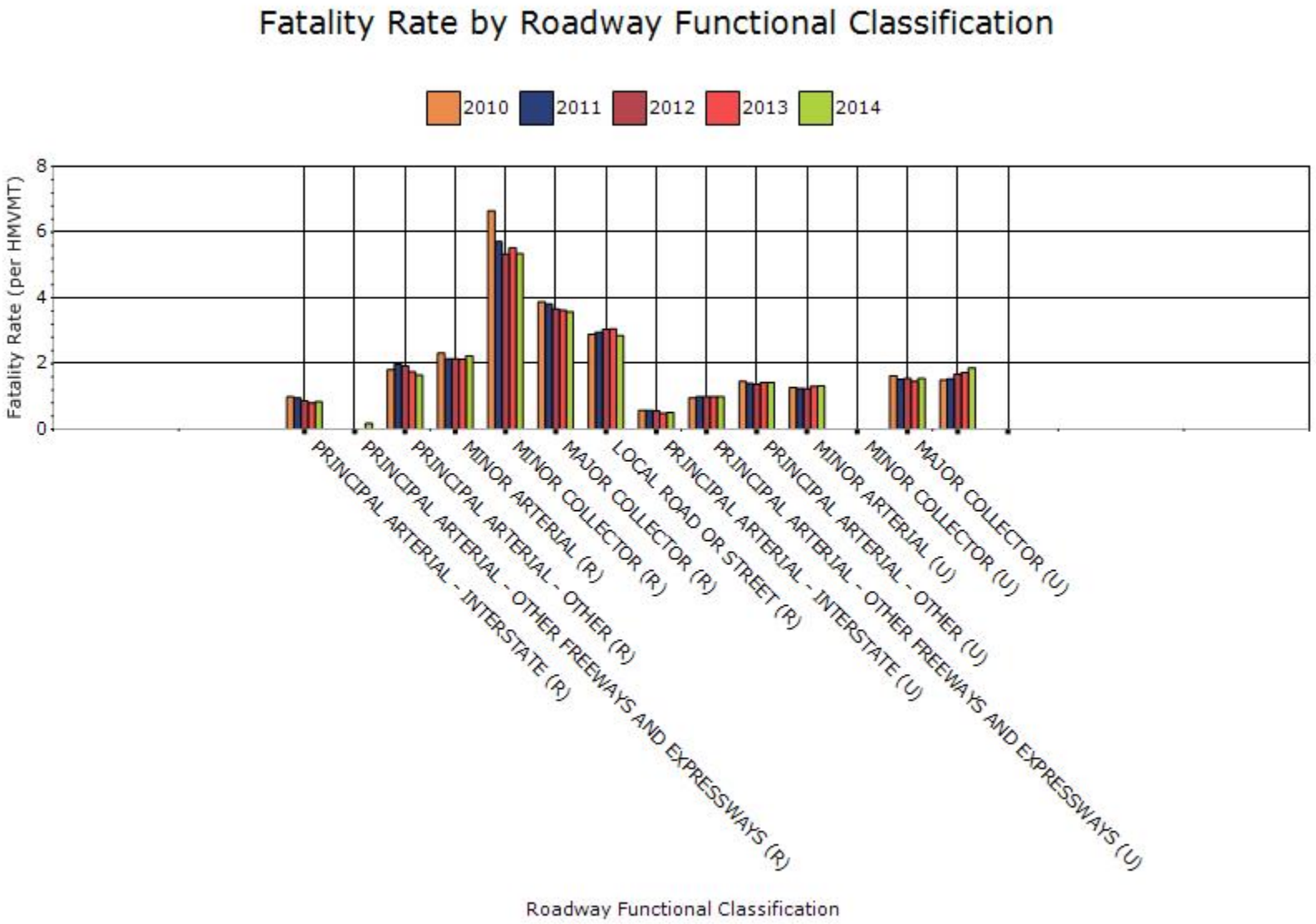
Year - 2014

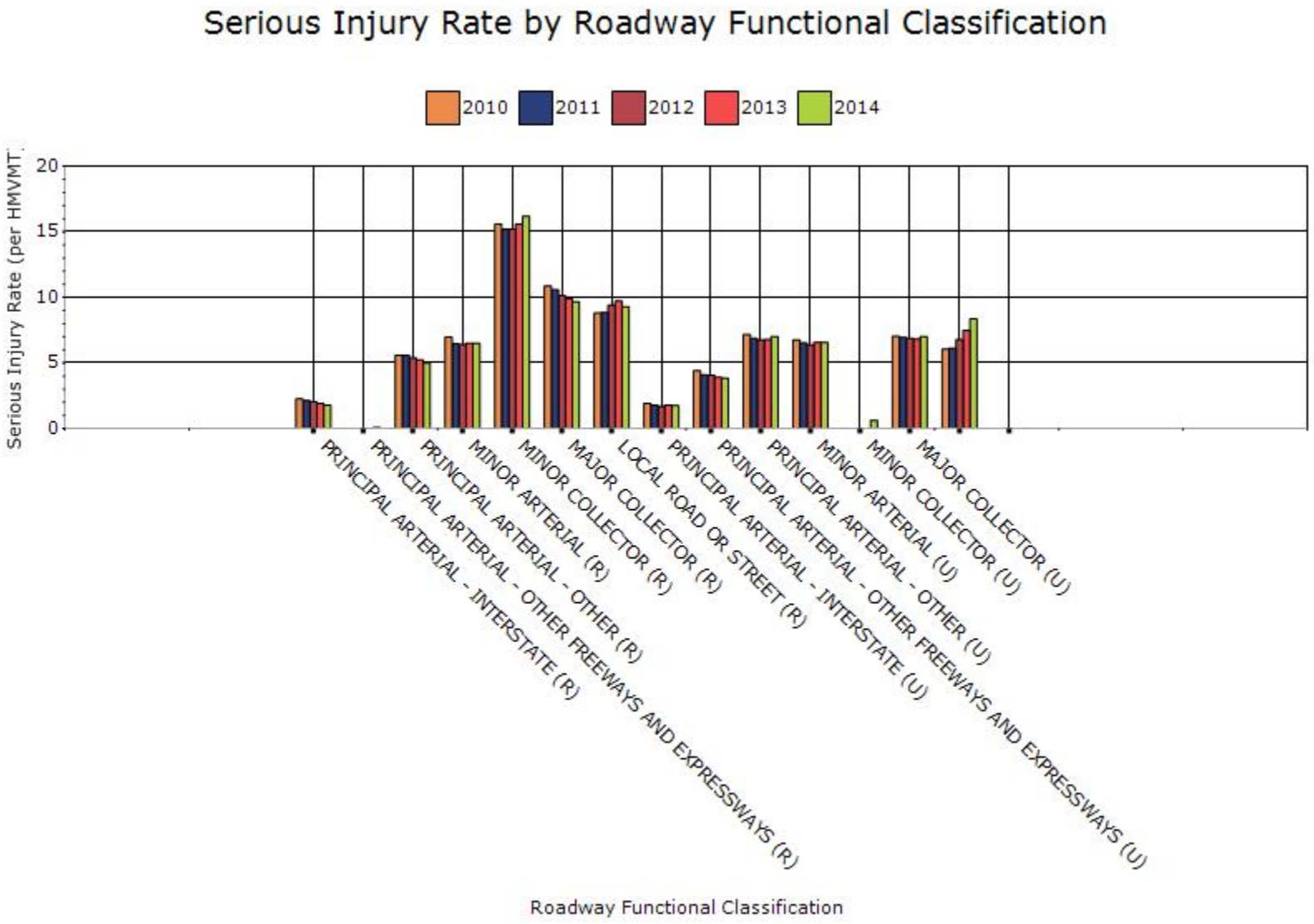
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	62.4	133.4	0.84	1.78
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0.4	0.2	0.18	0.09
RURAL PRINCIPAL ARTERIAL - OTHER	64.8	198.2	1.65	5.02
RURAL MINOR ARTERIAL	94.2	275.4	2.24	6.49
RURAL MINOR COLLECTOR	14.8	44.6	5.35	16.18
RURAL MAJOR COLLECTOR	170	460.8	3.58	9.68
RURAL LOCAL ROAD OR STREET	70.6	228.4	2.86	9.29
URBAN PRINCIPAL	32.2	110.4	0.51	1.75

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	7.8	30	0.99	3.83
URBAN PRINCIPAL ARTERIAL - OTHER	104	511.8	1.43	7.02
URBAN MINOR ARTERIAL	76.6	382.6	1.32	6.58
URBAN MINOR COLLECTOR	0	0.2	0	0.63
URBAN MAJOR COLLECTOR	54	244.8	1.55	7.01
URBAN LOCAL ROAD OR STREET	39.4	175.6	1.87	8.36
UNKNOWN	26.2	486	0	0


Fatalities by Roadway Functional Classification
2010
2011
2012
2013
2014
# of Fatalities
250
200
150
100
50
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
Roadway Functional Classification


Serious Injuries by Roadway Functional Classification
2010
2011
2012
2013
2014
# of Serious Injuries
1000
800
600
400
200
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
Roadway Functional Classification

