Highway Safety Improvement Program

Data Driven Decisions

Massachusetts
Highway Safety Improvement Program
2014 Annual Report

Prepared by: MA

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

SAFETEA-LU first instituted the Highway Safety Improvement Program (HSIP) in 2005 and MAP-21 continued the program in 2012. Although Massachusetts was in fact designing and constructing safety projects, it was using other funding categories. In 2009 Massachusetts began obligating funds from the HSIP funding category, only after an HSIP Task Force was developed and HSIP guidelines were implemented. Massachusetts is now in the sixth year of an active HSIP program. This report summarizes the HSIP management and structure in Massachusetts as well as describing the selected HSIP programs and projects. We are submitting the HSIP report on line for the second year but challenges remain in gaining access to the reporting system so that the HSIP reporting all falls to one person. Please note that while 2013 information is listed in this report, the information is incorrect and should not be used. We were unable to eliminate 2013 fields even though we have not supplied 2013 data and 2013 is not yet available in MA.

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 The STIP provided for approximately $40 million in 2014 HSIP funds. $15M administered in HQ and $25M was allocated to the regions (by MARPA formula) through MPO project selection process.

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

The HSIP project selection criteria were based on locations being identified as top crash locations (based on the number and severity of crashes) regardless of road ownership. Additionally, programs were established to reduce injuries and fatalities based on several key focus areas based on our Strategic Highway Safety Plan, regardless of roadway jurisdiction. There was also one low cost systemic approach project to reduce crashes along horizontal curves that was restricted to locally owned roads. Finally, other eligible projects / programs were selected based on HSIP-eligible criteria such as statewide

improvements to data or assistance with SHSP. These programs impact safety on all roadways regardless of roadway jurisdiction

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.

The HSIP Task Force consists of seven members: 2 FHWA representatives (one from Massachusetts Division Office in Planning and one from the Massachusetts Division Office in Safety), 2 representatives from MassDOT Highway Division (Chief Engineer and Safety Engineer), one from MassDOT Office of Transportation Planning and two representatives from the Regional Planning Agencies (RPAs), the technical arm of the Metropolitan Planning Organizations (MPOs). The initial role of the Task Force was to establish HSIP guidelines based on input and feedback from others. Once the guidelines were finalized, the role of the Task Force is to meet annually or more frequently, ("meetings" could be via email or in person) and to confirm the selection of HSIP projects and update the guidelines as needed. The HSIP Guidelines are being updated based on MAP-21 and should be finalized in July 2014.

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

☒Metropolitan Planning Organizations

☐Governors Highway Safety Office

☒Local Government Association

☒Other: Other-FHWA

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-Guidelines have changed on HSIP-eligible programs / projects based on MAP-21

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

None

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:		

Program: **Intersection**

Date of Program Methodology: **10/1/2013**

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-CRASH SEVERITY WEIGHTING	☐ 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

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

☒ Yes

☐ No

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process

☐ Selection committee

☒ Other-MPO

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

☐ Available funding

☐ Incremental B/C

☐ Ranking based on net benefit

☐ Other

☒ PROJECT READINESS

Program: **Bicycle Safety**

Date of Program Methodology: **5/1/2014**

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-percent commuting by biking	☐ 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-proportion of non-motorist crashes, EMS non-motorist crashes, percent commuting by bike

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

☒ Yes

☐ No

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

☒ Yes

☐ No

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process

☐ Selection committee

☒ Other-participating communities based on data driven process

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
- ☐ Available funding
- ☐ Incremental B/C
- ☐ Ranking based on net benefit
- ☐ Other

Program: **Crash Data**

Date of Program Methodology: **10/1/2013**

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-STATEWIDE CRASH PROGRAM

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

☒ Yes

☐ No

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

☒ Yes

☐ No

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process

☐ Selection committee

☒ Other-STATEWIDE NEEDS

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

☐ Available funding

☐ Incremental B/C

☐ Ranking based on net benefit

☐ Other

☒ STATEWIDE NEED

Program: **Roadway Departure**

Date of Program Methodology: **6/18/2014**

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-local curve program locations identified by locals based on need, State curves based on District input for need	☐ 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-local curve program locations identified by locals based on need, State curves based on District input for need

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

☒ Yes

☐ No

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

☐ Yes

☒ No

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

An application was submitted to all 351 cities and towns asking for participation. Approximately 15% applied and were accepted

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process

☐ Selection committee

☒ Other-all comunities are eligible

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

☐ Available funding

☐ Incremental B/C

☐ Ranking based on net benefit

☐ Other

☒ for local curves, all communities invited to submit locations (we budgeted for 350

curves)

Program: **Sign Replacement And Improvement**

Date of Program Methodology: **10/1/2013**

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-SYSTEMATIC APPROACH NOT BASED ON CRASHES	☐ 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-ALL SECONDARY STATE HIGHWAYS

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-ALL SECONDARY ROADS

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

☐ Available funding

☐ Incremental B/C

☐ Ranking based on net benefit

☐ Other

☒ ALL SECONDARY ROADS

Program: **Pedestrian Safety**

Date of Program Methodology: **10/1/2013**

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-ratio of ped crashes to all crashes by town	☐ Lane miles	☐ Roadside features
	☒ Other-commuting by walking (journey to work census data)	☐ 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-EMS data on pedestrians, ratio of pedestrian crashes to all crashes, commuting rates of pedestrians by towns

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

☒ Yes

☐ No

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

☒ Yes

☐ No

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process

☐ Selection committee

☒ Other-based on priority of towns selected by above criteria

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

☐ Available funding

☐ Incremental B/C

☐ Ranking based on net benefit

☐ Other

☒ number of communities invovled in programs is based on available funding

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

8

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-no change since last reporting period. Already use RSAs and systemic

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

none

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)	35175718	22 %	31590858	19 %
HRRRP (SAFETEA-LU)	0	0 %	250200	0 %
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)	95346788	60 %	107937120	63 %
State and Local Funds	28014510	18 %	30522153	18 %

Totals	158537016	100%	170300331	100%

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

$10,596,170.00

How much funding is obligated to local safety projects?

$10,393,080.00

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

$1,950,000.00

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

$1,050,300.00

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.

Not enough shovel-ready projects in the pipeline because local communities must fund the design on locally owned roadways and funding is tight. Previously, in 2009 and 2010, in order to get the HSIP projects moving, MassDOT and FHWA allowed the use of HSIP funding for design as long as the project was HSIP eligible and was programmed on the STIP in an outlying year. This enabled a full HSIP program for the next few years. We revisited this with FHWA for the HRRRP and used HSIP for design to get the project in the pipeline. We may work with FHWA and revisit the idea of using HSIP funding for design in the future. Local communities may also work through their MPOs to push projects that are more systematic with minimal design efforts like a retroreflective sign upgrade program. Right now several things are being considered. Finally, we tied our HSIP funds programs / strategies identified in the updated 2013 SHSP. However, the strategies developed from the emphasis areas teams are in the process of being worked out through the public process and several have been finalized but there will be more to come.

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
ADAMS-ROUNDABOUT CONSTRUCTION AT ROUTE 8 & FRIEND STREET	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	391560	1929451	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	16000	35	Town or Township Highway Agency	Intersections	Incorporate safety elements into intersection design
BROCKTON-RESURFACING & RELATED WORK ON WEST ELM STREET, FROM WARREN AVENUE TO WEST STREET (6,800 FT.)	Roadway Roadway - other	1.3 Miles	659733	4875094	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Major Collector	23000	35	City of Municipal Highway Agency	Intersections	Incorporate safety elements into intersection design
SEEKONK-INTERSECTION IMPROVEMEN	Intersection geometry Intersection	1 Numb	247500	3174660	Other Federa	Urban Minor	22000	35	State Highwa	Intersections	Incorporate safety

TS AT ROUTE 114A, ARCADE AVENUE AND MILL ROAD	geometrics - miscellaneous/other/unspecified	ers			l-aid Funds (i.e. STP, NHPP)	Arterial			y Agency		elements into intersection design
CONCORD-LINCOLN-LIMITED ACCESS HIGHWAY IMPROVEMENTS AT ROUTE 2 & 2A, BETWEEN CROSBY'S CORNER & BEDFORD ROAD, INCLUDES C-19-024	Interchange design Convert at-grade intersection to interchange	1 Numbers	474946 8	482632 58	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	4900 0	50	State Highway Agency	Intersections	Incorporate safety elements into intersection design
WEST TISBURY-INTERSECTION IMPROVEMENTS AT STATE ROAD (VINEYARD HAVEN ROAD) AND OLD	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	31471.92	367761 .88	Other Federal-aid Funds (i.e. STP, NHPP)	Rural Major Collector	8000	45	State Highway Agency	Intersections	Incorporate safety elements into intersection design

COUNTY ROAD											
LOWELL- SIGNAL & INTERSECTION IMPROVEMENTS AT VFW HIGHWAY, BRIDGE STREET & LAKEVIEW AVENUE	Intersection geometry Intersection geometry - other	1 Numbers	1868043	3593519	HSIP (Section 148)	Urban Principal Arterial - Other	26000	40	State Highway Agency	Intersections	Incorporate safety elements into intersection design
WORCESTER - RECONSTRUCTION OF LINCOLN STREET (ROUTE 70), FROM MARSH AVENUE TO AMESBURY STREET (PHASE II)	Roadway Roadway - other	0.99 Miles	2760300	7527407	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Minor Arterial	23000	35	City of Municipal Highway Agency	Intersections	Incorporate safety elements into intersection design
SALEM- RECONSTRUCTION ON CANAL STREET, FROM WASHINGTON STREET & MILL	Roadway Roadway - other	1.2 Miles	1800000	6574200	Other Federal-aid Funds (i.e. STP,	Urban Principal Arterial - Other	20000	35	City of Municipal Highway	Roadway Departure	Incorporate safety elements into roadside

STREET TO LORING AVENUE & JEFFERSON AVENUE					NHPP)				Agency		design
METHUEN-INTERCHANGE RECONSTRUCTION ON I-93 AT ROUTE 110/113 ROTARY, INCLUDING REMOVAL OF M-17-017 & M-17-018, REHAB OF M-17-007 & NEW BRIDGE CONSTRUCTION OF M-17-040	Interchange design Interchange design - other	1 Numbers	398660.4	56450977	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Interstate	123000	65	State Highway Agency	Intersections	Incorporate safety elements into intersection design
SPRINGFIELD-SIGNAL & INTERSECTION IMPROVEMENTS AT SUMNER AVENUE, ALLEN STREET, ABBOT STREET & HARKNESS	Intersection geometry Intersection geometry - other	1 Numbers	1115937.9	2187798	HSIP (Section 148)	Urban Principal Arterial - Other	23000	30	City of Municipal Highway Agency	Intersections	Incorporate safety elements into intersection design

AVENUE $2,057,600											
EASTON-SIGNAL & INTERSECTION IMPROVEMENTS @ ROUTE 138 (TURNPIKE STREET) AND ROUTE 106 (FOUNDRY STREET)	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	609969	1377744	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	18000	45	State Highway Agency	Intersections	Incorporate safety elements into intersection design
BOURNE-RESURFACING & SAFETY UPGRADING ON ROUTE 28 (GENERAL MACARTHUR BOULEVARD)	Roadway Roadway - other	4.8 Miles	479040.3	709729 3	State and Local Funds	Urban Principal Arterial - Other	35000	55	State Highway Agency	Roadway Departure	Incorporate safety elements into roadside design
ANDOVER - TEWKSBURY-INTERSECTION & SIGNAL IMPROVEMENTS AT DASCOMB	Intersection geometry Intersection geometry - other	1 Numbers	164684 9.16	162720 2	HSIP (Section 148)	Urban Minor Arterial	23000	35	Town or Township Highway	Intersections	Incorporate safety elements into intersection design

ROAD, EAST STREET, & SHAWSHEEN STREET									Agency		
ATTLEBORO - RTE I-95 SB to Route I-295 SB RAMP RECONSTRUCTION (MassDOT Project)	Interchange design Installation of new lane on ramp	1 Numbers	4134126	4134126	HSIP (Section 148)	Urban Principal Arterial - Interstate	19000	55	State Highway Agency	Lane Departure	Incorporate safety elements into roadside design
GREENFIELD, ROUTE 2A AND SHELBURNE RD/RIVER ST INTERSECTION IMPROVEMENTS	Intersection geometry Intersection geometry - other	1 Numbers	349215	1344545	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	17000	35	State Highway Agency	Intersections	Incorporate safety elements into intersection design
RAYNHAM- SIGNAL AND INTERSECTION IMPROVEMENT @ ROUTE 44 (NEW STATE HIGHWAY), ORCHARD STREET AND ROUTE 24 NB -	Intersection geometry Intersection geometry - other	2 Numbers	847064.89	3792602	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	37000	40	State Highway Agency	Intersections	Incorporate safety elements into intersection design

