Highway Safety Improvement Program

Data Driven Decisions

Arkansas
Highway Safety Improvement Program
2015 Annual Report

Prepared by: AR

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

In accordance with 23 USC 148 and pursuant to 23 CFR 924, the Arkansas State Highway and Transportation Department (AHTD) has prepared a Highway Safety Improvement Program (HSIP) Annual Report for State Fiscal Year 2015 (July 1, 2014 through June 30, 2015). The format of this report is consistent with the reporting guidelines issued by the Federal Highway Administration on February 13, 2013.

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.

To address safety concerns on local roads, the AHTD continues to provide technical assistance and training programs on safety issues to local governments through its efforts by System Information and Research Division staff and the Technology Transfer Program. The AHTD continues to coordinate with the Arkansas State Police through the Traffic Records Coordinating Committee to implement eCrash and the Advance program that will allow law enforcement agencies and other State and local agencies to

have better access to crash data on all public roads, and run analytics and produce reports on numerous aspects of the crash data

Furthermore, the AHTD continues to update our linear referencing system. This allowed the location of a crash that occurs on Federal-aid local roads to be identified by geographical location. A project to provide a linear referencing system for all public roads is currently underway. Approximately 35% of all public roads now have a linear referencing system in place. Based on this data, crash queries can be conducted to determine if there are locations with a high frequency of crashes. This data can be provided to a local government agency or a Metropolitan Planning Organization (MPO) upon request.

AHTD has provided a GIS and Aerial photograph driven tool, VISUAL-T, to the Arkansas State Police and various county and local law enforcement agencies to assist the agencies with providing an accurate crash location on the crash report. The AHTD technical staff provided continued support to the local law enforcement agencies in this reporting period. This tool has greatly enhanced both speed and accuracy in providing a crash location to the Crash Database.

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.

Coordination with internal partners, along with the HSO, occurs on different levels. Design, planning, maintenance, operations and the HSO are all on the SHSP committee. Coordination has also taken place when addressing work zone safety, roadway departure safety, and in the identification of infrastructure and non-infrastructure projects. Traffic Safety and Maintenance work together on daily basis to address

the spot treatments due to fatal crashes. Traffic Safety performs the preliminary scope of safety improvements on segment jobs according to the HSM guidelines to help with the design process.

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-Performance measure coordination with the Arkansas State Police, Highway Safety Office had more thorough discussion in multiple meetings. Different methodologies and laws were discussed prior to setting targets.

☒Other: Other-New countermeasures such as roundabouts were proposed for intersections with KA crashes. Locations for preliminary fatal crashes are immediately evaluated for possible safety improvements on daily basis.

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

The AHTD Traffic Safety Section (TSS), which manages the HSIP, continued to use the Highway Safety Manual on case by case basis. The TSS has also hired another civil engineering graduate effective May,

2015. TSS now has 4 Engineers working on the Safety Program. Prior to May 2011, TSS did not have an Engineer. The TSS has marketed the SHSP (approved by FHWA in March 2013) with a focus on TZD through the Arkansas Highways Magazine, idrivearkansas.com and tzdarkansas.org.

Also HSM Safety Performance Functions' research is under progress along with continued improvements to data analysis processes and tools used by the TSS. AHTD continued to be a member State in the Evaluation of Low-Cost Safety Improvements Pooled Fund Study. AHTD is coordinating with the FHWA Division Office to conduct a HSIP Peer Review during the 2016 Federal Fiscal Year. Information learned from this effort will be used to update the HSIP Process document.

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: **Median Barrier**

Date of Program Methodology: **7/7/2011**

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-Systemic approach

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

☒Other-The process is consistent with the AHTD HSIP process adopted in 2011.

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

☒Based on systemic approach considering median width, ADT, etc.

Program: **Intersection**

Date of Program Methodology: 4/1/2015

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
☒ All crashes	☐ Traffic	☐ Median width
☐ Fatal crashes only	☐ Volume	☐ Horizontal curvature
☒ Fatal and serious injury crashes only	☐ Population	☐ Functional classification
☐ Other	☐ Lane miles	☐ Roadside features
	☒ Other-Rural vs Urban	☒ Other-ROW and utilities consideration

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

☒ Other-The process is consistent with the AHTD HSIP process adopted in 2011.

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	
☒ Cost Effectiveness	2
☒ analyzed multiple locations statewide that were identified through various sources.	1

Program: **Skid Hazard**

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

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-Wet pavement crashes	☒ Other-Skid resistance consideration

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

☒ Other-The process is consistent with the AHTD HSIP process adopted in 2011.

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

☒ Wet pavement crashes were considered statewide and further analyzed to select the locations based on a certain threshold.

Program: **Crash Data**

Date of Program Methodology: **1/1/2012**

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-Converting from TRACS to E-Crash with the add-on software of ADVANCE for querying data.	☒ Other-All types of data exposure considered for improvements	☐ Other
		☒ Other-MIRE roadway data elements are the priority for improvements.

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

☒ Other-The MIRE is connected with the eCrash which will improve the data quality for analysis.

☒ Other-Other-The AHTD continues to coordinate with the Arkansas State Police through the TRCC to implement eCrash and the Advance program that will allow law enforcement agencies and other State and local agencies to have timely access to the crash data.

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

☒ Various state agencies are prioritizing and funding needed improvements through the TRCC.

Program: **Roadway Departure**

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-Minimum of 1 foot shoulder

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

☒ Other-The process is consistent with the AHTD HSIP process adopted in 2011.

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	2
☐ Incremental B/C	
☐ Ranking based on net benefit	
☐ Other	
☒ The process was systemic based approach but due to available funding the systematic approach was also considered.	1

Program: **Segments**

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

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-Clearzones and shoulder widths.

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 average crash rates

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

☒ Other-Each segment is analyzed for low cost countermeasures and improvements as well as realignment or turn lanes at select locations.

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 1
- ☐ Available funding
- ☐ Incremental B/C
- ☐ Ranking based on net benefit
- ☐ Other

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

42

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

- ☒ Cable Median Barriers
- ☐ Traffic Control Device Rehabilitation
- ☐ Install/Improve Signing
- ☐ Upgrade Guard Rails
- ☐ Safety Edge
- ☐ Add/Upgrade/Modify/Remove Traffic Signal
- ☒ Rumble Strips
- ☐ Pavement/Shoulder Widening
- ☐ Install/Improve Pavement Marking and/or Delineation
- ☐ Clear Zone Improvements
- ☐ Install/Improve Lighting
- ☐ Other

What process is used to identify potential countermeasures?

- ☒ Engineering Study
- ☐ Road Safety Assessment
- ☐ Other:

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

☒ Highway Safety Manual

☐ Road Safety audits

☒ Systemic Approach

☐ Other:

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

Systemic approaches to addressing roadway departure safety are underway. AHTD is already implementing cable median barrier projects through a systemic process. With guidance from the Roadway Departure Safety Implementation Plan, a systemic approach to install signs, markings, horizontal curves and rumble strips is also underway. For segmental projects, AHTD continues to use B/C analysis to target low and medium cost improvements to hot spots while also applying the other low cost improvements for the entire length of the project.

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)	36272300	14 %	20275856	26 %
HRRRP (SAFETEA-LU)	9197200	3 %	0	0 %
HRRR Special Rule	0	0 %	0	0 %
Penalty Transfer - Section 154	10194950	4 %	10907331	14 %
Penalty Transfer – Section 164	10194950	4 %	10370311	13 %
Incentive Grants - Section 163	0	0 %	0	0 %
Incentive Grants (Section 406)	0	0 %	0	0 %
Other Federal-aid Funds (i.e. STP, NHPP)	165763100	62 %	26466251	34 %
State and Local Funds	34769500	13 %	8869436	12 %

Totals	266392000	100%	76889185	100%

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

0 %

How much funding is obligated to local safety projects?

0 %

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

$1,500,000.00

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

$1,350,000.00

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?

$26,546,544.00

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

Developing processes and policies to systematically deploy the use of HSIP funds for the implementation of minor shoulder widening, horizontal curves, signs, etc. Better streamlining of the HSIP project development process (into the normal project development process) for corridor safety projects; implementing numerous low cost countermeasures.

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

Significant progress has been made towards the installation of cable median barriers to reduce or eliminate KA crashes on interstates and other high speed routes. Statewide shoulder rumble strip/stripes are to be installed on 4,000 plus miles of the State Highway System by the end of next State Fiscal Year of 2016. Statewide HFST are to be installed at 40 plus locations of the State Highway System by the end of this calendar year.

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
012195	Roadside Barrier - cable	37.28 Miles	853867	939254	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and Expressways	4100	70	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
012208	Non-infrastructure Non-infrastructure - other	0 Miles	1350000	1500000	Penalty Transfer - Section 154	Creating more effective processes and safety management system	0	0	Creating more effective processes and safety management system	Creating more effective processes and safety management system	Creating more effective processes and safety management system
012229	Roadway Rumble strips - edge or shoulder	1300 Miles	3964444	3964444	Penalty Transfer - Section 154	Various locations and Functional Classifications	0	0	State Highway Agency	Roadway Departure	Install shoulder rumble strips.
01223	Roadway	21	352476	352476	Penalty	Various	0	0	State	Roadway	Low cost

8	Pavement surface - high friction surface	Miles	8	8	Transfer - Section 154	Locations and various Functional Classifications			Highway Agency	Departure	safety measures particularly curves, high friction pavements.
012239	Roadway Pavement surface - high friction surface	3.7 Miles	3942362	3942362	Penalty Transfer – Section 164	Various Locations and Various Functional Classifications	0	0	State Highway Agency	Roadway Departure	Low cost safety measure particularly curves. High friction surface treatment.
040646	Roadside Barrier - cable	4.12 Miles	51509	56660	HSIP (Section 148)	Rural Principal Arterial - Interstate	21500	70	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
050280	Intersection geometry Auxiliary lanes - add two-way left-turn lane	8.75 Miles	48191	48191	Penalty Transfer – Section 164	Rural Major Collector	34000	55	State Highway Agency	Intersections	Install turn lanes
05031	Intersection geometry	6.51	185601	185601	Penalty Transfer	Rural Minor	5000	55	State Highway	Intersection	Install turn

3											
061194	Roadway Roadway widening - add lane(s) along segment	0.7 Miles	1999584	1999584	HSIP (Section 148)	Urban Principal Arterial - Other	33000	35	State Highway Agency	Lane Departure	Install continuous, two way left turn lanes as appropriate.
061428	Roadway Pavement surface - high friction surface	17.99 Miles	98952	108847	HSIP (Section 148)	Rural Minor Arterial	3200	55	State Highway Agency	Roadway Departure	Low cost safety measures particularly curves, high friction pavements

						Expressways					
061438	Intersection geometry Auxiliary lanes - add two-way left-turn lane	6.3 Miles	165113	165113	Penalty Transfer – Section 164	Rural Principal Arterial - Other	8300	55	State Highway Agency	Intersections	Install turn lanes
061439	Intersection geometry Auxiliary lanes - add two-way left-turn lane	6.53 Miles	218811	218811	Penalty Transfer – Section 164	Rural Minor Arterial	8600	45	State Highway Agency	Intersections	Install turn lanes
061440	Shoulder treatments Widen shoulder - paved or other	17.34 Miles	123367	123367	Penalty Transfer - Section 154	Rural Minor Arterial	5000	55	State Highway Agency	Roadway Departure	Provide minor shoulder widening
070396	Roadside Barrier - cable	5.59 Miles	29052	31957	HSIP (Section 148)	Urban Principal Arterial - Other Freeways and Expressways	3700	65	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.

080309	Shoulder treatments Widen shoulder - paved or other	2.52	19021	20923	HSIP (Section 148)	Rural Principal Arterial - Other	3700	55	State Highway Agency	Roadway Departure	Provide minor shoulder widening
080494	Alignment Horizontal curve realignment	6.83 Miles	55000	55000	Penalty Transfer – Section 164	Rural Minor Arterial	5300	55	State Highway Agency	Roadway Departure	Curve realignment
080495	Intersection geometry Auxiliary lanes - add left-turn lane	6.83 Miles	157948	157948	Penalty Transfer – Section 164	Rural Minor Arterial	5300	55	State Highway Agency	Intersections	Install left turn lanes
090221	Shoulder treatments Widen shoulder - paved or other	0.63 Miles	10697	11767	HSIP (Section 148)	Rural Minor Arterial	2400	55	State Highway Agency	Roadway Departure	Provide minor shoulder widening
090379	Roadside Barrier - cable	15.15 Miles	158012	158012	Penalty Transfer – Section	Rural Principal Arterial - Other	10000	65	State Highway Agency	Roadway Departure	Continue installation of cable median

					164						barriers.
090406	Railroad grade crossings Grade separation	0.47 Miles	27999	30799	HSIP (Section 148)	Rural Minor Arterial	10500	55	State Highway Agency	Reducing vehicle-train crashes	Improve safety at existing at-grade railroad crossings by grade separation method.
090423	Shoulder treatments Widen shoulder - paved or other	15.63 Miles	20000	20000	Penalty Transfer - Section 154	Rural Minor Arterial	2700	55	State Highway Agency	Roadway Departure	Provide minor shoulder widening
090424	Alignment Horizontal curve realignment	10.16 Miles	20000	20000	Penalty Transfer - Section 154	Rural Minor Arterial	2800	55	State Highway Agency	Roadway Departure	Curve realignment
090429	Roadway Pavement surface - high friction surface	3.4 Miles	20000	20000	Penalty Transfer - Section 154	Various Locations and Functional Classifications	0	0	State Highway Agency	Roadway Departure	Low cost safety measure particularly curves. High friction surface

											treatment.
100819	Roadside Barrier - cable	19.89 Miles	11429	11429	Penalty Transfer - Section 154	New Location	0	0	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
BB0107	Roadside Barrier - cable	12.9 Miles	1614730	1614730	Penalty Transfer - Section 154	Rural Principal Arterial - Interstate	29000	70	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
BB0201	Roadside Barrier - cable	6.11 Miles	1326920	1326920	Penalty Transfer - Section 154	Urban Principal Arterial - Interstate	19000	70	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
BB0303	Roadside Barrier - cable	2.02 Miles	75896	75896	Penalty Transfer - Section 154	Rural Principal Arterial - Interstate	23000	70	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
BB0407	Roadside Barrier - cable	7.46 Miles	45398	49938	HSIP (Section 148)	Urban Principal Arterial - Interstate	47000	70	State Highway Agency	Roadway Departure	Continue installation of cable median

											barriers.
BB0602	Roadside Barrier - cable	2.9 Miles	300803	300803	Penalty Transfer – Section 164	Rural Principal Arterial - Interstate	30000	70	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
BB0803	Roadside Barrier - cable	13.1 Miles	46127	46127	Penalty Transfer - Section 154	Rural Principal Arterial - Interstate	21000	70	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
CA0907	Roadside Barrier - cable	4.49 Miles	9363	10299	HSIP (Section 148)	Urban Principal Arterial - Other	17000	60	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.
061328	Roadside Barrier - cable	7.31 Miles	12342	13576	HSIP (Section 148)	Urban Principal Arterial - Interstate	64000	65	State Highway Agency	Roadway Departure	Continue installation of cable median barriers.