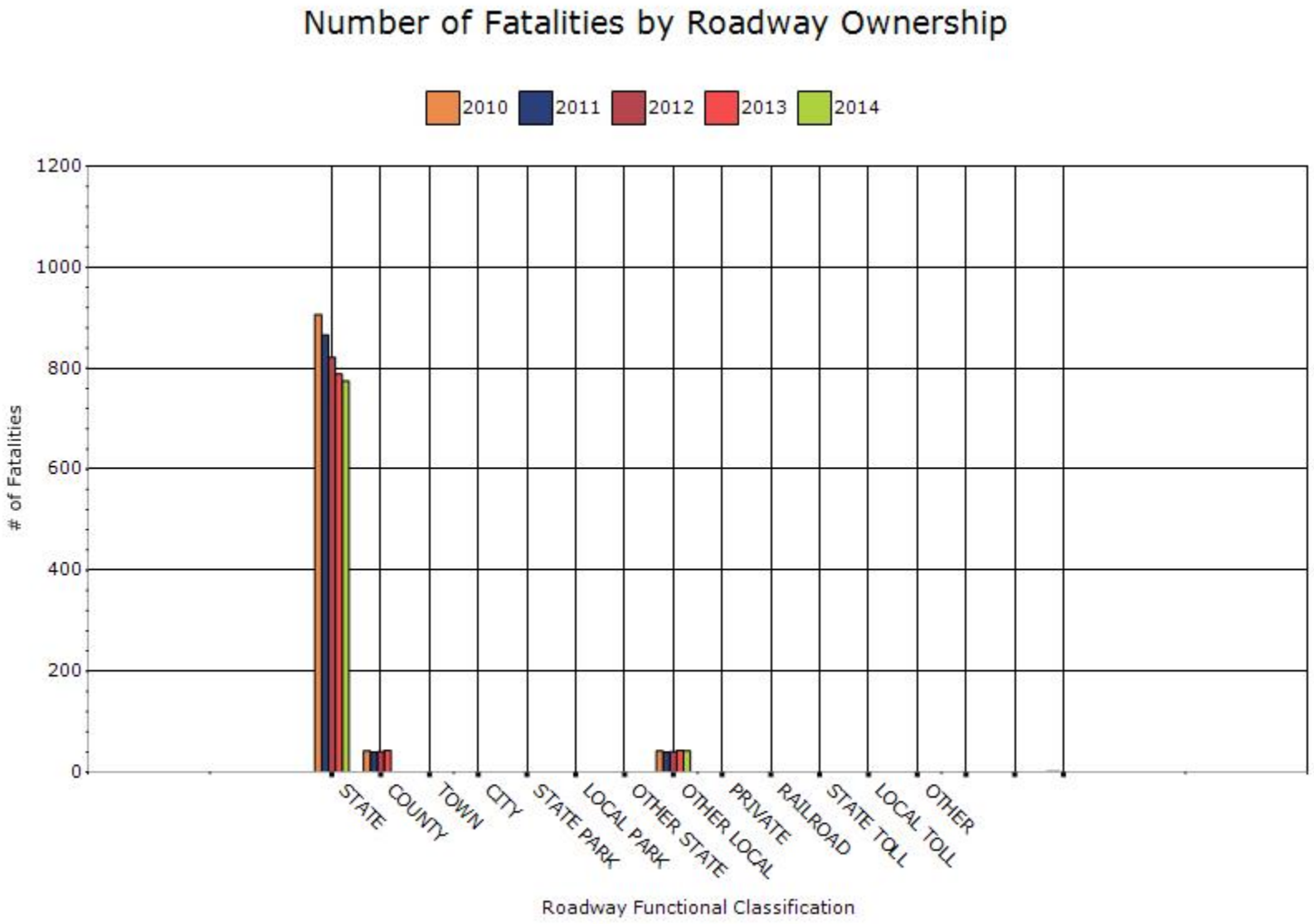

Fatality Rate by Roadway Functional Classification
2010
2011
2012
2013
2014
Fatality Rate (per HMVMT)
0
2
4
6
8
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
Roadway Functional Classification

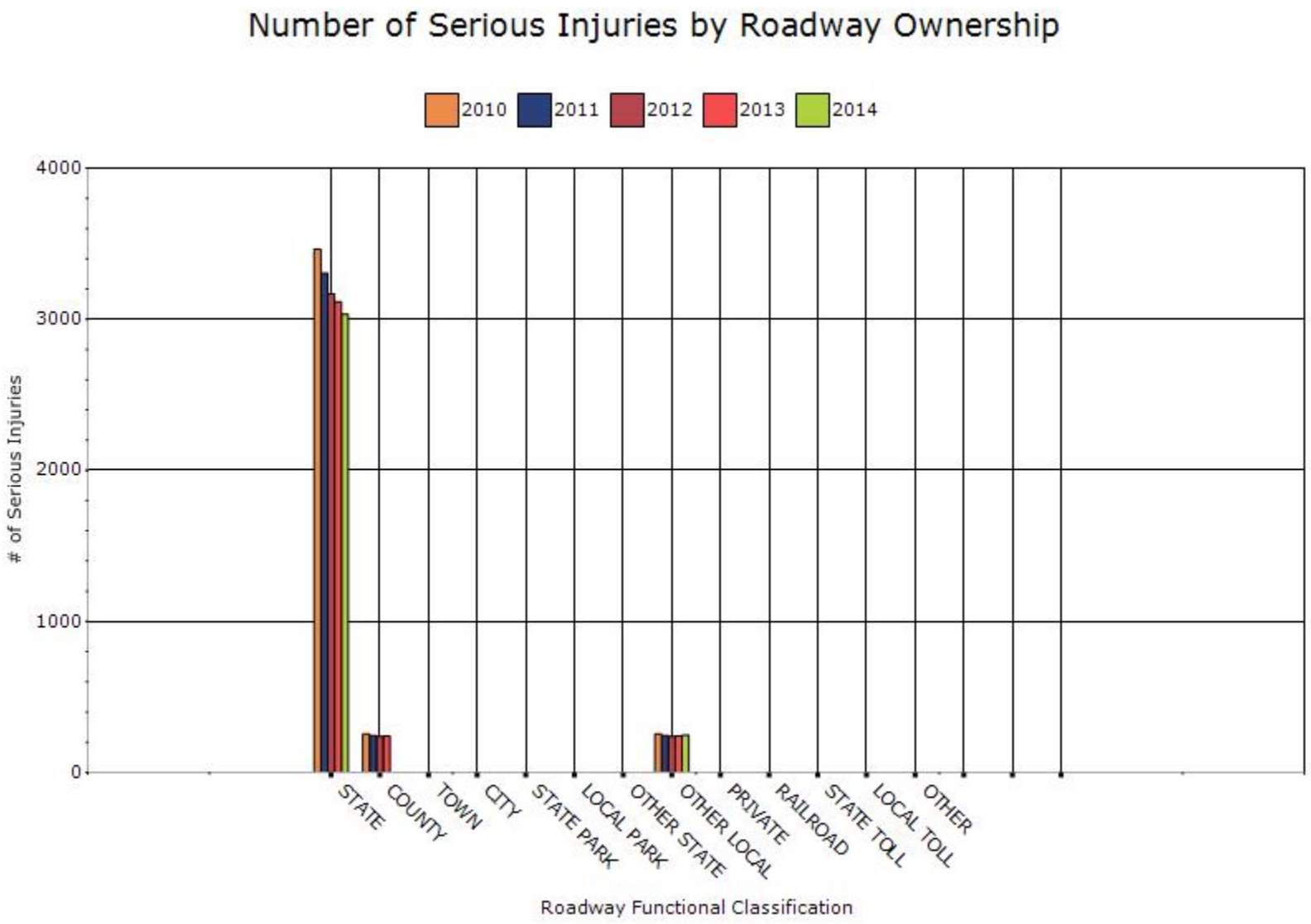

Serious Injury Rate by Roadway Functional Classification
2010
2011
2012
2013
2014
Serious Injury Rate (per HMVMT)
20
15
10
5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
Roadway Functional Classification