OFF RAMP											
WEST SPRINGFIELD TO BERNARDSTON – TRAFFIC SIGN REPLACEMENT ON INTERSTATE 91	Roadway signs and traffic control Sign sheeting - upgrade or replacement	46 Miles	3111000	5710694	HSIP (Section 148)	Urban Principal Arterial - Interstate	34000	65	State Highway Agency	Older Drivers	develop infrastructure improvements that accommodate older road user safety
DISTRICT 5-MEDIAN DELINEATION REPLACEMENT ON ROUTE 6, FROM DENNIS T.L. TO ORLEANS T.L.	Roadside Barrier - other	13 Miles	1107720	3571800	State and Local Funds	Urban Principal Arterial - Other Freeways and Expressways	20000	50	State Highway Agency	Lane Departure	Incorporate safety elements into roadside design
STATEWIDE-IMPLEMENTATION (PHASE II) OF THE FLASHING YELLOW ARROW AT SIGNALIZED INTERSECTIONS--ONE OF THE	Intersection traffic control Modify traffic signal - add flashing yellow arrow	50 Numbers	1800000	2000000	HSIP (Section 148)		0	0	State Highway Agency	Intersections	Incorporate safety elements into intersection design

"FHWA NINE PROVEN COUNTERMEASURES"											
SHSP STRATEGIES - BIKE/PED SAFETY PROGRAM	Pedestrians and bicyclists Miscellaneous pedestrians and bicyclists	12 Numbers	415800	1000000	HSIP (Section 148)	program is community wide in 12 communities	0	0	systematic approach	Pedestrians	educate the public, integrate pedestrian safety
SHSP STRATEGIES - LOCAL CURVE PROGRAM	Roadway signs and traffic control Curve-related warning signs and flashers	150 Numbers	853200	962000	HSIP (Section 148)		0	0	Town or Township Highway Agency	Roadway Departure	Incorporate safety elements into roadside design
SHSP STRATEGIES - WORK ZONE ENFORCEMENT	Non-infrastructure Enforcement	1 Numbers	135000	150000	HSIP (Section 148)	multiple locations within work zones around the state	0	0	State Highway Agency	Work Zones	increase enforcement to enhance safety of all people working in the roadway

ASHBURNHAM INTERSECTION IMPROVEMENTS AT ROUTE 101 & WILLIAMS & COREY HILL ROAD	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	250200	278000	HRRRP (SAFETEA-LU)	Rural Minor Arterial	3000	35	Town or Township Highway Agency	Intersections	Incorporate safety elements into intersection design
SHSP STRATEGIES - ROAD SAFETY AUDIT CONTRACT	Non-infrastructure Road safety audits	2 Numbers	180000	200000	HSIP (Section 148)	multiple locations across the state	0	0	multiple locations across the state	multiple locations across the state	Road Safety Audits
SHSP STRATEGIES - SHSP UPDATE	Non-infrastructure Transportation safety planning	1 Numbers	180000	200000	HSIP (Section 148)	assistance with SHSP	0	0	assistance with SHSP	assistance with SHSP	identify data needs and review performance measures
SHSP STRATEGIES - HIGH FRICTION SURFACE	Roadway Pavement surface - high friction surface	3 Numbers	1579500	1755000	HSIP (Section 148)		0	0	State Highway Agency	Lane Departure	Incorporate safety elements into roadside

TREATMENTS											design

Progress in Achieving Safety Performance Targets

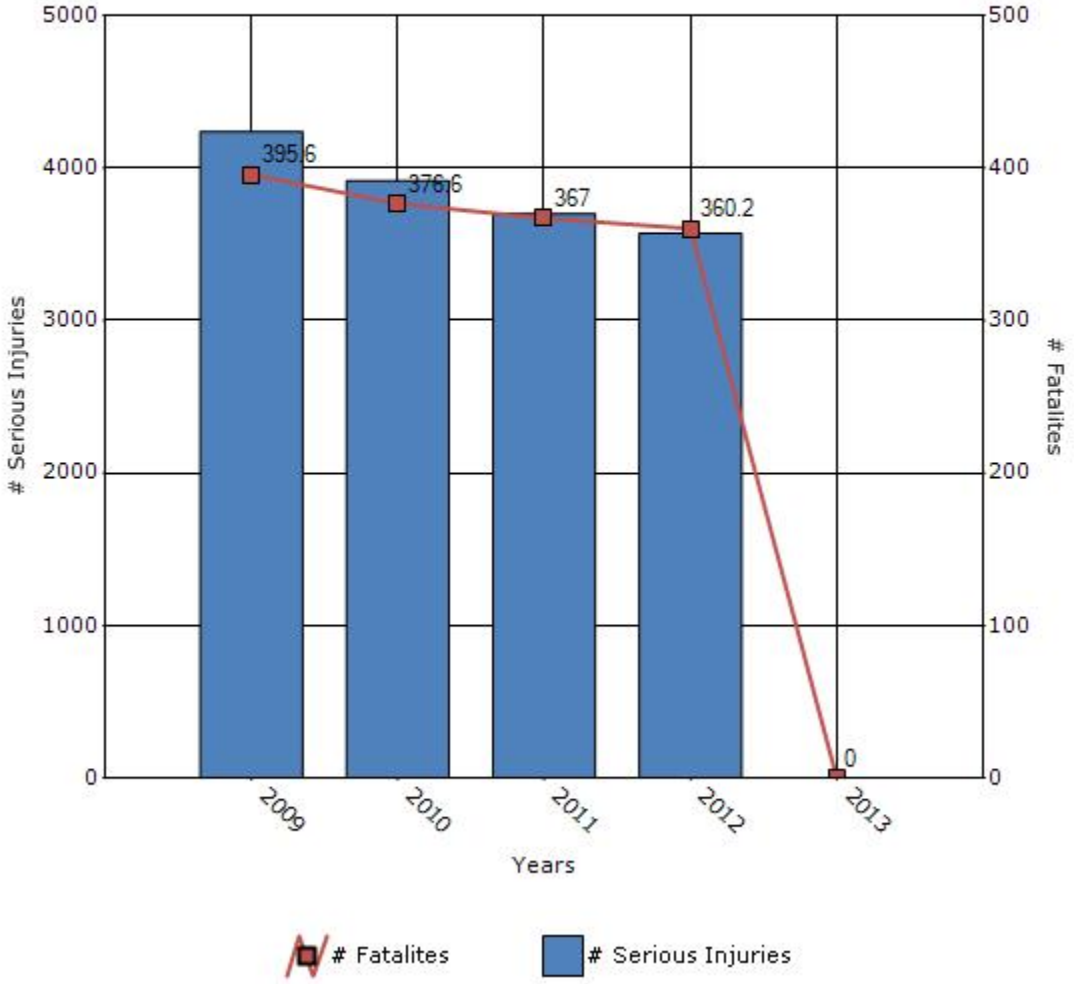
Overview of General Safety Trends

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

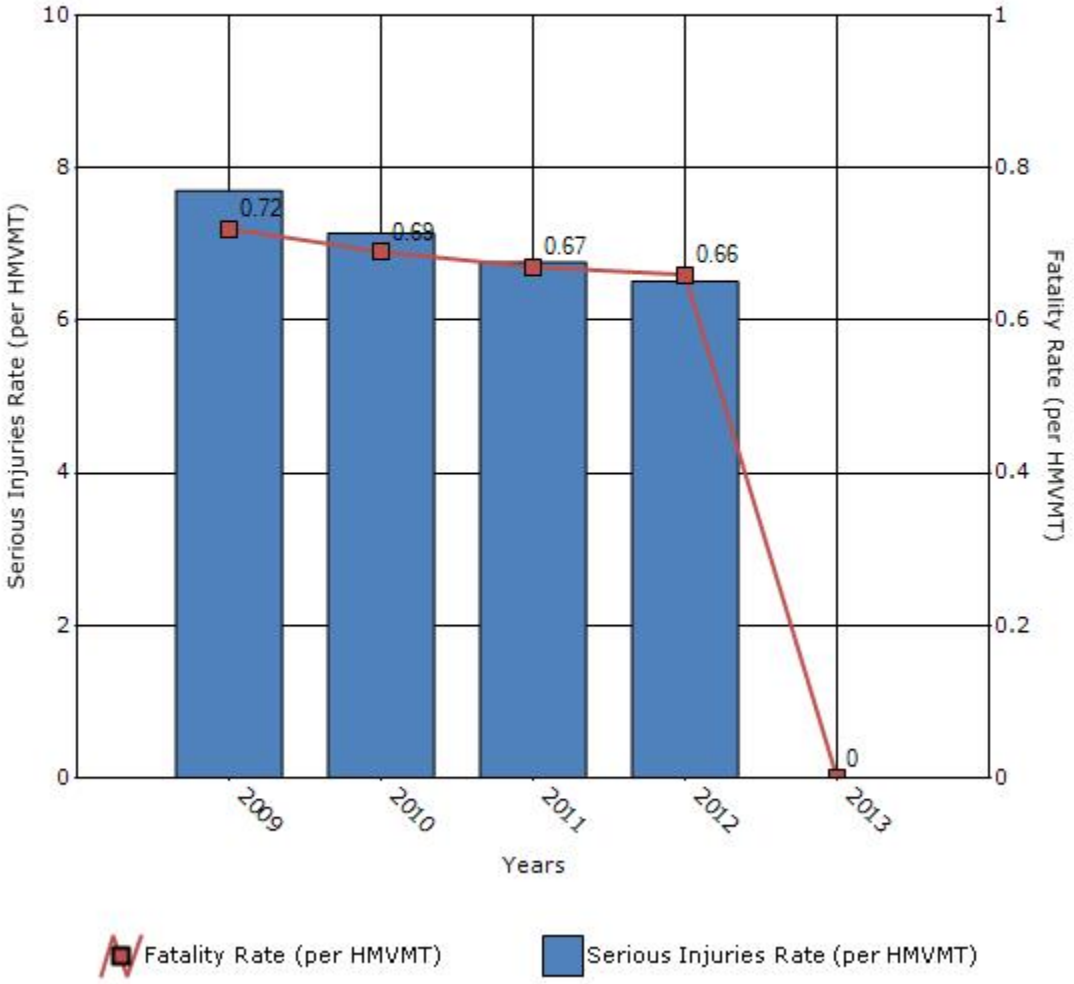
Performance Measures*	2009	2010	2011	2012	2013
Number of fatalities	395.6	376.6	367	360.2	0
Number of serious injuries	4237.6	3914.6	3700	3570.4	0
Fatality rate (per HMVMT)	0.72	0.69	0.67	0.66	0
Serious injury rate (per HMVMT)	7.7	7.14	6.76	6.51	0