Progress in Achieving Safety Performance Targets

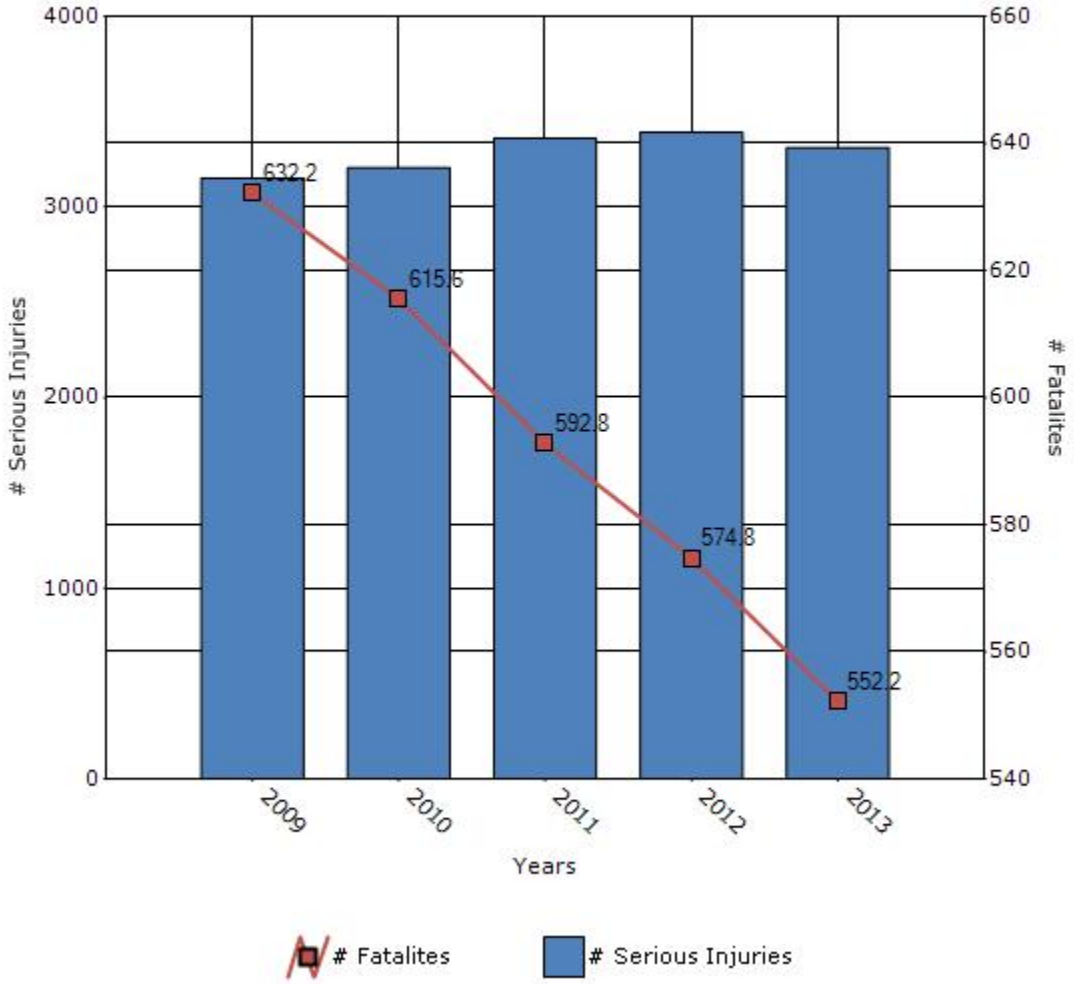
Overview of General Safety Trends

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

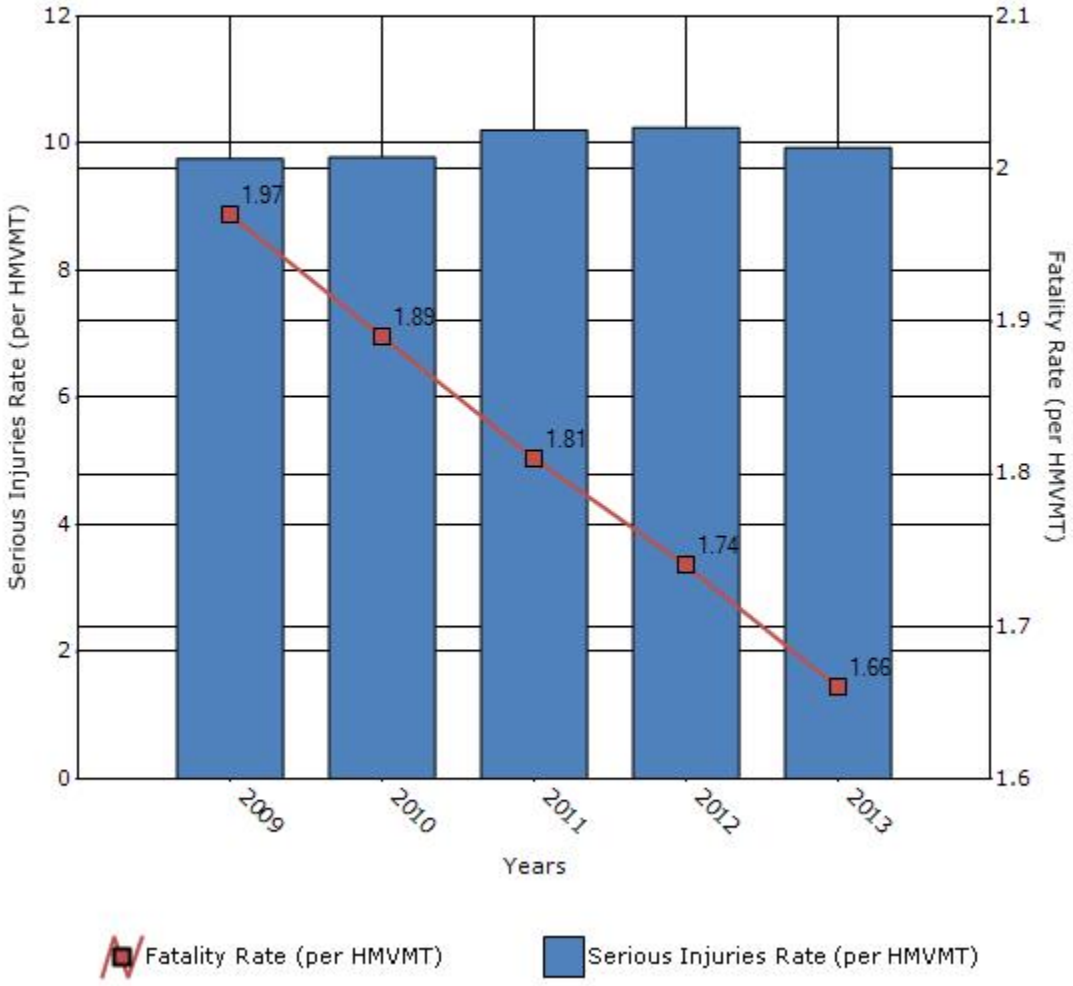
Performance Measures*	2009	2010	2011	2012	2013
Number of fatalities	632.2	615.6	592.8	574.8	552.2
Number of serious injuries	3151.2	3205.6	3361.2	3392	3310.8
Fatality rate (per HMVMT)	1.97	1.89	1.81	1.74	1.66
Serious injury rate (per HMVMT)	9.76	9.78	10.21	10.25	9.93