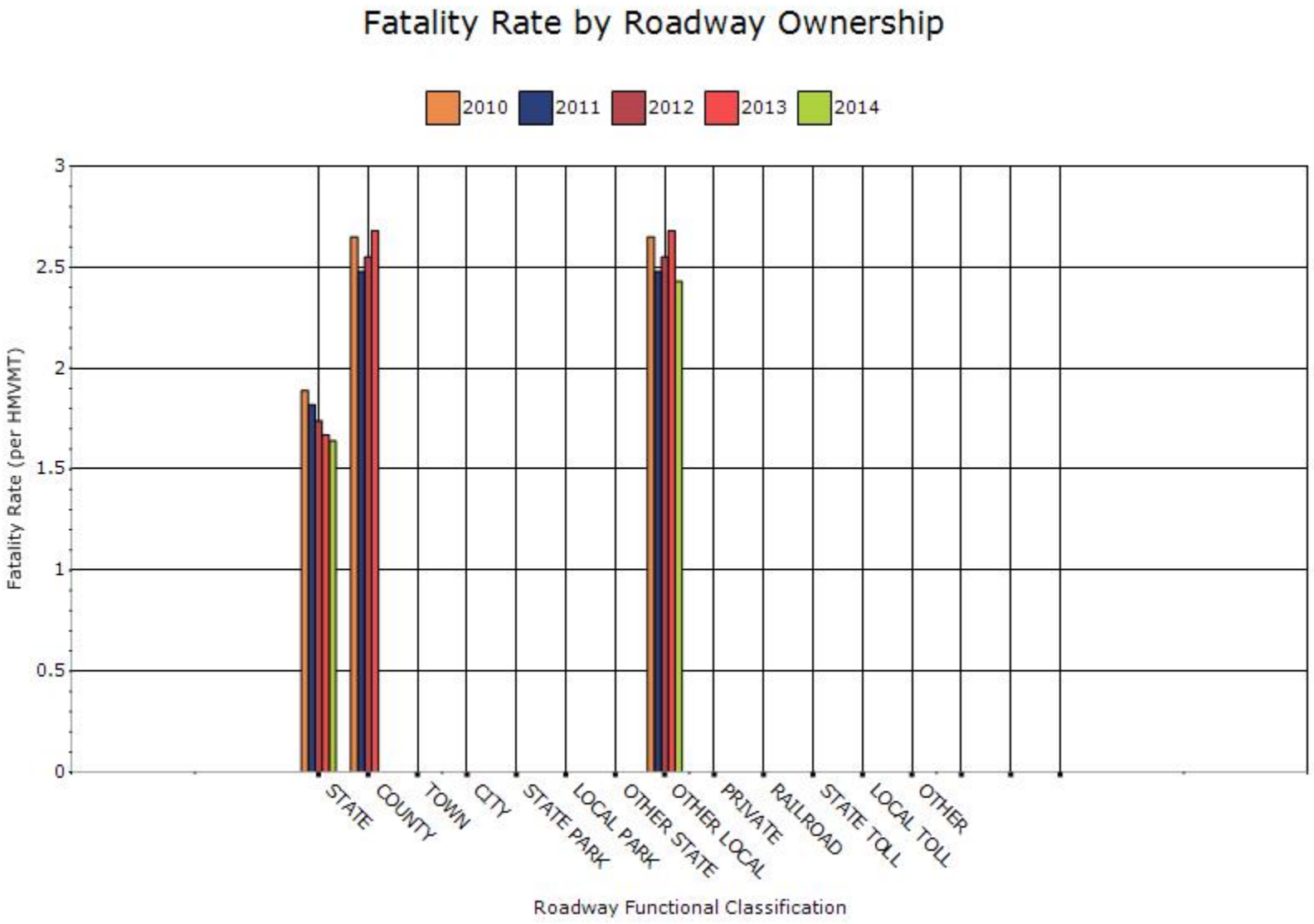
Year - 2014

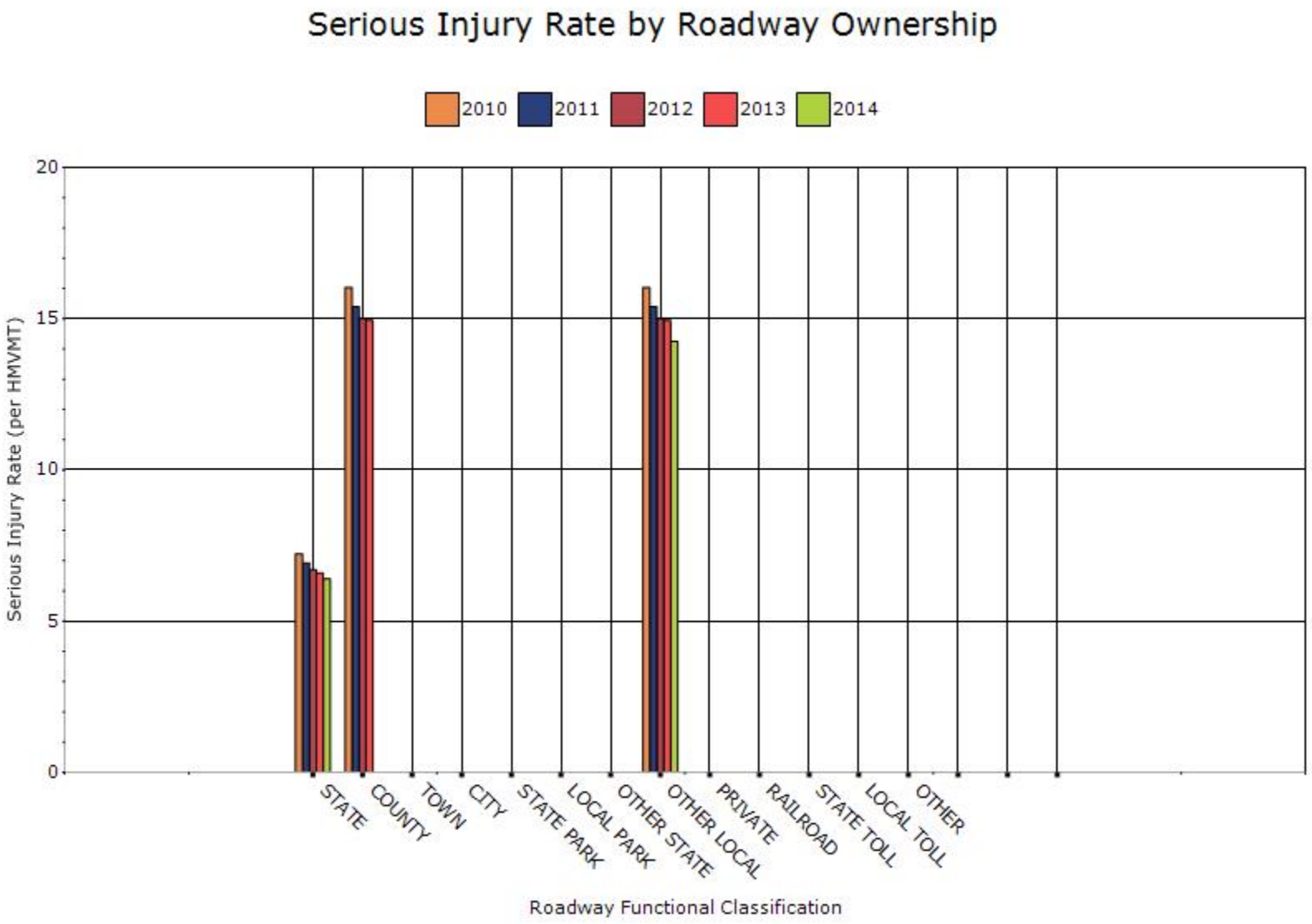
Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	775	3033.6	1.64	6.41
COUNTY HIGHWAY AGENCY	0	0	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	0	0	0	0
STATE PARK, FOREST, OR RESERVATION 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	42.4	248.8	2.43	14.26
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
INDIAN TRIBE NATION	0	0	0	0

0	0	0	0	0
OTHER	0	0	0	0


Number of Fatalities by Roadway Ownership
2010
2011
2012
2013
2014
1200
1000
800
600
400
200
0
# of Fatalities
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification


Number of Serious Injuries by Roadway Ownership
2010
2011
2012
2013
2014
4000
3000
2000
1000
0
# of Serious Injuries
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification


Fatality Rate by Roadway Ownership
2010
2011
2012
2013
2014
Fatality Rate (per HMVMT)
3
2.5
2
1.5
1
0.5
0
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification


Serious Injury Rate by Roadway Ownership
2010
2011
2012
2013
2014
Serious Injury Rate (per HMVMT)
20
15
10
5
0
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification

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

The 2014 data for the previous two questions is preliminary. SCDOT will update the 2014 numbers for next year's report. Also, this was the first year SCDOT had data for the functional classification "Rural Principal Arterial - Other - Freeways and Expressways". 2014 was also the first year SCDOT split "Urban Collector" into Major and Minor. Previously, data for "Urban Collector" was listed under Major. This seems to have skewed the five-year average numbers. SCDOT reports roadway ownership as State Highway Agency and Local Agency. Roads that are owned by the county, city, and other local roads are included in the latter category.

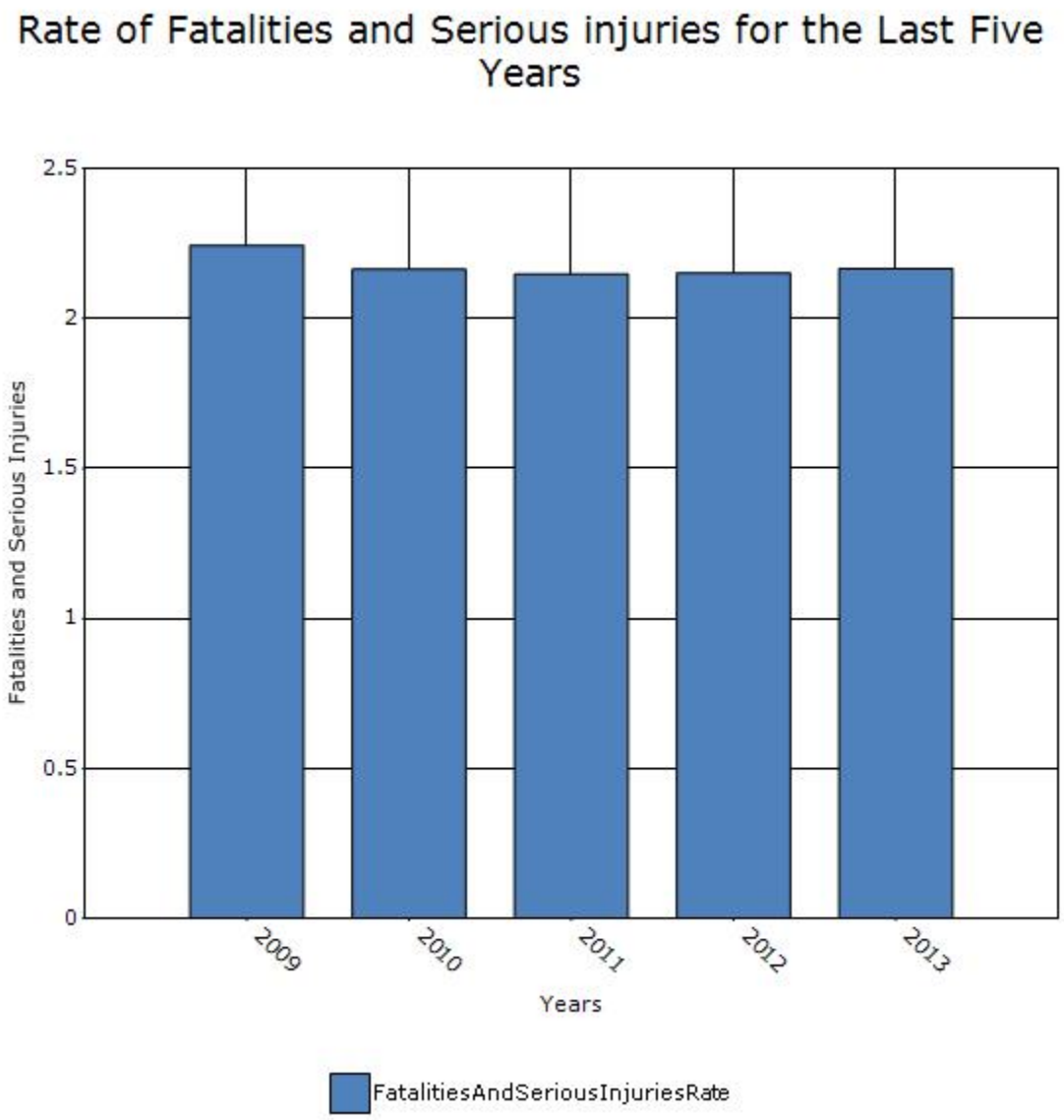
Application of Special Rules

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)	0.744	0.694	0.656	0.654	0.624
Serious injury rate (per capita)	1.502	1.47	1.492	1.498	1.542
Fatality and serious injury rate (per capita)	2.244	2.164	2.148	2.152	2.166

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

The number of fatalities for drivers and pedestrians age 65 and older was obtained from the Fatality Analysis Reporting System (FARS). The number of serious injuries for drivers and pedestrians age 65 and older was obtained from South Carolina's data system. The population figures were obtained from the MAP-21 Older Drivers and Pedestrians Special Rule Interim Guidance table. Population figures are per 1,000 of total population. The rate was obtained by taking the number of fatalities (or serious injuries or serious injuries and fatalities) and dividing by the population figure. For example, the fatality rate for 2013 was calculated by dividing 82 by 152 to get 0.54.



Does the older driver special rule apply to your state?

