



Highway Safety Improvement Program  
*Data Driven Decisions*

Maryland  
Highway Safety Improvement Program  
2015 Annual Report

Prepared by: MD

## Disclaimer

### **Protection of Data from Discovery & Admission into Evidence**

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

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

---

## Table of Contents

Disclaimer.....	ii
Executive Summary.....	1
Introduction .....	3
Program Structure .....	3
Program Administration .....	3
Program Methodology.....	5
Progress in Implementing Projects .....	34
Funds Programmed.....	34
General Listing of Projects .....	37
Progress in Achieving Safety Performance Targets .....	45
Overview of General Safety Trends .....	45
Application of Special Rules .....	59
Assessment of the Effectiveness of the Improvements (Program Evaluation) .....	63
SHSP Emphasis Areas .....	65
Groups of similar project types.....	70
Systemic Treatments.....	75
Project Evaluation .....	81
Glossary.....	83

## Executive Summary

### Summary Maryland Highway Safety Improvement Program (HSIP) CY 2014

- HSIP is administered centrally
- Local roads are not allocated HSIP funds
- The Maryland Highway Safety Office (MHSO) along with the Maryland Transportation Authority (MDTA) and the Maryland Institute for Emergency Medical Services are important internal partners with the Maryland State Highway Administration (SHA) in the HSIP process. Several regional planning organizations also coordinate with the SHA as external partners.
- Programs administered under the HSIP
  - Median Barrier
  - Horizontal Curve
  - Skid Hazard
  - Roadway Departure
  - Left-turn crash
  - Intersection Crash Data
  - Low Cost Spot Improvements
  - Pedestrian Safety
  - Rural State Highway
  - Right Angle Crash
  - Highway Sections
    - The data types used in the HSIP program methodology are vehicle crashes ,traffic volume and highway mileage
    - The project identification methodology used in the HSIP program are crash frequency and relative severity index
    - The HSIP projects are advanced for implementation by an SHA selection committee. The criteria considered are Safety, Congestion, Operations and Local Support
    - The proportion of HSIP program Funds used in CY 2014 for funding systemic improvements is 80%
    - The types of systemic improvements include
  - Cable median barriers
  - Rumble strips
  - Traffic control device rehabilitation
  - Pavement installation and improvement
    - Engineering studies are used to identify potential countermeasures
    - The HSIP funding for CY 2014
  - Programmed - \$37,556,765

- Non-infrastructure portion - \$6,434,995
- Obligated - \$43,369,755
  - Non-infrastructure portion - \$8,723,537
  - Additional site specific information is expected to be available in future years for individual HSIP related projects
  - The General listing of projects includes various traffic control, roadside, intersection geometry and non-infrastructure projects
  - The Overview of safety trends indicates that the reported number of fatalities have decreased from 581 in 2010 to 481 in 2014 (rolling average format) and that the number of serious injuries have decreased from 4,925 in 2010 to 3,456 in 2014 (rolling average format)
  - The Roadway ownership indicates that in 2014 the top four road systems experienced the following number of fatalities:
    - MD State Highways – 197
    - County Roads – 103
    - US Highways – 53
    - Interstate Highways – 49
  - Older Driver (65+) Fatal and Severe Injury per capita rate has decreased from 2007-11 (3.0) as compared with 2009-2011 (2.6)
  - The effectiveness of the HSIP program will be indicated by the crash data trends. Additional site specific data is expected to become available in subsequent HSIP reports
  - The significant programmatic change in the HSIP program is that efforts have progressed in response to the projected MAP-21 Safety Target Setting Methodologies. Additionally work on the 2016-20 SHSP will be completed later this year.
  - Overall yearly crash trends for the individual SHSP (Strategic Highway Safety Program) areas along with the HSIP Sub-Program areas are shown in tables in the annual report

## 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.**

Local Roads are not given HSIP funds from the State

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

Design

Planning

- Maintenance
- Operations
- Governors Highway Safety Office
- Other: Other-Maryland State Highway District Offices

**Briefly describe coordination with internal partners.**

The Traffic Development and Support Division (TDSD) along with the Maryland Highway Safety Office (MHSO) (Note: MHSO moved from SHA in 2012 and is now part of MVA) and other Office of Traffic and Safety (OOTs) divisions provided leadership, support, and coordination for Maryland's highway safety projects in CY 2014. Part of TDSD and MHSO's responsibility is to work with other State agencies to address highway safety issues. This effort results in a multi agency approach which includes the Motor Vehicle Administration, the Maryland Transportation Authority, the Maryland Institute for Emergency Medical Services and others that have roles in highway safety problems. The seven SHA District Offices also provide a network of field personnel willing to coordinate and provide technical assistance to local agencies. There is a continuing relationship between OOTS and the Federal Highway Administration (FHWA) along with National Highway Traffic Safety Administration and Federal Motor Carrier Safety Administration.

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

- Metropolitan Planning Organizations
- Governors Highway Safety Office
- Local Government Association
- Other: Other-: External partners including MPOs, local government, police agencies and academic organizations are included in the 2016-20 SHSP planning process

**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-Work the 2016-20 SHSP is will be finished later this year

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

none at this time

### Program Methodology

**Select the programs that are administered under the HSIP.**

- |   |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> Median Barrier    | <input checked="" type="checkbox"/> Intersection               | <input type="checkbox"/> Safe Corridor                    |
| <input checked="" type="checkbox"/> Horizontal Curve  | <input type="checkbox"/> Bicycle Safety                        | <input checked="" type="checkbox"/> Rural State Highways  |
| <input checked="" type="checkbox"/> Skid Hazard       | <input checked="" type="checkbox"/> Crash Data                 | <input type="checkbox"/> Red Light Running Prevention     |
| <input checked="" type="checkbox"/> Roadway Departure | <input checked="" type="checkbox"/> Low-Cost Spot Improvements | <input type="checkbox"/> Sign Replacement And Improvement |
| <input type="checkbox"/> Local Safety                 | <input checked="" type="checkbox"/> Pedestrian Safety          | <input checked="" type="checkbox"/> Right Angle Crash     |
| <input checked="" type="checkbox"/> Left Turn Crash   | <input type="checkbox"/> Shoulder Improvement                  | <input checked="" type="checkbox"/> Segments              |
| <input type="checkbox"/> Other:                       |  |   |



**Program:** Median Barrier

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

*Crashes*

- All crashes
- Fatal crashes only
- Fatal and serious injury crashes only
- Other

*Exposure*

- Traffic
- Volume
- Population
- Lane miles
- Other-Highway mileage

*Roadway*

- Median width
- Horizontal curvature
- Functional classification
- Roadside features
- Other

**What project identification methodology was used for this program?**

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types

Excess proportions of specific crash types Other

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

 Yes No

**How are highway safety improvement projects advanced for implementation?**

 Competitive application process selection committee Other

**Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**

 Relative Weight in Scoring Rank of Priority Consideration Ranking based on B/C Available funding Incremental B/C Ranking based on net benefit Other Safety 60 Congestion / Operations 30

Support / Opportunity 10

**Program:** Intersection

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

*Crashes*

All crashes

Fatal crashes only

Fatal and serious injury  
crashes only

Other

*Exposure*

Traffic

Volume

Population

Lane miles

Other

*Roadway*

Median width

Horizontal curvature

Functional classification

Roadside features

Other

**What project identification methodology was used for this program?**

Crash frequency

Expected crash frequency with EB adjustment

Equivalent property damage only (EPDO Crash frequency)

EPDO crash frequency with EB adjustment

Relative severity index

Crash rate

Critical rate

Level of service of safety (LOSS)

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

- Competitive application process
- selection committee
- Other

**Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**

- Relative Weight in Scoring
- Rank of Priority Consideration

- Ranking based on B/C
- Available funding
- Incremental B/C

- Ranking based on net benefit
- Other
- Safety 60
- Congestion / Operations 30
- Support / Opportunity 10

**Program:** Horizontal Curve

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

- | <i>Crashes</i>   | <i>Exposure</i>   | <i>Roadway</i>                                     |
|--|---|--|
| <input checked="" type="checkbox"/> All crashes                | <input type="checkbox"/> Traffic                          | <input type="checkbox"/> Median width              |
| <input type="checkbox"/> Fatal crashes only                    | <input checked="" type="checkbox"/> Volume                | <input type="checkbox"/> Horizontal curvature      |
| <input type="checkbox"/> Fatal and serious injury crashes only | <input type="checkbox"/> Population                       | <input type="checkbox"/> Functional classification |
| <input type="checkbox"/> Other                                 | <input type="checkbox"/> Lane miles                       | <input type="checkbox"/> Roadside features         |
|  | <input checked="" type="checkbox"/> Other-Highway mileage | <input type="checkbox"/> Other                     |

**What project identification methodology was used for this program?**

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment

- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

- Competitive application process
- selection committee
- Other

**Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**

- Relative Weight in Scoring
- Rank of Priority Consideration

- Ranking based on B/C
- Available funding
- Incremental B/C
- Ranking based on net benefit
- Other
- Safety 60
- Congestion / Operations 30
- Support / Opportunity 10

**Program:** Rural State Highways

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

- | <i>Crashes</i>   | <i>Exposure</i>   | <i>Roadway</i>  |
|--|---|---|
| <input checked="" type="checkbox"/> All crashes                | <input type="checkbox"/> Traffic                          | <input type="checkbox"/> Median width                 |
| <input type="checkbox"/> Fatal crashes only                    | <input checked="" type="checkbox"/> Volume                | <input type="checkbox"/> Horizontal curvature         |
| <input type="checkbox"/> Fatal and serious injury crashes only | <input type="checkbox"/> Population                       | <input type="checkbox"/> Functional classification    |
| <input type="checkbox"/> Other                                 | <input type="checkbox"/> Lane miles                       | <input checked="" type="checkbox"/> Roadside features |
|  | <input checked="" type="checkbox"/> Other-Highway mileage | <input type="checkbox"/> Other                        |

