Highway Safety Improvement Program

Data Driven Decisions

Missouri
Highway Safety Improvement Program
2014 Annual Report

Prepared by: MO

Disclaimer

Protection of Data from Discovery & Admission into Evidence

23 U.S.C. 148(h)(4) states "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section [HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data."

23 U.S.C. 409 states "Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data."

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Executive Summary

The Missouri Coalition for Roadway Safety and the Missouri Department of Transportation (MoDOT) are dedicated to improving safety of the motoring public through education, engineering, enforcement and emergency medical services initiatives. Safety is one of the Department's core values: "Be Safe." This message is also reinforced in the Department's Practical Design Guide that states, "Safety will not be compromised. Every project we do will make the facility safer after its completion." Additionally, "keeping our customers and ourselves safe" is a MoDOT Tangible Result.

In October 2012, Missouri introduced the updated Strategic Highway Safety Plan (SHSP) and established a highway safety goal of 700 or fewer fatalities by 2016. *Missouri's Blueprint to Save More Lives* guides the State's safety initiatives and addresses safety from a comprehensive standpoint including engineering, enforcement, education, emergency medical services, technology and public policy solutions. The Blueprint focuses on implementing strategies that will reduce both fatal and serious injuries on Missouri roadways. The Blueprint and the statewide fatality goal are considered in the development and implementation of each of the Department's highway safety plans.

Evidenced-based decision-making is paramount to a sound safety program. Data analysis is a critical part of identifying overrepresented crash types, locations, driver age, driver gender, and driver behaviors. These findings guide the deployment of effective and appropriate strategies to improve safety on the entire system. Efforts are made to analyze fatal and serious injury crashes to help discern where limited safety funding should be applied so that maximum safety improvements are attained.

Since 2005, Missouri has experienced a steady decline in both fatalities and serious injuries each year for six consecutive years. During that time, fatalities decreased by 40 percent (1,257 in 2005 to 757 in 2013) and serious injuries decreased by 36 percent (8,621 in 2005 to 5,506 in 2012). While crash data is still not complete for 2013 (including the serious injury crashes), the end of year fatalities in 2013 decreased to 757 (500 less than in 2005).

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

If District, how are the HSIP funds allocated?

☒ Formula

☐ Crash Data

☐ Population

☐ Other

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

Our local roads are included in the crash data system analysis. We evaluate all roadways in the state and place emphasis on severe crashes. This analysis is performed for both intersections and non-intersection locations. To date we have used an analysis method, which places weight on the severe crashes and locations that have experienced a higher frequency of severe crashes and are often those that will find their way on our top priority lists. While most of the locations to date have been on the state system roadways, we have recently seen a few of the local roads locations make these high priority lists. While we continue to believe that the majority of the problem locations will be state system locations, we have evaluated non-state system severe crash locations and have determined that 50% of our non-state system fatalities are in 5 counties. Efforts are currently underway to address this finding as a consultant has been retained to provide detailed local roadway analysis for the top counties (currently Jackson and Jefferson Counties are complete). A Local SHSP has been developed for these counties, which identifies systemic countermeasures and high priority projects. It is our goal also to begin using Safety Analyst to better analyze and identify the safety needs of Missouri roadways. To date we have communicated the problem locations to the planning entities like our Metropolitan Planning Organizations and Regional Planning Commissions. We also work with our LTAP center to continue to move safety forward in our state. Additionally, we have used the RSA process to better address local road issues on occasion, we have a Transportation Engineering Assistance Program (TEAP) to assist locals, and we also have a subcommittee from our SHSP that focuses on infrastructure improvement opportunities for local roads.

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.

MoDOT has focused for some time on system-wide safety solutions. We have worked with our Design Division to address our Engineering Policy, we have worked with our Operations and Maintenance staff to improve the roadsides, we have worked with the Planning staff to better evaluate and select safety needs for improvements. We have also worked with the previously mentioned internal partners on the training and use of the Highway Safety Manual (HSM). Additionally, we work daily with the Highway Safety office to evaluate and monitor the crash types. It is vital that all areas in our department work together and focus on safety improvements. We have begun efforts to improve our safety situation on the local roads and are currently developing local SHSPs for our top counties. We are also working with our Design Division to administer safety projects that may originate as a result of the local SHSPs.

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

☒Metropolitan Planning Organizations

☒Governors Highway Safety Office

☒Local Government Association

☒Other: Other-Law Enforcement

☒Other: Other-Emergency services, Department of Revenue, Universities, etc.

☒Other: Other-Federal Highway Administration

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-High need systemic initiatives have been identified and information provided to districts.

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

Safety initiatives continue to be driven by the State SHSP. The State SHSP includes numerous safety initiatives that are data driven.

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: **9/27/2002**

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
☒ All crashes	☐ Traffic	☐ Median width
☐ Fatal crashes only	☒ Volume	☒ Horizontal curvature

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

What project identification methodology was used for this program?

☒ Crash frequency

☐ Expected crash frequency with EB adjustment

☐ Equivalent property damage only (EPDO Crash frequency)

☐ EPDO crash frequency with EB adjustment

☐ Relative severity index

☐ Crash rate

☐ Critical rate

☐ Level of service of safety (LOSS)

☐ Excess expected crash frequency using SPFs

☐ Excess expected crash frequency with the EB adjustment

☐ Excess expected crash frequency using method of moments

☐ Probability of specific crash types

☒ Excess proportions of specific crash types

☐ Other

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

☒ Yes

☐ No

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-Systemic evaluation

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

☒Systemic safety initiative 1

Program: **Intersection**

Date of Program Methodology: **1/21/2009**

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
☒ All crashes	☐ Traffic	☐ Median width
☐ Fatal crashes only	☒ Volume	☐ Horizontal curvature
☒ Fatal and serious injury crashes only	☐ Population	☐ Functional classification
☐ Other	☐ Lane miles	☐ Roadside features
	☐ Other	☐ Other

What project identification methodology was used for this program?

☒ Crash frequency

☐ Expected crash frequency with EB adjustment

☐ Equivalent property damage only (EPDO Crash frequency)

☐ EPDO crash frequency with EB adjustment

☐ Relative severity index

☐ Crash rate

☐ Critical rate

☐ Level of service of safety (LOSS)

☐ Excess expected crash frequency using SPFs

☐ Excess expected crash frequency with the EB adjustment

☐ Excess expected crash frequency using method of moments

☐ Probability of specific crash types

☒ Excess proportions of specific crash types

☐ Other

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

☒Yes

☐No

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-Systemic evaluation

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

☒Systemic safety initiative 1

Program: **Horizontal Curve**

Date of Program Methodology: **2/8/2013**

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

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-Systemic evaluation

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

☒ Systemic safety initiative 1

Program: **Skid Hazard**

Date of Program Methodology: **2/8/2013**

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

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-Systemic evaluation

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

☒Systemic safety initiative 1

Program: **Roadway Departure**

Date of Program Methodology: **10/1/2004**

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
☒All crashes	☐Traffic	☐Median width
☐Fatal crashes only	☒Volume	☐Horizontal curvature
☒Fatal and serious injury crashes only	☐Population	☐Functional classification
☐Other	☐Lane miles	☐Roadside features
	☐Other	☐Other

What project identification methodology was used for this program?

☒Crash frequency

☐ Expected crash frequency with EB adjustment

☐ Equivalent property damage only (EPDO Crash frequency)

☐ EPDO crash frequency with EB adjustment

☐ Relative severity index

☐ Crash rate

☐ Critical rate

☐ Level of service of safety (LOSS)

☐ Excess expected crash frequency using SPFs

☐ Excess expected crash frequency with the EB adjustment

☐ Excess expected crash frequency using method of moments

☐ Probability of specific crash types

☒ Excess proportions of specific crash types

☐ Other

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

☒ Yes

☐ No

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-Systemic evaluation

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
- ☒ Systemic safety initiative 1

Program: **Local Safety**

Date of Program Methodology: **2/8/2013**

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

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-Systemic evaluation

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
- ☒ Systemic safety initiatives 1

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

80

Highway safety improvment program funds are used to address which of the following systemic

improvments?

- ☒ 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 Other-Intersection improvments, wrong-way driving countermeasures, high friction surface treatments, and local safety initiatives. Other initiatives implemented due to policy change.

What process is used to identify potential countermeasures?

- ☒ Engineering Study
- ☒ Road Safety Assessment
- ☒ Other: Other-Enforcement and other stakeholders input.
- ☒ Other: Other-Peer Exchange - lessons learned

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-Similar program methodology practices to last reporting period

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

MoDOT uses a systemic approach to safety project implementation. The top crash types have been determined and focus strategies have been identified for implementation for each district. The strategies are listed in our Engineering Policy Guide located at:
http://epg.modot.org/index.php?title=907.1_Safety_Program_Guidelines

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)	11005000	18 %	22316000	31 %
HRRRP (SAFETEA-LU)	1328000	2 %	712000	1 %
HRRR Special Rule				
Penalty Transfer - Section 154	26517000	43 %	42057000	58 %
Penalty Transfer – Section 164	17224000	28 %	4586000	6 %
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)	4780000	8 %	2220000	3 %
State and Local Funds	1139000	2 %	579000	1 %

Totals	61993000	100%	72470000	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?

0 %

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

0 %

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

0 %

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

0 %

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

The largest impediment to fully obligating HSIP funding at MoDOT relates to overall transportation funding. Due to limited state funding, this is creating an issue with fully programming the HSIP funding on safety projects. This practice is then causing a growth in unobligated HSIP funding.

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

MoDOT has identified numerous safety initiatives that can help reduce the unnecessary deaths on Missouri highways. MoDOT is also looking at opportunities to fund necessary safety efforts at the local level.

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
Holt US 59 - Relocate intersection of County Road 147, 1.1 miles east of IS 29 near Craig (Safe and Sound funds).	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	1 Numbers	161000	179000	HSIP (Section 148)	Rural Major Collector	669	55	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions
Macon US 63 - Intersection improvements at RT M at Atlanta.	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	1 Numbers	642000	696000	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and Expressways	3078	65	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions

Randolph US 63 - Intersection improvements at RT B / P in Clark.	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	1 Numbers	757000	825000	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and Expressways	6581	65	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions
Randolph US 63 - Intersection improvements at RT K / Z in Cairo.	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	1 Numbers	234000	259000	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and Expressways	4540	65	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions
Safety improvements on MO 47 from 1.4 miles south of Rte. CC to 0.7 mile north of Rte. N near Warrenton. Area is commonly	Roadway Rumble strips - edge or shoulder	1 Miles	2375000	3015000	HSIP (Section 148)	Rural Minor Arterial	2481	55	State Highway Agency	Lane Departure	Improve Roadway, wider shoulders, install rumbles strips

known as Hopewell Hill.											
Clay, MO33, Addition of shoulders, pavement and pedestrian improvements from Rte PP to US69	Roadway Rumble strips - edge or shoulder	13 Miles	2244000	2488000	HSIP (Section 148)	Urban Minor Arterial	4612	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Jackson, MO150, Shoulder addition, pavement and guardrail improvements from MO291 to Rte E	Roadway Rumble strips - edge or shoulder	12 Miles	1229000	1363000	HSIP (Section 148)	Urban Principal Arterial - Other	3376	60	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Johnson, US50 & MO58, Change	Intersection geometry Intersection geometry - other	1 Numbers	1169000	1280000	HSIP (Section 148)	Rural Principal Arterial - Other	7459	65	State Highway Agency	Intersections	Increase the use of Innovative

crossover intersection to J-Turn											Intersection Solutions
Pettis, MO52, Addition of shoulder and pavement improvements from Henry Co Line to US65	Roadway Rumble strips - edge or shoulder	13 Miles	392000	1637000	Penalty Transfer – Section 164	Rural Minor Arterial	1582	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Saline, Route C, Pavement improvements from Rte. O to Rte. 240 and Rte. 240 from Rte. 41 to the Missouri River Bridge. Rte. 240	Roadway Rumble strips - edge or shoulder	1 Miles	700000	700000	Penalty Transfer – Section 164	Rural Major Collector	874	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes

improvements include the addition of shoulders											
Cass, Route D, Addition of shoulders from MO58 to Route Y	Roadway Rumble strips - edge or shoulder	10 Miles	791000	791000	Penalty Transfer - Section 154	Urban Minor Arterial	3728	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Cass, Route YY, Addition of shoulders and pavement improvements from Route Y to Route C	Roadway Rumble strips - edge or shoulder	4 Miles	746000	778000	Penalty Transfer – Section 164	Rural Major Collector	6536	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Boone US 63 - Safety improvements at various median	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	8 Miles	1390000	1527000	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and	16533	70	State Highway Agency	Intersections	Increase the use of Innovative Intersection

crossovers from the Rte. 124 north intersection to Rte. 763.						Expressways					Solutions
Boone US 63 - Safety improvements from Rte. Y to south of Peterson Lane at Ashland. Let in combination with 5P3008.	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	1 Miles	2434000	2434000	Penalty Transfer - Section 154	Rural Principal Arterial - Other Freeways and Expressways	21499	70	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions
callaway US 54 - Safety improvements from west of Rte. FF to east of County Road 148.	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	1 Miles	1702000	1884000	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and Expressways	8959	45	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions

Camden US 54 - Safety improvements at Key Largo Road and Osage Beach Parkway. $99,318 Osage Beach funds.	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	1 Miles	379000	484000	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and Expressways	19762	60	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions
Cole US 54 - High friction surface treatment on the eastbound and westbound lanes near Madison Street in Jefferson City. $50,000 Highways for LIFE	Roadway Pavement surface - high friction surface	1 Miles	63000	97000	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and Expressways	24490	60	State Highway Agency	Roadway Departure	High Friction Surface Treatment on Curves

funds.											
Dent MO 19 - Pavement and shoulder improvements from Salem to Rte. KK in Shannon County. $1,179,000 SFY 2016 Open Container funds.	Roadway Rumble strips - edge or shoulder	17 Miles	1267000	2717000	Penalty Transfer - Section 154	Rural Minor Arterial	1547	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Gasconade MO 19 - Pavement and shoulder improvements from Hermann to Drake. $834,000 Repeat Offender	Roadway Rumble strips - edge or shoulder	18 Miles	816000	2387000	Penalty Transfer - Section 154	Rural Minor Arterial	1960	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes

funds.											
Laclede MO 64 - Pavement and shoulder improvements from Bennett Springs to Rte. 5. $34,000 High Risk Rural Roads funds.	Roadway Rumble strips - edge or shoulder	12 Miles	907000	1404000	HSIP (Section 148)	Rural Major Collector	2969	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Miller MO 17 - Pavement and shoulder improvements from Rte. 52 north junction to Iberia. $747,000 Repeat	Roadway Rumble strips - edge or shoulder	13 Miles	1485000	2591000	Penalty Transfer - Section 154	Rural Minor Arterial	1754	33	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes

Offender funds and $381,000 Open Container funds.											
Miller MO 52 - Pavement and shoulder improvements from Rte. 54 to Rte. 17. $712,000 Repeat Offender funds.	Roadway Rumble strips - edge or shoulder	10 Miles	740000	1342000	Penalty Transfer - Section 154	Rural Minor Arterial	1929	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Phelps IS 44 - Safety improvements on the eastbound lanes near Rte. J and Rte. V. $50,000 Highways	Roadway Pavement surface - high friction surface	1 Miles	497000	609000	HSIP (Section 148)	Rural Principal Arterial - Interstate	25078	70	State Highway Agency	Roadway Departure	High Friction Surface Treatment on Curves

for LIFE funds.											
Phelps RT D - Grading, paving and curve improvements near the BNSF Railroad.	Roadway Roadway widening - curve	2 Miles	1025000	1149000	HSIP (Section 148)	Rural Major Collector	1514	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
Washington MO 47 - Pavement and shoulder improvements from Franklin County to Rte. 21. $418,000 Open Container and $509,000 District Safety funds for	Roadway Rumble strips - edge or shoulder	11 Miles	985000	1773000	HSIP (Section 148)	Rural Minor Arterial	1629	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes

shoulders.											
Pavement, shoulders and curve improvements from MO 30 to Washington County line ($1,720,000 Repeat Offender and $832,000 Open Container funds - 6P3019).	Roadway Rumble strips - edge or shoulder	9 Miles	2515000	2576000	Penalty Transfer - Section 154	Rural Minor Arterial	2780	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips
Pavement, shoulder and curve improvements from MO 100 to MO 47 ($1,462,000 Repeat Offender	Roadway Rumble strips - edge or shoulder	7 Miles	1578000	2577000	Penalty Transfer - Section 154	Urban Minor Arterial	5099	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips

and $967,000 Open Container funds - 6S2194).											
Pavement, shoulders, and curve improvements from MO 30 to MO 21 ($2,076,000 Repeat Offender, $1,065,000 Open Container, and $160,000 Cedar Hill STP-U funds - 6S3019).	Roadway Rumble strips - edge or shoulder	11 Miles	4124000	4369000	Penalty Transfer – Section 164	Rural Major Collector	4306	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips
Pavement, shoulders and curve improveme	Roadway Rumble strips - edge or shoulder	5 Miles	1850000	4000000	Penalty Transfer - Section	Rural Major Collector	1674	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders

nts from MO 109 to RT F ($1,351,000 Open Container funds - 6S3011).					154						, install rumbles strips
Intersection improvements at MO 30 / RT MM / RT W, relocate Dulin Creek Road intersection to the east, and construct a new connection to MO 30 at Raetta/Wild Cherry Road.	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	0.14 Miles	0	2220000	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	15525	55	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions
Pavement, shoulder	Roadway Rumble strips -	6	14470	272600	Penalty Transfe	Rural Minor	419	55	State Highway	Roadway Departur	Improve Roadway,

and curve improvements from east of I-55 to Rte. A. $876,000 Repeat Offender and $367,000 Open Container funds (3S2009L).	edge or shoulder	Miles	00	0	r - Section 154	Arterial	9		Agency	e	wider shoulders, install rumbles strips
Pavement, shoulder, and curve improvements from Rte. Z to Sommers Road. $841,000 Repeat Offender and $1,768,000 Open Container funds	Roadway Rumble strips - edge or shoulder	5 Miles	1797000	2435000	Penalty Transfer - Section 154	Urban Minor Arterial	7326	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips

(6S2328).											
Shoulder and curve improvements from Rte. T to Rte. Z. $584,000 High Risk Rural Roads and $1,324,000 Open Container funds (6S3028).	Roadway Rumble strips - edge or shoulder	6 Miles	2349000	3983000	Penalty Transfer - Section 154	Urban Minor Arterial	6951	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips
MO 7 Pavement improvements on various sections from US 65 to Camden County (5P2211).	Roadway Rumble strips - edge or shoulder	16 Miles	1116000	2402000	HSIP (Section 148)	Rural Principal Arterial - Other	2795	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 125 Pavement	Roadway Rumble strips - edge or shoulder	2 Miles	158000	454000	Penalty Transfe	Rural Major	1128	55	State Highway	Roadway Departur	Increase the miles

and safety improvements on various sections from the Ozarks Transportation Organization boundary to Rte. 14. (7S3027)					r - Section 154	Collector			Agency	e	of shoulders and rumble stripes
MO 125 Safety improvements on various sections between Smyrna Road and the Ozarks Transportation Organization boundary. (8P2292)	Roadway Rumble strips - edge or shoulder	1 Miles	269000	272000	Penalty Transfer - Section 154	Rural Major Collector	1128	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes

MO 14 Pavement improvements on various sections from Rte. M (Nicholas Road) in Nixa to Rte. W in Ozark. (8P3000)	Roadway Rumble strips - edge or shoulder	11 Miles	174000	1487000	Penalty Transfer - Section 154	Urban Principal Arterial - Other	8245	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 14 Safety improvements 0.8 mile west of Nixa. (8S2414)	Roadway Rumble strips - edge or shoulder	1 Miles	267000	267000	Penalty Transfer – Section 164	Rural Minor Arterial	2093	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 14 Safety improvements 1 mile east of Rte. N. (8S2416)	Roadway Rumble strips - edge or shoulder	1 Miles	239000	239000	Penalty Transfer – Section 164	Rural Minor Arterial	2093	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 14 Pavement	Roadway Rumble strips -	1	40000	179000	Penalty Transfe	Rural Minor	209	55	State Highway	Roadway Departur	Increase the miles

improvements on various sections from 1.6 miles west of Rte. M to 0.2 mile west of Rte. M in Nixa. (8S2443)	edge or shoulder	Miles			r - Section 154	Arterial	3		Agency	e	of shoulders and rumble stripes
RT ZZ Pavement improvements on various sections from County Road 194 to Rte. 14. (8S2277)	Roadway Rumble strips - edge or shoulder	6 Miles	211000	512000	HRRRP (SAFETEA-LU)	Rural Major Collector	3621	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 32 Pavement improvements on various sections from east of	Roadway Rumble strips - edge or shoulder	9 Miles	383000	984000	Penalty Transfer - Section 154	Rural Minor Arterial	2062	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble

Rte. 65 to Rte. P. (8S2465)											stripes
MO 64 Safety improvements on various sections from Rte. 65 to Rte. 64A. (7P3022)	Roadway Rumble strips - edge or shoulder	19 Miles	923000	953000	Penalty Transfer - Section 154	Rural Major Collector	678	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 125 Pavement improvements on various sections from Ozarks Transportation Organization boundary to I-44 in Strafford. (8S1300C)	Roadway Rumble strips - edge or shoulder	4 Miles	147000	388000	Penalty Transfer - Section 154	Rural Major Collector	1354	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes

MO 125 Intersection improvements at Washington Ave. in Stafford (8S2426).	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	1 Numbers	532000	591000	HSIP (Section 148)	Urban Minor Arterial	7442	30	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions
MO 125 Pavement improvements on various sections from east of Rte. 65 in Fair Grove to the Ozarks Transportation Organization boundary. (8S2465B)	Roadway Rumble strips - edge or shoulder	5 Miles	192000	511000	Penalty Transfer - Section 154	Rural Major Collector	2372	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 125 Pavement and safety	Roadway Rumble strips - edge or shoulder	5 Miles	232000	594000	HSIP (Sectio	Rural Major	1690	55	State Highway	Roadway Departur	Increase the miles of

improvements on various sections from Rte. 60 to Smyrna Road. (8S3028)					n 148)	Collector			Agency	e	shoulders and rumble stripes
MO 744 Safety improvements on Kearney Street at Mustard Way and Mulroy Road in Springfield. (8S2449)	Roadway Rumble strips - edge or shoulder	1 Miles	722000	798000	HSIP (Section 148)	Urban Principal Arterial - Other Freeways and Expressways	5959	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
RT M Intersection safety improvements at County Road 107 near	Alignment Vertical alignment or elevation change	0.1 Miles	0	150000	State and Local Funds	Rural Minor Arterial	2743	55	State Highway Agency	Intersections	Increase the use of Innovative Intersection Solutions

Republic. (8S3037)											
RT OO Pavement improvements on various sections from Rte. 744 (Mulroy Road) to 0.2 mi. east of County Road 249. (8P2265)	Roadway Rumble strips - edge or shoulder	6 Miles	250000	827000	Penalty Transfer - Section 154	Rural Minor Collector	3868	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
RT OO Pavement improvements on various sections from 1 mile west of Paradise Road to Rte. B in Northview.	Roadway Rumble strips - edge or shoulder	5 Miles	209000	622000	Penalty Transfer - Section 154	Rural Major Collector	1880	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes

(8S2340)											
RT ZZ Pavement improvements on various sections from south of Rte. M to County Road 194. (8S1300B)	Roadway Rumble strips - edge or shoulder	3 Miles	54000	333000	Penalty Transfer - Section 154	Rural Major Collector	3621	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 14 Pavement improvements on various sections from Rte. 60 in Marionville to 1 mile east of Rte. N. (8S2444)	Roadway Rumble strips - edge or shoulder	19 Miles	412000	1867000	HRRRP (SAFETEA-LU)	Rural Minor Arterial	3721	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 64 Safety improvements on	Roadway Rumble strips - edge or shoulder	9 Miles	426000	426000	Penalty Transfer – Section	Rural Major Collector	481	55	State Highway Agency	Roadway Departure	Increase the miles of shoulders

various sections from Rte. D in Bolivar to Rte. 65 in Louisburg. (7S3023)					164						and rumble stripes
MO 165 Replacement of nonstandard guardrail, installation of guardrail, guard cable and/or access restraint cable at Table Rock Lake Dam. (8P2289)	Roadside Barrier - other	1 Miles	203000	209000	HSIP (Section 148)	Rural Major Collector	2095	45	State Highway Agency	Roadway Departure	Engineering - Shield motorists from trees, utility poles, or other fixed objects
RT CC Intersection improvements at Cheyenne	Intersection traffic control Systemic improvements - signal-controlled	0 Miles	1400000	1545000	HSIP (Section 148)	Rural Minor Arterial	4796	45	State Highway Agency	Intersections	Increase the use of Innovative Intersection

Road in Nixa. (8S0736B)											Solutions
RT CC Roadway improvements from Cheyenne Road to Rolling Hills Road in Fremont Hills. (8S0736C)	Alignment Horizontal and vertical alignment	1 Miles	1909000	2122000	HSIP (Section 148)	Rural Minor Arterial	4796	45	State Highway Agency	Roadway Departure	Increase the miles of shoulders and rumble stripes
MO 34 - Pavement improvements from Rte. 51 in Marble Hill to Rte. 72/34 intersection. $1,832,000 SFY 2016 Open Container	Roadway Rumble strips - edge or shoulder	17 Miles	2857000	11468000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	3329	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips

funds.											
MO 21 - Pavement improvements from Rte. 60 to Rte. 160. $1,997,000 Repeat Offender funds.	Roadway Rumble strips - edge or shoulder	22 Miles	1734000	4323000	Penalty Transfer - Section 154	Rural Minor Arterial	1804	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips
MO 51 - Pavement improvements from McBride to Perryville. $352,000.00 Open Container funds.	Roadway Rumble strips - edge or shoulder	6 Miles	195000	943000	Penalty Transfer - Section 154	Rural Minor Arterial	3430	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips
MO 21 - Pavement improvements from Rte. 106 to Rte. 34. $1,932,000	Roadway Rumble strips - edge or shoulder	20 Miles	2556000	3712000	Penalty Transfer - Section 154	Rural Minor Arterial	1176	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles

Open Container funds.											strips
MO 106 - Pavement improvements from Rte. H to Rte. 21. $1,886,000 Open Container funds.	Roadway Rumble strips - edge or shoulder	19 Miles	2189000	4037000	Penalty Transfer - Section 154	Rural Minor Arterial	462	55	State Highway Agency	Roadway Departure	Improve Roadway, wider shoulders, install rumbles strips
Improve guardrail on divided highway medians at various bridge locations within the Northwest District (9P2264D).	Roadside Barrier end treatments (crash cushions, terminals)	96 Numbers	1379000	1448000	Penalty Transfer - Section 154	Rural Principal Arterial - Interstate	20000	70	State Highway Agency	Roadway Departure	Engineering - Shield motorists from trees, utility poles, or other fixed objects
Improve guardrail on divided	Roadside Barrier end treatments (crash cushions, terminals)	53 Numbers	532000	552000	Penalty Transfer -	Rural Principal Arterial -	20000	70	State Highway Agency	Roadway Departure	Engineering - Shield

highway medians at various bridge locations within the Northeast District (9P2264E).					Section 154	Interstate					motorists from trees, utility poles, or other fixed objects
Improve guardrail on divided highway medians at various bridge locations within the rural Kansas City District (9P2264F).	Roadside Barrier end treatments (crash cushions, terminals)	125 Numbers	1366000	1366000	Penalty Transfer - Section 154	Rural Principal Arterial - Interstate	20000	70	State Highway Agency	Roadway Departure	Engineering - Shield motorists from trees, utility poles, or other fixed objects
Improve guardrail on divided highway medians at various bridge	Roadside Barrier end treatments (crash cushions, terminals)	126 Numbers	1297000	1297000	Penalty Transfer - Section 154	Urban Principal Arterial - Interstate	40000	60	State Highway Agency	Roadway Departure	Engineering - Shield motorists from trees, utility

locations within the urban Kansas City District (9P2264I).											poles, or other fixed objects
Improve guardrail on divided highway medians at various bridge locations within the Central District (9P2264B).	Roadside Barrier end treatments (crash cushions, terminals)	81 Numbers	966000	966000	Penalty Transfer - Section 154	Rural Principal Arterial - Interstate	20000	70	State Highway Agency	Roadway Departure	Engineering - Shield motorists from trees, utility poles, or other fixed objects
Improve guardrail on divided highway medians at various bridge locations within the St. Louis District	Roadside Barrier end treatments (crash cushions, terminals)	167 Numbers	777000	778000	Penalty Transfer - Section 154	Urban Principal Arterial - Interstate	40000	60	State Highway Agency	Roadway Departure	Engineering - Shield motorists from trees, utility poles, or other fixed

(9P2264C).											objects
Improve guardrail on divided highway medians at various bridge locations within the rural Southwest District (9P2264G).	Roadside Barrier end treatments (crash cushions, terminals)	157 Numbers	1094000	1094000	Penalty Transfer - Section 154	Rural Principal Arterial - Interstate	20000	70	State Highway Agency	Roadway Departure	Engineering - Shield motorists from trees, utility poles, or other fixed objects
Improve guardrail on divided highway medians at various bridge locations within the urban Southwest District (9P2264J).	Roadside Barrier end treatments (crash cushions, terminals)	26 Numbers	139000	139000	Penalty Transfer - Section 154	Urban Principal Arterial - Other Freeways and Expressways	15000	60	State Highway Agency	Roadway Departure	Engineering - Shield motorists from trees, utility poles, or other fixed objects
Signing and	Intersection traffic	11	10100	101000	Penalty	Rural	100	60	State	Intersecti	Engineeri

striping improvements at various intersections in the Northwest District (9P2264K).	control Intersection signing - add enhanced advance warning (double-up and/or oversize)	Numbers	0		Transfer - Section 154	Principal Arterial - Other	00		Highway Agency	ons	ng - Improve Intersection Awareness (Stop Approach Rumble Strips, Signs, Sight Distance, Dynamic Flashing Beacons, Lighting)
Signing and striping improvements at various intersections in the Northeast District (9P2264L).	Intersection traffic control Intersection signing - add enhanced advance warning (double-up and/or oversize)	21 Numbers	164000	164000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	10000	60	State Highway Agency	Intersections	Engineering - Improve Intersection Awareness (Stop Approach Rumble Strips, Signs, Sight Distance,

											Dynamic Flashing Beacons, Lighting)
Signing and striping improvements at various intersections in the rural Kansas City District (9P2264N).	Intersection traffic control Intersection signing - add enhanced advance warning (double-up and/or oversize)	4 Numbers	61000	61000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	10000	60	State Highway Agency	Intersections	Engineering - Improve Intersection Awareness (Stop Approach Rumble Strips, Signs, Sight Distance, Dynamic Flashing Beacons, Lighting)
Signing and striping improvements at various intersections in the	Intersection traffic control Intersection signing - add enhanced advance warning (double-up and/or oversize)	10 Numbers	140000	140000	Penalty Transfer - Section 154	Rural Minor Arterial	3000	55	State Highway Agency	Intersections	Engineering - Improve Intersection Awareness (Stop

urban Kansas City District (9P2264M)											Approach Rumble Strips, Signs, Sight Distance, Dynamic Flashing Beacons, Lighting)
Signing and striping improvements at various intersections in the Central District (9P2264O).	Intersection traffic control Intersection signing - add enhanced advance warning (double-up and/or oversize)	27 Numbers	122000	122000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	10000	60	State Highway Agency	Intersections	Engineering - Improve Intersection Awareness (Stop Approach Rumble Strips, Signs, Sight Distance, Dynamic Flashing Beacons, Lighting)

Signing and striping improvements at various intersections in the St. Louis District (9P2264P).	Intersection traffic control Intersection signing - add enhanced advance warning (double-up and/or oversize)	30 Numbers	151000	151000	Penalty Transfer - Section 154	Urban Principal Arterial - Other Freeways and Expressways	15000	60	State Highway Agency	Intersections	Engineering - Improve Intersection Awareness (Stop Approach Rumble Strips, Signs, Sight Distance, Dynamic Flashing Beacons, Lighting)
Signing and striping improvements at various intersections in the rural Southwest District (9P2264R).	Intersection traffic control Intersection signing - add enhanced advance warning (double-up and/or oversize)	71 Numbers	404000	404000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	10000	60	State Highway Agency	Intersections	Engineering - Improve Intersection Awareness (Stop Approach Rumble Strips, Signs, Sight

