Highway Safety Improvement Program

Data Driven Decisions

South Carolina
Highway Safety Improvement Program
2014 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."

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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 fromOctober 1, 2013 to July 31, 2014.

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 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: **1/1/2014**

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 improvment program funds are used to address which of the following systemic improvments?

☐ Cable Median Barriers

☒ Rumble Strips

☐ Traffic Control Device Rehabilitation

☐ Pavement/Shoulder Widening

☒ Install/Improve Signing

☒ Install/Improve Pavement Marking and/or Delineation

☐ Upgrade Guard Rails

☐ Clear Zone Improvements

☐ Safety Edge

☐ Install/Improve Lighting

☐ Add/Upgrade/Modify/Remove Traffic Signal

☐ 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: Other-Nothing has changed since the last reporting period

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. The Plan describes one of

the goals of SCDOT as "reducing traffic fatalities by twenty-five people per year, and reduce traffic crashes by 3 percent each year".

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

Serious Crash Types: Focus on Prevention of Run-off-Road Crashes, Injuries, and Fatalities

High Risk Drivers: Focus on Prevention of Aggressive Driving Crashes, Injuries and Fatalities

Special Vehicles: Focus on Commercial Vehicle Safety/Sharing the Road with Large Trucks

Vulnerable Roadway Users: Focus on Improving Safety of Pedestrians, Bicyclists, and Motorcyclists

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)	46487931	88 %	30566007	83 %
HRRRP (SAFETEA-LU)	1377224	3 %	1377224	4 %
HRRR Special Rule				
Penalty Transfer - Section 154				
Penalty Transfer – Section 164				
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)	1408481	3 %	1408481	4 %
State and Local Funds	3331002	6 %	3331002	9 %

Totals	52604638	100%	36682714	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?

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

$2,198,098.00

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

$2,198,098.00

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?

$0.00

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

The obligations shown in the above chart covers a period from October 1, 2013 - July 31, 2014. SCDOT currently has advance construction funds on the books to be obligated in August and September on various safety projects to utilize remaining HSIP allocations.

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
S-86 (Big Swamp Rd/ Bass Rd) @ S-164 (Big Swamp Rd) & S-729 (Bass Rd)	Roadway Superelevation / cross slope	1 Numbers	100000	100000	HSIP	Rural Major Collector	2200	0	State Highway Agency	Roadway Departure	
SC 522 (Rocky River Rd) @ SC 9 (Pageland Hwy)	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	247981.69	247981.69	HSIP	Rural Principal Arterial - Other	7950	0	State Highway Agency	Intersections	
SC 8 (Pelzer Hwy) @ S-485 (Three and Twenty Road/ St. Paul Road) & East	Intersection geometry Intersection geometry - other	1 Numbers	2059356.11	2280800.21	HSIP	Rural Minor Arterial	5700	0	State Highway Agency	Intersections	

Church Road											
US 321 (Deerfield Rd) @ SC 46 (Church Rd) & S-31 (Church Rd) & S-104 (Stiney Rd)	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	4300	4300	HSIP	Rural Principal Arterial - Other	7650	0	State Highway Agency	Intersections	
US 78 (W 5th N St) @ S-22 (Dawson Branch Rd/ Orangeburg Rd)	Intersection geometry Intersection geometry - other	1 Numbers	1000000	1000000	HSIP	Rural Principal Arterial - Other	12205	0	State Highway Agency	Intersections	
I-20 @ SC 215	Interchange design Extend existing lane on ramp	1 Numbers	1762038.17	1853150.8	HSIP	Urban Principal Arterial - Interstate	98700	0	State Highway Agency	Interchange	
US 401 (Lamar Hwy) @ S-19 (Hoffmeyer Rd)	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	255000	255000	HSIP	Rural Minor Arterial	5100	0	State Highway Agency	Intersections	
US 17A (North Main	Intersection traffic control Intersection	1 Numb	1250000	1250000	HSIP	Urban Principal	0	0	State Highwa	Intersectio	

St) @ S-61 (Myers Rd)	traffic control - other	ers				Arterial - Other			y Agency	ns	
S-40 (Joe Frazier Road) @ S-263 (Morall Drive/ Pine Grove Road)	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	7500	7500	HSIP	Urban Major Collector	4675	0	State Highway Agency	Intersections	
S-28 (Camp Road) @ S-95 (Dills Bluff Road)	Intersection traffic control Intersection traffic control - other	1 Numbers	175000	175000	HSIP	Urban Major Collector	14350	0	State Highway Agency	Intersections	
S-51 (Rifle Range Road) @ S-504 (Hamlin Road)	Intersection traffic control Intersection traffic control - other	1 Numbers	42787.77	42787.77	HSIP	Urban Major Collector	10300	0	State Highway Agency	Intersections	
I-26 [MP 168 to 198.1]	Roadside Barrier - cable	29.1 Miles	4109116.48	4109116.48	HSIP	Rural Principal Arterial - Interstate	0	0	State Highway Agency	Roadway Departure	
Low Cost Improvements @ Signals (Districts 1, 4, & 7)	Intersection traffic control Systemic improvements - signal-controlled	133 Numbers	130.76	130.76	HSIP	Varies depending on route	0	0	State Highway Agency	Intersections	

SC 291 (Augusta Road) @ S-7 (Old August Road) & @ S-27 (Donaldson Road) [MP 0-1.24]	Intersection geometry Intersection geometry - other	1.24 Miles	678814.5	678814.5	HSIP	Urban Principal Arterial - Other	29250	0	State Highway Agency	Intersections	
SC 402 (MP 12.98 to 13.59)	Shoulder treatments Shoulder treatments - other	0.61 Miles	158357.31	158357.31	HSIP	Rural Major Collector	2200	0	State Highway Agency	Roadway Departure	
S-60 (Wire Road) @ S-77 (Two Notch Road)	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	50000	50000	HSIP	Rural Major Collector	4200	0	State Highway Agency	Intersections	
SHSP MANAGEMENT POSITION @SCDPS	Non-infrastructure Training and workforce development	1 Numbers	35000	35000	HSIP		0	0		Employee Compensation	
SC 6 (Dreher Shoals Road) @ S-156 (Salem Church	Intersection traffic control Intersection traffic control - other	1 Numbers	47753.67	47753.67	HSIP	Urban Minor Arterial	11775	0	State Highway Agency	Intersections	

Road) & S-957 (Farming Creek Road)											
I-77 Ramps (@ Exits 77 and 90)	Roadway Pavement surface - high friction surface	1 Numbers	54233.02	54233.02	HSIP	Rural Principal Arterial - Interstate	0	0	State Highway Agency	Roadway Departure	
SC 24 @ SC 187 (Northern Intersection)	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	204752.58	204752.58	HSIP	Rural Principal Arterial - Other	13250	0	State Highway Agency	Intersections	
S-529 (Liberty Hall Road) @ S-1216 (Lindy Creek Road)	Intersection traffic control Intersection traffic control - other	1 Numbers	705824.46	705824.46	HSIP	Urban Principal Arterial - Other	14725	0	State Highway Agency	Intersections	
US 52 (S Goose Creek Boulevard) @ S-37 (Red Bank Road) / S-588 (Wisteria Road)	Intersection traffic control Intersection traffic control - other	1 Numbers	915666.13	915666.13	HSIP	Urban Principal Arterial - Other	54900	0	State Highway Agency	Intersections	

I-26 @ US 301 (Five Chop Road)	Interchange design Interchange design - other	1 Numbers	2831729.28	2831729.28	HSIP	Rural Principal Arterial - Interstate	57000	0	State Highway Agency	Improve ramp alignments, correct cross slopes, extend decel and accel lanes, and apply OGFC.	
US 21 (Main Street/Anderson Road) @ SC 121 (Cowan Road) & S-1544 (Carmel Rd)	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	100000	100000	HSIP	Urban Principal Arterial - Other	30200	0	State Highway Agency	Intersections	
SC 120 (Pinewood Road) @ S-528 (Kolb Road)	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	218451.58	218451.58	HSIP	Urban Minor Arterial	9900	0	State Highway Agency	Intersections	
SC 19 (Edgefield Highway) @	Intersection geometry Auxiliary lanes - add left-	1 Numb	587735.9	587735.9	HSIP	Rural Principal Arterial -	11590	0	State Highway	Intersections	

S-503 (Good Springs Road)	turn lane	ers				Other			Agency		
I-85 NB Ramp @ US 178 (Liberty Hwy)	Interchange design Interchange design - other	1 Numbers	50000	50000	HSIP	Urban Principal Arterial - Interstate	28675	0	State Highway Agency	Interchange	
S-65 (Meadowfield Road) @ S-663 (Woodtrail Drive/ Sharpes Hill Road) & S-1471 (Woodcrest Lane)	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	65000	65000	HSIP	Rural Major Collector	4595	0	State Highway Agency	Intersections	
SC 763 (Wedgefield Road) @ S-507 (Pitts Road)	Intersection traffic control Intersection traffic control - other	1 Numbers	764620.35	764620.35	HSIP	Urban Minor Arterial	6850	0	State Highway Agency	Intersections	
US 321 @ S-663 (Woodtrail Drive)	Intersection geometry Auxiliary lanes - miscellaneous/other/unspecified	1 Numbers	187503.03	187503.03	HSIP	Rural Principal Arterial - Other	20350	0	State Highway Agency	Intersections	

S-50 (Fork Shoals Road) @ S-1912 (White Horse Road Ext)	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	896467.82	896467.82	HSIP	Urban Major Collector	9500	0	State Highway Agency	Intersections	
SC 290 (Locust Hill Road) @ S-171 (N Rutherford Road)	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	1003665.65	1003665.65	HSIP	Urban Minor Arterial	18900	0	State Highway Agency	Intersections	
SC 252 @ S-203 (Austin Road)	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	1064363.6	1064363.6	HSIP	Rural Major Collector	4300	0	State Highway Agency	Intersections	
US 178 (Moorefield Mem Hwy) @ S-64 (Five Forks Road) & S-326 (Old Pendleton Road)	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	1201445.27	1201445.27	HSIP	Rural Minor Arterial	7695	0	State Highway Agency	Intersections	
S-87 (Mormon Church Road) @ S-	Intersection traffic control Modify control - two-way stop to	1 Numbers	35000	35000	HSIP	Rural Major Collector	7225	0	State Highway	Intersections	

488 (Wells Highway)	roundabout								Agency		
S-104 (Chalk Bed Road) [MP 5 to 5.5]	Shoulder treatments Shoulder treatments - other	0.8 Miles	1006765.26	1006765.26	HSIP	Urban Major Collector	2100	0	State Highway Agency	Roadway Departure	
S-1041 (Rimer Pond Road) MP 4.75 to 5.50	Alignment Vertical alignment or elevation change	0.75 Miles	225850.87	225850.87	HSIP	Rural Major Collector	3400	0	State Highway Agency	Roadway Departure	
FY 2012 Statewide Admin Hazard Elimination Program	Non-infrastructure Training and workforce development	0	813098.18	813098.18	HSIP		0	0		Employee Compensation	
2012 MIRS/Profile Thermo (District 1)	Roadway Rumble strips - edge or shoulder	120.43 Miles	985231.52	985231.52	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
US 123 Cable Guard Rail [from S-271 (Berkeley Dr) to SC 8 (5th St)]	Roadside Barrier - cable	14.92 Miles	1118124.06	1118124.06	HSIP	Varies along route	17364	0	State Highway Agency	Roadway Departure	

SC 118 (University Parkway) @ S-105 (Vaucluse Road)	Intersection geometry Auxiliary lanes - miscellaneous/other/unspecified	1 Numbers	239700	239700	HSIP	Urban Principal Arterial - Other	9400	0	State Highway Agency	Intersections	
SC 38 (Hamlet Hwy) @ S-47 (Beauty Spot Road)	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	14300	14300	HSIP	Rural Minor Arterial	6325	0	State Highway Agency	Intersections	
S-1048 (Sloan Road) @ S-1274 (N Brickyard Road)	Intersection geometry Auxiliary lanes - miscellaneous/other/unspecified	1 Numbers	47200	47200	HSIP	Urban Major Collector	14050	0	State Highway Agency	Intersections	
US 21 (Wilson Road) @ S-52 (Killian Road)	Intersection traffic control Intersection traffic control - other	1 Numbers	178600	178600	HSIP	Rural Minor Arterial	13950	0	State Highway Agency	Intersections	
S-106 (Mineral Springs Road) @ S-387 (Cromer Road) & S-1065 (Cedar	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	48000	48000	HSIP	Urban Major Collector	9457	0	State Highway Agency	Intersections	

Road)											
S-70 (Two Notch Road) @ S-77 (Barr Road)	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	54100	54100	HSIP	Rural Major Collector	9450	0	State Highway Agency	Intersections	
SC 9 (Pageland Hwy) @ S-36 (Potter Road)	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	35000	35000	HSIP	Rural Principal Arterial - Other	8950	0	State Highway Agency	Intersections	
US 176 (Furman L. Fendley Hwy) @ S-12 (Forest Street)	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	397199.47	397199.47	HSIP	Rural Principal Arterial - Other	10575	0	State Highway Agency	Intersections	
2013 MIRS/Profile Thermo (District 7)	Roadway Rumble strips - edge or shoulder	188.51 Miles	1506369.98	1506369.98	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
2013 MIRS/Profile Thermo (District 5)	Roadway Rumble strips - edge or shoulder	189.47 Miles	242648.44	242648.44	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
2013 MIRS/Profil	Roadway Rumble strips -	130.14	1075572	1075572	HSIP	Varies dependin	0	0	State Highwa	Roadway	

e Thermo (District 6)	edge or shoulder	Miles	.57	.57		g on route			y Agency	Departure	
US 176 (Furman L. Fendley Hwy) @ S-407 (New Hope Church Road)	Intersection geometry Intersection geometry - other	1 Numbers	707228.4	707228.4	HSIP	Rural Minor Arterial	8360	0	State Highway Agency	Intersections	
SC 340 (Timmonsville Highway) @ S-354 (Rogers Road)	Intersection traffic control Intersection traffic control - other	1 Numbers	83155.16	83155.16	HSIP	Rural Major Collector	7150	0	State Highway Agency	Intersections	
S-58 (Jedburg Road) [From S-769 (Gallashaw Road) to S-22 (Orangeburg Road)]	Shoulder treatments Shoulder treatments - other	3.62 Miles	780713.37	780713.37	HSIP	Urban Minor Arterial	5482	0	State Highway Agency	Roadway Departure	
S-674 (Piney Grove Rd) @ S-1280 (Piney	Intersection traffic control Modify control - two-way stop to	1 Numbers	220000	220000	HSIP	Urban Minor Arterial	7300	0	State Highway	Intersections	