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

Number of Fatalities and Serious injuries for the Last Five Years



Rate of Fatalities and Serious injuries for the Last Five Years

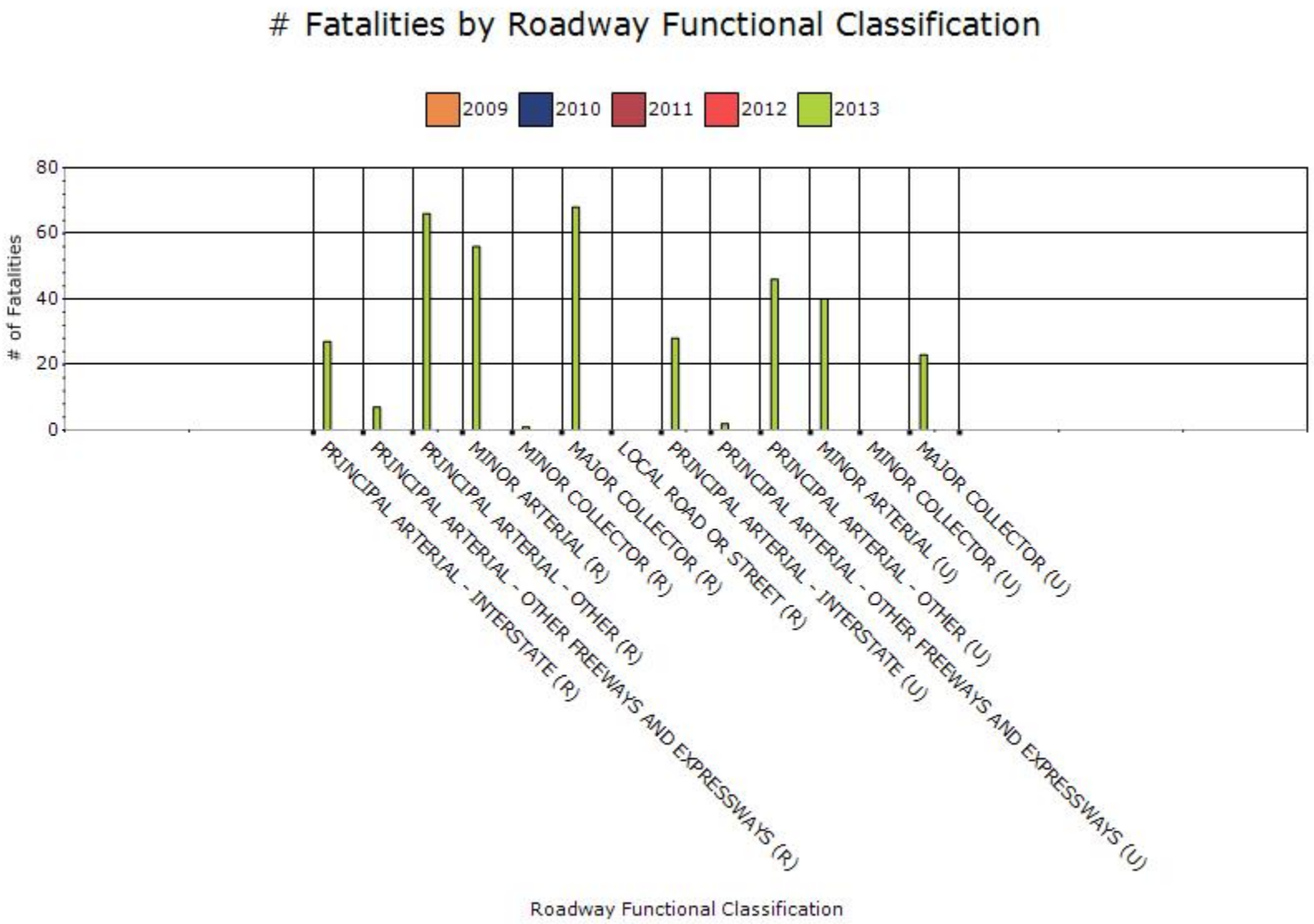


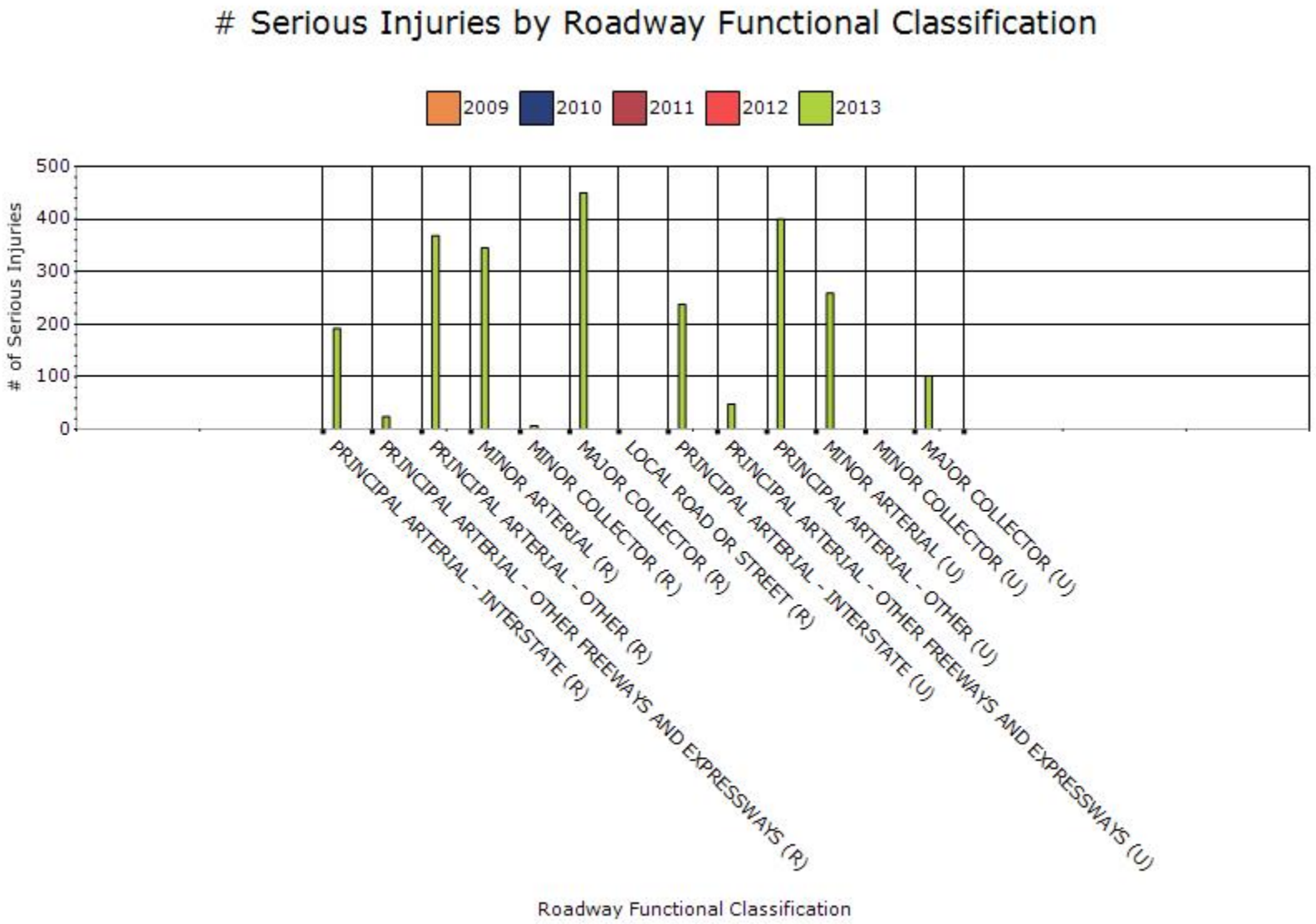
To the maximum extent possible, present performance measure* data by functional classification and ownership.

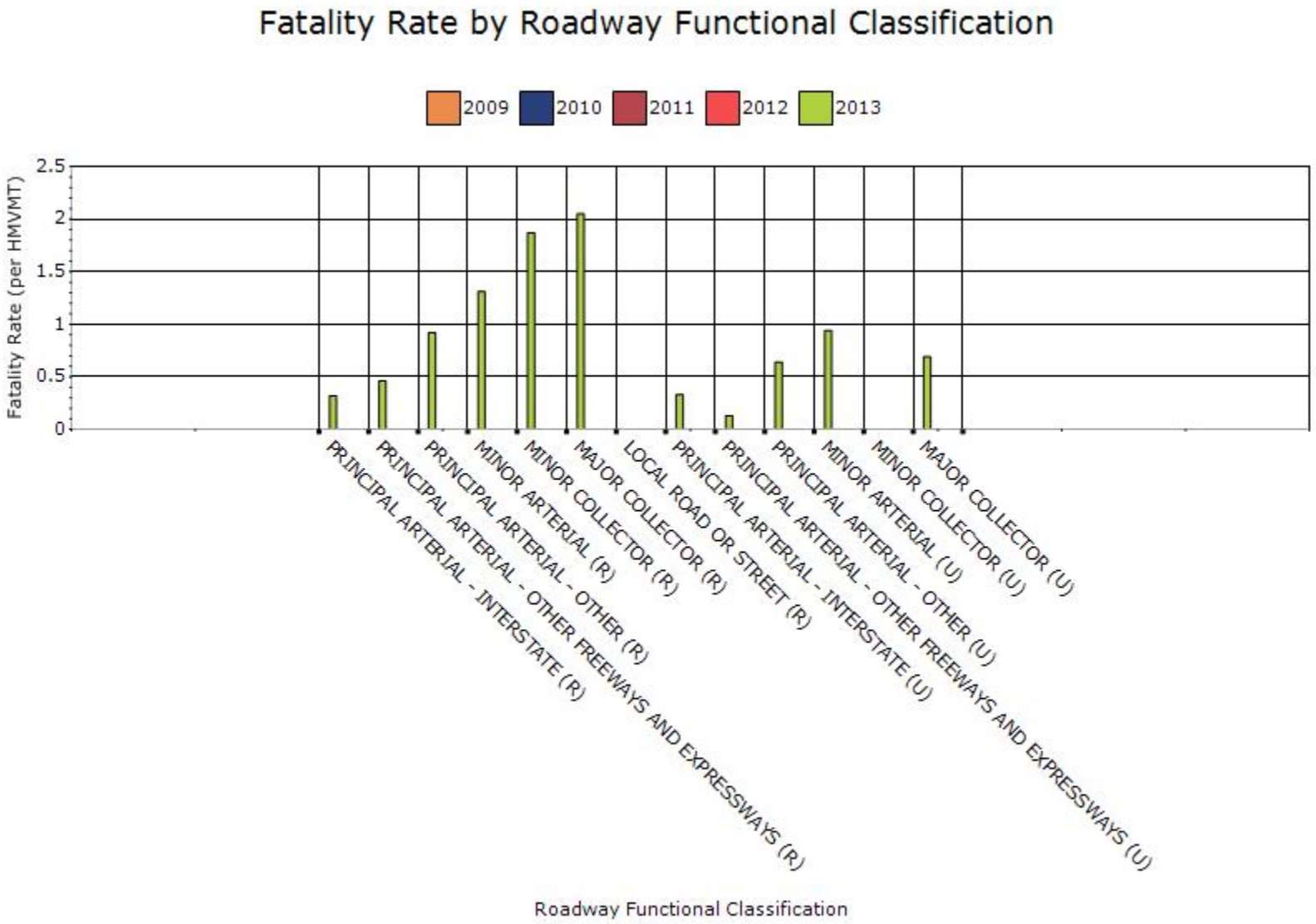
Year - 2013

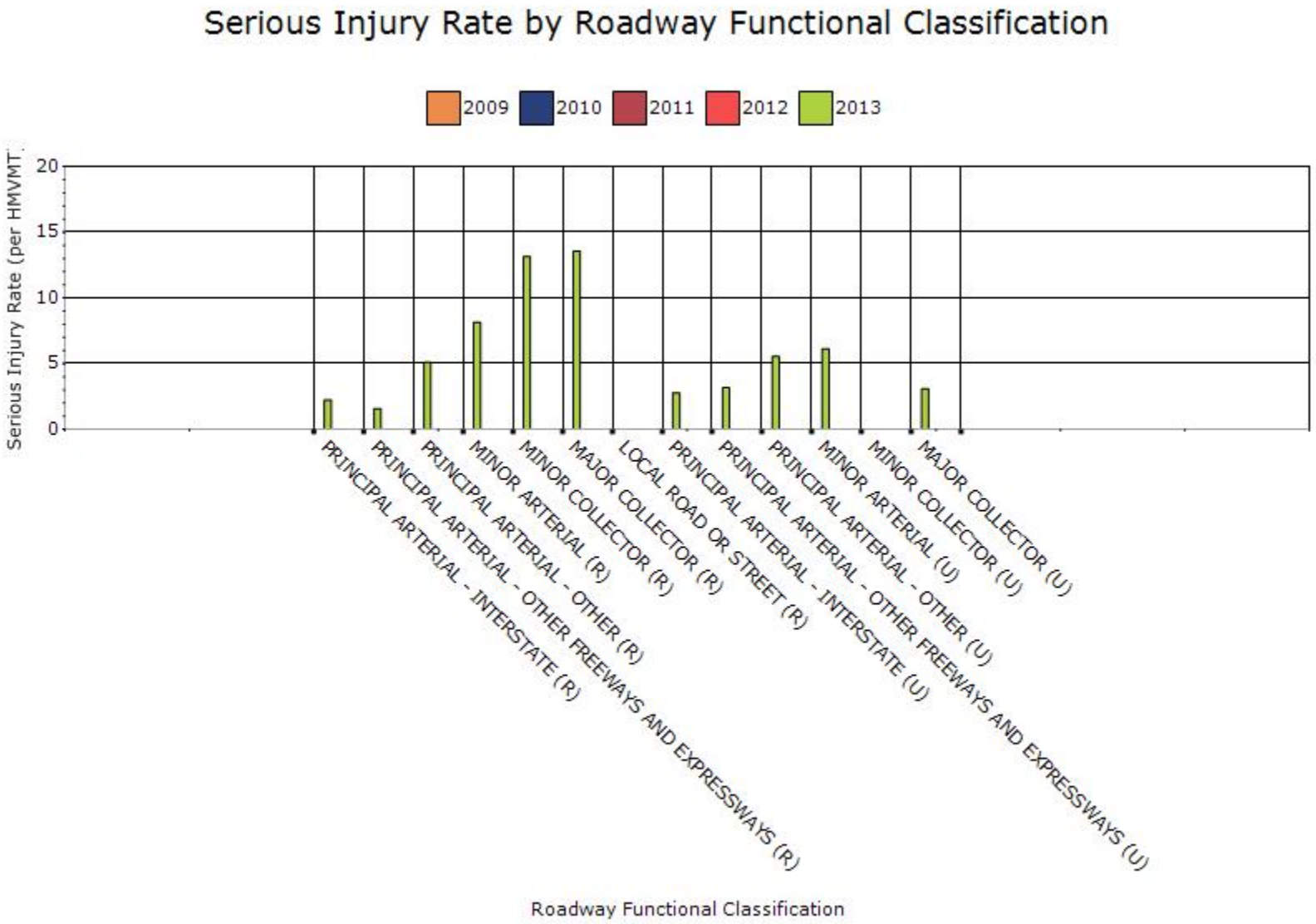
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	27	192	0.32	2.24
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	7	24	0.46	1.58
RURAL PRINCIPAL ARTERIAL - OTHER	66	368	0.92	5.1
RURAL MINOR ARTERIAL	56	345	1.31	8.14
RURAL MINOR COLLECTOR	1	7	1.87	13.14
RURAL MAJOR COLLECTOR	68	450	2.05	13.56
RURAL LOCAL ROAD OR STREET	0	0	0	0
URBAN PRINCIPAL	28	238	0.33	2.78

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	2	48	0.13	3.17
URBAN MINOR ARTERIAL	40	259	0.94	6.11
URBAN MAJOR COLLECTOR	23	102	0.69	3.07


Fatalities by Roadway Functional Classification
2009
2010
2011
2012
2013
# of Fatalities
80
60
40
20
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

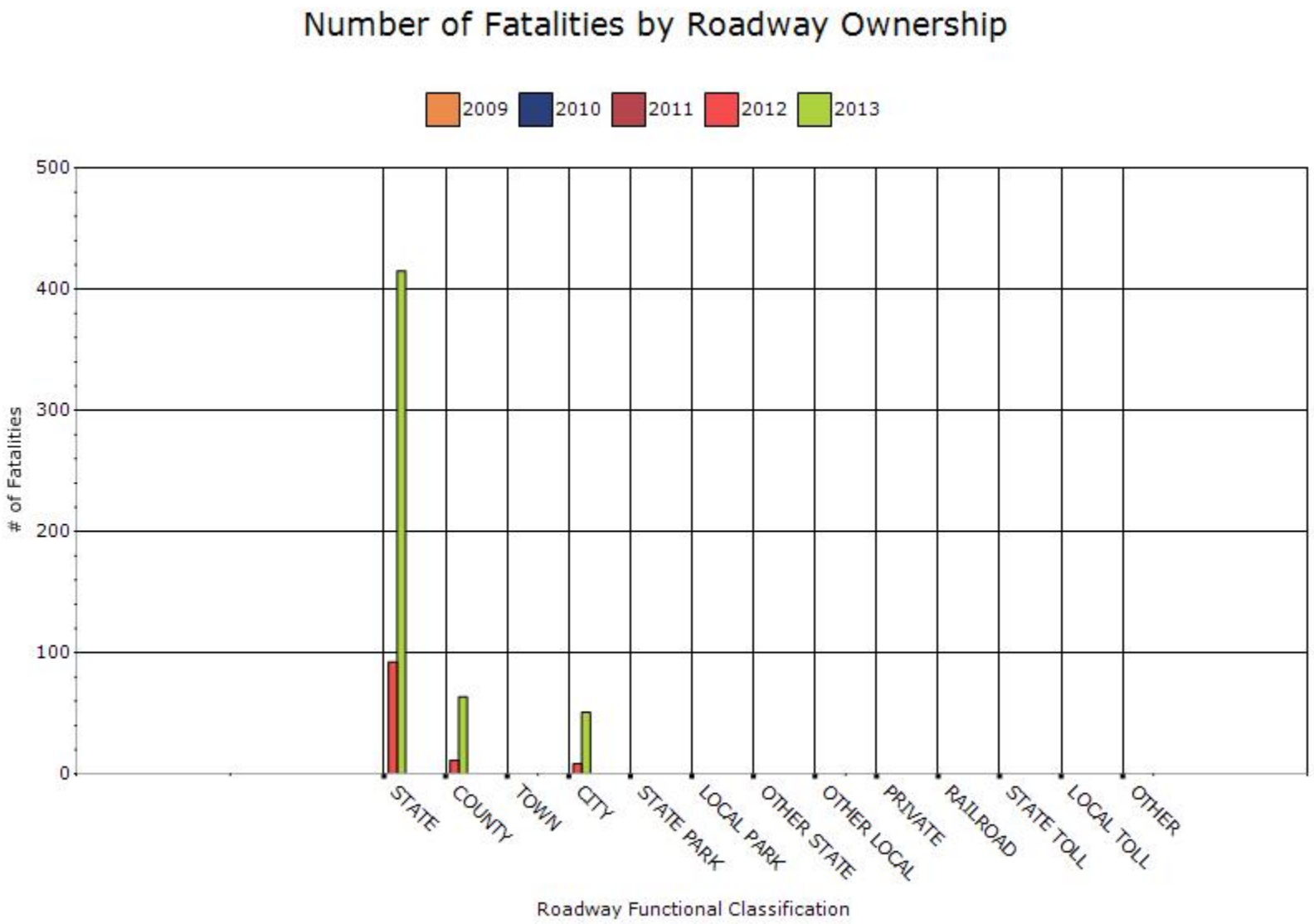

Serious Injuries by Roadway Functional Classification
2009
2010
2011
2012
2013
# of Serious Injuries
500
400
300
200
100
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (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