											Distance, Dynamic Flashing Beacons, Lighting)
Signing and striping improvements at various intersections in the urban Southwest District (9P2264Q).	Intersection traffic control Intersection signing - add enhanced advance warning (double-up and/or oversize)	17 Numbers	76000	76000	Penalty Transfer - Section 154	Urban Principal Arterial - Other Freeways and Expressways	15000	60	State Highway Agency	Intersections	Engineering - Improve Intersection Awareness (Stop Approach Rumble Strips, Signs, Sight Distance, Dynamic Flashing Beacons, Lighting)
Signing and striping improvements at various intersectio	Intersection traffic control Intersection signing - add enhanced advance warning (double-up and/or	47 Numbers	113000	113000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	10000	60	State Highway Agency	Intersections	Engineering - Improve Intersection Awarenes

ns in the Southeast District (9P2264S).	oversize)										s (Stop Approach Rumble Strips, Signs, Sight Distance, Dynamic Flashing Beacons, Lighting)
On-call work zone enforcement at various locations in Northwest District.	Work Zone	1 Numbers	0	9000	State and Local Funds	Rural Principal Arterial - Other	10000	60	State Highway Agency	Work Zones	Increased Enforcement in Work Zones
On-call work zone enforcement at various locations in Northeast District.	Work Zone	1 Numbers	0	40000	State and Local Funds	Rural Principal Arterial - Other	10000	60	State Highway Agency	Work Zones	Increased Enforcement in Work Zones
On-call work zone enforcemen	Work Zone	1 Numb	0	10000	State and Local	Rural Principal Arterial -	20000	70	State Highway	Work Zones	Increased Enforcement in

t in the rural Kansas City District.		ers			Funds	Interstate			Agency		Work Zones
On-call work zone enforcement in the urban Kansas City District.	Work Zone	1 Numbers	0	150000	State and Local Funds	Urban Principal Arterial - Interstate	40000	60	State Highway Agency	Work Zones	Increased Enforcement in Work Zones
On-call work zone enforcement at various locations in the Central District.	Work Zone	1 Numbers	0	20000	State and Local Funds	Rural Principal Arterial - Other	10000	60	State Highway Agency	Work Zones	Increased Enforcement in Work Zones
On-call work zone enforcement at various routes in the St. Louis District.	Work Zone	1 Numbers	0	75000	State and Local Funds	Rural Principal Arterial - Other	10000	60	State Highway Agency	Work Zones	Increased Enforcement in Work Zones
On-call work zone	Work Zone	1 Numb	0	50000	State and	Rural Principal	100	60	State Highway	Work	Increased Enforcem

enforcement in the rural Southwest District.		ers			Local Funds	Arterial - Other	00		Agency	Zones	ent in Work Zones
On-call work zone enforcement in the urban Southwest District.	Work Zone	1 Numbers	0	50000	State and Local Funds	Urban Principal Arterial - Other	10000	60	State Highway Agency	Work Zones	Increased Enforcement in Work Zones
On-call work zone enforcement at various locations in Southeast District.	Work Zone	1 Numbers	0	25000	State and Local Funds	Rural Principal Arterial - Other	10000	60	State Highway Agency	Work Zones	Increased Enforcement in Work Zones

Progress in Achieving Safety Performance Targets

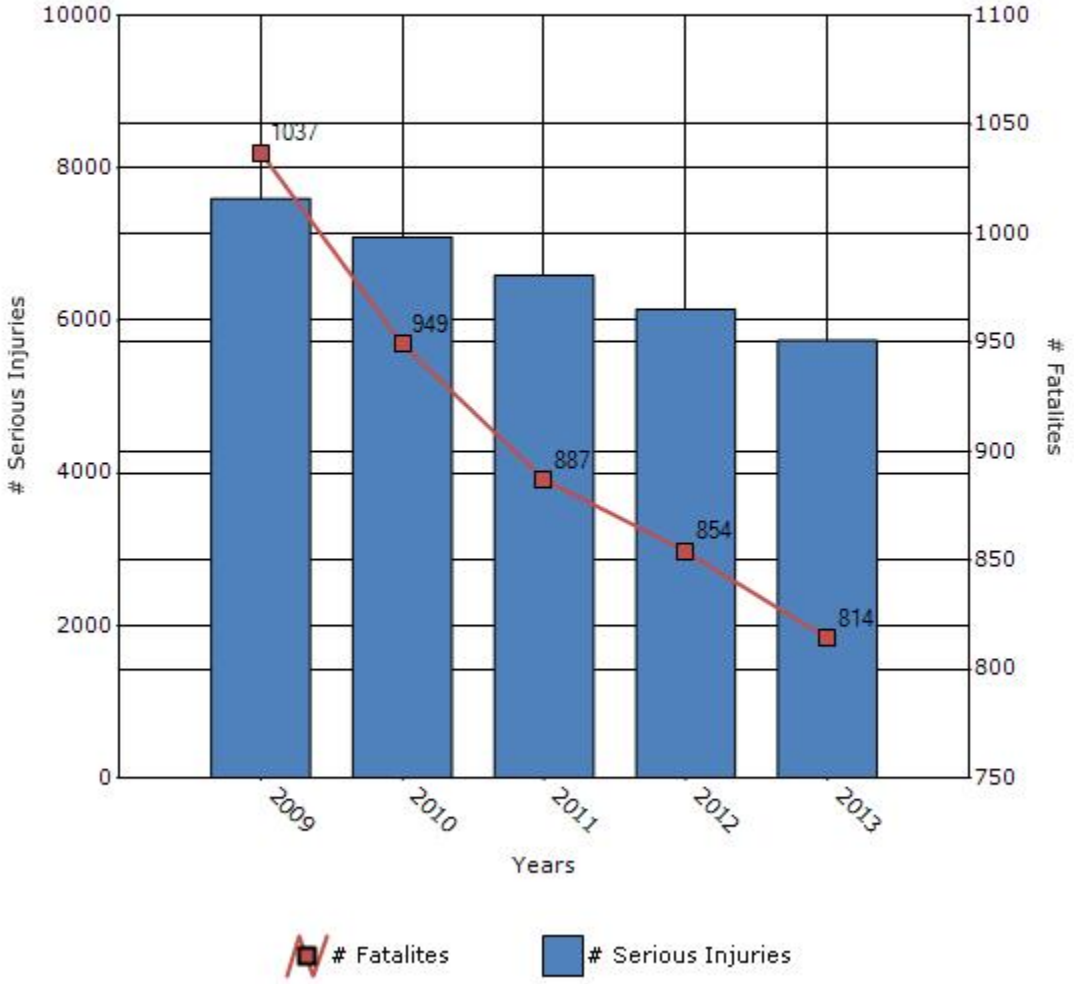
Overview of General Safety Trends

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

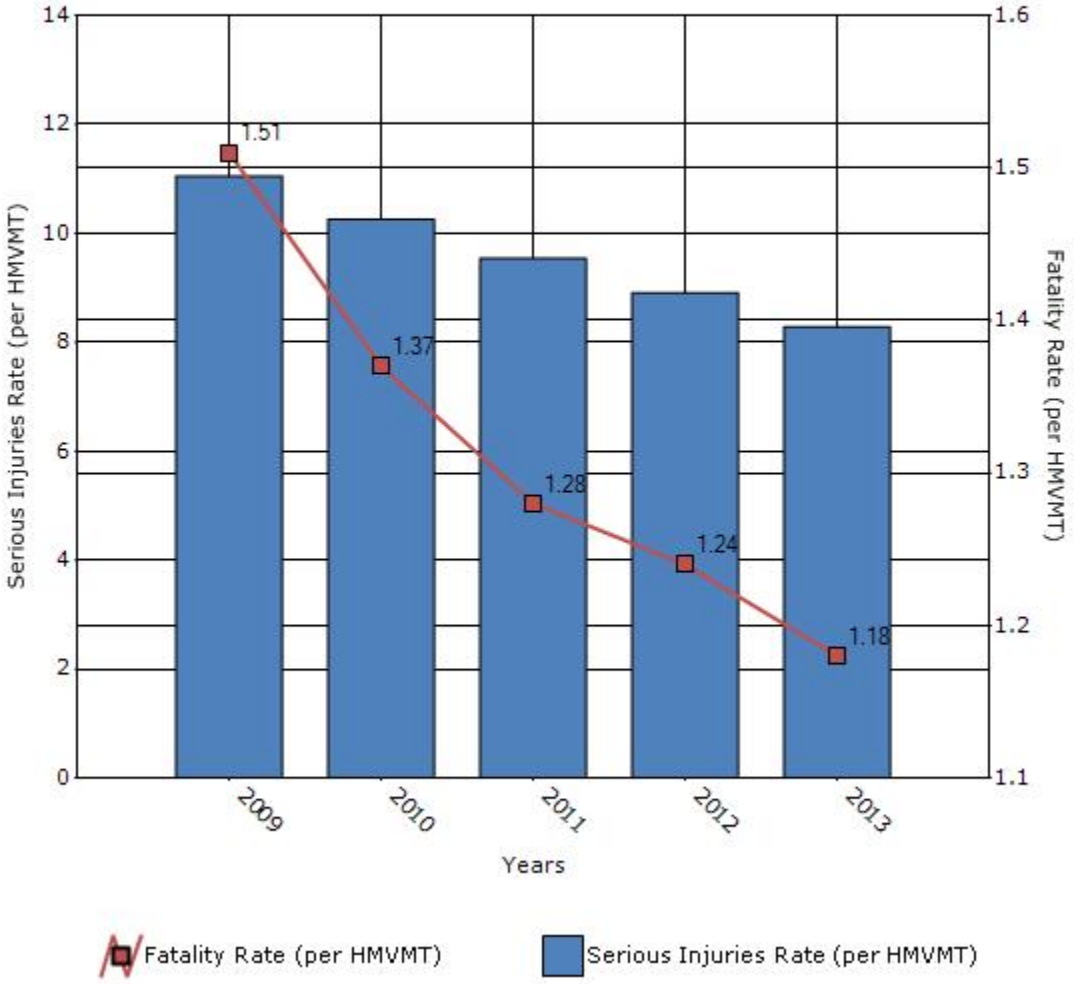
Performance Measures*	2009	2010	2011	2012	2013
Number of fatalities	1037	949	887	854	814
Number of serious injuries	7598	7092	6591	6143	5735
Fatality rate (per HMVMT)	1.51	1.37	1.28	1.24	1.18
Serious injury rate (per HMVMT)	11.05	10.26	9.54	8.91	8.28

*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

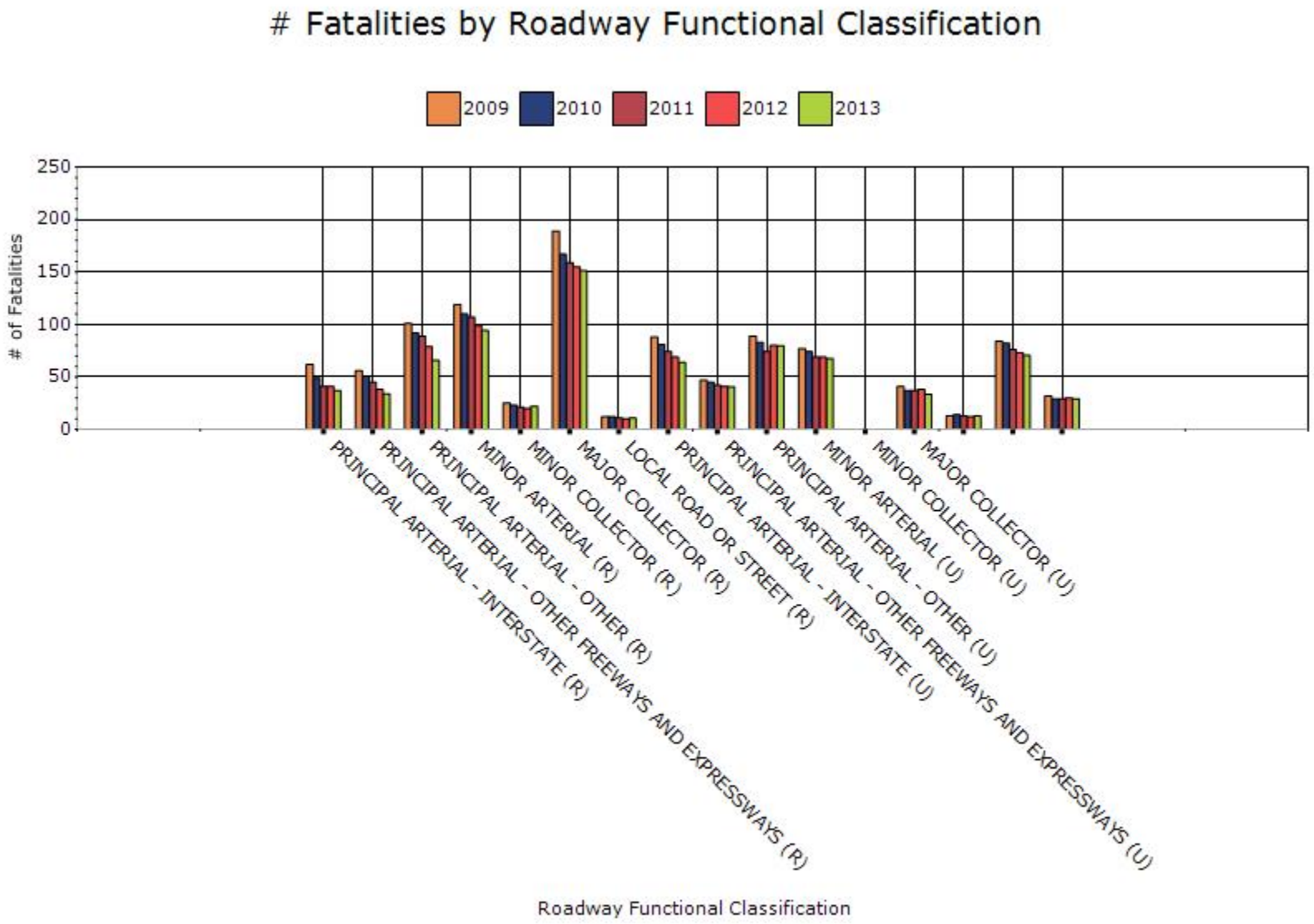


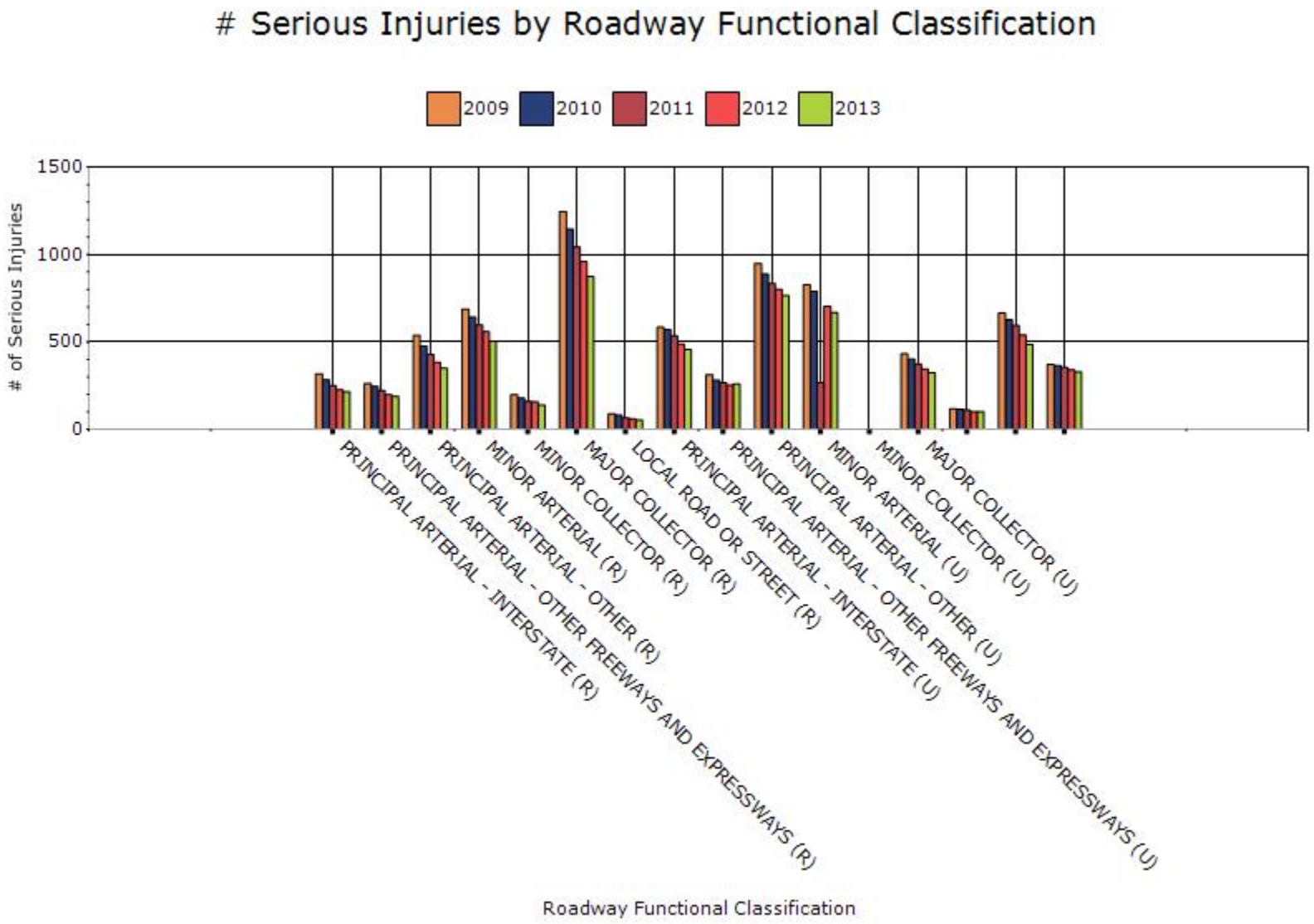
To the maximum extent possible, present performance measure* data by functional classification and ownership.