No

Assessment of the Effectiveness of the Improvements (Program Evaluation)

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: Other-Adoption of Target Zero initiative and updated SHSP emaphasis areas

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

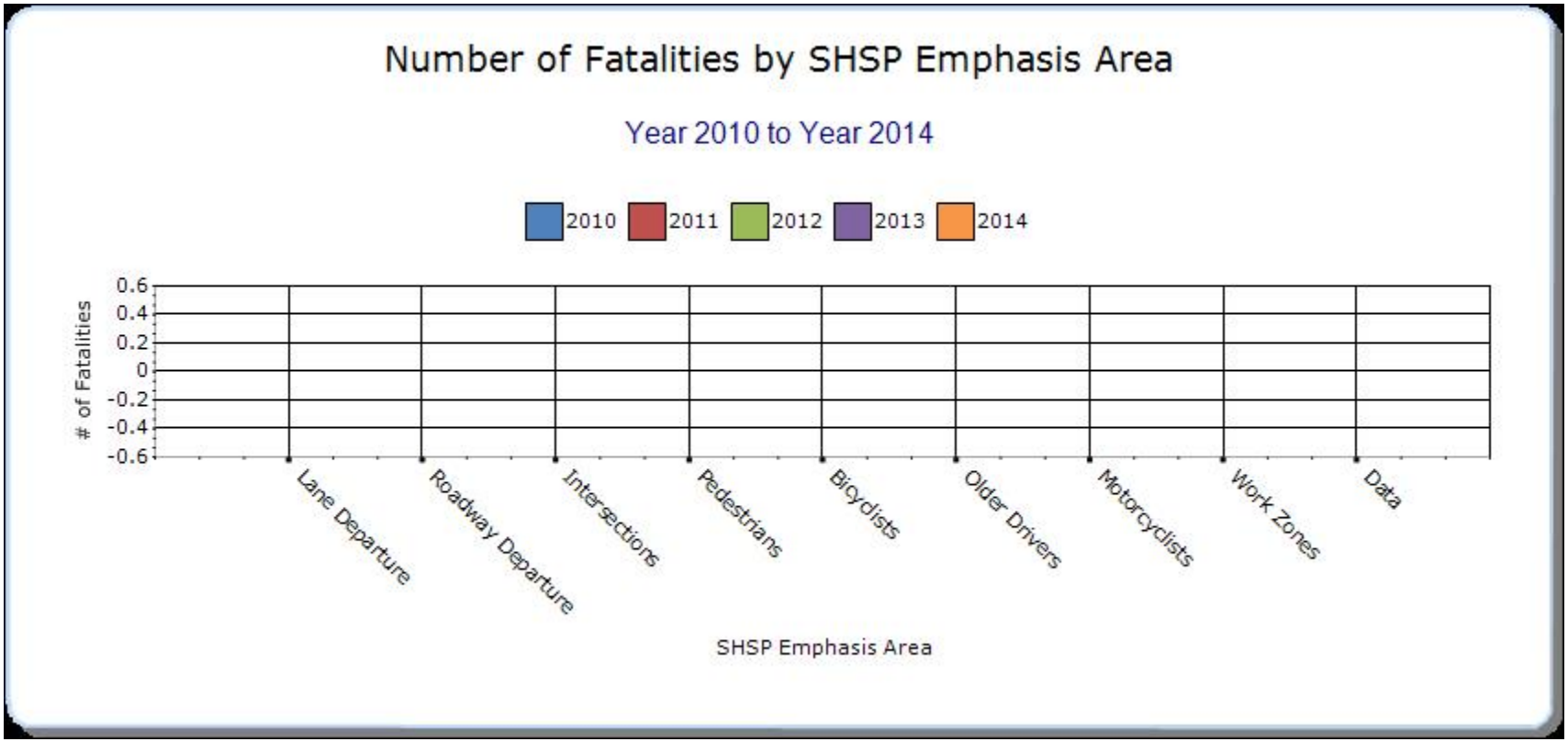
SCDOT has update the state's SHSP in accordance with MAP-21 requirements. Part of the update includes adoption of the Target Zero initiative and updated emphasis areas.

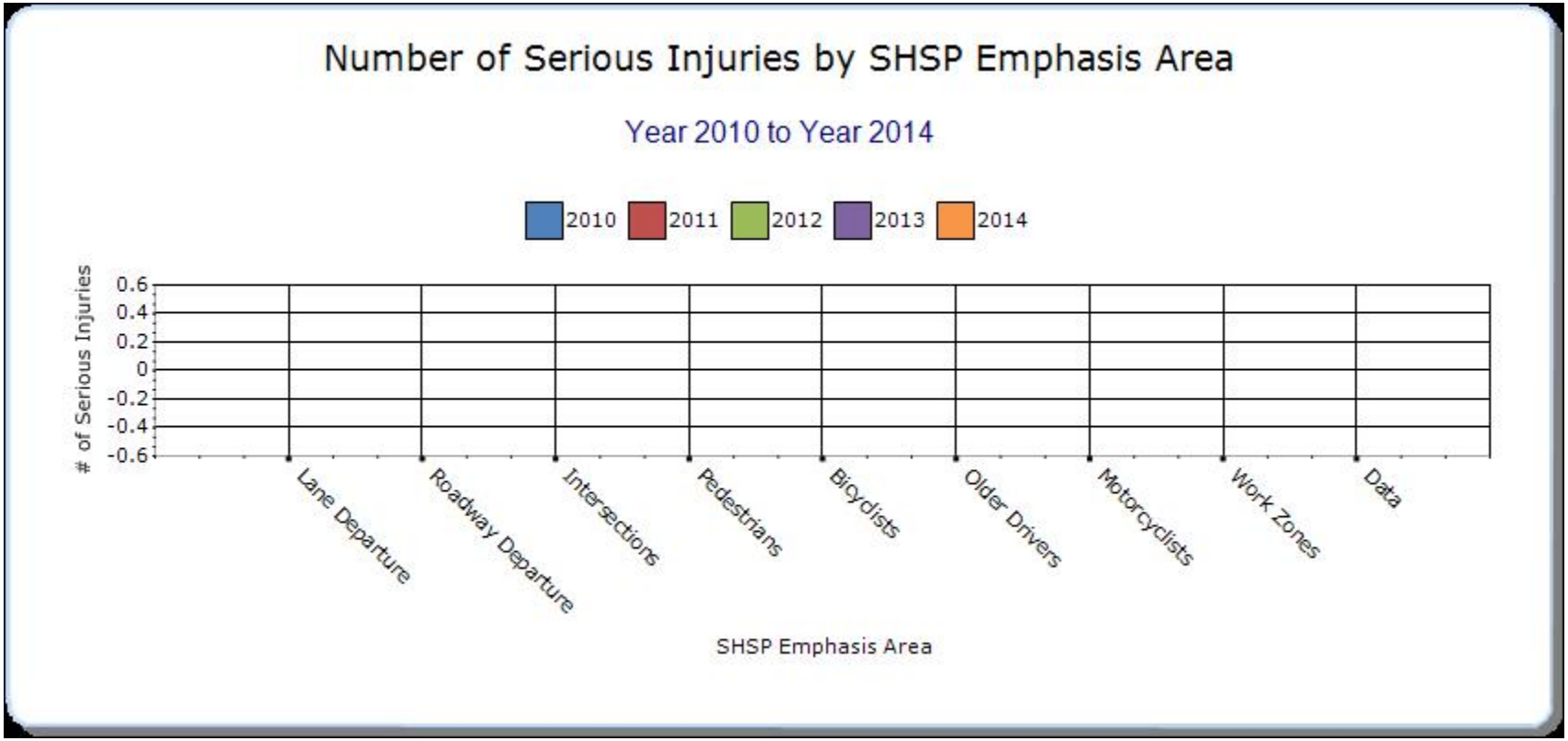
SHSP Emphasis Areas

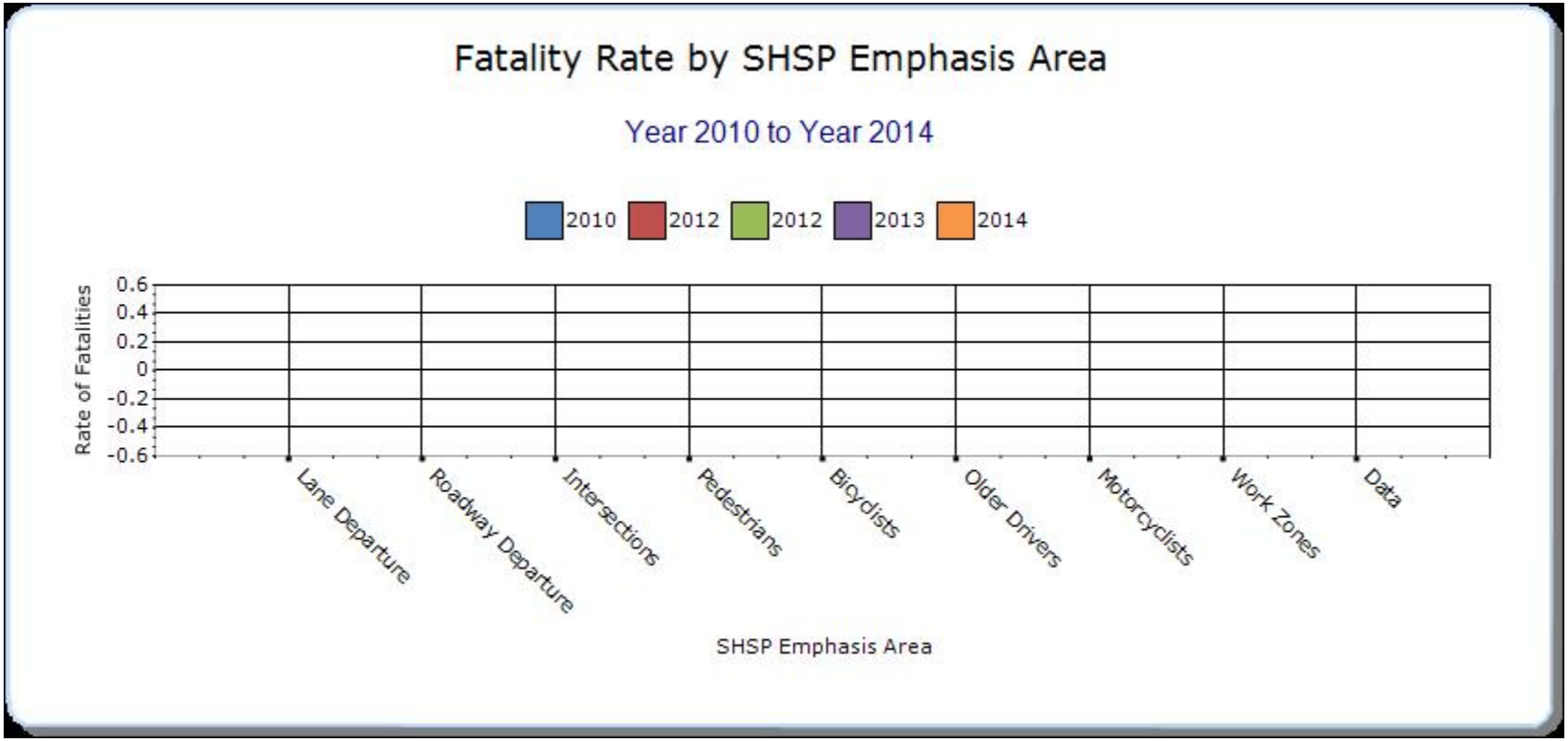
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