Woods Rd)	roundabout								Agency		
2015 MIRS/ Profile Thermo (District 1)	Roadway Rumble strips - edge or shoulder	1 Numbers	5000	5000	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
2015 MIRS/ Profile Thermo (District 2)	Roadway Rumble strips - edge or shoulder	1 Numbers	5000	5000	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
2015 MIRS/ Profile Thermo (District 3)	Roadway Rumble strips - edge or shoulder	1 Numbers	5000	5000	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
2015 MIRS/ Profile Thermo (District 4)	Roadway Rumble strips - edge or shoulder	1 Numbers	5000	5000	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
2015 MIRS/ Profile Thermo (District 5)	Roadway Rumble strips - edge or shoulder	1 Numbers	5000	5000	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
2015 MIRS/ Profile Thermo (District 6)	Roadway Rumble strips - edge or shoulder	1 Numbers	5000	5000	HSIP	Varies depending on	0	0	State Highway	Roadway Departure	

						route			Agency		
2015 MIRS/ Profile Thermo (District 7)	Roadway Rumble strips - edge or shoulder	1 Numbers	5000	5000	HSIP	Varies depending on route	0	0	State Highway Agency	Roadway Departure	
US 76 (Dutch Fork Rd) @ S-618 (Johnson Marina Rd)	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	150000	150000	HSIP	Urban Minor Arterial	22950	0	State Highway Agency	Intersections	
S-34 (Whitehall Rd) & Sullivan Rd	Intersection traffic control Intersection traffic control - other	1 Numbers	250000	250000	HSIP	Urban Minor Arterial	1530	0	State Highway Agency	Intersections	
S-63 (Alpine Rd) & S-1026 (Old Percival Rd)	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	15000	15000	HSIP	Urban Minor Arterial	14613	0	State Highway Agency	Intersections	
S-81 (Old Whitmire Hwy) [MP 11.7 to MP 14.8]	Shoulder treatments Shoulder treatments - other	3.1 Miles	33353.03	33353.03	HRRP	Rural Major Collector	225	0	State Highway Agency	Roadway Departure	
S-24 (Floyds Road) [From S-13 (N	Shoulder treatments Shoulder treatments -	2.15 Miles	17168.58	17168.58	HRRP	Rural Major	650	0	State Highway	Roadway Departure	

Center Road) to US 52 (N Governor Williams Hwy)]	other					Collector			Agency		
S-354 (Rogers Rd) [MP 0.00 to MP 5.81]	Shoulder treatments Shoulder treatments - other	5.81 Miles	194736.3	194736.3	HRRP	Rural Major Collector	1940	0	State Highway Agency	Roadway Departure	
S-54 (Snake Road) MP 0.00 to MP 3.05 [From SC 462 (Lowcountry Road) to SC 170 (Okatie Hwy)]	Shoulder treatments Shoulder treatments - other	3.05 Miles	1264968.18	1264968.19	HRRP	Rural Major Collector	3000	0	State Highway Agency	Roadway Departure	
S-272 (Garrison Rd/ W. Georgia Rd) [MP 6.53 to MP 10.59]	Shoulder treatments Shoulder treatments - other	4.6 Miles	190543.37	190543.37	HRRP	Rural Major Collector	1767	0	State Highway Agency	Roadway Departure	
S-541 (W. Georgia Rd) [MP 0.00 to	Shoulder treatments Widen shoulder - paved	6.48 Miles	205054.37	205054.37	HRRP	Rural Major	1200	0	State Highwa	Roadway Departure	

MP 6.48]	or other					Collector			y Agency		
SC 9 @ Flag Patch Road	Intersection geometry Intersection geometry - other	1 Numbers	50000	50000	HSIP	Rural Principal Arterial - Other	6600	0	State Highway Agency	Intersections	
SC 9 @ S-664 (Liberty Church Road)	Intersection geometry Intersection geometry - other	1 Numbers	50000	50000	HSIP	Rural Principal Arterial - Other	6325	0	State Highway Agency	Intersections	
US 521 (Thomas Sumter Hwy) @ S-1342 (Camden Hwy) [South Intersection]	Intersection geometry Intersection geometry - other	1 Numbers	150000	150000	HSIP	Rural Minor Arterial	15750	0	State Highway Agency	Intersections	
SC 6 (S. Lake Dr) & S-627 (Bethany Church Rd/ Pleasant View Dr)	Intersection traffic control Intersection traffic control - other	1 Numbers	250000	250000	HSIP	Rural Major Collector	13344	0	State Highway Agency	Intersections	
SC 86 (Hwy 86) & S-	Intersection geometry	1	50000	50000	HSIP	Rural	748	0	State	Intersectio	

1147 (Frontage Rd)	Intersection geometrics - modify intersection corner radius	Numbers				Major Collector	2		Highway Agency	ns	
SC 292 & SC 290 & S-728 & S-77 & S-62	Intersection geometry Intersection geometry - other	1 Numbers	150000	150000	HSIP	Urban Major Collector	10913	0	State Highway Agency	Intersections	
SC 417 (Hwy 417) @ SC 296 (Reidville Rd)	Intersection geometry Auxiliary lanes - add right-turn lane (free-flow)	1 Numbers	150000	150000	HSIP	Urban Minor Arterial	16610	0	State Highway Agency	Intersections	
SC 9 @ Foster Rd	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	250000	250000	HSIP	Rural Major Collector	7300	0	State Highway Agency	Intersections	
US 601 (McCords Ferry Rd) @ SC 263 (Vanboklen Rd)	Intersection traffic control Intersection traffic control - other	1 Numbers	150000	150000	HSIP	Rural Principal Arterial - Other	6300	0	State Highway Agency	Intersections	
US 17 Bypass @ 76th Avenue N	Intersection traffic control Intersection traffic control - other	1 Numbers	150000	150000	HSIP	Urban Principal Arterial - Other	30100	0	State Highway Agency	Intersections	

						Freeways and Expressways					
S-51 (Camp Creek Rd) [MP 0.00 to MP 11.70]	Shoulder treatments Shoulder treatments - other	11.7 Miles	190583.7	190583.7	HSIP	Rural Major Collector	781	0	State Highway Agency	Roadway Departure	
SC 28 (Abbeville Hwy) [MP 0.00 to MP 9.40]	Shoulder treatments Shoulder treatments - other	9.4 Miles	2448075.18	2448075.18	HSIP	Rural Minor Arterial	2917	0	State Highway Agency	Roadway Departure	
US 178 (Liberty Hwy) [MP 8.40 to MP 9.03]	Shoulder treatments Shoulder treatments - other	0.63 Miles	769970.43	769970.43	HSIP	Rural Minor Arterial	5400	0	State Highway Agency	Roadway Departure	
S-29 (County Farm Rd) [MP 3.33 to MP 5.18]	Shoulder treatments Shoulder treatments - other	1.85 Miles	442839.22	442839.22	HSIP	Rural Major Collector	2900	0	State Highway Agency	Roadway Departure	
SC 34 (Ninety Six Hwy) [MP 2.95 to MP	Shoulder treatments Shoulder treatments - other	1.75 Miles	954137.55	954137.55	HSIP	Rural Minor Arterial	4272	0	State Highway Agency	Roadway Departure	

4.7]											
S-370 (Cane Savannah Rd) [MP 0.00 to MP 1.73]	Shoulder treatments Shoulder treatments - other	1.73 Miles	958080.16	958080.16	HSIP	Urban Major Collector	3700	0	State Highway Agency	Roadway Departure	
US 521 (Camden Hwy) [MP 25.00 to MP 25.50]	Shoulder treatments Shoulder treatments - other	0.5 Miles	66658.56	66658.56	HSIP	Rural Principal Arterial - Other	6400	0	State Highway Agency	Roadway Departure	
US 321 (Fairfield Rd) [MP 12.29 to MP 19.29]	Shoulder treatments Shoulder treatments - other	7 Miles	5000	5000	HSIP	Rural Minor Arterial	3756	0	State Highway Agency	Roadway Departure	
S-222 (Old Hopkins Rd) [MP 3.43 to MP 6.68]	Shoulder treatments Shoulder treatments - other	3.25 Miles	2000	2000	HSIP	Rural Major Collector	4775	0	State Highway Agency	Roadway Departure	
S-37 (Lower Richland Boulevard) [MP 0.00 to MP 5.83]	Shoulder treatments Shoulder treatments - other	5.83 Miles	2000	2000	HSIP	Rural Major Collector	2296	0	State Highway Agency	Roadway Departure	
S-158 (McIlwain	Shoulder treatments Shoulder treatments -	4.46	1017027	1017027	HRRP	Rural Major	550	0	State Highwa	Roadway	