*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

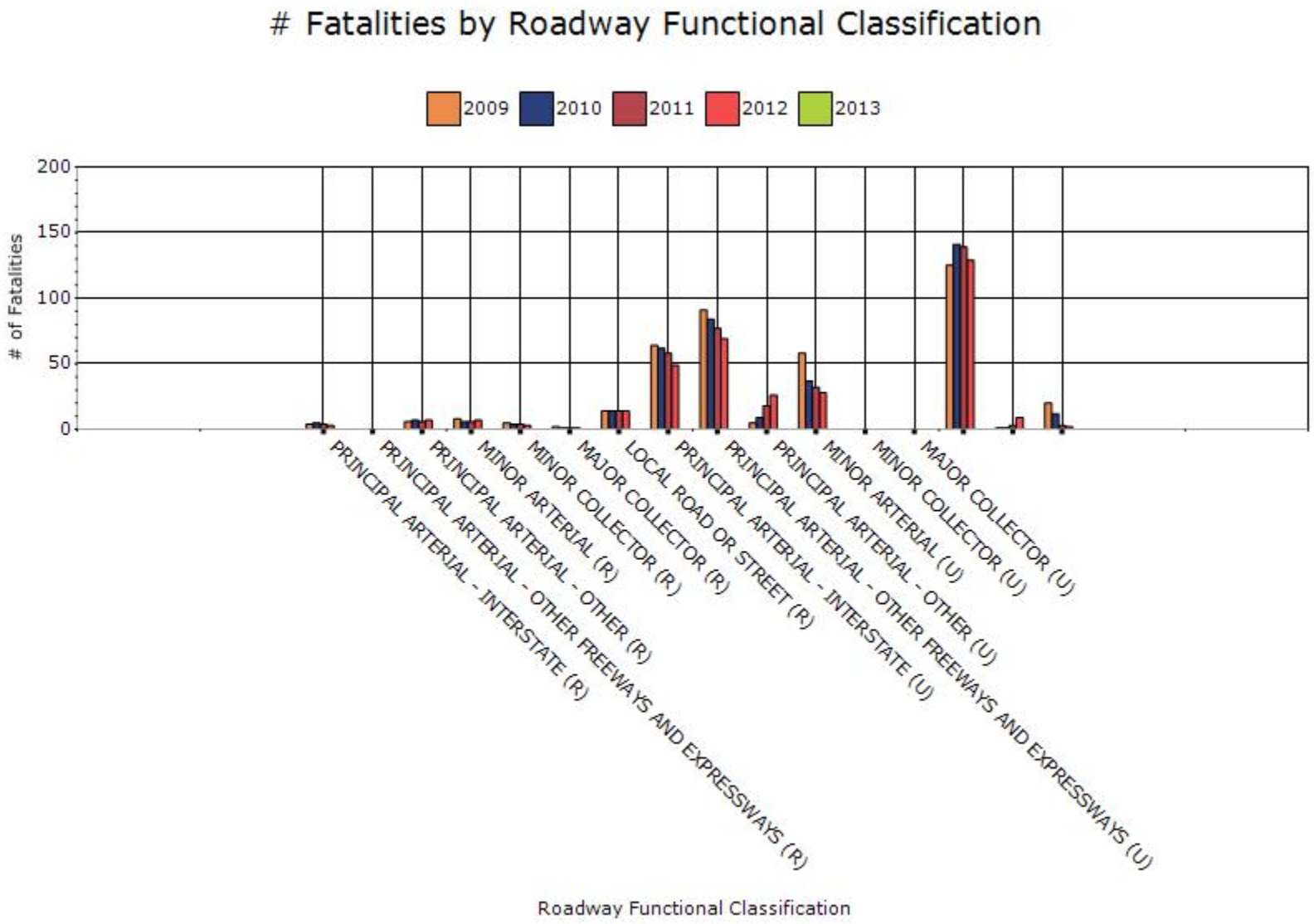


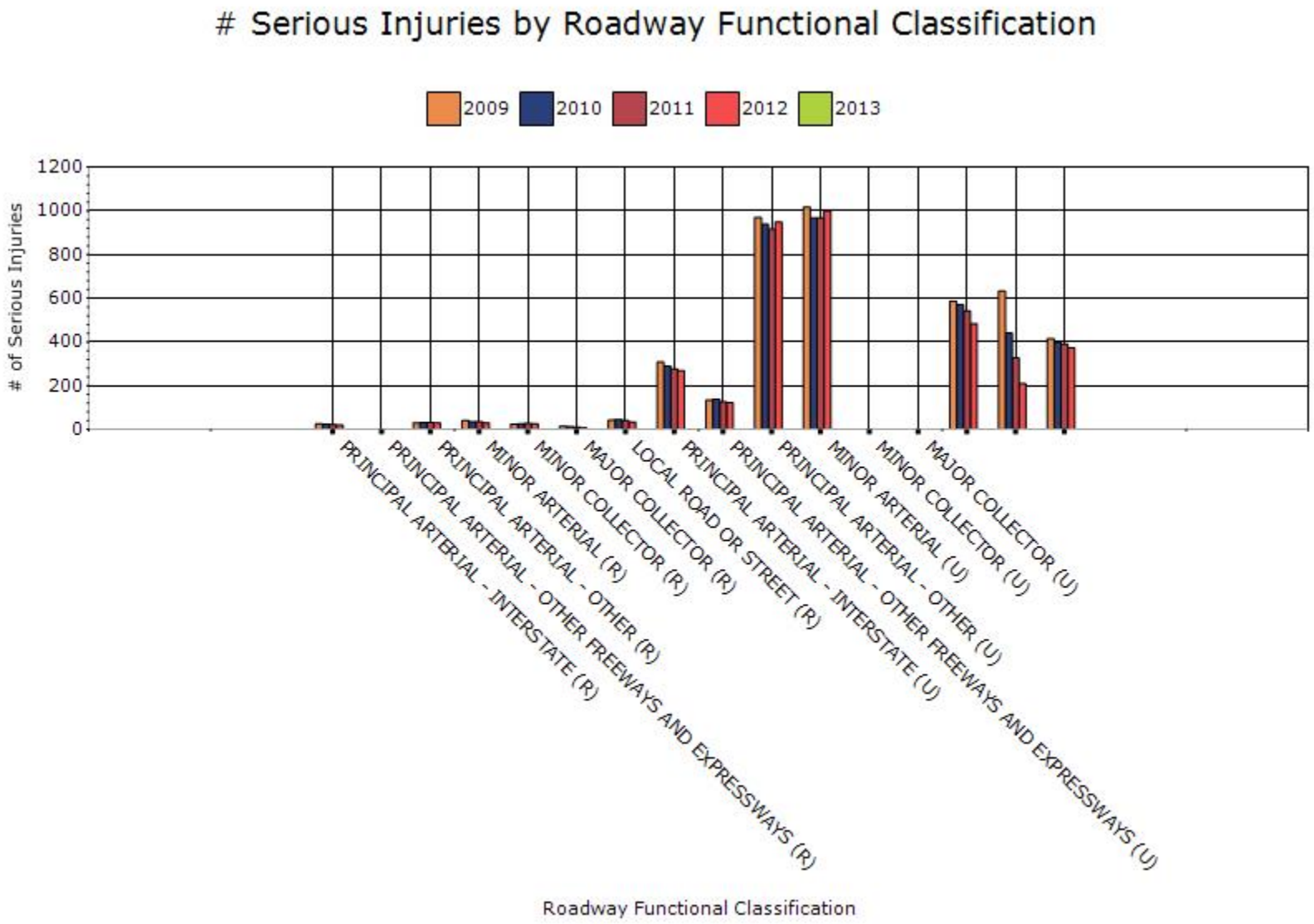
To the maximum extent possible, present performance measure* data by functional classification and ownership.

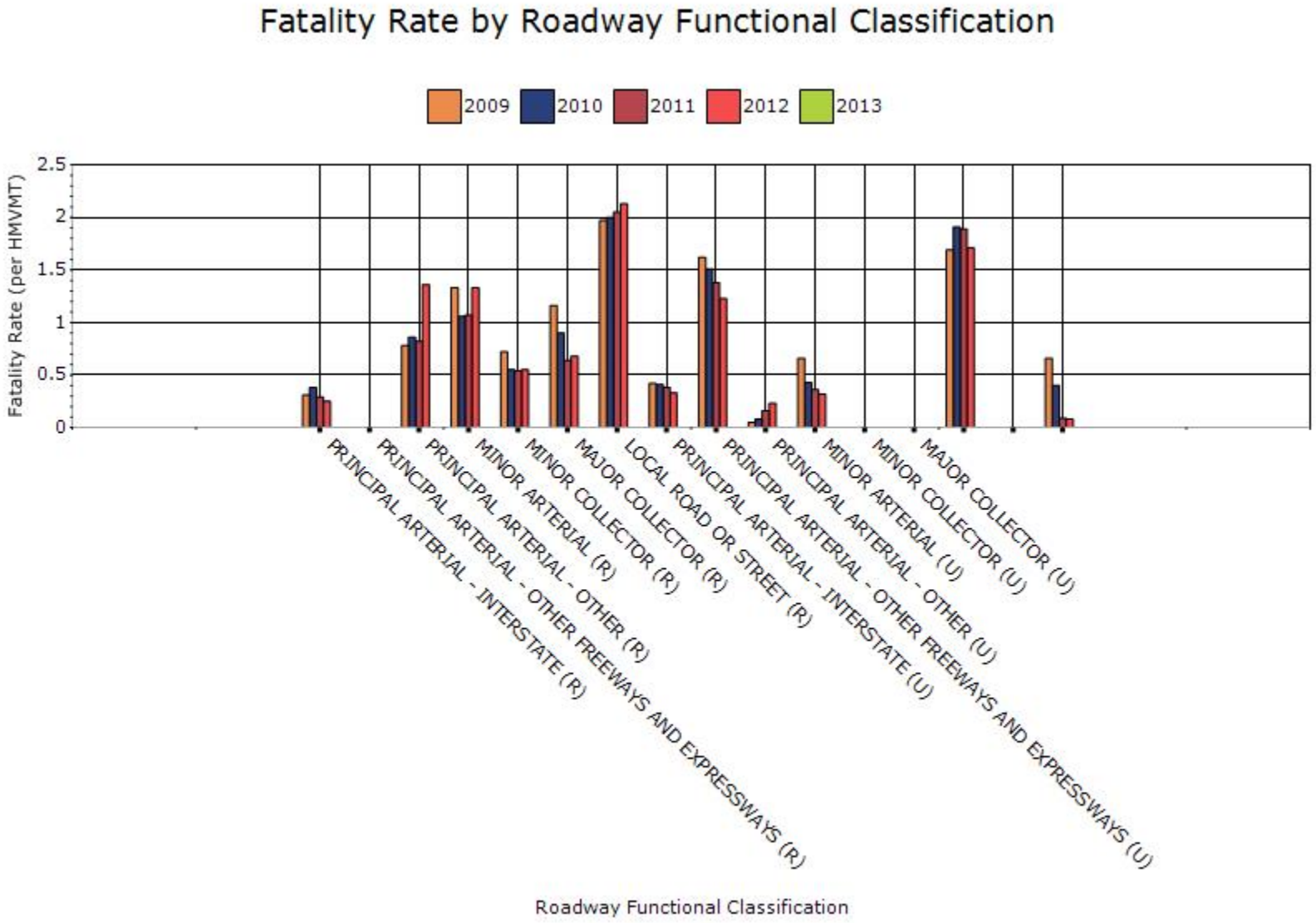
Year - 2012

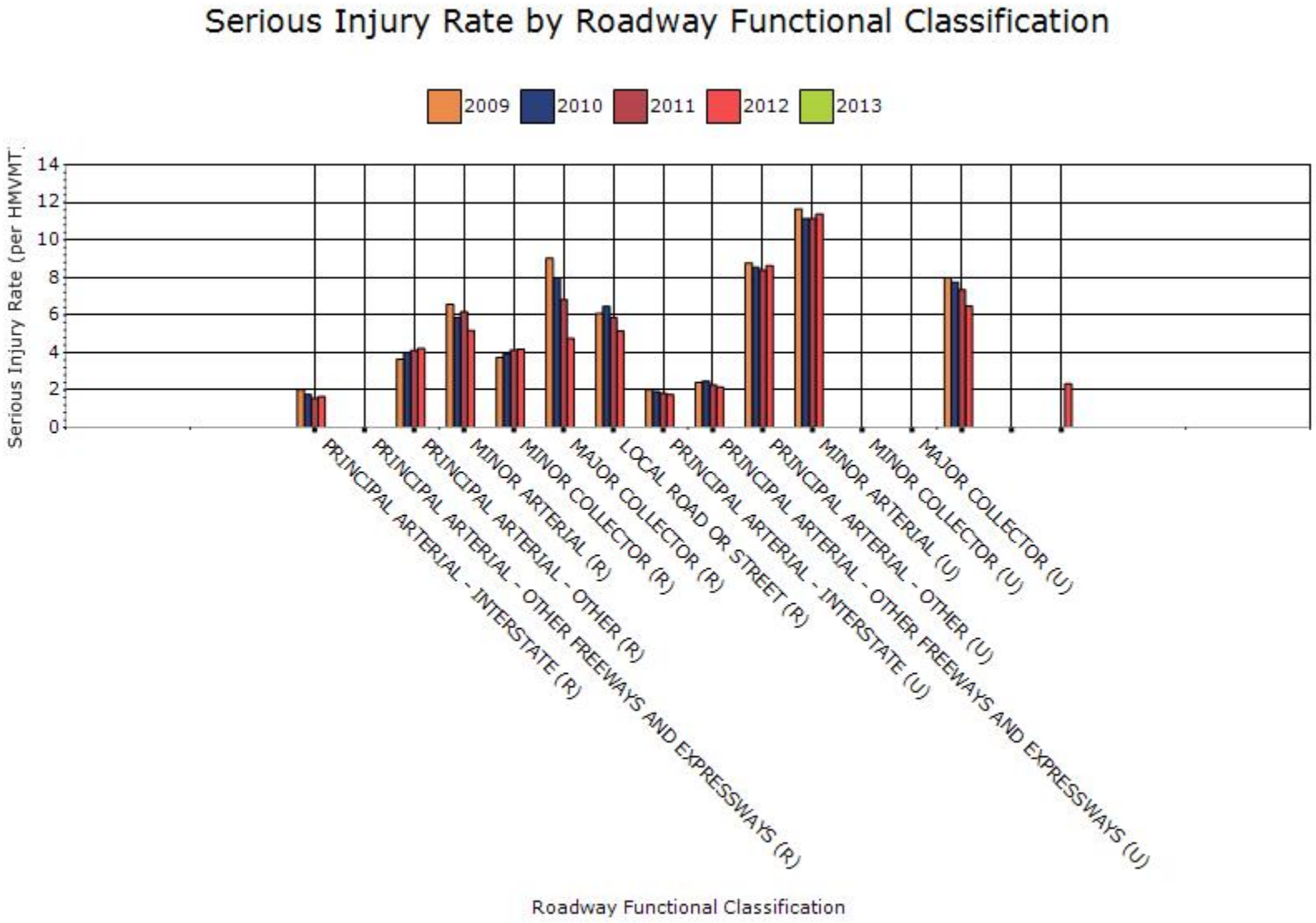
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	3	20	0.25	1.65
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER	7	29	1.36	4.21
RURAL MINOR ARTERIAL	7	29	1.33	5.17
RURAL MINOR COLLECTOR	3	25	0.55	4.17
RURAL MAJOR COLLECTOR	1	7	0.68	4.76
RURAL LOCAL ROAD OR STREET	14	34	2.13	5.16
URBAN PRINCIPAL	49	268	0.33	1.76