**What project identification methodology was used for this program?**

- Crash frequency

- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

- Competitive application process
- selection committee
- Other

**Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**



Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Other

Safety 60

Congestion / Operations 30

Support / Opportunity 10

**Program:** Skid Hazard

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

**What data types were used in the program methodology?**

*Crashes*

All crashes

Fatal crashes only

Fatal and serious injury crashes only

Other

*Exposure*

Traffic

Volume

Population

Lane miles

Other-Highway mileage

*Roadway*

Median width

Horizontal curvature

Functional classification

Roadside features

Other

**What project identification methodology was used for this program?**

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

- Competitive application process
- selection committee
- Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Other

Safety 60

Congestion / Operations 30

Support / Opportunity 10

---

**Program:** Crash Data

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

*Crashes*

All crashes

Fatal crashes only

*Exposure*

Traffic

Volume

*Roadway*

Median width

Horizontal curvature

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Fatal and serious injury crashes only | <input type="checkbox"/> Population                       | <input checked="" type="checkbox"/> Functional classification |
| <input type="checkbox"/> Other                                 | <input type="checkbox"/> Lane miles                       | <input type="checkbox"/> Roadside features                    |
|  | <input checked="" type="checkbox"/> Other-Highway mileage | <input type="checkbox"/> Other                                |

**What project identification methodology was used for this program?**

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

Competitive application process selection committee Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

 Relative Weight in Scoring Rank of Priority Consideration Ranking based on B/C Available funding Incremental B/C Ranking based on net benefit Other Safety 60 Congestion / Operations 30 Support / Opportunity 10

---

**Program:** Roadway Departure

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

<i>Crashes</i>	<i>Exposure</i>	<i>Roadway</i>
<input checked="" type="checkbox"/> All crashes	<input type="checkbox"/> Traffic	<input type="checkbox"/> Median width
<input type="checkbox"/> Fatal crashes only	<input checked="" type="checkbox"/> Volume	<input type="checkbox"/> Horizontal curvature
<input type="checkbox"/> Fatal and serious injury crashes only	<input type="checkbox"/> Population	<input type="checkbox"/> Functional classification
<input type="checkbox"/> Other	<input type="checkbox"/> Lane miles	<input type="checkbox"/> Roadside features
	<input checked="" type="checkbox"/> Other-Highway mileage	<input type="checkbox"/> Other

**What project identification methodology was used for this program?**

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

Yes No**How are highway safety improvement projects advanced for implementation?** Competitive application process selection committee Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

 Relative Weight in Scoring Rank of Priority Consideration Ranking based on B/C Available funding Incremental B/C Ranking based on net benefit Other Safety 60 Congestion / Operations 30 Support / Opportunity 10

---

**Program:** Low-Cost Spot Improvements

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

*Crashes*

- All crashes
- Fatal crashes only
- Fatal and serious injury crashes only
- Other

*Exposure*

- Traffic
- Volume
- Population
- Lane miles
- Other-Highway mileage

*Roadway*

- Median width
- Horizontal curvature
- Functional classification
- Roadside features
- Other

**What project identification methodology was used for this program?**

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types



Excess proportions of specific crash types Other

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

 Yes No

**How are highway safety improvement projects advanced for implementation?**

 Competitive application process selection committee Other

**Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**

 Relative Weight in Scoring Rank of Priority Consideration Ranking based on B/C Available funding Incremental B/C Ranking based on net benefit Other Safety 60 Congestion / Operations 30

Support / Opportunity 10

**Program:** Pedestrian Safety

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

**What data types were used in the program methodology?**

*Crashes*

All crashes

Fatal crashes only

Fatal and serious injury  
crashes only

Other

*Exposure*

Traffic

Volume

Population

Lane miles

Other-Highway mileage

*Roadway*

Median width

Horizontal curvature

Functional classification

Roadside features

Other

**What project identification methodology was used for this program?**

Crash frequency

Expected crash frequency with EB adjustment

Equivalent property damage only (EPDO Crash frequency)

EPDO crash frequency with EB adjustment

Relative severity index

Crash rate

Critical rate

Level of service of safety (LOSS)

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

- Competitive application process
- selection committee
- Other

**Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**

- Relative Weight in Scoring
- Rank of Priority Consideration

- Ranking based on B/C
- Available funding
- Incremental B/C

- Ranking based on net benefit
- Other
- Safety 60
- Congestion / Operations 30
- Support / Opportunity 10

**Program:** Right Angle Crash

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

- | <i>Crashes</i>   | <i>Exposure</i>                     | <i>Roadway</i>                                     |
|--|-------------------------------------|--|
| <input checked="" type="checkbox"/> All crashes                | <input type="checkbox"/> Traffic    | <input type="checkbox"/> Median width              |
| <input type="checkbox"/> Fatal crashes only                    | <input type="checkbox"/> Volume     | <input type="checkbox"/> Horizontal curvature      |
| <input type="checkbox"/> Fatal and serious injury crashes only | <input type="checkbox"/> Population | <input type="checkbox"/> Functional classification |
| <input type="checkbox"/> Other                                 | <input type="checkbox"/> Lane miles | <input type="checkbox"/> Roadside features         |
|  | <input type="checkbox"/> Other      | <input type="checkbox"/> Other                     |

**What project identification methodology was used for this program?**

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment

- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

- Competitive application process
- selection committee
- Other

**Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**

- Relative Weight in Scoring
- Rank of Priority Consideration

- Ranking based on B/C
- Available funding
- Incremental B/C
- Ranking based on net benefit
- Other
- Safety 60
- Congestion / Operations 30
- Support / Opportunity 10

**Program:** Left Turn Crash

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

- | <i>Crashes</i>   | <i>Exposure</i>                     | <i>Roadway</i>                                     |
|--|-------------------------------------|--|
| <input checked="" type="checkbox"/> All crashes                | <input type="checkbox"/> Traffic    | <input type="checkbox"/> Median width              |
| <input type="checkbox"/> Fatal crashes only                    | <input type="checkbox"/> Volume     | <input type="checkbox"/> Horizontal curvature      |
| <input type="checkbox"/> Fatal and serious injury crashes only | <input type="checkbox"/> Population | <input type="checkbox"/> Functional classification |
| <input type="checkbox"/> Other                                 | <input type="checkbox"/> Lane miles | <input type="checkbox"/> Roadside features         |
|  | <input type="checkbox"/> Other      | <input type="checkbox"/> Other                     |

**What project identification methodology was used for this program?**

- Crash frequency

- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

- Competitive application process
- selection committee
- Other

**Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).**

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Other

Safety 60

Congestion / Operations 30

Support / Opportunity 10

**Program:** Segments

**Date of Program Methodology:** 1/1/2010

**What data types were used in the program methodology?**

*Crashes*

All crashes

Fatal crashes only

Fatal and serious injury crashes only

Other

*Exposure*

Traffic

Volume

Population

Lane miles

Other-Highway mileage

*Roadway*

Median width

Horizontal curvature

Functional classification

Roadside features

Other



**What project identification methodology was used for this program?**

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess expected crash frequency using method of moments
- Probability of specific crash types
- Excess proportions of specific crash types
- Other

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

- Yes
- No

**How are highway safety improvement projects advanced for implementation?**

- Competitive application process
- selection committee
- Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Other

Safety 60

Congestion / Operations 30

Support / Opportunity 10

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

80

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

Cable Median Barriers

Rumble Strips

Traffic Control Device Rehabilitation

Pavement/Shoulder Widening

- |  |  |
|--|--|
| <input type="checkbox"/> Install/Improve Signing                             | <input type="checkbox"/> Install/Improve Pavement Marking and/or Delineation |
| <input checked="" type="checkbox"/> Upgrade Guard Rails                      | <input type="checkbox"/> Clear Zone Improvements                             |
| <input type="checkbox"/> Safety Edge   | <input checked="" type="checkbox"/> Install/Improve Lighting                 |
| <input checked="" type="checkbox"/> Add/Upgrade/Modify/Remove Traffic Signal | <input type="checkbox"/> Other   |

**What process is used to identify potential countermeasures?**

- Engineering Study
- Road Safety Assessment
- Other:

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

- Highway Safety Manual
- Road Safety audits
- Systemic Approach
- Other: Other-Transition to electronic crash report form (ACRS)

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

none at this time

## 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	
<b>HSIP (Section 148)</b>	9302545.2	25 %	10628055	25 %
<b>HRRRP (SAFETEA-LU)</b>	3055939.25	8 %	3172321.13	7 %
<b>HRRR Special Rule</b>				
<b>Penalty Transfer - Section 154</b>				
<b>Penalty Transfer - Section 164</b>	2592345.13	7 %	4427319	10 %
<b>Incentive Grants - Section 163</b>				
<b>Incentive Grants (Section 406)</b>				
<b>Other Federal-aid Funds (i.e. STP, NHPP)</b>	912131.26	2 %	999999	2 %
<b>State and Local Funds</b>				

<b>Other HSIP (SAFETEA-LU)</b>	11618368.47	31 %	12539890	29 %
<b>Other HSIP (MAP 21)</b>	10075436.04	27 %	11602171	27 %
<b>Totals</b>	37556765.35	100%	43369755.13	100%

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

\$0.00

**How much funding is obligated to local safety projects?**

\$0.00

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

\$6,434,995.00

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

\$8,723,537.00

**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?**

\$2,592,345.00

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

None at this time

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

Additional site specific information is expected to be available in CY 2015 for individual HSIP related projects

**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
#00DB(094)	Roadway delineation Raised pavement markers	Miles	1541519	1712776	HSIP (Map 21)	areawide			State Highway Agency	Roadway Departure	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
#0682(048)	Roadside Barrier-metal	2.95 Miles	500000	1801666	HSIP (Map 21)	Rural Principal Arterial - Interstate	16451	65	State Highway Agency	Roadway Departure	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes



#1066(009)	Roadway Roadway - other	1.37 Miles	537841	591652	HSIP (Map 21)	Rural Minor Arterial	6462	40	State Highway Agency	Roadway Departure	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
#3003(009)	Roadside Barrier - other	5.46 Miles	1191685	1191685	HSIP (Map 21)	Urban Principal Arterial - Other Freeways and Expressways	51621	55	State Highway Agency	Roadway Departure	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
#3121(011)	Pedestrians and bicyclists Miscellaneous pedestrians and bicyclists	1.59 Miles	1522100	1522100	HSIP (Map 21)	Urban Minor Arterial	10782	40	State Highway Agency	Pedestrians	Develop and evaluate model approaches to engineering built environment

											s that accommodate safe pedestrian travel
<b>#5030(010)</b>	Intersection geometry Intersection geometry - other	Miles	7569726	8914953	HSIP (Section 148) (Map 21)	Urban Principal Arterial - Other	16960	40	State Highway Agency	Intersections	Identify high crash locations (intersections and locations) and make safety improvements statewide
<b>#6956(347)</b>	Interchange design Interchange design - other	Miles	3190802	3256743	HSIP (Section 148) (Map 21)	Urban Principal Arterial - Interstate	195513	55	State Highway Agency	Highway Infrastructure	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
<b>#2361(037)</b>	Roadside Barrier -	6.24 Miles	801595	801595	HSIP (Map 21)	Urban Principal	41171	55	State Highway	Roadway Departure	Identify high crash

	other					Arterial - Other			Agency		locations (intersections and locations) and make safety improvements statewide
<b>#2881(006)</b>	Intersection traffic control Modify control - no control to roundabout	Miles	764460	849400	HRRRP (SAFETE A-LU)	Rural Minor Arterial	7123	50	State Highway Agency	Data	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
<b>#2391(005)</b>	Intersection geometry Intersection geometry - other	Miles	1998087	1998087	HRRRP (SAFETE A-LU)	Rural Minor Arterial	14731	50	State Highway Agency	Intersections	analyze data to identify system wide improvements to reduce the number and severity of infrastructure

											e crashes
#2571(016)	Intersection geometry Intersection geometry - other	Miles	2908347	2939789	HRRRP (SAFETE A-LU) (Map 21)	Rural Minor Arterial	18702	50	State Highway Agency	Intersections	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
#000A(712)	Roadside Barrier - other	Miles	447465	447465	HSIP (Section 148) (SAFETE A-LU)	areawide			State Highway Agency	Roadway Departure	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
#000A(813)	Roadside Barrier - other	Miles	1096704	1096704	HSIP (Section 148) (SAFETE A-LU)	areawide			State Highway Agency	Roadway Departure	analyze data to identify system wide improvements to reduce the number

											and severity of infrastructure crashes
#000A(726)	Non-Infrastructure Transportation safety planning	Miles	1341900	1491000	HSIP (SAFETA-LU)	areawide			State Highway Agency	Data	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
#000A(731)	Non-Infrastructure Transportation safety planning	Miles	1588619	1805219	HSIP (SAFETA-LU)	areawide			State Highway Agency	Data	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
#000A(754)	Roadway Pavement surface - high	Miles	2877158	2877158	HSIP (SAFETA-LU)	areawide			State Highway Agency	Highway Infrastructure	analyze data to identify system wide

	friction surface										improvements to reduce the number and severity of infrastructure crashes
<b>#1191(029)</b>	Intersection geometry Intersection geometry - other	Miles	407105	508855	HSIP (SAFETE A-LU)	Urban Principal Arterial - Other	55582	50	State Highway Agency	Data	analyze data to identify system wide improvements to reduce the number and severity of infrastructure crashes
<b>#000B(053)</b>	Pedestrians and bicyclists Modify existing crosswalk	Miles	376717	413497	HSIP (SAFETE A-LU)	areawide			State Highway Agency	Pedestrians	Develop and evaluate model approaches to engineering built environments that accommodate safe

---

											pedestrian travel

## Progress in Achieving Safety Performance Targets

### Overview of General Safety Trends

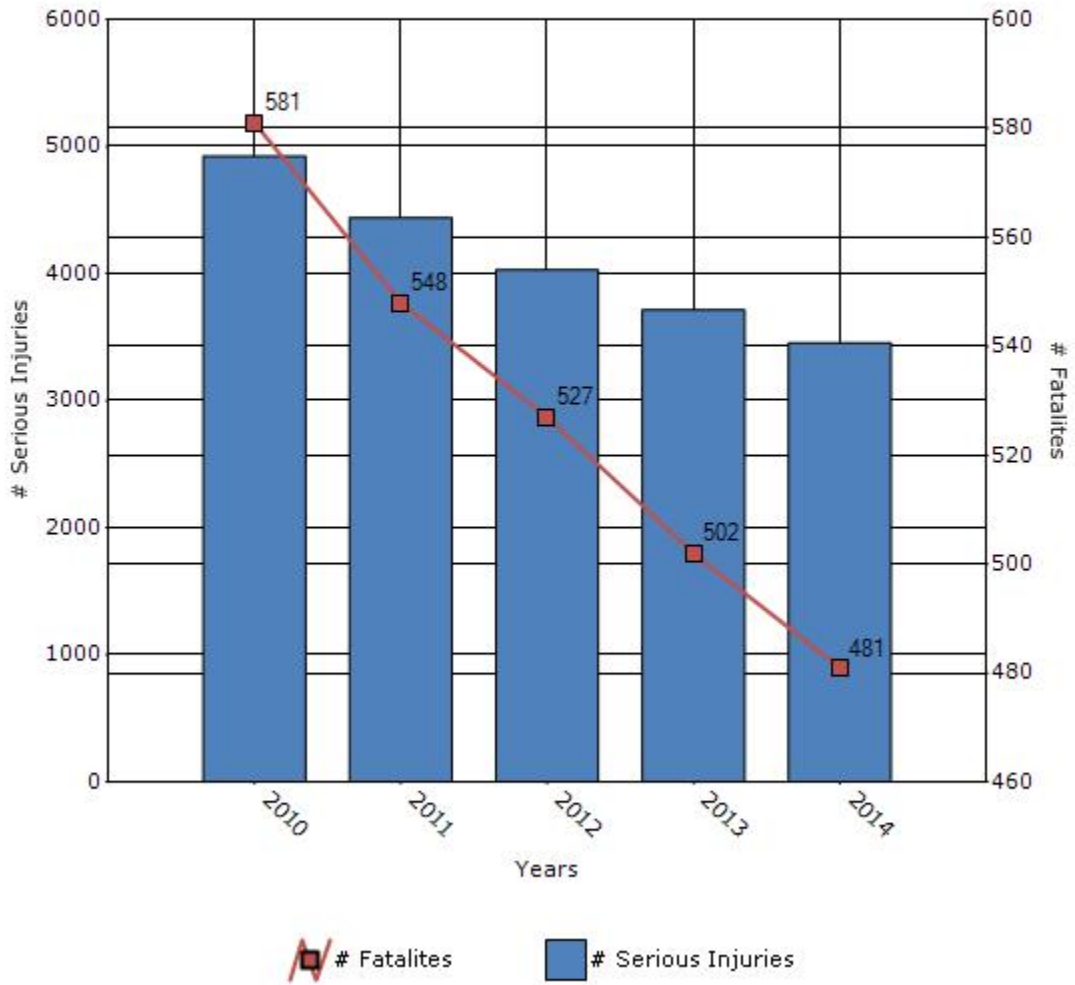
Present data showing the general highway safety trends in the state for the past five years.

Performance Measures*	2010	2011	2012	2013	2014
Number of fatalities	581	548	527	502	481
Number of serious injuries	4925	4439	4030	3714	3456
Fatality rate (per HMVMT)	1.03	0.97	0.94	0.9	0.85
Serious injury rate (per HMVMT)	8.75	7.9	7.19	6.62	6.13

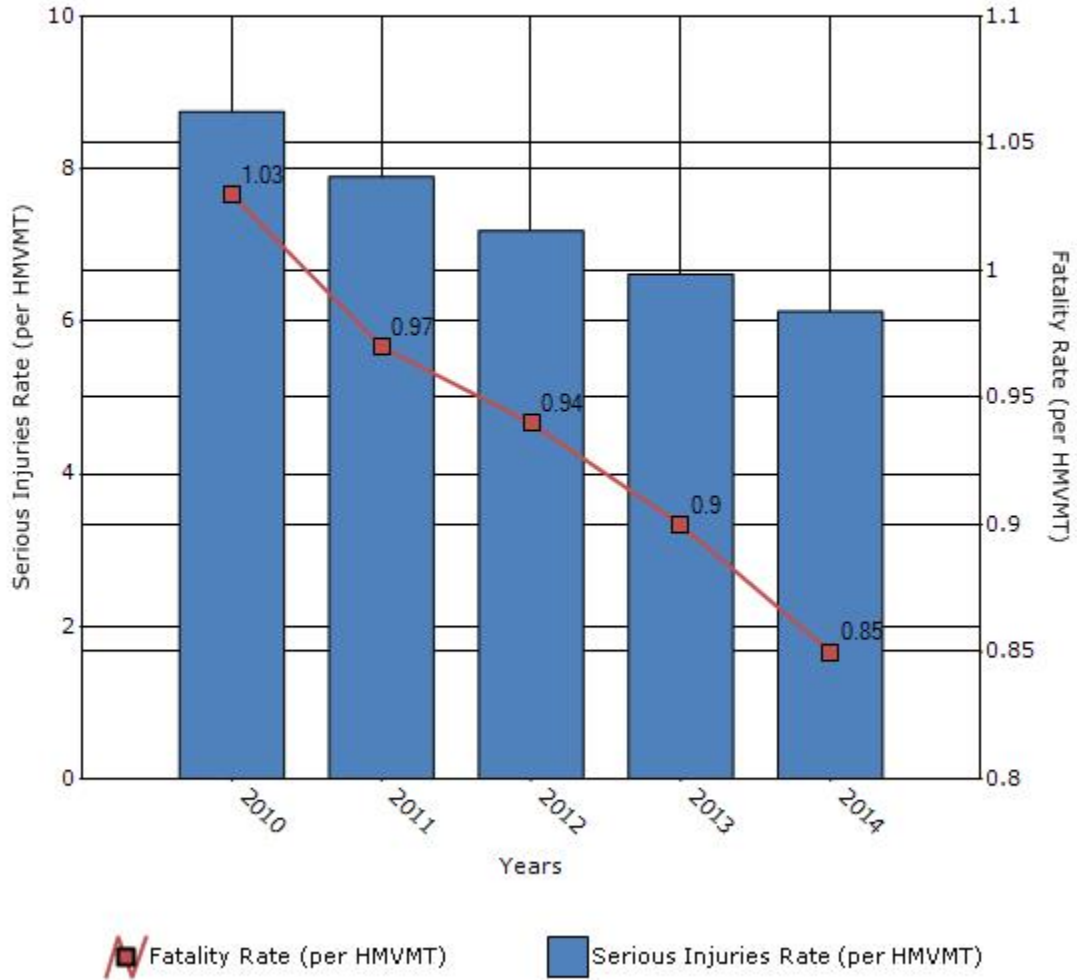
\*Performance measure data is presented using a five-year rolling average.