Rd) [MP 2.24 to MP 6.70]	other	Miles	.18	.18		Collector	0		y Agency	Departure	

Progress in Achieving Safety Performance Targets

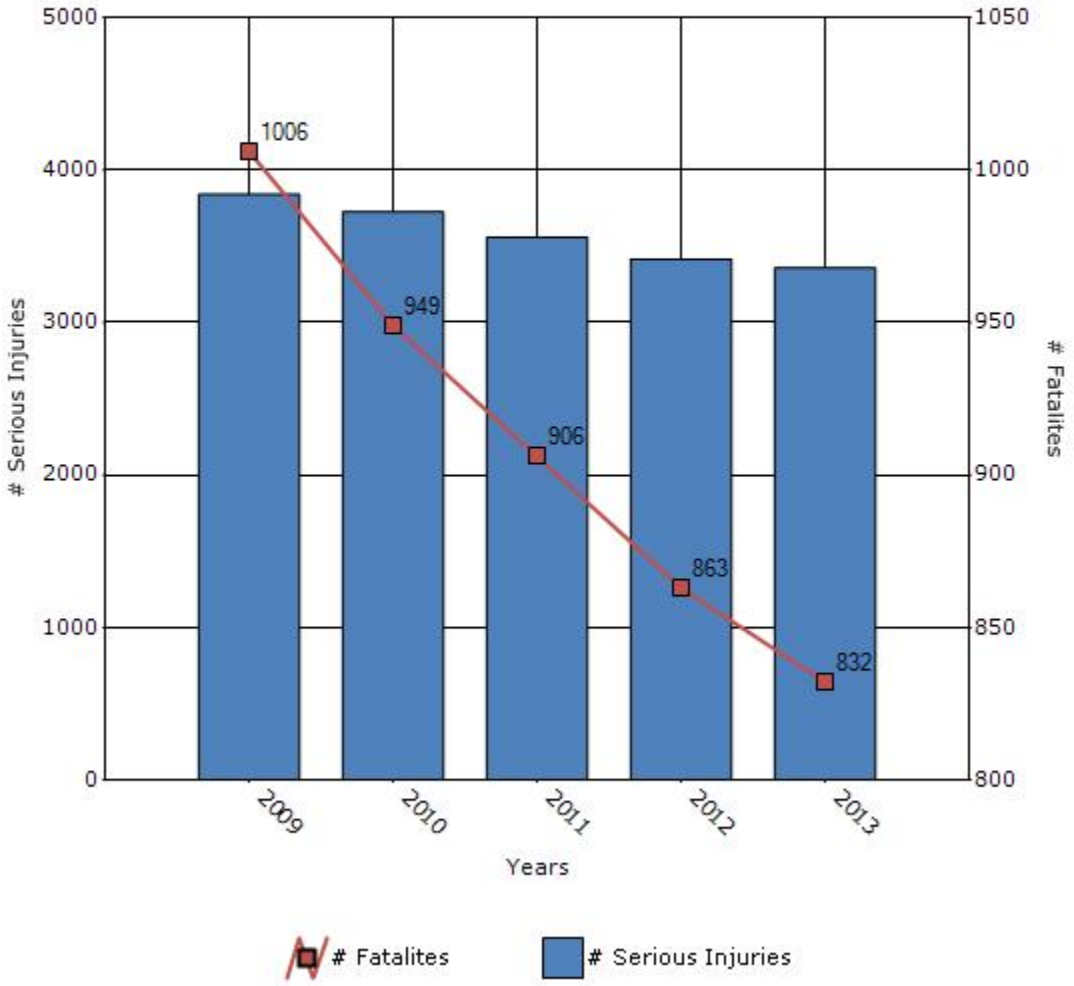
Overview of General Safety Trends

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

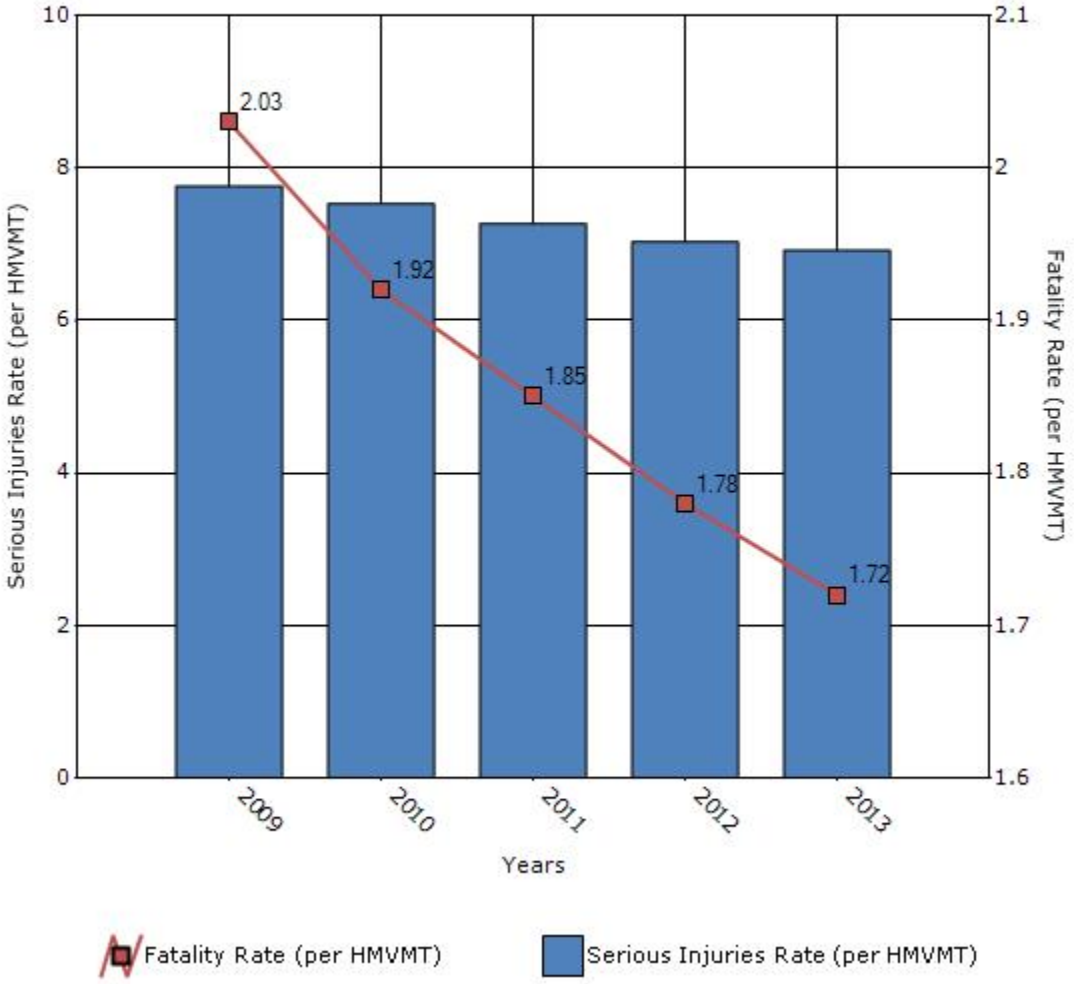
Performance Measures*	2009	2010	2011	2012	2013
Number of fatalities	1006	949	906	863	832
Number of serious injuries	3839	3724	3557	3415	3357
Fatality rate (per HMVMT)	2.03	1.92	1.85	1.78	1.72
Serious injury rate (per HMVMT)	7.76	7.53	7.27	7.03	6.92

*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

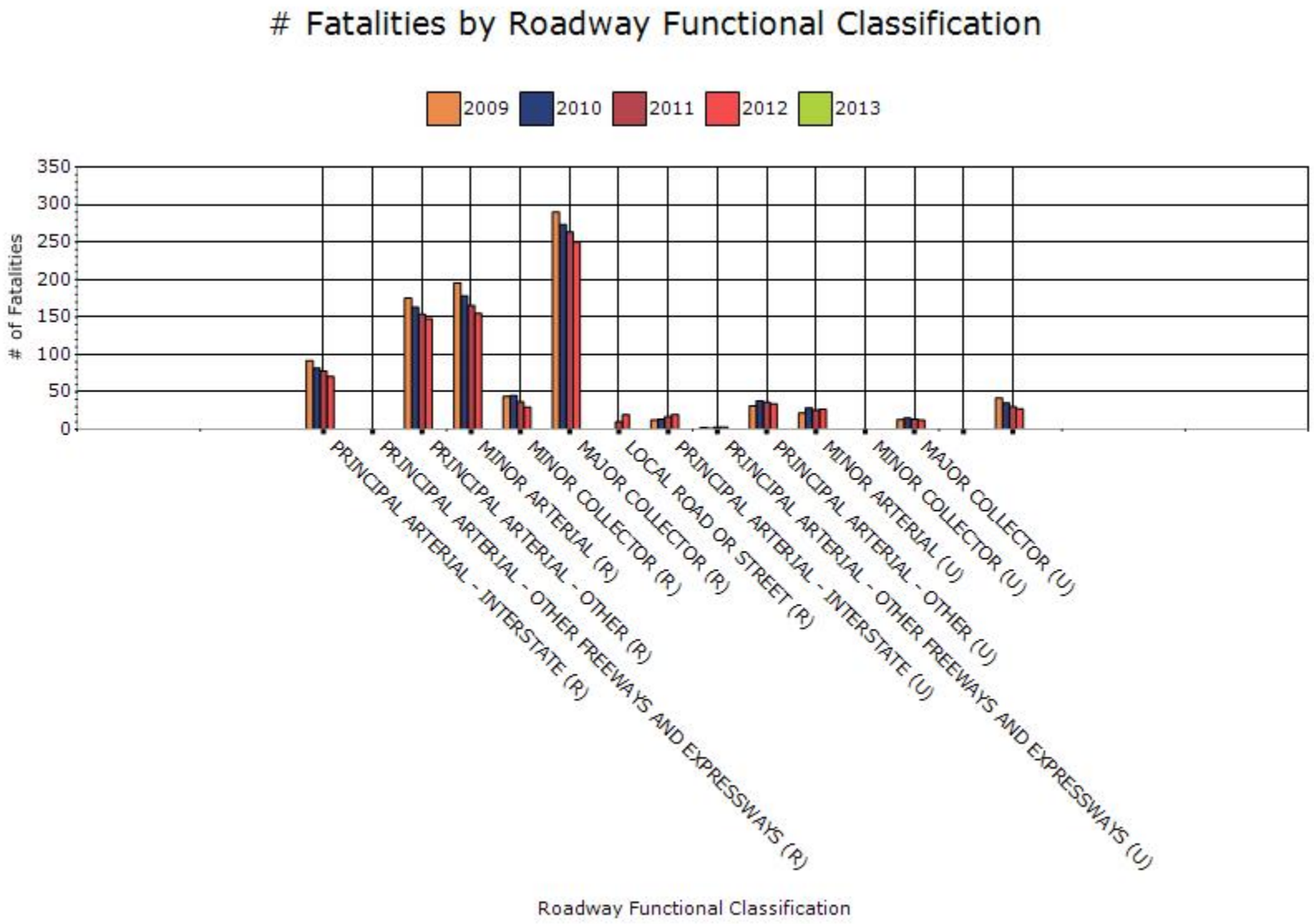


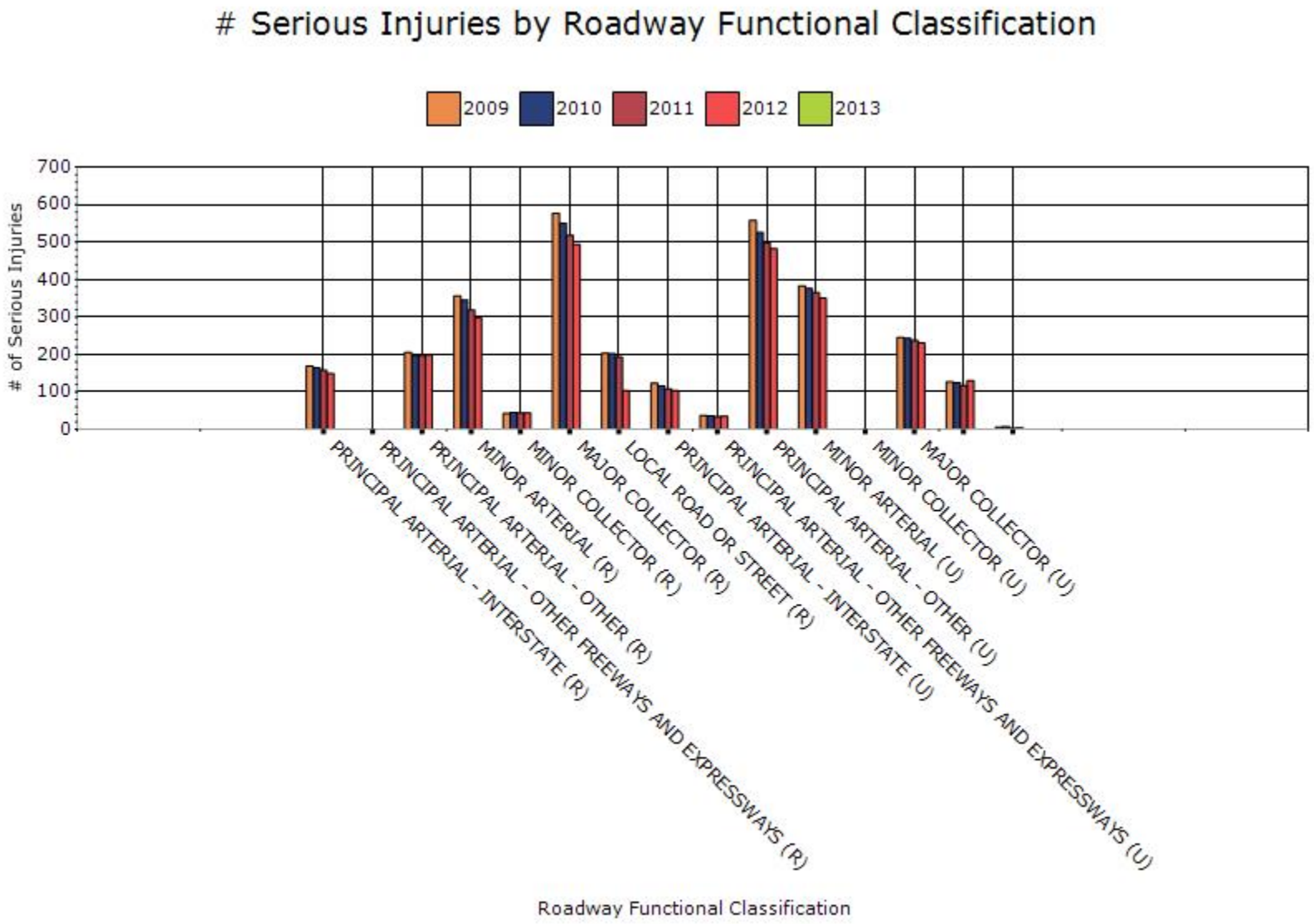
To the maximum extent possible, present performance measure* data by functional classification and ownership.