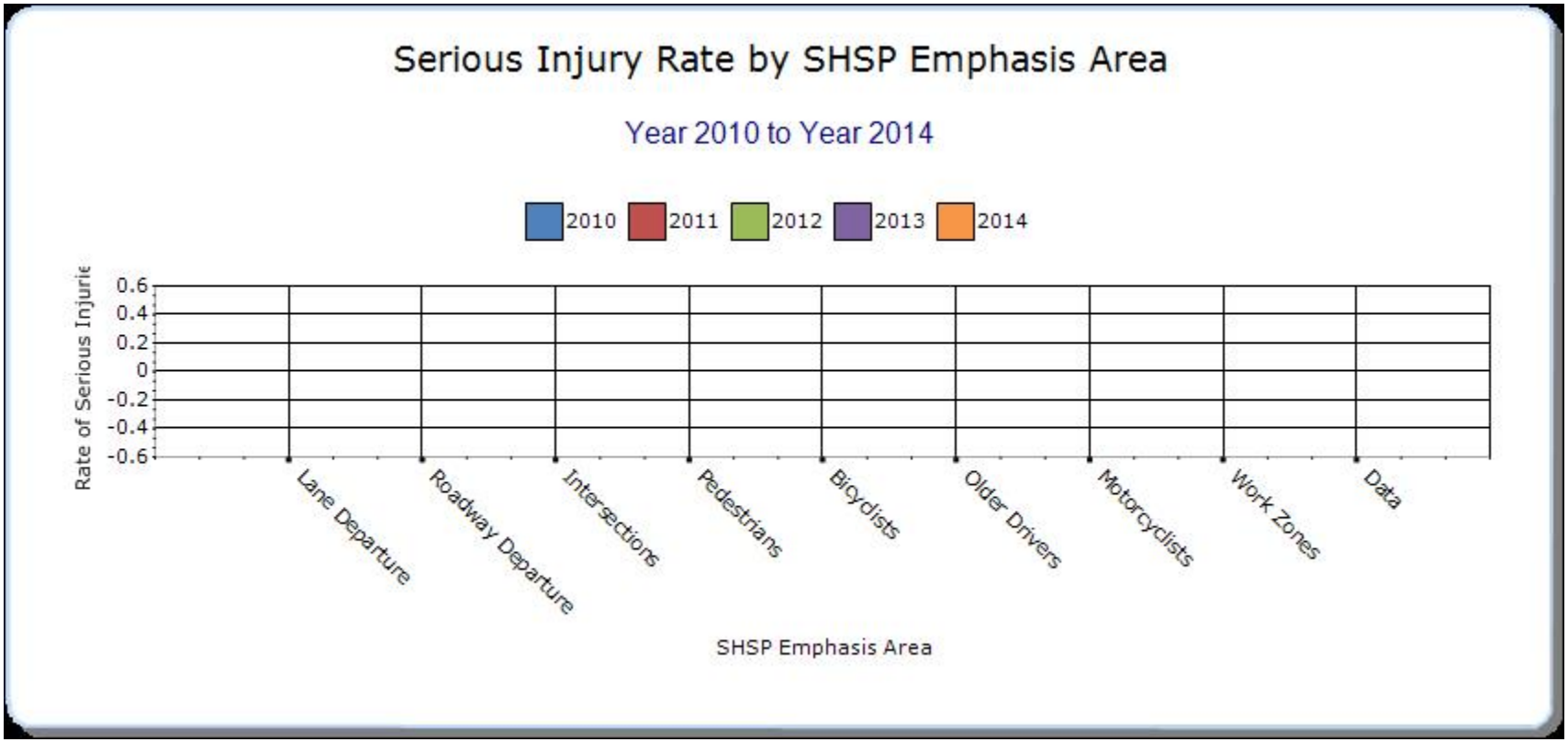
Year - 2014

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


Number of Fatalities by SHSP Emphasis Area
Year 2010 to Year 2014
2010
2011
2012
2013
2014
# of Fatalities
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area


Number of Serious Injuries by SHSP Emphasis Area
Year 2010 to Year 2014
2010
2011
2012
2013
2014
# of Serious Injuries
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area


Fatality Rate by SHSP Emphasis Area
Year 2010 to Year 2014
2010
2012
2012
2013
2014
Rate of Fatalities
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area

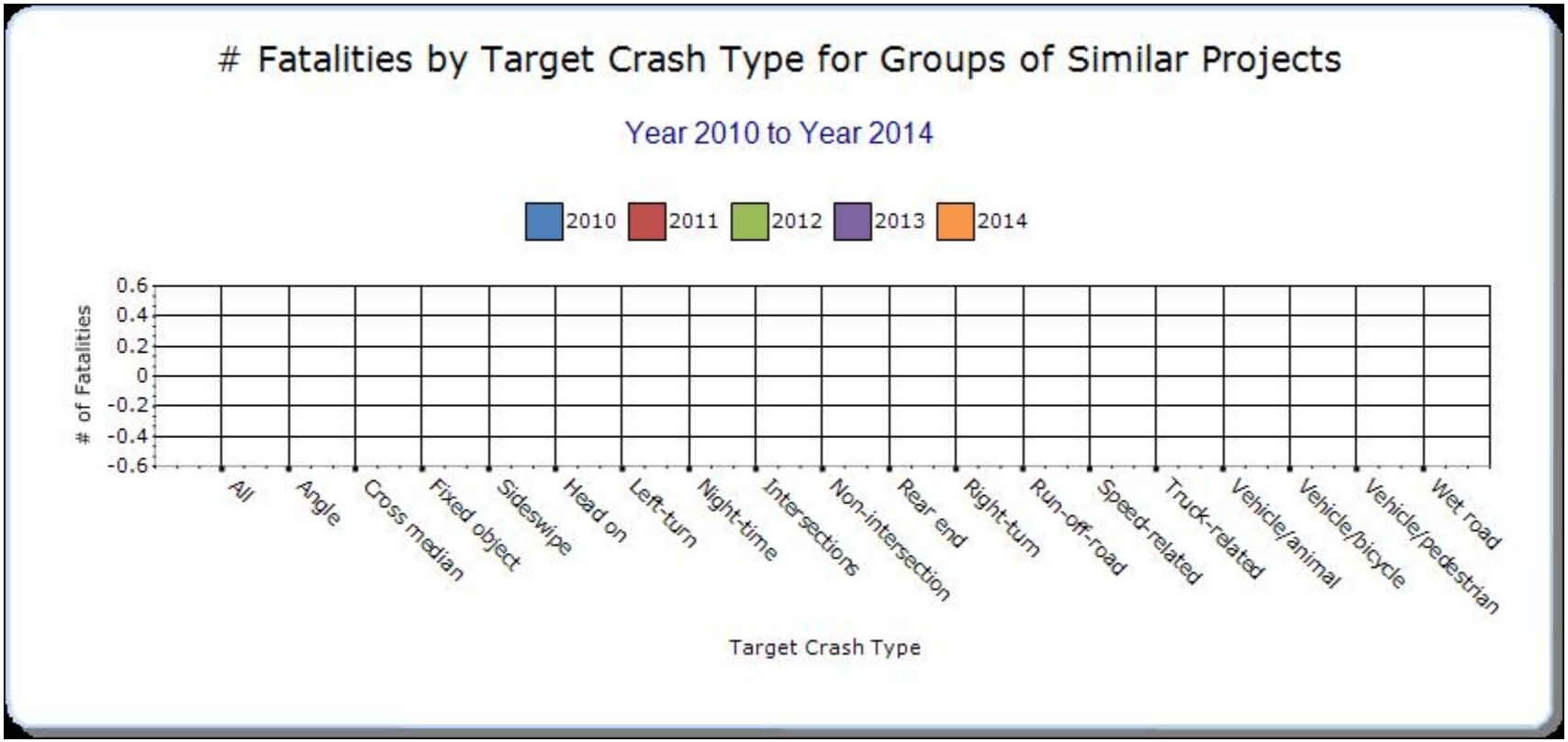

Serious Injury Rate by SHSP Emphasis Area
Year 2010 to Year 2014
2010
2011
2012
2013
2014
Rate of Serious Injurie
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area