### Number of Fatalities and Serious injuries for the Last Five Years



### Rate of Fatalities and Serious injuries for the Last Five Years



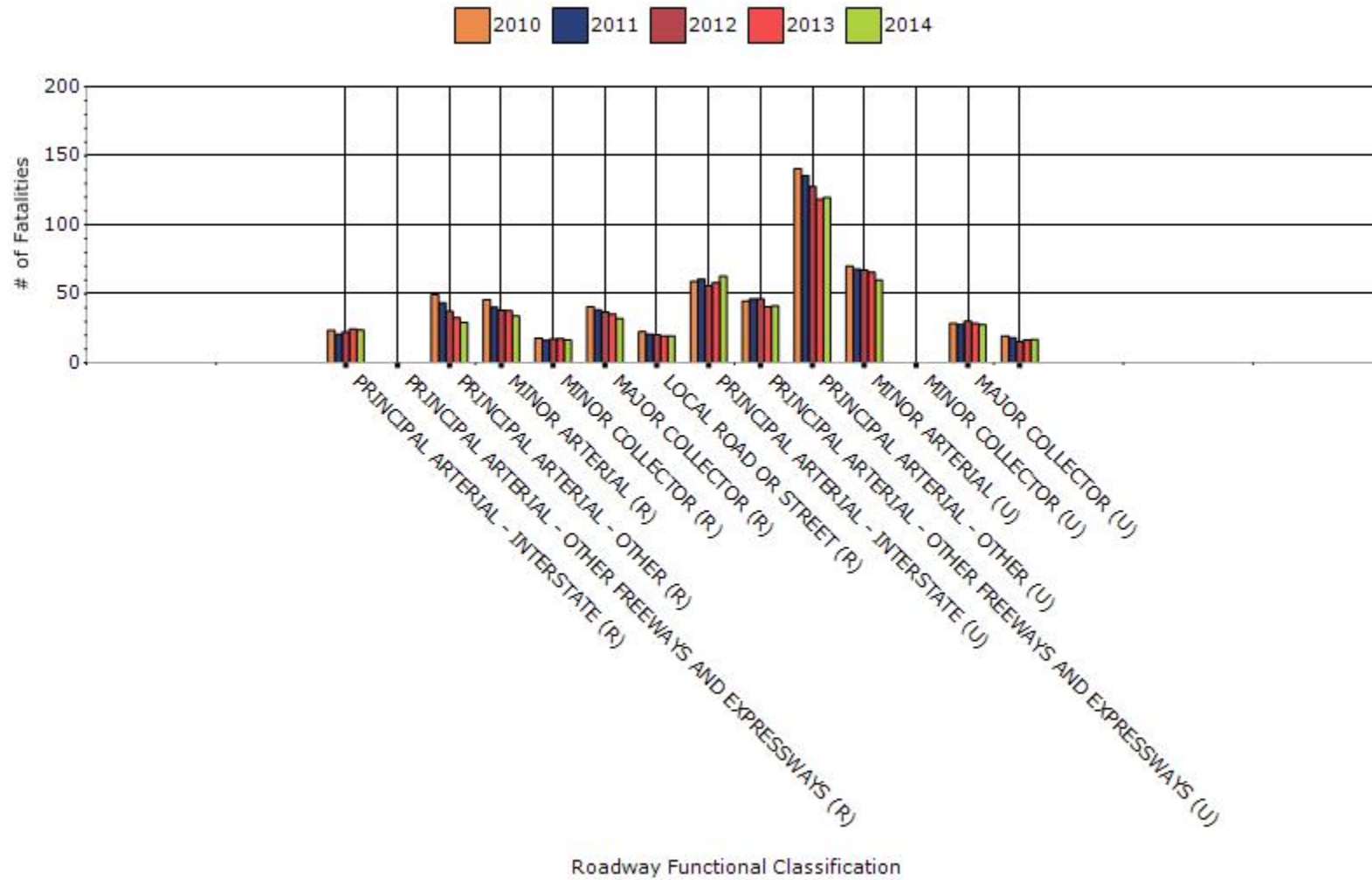
To the maximum extent possible, present performance measure\* data by functional classification and ownership.

### Year - 2014

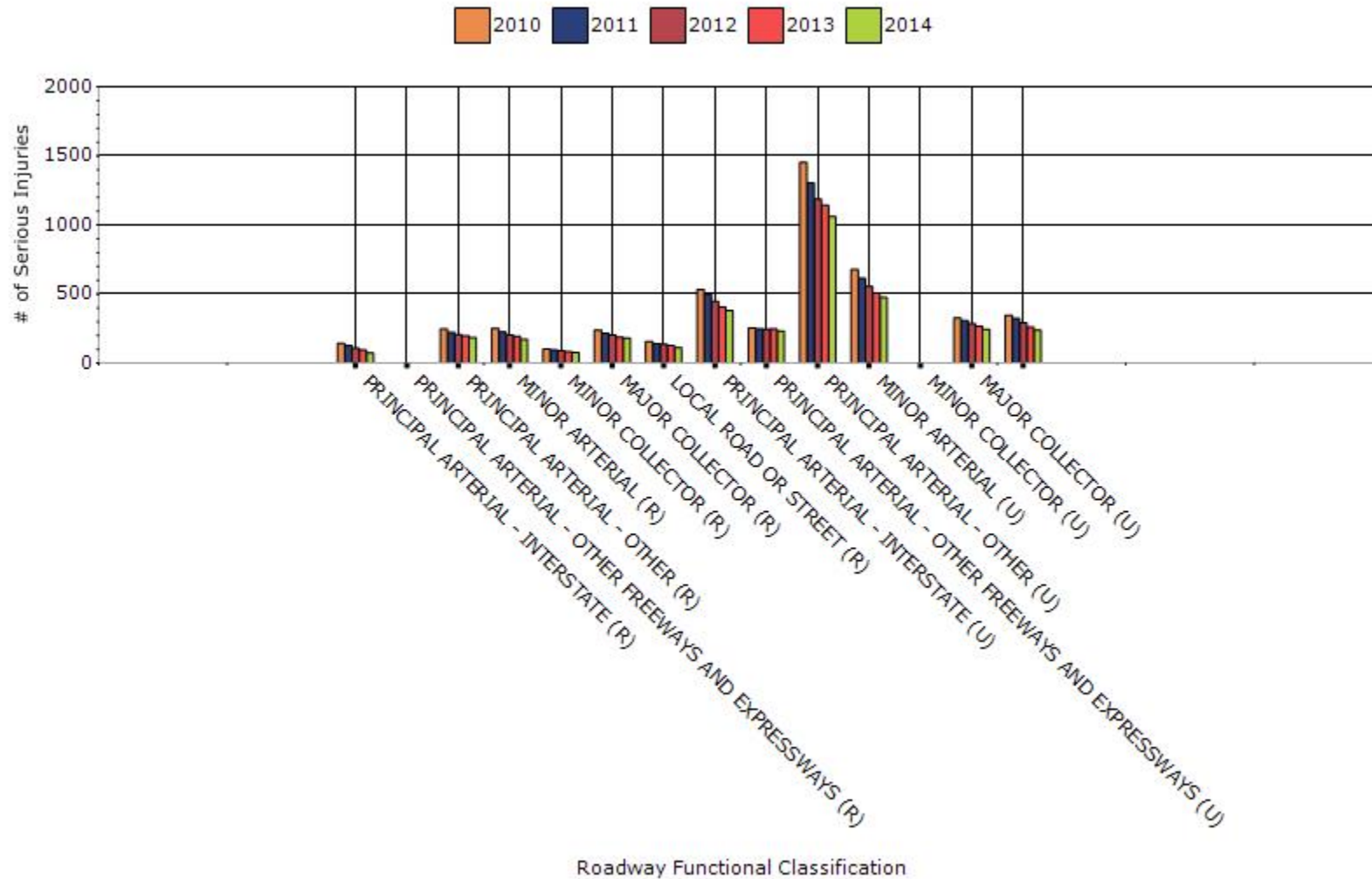
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	23.8	73.4	0.74	2.29
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER	29.2	185.4	0.92	5.98
RURAL MINOR ARTERIAL	34	173.8	1.54	7.84
RURAL MINOR COLLECTOR	16.6	76.4	1.4	6.51
RURAL MAJOR COLLECTOR	32.2	182.6	1.69	9.6
RURAL LOCAL ROAD OR STREET	19.6	113.4	1.19	6.87
URBAN PRINCIPAL	62.8	382	0.45	2.76

<b>ARTERIAL - INTERSTATE</b>				
<b>URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS</b>	41.2	232.6	0.7	3.97
<b>URBAN PRINCIPAL ARTERIAL - OTHER</b>	119.8	1063	1.17	10.39
<b>URBAN MINOR ARTERIAL</b>	60	475.2	0.95	7.5
<b>URBAN MINOR COLLECTOR</b>	0	0	0	0
<b>URBAN MAJOR COLLECTOR</b>	27.6	243.8	0.77	6.82
<b>URBAN LOCAL ROAD OR STREET</b>	17	239.4	0.56	7.91