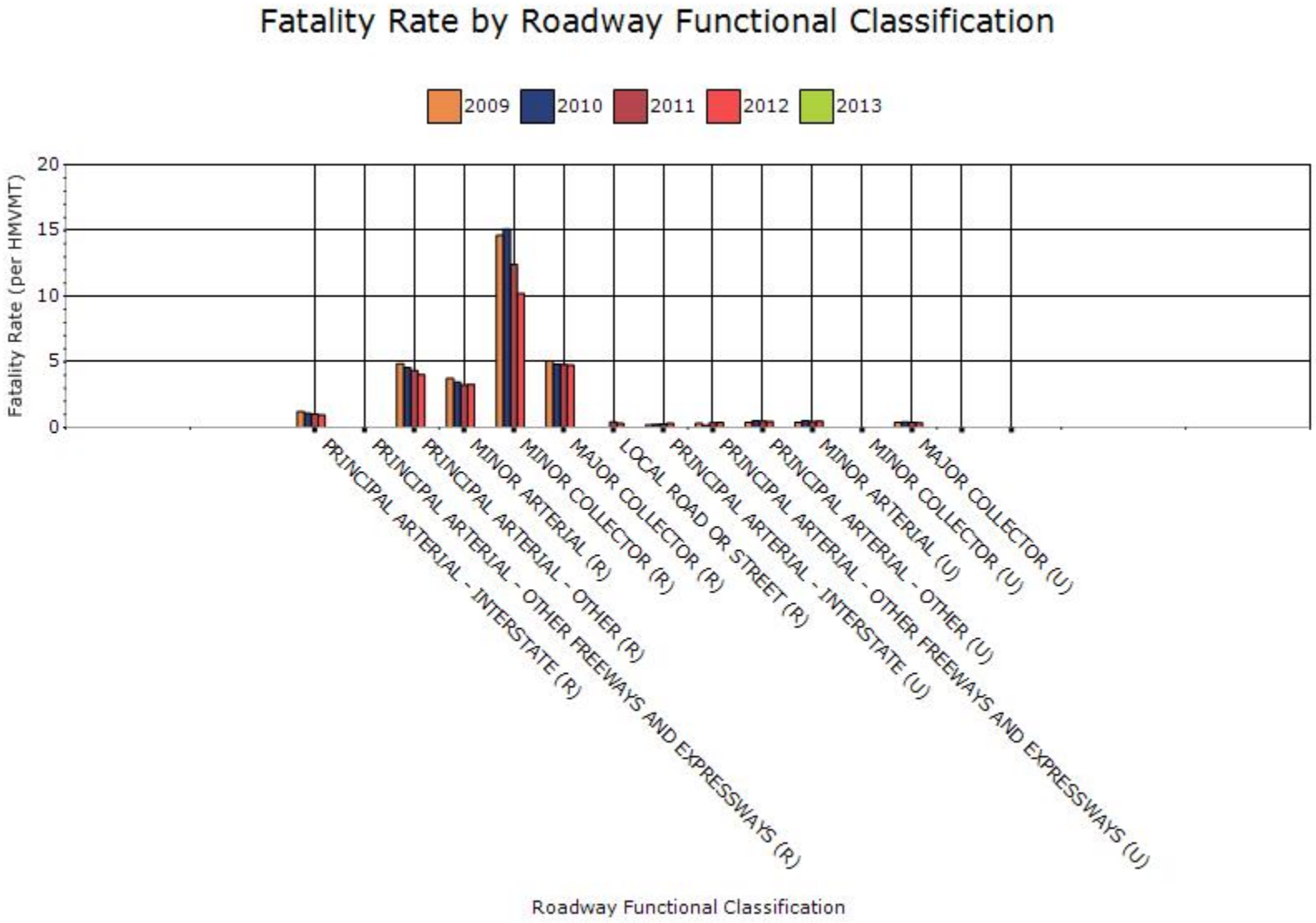
Year - 2012

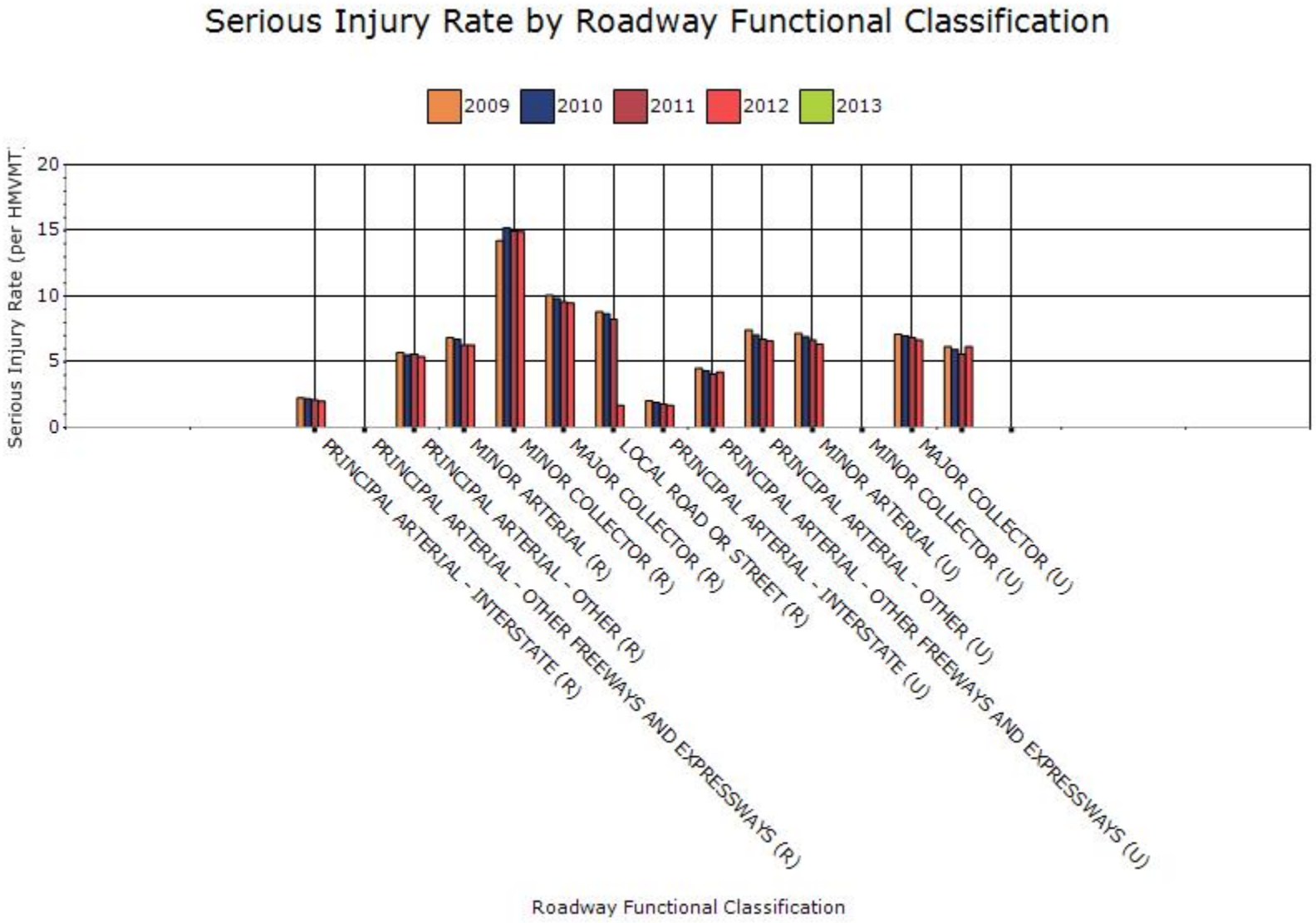
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	70.8	149.4	0.95	2
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER	147.6	198.4	4.02	5.38
RURAL MINOR ARTERIAL	155	299	3.29	6.29
RURAL MINOR COLLECTOR	29.8	43.2	10.22	14.93
RURAL MAJOR COLLECTOR	250	493	4.75	9.48
RURAL LOCAL ROAD OR STREET	19.4	103	0.32	1.69
URBAN PRINCIPAL	19.8	103	0.32	1.69

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	3.2	34.8	0.39	4.22
URBAN PRINCIPAL ARTERIAL - OTHER	34	481.8	0.47	6.6
URBAN MINOR ARTERIAL	27	350.4	0.48	6.34
URBAN MINOR COLLECTOR	0	0	0	0
URBAN MAJOR COLLECTOR	12.4	231.2	0.36	6.65
URBAN LOCAL ROAD OR STREET	0	130.4	0	6.16
UNKNOWN	27.2	3.6	0	0


Fatalities by Roadway Functional Classification
2009
2010
2011
2012
2013
# of Fatalities
350
300
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
2009
2010
2011
2012
2013
# of Serious Injuries
700
600
500
400
300
200
100
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

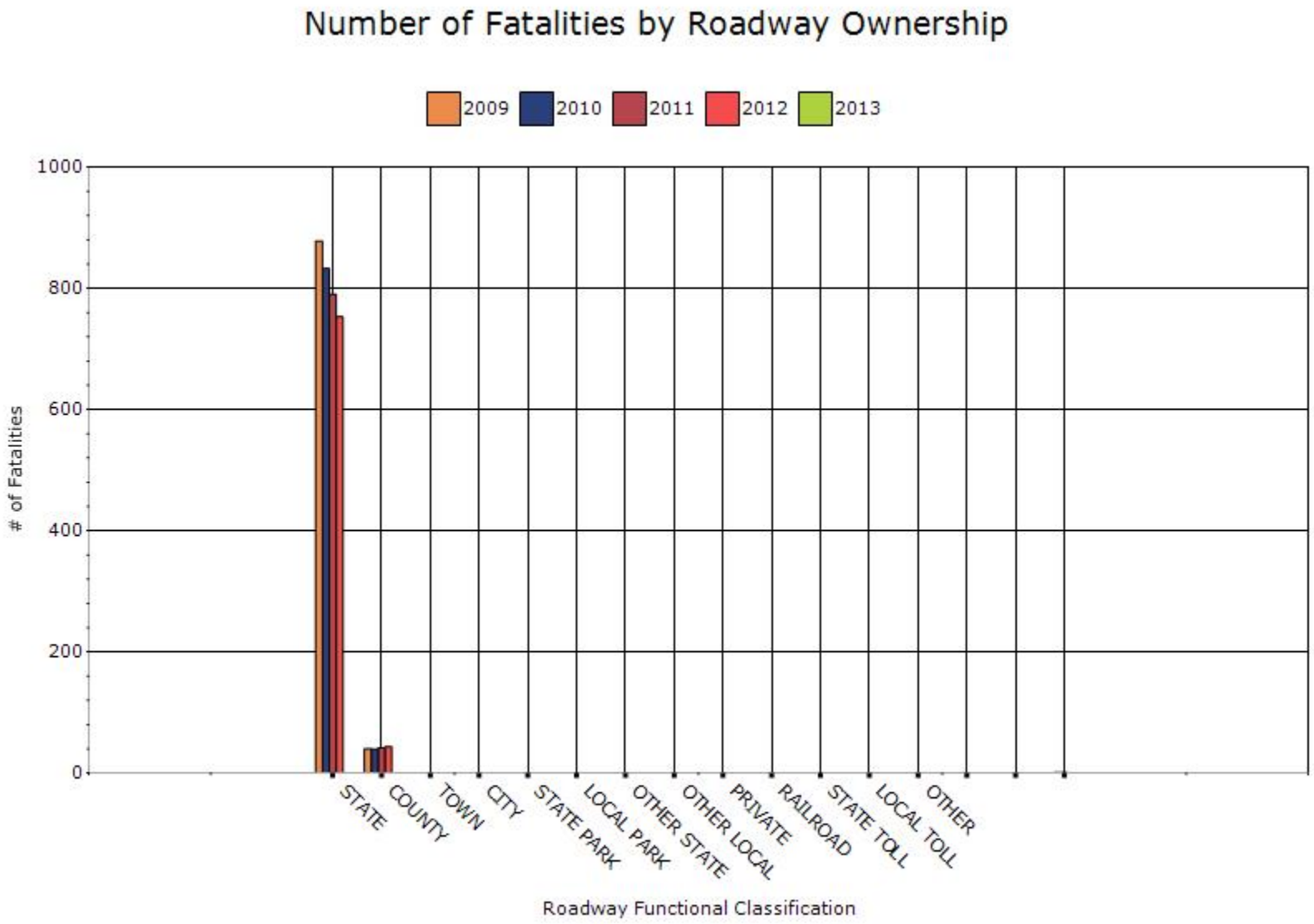

Fatality Rate by Roadway Functional Classification
2009
2010
2011
2012
2013
Fatality Rate (per HMVMT)
20
15
10
5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL 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

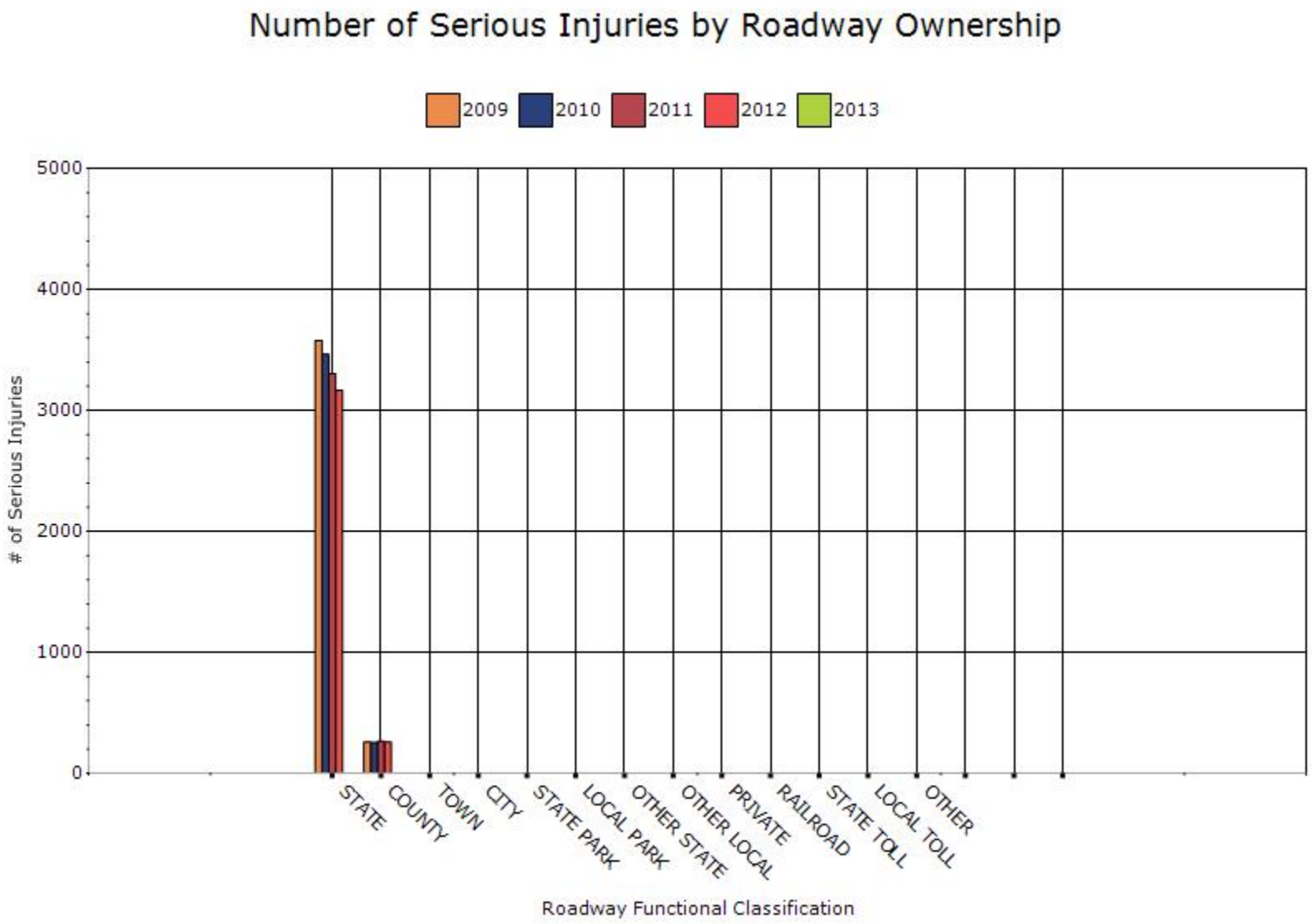

Serious Injury Rate by Roadway Functional Classification
2009
2010
2011
2012
2013
Serious Injury Rate (per HMVMT)
20
15
10
5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (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 - 2012