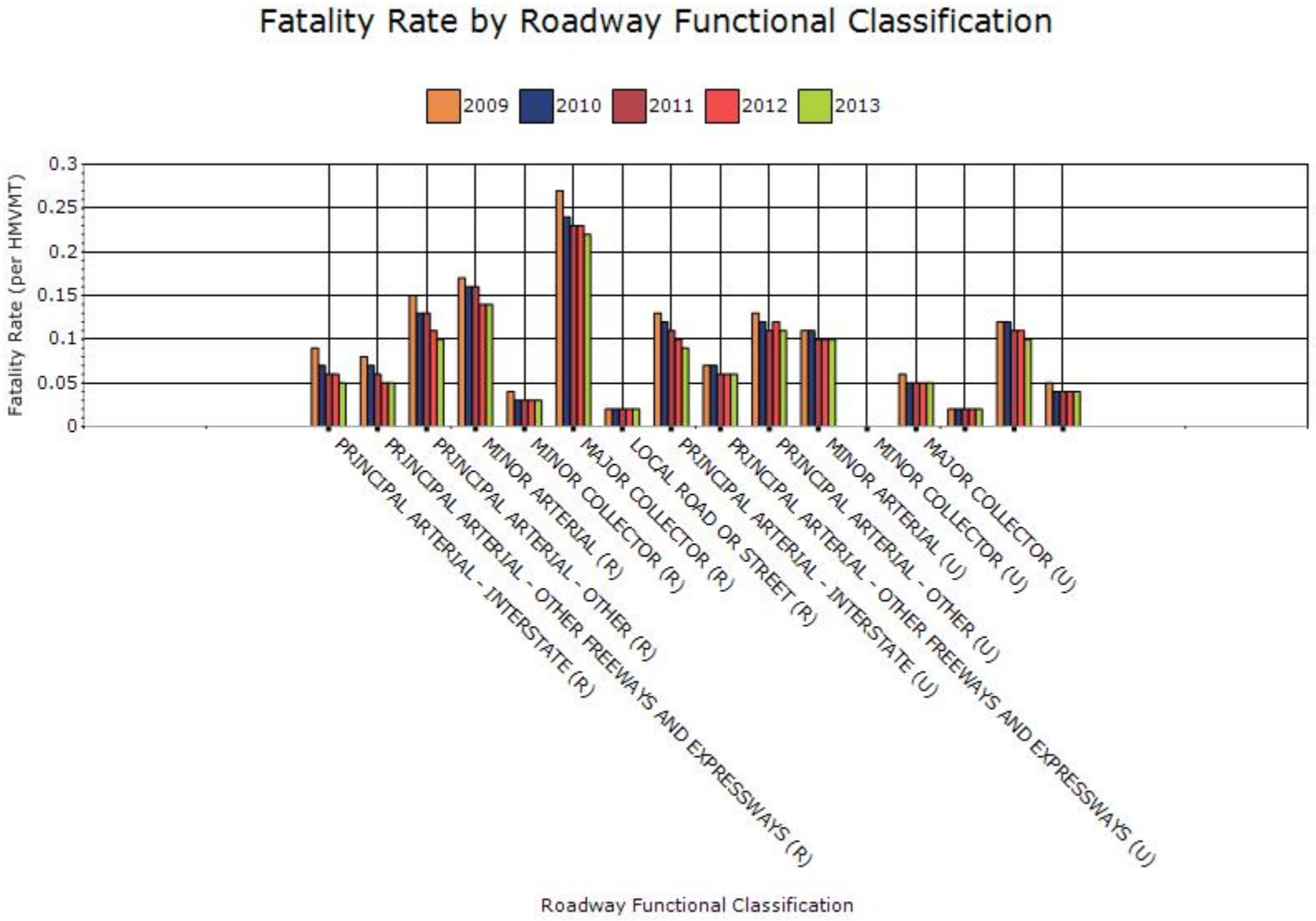
Year - 2013

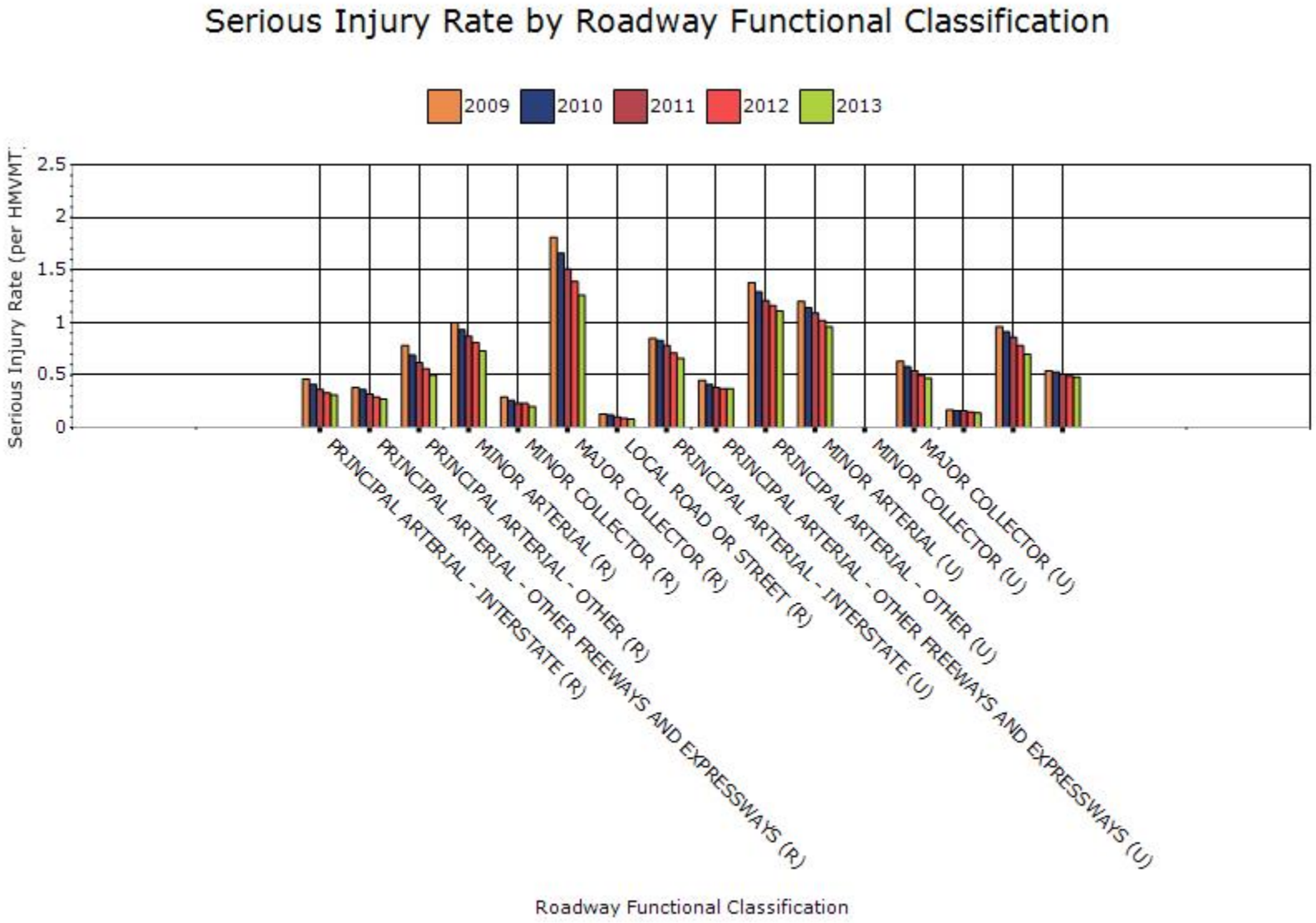
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	37	215	0.05	0.31
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	34	188.2	0.05	0.27
RURAL PRINCIPAL ARTERIAL - OTHER	65.8	349.4	0.1	0.5
RURAL MINOR ARTERIAL	94.2	503.8	0.14	0.73
RURAL MINOR COLLECTOR	22	139.4	0.03	0.2
RURAL MAJOR COLLECTOR	151.2	874	0.22	1.26
RURAL LOCAL ROAD OR STREET	10.8	53.2	0.02	0.08
URBAN PRINCIPAL	64	457.6	0.09	0.66

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	40.6	258.8	0.06	0.37
URBAN PRINCIPAL ARTERIAL - OTHER	79.6	765.6	0.11	1.11
URBAN MINOR ARTERIAL	67.6	667.6	0.1	0.96
URBAN MINOR COLLECTOR	0.2	2	0	0
URBAN MAJOR COLLECTOR	33.6	324.4	0.05	0.47
URBAN LOCAL ROAD OR STREET	12.8	100.4	0.02	0.14
RURAL UNKNOWN	70.8	485.6	0.1	0.7
URBAN UNKNOWN	29.2	329.6	0.04	0.48


Fatalities by Roadway Functional Classification
2009
2010
2011
2012
2013
250
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

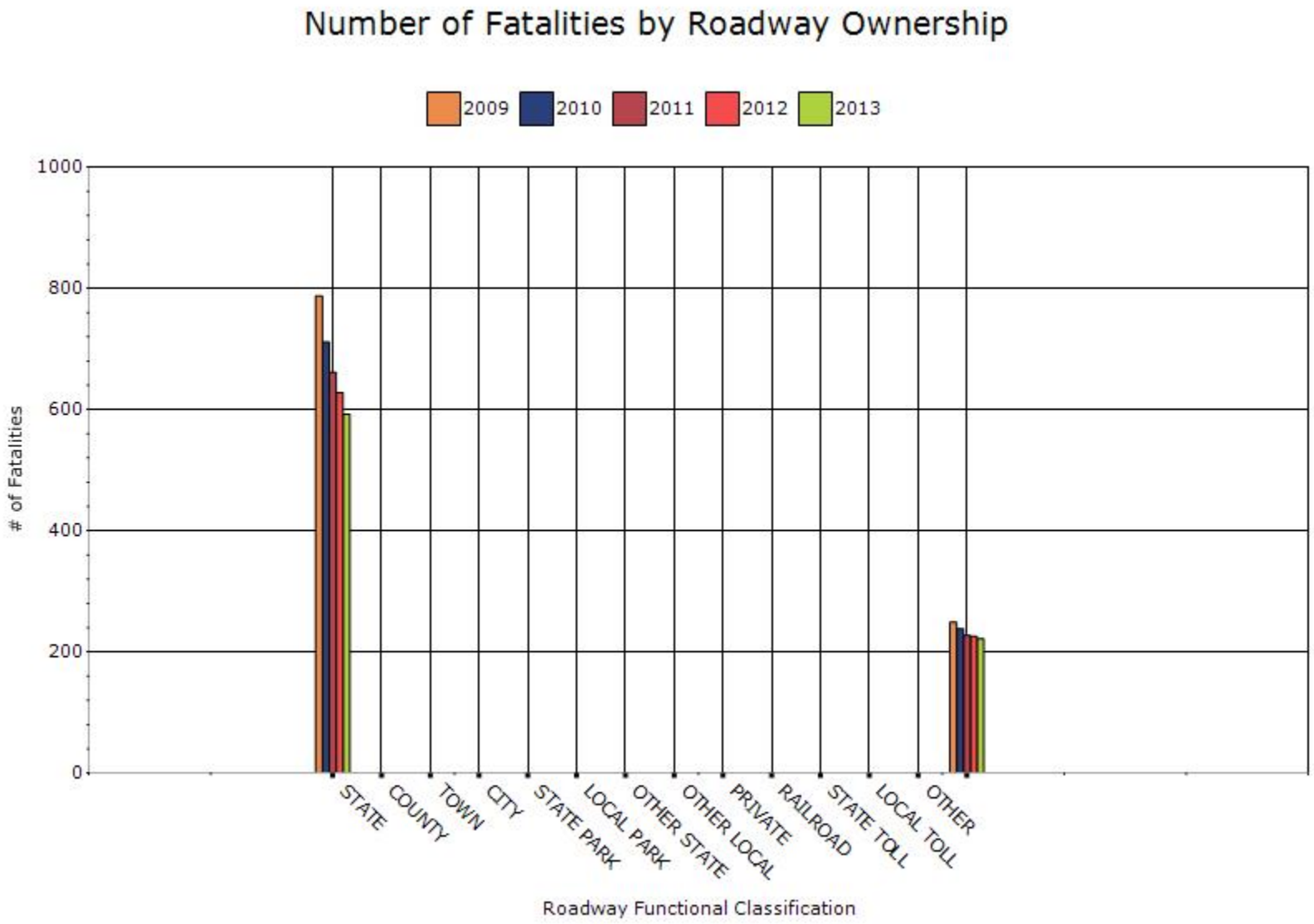

Serious Injuries by Roadway Functional Classification
2009
2010
2011
2012
2013
1500
1000
500
0
# of Serious Injuries
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL 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

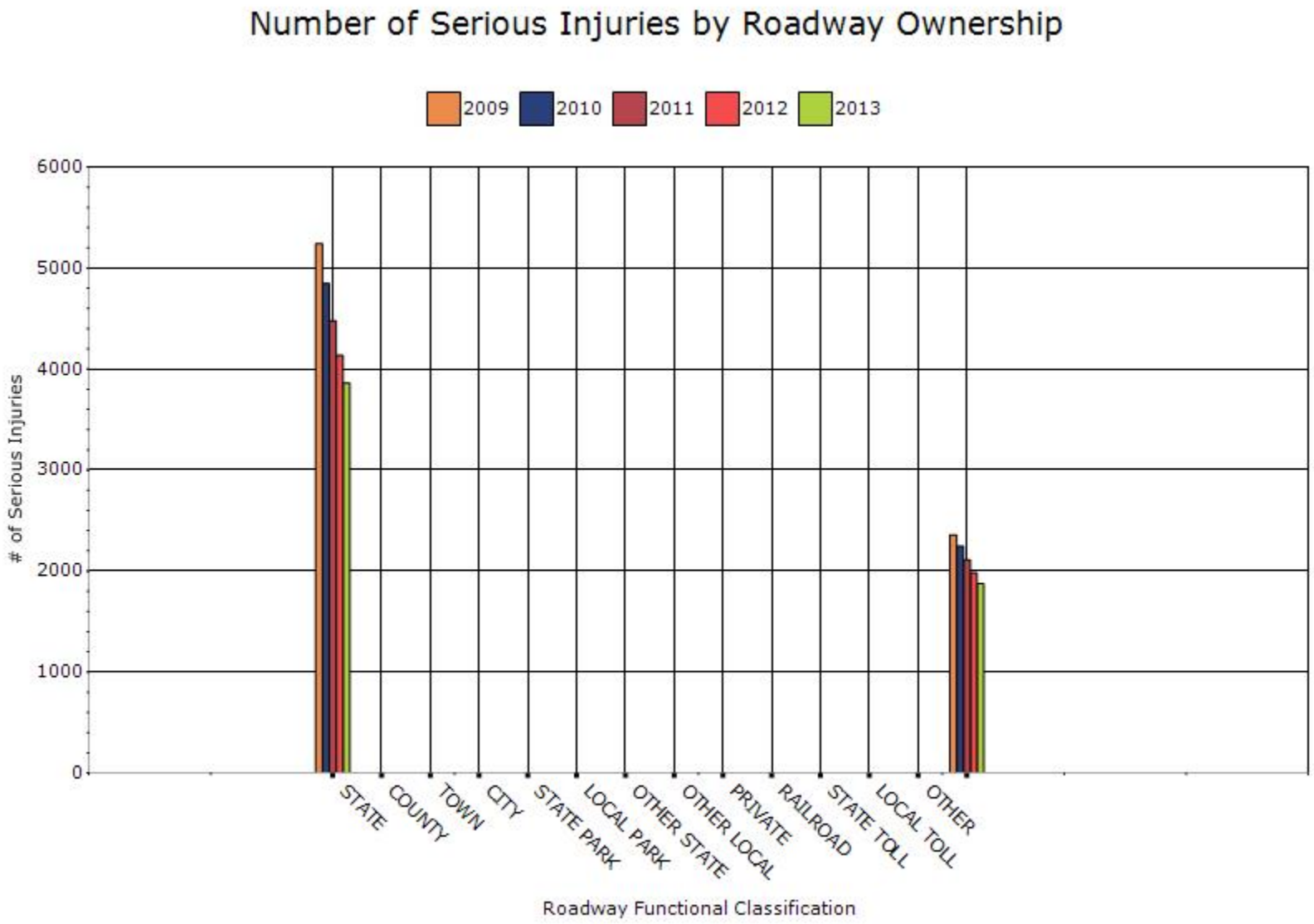

Fatality Rate by Roadway Functional Classification
2009
2010
2011
2012
2013
Fatality Rate (per HMVMT)
0.3
0.25
0.2
0.15
0.1
0.05
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (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