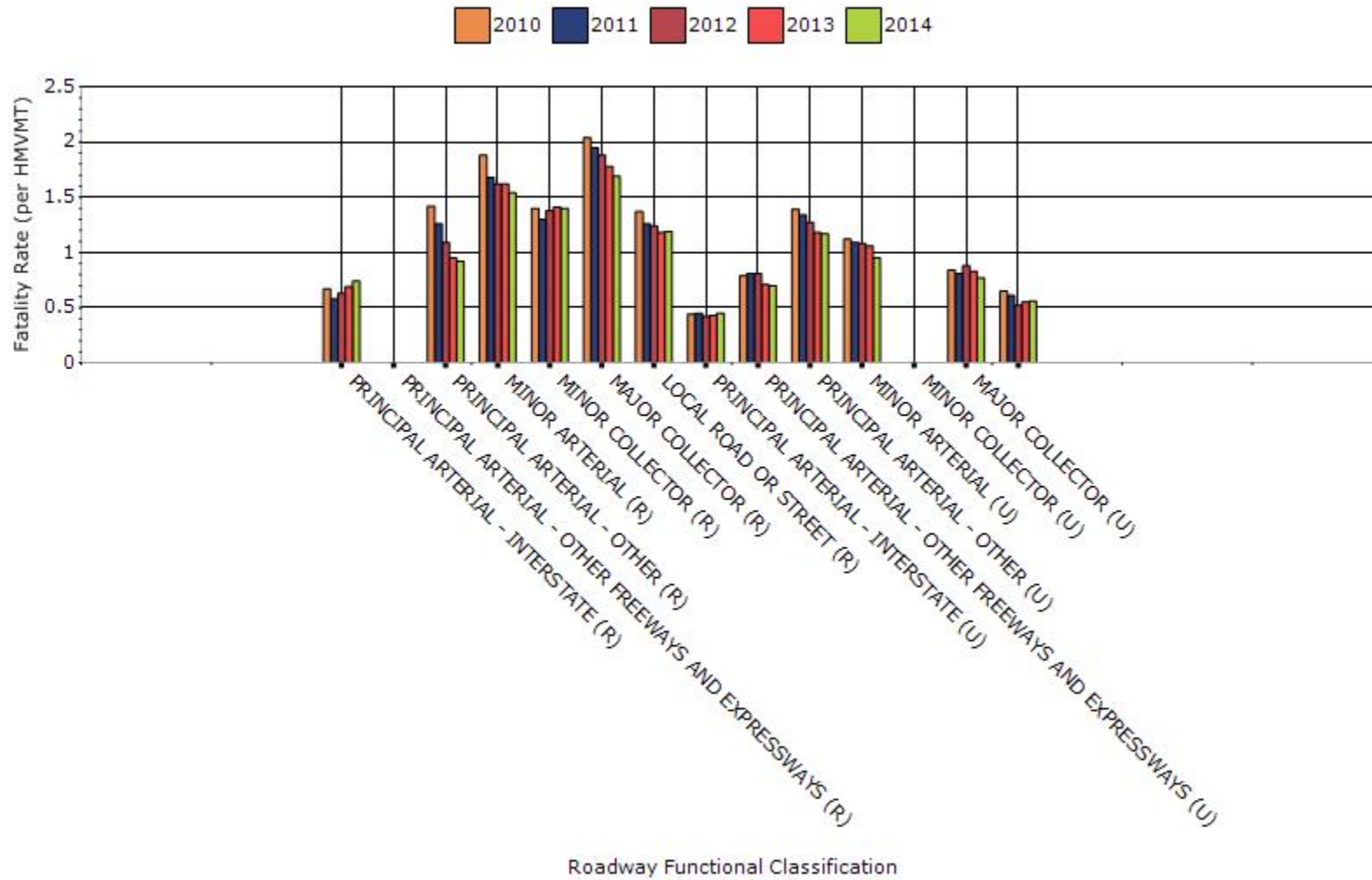
### # Fatalities by Roadway Functional Classification



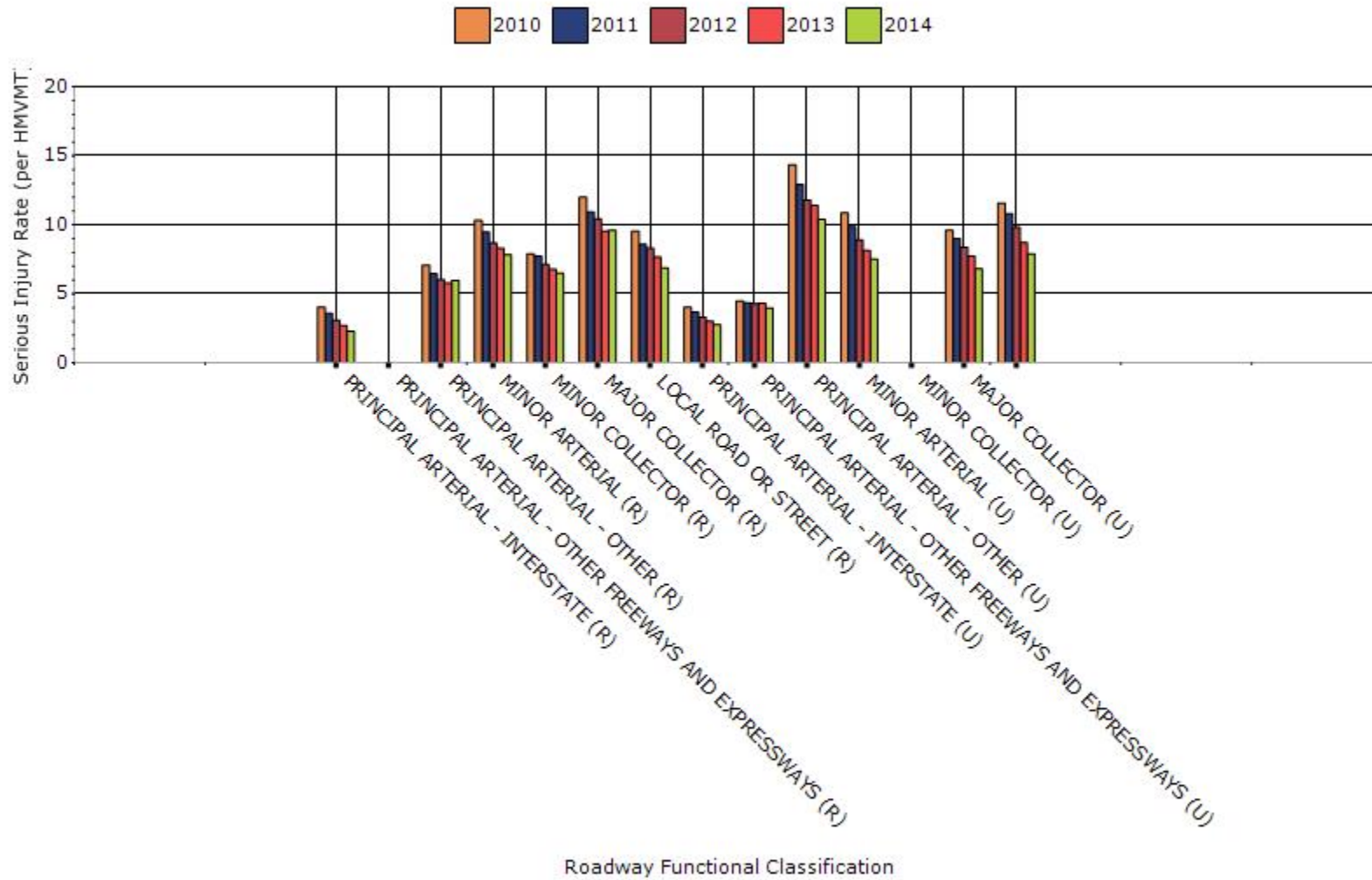
### # Serious Injuries by Roadway Functional Classification