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	69	122	1.23	2.16
URBAN PRINCIPAL ARTERIAL - OTHER	26	948	0.23	8.63
URBAN MINOR ARTERIAL	28	999	0.32	11.38
URBAN MINOR COLLECTOR	0	0	0	0
URBAN MAJOR COLLECTOR	0	0	0	0
URBAN LOCAL ROAD OR STREET	129	484	1.71	6.48
OTHER	9	209	0	0
URBAN COLLECTOR (COMBINED MAJOR + MINOR)	2	373	0.08	2.33


Fatalities by Roadway Functional Classification
2009
2010
2011
2012
2013
200
150
100
50
0
# of Fatalities
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

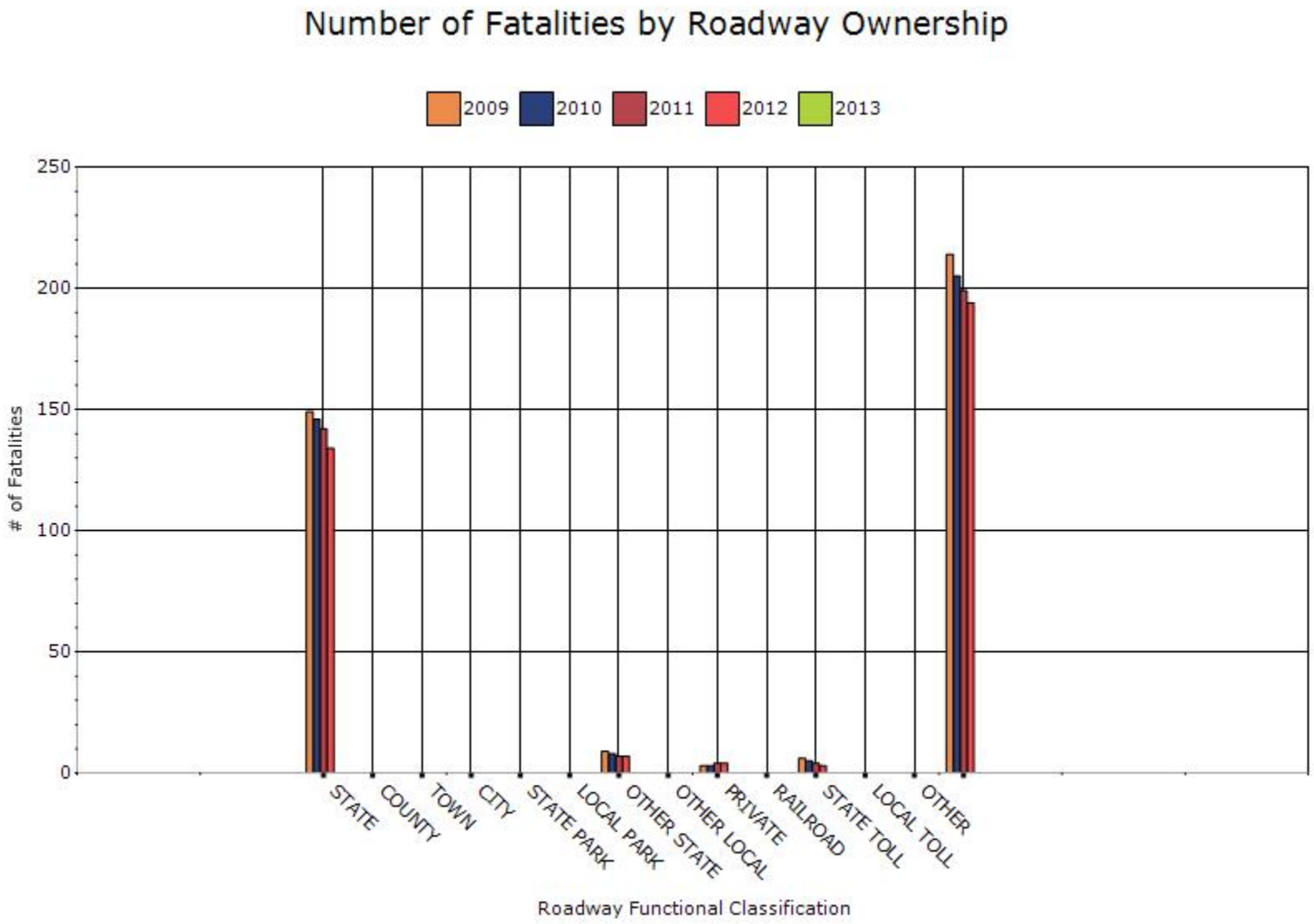

Serious Injuries by Roadway Functional Classification
2009
2010
2011
2012
2013
# of Serious Injuries
1200
1000
800
600
400
200
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (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

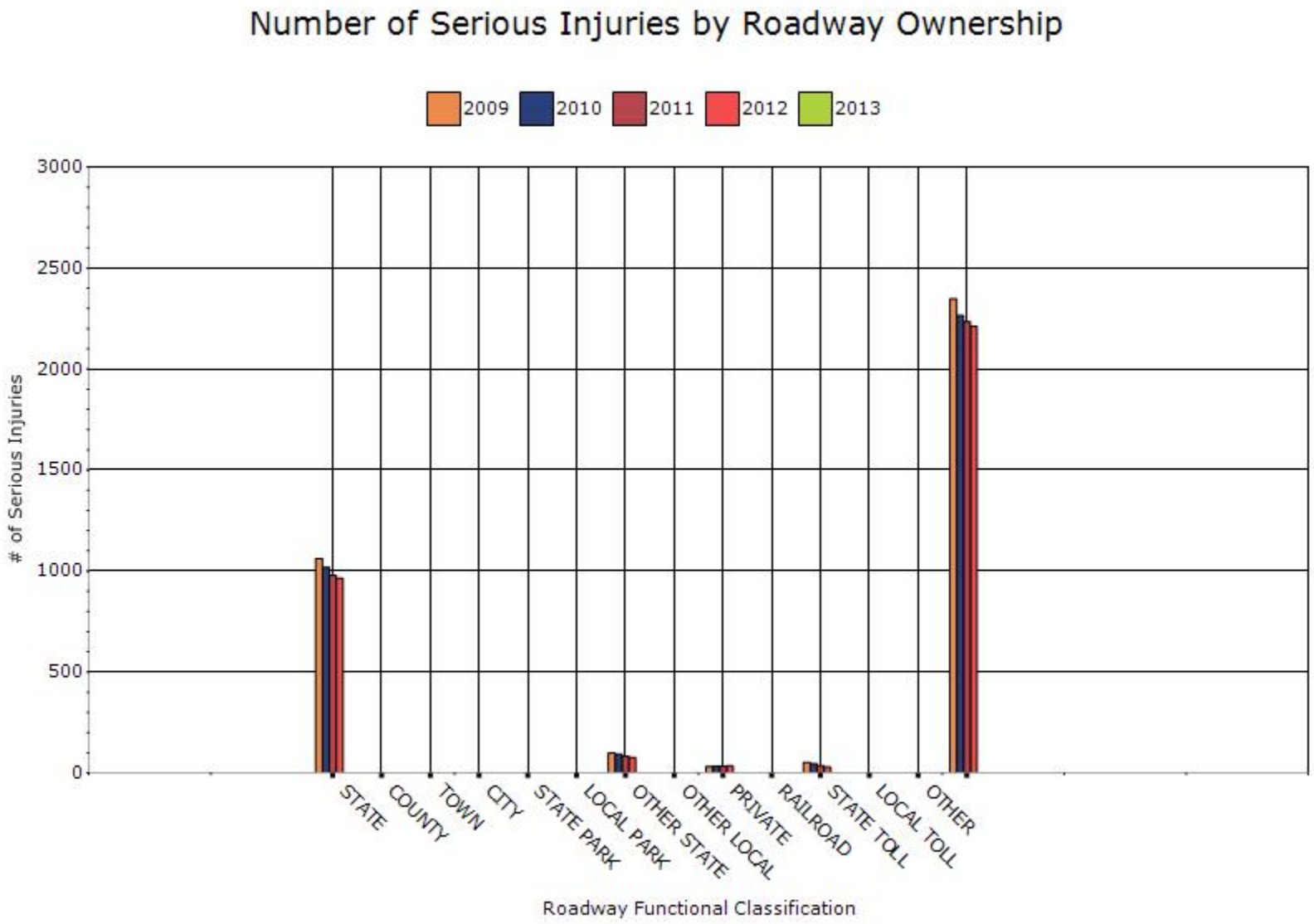

Fatality Rate by Roadway Functional Classification
2009
2010
2011
2012
2013
Fatality Rate (per HMVMT)
2.5
2
1.5
1
0.5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
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)
0
2
4
6
8
10
12
14
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