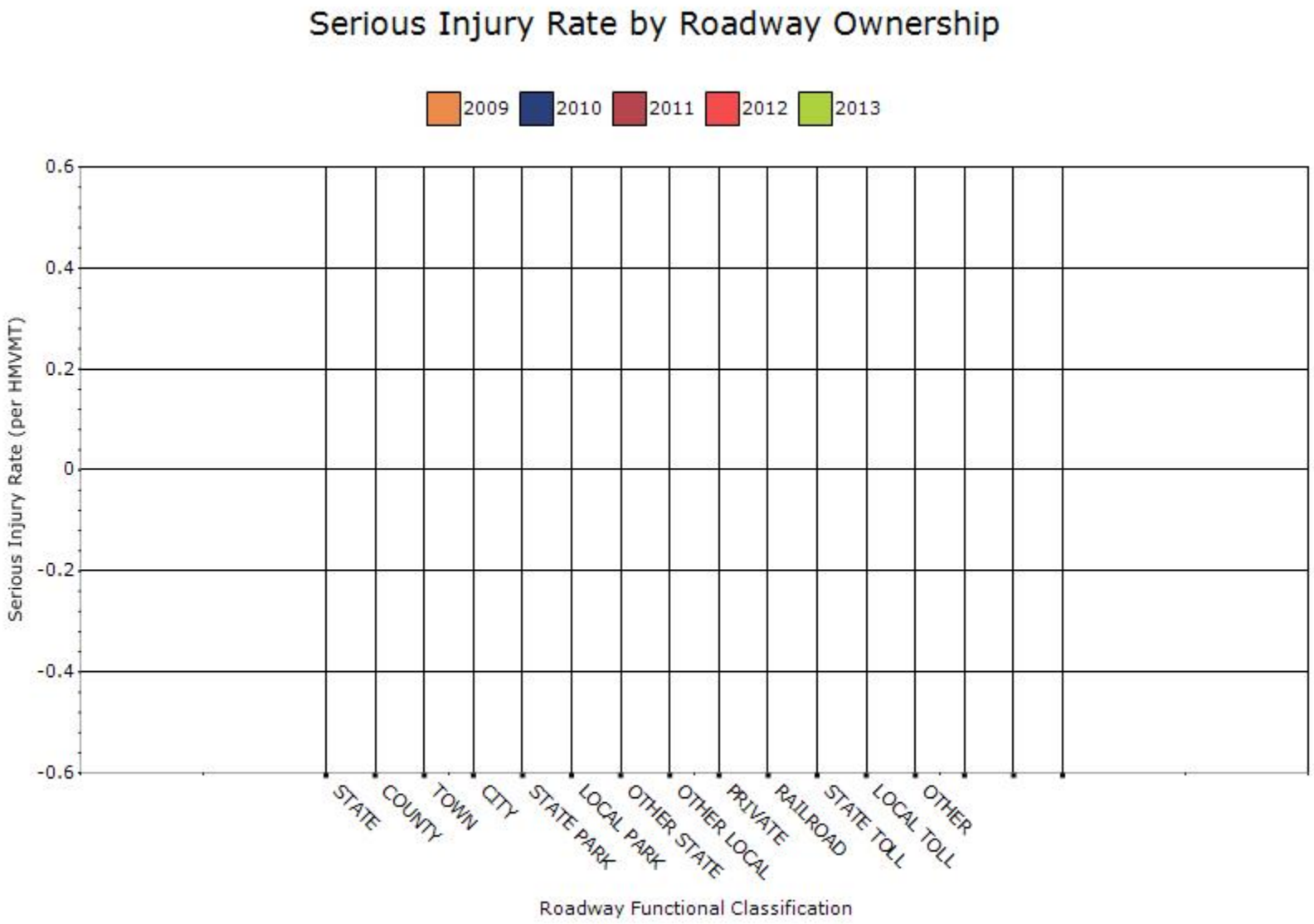
Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	752.8	3166.6	0	0
COUNTY HIGHWAY AGENCY	43.4	258.8	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	0	0	0	0
STATE PARK, FOREST, OR 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	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
INDIAN TRIBE NATION	0	0	0	0

0	0	0	0	0
OTHER	0	0	0	0


Number of Fatalities by Roadway Ownership
2009
2010
2011
2012
2013
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
2009
2010
2011
2012
2013
5000
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
2009
2010
2011
2012
2013
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Fatality Rate (per HMVMT)
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
2009
2010
2011
2012
2013
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Serious Injury Rate (per HMVMT)
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.

Data for 2013 was not available at the time of submission for the previous two questions, Roadway Functional Classification and Roadway Ownership.

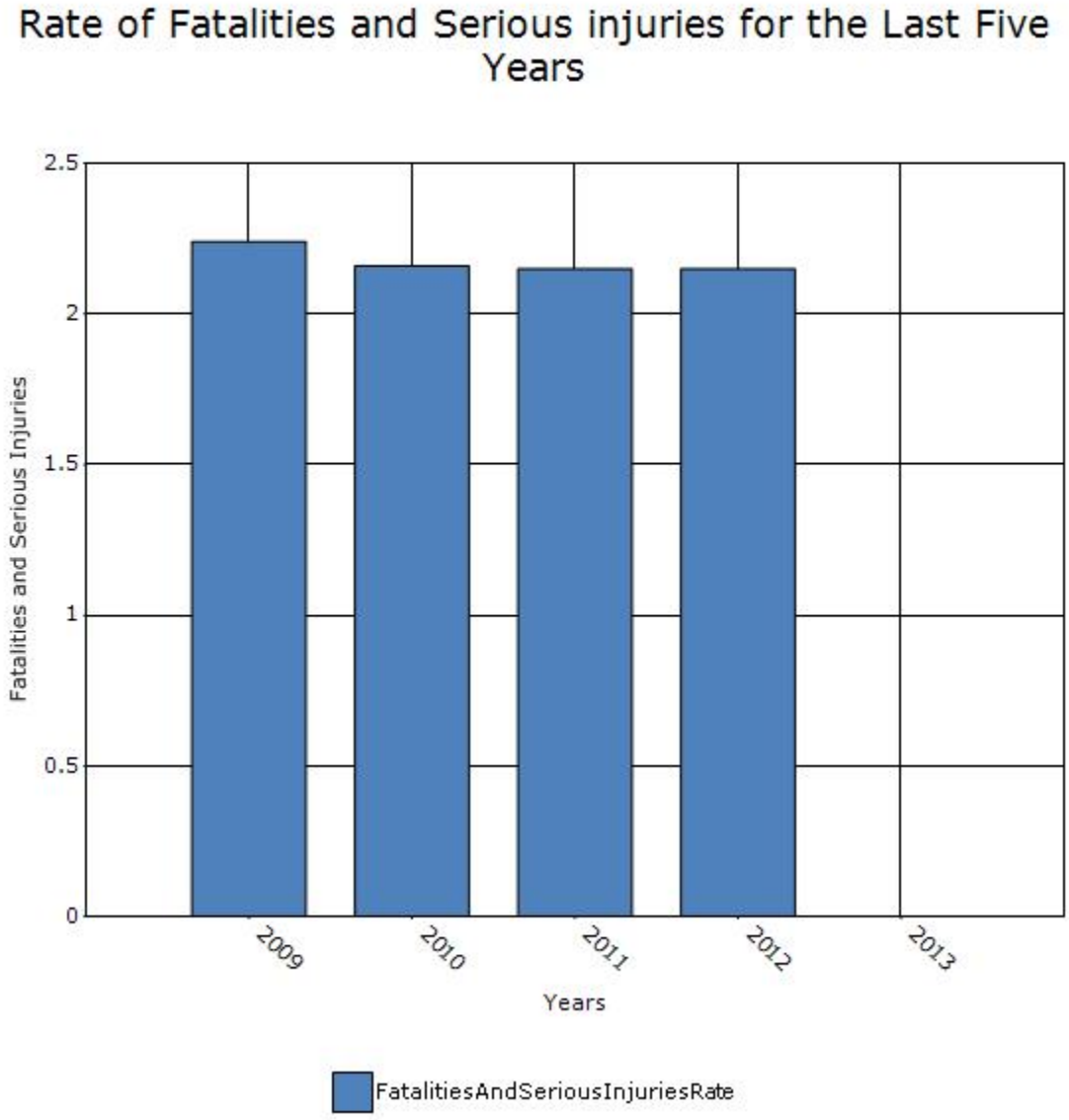
Application of Special Rules

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)	0.74	0.69	0.66	0.65	0
Serious injury rate (per capita)	1.5	1.47	1.49	1.5	0
Fatality and serious injury rate (per capita)	2.24	2.16	2.15	2.15	0

*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 2012 was calculated by dividing 97 by 147 to get 0.66. Data for 2013 is not included in the report. At the time of submittal, SCDOT did not have a final fatality count for 2013.



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:

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

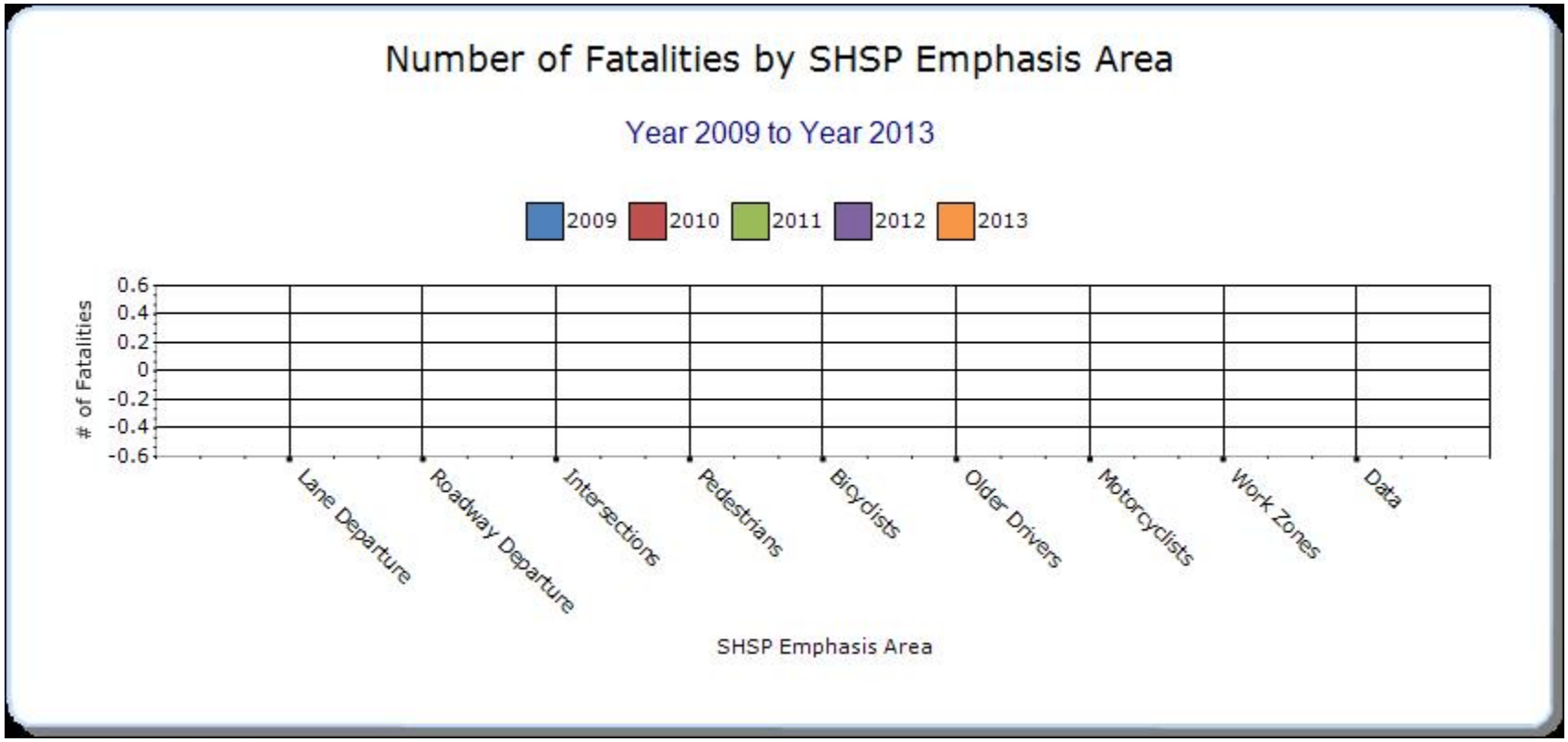
SCDOT did not make any significant program changes since the last reporting period.