### Fatality Rate by Roadway Functional Classification



### Serious Injury Rate by Roadway Functional Classification

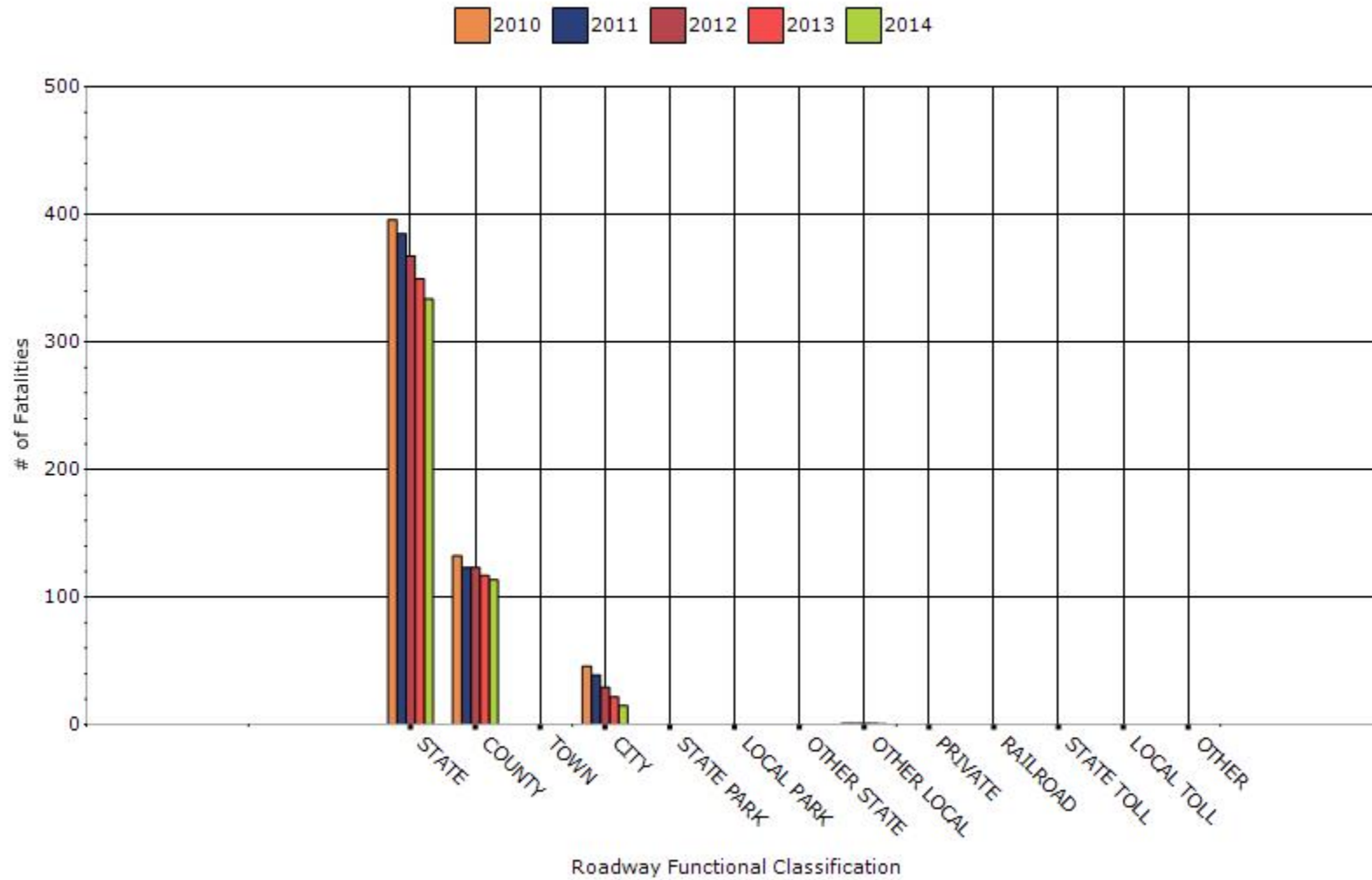




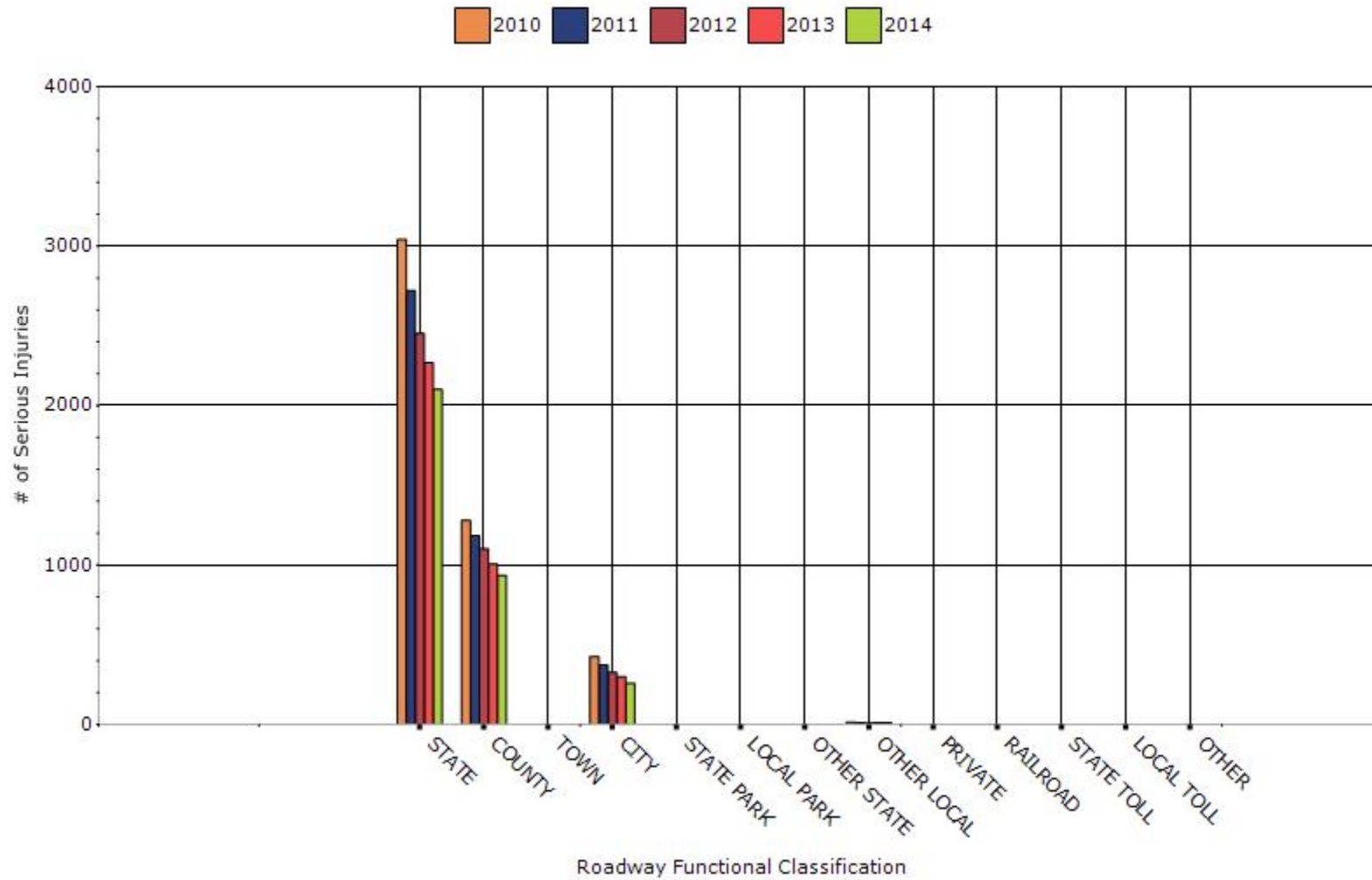
## Year - 2014

Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	333.6	2101.4	0	0
COUNTY HIGHWAY AGENCY	113.6	935	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	14.8	260.2	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	0.6	11.8	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

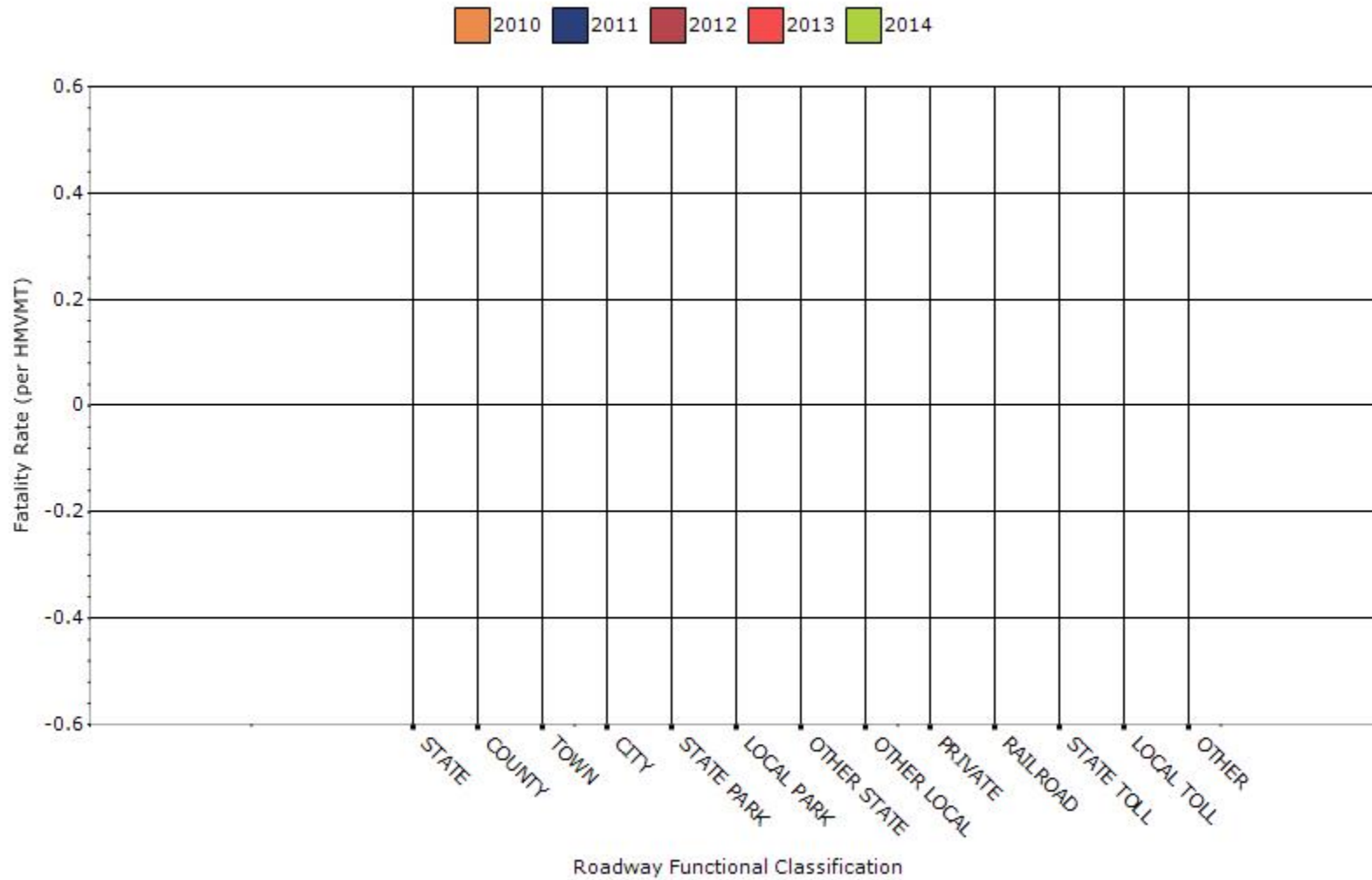
### Number of Fatalities by Roadway Ownership