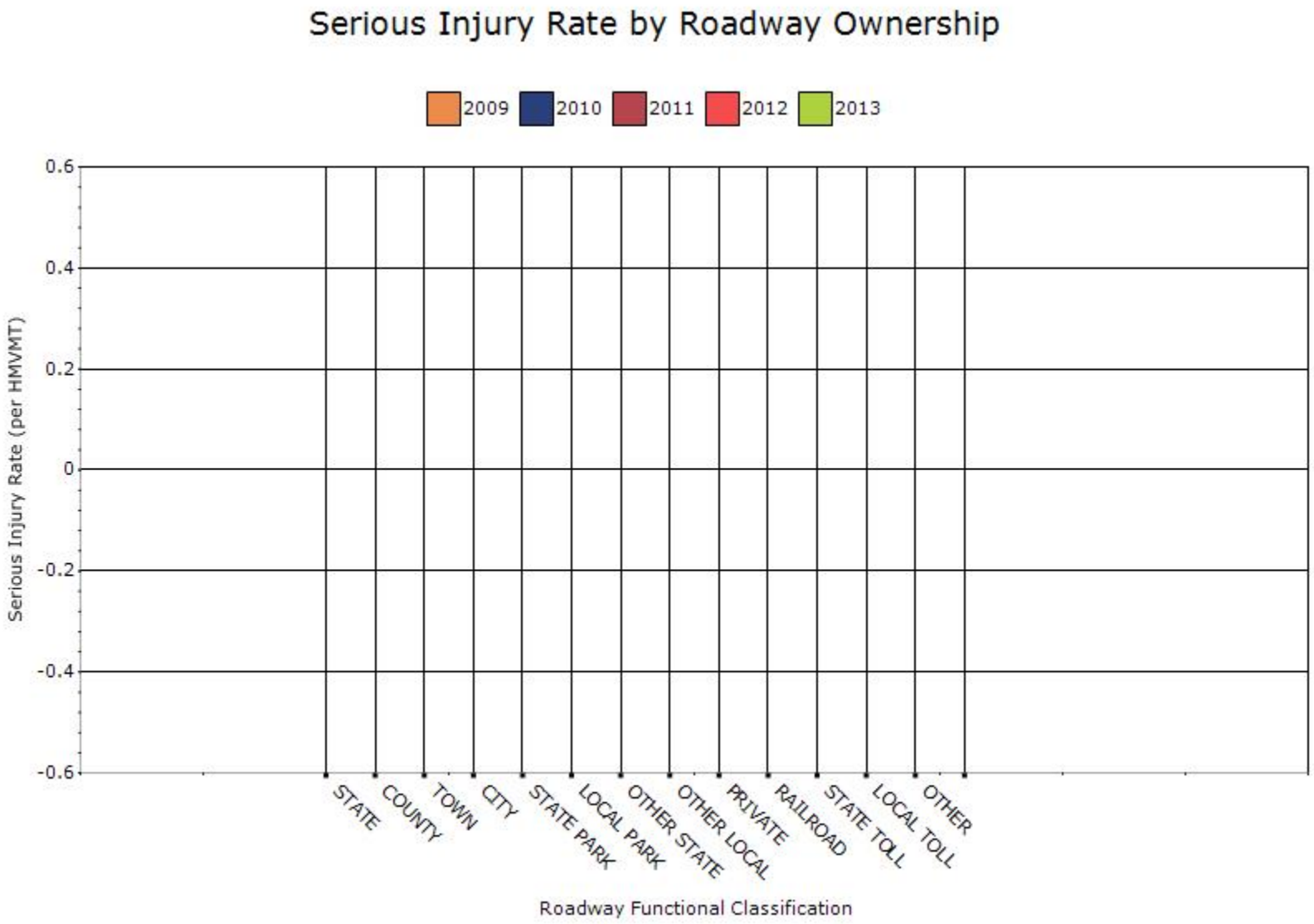
Year - 2012

Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	134	964	0	0
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	1	0	0
LOCAL PARK, FOREST OR RESERVATION AGENCY	0	0	0	0
OTHER STATE AGENCY	7	77	0	0
OTHER LOCAL AGENCY	0	0	0	0
PRIVATE (OTHER THAN RAILROAD)	4	35	0	0
RAILROAD	0	0	0	0
STATE TOLL AUTHORITY	3	29	0	0
LOCAL TOLL AUTHORITY	0	0	0	0
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)	0	1	0	0
CITY OR TOWN HIGHWAY AGENCY	194	2212	0	0


Number of Fatalities by Roadway Ownership
2009
2010
2011
2012
2013
250
200
150
100
50
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
3000
2500
2000
1500
1000
500
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.

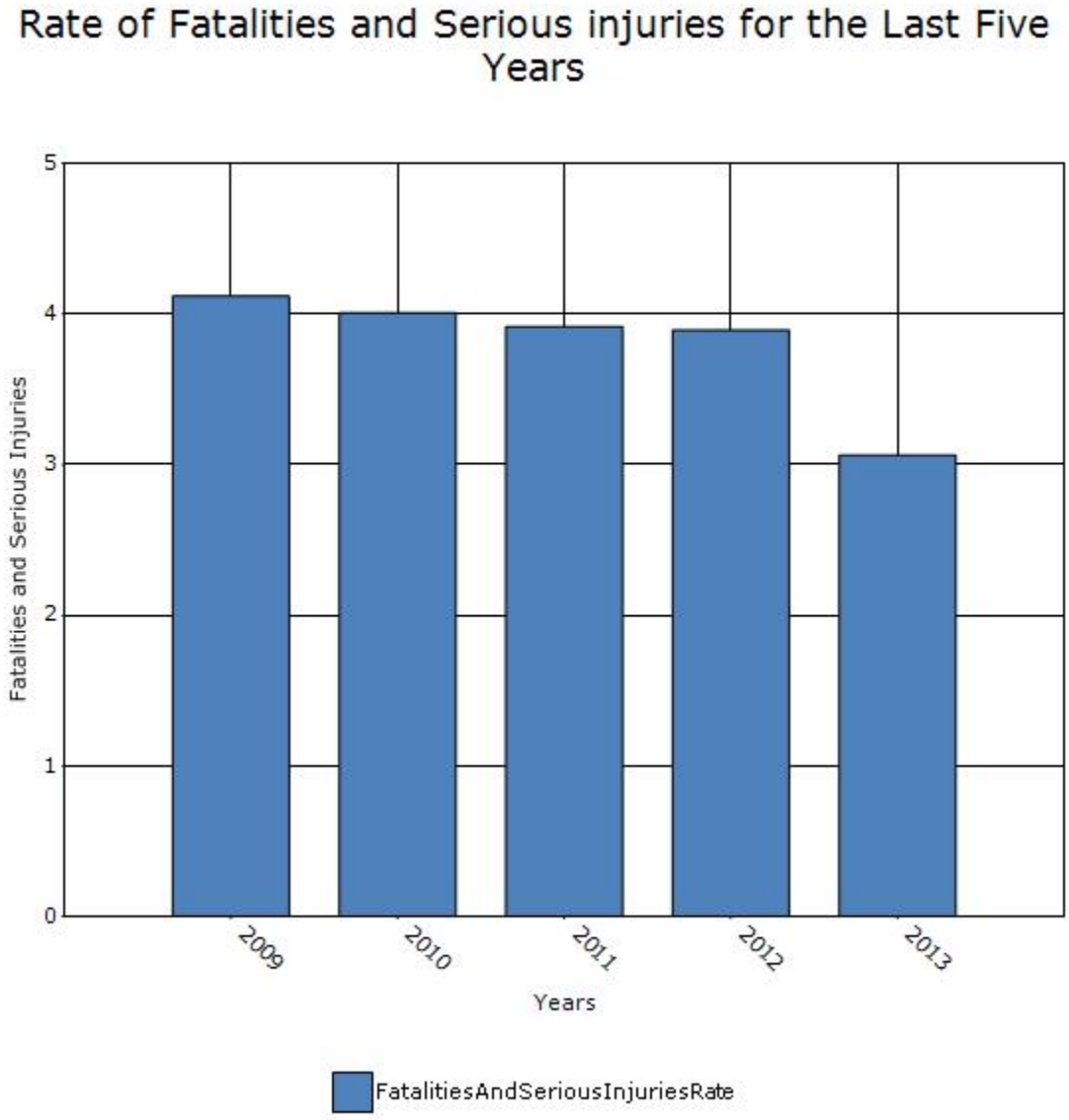
none

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)	0.454	0.426	0.438	0.436	0.344
Serious injury rate (per capita)	3.66	3.576	3.472	3.452	2.714
Fatality and serious injury rate (per capita)	4.118	4.006	3.916	3.894	3.062

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



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-no longer just select spot improvement locations. Include programs and systemic improvements into the mix

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

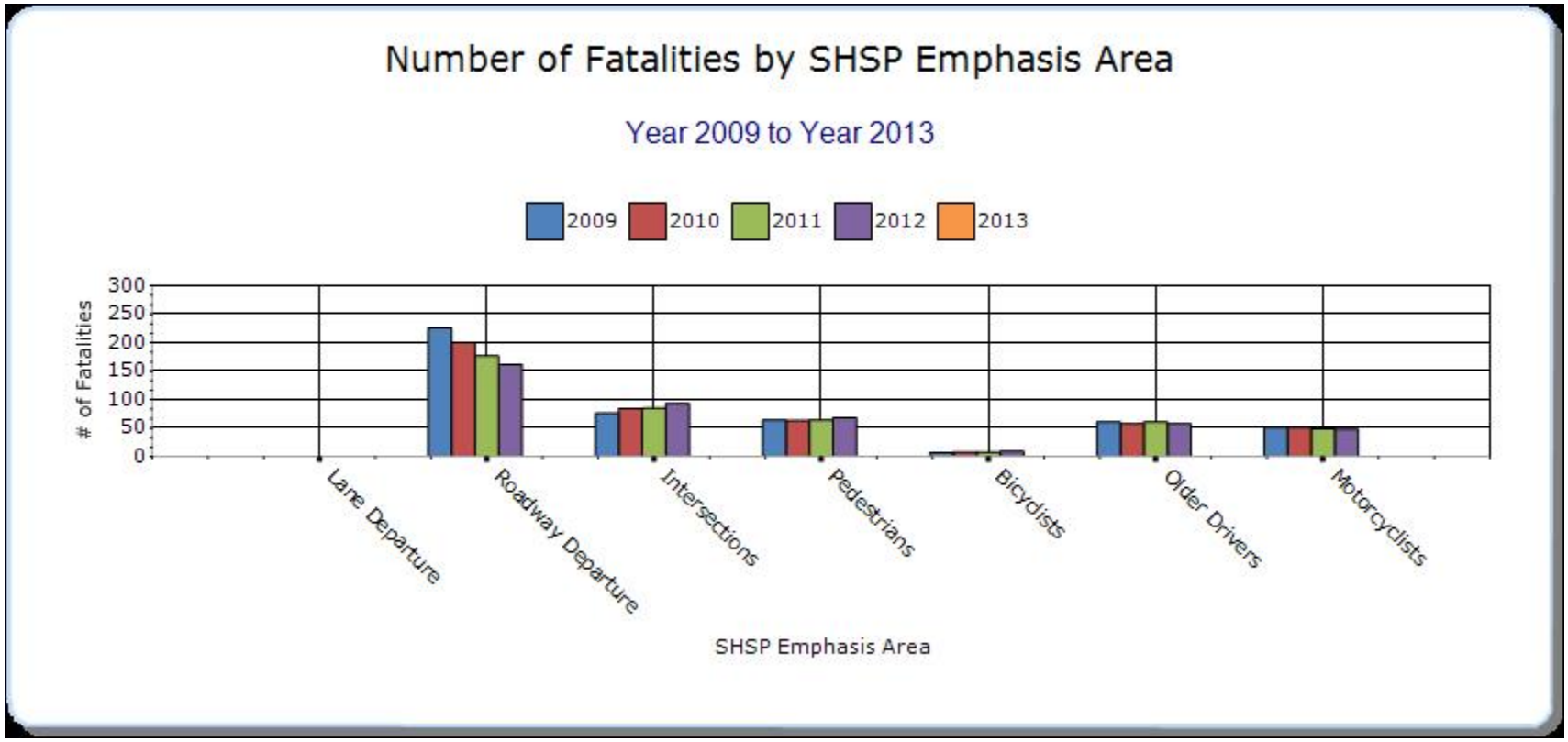
We now use a combination of spot improvements, safety programs and systemic projects in the mix of our HSIP. The overall safety programs and systemic projects are based on SHSP strategies and action items.