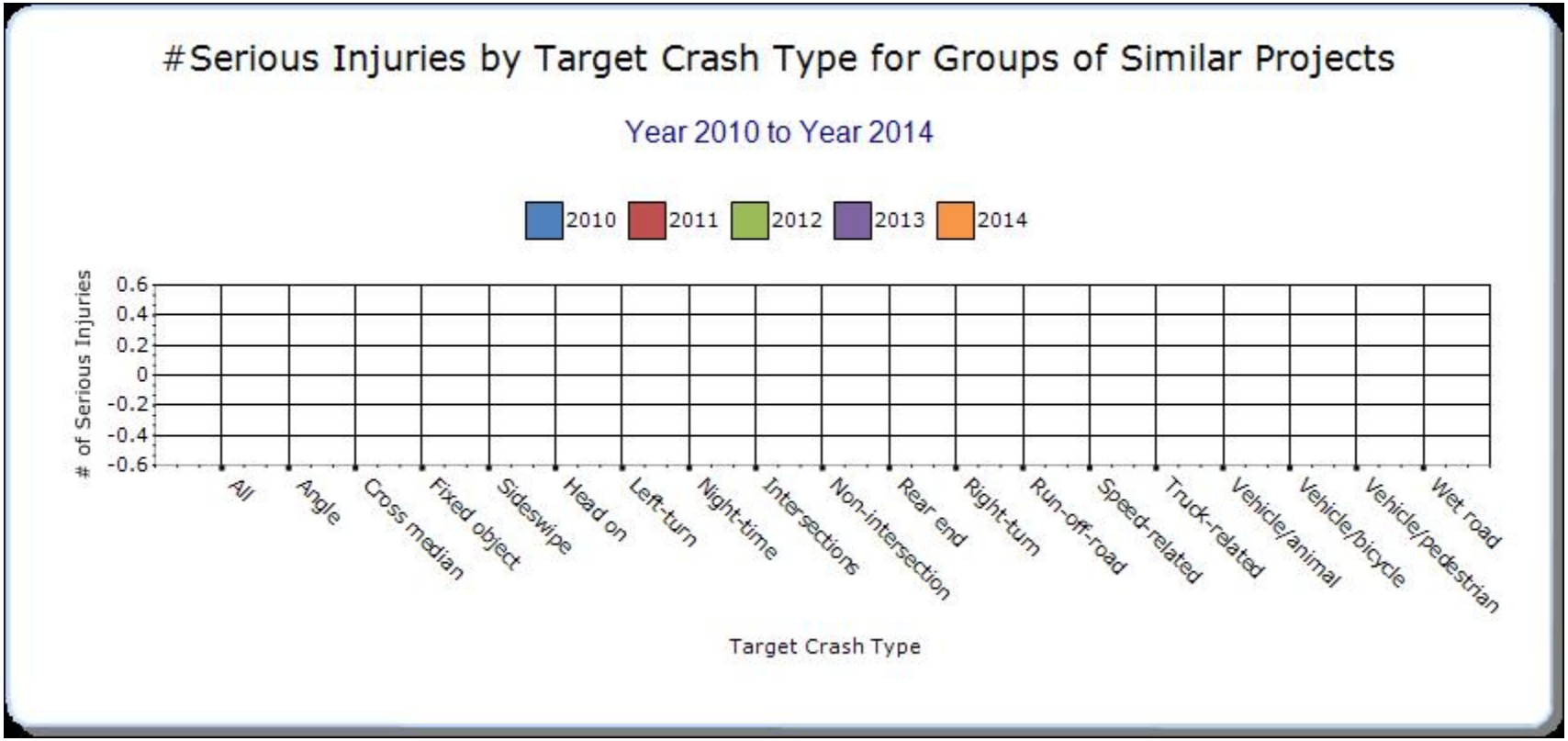
Groups of similar project types

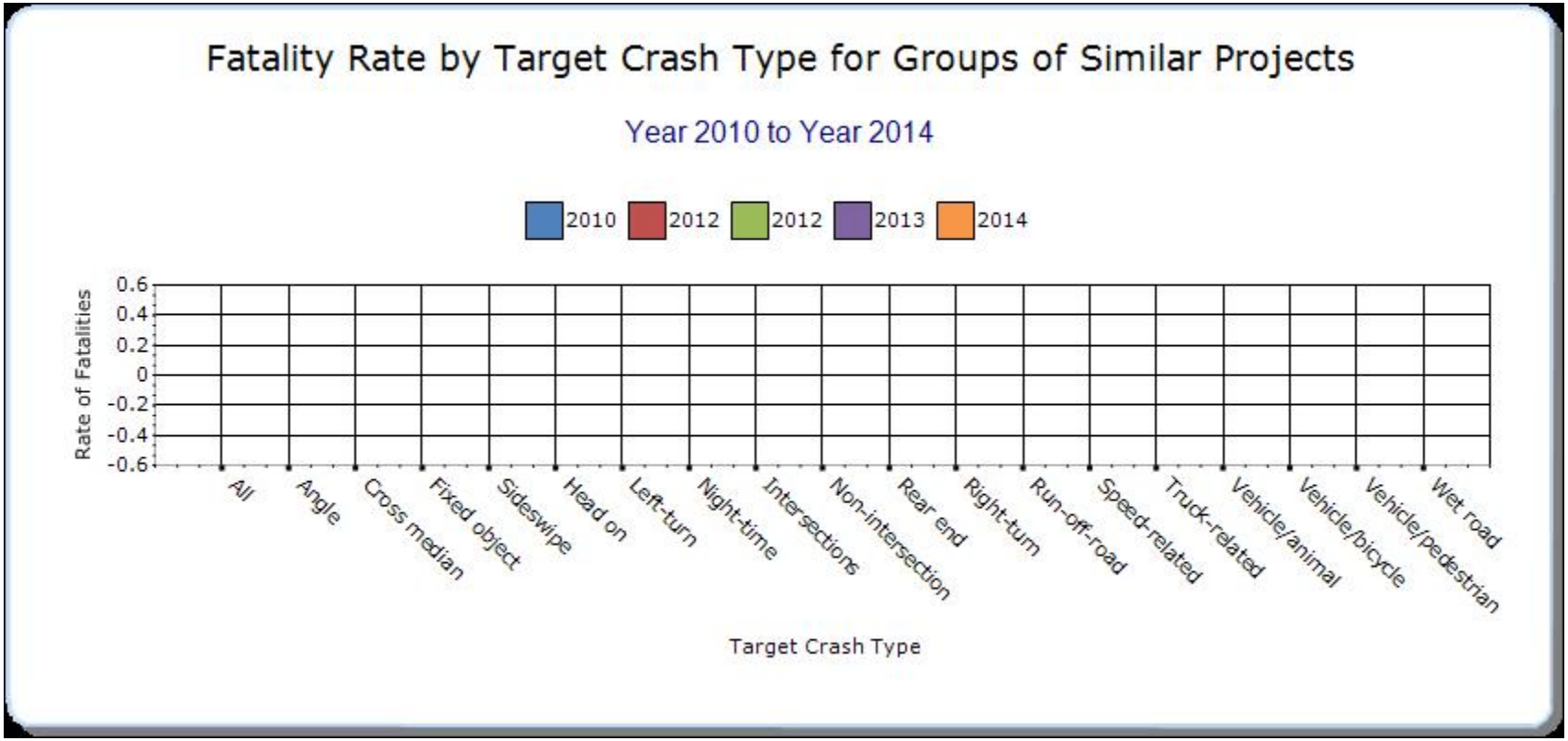
Present the overall effectiveness of groups of similar types of projects.

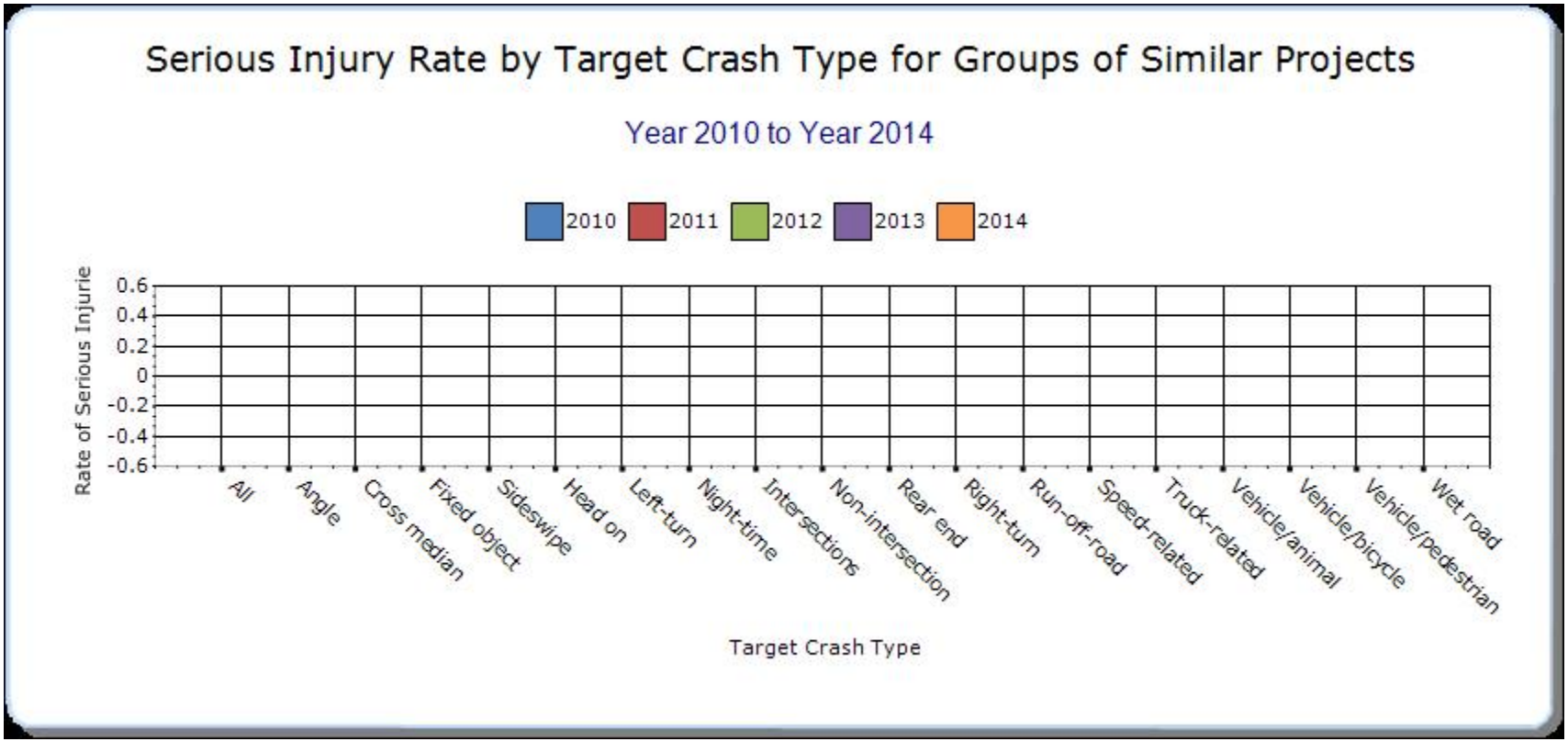
Year - 2014

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


Fatalities by Target Crash Type for Groups of Similar Projects
Year 2010 to Year 2014
2010
2011
2012
2013
2014
# of Fatalities
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


#Serious Injuries by Target Crash Type for Groups of Similar Projects
Year 2010 to Year 2014
2010
2011
2012
2013
2014
# of Serious Injuries
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Fatality Rate by Target Crash Type for Groups of Similar Projects
Year 2010 to Year 2014
2010
2012
2012
2013
2014
Rate of Fatalities
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