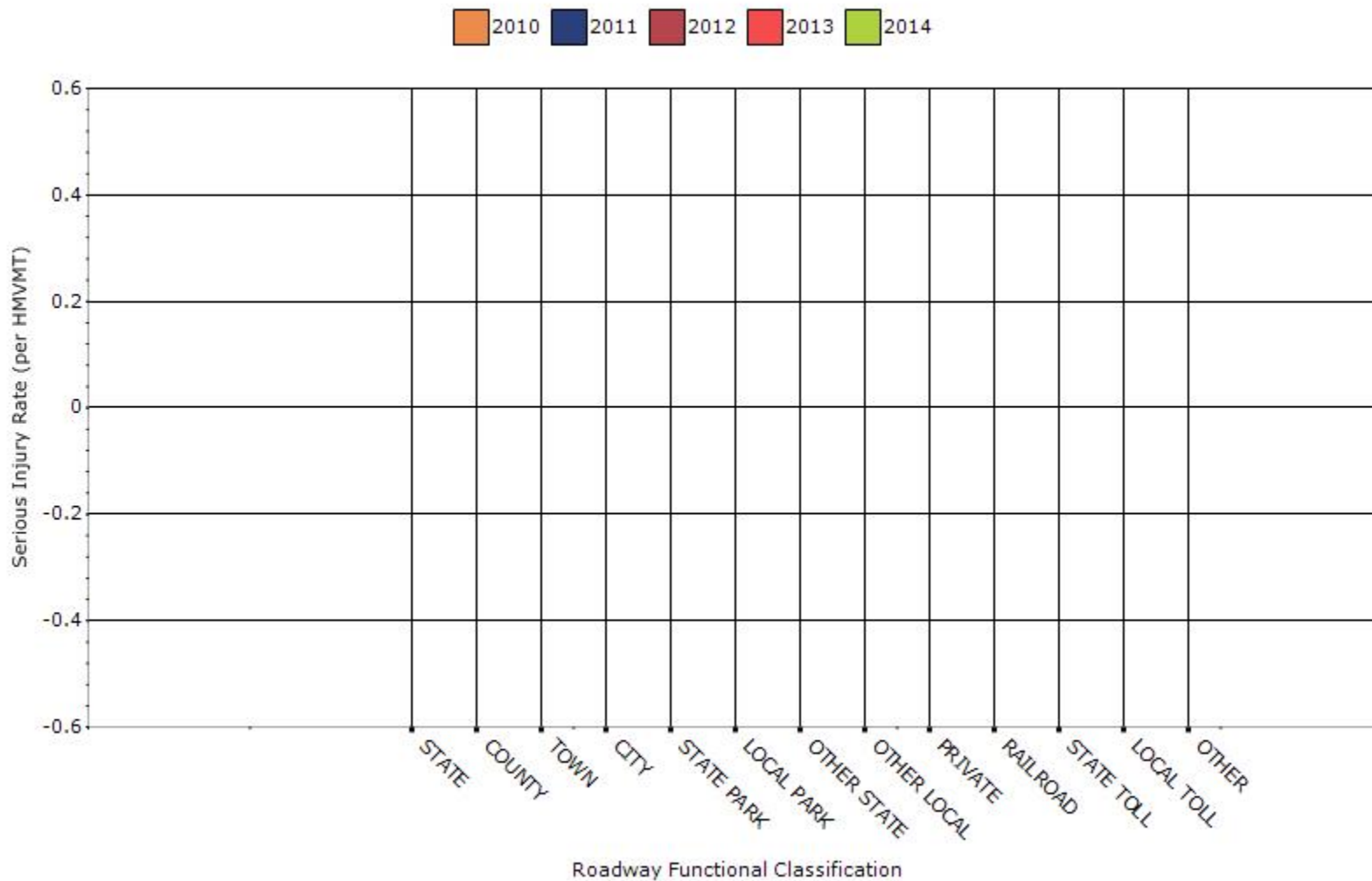
### Number of Serious Injuries by Roadway Ownership



### Fatality Rate by Roadway Ownership



### Serious Injury Rate by Roadway Ownership



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

none at this time

### 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)	0.594	0.546	0.518	0.522	0.49
Serious injury rate (per capita)	2.838	2.57	2.438	2.266	2.116
Fatality and serious injury rate (per capita)	3.434	3.118	2.958	2.786	2.604

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

### 2005 to 2013 Driver and Pedestrian Fatal 65 and older

#### Fatality

Year	Drivers	Peds	Combined	Pop Figure	Rate
2005	55	24	79	112	0.71
2006	63	13	76	115	0.66
2007	40	11	51	118	0.43
2008	51	13	64	121	0.53
2009	57	21	78	121	0.64
2010	42	16	58	123	0.47
2011	47	18	65	126	0.52
2012	39	19	58	130	0.45
2013	35	14	49	134	0.37

#### Severe Injury

Year	Drivers	Peds	Combined	Pop Figure	Rate
2005	355	43	398	112	3.55
2006	312	29	341	115	2.97

2007	287	43	330	118	2.80
2008	259	43	302	121	2.50
2009	238	49	287	121	2.37
2010	230	42	272	123	2.21
2011	241	50	291	126	2.31
2012	214	38	252	130	1.94
2013	199	35	234	134	1.75

### 2007 to 2011 Driver and Pedestrian Fatality and Severe Injury 65 and older

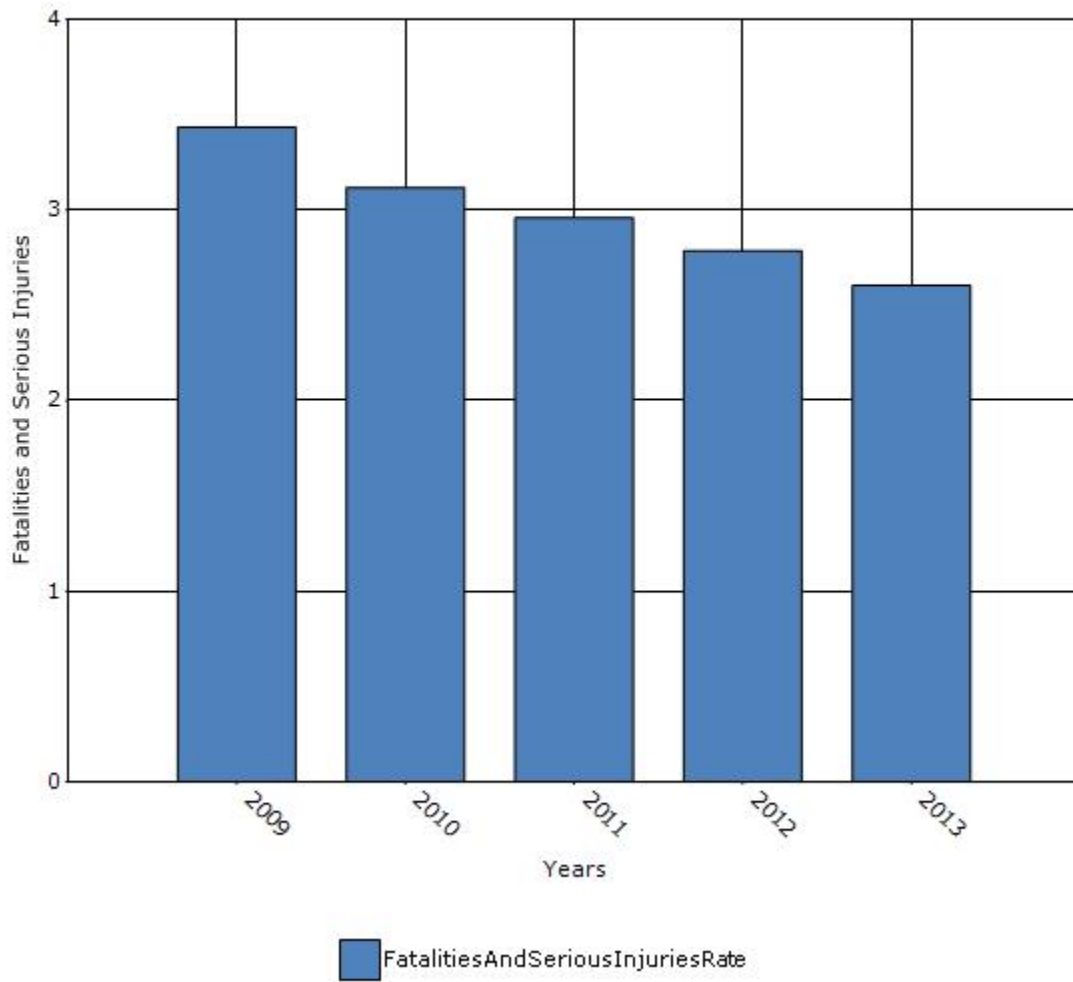
Year	Accidents	Pop Figure	Rate	Years	Total Rate
2007	381	118	3.23	1	
2008	366	121	3.02	1	
2009	365	121	3.02	1	
2010	330	123	2.68	1	
2011	356	126	2.83	1	
			14.78	5	<b>3.0</b>

### 2009 to 2013 Driver and Pedestrian Fatality and Severe Injury 65 and older

Year	Accidents	Pop Figure	Rate	Years	Total Rate
2009	365	121	3.02	1	
2010	330	123	2.68	1	
2011	356	126	2.83	1	
2012	310	130	2.38	1	
2013	283	134	2.11	1	

13.02 5 2.6

Rate of Fatalities and Serious injuries for the Last Five Years



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-The effectiveness of the HSIP program will be indicated by the crash data trends. More site specific data is expected to become available in subsequent HSIP reports