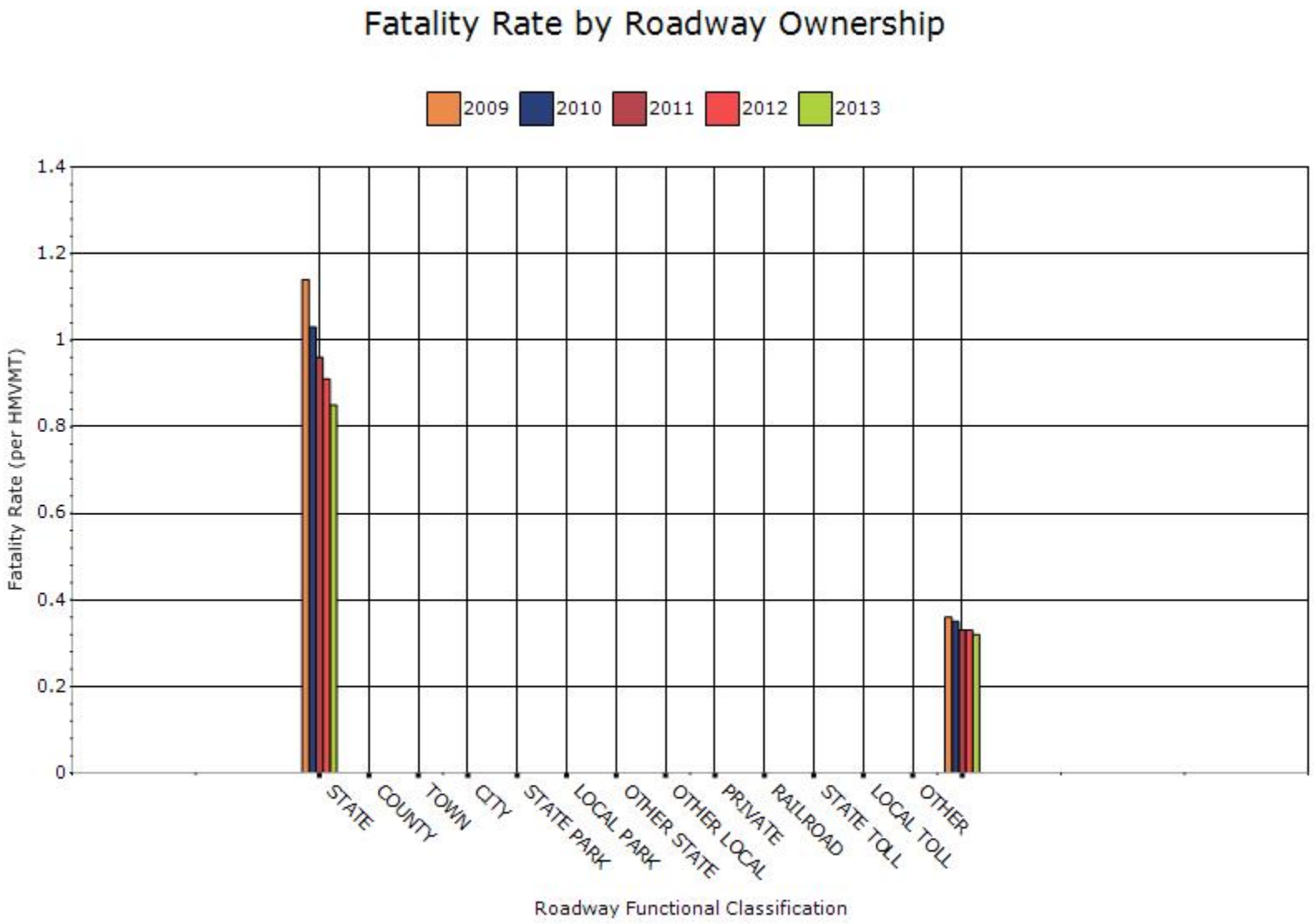

Serious Injury Rate by Roadway Functional Classification
2009
2010
2011
2012
2013
Serious Injury Rate (per HMVMT)
2.5
2
1.5
1
0.5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR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

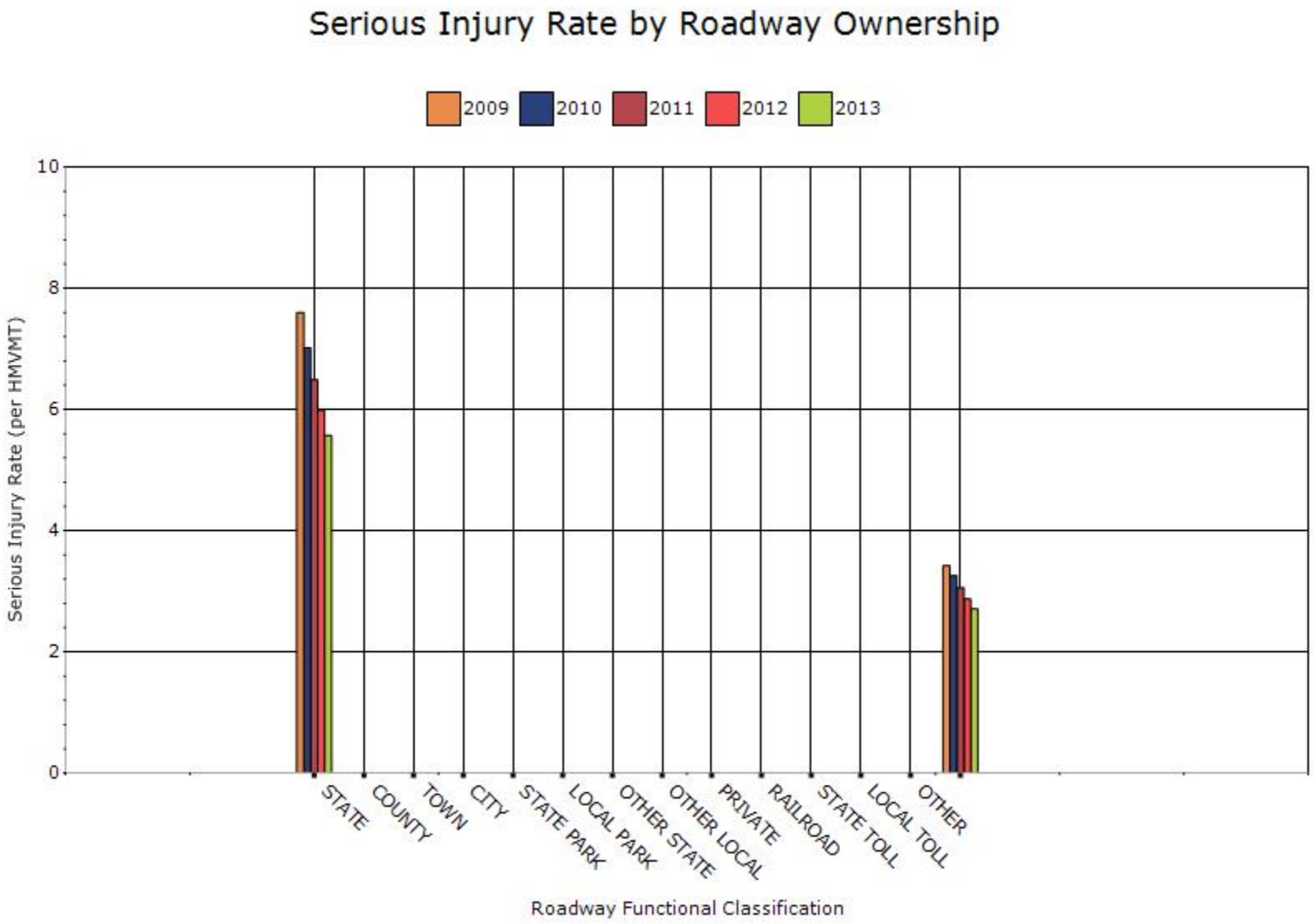
Year - 2013

Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	592	3860.4	0.85	5.57
COUNTY HIGHWAY AGENCY	0	0	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	0	0	0	0
STATE PARK, FOREST, OR RESERVATION AGENCY	0	0	0	0
LOCAL PARK, FOREST OR RESERVATION AGENCY	0	0	0	0
OTHER STATE AGENCY	0	0	0	0
OTHER LOCAL AGENCY	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
CITY AND COUNTY HIGHWAY AGENCY	221.6	1874.4	0.32	2.71


Number of Fatalities by Roadway Ownership
2009
2010
2011
2012
2013
1000
800
600
400
200
0
# of Fatalities
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification


Number of Serious Injuries by Roadway Ownership
2009
2010
2011
2012
2013
6000
5000
4000
3000
2000
1000
0
# of Serious Injuries
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification


Fatality Rate by Roadway Ownership
2009
2010
2011
2012
2013
Fatality Rate (per HMVMT)
1.4
1.2
1
0.8
0.6
0.4
0.2
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)
10
8
6
4
2
0
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER
Roadway Functional Classification

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

MoDOT has placed a large safety emphasis on the major roads in the state (both urban and rural). These major roads are considered the interstate, freeways & expressways, and principal arterials. These roads also carry the largest traffic volumes in our state. Most of the positive safety trends are occurring on this system of routes.

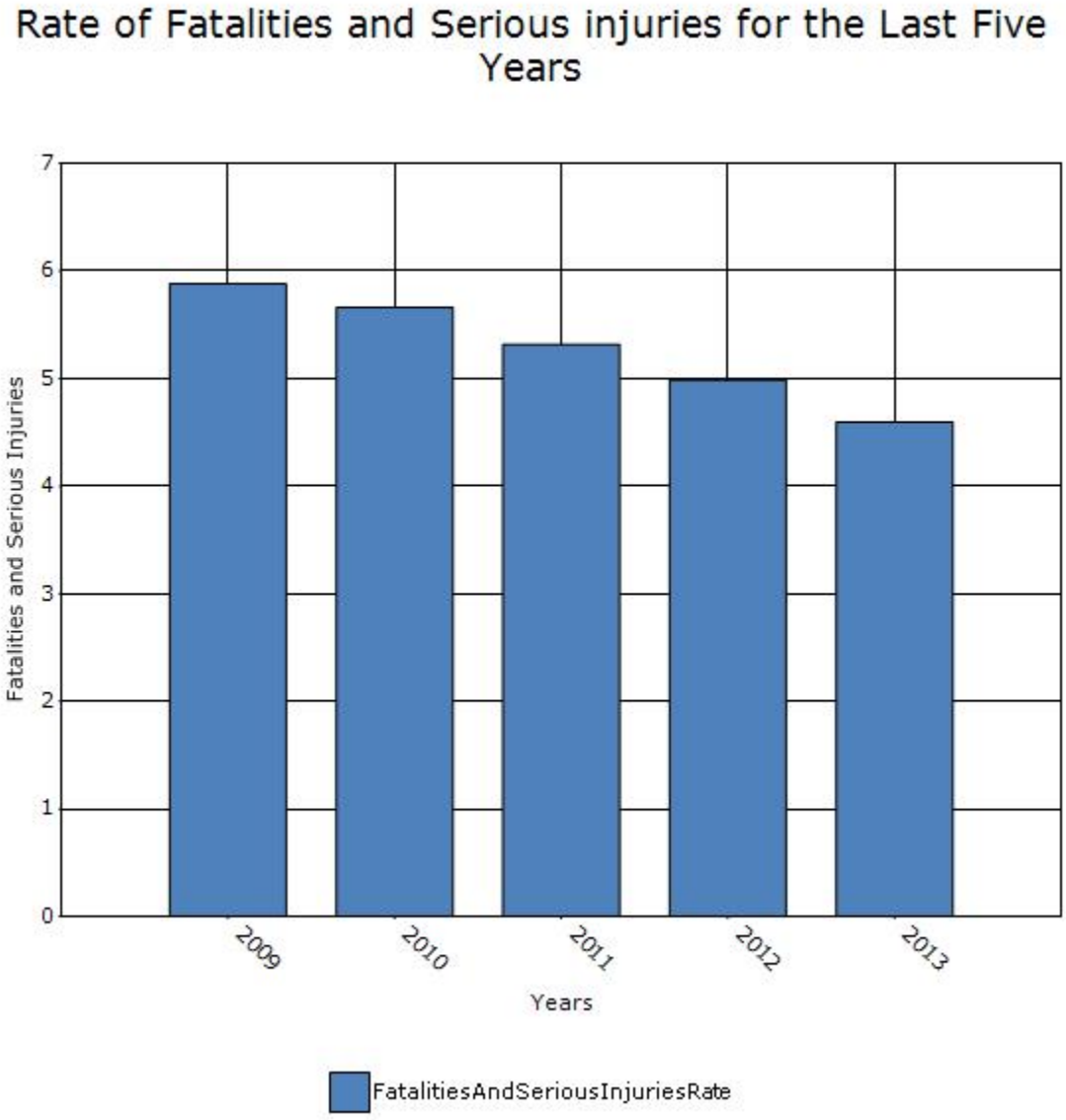
Application of Special Rules

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

Older Driver Performance Measures	2009	2010	2011	2012	2013
Fatality rate (per capita)	1.19	1.1	1.04	0.98	0.93
Serious injury rate (per capita)	4.692	4.56	4.274	4.008	3.674
Fatality and serious injury rate (per capita)	5.88	5.662	5.318	4.988	4.596

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

1. 5-Yr Rate Ending in 2013: (F+SI 2013 Drivers and Pedestrians 65 years of age and older/2013 Population Figure*) + (F+SI 2012 Drivers and Pedestrians 65 years of age and older /2012 Population Figure) + (F+SI 2011 Drivers and Pedestrians 65 years of age and older/2011 Population Figure) + (F+SI 2010 Drivers and Pedestrians 65 years of age and older/2010 Population Figure) + (F+SI 2009 Drivers and Pedestrians 65 years of age and older/2009 Population Figure) / 5



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: Other-General trends in fatality and serious injury crashes

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

☐ Shift Focus to Fatalities and Serious Injuries

☐ Include Local Roads in Highway Safety Improvement Program

☐ Organizational Changes

☒ None

☐ Other:

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

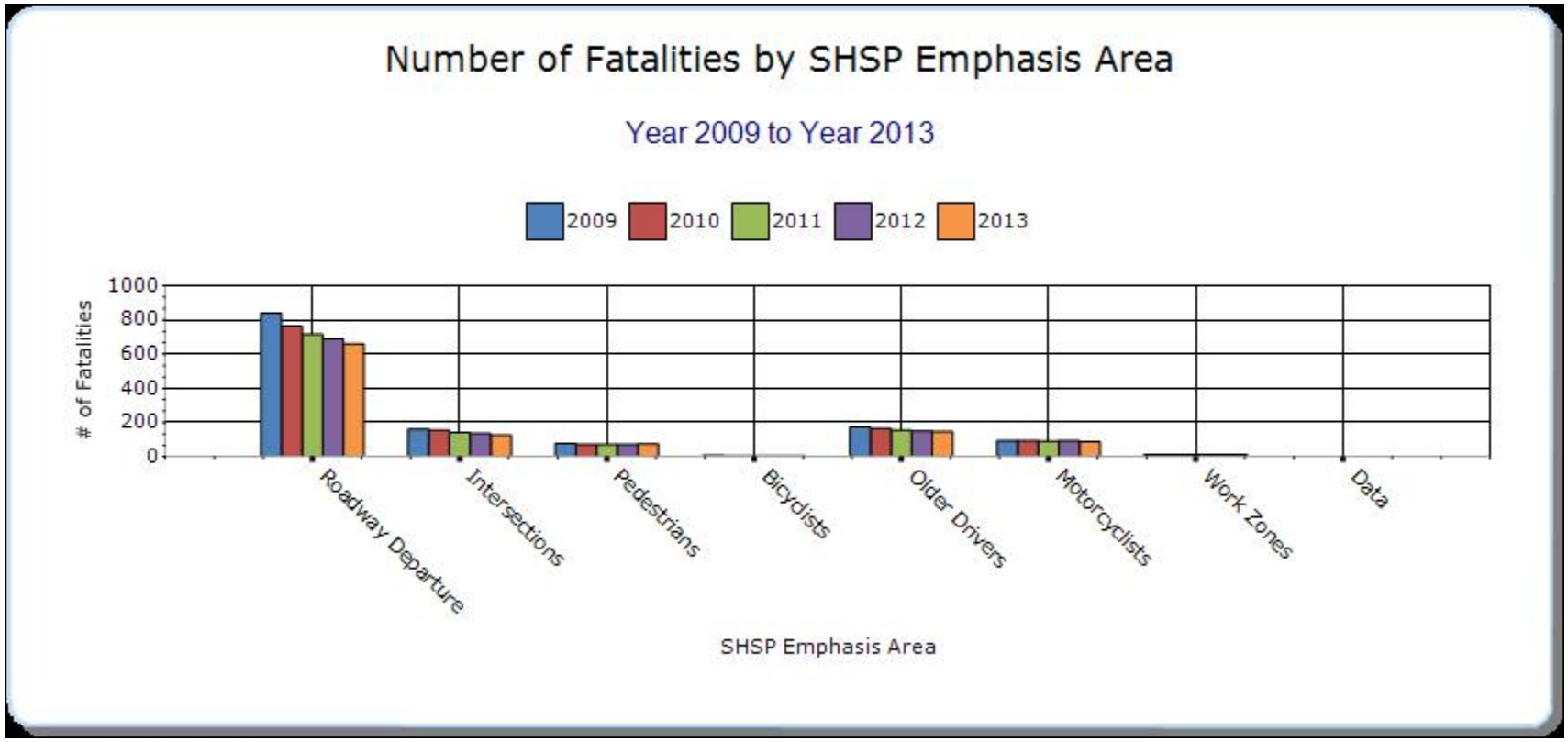
There have been no significant program changes since the last reporting period. MoDOT is in the early stages of using the HSIP funding on local safety initiatives (no funding spent to date).

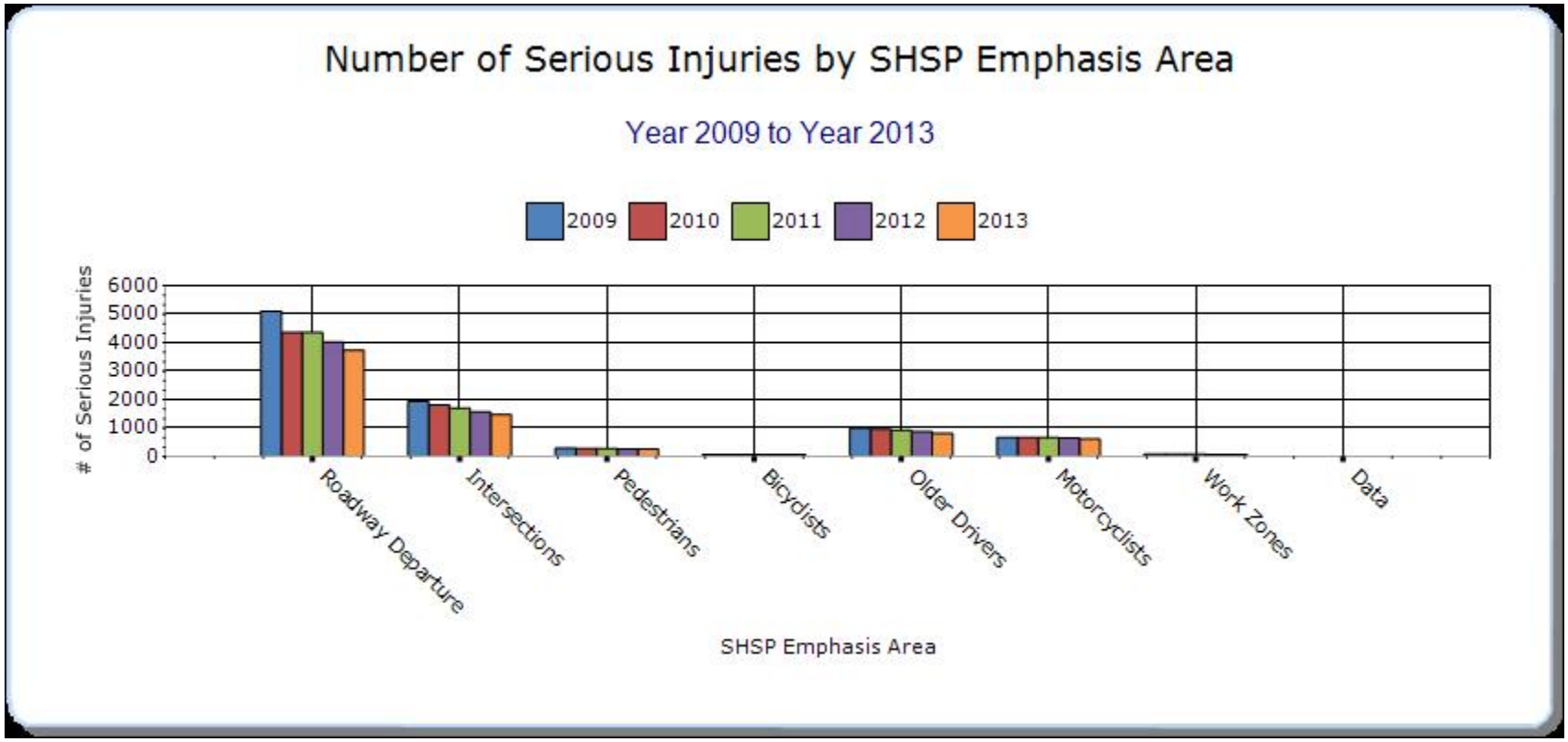
SHSP Emphasis Areas

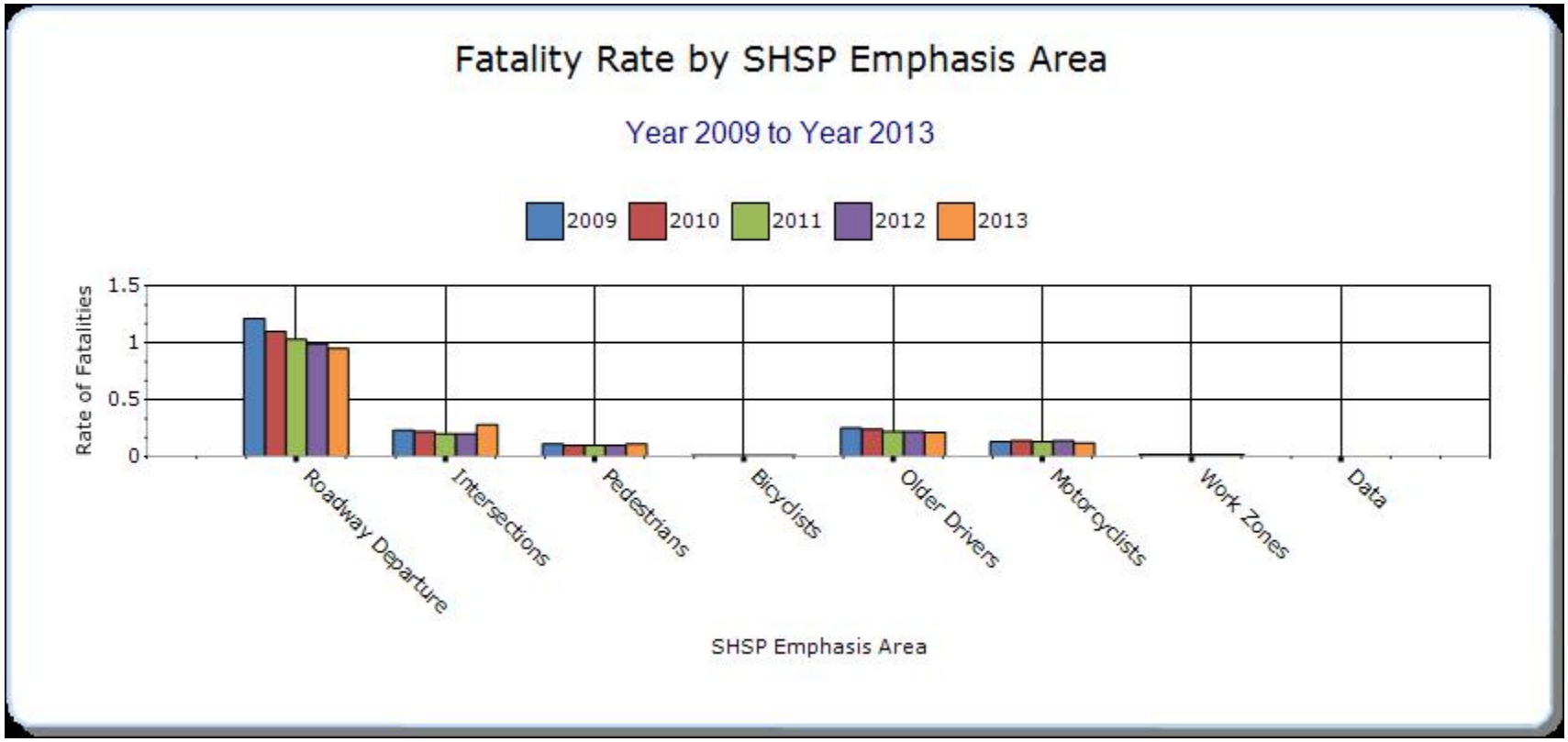
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

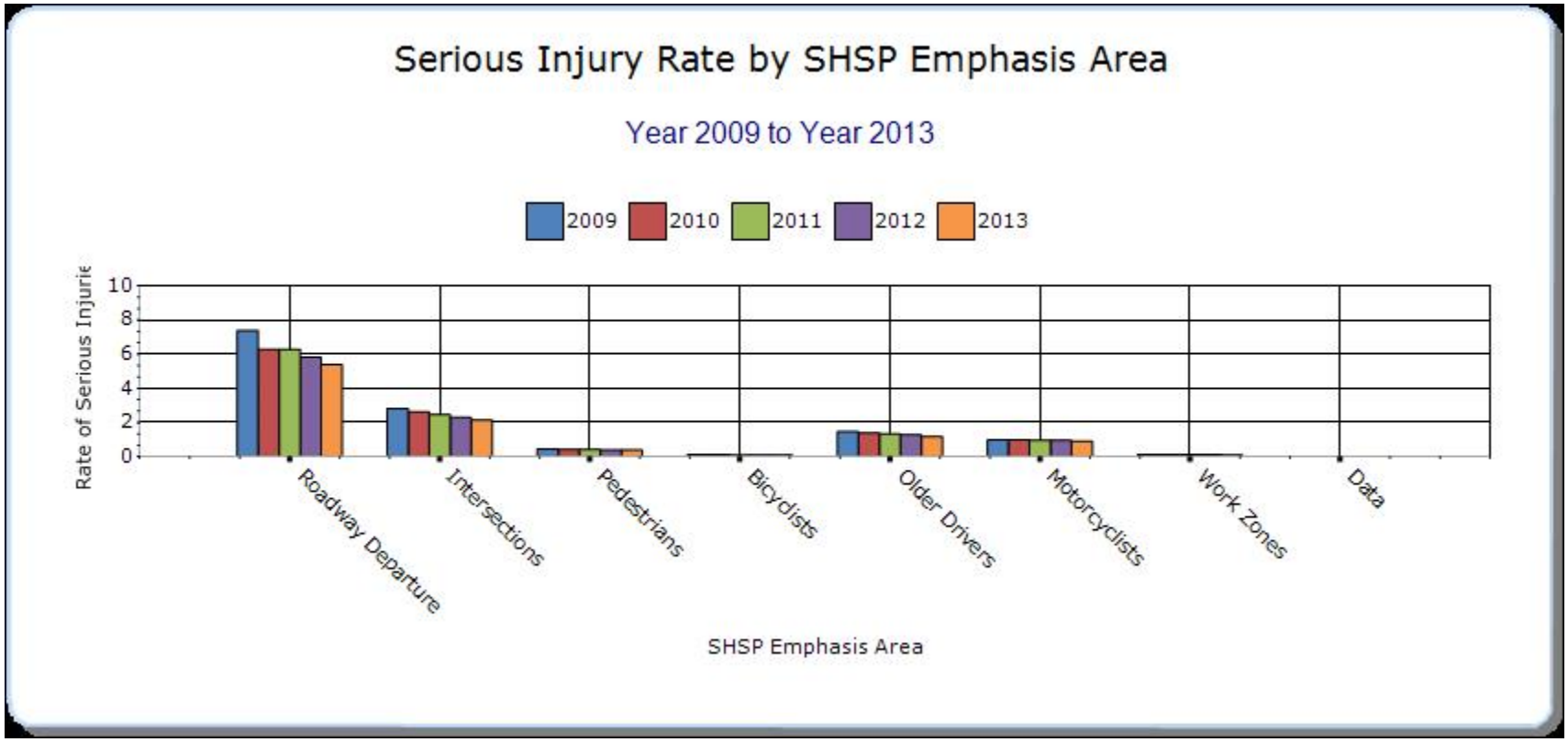
Year - 2013

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	Run-off-road	659	3735	0.95	5.39	0	0	0
Intersections	Intersection-related	126.2	1482.4	0.28	2.14	0	0	0
Pedestrians	Vehicle/pedestrian	72.8	262.4	0.11	0.38	0	0	0
Bicyclists	Vehicle/bicycle	4	70.8	0.01	0.1	0	0	0
Older Drivers	All	146	817.6	0.21	1.18	0	0	0
Motorcyclists	Motorcycle-related	86.4	618.6	0.12	0.89	0	0	0
Work Zones	Work Zone-related	11.6	69.2	0.02	0.1	0	0	0


Number of Fatalities by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# of Fatalities
1000
800
600
400
200
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area


Number of Serious Injuries by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# of Serious Injuries
6000
5000
4000
3000
2000
1000
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area


Fatality Rate by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Fatalities
1.5
1
0.5
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area