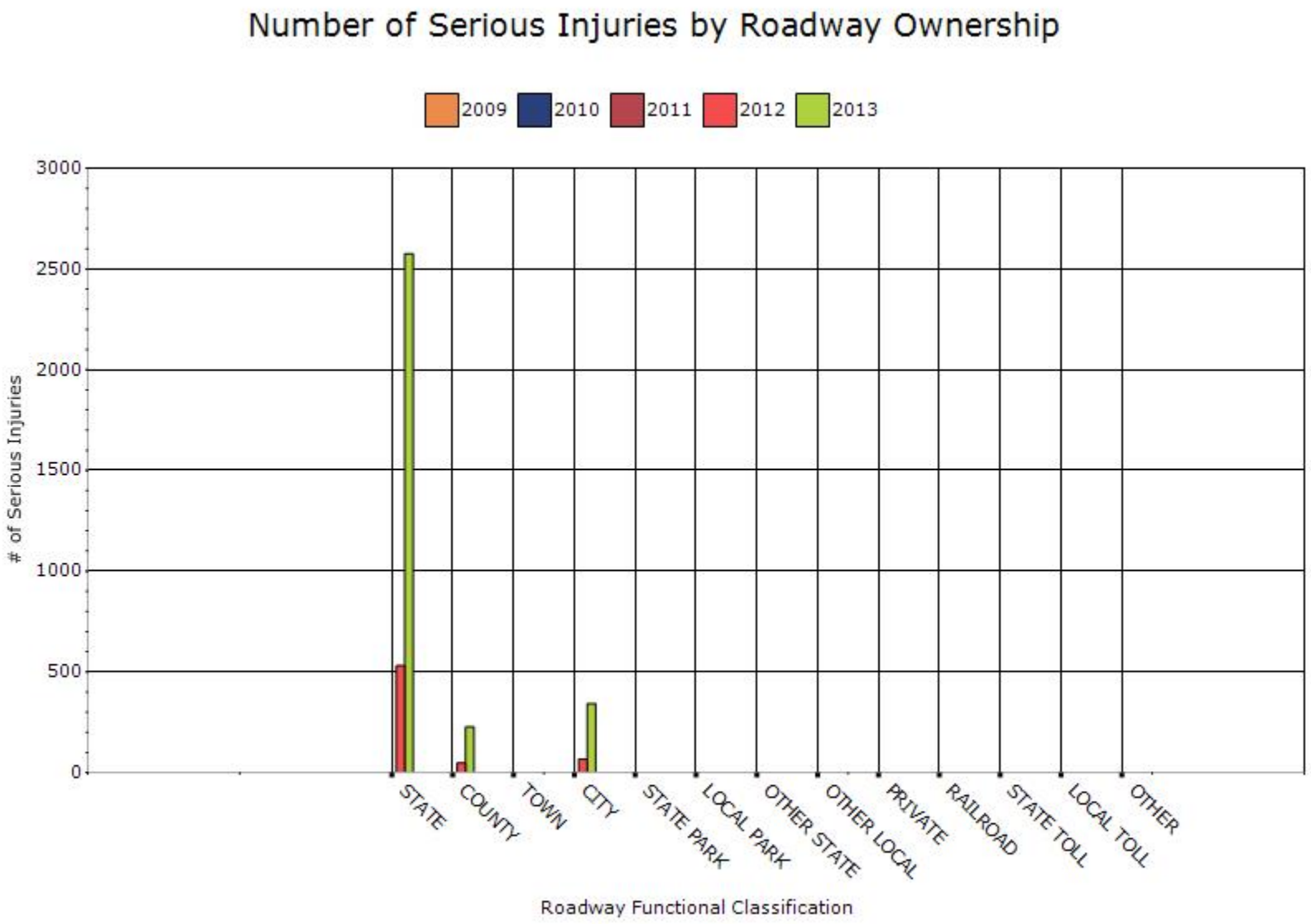

Fatality Rate by Roadway Functional Classification
2009
2010
2011
2012
2013
Fatality Rate (per HMVMT)
2.5
2
1.5
1
0.5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)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

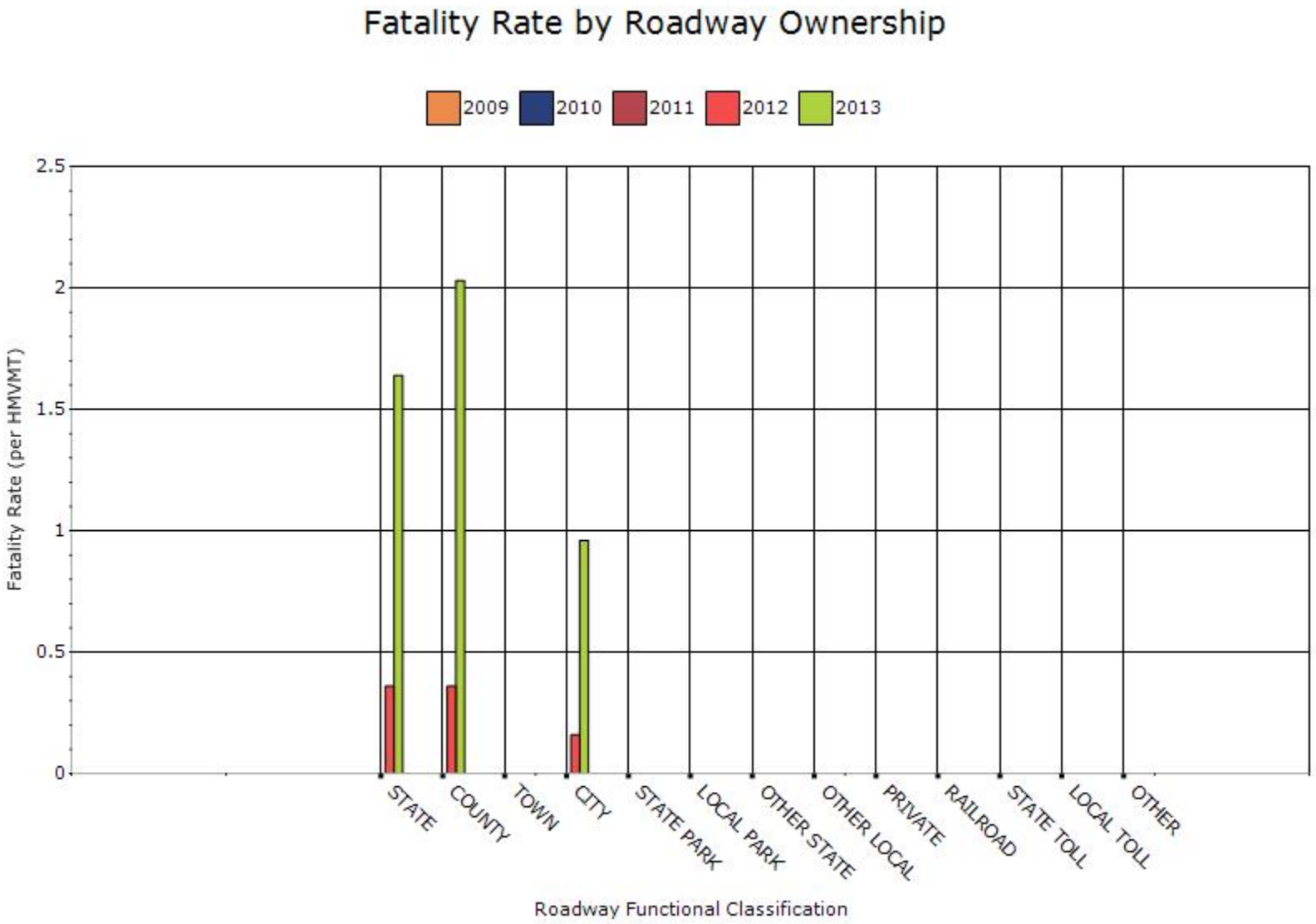

Serious Injury Rate by Roadway Functional Classification
2009
2010
2011
2012
2013
Serious Injury Rate (per HMVMT)
20
15
10
5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR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

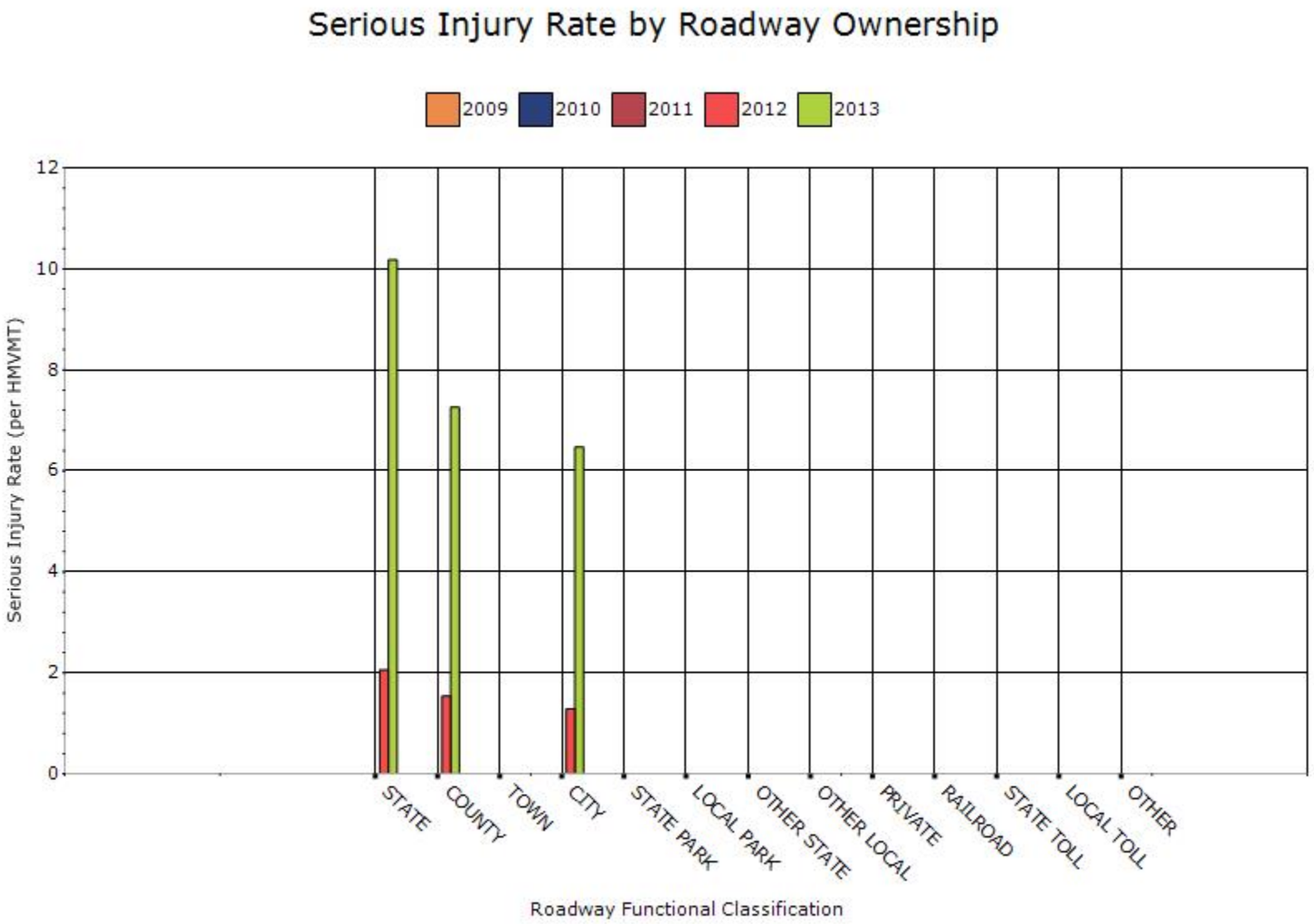
Year - 2013

Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	415	2576	1.64	10.18
COUNTY HIGHWAY AGENCY	63.5	227	2.03	7.26
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	51	343	0.96	6.47
STATE PARK, FOREST, OR RESERVATION AGENCY	0	0	0	0
LOCAL PARK, FOREST OR RESERVATION AGENCY	0	0	0	0
OTHER STATE AGENCY	0	0	0	0
OTHER LOCAL AGENCY	0	0	0	0
PRIVATE (OTHER THAN RAILROAD)	0	0	0	0
RAILROAD	0	0	0	0
STATE TOLL AUTHORITY	0	0	0	0
LOCAL TOLL AUTHORITY	0	0	0	0
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)	0	0	0	0


Number of Fatalities by Roadway Ownership
2009
2010
2011
2012
2013
500
400
300
200
100
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
Fatality Rate (per HMVMT)
2.5
2
1.5
1
0.5
0
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification


Serious Injury Rate by Roadway Ownership
2009
2010
2011
2012
2013
Serious Injury Rate (per HMVMT)
0
2
4
6
8
10
12
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification

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

The definition for reporting incapacitating injuries (which we use for reporting serious injuries) was updated in 2007 by Arkansas State Police. The trend for incapacitating injuries has followed fatalities except for the jump in 2008 and 2009. We think this can be partly explained by the updated definition used by law enforcement officers from 2007. The fatality data from the ASP shows a continued drop in 2013 and 2014.