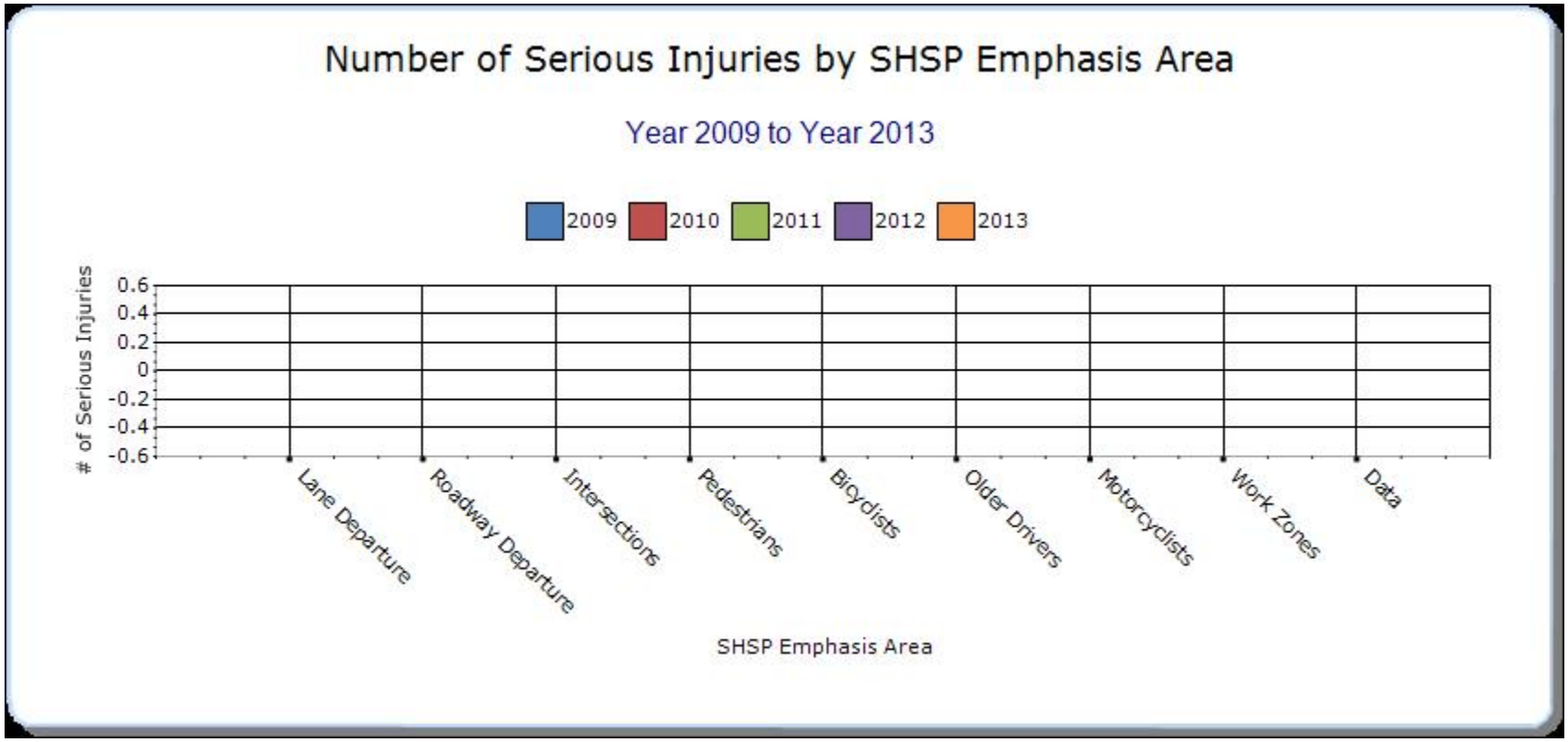
SHSP Emphasis Areas

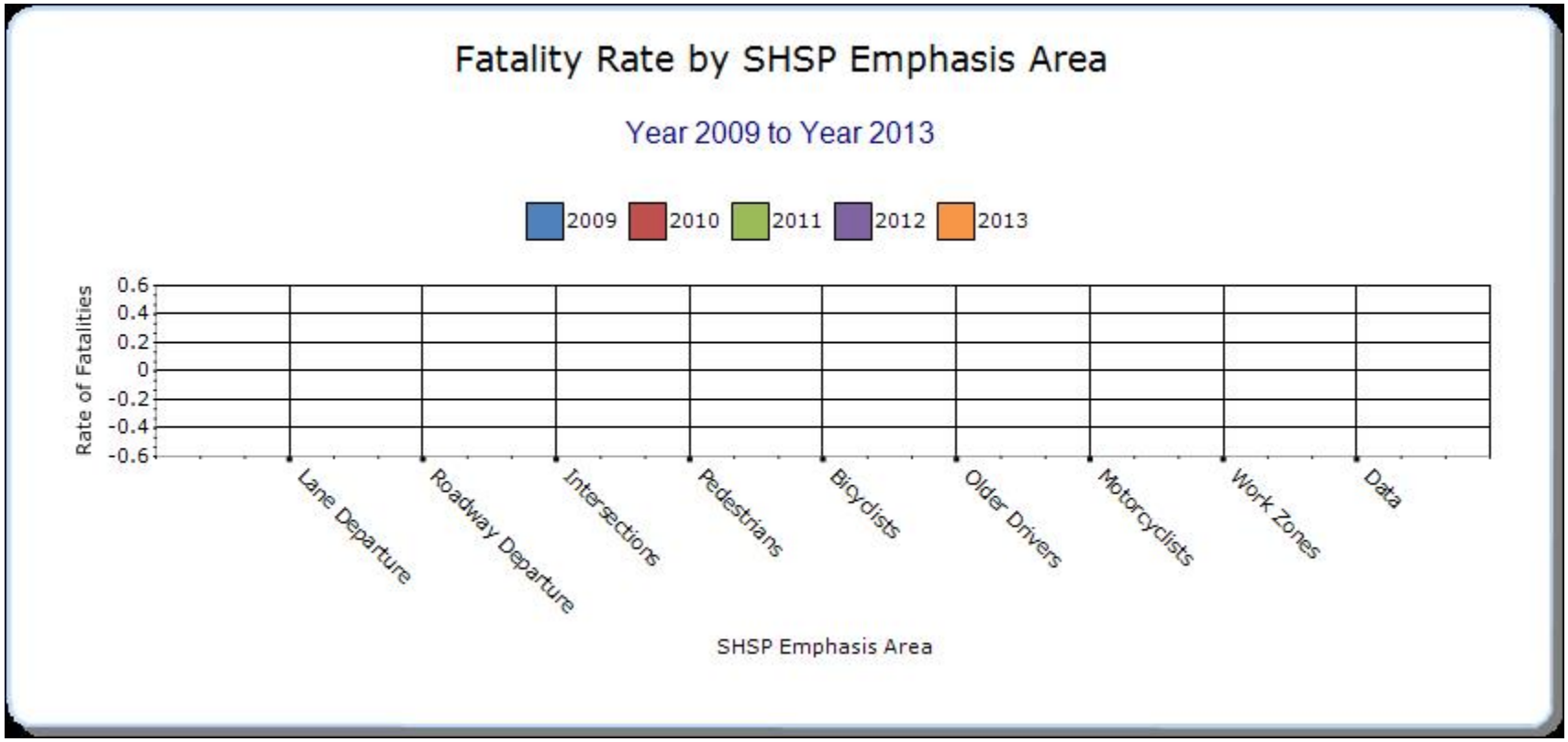
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

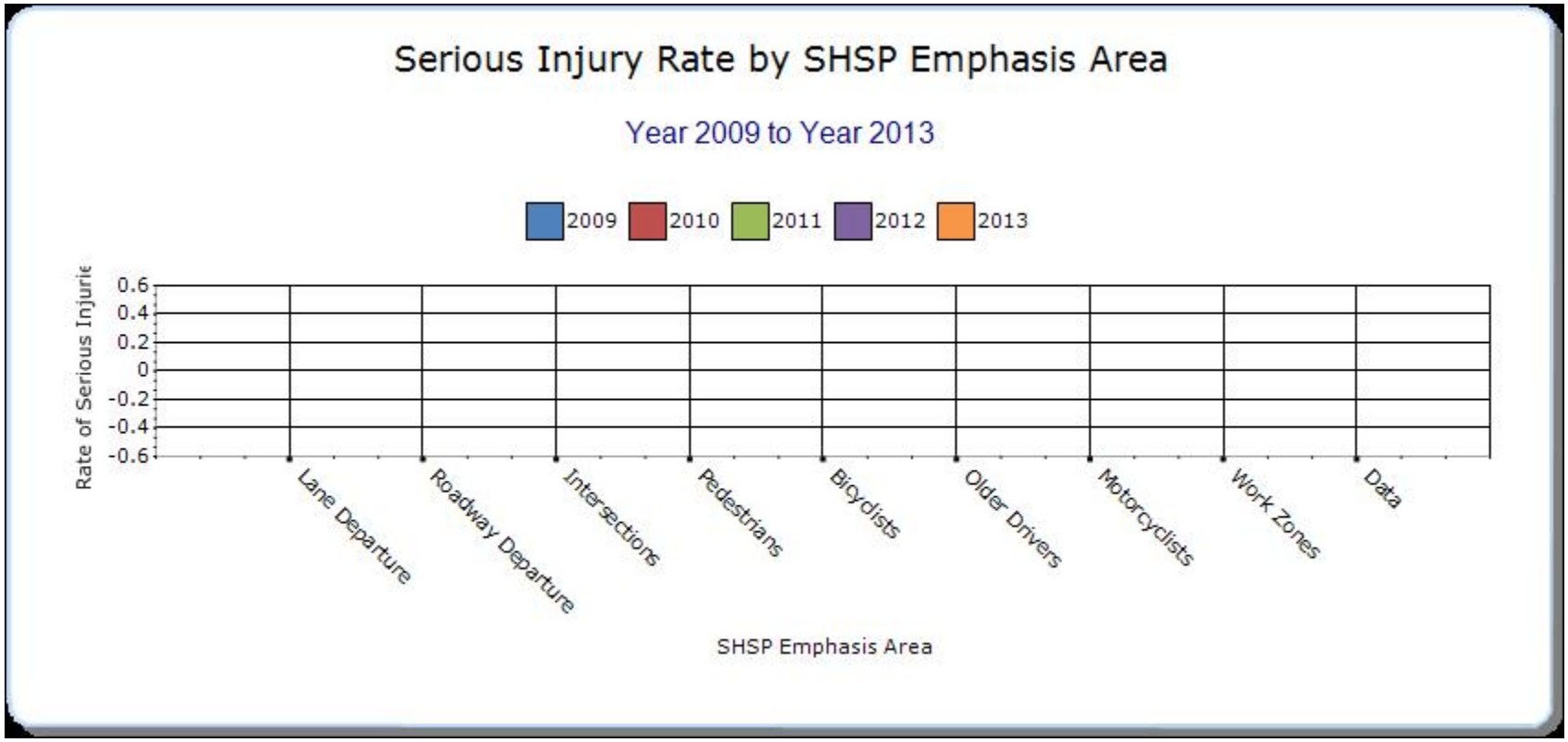
Year - 2013

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
Lane Departure		0	0	0	0	0	0	0


Number of Fatalities by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# 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 2009 to Year 2013
2009
2010
2011
2012
2013
# 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 2009 to Year 2013
2009
2010
2011
2012
2013
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

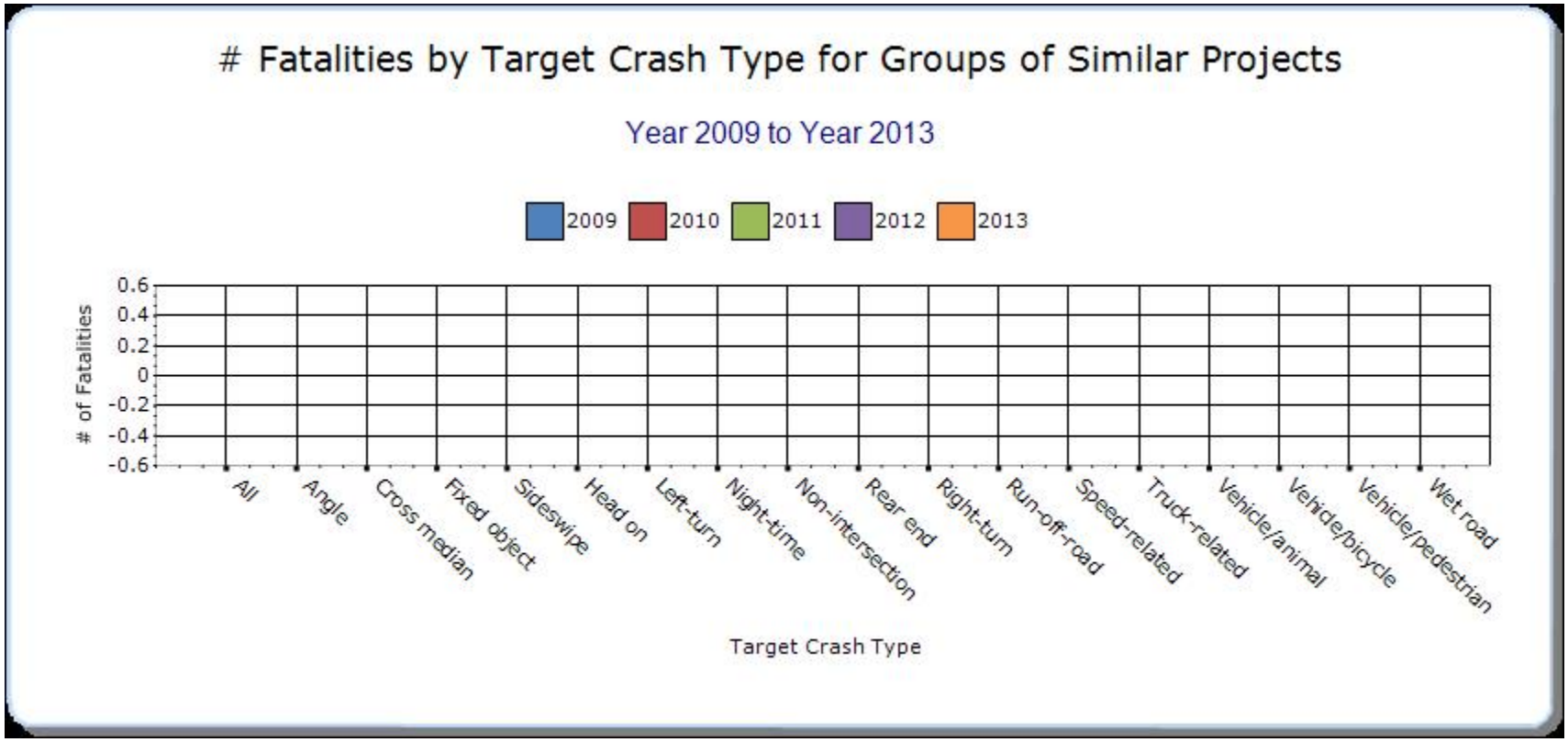

Serious Injury Rate by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Serious Injurie
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area