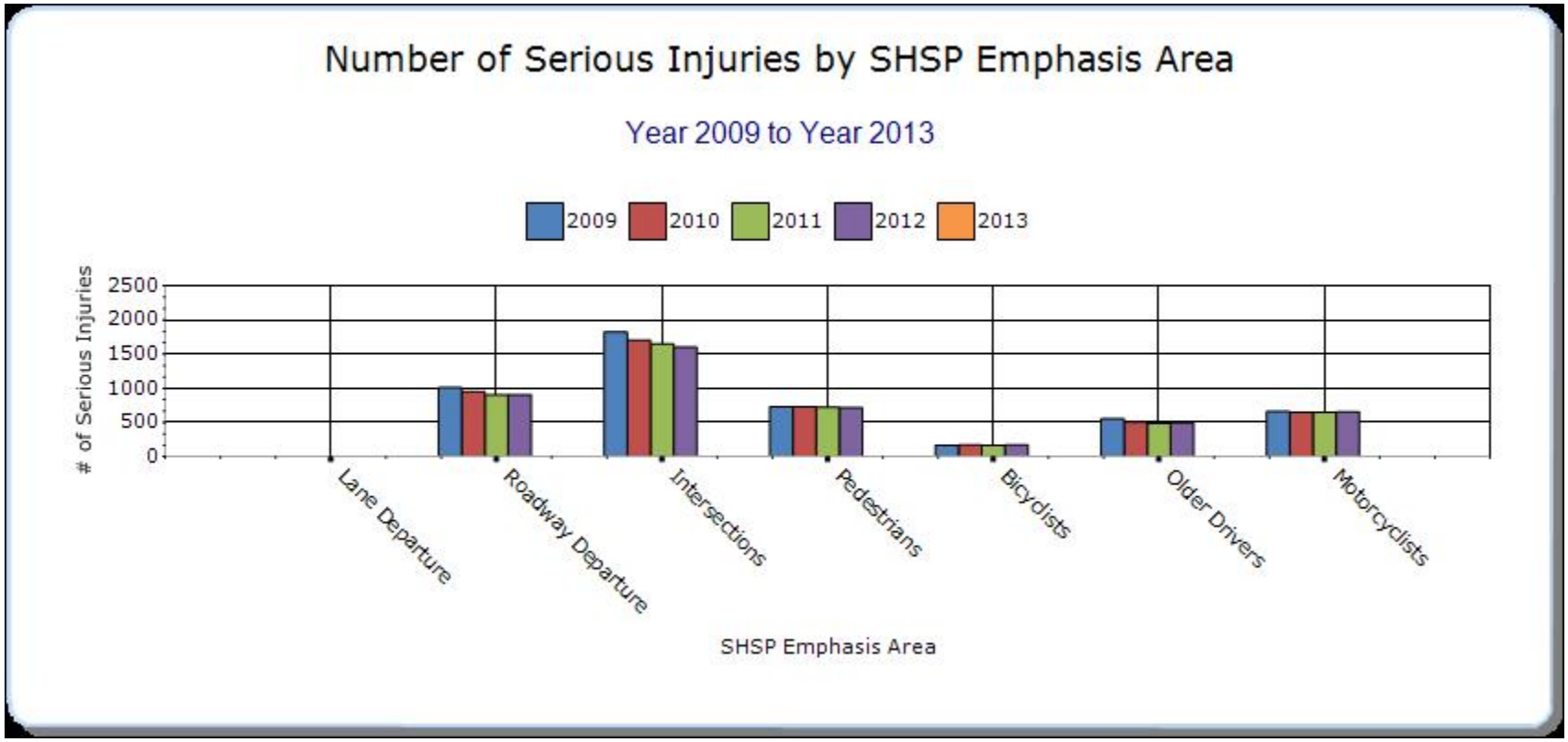
SHSP Emphasis Areas

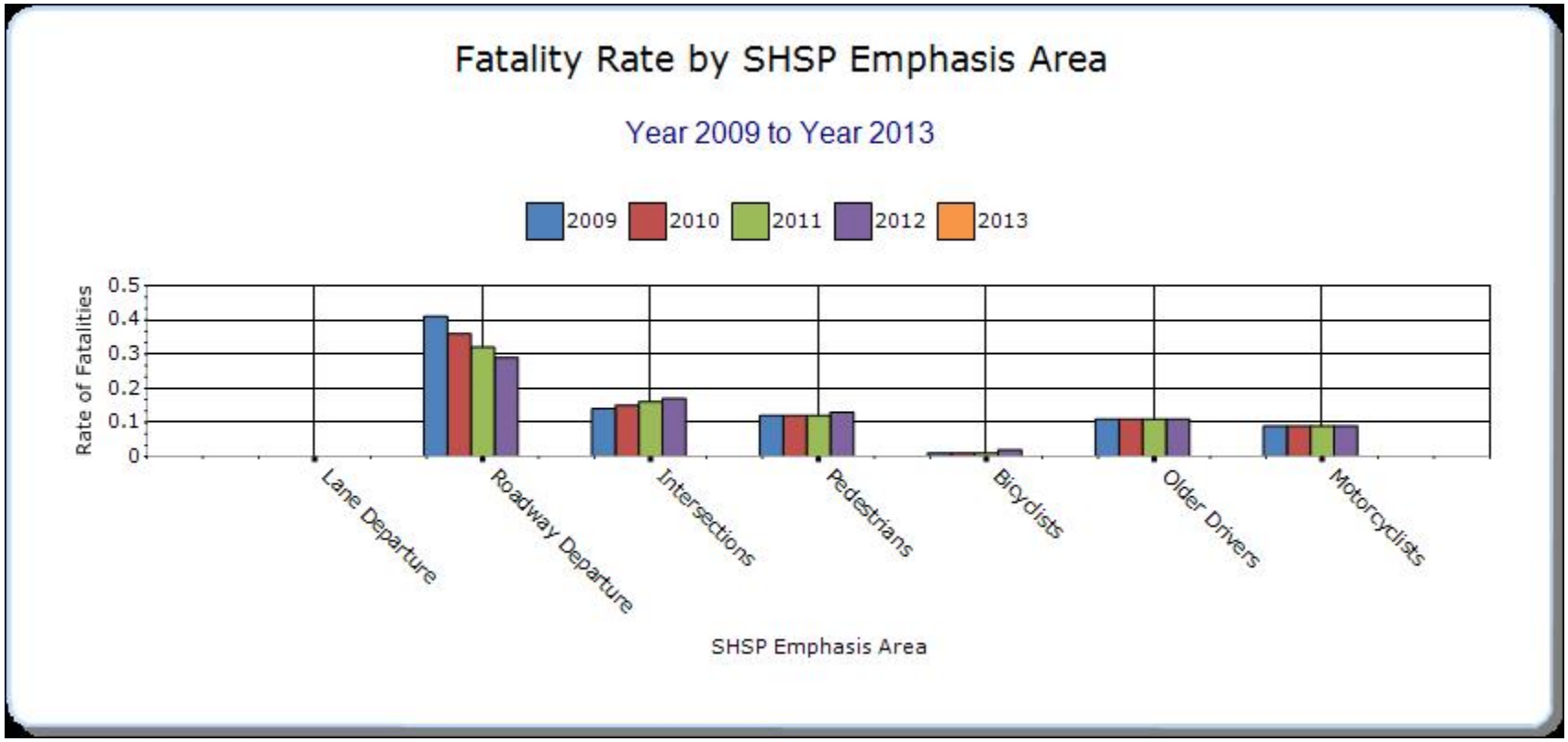
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

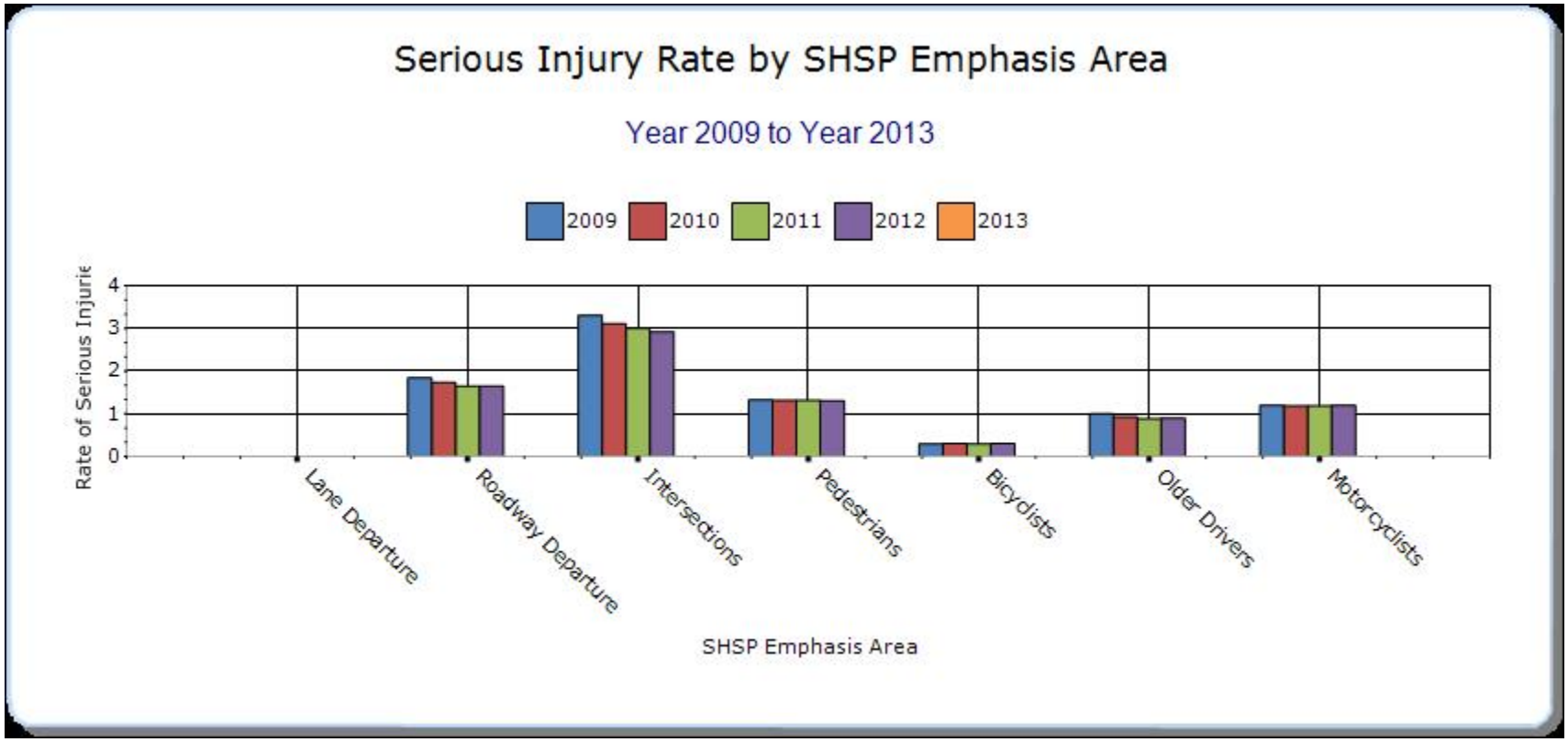
Year - 2012

HSIP-related SHSP Emphasis Areas	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Roadway Departure		162	907	0.29	1.65	0	0	0
Intersections		93	1601	0.17	2.92	0	0	0


Number of Fatalities by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# of Fatalities
300
250
200
150
100
50
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
SHSP Emphasis Area


Number of Serious Injuries by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# of Serious Injuries
2500
2000
1500
1000
500
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
SHSP Emphasis Area


Fatality Rate by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Fatalities
0.5
0.4
0.3
0.2
0.1
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
SHSP Emphasis Area

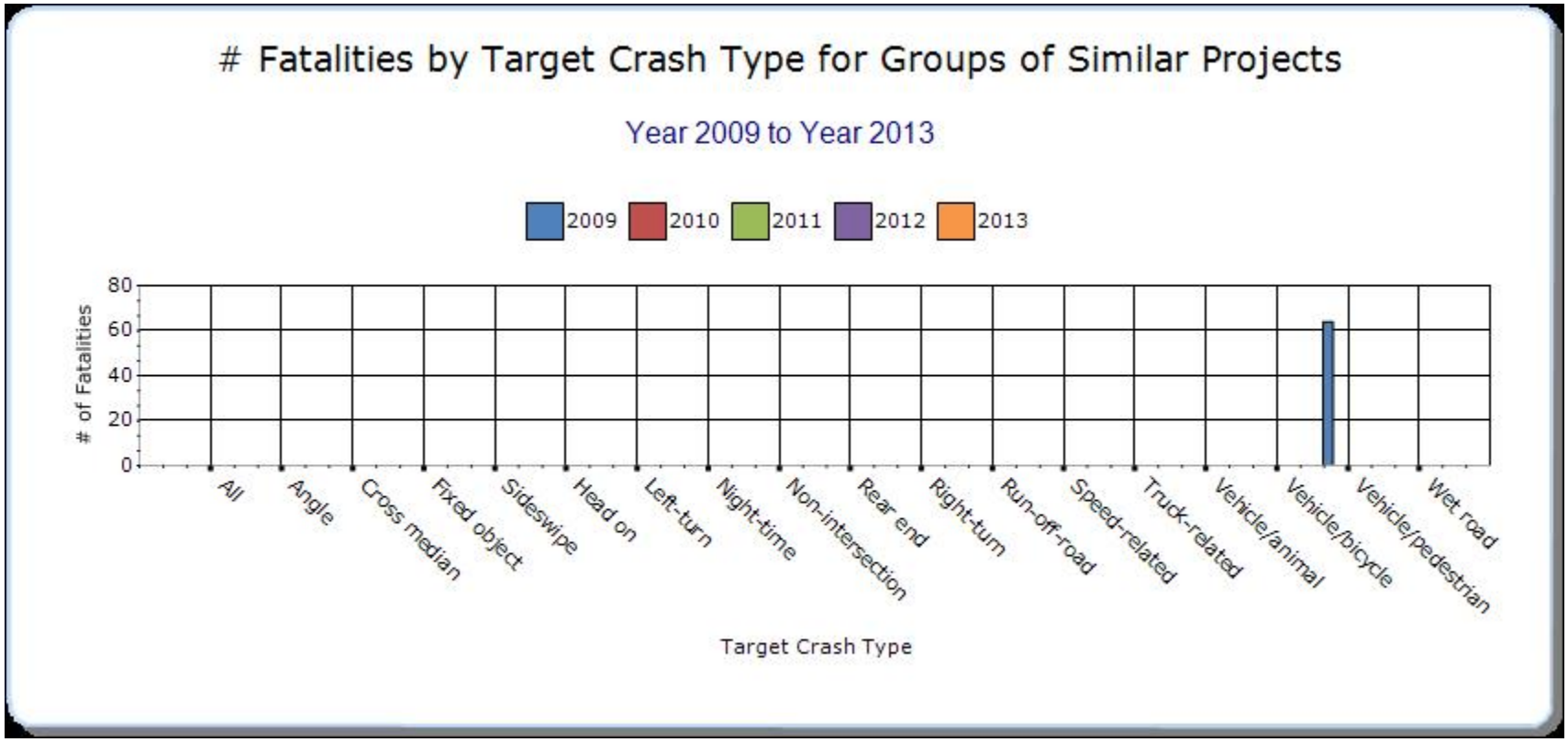

Serious Injury Rate by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Serious Injurie
4
3
2
1
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
SHSP Emphasis Area