- 2009 – 596
- 2010 – 571
- 2011 – 551
- 2012 – 560
- 2013 – 483 (499 per the AHTD crash database)
- 2014 – 466

Source NHTSA FARS

Application of Special Rules

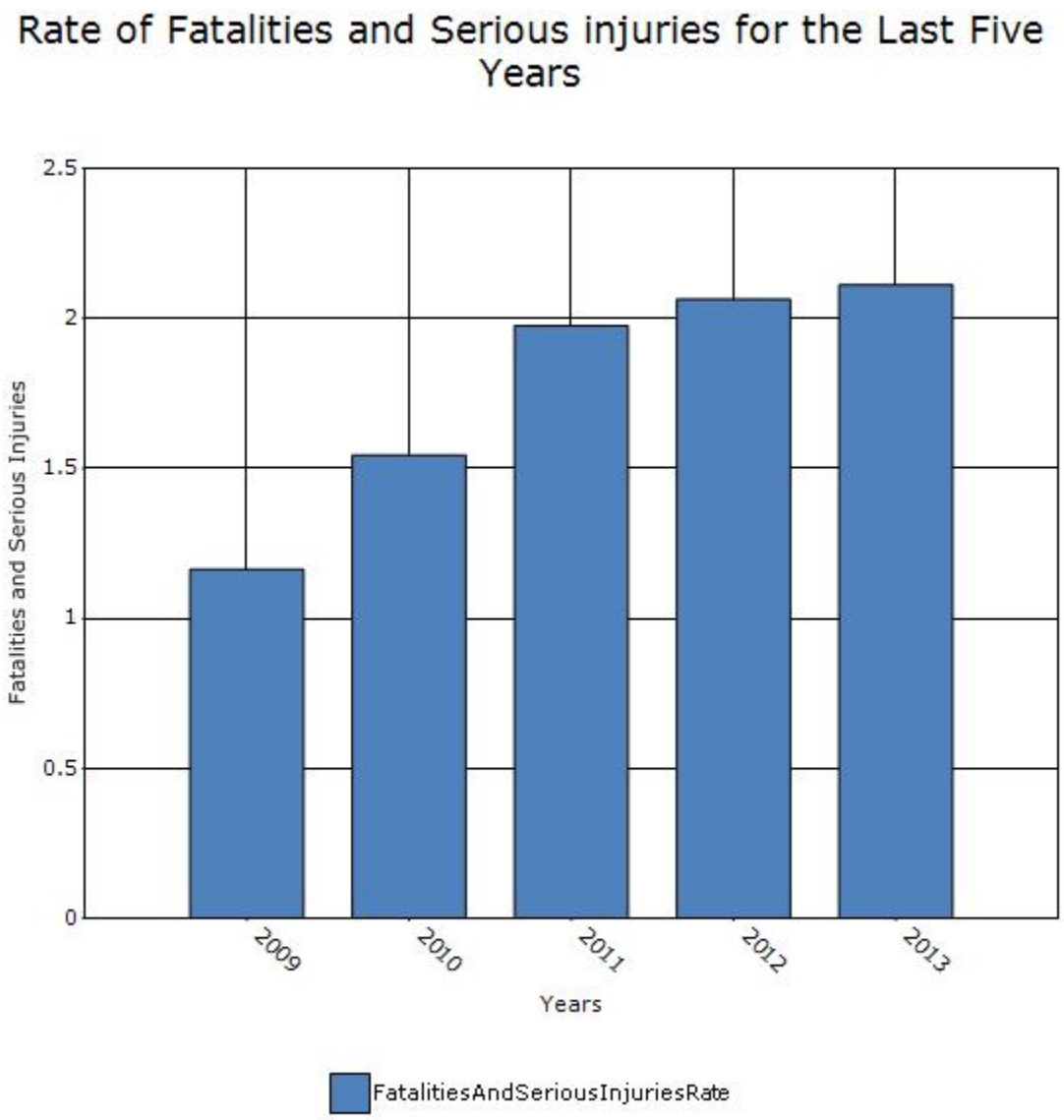
Present the rate of traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65.

Older Driver Performance Measures	2009	2010	2011	2012	2013
Fatality rate (per capita)	0.284	0.372	0.466	0.474	0.468
Serious injury rate (per capita)	0.882	1.174	1.514	1.594	1.662
Fatality and serious injury rate (per capita)	1.164	1.544	1.976	2.064	2.112

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

2013= (333/153)+(321/150)+(316/146)+(274/144)+(321/143)/5=2.13 or 2.1

2011= (316/146)+(274/144)+(321/143)+(267/142)+(238/140)/5=1.98 or 2.0



Does the older driver special rule apply to your state?

Yes

If yes, describe the approach to include respective strategies to address the increase in those rates in the State SHSP.

<p>Current strategies listed in the SHSP to address older drivers will be considered. These strategies include:

Improved roadway visibility features;

Implementation of the FHWA Highway Design Handbook for Older Drivers;

Education of older drivers on the safety risks resulting from reduced driving task performance;

Education of older drivers on alternative transportation modes;

Increase frequency of vision assessments for older drivers; and

Promote the use of restricted drivers' licenses for older drivers.

SHSP steering committee will review these strategies in the near future and determine if any changes are needed. This may also include an establishment of an older driver action plan and SHSP subcommittee.

Assessment of the Effectiveness of the Improvements (Program

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

☐ None

☒ Benefit/cost

☐ Policy change

☒ Other: Other-AHTD moving toward a systemic and risk-based approach to address safety.

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-Continued focus to fatalities and serious injuries by initiated using economic appraisals.

☒ Other: Other-¿More systemic programs included in HSIP

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

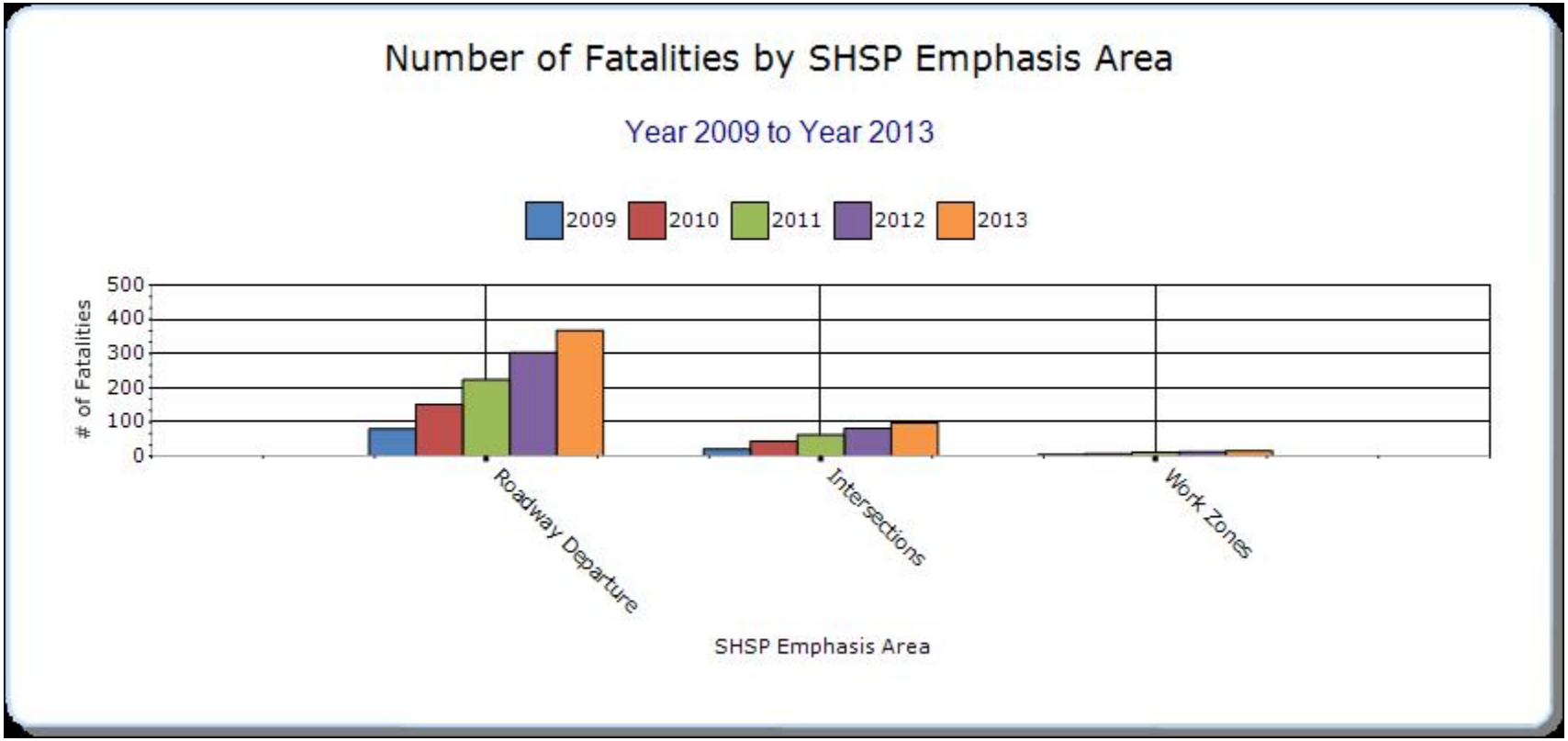
More systemic projects have been programmed. Specifically, continued system-wide implementation of cable median barriers and commencement of a system-wide implementation of shoulder rumble strips/stripes to address fatal and serious injuries.