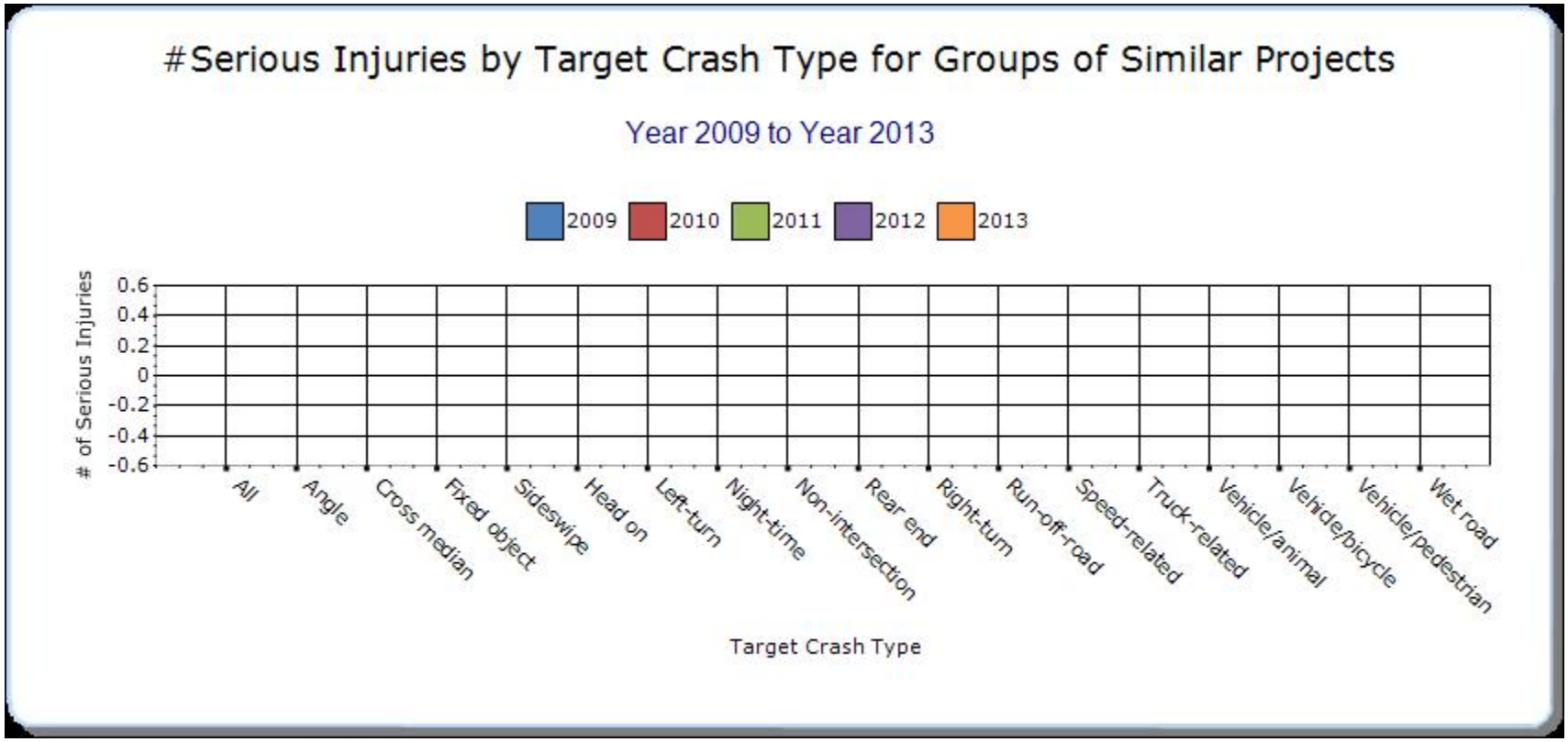
Groups of similar project types

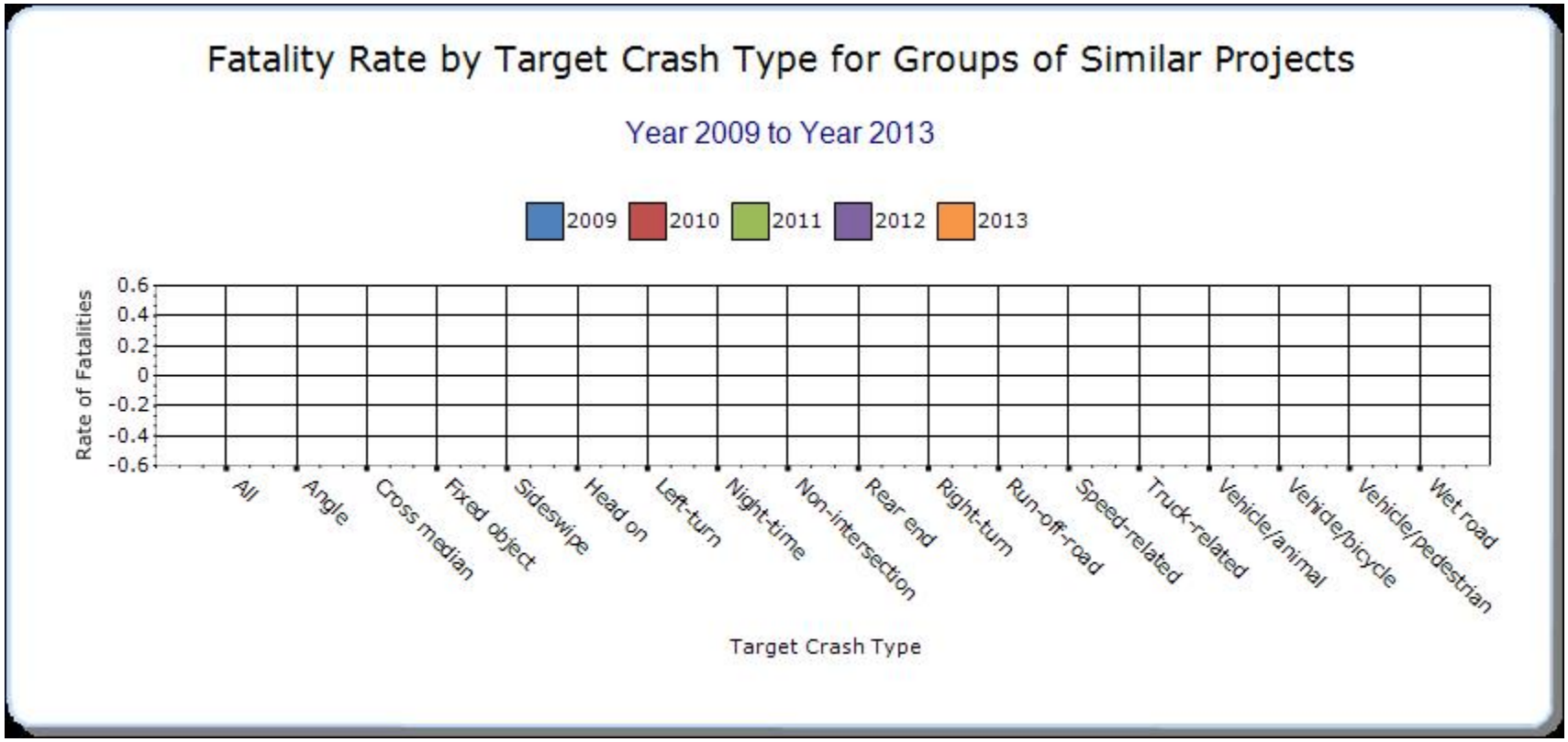
Present the overall effectiveness of groups of similar types of projects.

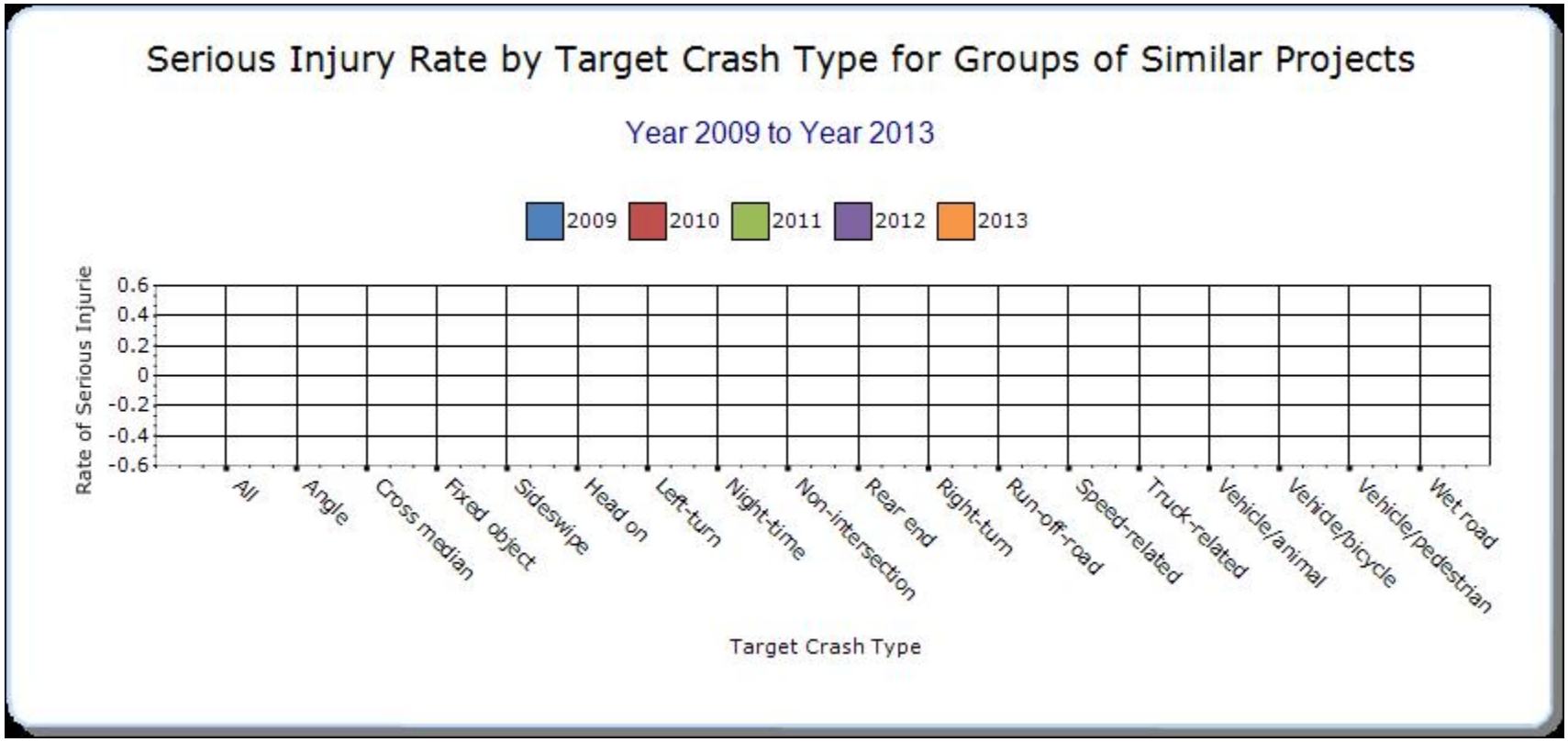
Year - 2013

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
Other-Safety Program		0	0	0	0	0	0	0


Fatalities by Target Crash Type for Groups of Similar Projects
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# 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
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 2009 to Year 2013
2009
2010
2011
2012
2013
# 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
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 2009 to Year 2013
2009
2010
2011
2012
2013
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
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

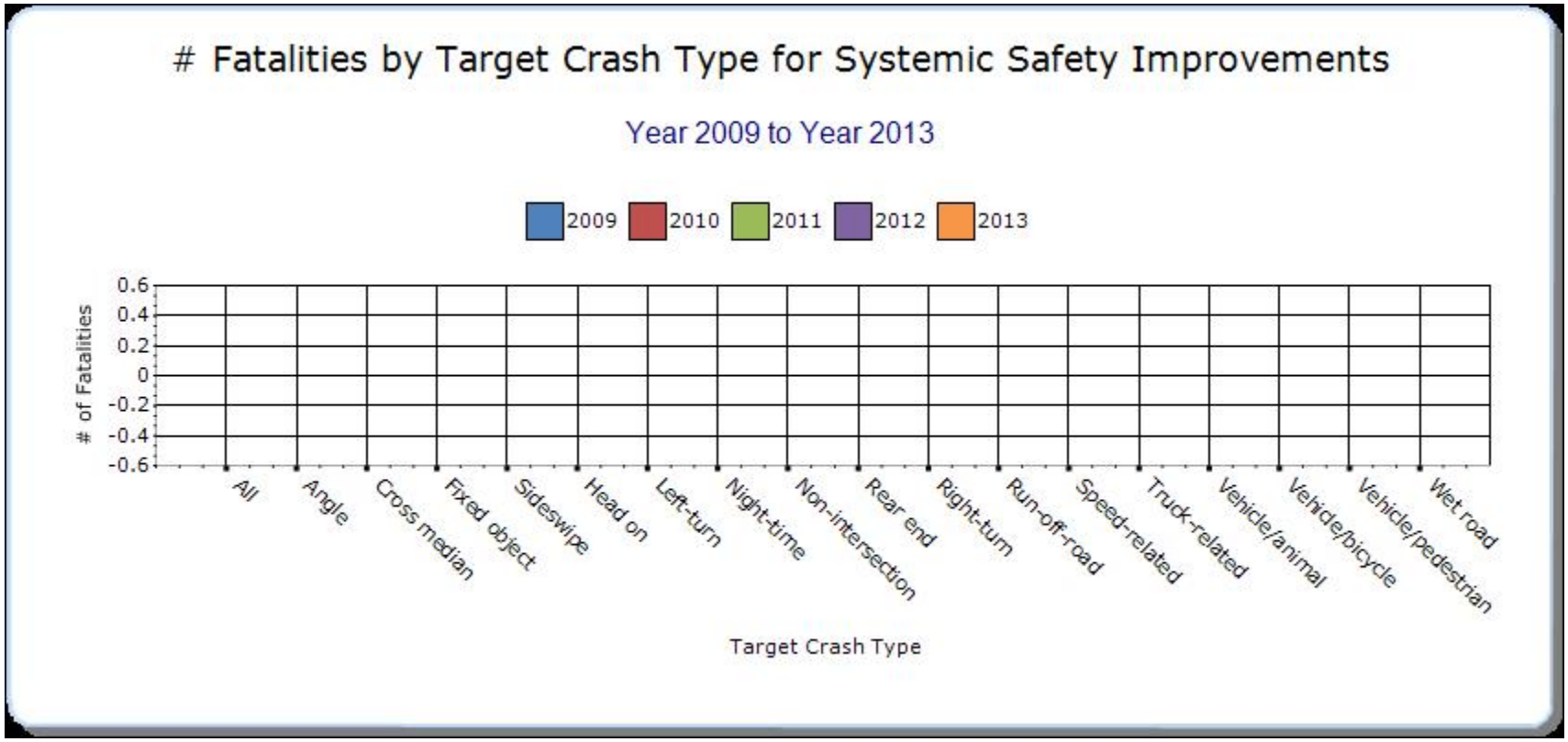

Serious Injury Rate by Target Crash Type for Groups of Similar Projects
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Serious Injurie
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