Groups of similar project types

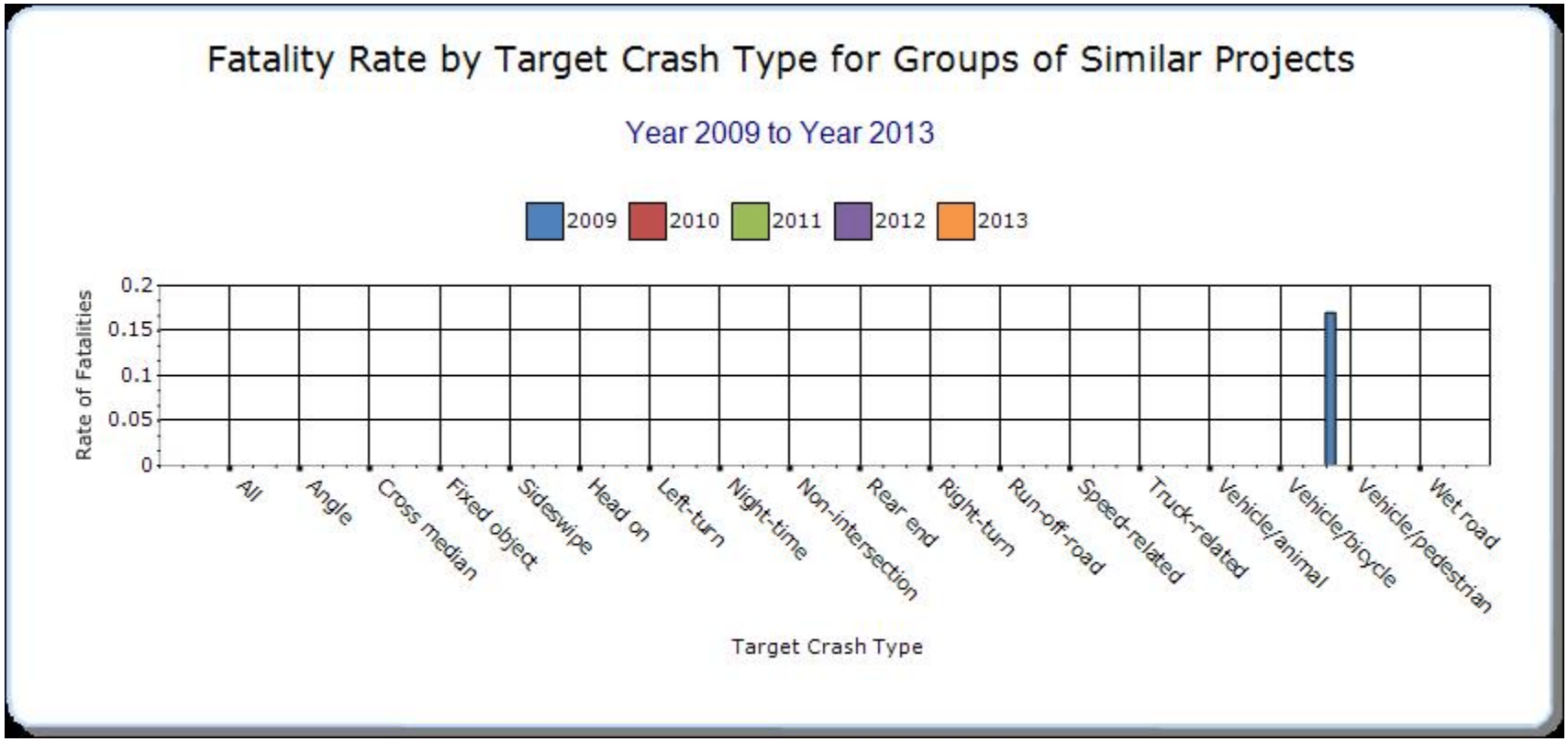
Present the overall effectiveness of groups of similar types of projects.

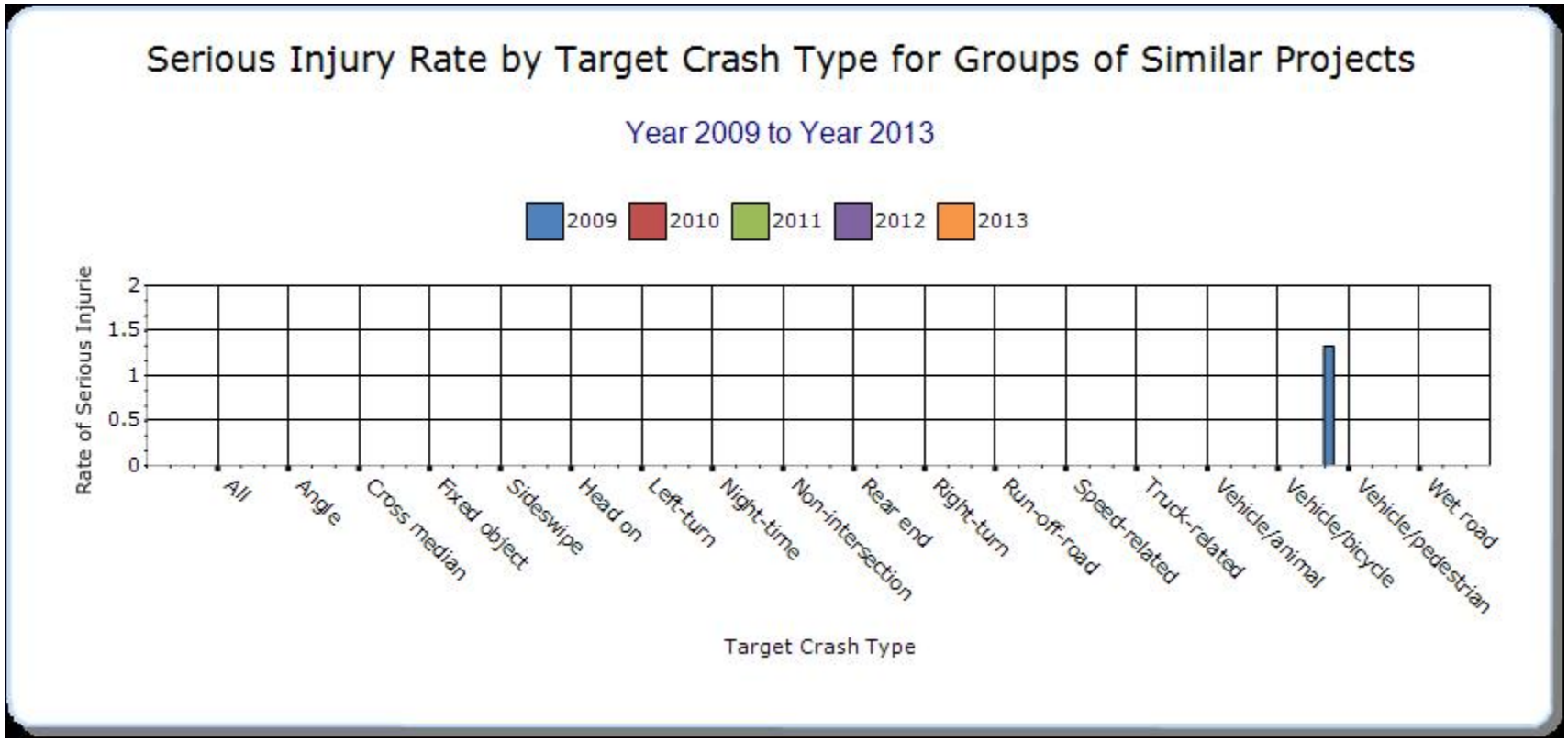
Year - 2012

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
Bicycle Safety		9	169	0.02	0.31	0	0	0
Crash Data		360	3585	0.66	6.54	0	0	0
Roadway Departure		162	907	0.29	1.65	0	0	0
Pedestrian Safety		68	717	0.13	1.31	0	0	0
Intersection		93	1601	0.17	2.92	0	0	0
Sign Replacement And Improvement		63	309	0.11	0.57	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
80
60
40
20
0
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
1000
800
600
400
200
0
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
0.2
0.15
0.1
0.05
0
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

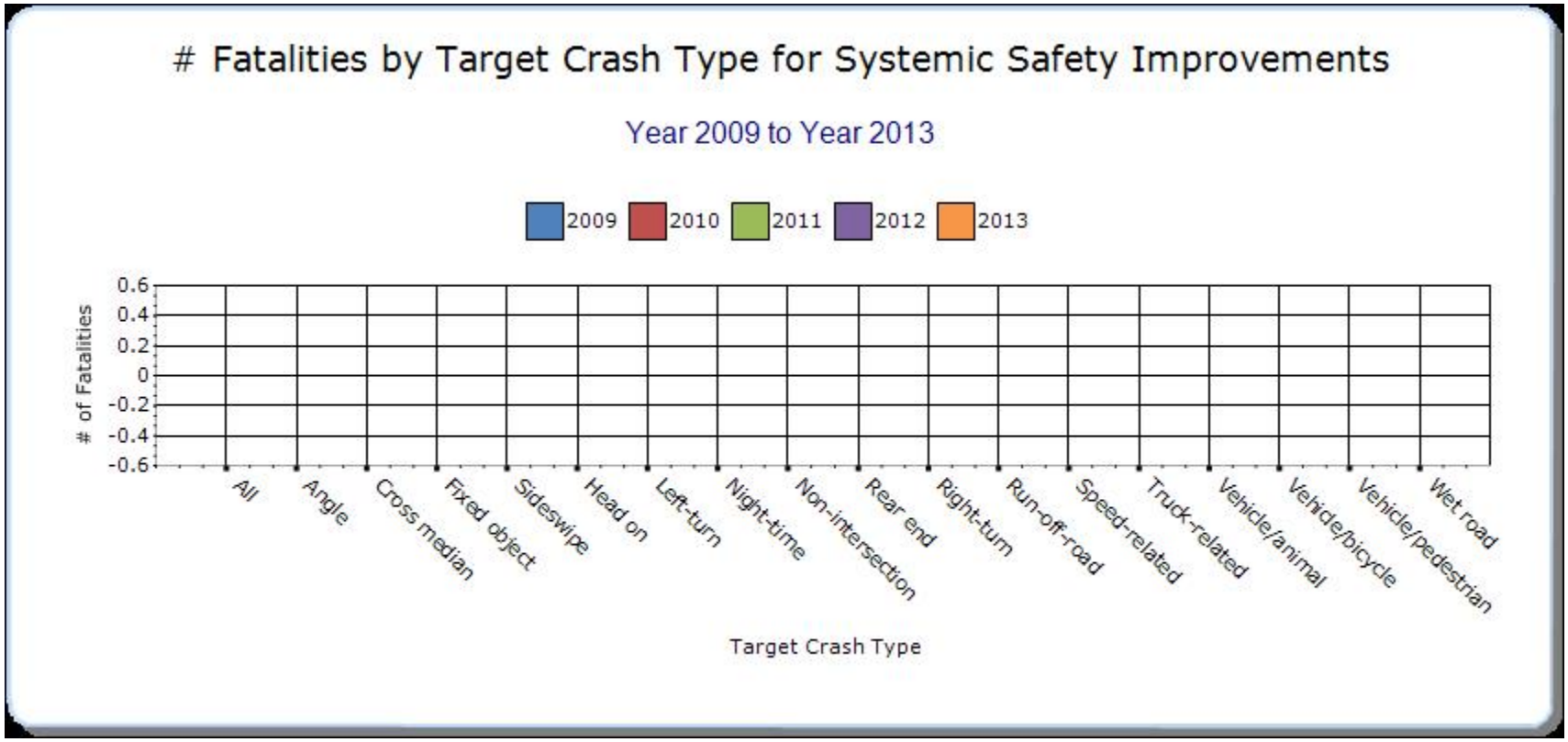

Serious Injury Rate by Target Crash Type for Groups of Similar Projects
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Serious Injurie
2
1.5
1
0.5
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