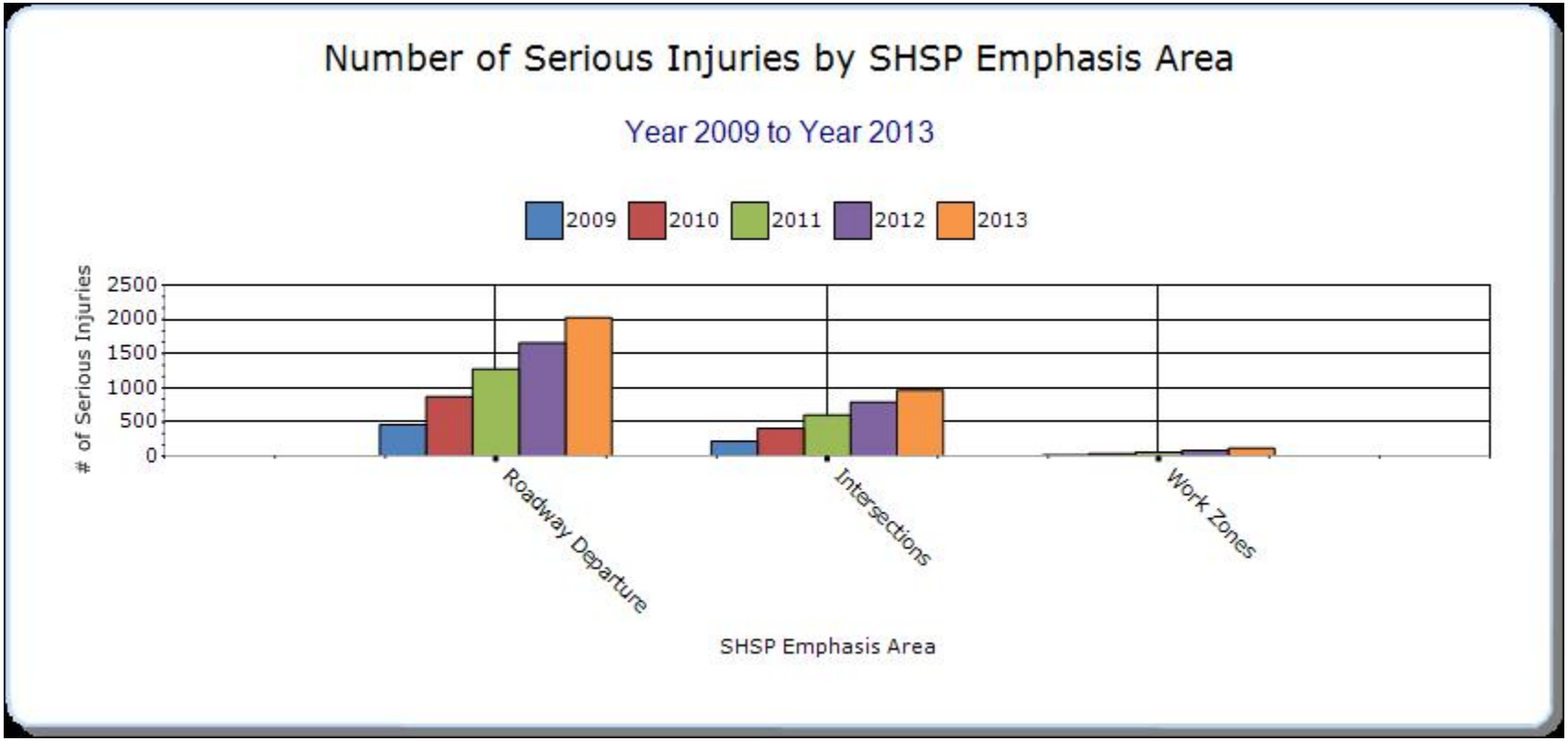
SHSP Emphasis Areas

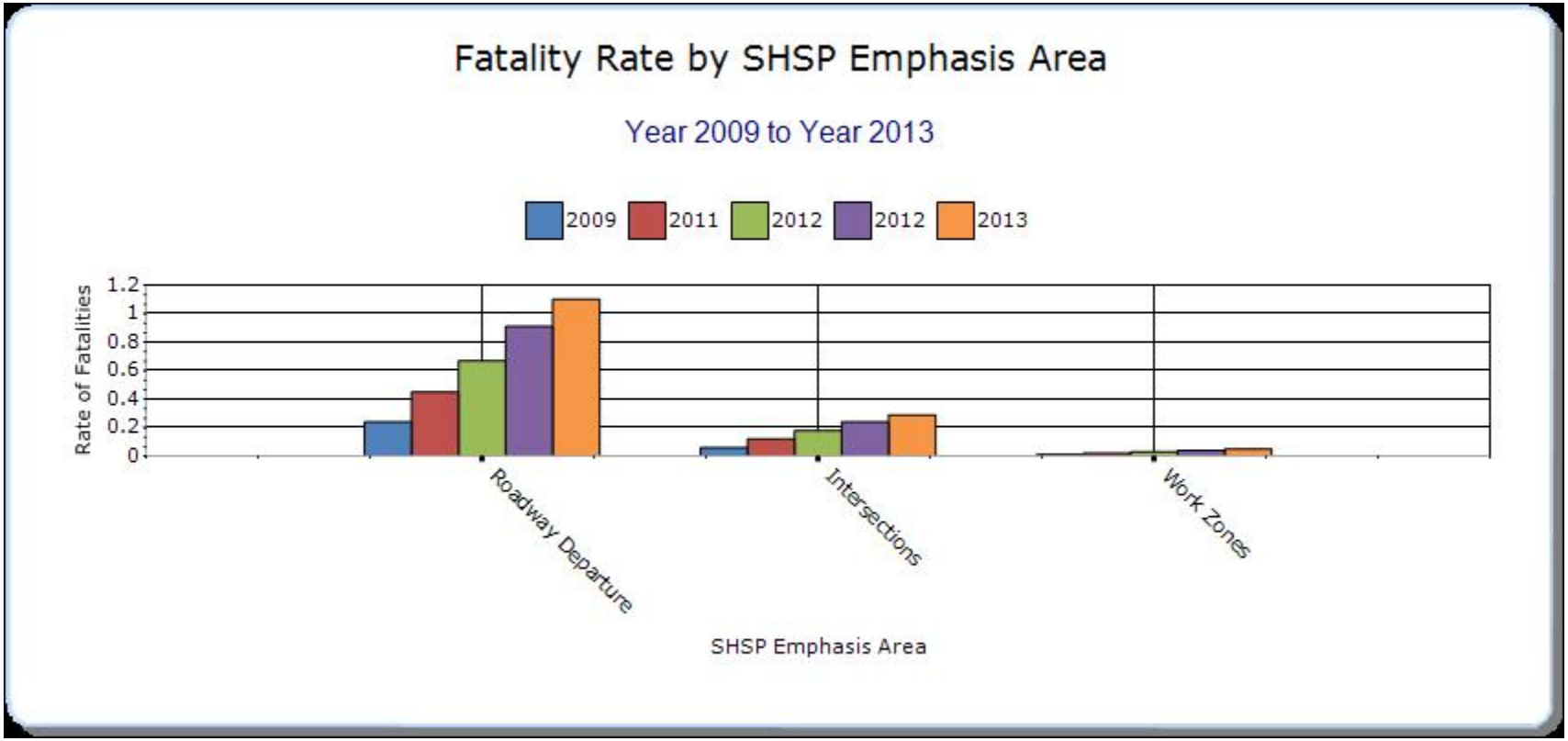
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

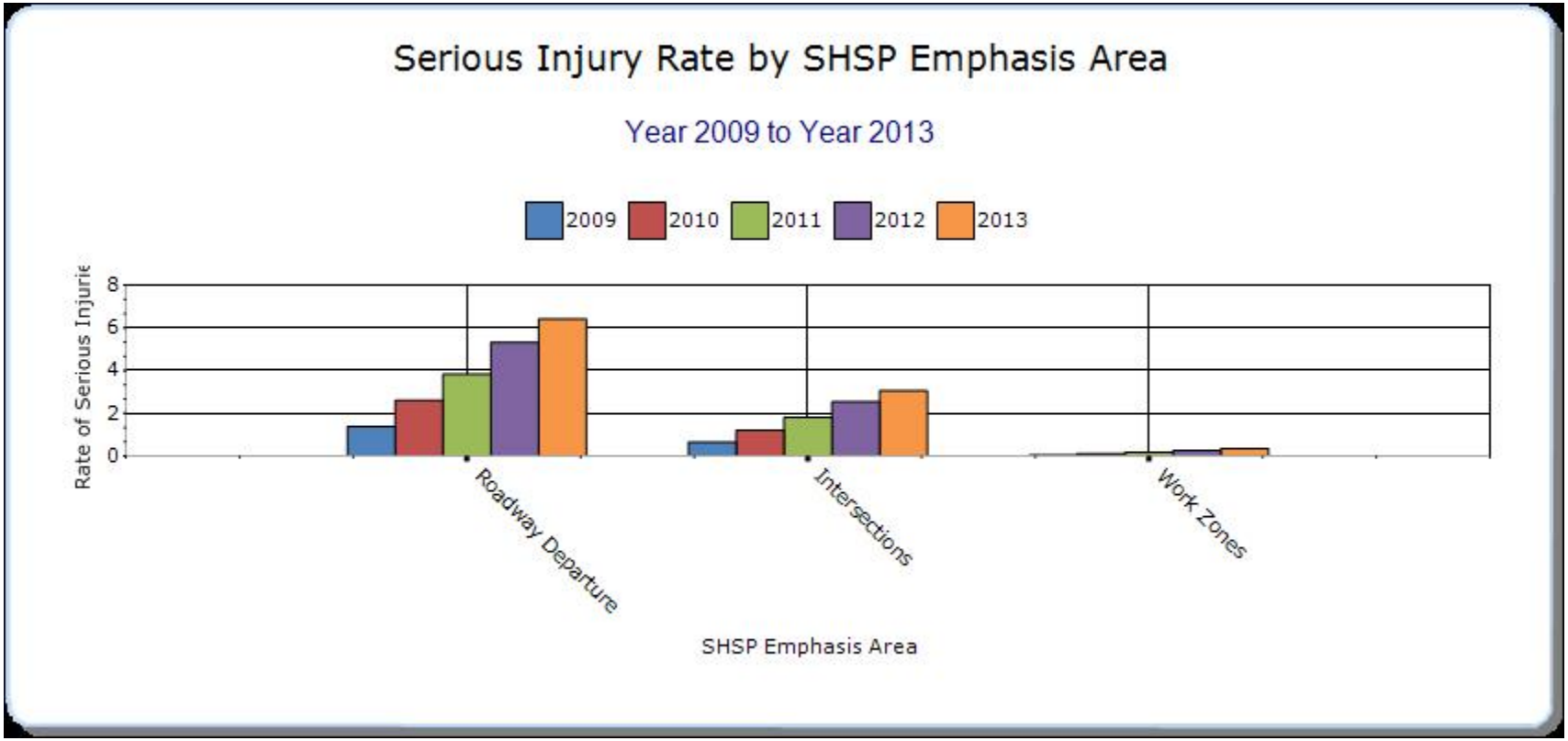
Year - 2013

HSIP-related SHSP Emphasis Areas	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Roadway Departure		368	2023.4	1.1	6.42	0	0	0
Intersections		98	962.6	0.29	3.06	0	0	0
Work Zones		15.8	114.4	0.05	0.36	0	0	0


Number of Fatalities by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# of Fatalities
500
400
300
200
100
0
Roadway Departure
Intersections
Work Zones
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
Roadway Departure
Intersections
Work Zones
SHSP Emphasis Area

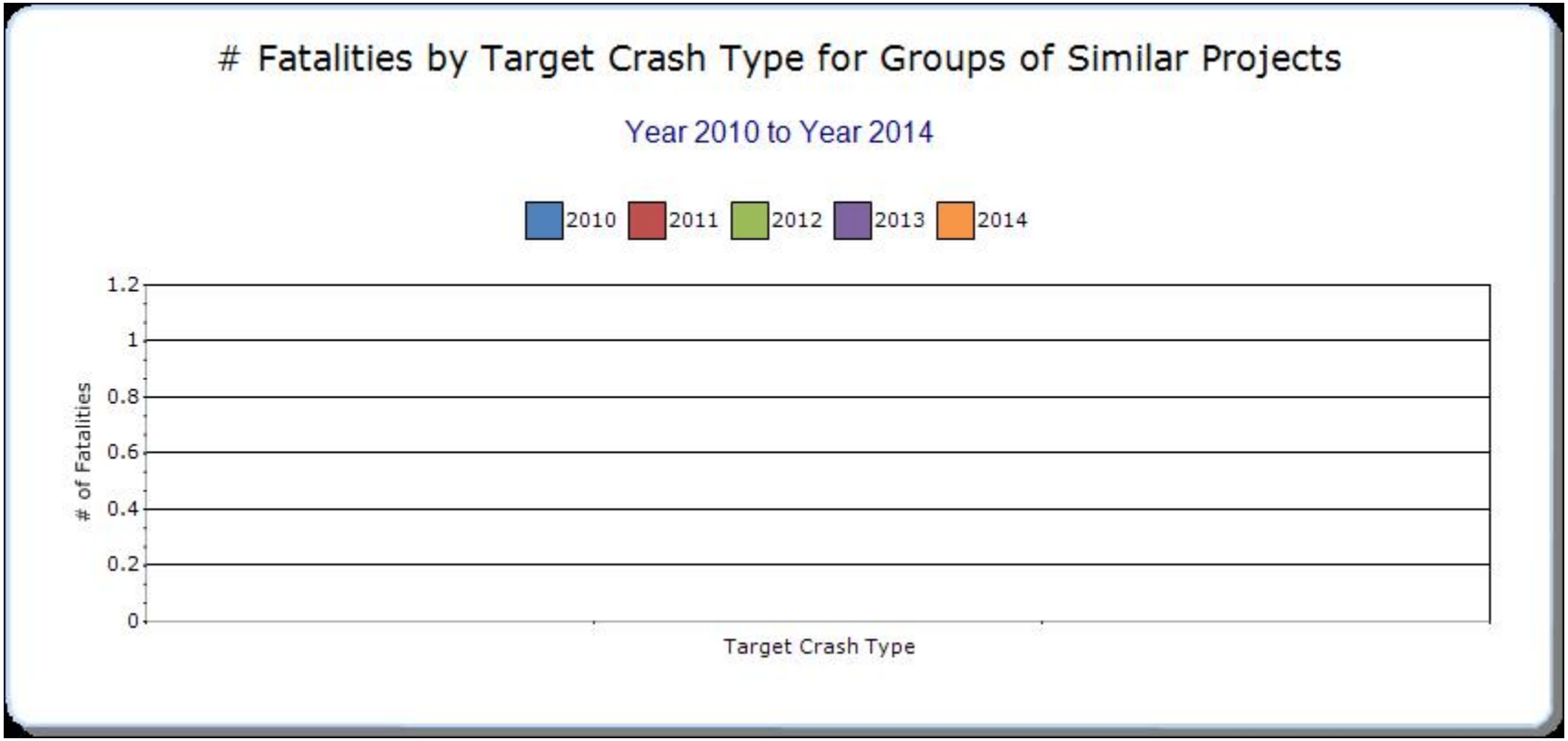

Fatality Rate by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2011
2012
2012
2013
Rate of Fatalities
1.2
1
0.8
0.6
0.4
0.2
0
Roadway Departure
Intersections
Work Zones
SHSP Emphasis Area