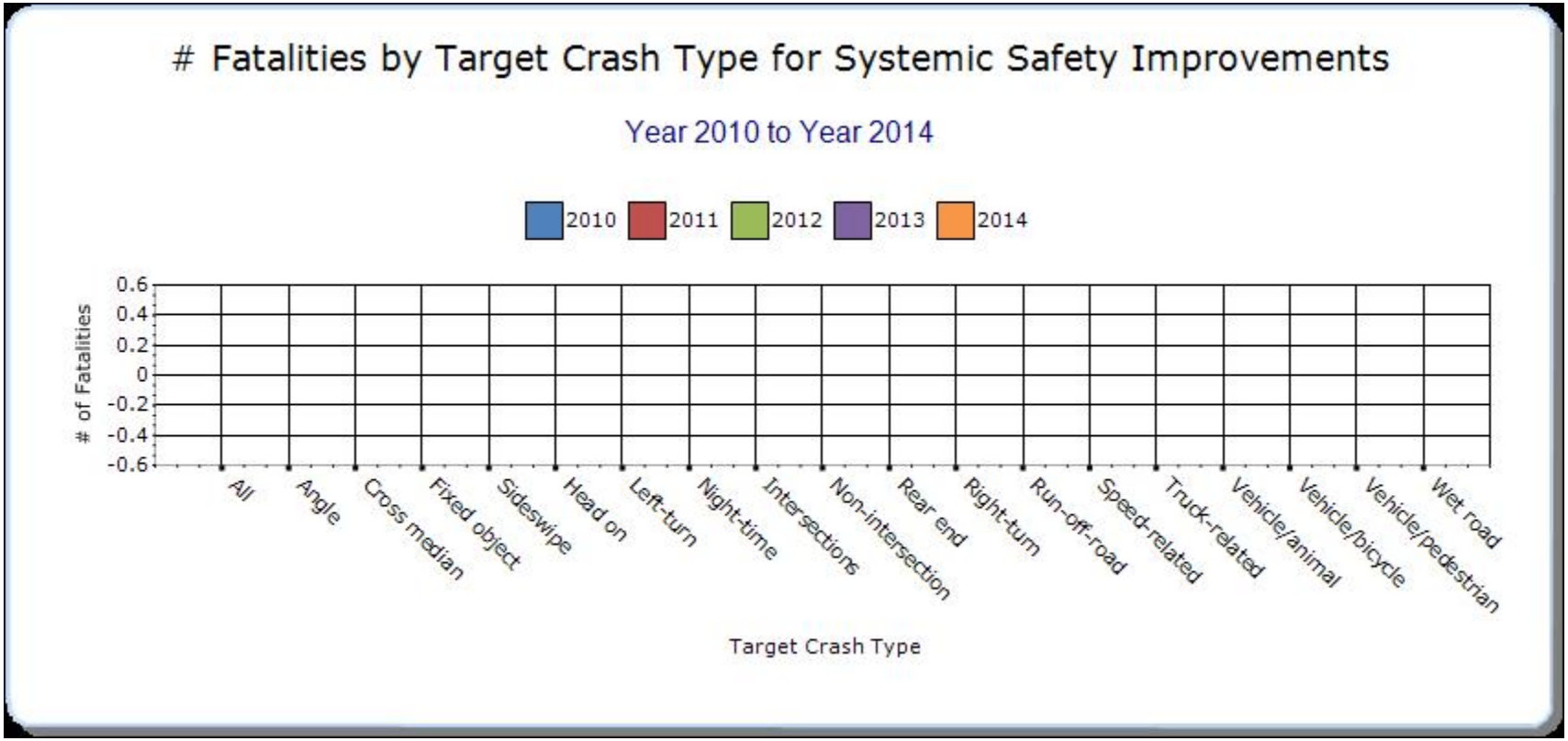

Serious Injury Rate by Target Crash Type for Groups of Similar Projects
Year 2010 to Year 2014
2010
2011
2012
2013
2014
Rate of Serious Injurie
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

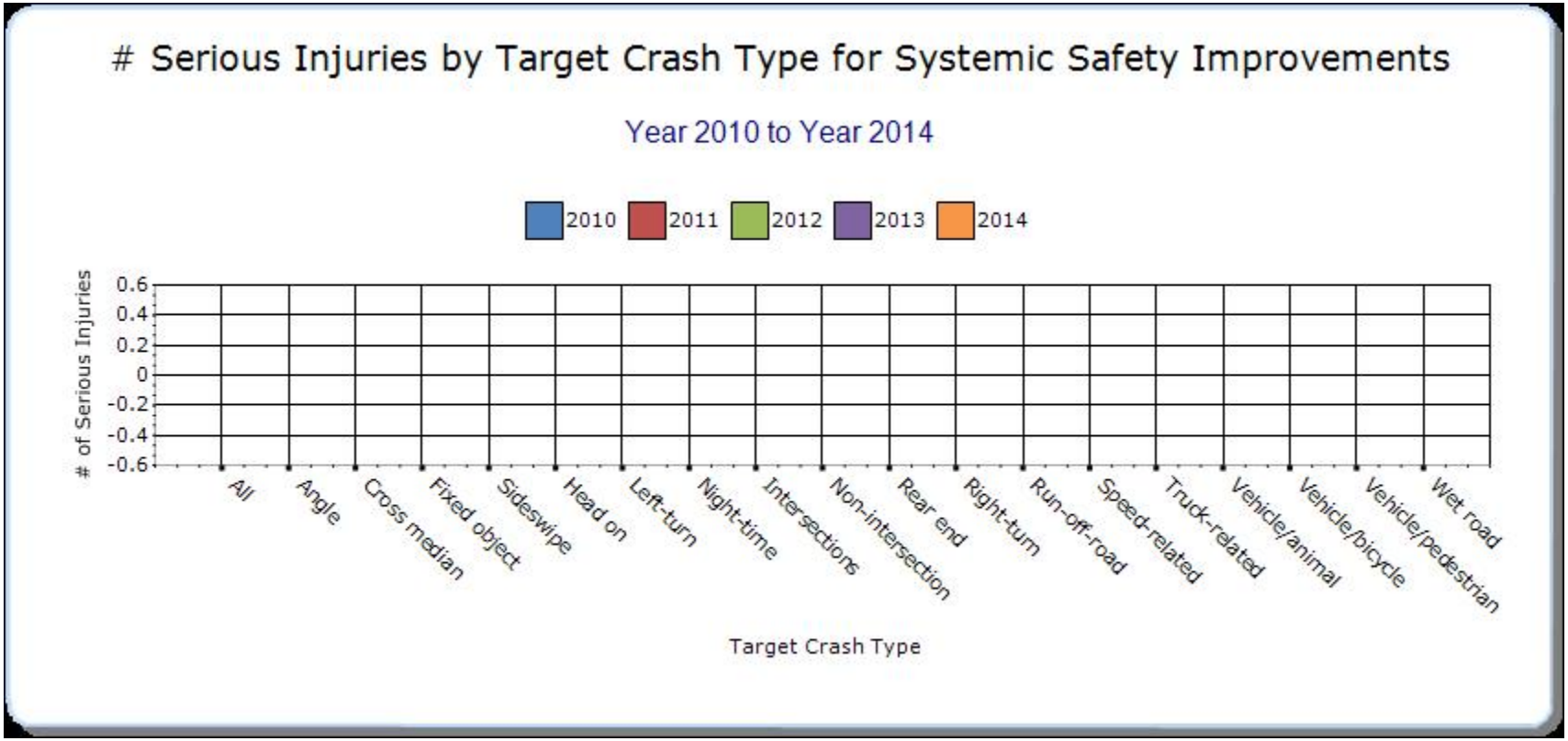
Systemic Treatments

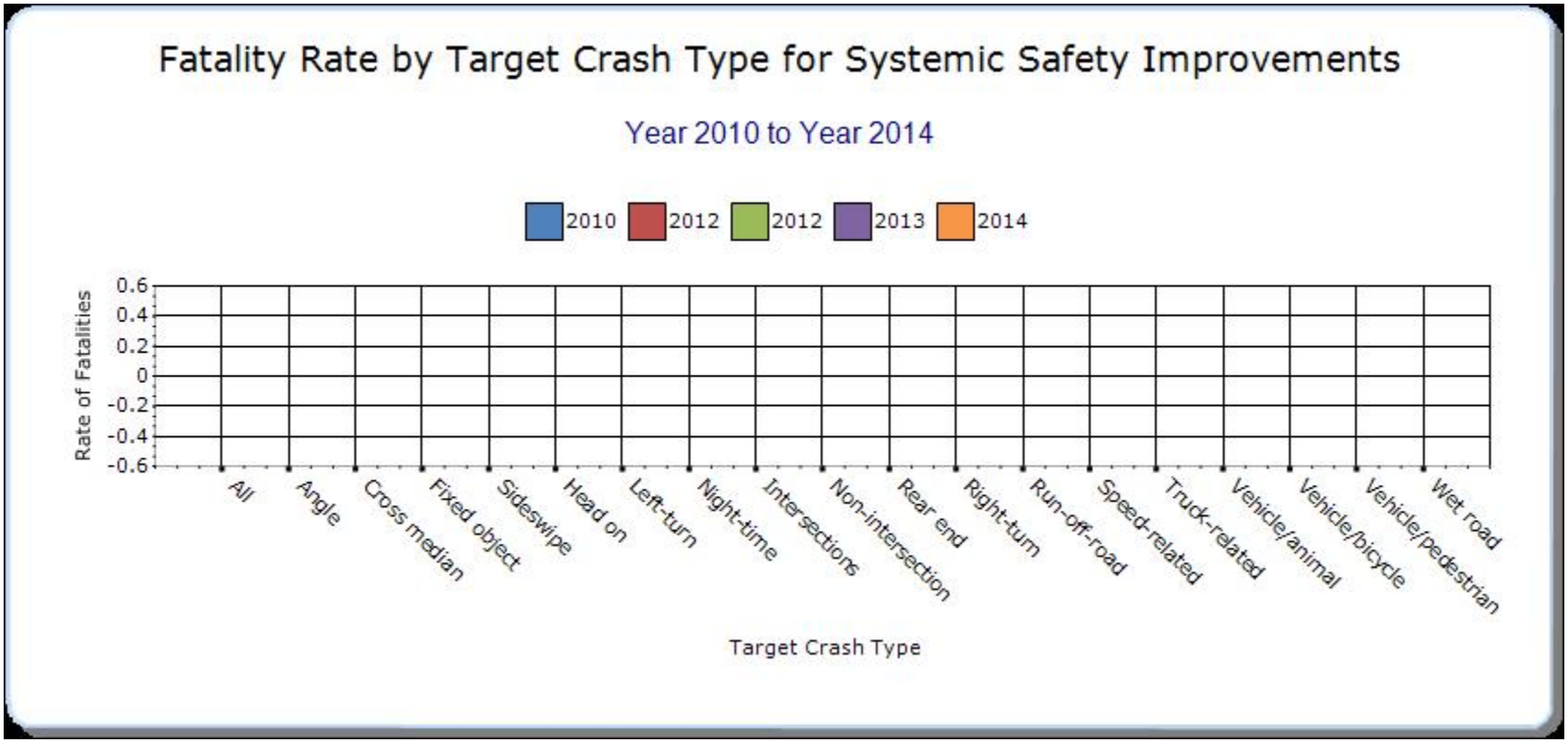
Present the overall effectiveness of systemic treatments.