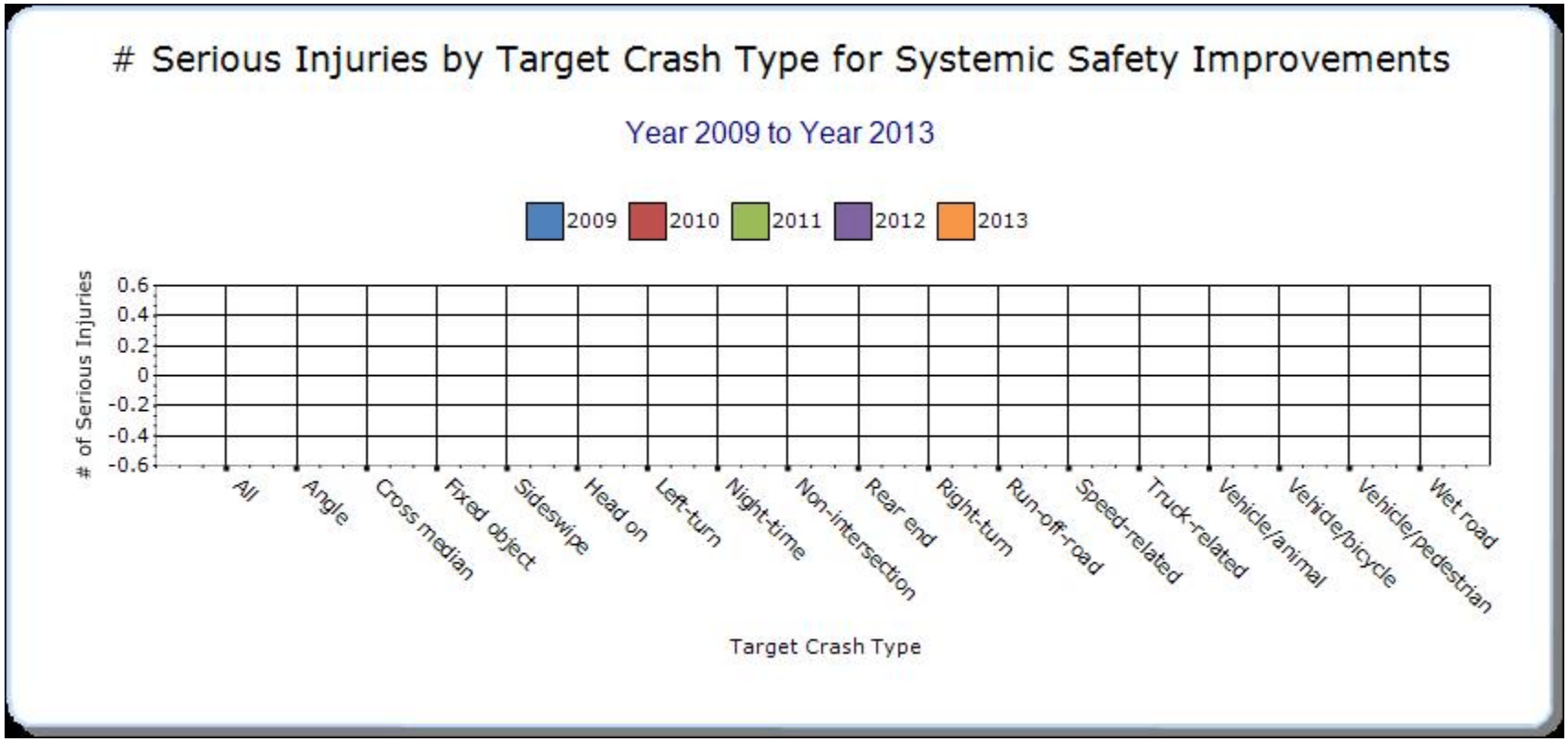
Systemic Treatments

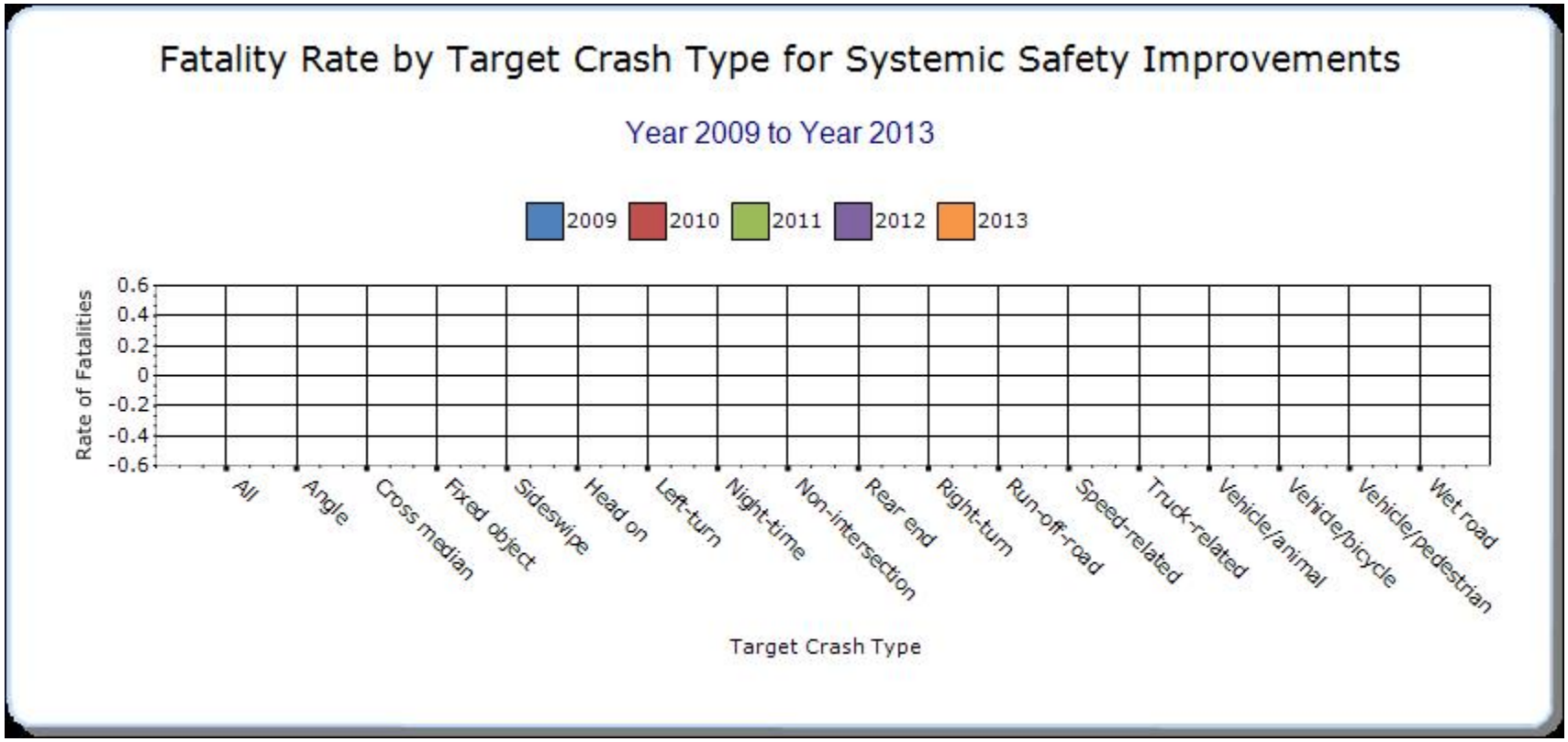
Present the overall effectiveness of systemic treatments.

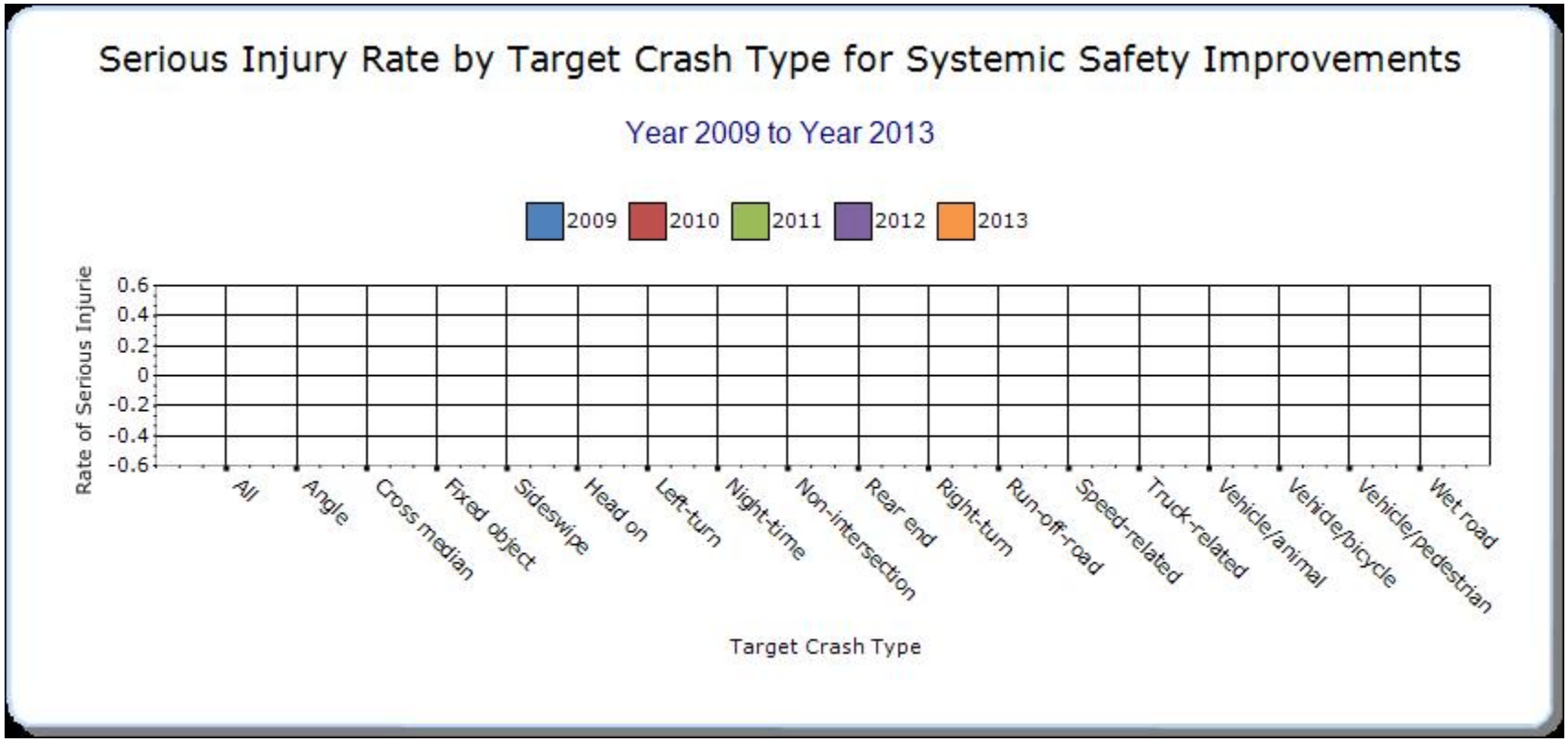
Year - 2012

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
Add/Upgrade/Modify/Remove Traffic Signal		5	113	0.01	0.21	0	0	0
Install/Improve Signing		63	309	0.11	0.57	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.

none

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)

Optional Attachments

Sections	Files Attached
Progress in Achieving Safety Performance Targets: Application of Special Rules	older driver data for 2014 report.xlsx

Glossary

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

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

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

HMVMT means hundred million vehicle miles traveled.

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

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

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

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

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

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

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

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