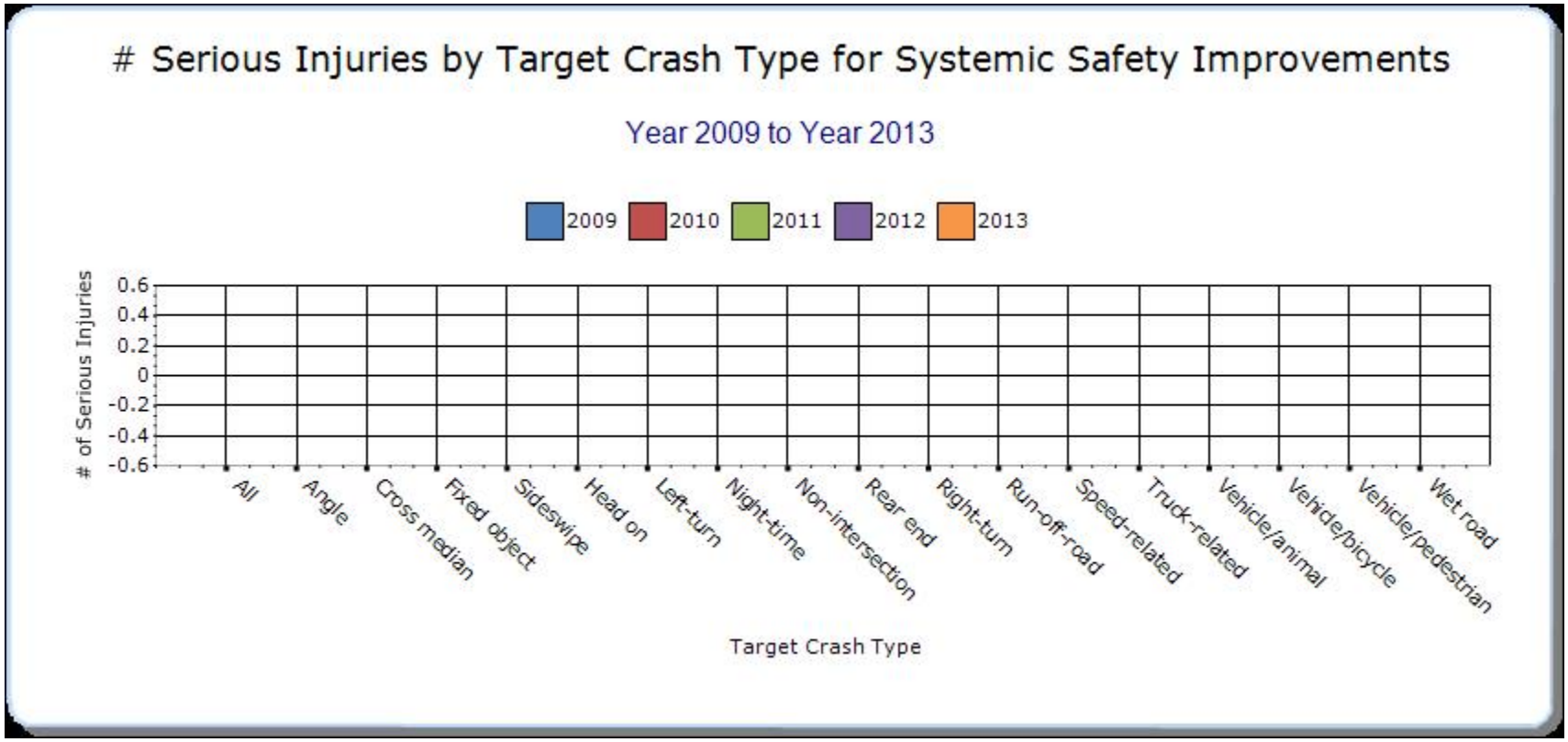
Systemic Treatments

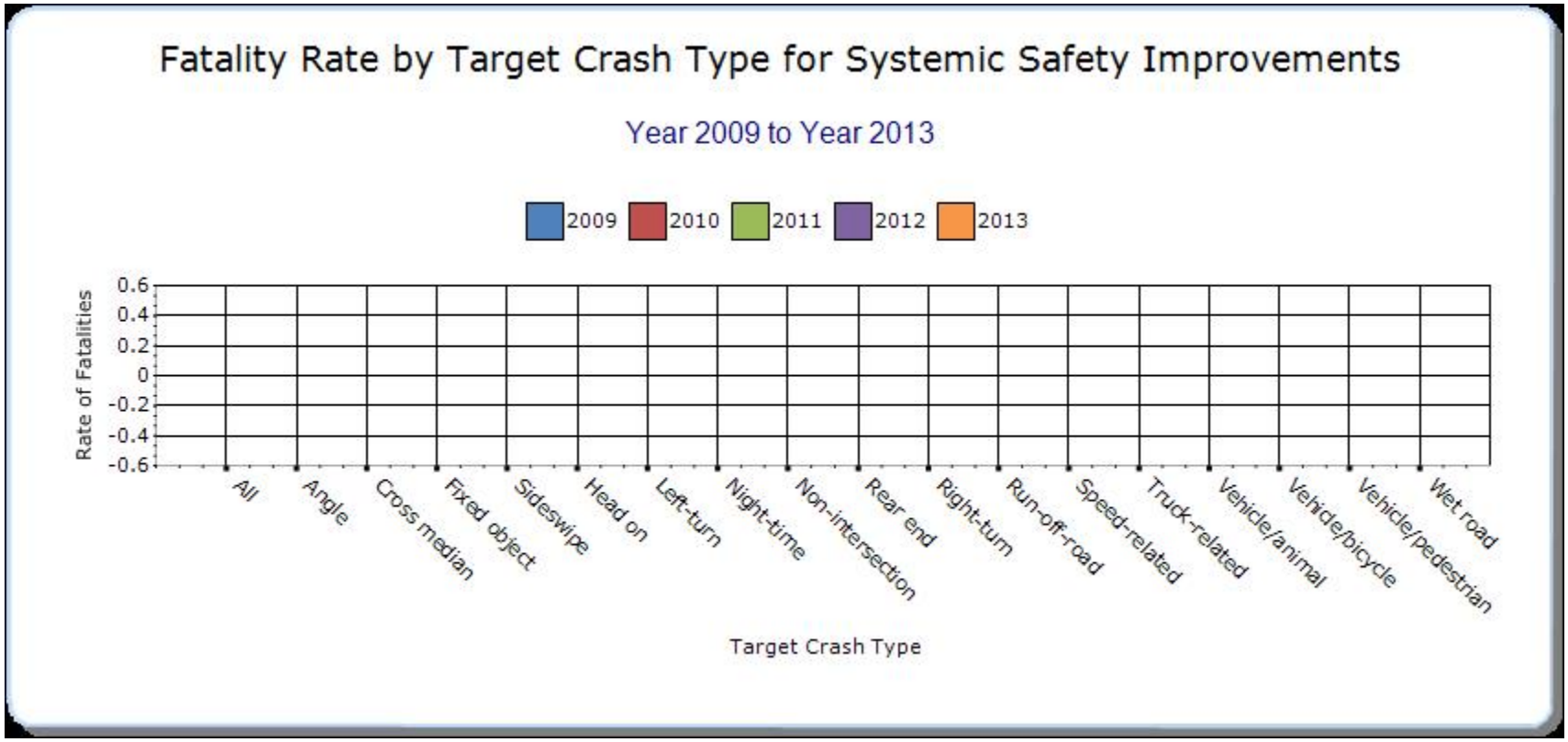
Present the overall effectiveness of systemic treatments.

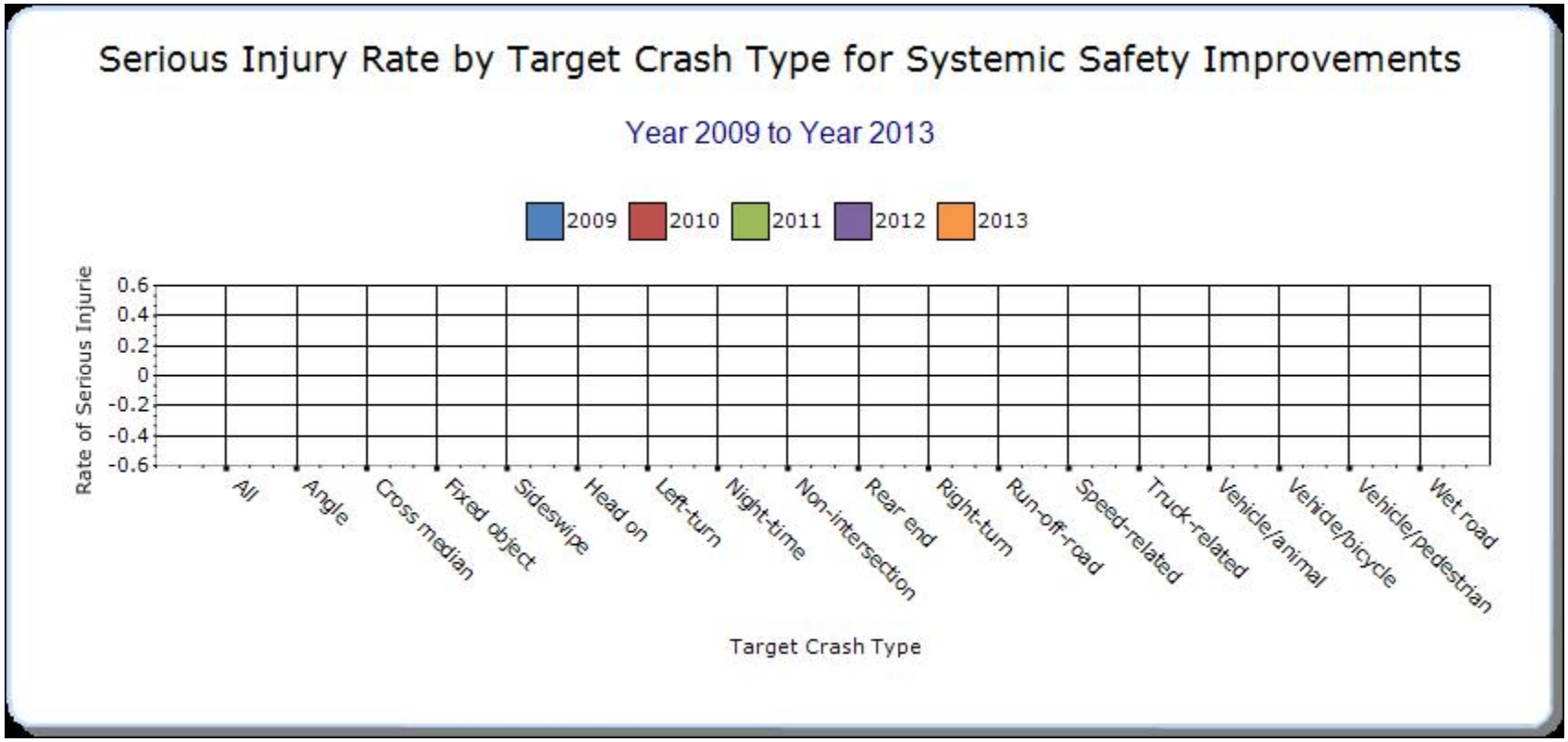
Year - 2013

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		0	0	0	0	0	0	0


Fatalities by Target Crash Type for Systemic Safety Improvements
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# 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
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 2009 to Year 2013
2009
2010
2011
2012
2013
# 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
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 2009 to Year 2013
2009
2010
2011
2012
2013
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
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 2009 to Year 2013
2009
2010
2011
2012
2013
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
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 17 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 20.65. The average crash rate reduction for the 17 projects was 53.3%.

Please note that several sections under "Program Methodology: Select the programs that are administered under the HSIP" were not included in this 2014 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. Data for 2013 was not available for sections including Road Functional Class, Roadway Ownership, and Application of Special Rules.

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)
S-219 (Lane Ave) @ S-281 (Bellview Rd) & S-333 (Concord Ave)	Urban Major Collector	Intersection geometry	Intersection geometry - other	0	0	0	0	0	0	0	0	0	0	3.27
SC 18 (Shelby Hwy) @ SC 329 (Victory Trail Rd)	Rural Minor Arterial	Intersection traffic control	Intersection traffic control - other	0	0	0	0	0	0	0	0	0	0	22.54
SC 105 [MP 11.6 to MP 12.25]	Rural Minor Arterial	Alignment	Horizontal curve realignment	0	0	0	0	0	0	0	0	0	0	0.78
US 15 (Marquis Hwy) @ S-24 (E. Carolina Ave)	Urban Minor Arterial	Intersection traffic control	Intersection traffic control - other	0	0	0	0	0	0	0	0	0	0	0.5

SC 51 (Pamplico Hwy) @ S-551 (Willow Creek Rd)	Rural Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn lane	0	0	0	0	0	0	0	0	0	0	14.91
S-26 (E. McIver Rd) @ S-358 (E. Ashby Rd)	Urban Minor Arterial	Intersection traffic control	Intersection traffic control - other	0	0	0	0	0	0	0	0	0	0	-1.29
SC 146 (Woodruff Rd) @ SC 296 (S. Bennet's Bridge Rd) - East Intersection	Urban Minor Arterial	Intersection traffic control	Intersection traffic control - other	0	0	0	0	0	0	0	0	0	0	19.22
US 321 (Deerfield Rd) @ SC 46 (Church Rd) & S-31 (Church Rd) & S-104 (Stiney Rd)	Rural Principal Arterial - Other	Intersection geometry	Intersection geometrics - modify skew angle	0	0	0	0	0	0	0	0	0	0	13.5
SC 903 (Flat Creek Rd) @ S-36 (Potter	Rural Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn	0	0	0	0	0	0	0	0	0	0	5.44

Road)			lane											
I-20 @ SC 6	Urban Principal Arterial - Interstate	Interchange design	Interchange design - other	0	0	0	0	0	0	0	0	0	0	8.81
I-26 @ US 378 (Sunset Blvd)	Urban Principal Arterial - Interstate	Interchange design	Interchange design - other	0	0	0	0	0	0	0	0	0	0	39.26
S-73 (Fish Hatchery Road) @ S-647 (Gator Road)	Urban Minor Arterial	Intersection geometry	Intersection geometrics - modify skew angle	0	0	0	0	0	0	0	0	0	0	0.07
SC 9 @ SC 912 (Williamette Rd)	Rural Principal Arterial - Other	Intersection geometry	Auxiliary lanes - add right-turn lane	0	0	0	0	0	0	0	0	0	0	125.79
US 176 @ I-20 Entrance Ramp	Urban Principal Arterial - Interstate	Intersection geometry	Intersection geometry - other	0	0	0	0	0	0	0	0	0	0	23.76
S-55 (Clarkson Rd)	Rural Major Collector	Alignment	Horizontal curve realignment	0	0	0	0	0	0	0	0	0	0	68.62

US 15 @ S-251 (Nettles Rd) & S-535 (Nazarene Church Rd)	Rural Minor Arterial	Alignment	Horizontal curve realignment	0	0	0	0	0	0	0	0	0	0	4.75
SC 9 (Jonesville-Lockhart) @ SC 114 (Bob Little Rd)	Rural Principal Arterial - Other	Intersection geometry	Intersection geometrics - modify skew angle	0	0	0	0	0	0	0	0	0	0	1.06

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.