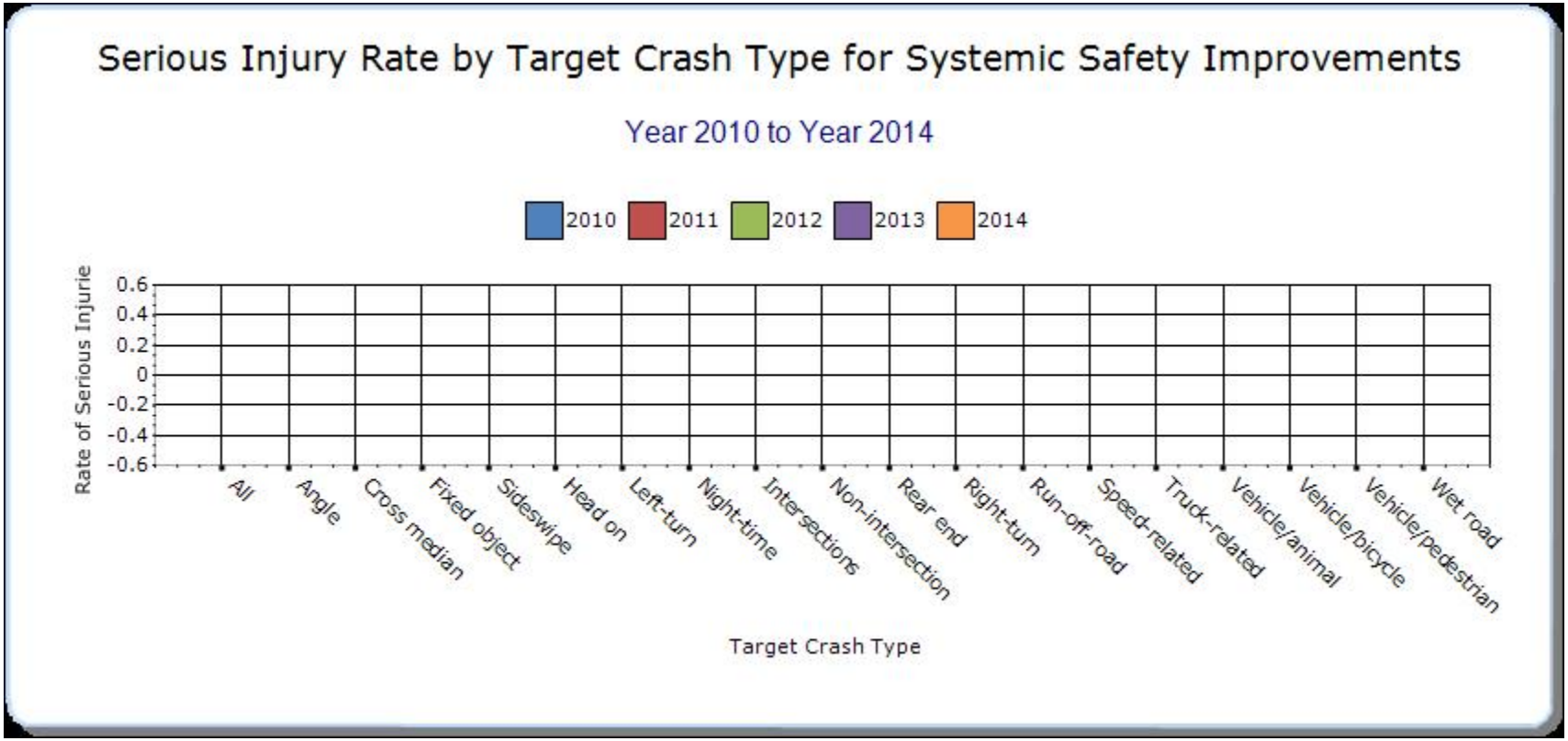
Year - 2014

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


Fatalities by Target Crash Type for Systemic Safety Improvements
Year 2010 to Year 2014
2010
2011
2012
2013
2014
# of Fatalities
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Serious Injuries by Target Crash Type for Systemic Safety Improvements
Year 2010 to Year 2014
2010
2011
2012
2013
2014
# of Serious Injuries
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Fatality Rate by Target Crash Type for Systemic Safety Improvements
Year 2010 to Year 2014
2010
2012
2012
2013
2014
Rate of Fatalities
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Serious Injury Rate by Target Crash Type for Systemic Safety Improvements
Year 2010 to Year 2014
2010
2011
2012
2013
2014
Rate of Serious Injurie
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

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

SCDOT completed 20 before and after studies on projects funded through the HSIP since the submission of last year's report. The average benefit/ cost ratio of these projects is 23.56. The average crash rate reduction for the 20 projects was 51.74%.

Please note that several sections under "Program Methodology: Select the programs that are administered under the HSIP" were not included in this 2015 report due to the lack of detailed definitions and identification methodologies. Also omitted from the report are the secions: "HSIP Emphasis Areas" (due to difficulty in capturing this data accurately), "Groups of similar project types" (due to difficulty defining based on software categories/ groupings), and "Systemic Treatment" (due to limited data on systemic treatments). We will continue to work with FHWA in expanding future reports as issues with the on-line reporting tool are clarified and resolved.

Project Evaluation

Provide project evaluation data for completed projects (optional).

Location	Functional Class	Improvement Category	Improvement Type	Bef-Fatal	Bef-Serious Injury	Bef-All Injuries	Bef-PDO	Bef-Total	Aft-Fatal	Aft-Serious Injury	Aft-All Injuries	Aft-PDO	Aft-Total	Evaluation Results (Benefit/ Cost Ratio)
US 78 @ S-131	Urban Principal Arterial - Other	Intersection geometry	Auxiliary lanes - add left-turn lane	0	1	18	19	38	0	0	10	21	31	0.55
SC 292 @ S-52	Urban Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn lane	0	1	1	8	10	0	0	2	2	4	1.26
I-95 (Timber Harvest) [MP 50.5 to 53.0]	Rural Principal Arteria - Interstate	Roadside	Removal of roadside objects (trees, poles, etc.)	3	0	9	10	22	0	0	1	2	3	130.38
S-40 @ S-370	Rural Major Collector	Alignment	Vertical alignment or elevation change	1	1	4	17	23	0	0	7	6	13	16.55
S-204 @ S-	Urban	Intersection	Modify control	1	0	5	21	27	0	0	1	3	4	13.04

243	Major Collector	traffic control	- two-way stop to roundabout											
SC 28 (Abbeville Hwy) @ S-141 (Beckman Drive) & Corning Street	Rural Minor Arterial	Intersection geometry	Intersection geometry - other	0	0	9	13	22	0	0	3	8	11	1.8
US 76 @ SC 576	Urban Principal Arterial - Other	Intersection geometry	Intersection geometry - other	0	1	5	11	17	0	0	4	4	8	1.25
SC 6 @ SC 302 (Southern Intersection)	Rural Major Collector	Intersection geometry	Auxiliary lanes - add left-turn lane	0	0	11	28	39	0	0	2	1	3	4.85
SC 315 (SC 170 Alternate) @ S-34	Rural Minor Arterial	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0	1	7	18	26	0	0	6	11	17	1.4
S-101 @ S-349	Rural Major Collector	Intersection geometry	Auxiliary lanes - add left-turn lane	0	2	7	10	19	0	0	2	4	6	12.66
S-42 @ S-64	Rural Major	Intersection	Intersection geometrics -	0	2	8	9	19	0	0	1	4	5	8.94

	Collector	geometry	modify skew angle											
SC 116 (Laurel Bay Road) @ S-597 (Stanley Farm Road)	Urban Major Collector	Intersection geometry	Auxiliary lanes - add left-turn lane	0	4	14	8	26	0	2	7	1	10	5.53
SC 116 (Laurel Bay Road) @ S-390 (Stanley Road)	Urban Major Collector	Intersection geometry	Auxiliary lanes - add left-turn lane	0	0	3	7	10	0	1	2	3	6	0.28
US 701 (Fraser Street) @ S-4 (Choppee Road)	Rural Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn lane	0	2	5	5	12	0	1	2	3	6	9.18
SC 11 (Hwy 11) @ S-135 (Mountain Road/ Critter Road)	Rural Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn lane	0	1	10	5	16	0	0	1	1	2	6.65
I-126 @ US 21/176/321 (Huger Street)	Urban Principal Arterial - Interstate	Roadway	Pavement surface - high friction surface	1	1	7	27	36	0	1	1	2	4	148.72

S-535 (Royle Rd) @ S-1258 (Farmington Rd)	Urban Major Collector	Access management	Change in access - close or restrict existing access	0	1	8	25	34	0	0	4	22	26	-0.88
SC 12 (Percival Road) @ S-1196 (E Boundary Road)	Urban Minor Arterial	Intersection geometry	Intersection geometrics - modify skew angle	0	2	6	13	21	0	0	7	13	20	10.75
US 1 (Two Notch Rd) @ S-2033 (Sparkleberry Rd)	Urban Principal Arterial - Other	Access management	Change in access - close or restrict existing access	0	3	31	123	157	0	0	17	69	86	23.23
SC 9 Bypass @ S-66	Rural Major Collector	Intersection geometry	Intersection geometry - other	1	2	5	1	9	0	0	1	0	1	75.13

Optional Attachments

Sections	Files Attached

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.