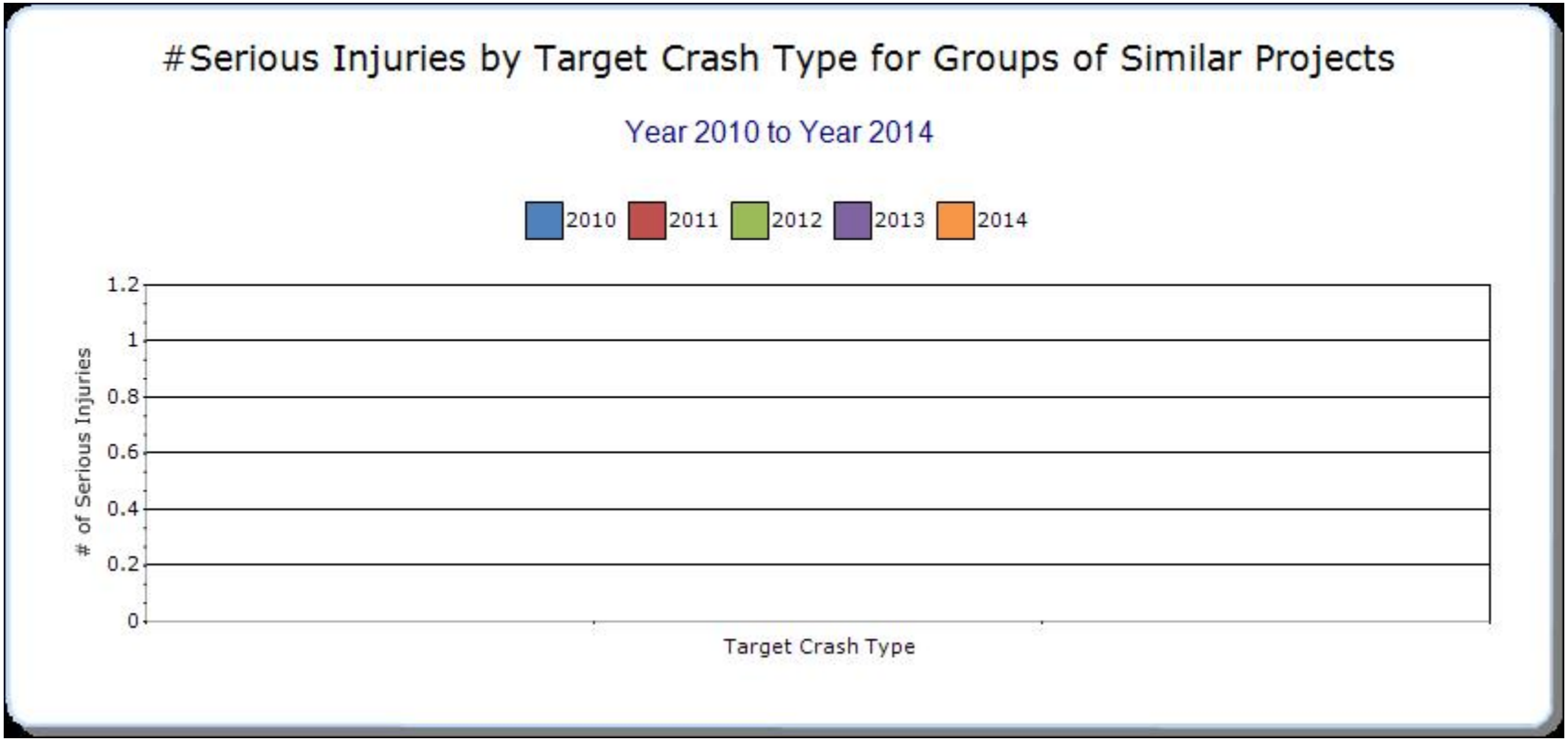

Serious Injury Rate by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Serious Injurie
8
6
4
2
0
Roadway Departure
Intersections
Work Zones
SHSP Emphasis Area

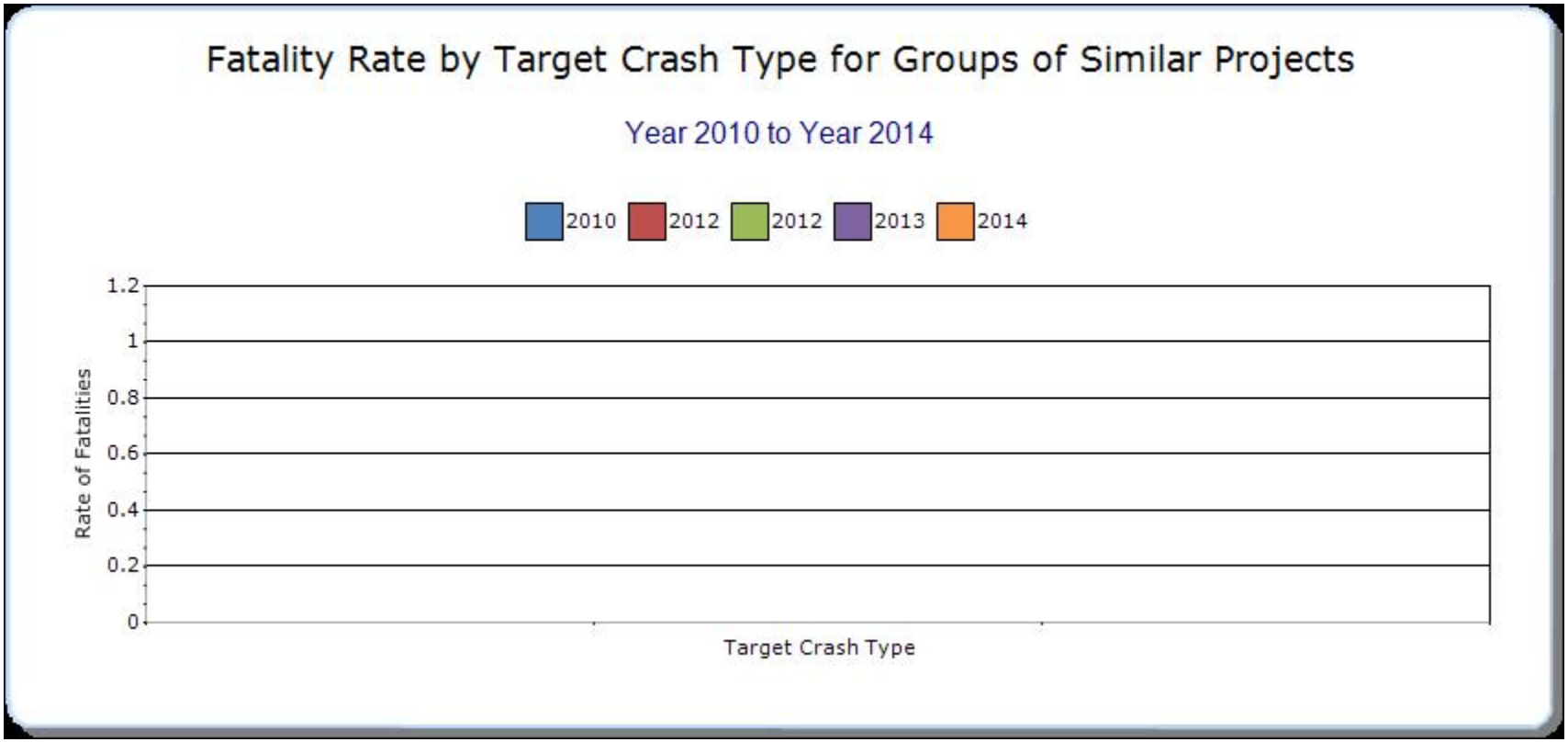
Groups of similar project types

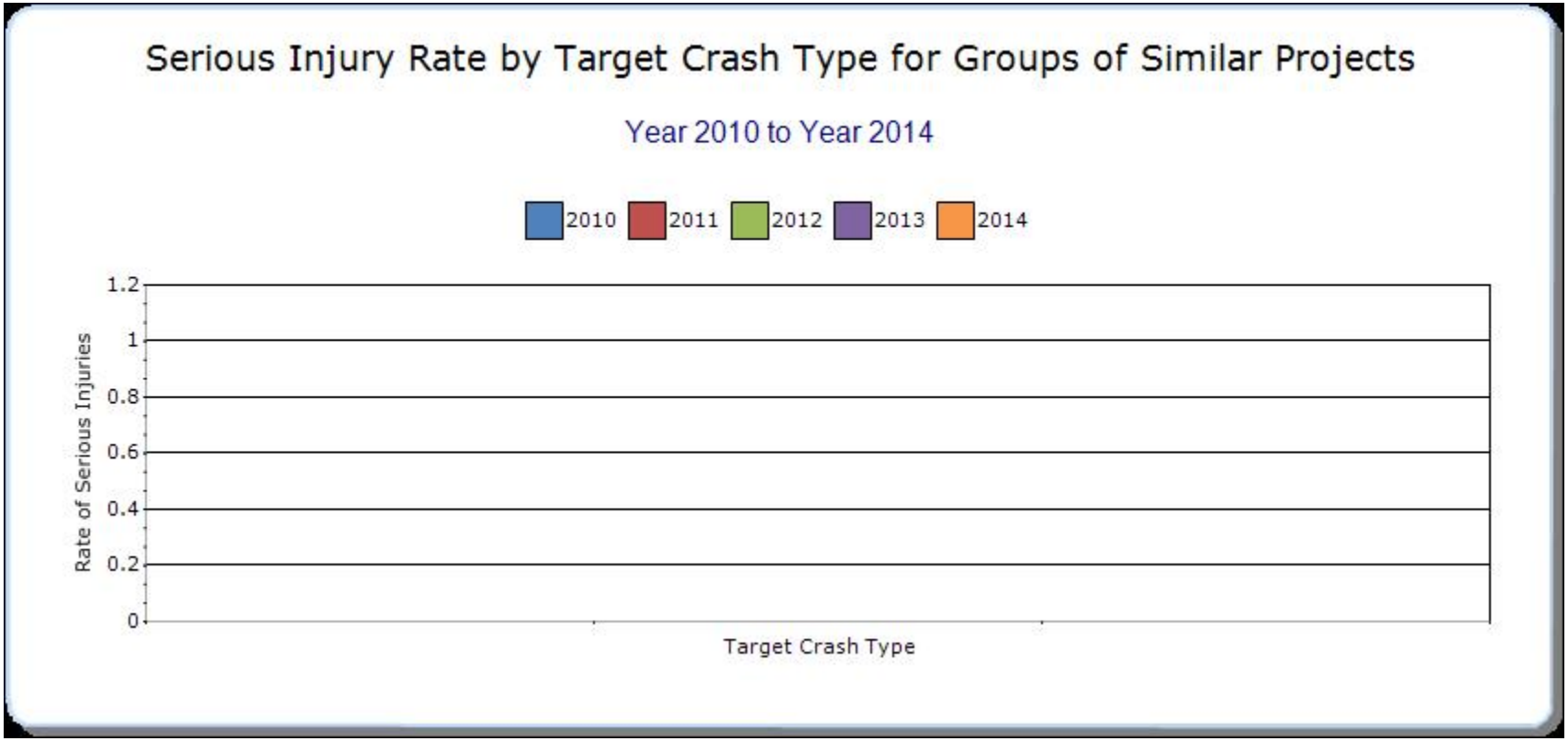
Present the overall effectiveness of groups of similar types of projects.

HSIP Sub-program Types	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3


Fatalities by Target Crash Type for Groups of Similar Projects
Year 2010 to Year 2014
2010
2011
2012
2013
2014
1.2
1
0.8
0.6
0.4
0.2
0
# of Fatalities
Target Crash Type


#Serious Injuries by Target Crash Type for Groups of Similar Projects
Year 2010 to Year 2014
2010
2011
2012
2013
2014
1.2
1
0.8
0.6
0.4
0.2
0
# of Serious Injuries
Target Crash Type


Fatality Rate by Target Crash Type for Groups of Similar Projects
Year 2010 to Year 2014
2010
2012
2012
2013
2014
1.2
1
0.8
0.6
0.4
0.2
0
Rate of Fatalities
Target Crash Type

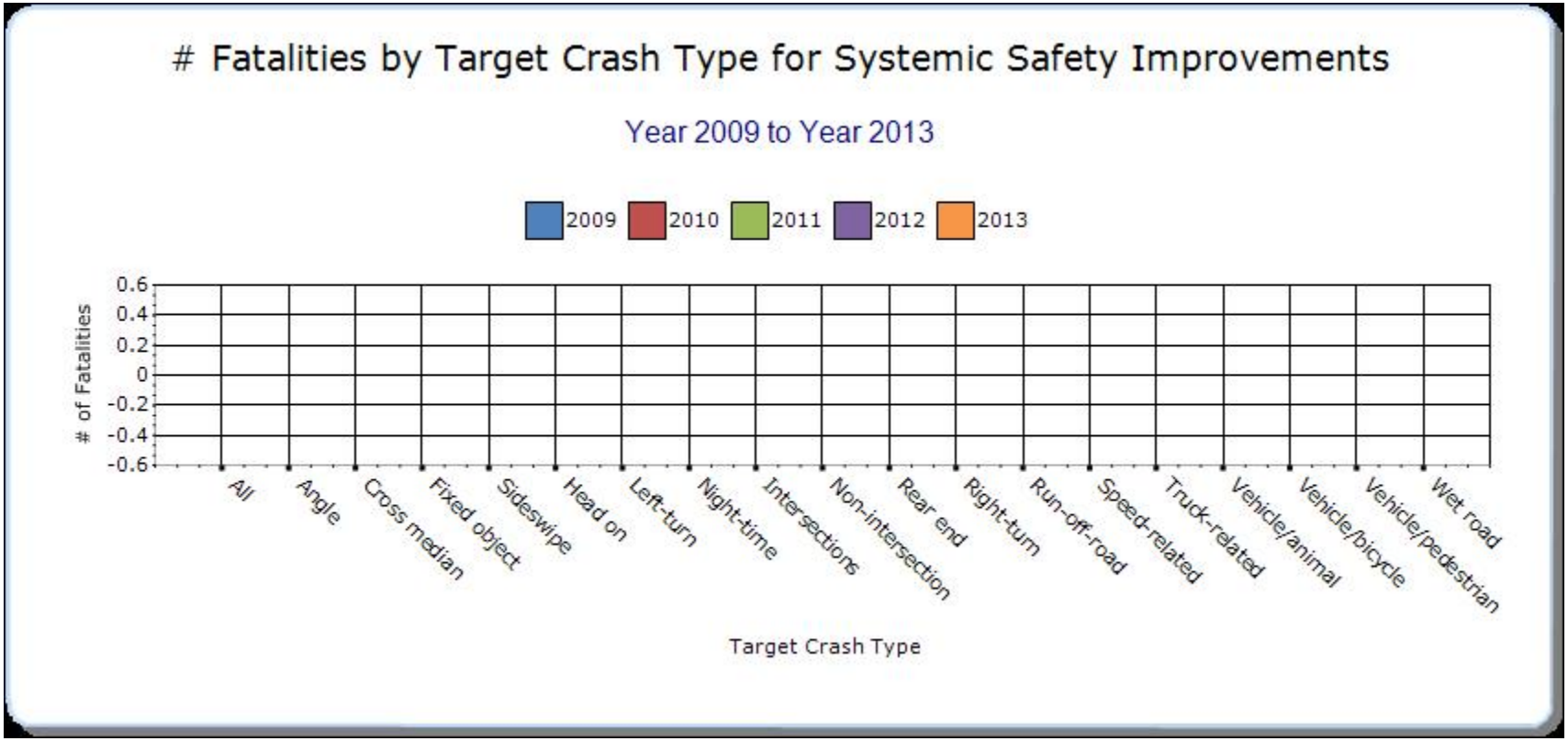

Serious Injury Rate by Target Crash Type for Groups of Similar Projects
Year 2010 to Year 2014
2010
2011
2012
2013
2014
1.2
1
0.8
0.6
0.4
0.2
0
Rate of Serious Injuries
Target Crash Type