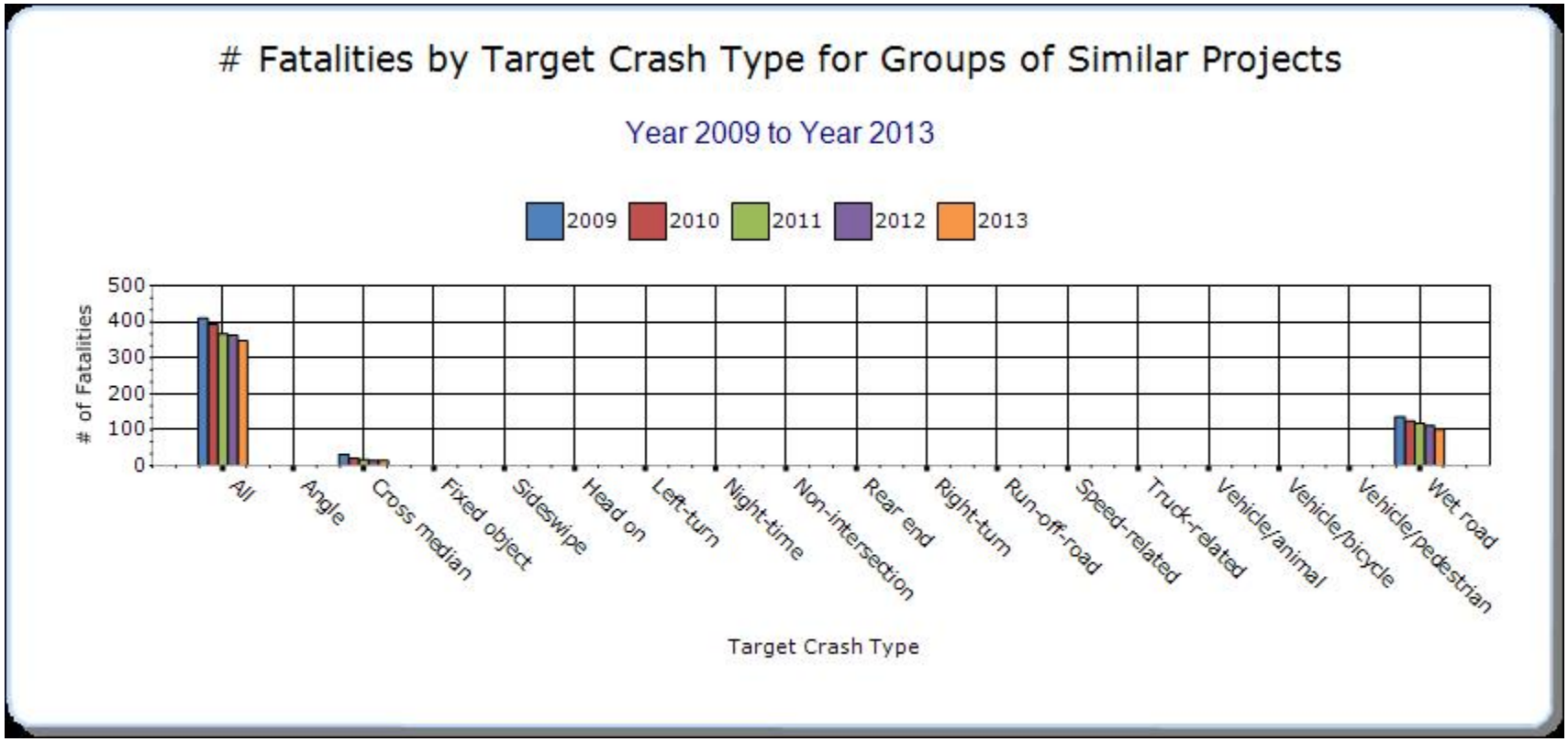

Serious Injury Rate by SHSP Emphasis Area
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Serious Injurie
10
8
6
4
2
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area

Groups of similar project types

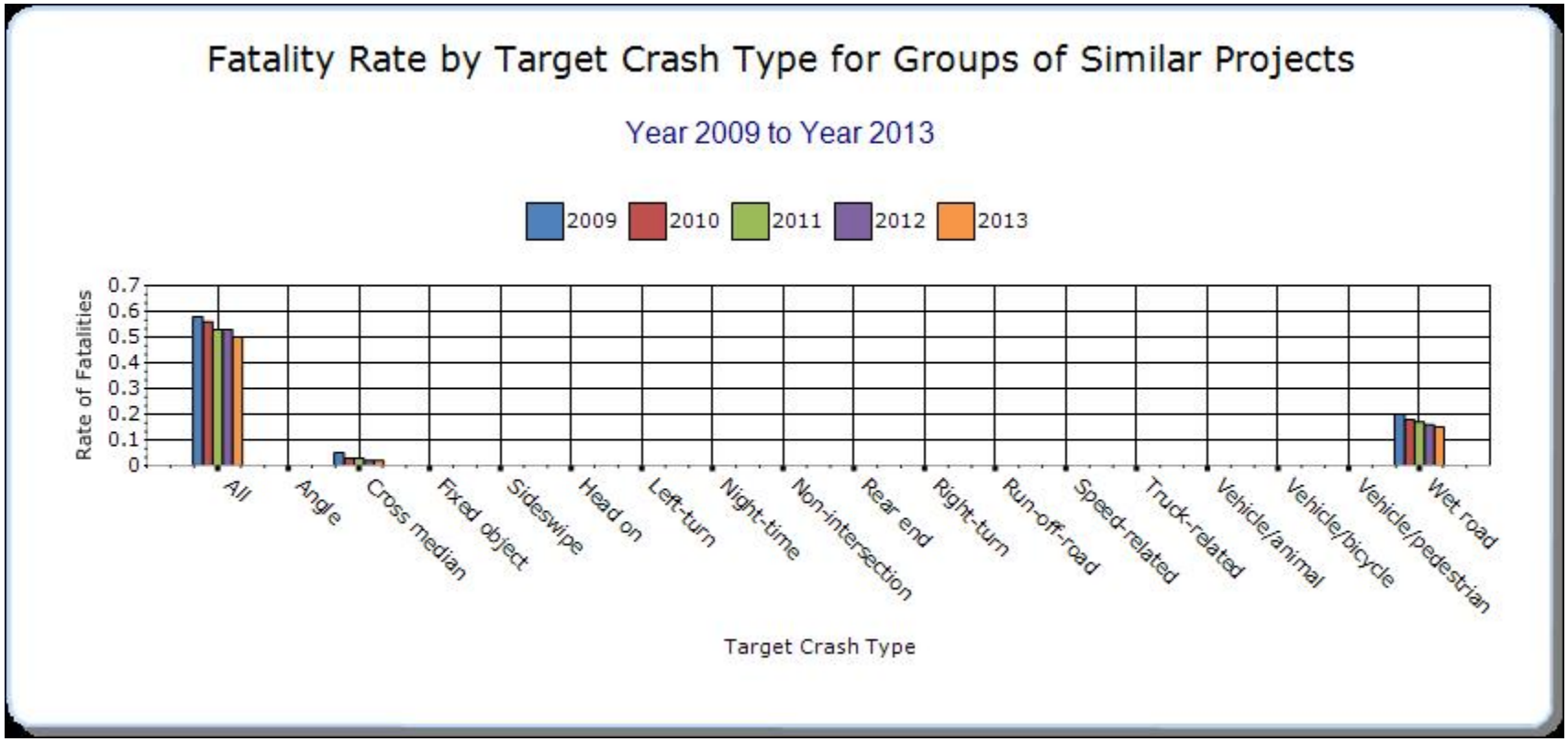
Present the overall effectiveness of groups of similar types of projects.

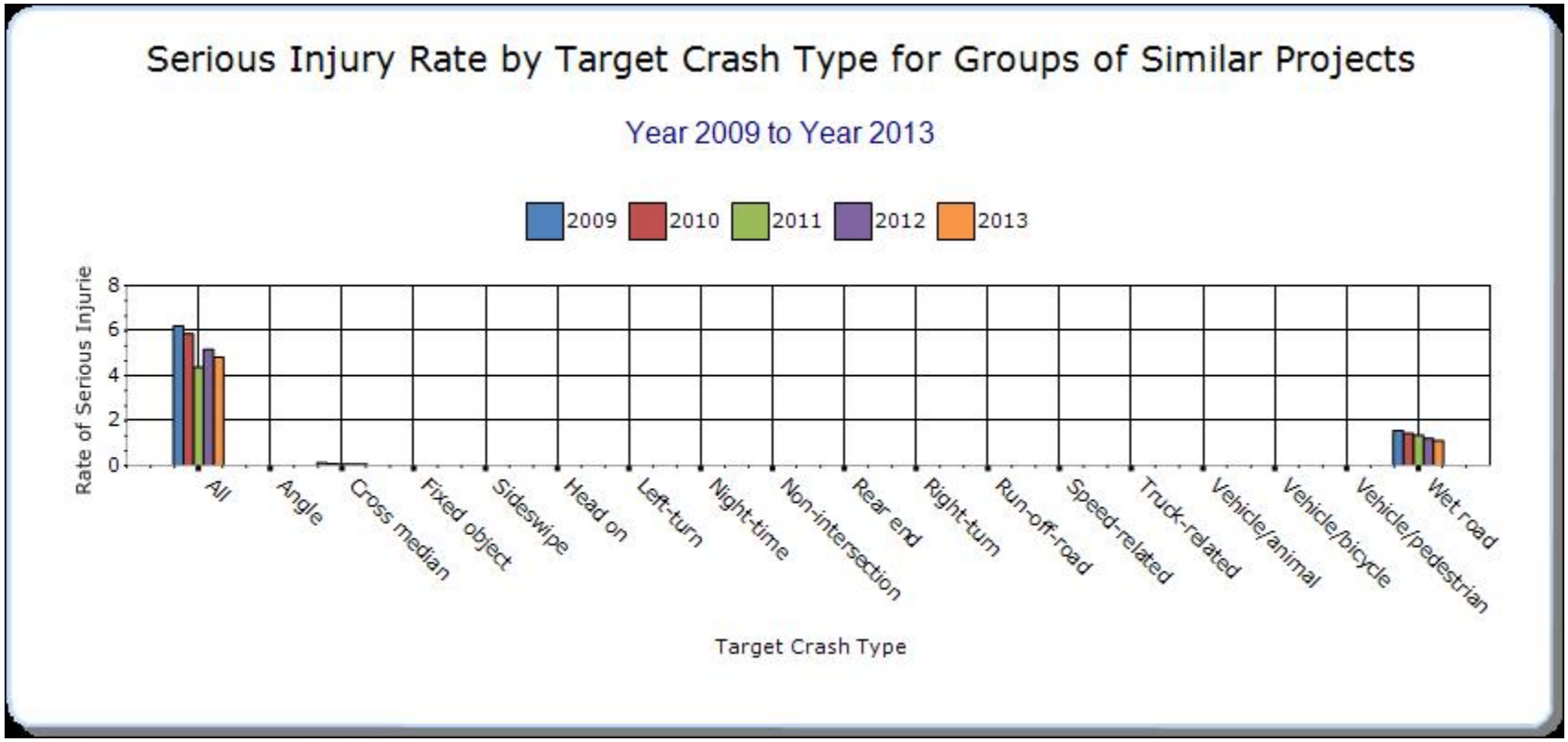
Year - 2013

HSIP Sub-program Types	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Skid Hazard	Wet road	102	778.2	0.15	1.12	0	0	0
Intersection	All	126.2	1482.4	0.18	2.14	0	0	0
Median Barrier	Cross median	14.6	57.4	0.02	0.08	0	0	0
Horizontal Curve	Curve Related	273.4	1525.8	0.39	2.2	0	0	0
Roadway Departure	Run-Off-Road & Head-On	659	3735	0.95	5.39	0	0	0
Local Safety	All	221.6	1865.6	0.32	2.69	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
500
400
300
200
100
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
5000
4000
3000
2000
1000
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
0.7
0.6
0.5
0.4
0.3
0.2
0.1
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
8
6
4
2
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

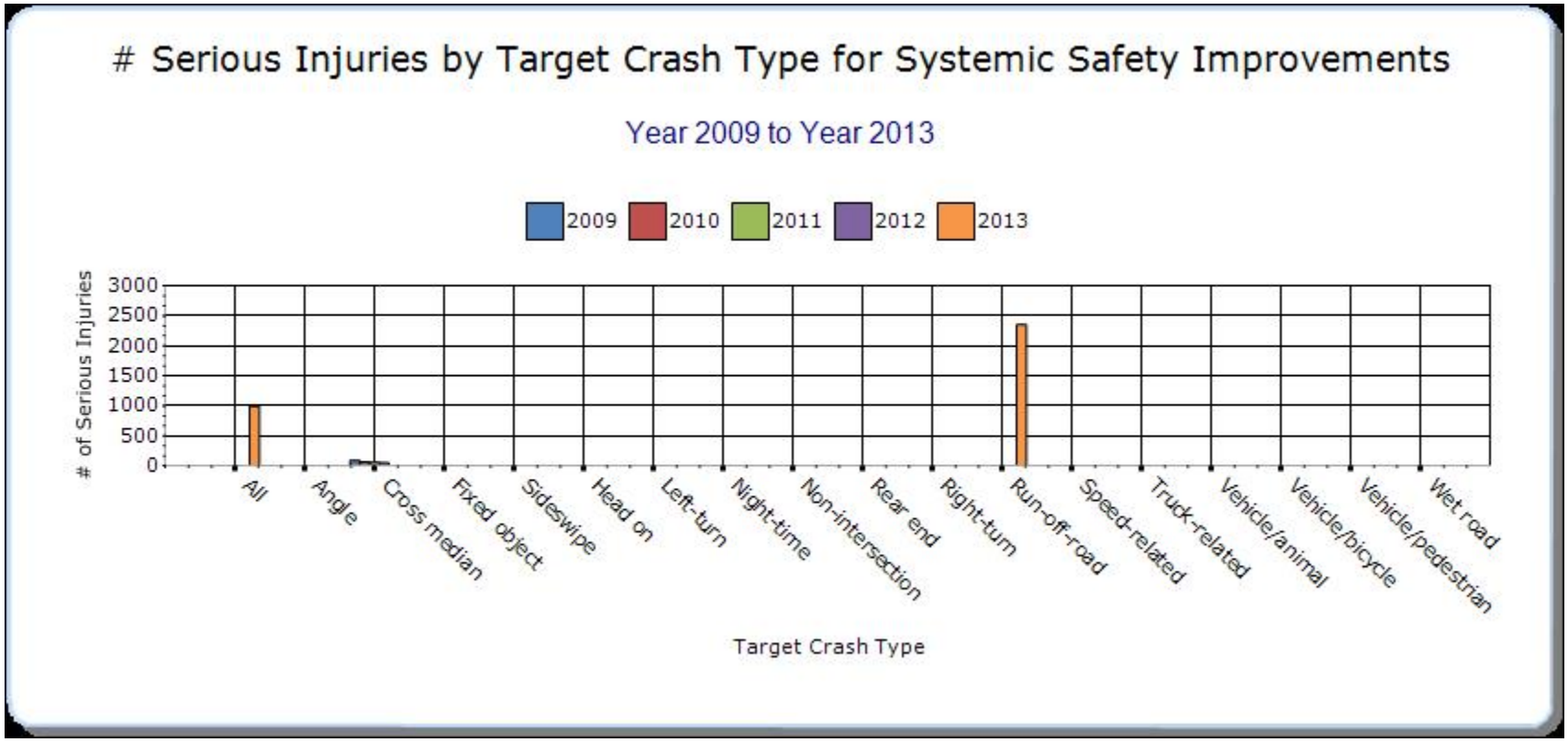
Systemic Treatments

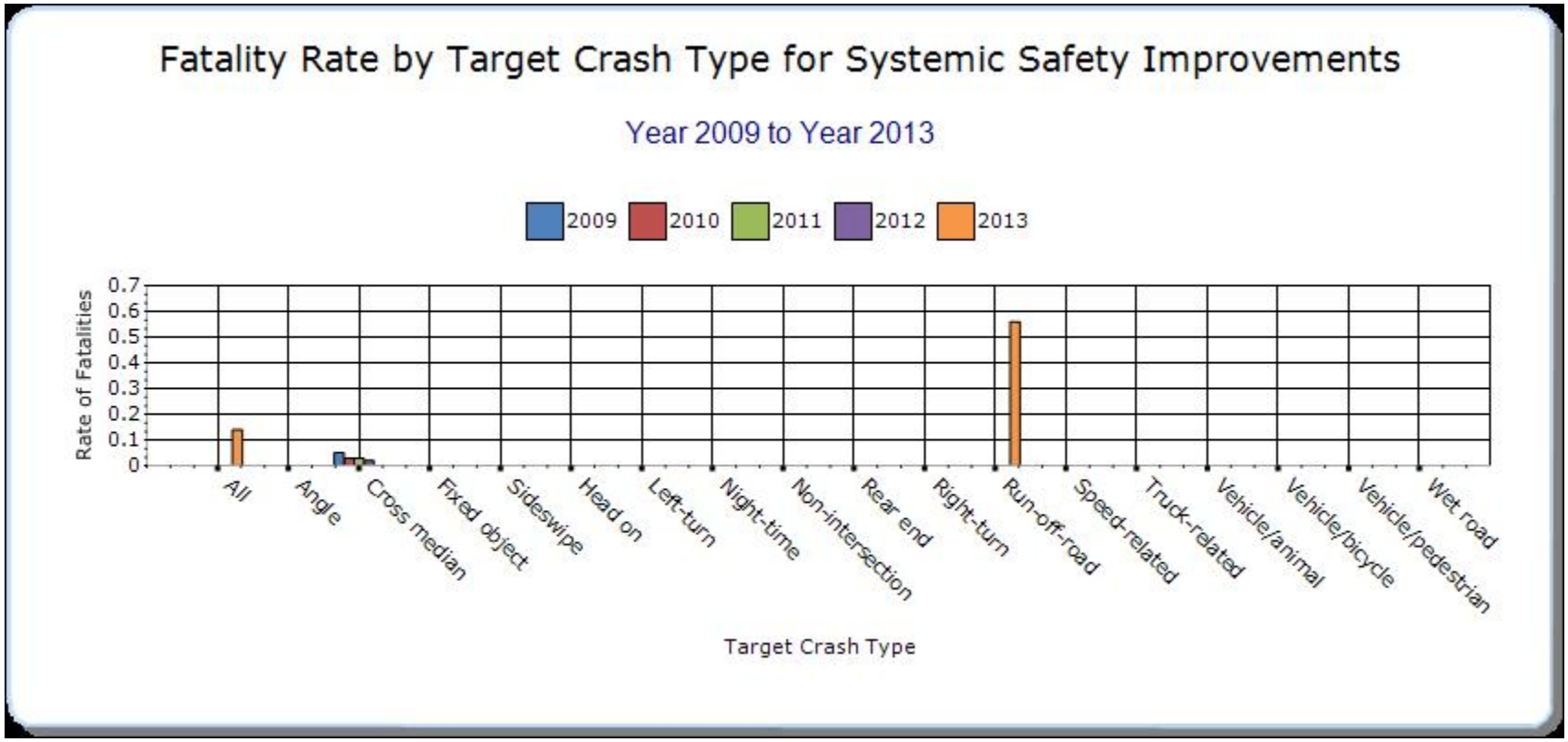
Present the overall effectiveness of systemic treatments.

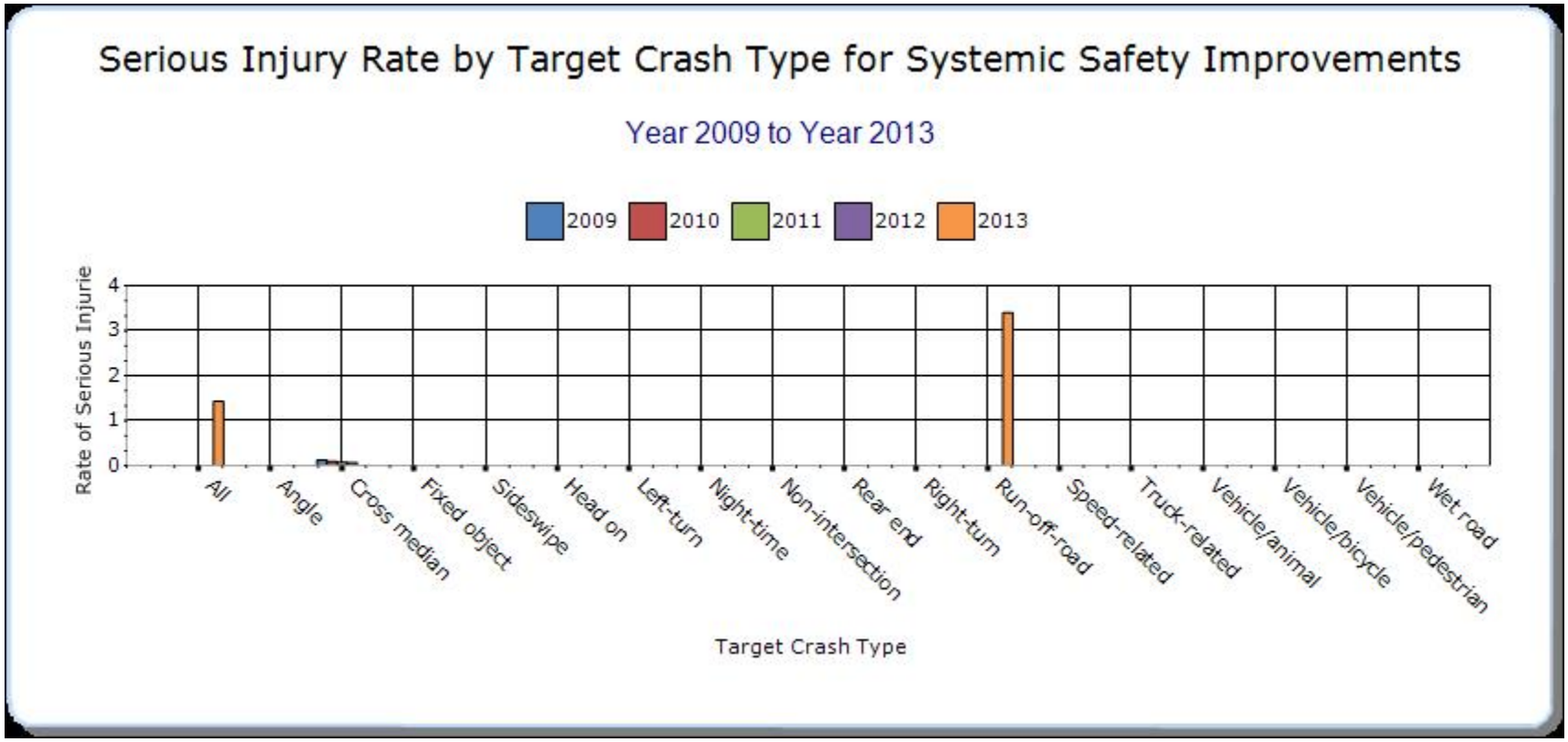
Year - 2013

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	Cross Median	14.6	57.4	0.02	0.08	800	0	0
Pavement/Shoulder Widening	Run-off-road	391.2	2351.6	0.56	3.4	0	0	0
Innovative Intersections	All	97	990	0.14	1.43	0	0	0
Rumble Strips	Lane Departure	659	3735	0.95	5.39	0	12000	0


Fatalities by Target Crash Type for Systemic Safety Improvements
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# of Fatalities
500
400
300
200
100
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 Systemic Safety Improvements
Year 2009 to Year 2013
2009
2010
2011
2012
2013
# of Serious Injuries
3000
2500
2000
1500
1000
500
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 Systemic Safety Improvements
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Fatalities
0.7
0.6
0.5
0.4
0.3
0.2
0.1
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 Systemic Safety Improvements
Year 2009 to Year 2013
2009
2010
2011
2012
2013
Rate of Serious Injurie
4
3
2
1
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

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

MoDOT is in early stages of beginning to implement safety countermeasures on the local road system. County SHSPs have been developed for several of the high need counties in the state and the identified safety countermeasures shown in the completed SHSPs will be eligible to use the HSIP funding. Overall, Missouri has seen a very good reduction in the roadway fatalities and serious injuries. Much of this is due to the systemic approach used in the state. Engineering safety policy will allow us to continue to see success on many of the high need roads in the state.

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)
MO 6 & US 69	Major Rural Collector	Roadway	Rumble strips - edge or shoulder	0	5	34	75	114	0	6	29	54	89	6.56
Pettis - Rt Y at Winchester Road in Kansas City District	Urban Minor Arterial	Intersection geometry	Intersection geometry - other	1	0	2	7	10	0	1	0	3	4	10
Marion Co. - US 61 & US 24 south of Palmyra	Rural Principal Arterial - Other Freeways and Expressways	Roadway	Pavement surface - miscellaneous	1	3	8	41	53	1	2	8	26	37	1
Boone	Rural	Roadside	Barrier - cable	10	23	106	416	555	5	21	100	420	546	6

County - US 63 - Median Barrier Cable from I-70 to US 54	Principal Arterial - Other Freeways and Expressways													
Boone County - Railroad Bridge over US 63 and replace existing railroad crossing north of Route B	Rural Principal Arterial - Other Freeways and Expressways	Railroad grade crossings	Railroad grade crossings - other	1	1	2	4	8	0	0	0	2	2	1
Laclede County - Upgrade 4 Lane Section to 5 Lane Section on MO 5	Rural Principal Arterial - Other	Roadway	Roadway widening - add lane(s) along segment	0	0	0	0	0	0	0	0	0	0	1
St. Louis County - NOR 270 at West	Urban Collector	Interchange design	Interchange design - other	0	9	149	494	652	0	10	92	354	456	1

Florissant Road & New Halls Ferry Road & Graham Road & Bellefontaine Road. Modify traffic control at ramp intersections (6I2096). Started: 5/14/2010 completed: 4/7/2011														
St. Louis County - IS 70 East at IS 170 Interchange (6I2244). Proactive measure to protect motorists after they leave their	Urban Principal Arterial - Interstate	Roadside	Barrier- metal	2	1	41	133	177	0	0	6	25	31	9

lane. Started: 4/9/2010 completed 3/21/2013														
St. Louis City - MO 30 at Nebraska Ave (6P2282). Enhanced the intersection to be more pedestrian friendly. Complete signal and lighting facility reconstruction with new ADA facilities. Started: 4/30/2010 completed 2/18/2011	Urban Principal Arterial - Other	Pedestrians and bicyclists	Miscellaneous pedestrians and bicyclists	1	1	5	20	27	0	0	5	3	8	4
Jefferson County - Rt A	Urban	Intersection	Auxiliary lanes - add left-turn	1	4	7	14	26	0	0	1	7	8	9

at Pioneer/ Highland Baptist Chruch Rd (6S2095). Started: 11/20/2009 completed 2/18/2011	Collector	geometry	lane											
Jefferson County - RT M at Caitlin Drive, MO 141 at Old Missouri State Road, and MO 30 at Main Drive / Redwood Drive.(6S2249) completed in 2011	Urban Principal Arterial - Other	Intersection geometry	Intersection geometry - other	2	18	25	65	110	0	3	11	44	58	30
St. Charles County - Widen pavement and add shoulders on	Rural Major Collector	Roadway	Rumble strips - edge or shoulder	1	6	11	25	43	0	1	0	7	8	9

RT DD from 0.25 mile West of US 40/61 to 0.2 mile West of Sommers Road. Widen pavement to 12 foot lanes and add 2 foot shoulders with rumble stripes (6S2281) started: 5/14/2010 completed: 2/21/2013														
Greene County, RT D - Relocate Bedford Avenue intersection to the west to connect with Eastgate Avenue 0.2	Urban Principal Arterial - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	0	0	0	42	42	0	0	0	21	21	1

mile east of Rte. 65 in Springfield (8S2153).														
Greene County, RT M - Construct turn lanes and signalize Rte. M and Rte. ZZ intersection at Republic High School (8S0835).	Rural Major Collector	Intersection traffic control	Systemic improvements - signal-controlled	0	0	0	12	12	0	2	0	10	12	1
Lawrence County, US 60 - Add guardrail on disconnected sections from 0.6 mile west of County Road 1130 to 0.1 mile west of MO 39	Rural Principal Arterial - Other	Roadside	Barrier - other	1	1	0	23	25	1	3	0	27	31	1

(7P2192).														
Newton, MO 43 - Intersection improvements at Douglas Fir Road (7S2148).	Rural Minor Arterial	Intersection traffic control	Systemic improvements - signal-controlled	3	1	0	3	7	0	0	0	14	14	1
Taney County, US 160 - Intersection capacity and safety improvements at Coy Boulevard in Forsyth (8P0813B).	Rural Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn lane	0	0	0	23	23	0	1	0	15	16	1
Greene County, IS 44 - Groove pavement on IS 44 Westbound between Webster County and	Urban Principal Arteria - Interstate	Roadway	Pavement surface - miscellaneous	1	0	4	24	29	0	1	2	28	31	1

MO 125.														
Webster County, IS 44 - Groove pavement on IS 44 Westbound at various locations in rural Southwest Distrct.	Rural Principal Arteria - Interstate	Roadway	Pavement surface - miscellaneous	1	13	36	221	271	1	14	35	225	275	1
Webster County, US 60 - At RT VV / RT B in Rogersville.	Rural Principal Arterial - Other Freeways and Expressways	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	0	0	11	39	50	0	1	5	31	37	1
Butler County, BU 60 - Median crossing 0.1 miles East of US 60/67 at RT W	Urban proncipal Arterial - Other	Intersection traffic control	Intersection traffic control - other	1	3	13	29	46	0	0	6	23	29	6

intersection														
St. Francois County, US 67 - Northwood Drive in Bonne Terre to Hedgeapple Raod	Rural Principal Arterial - Other Freeway and Expressway	Access management	Median crossover - close crossover	1	3	10	10	24	0	0	0	0	0	4
Ste. Genevieve County, IS 55 - Add interchange lighting on IS 55 in Ste. Genevieve County at RT Z, RT O, RT Y, and RT OO.	Rural Principal Arterial - Interstate	Lighting	Site lighting - interchange	0	2	8	33	43	0	2	3	20	25	1
Various Major Routes in D1 Job 1P2184	Rural Principal Arterial - Other Freeways and Expresswa	Roadside	Barrier - other	0	0	0	0	0	0	0	0	0	0	1

	ys													
Various Major Routes in D3 Job 3P2191	Rural Principal Arterial - Other Freeways and Expressways	Roadside	Barrier - other	0	0	0	0	0	0	0	0	0	0	1
Various on call project for microsurfacing area with high percentage of wet weather crashes - Urban Kansas City District	Urban Principal Arterial - Other	Roadway	Pavement surface - miscellaneous	0	0	0	0	0	0	0	0	0	0	1
Various on call project for microsurfacing area with high	Rural Principal Arterial - Other	Roadway	Pavement surface - miscellaneous	0	0	0	0	0	0	0	0	0	0	1

percentage of wet weather crashes - Rural Kansas City District														
Various Work Zones Job 1P1053	Rural Principal Arterial - Other Freeways and Expressways	Work Zone		0	0	0	0	0	0	0	0	0	0	1
Various Work Zones - Urban Kansas City District	Urban Principal Arterial - Other	Work Zone		0	0	0	0	0	0	0	0	0	0	1
Various Work Zones - Rural Kansas City District	Rural Principal Arterial - Other	Work Zone		0	0	0	0	0	0	0	0	0	0	1
Various Work Zones - St. Louis	Rural Principal Arterial -	Work Zone		0	0	0	0	0	0	0	0	0	0	1

District	Other													
Various Work Zones - Southwest District	Rural Principal Arterial - Other	Work Zone		0	0	0	0	0	0	0	0	0	0	1
Various Major Routes in D2 Job 2P1979	Rural Principal Arterial - Other Freeways and Expressways	Roadway	Rumble strips - edge or shoulder	0	0	0	0	0	0	0	0	0	0	1
Various Major Routes in D3 Job 2P1979	Rural Principal Arterial - Other Freeways and Expressways	Roadway	Rumble strips - edge or shoulder	0	0	0	0	0	0	0	0	0	0	1
Various Major Routes in D5 Job 5P1979	Rural Principal Arterial - Other Freeways and	Roadway	Rumble strips - edge or shoulder	0	0	0	0	0	0	0	0	0	0	1

	Expressways													
Various Major Routes in District 7 (7P1979).	Rural Principal Arterial - Other	Roadway	Rumble strips - edge or shoulder	0	0	0	0	0	0	0	0	0	0	1
Various Major Routes in District 10 (0P1979).	Rural Principal Arterial - Other	Roadway	Rumble strips - edge or shoulder	0	0	0	0	0	0	0	0	0	0	1
Various eligible High Risk Rural Roads across Missouri (0P2149).	Rural Major Collector	Roadway signs and traffic control	Curve-related warning signs and flashers	0	0	0	0	0	0	0	0	0	0	1
Install guardrail on IS 44 at various locations to protect dynamic message signs as well as passengers.	Rural Principal Arteria - Interstate	Roadside	Barrier - other	0	0	0	0	0	0	0	0	0	0	1

Various Major Routes - Installation of guardrail and replacement of nonstandard guardrail throughout rural Southwest District.	Rural Principal Arterial - Other Freeways and Expressways	Roadside	Barrier - other	0	0	0	0	0	0	0	0	0	0	1
Christian County, US 60 - Install guardrail 0.7 mile West of the Greene County line.	Rural Principal Arterial - Other Freeways and Expressways	Roadside	Barrier - other	0	0	0	0	0	0	0	0	0	0	1
Greene County, US 65 - Install median guardcable from US 60 in Springfield	Rural Principal Arterial - Other Freeways and Expresswa	Roadside	Barrier - cable	0	0	0	0	0	0	0	0	0	0	1

to Finley River Bridge in Ozark.	ys													

Optional Attachments

Sections	Files Attached

Glossary

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

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

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

HMVMT means hundred million vehicle miles traveled.

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

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

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

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

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

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

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

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