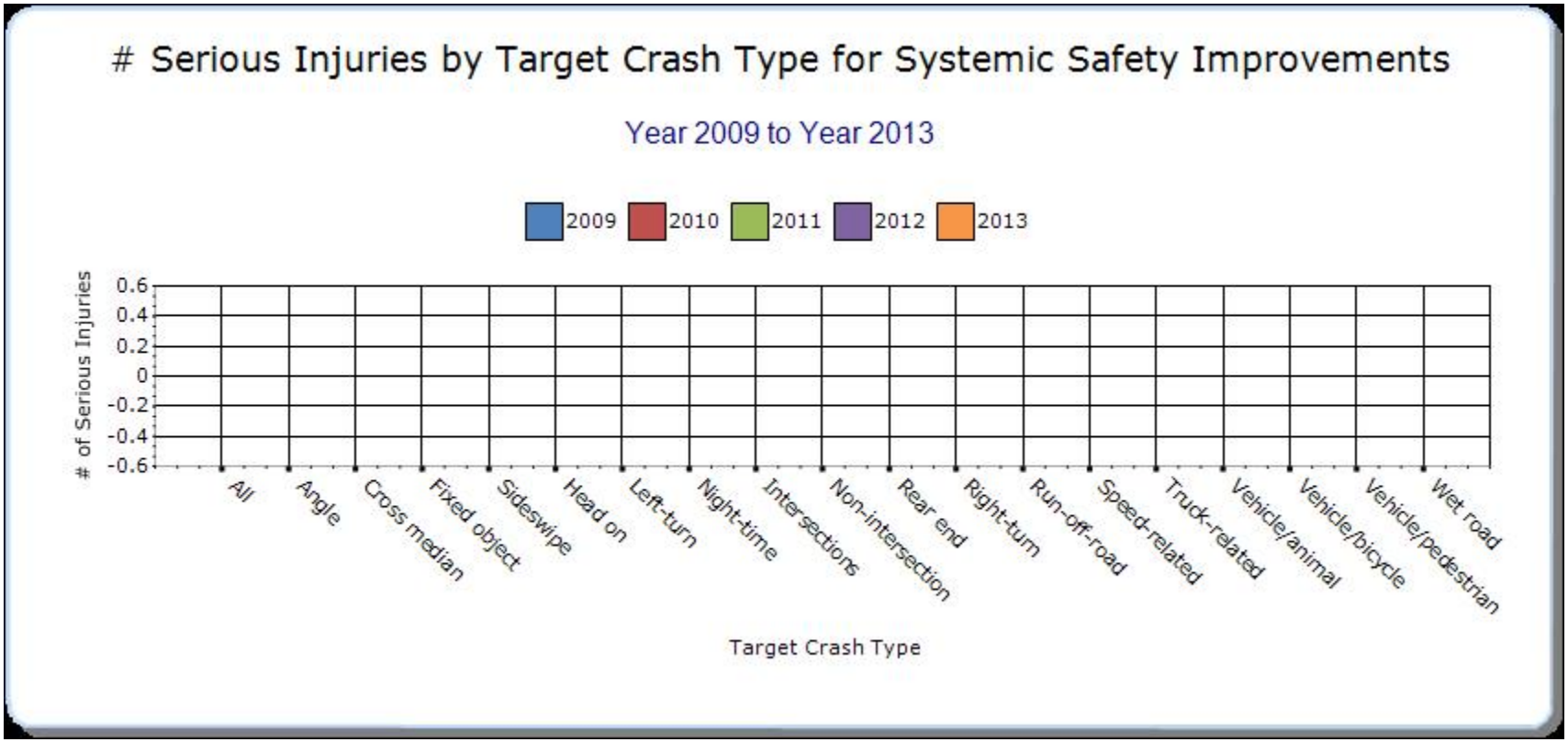
Systemic Treatments

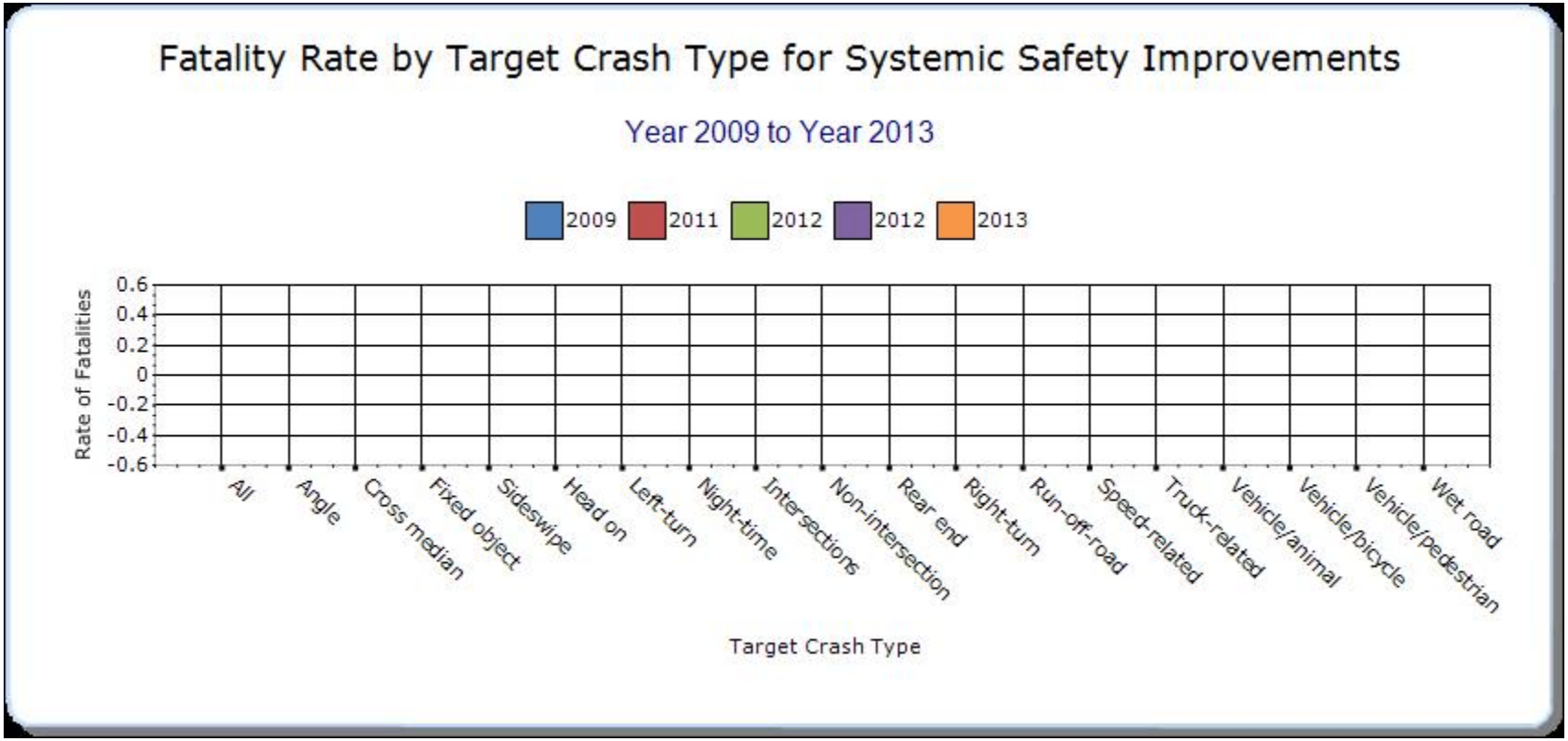
Present the overall effectiveness of systemic treatments.

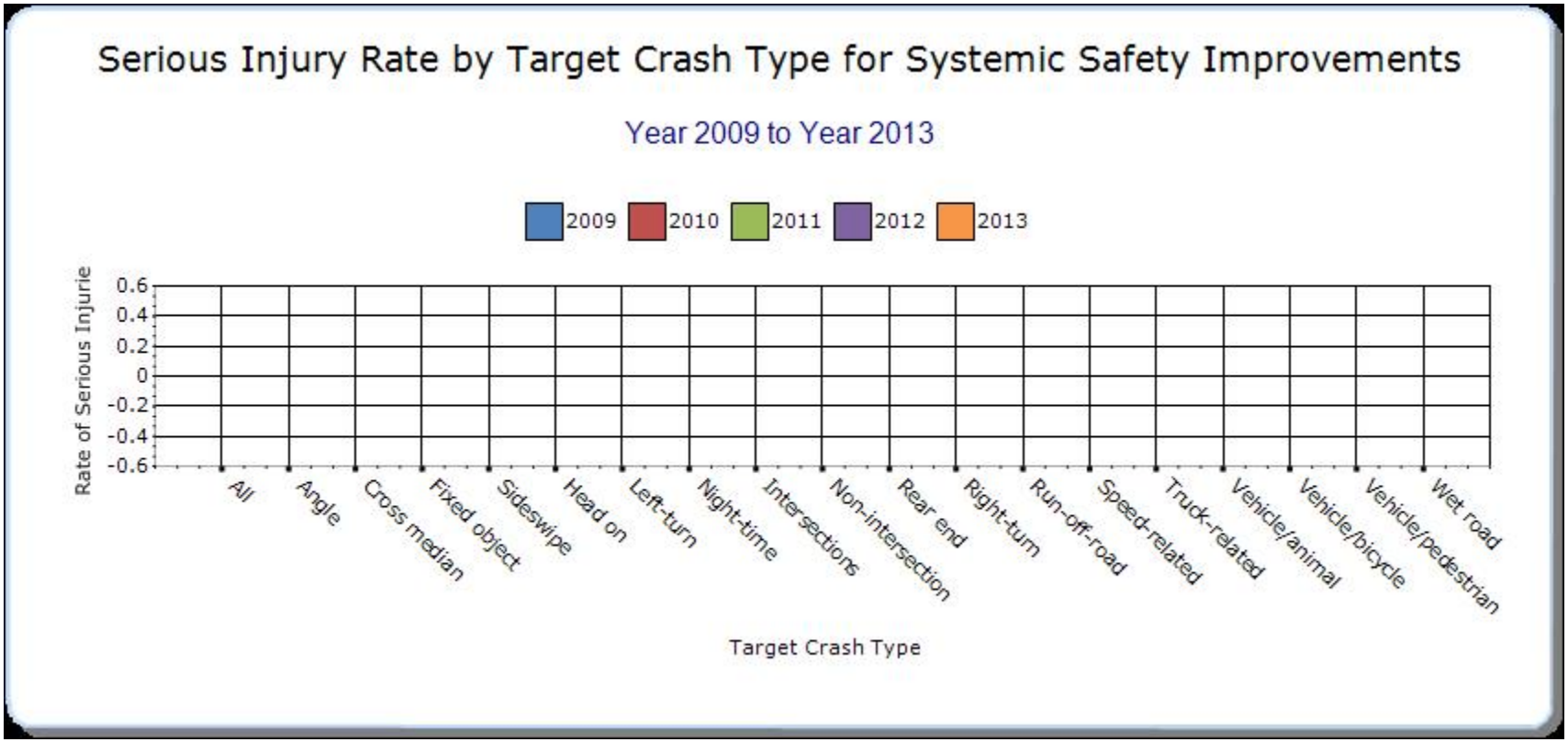
Year - 2013

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
Cable Median Barriers		7.6	12.4	0.08	0.13	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
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Serious Injuries by Target Crash Type for Systemic Safety Improvements
Year 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
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Fatality Rate by Target Crash Type for Systemic Safety Improvements
Year 2009 to Year 2013
2009
2011
2012
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
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Serious Injury Rate by Target Crash Type for Systemic Safety Improvements
Year 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
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

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

Previous implementation of cable median barrier and rumble strip projects has shown a clear reduction in fatal and serious injury crashes. Rumble strip analysis recently presented to the Highway Commission helped justify additional system-wide rumble strips projects, which are in the construction phase.

The following 2016 Targets were submitted in the 2016 Highway Safety Plan by the Arkansas State Police Highway Safety Office and were developed in coordination between ASP and AHTD. Target setting process is based on 5-year rolling average. Those targets are listed as follows: Total fatalities: 495 Total serious injuries: 3,271 Fatality rate (per 100 MVMT): 1.46 Serious injury rate (per 100 MVMT): 10.36

Project Evaluation

Provide project evaluation data for completed projects (optional).

Location	Functional Class	Improvement Category	Improvement Type	Bef-Fatal	Bef-Serious Injury	Bef-All Injuries	Bef-PDO	Bef-Total	Aft-Fatal	Aft-Serious Injury	Aft-All Injuries	Aft-PDO	Aft-Total	Evaluation Results (Benefit/ Cost Ratio)
Interstate 55, Section 11, Log Mile 8.75 to Log Mile 12.62	Urban Principal Arterial - Interstate	Roadside	Barrier - cable	2	7	40	28	77	0	2	19	73	94	7.15
Interstate 55. Section 11, Log Mile 12.75 to Log mile 23.43	Urban Principal Arterial - Interstate	Roadside	Barrier - cable	1	7	37	57	102	0	7	22	81	110	2.33

Optional Attachments

Sections	Files Attached
Progress in Implementing Projects: General Listing of Projects	HSIP 2015_General Listing of Projects Table.docx

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.