**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-Work on MAP 21 fatality and serious injury goals in progress

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

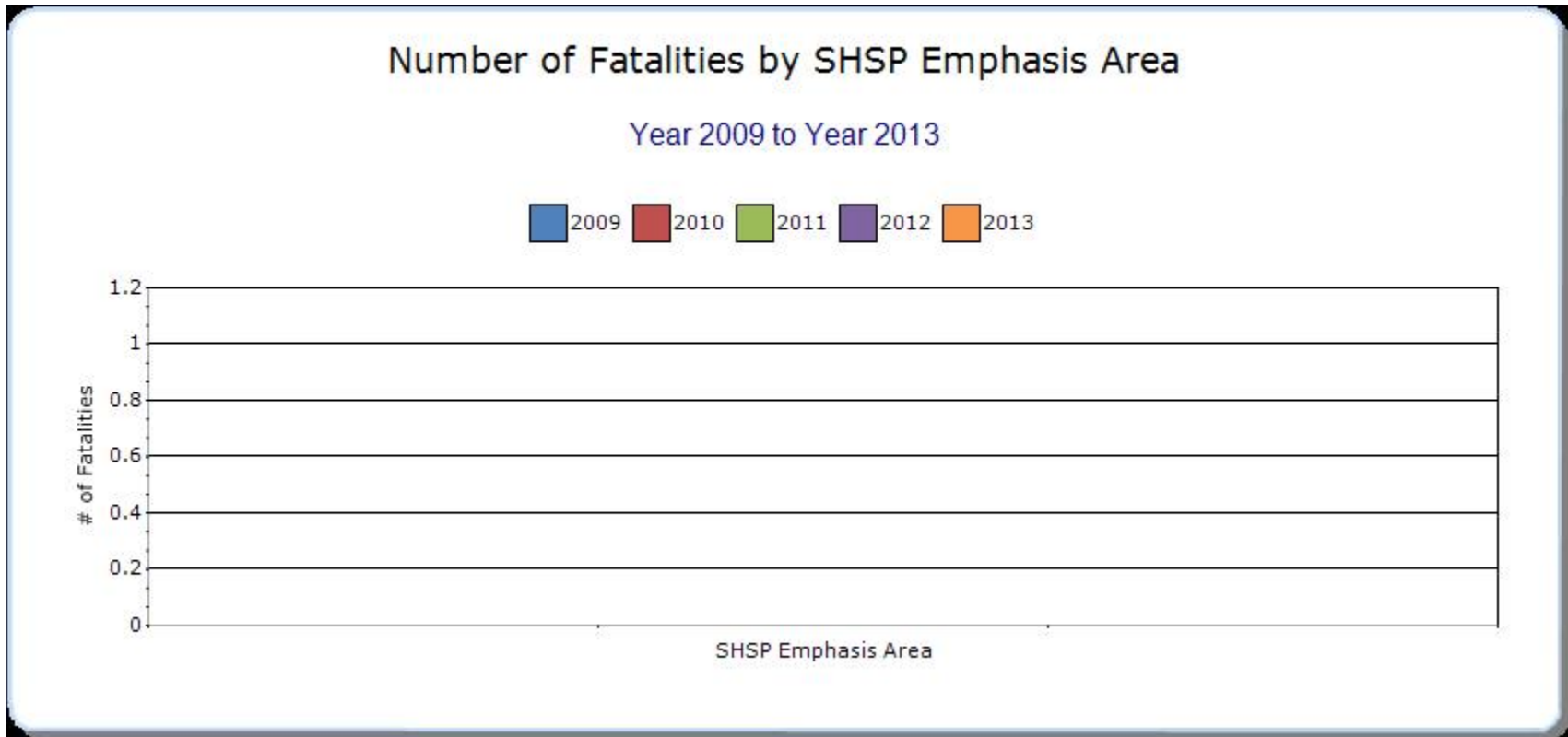
Work is in progress for the MAP-21 Safety Target Setting Methodologies. Additionally the 2016-20 SHSP will be complete later this year (2015).

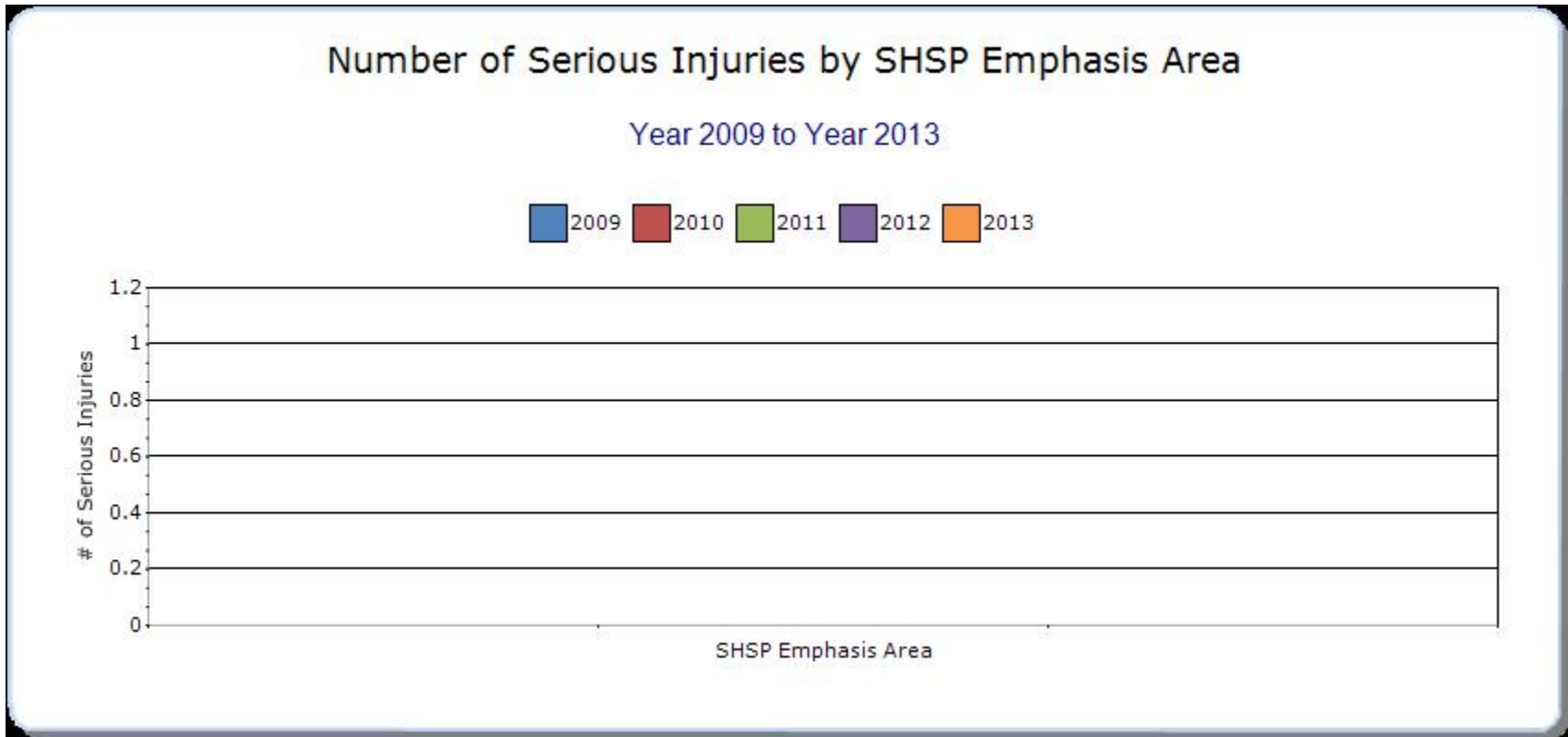
## SHSP Emphasis Areas

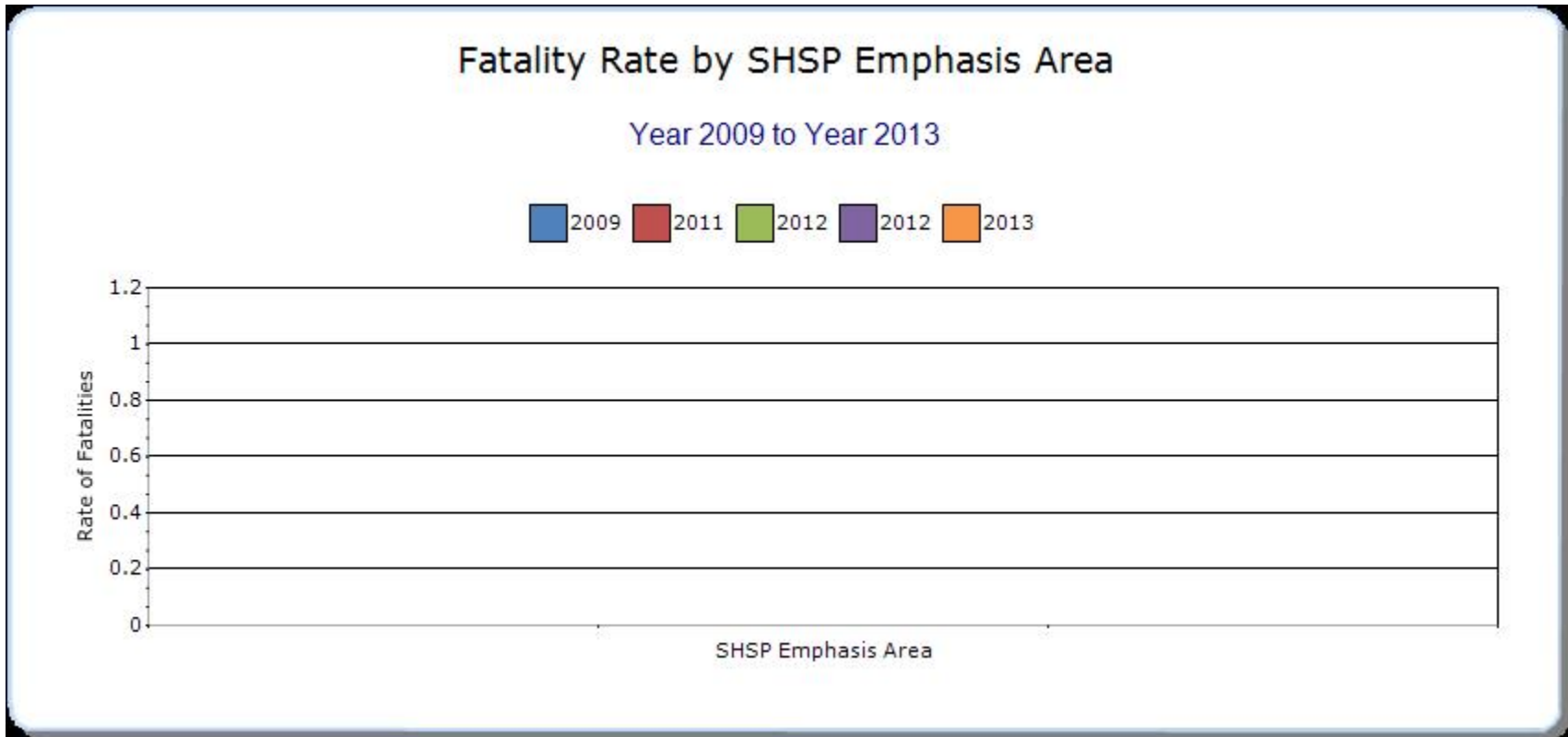
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

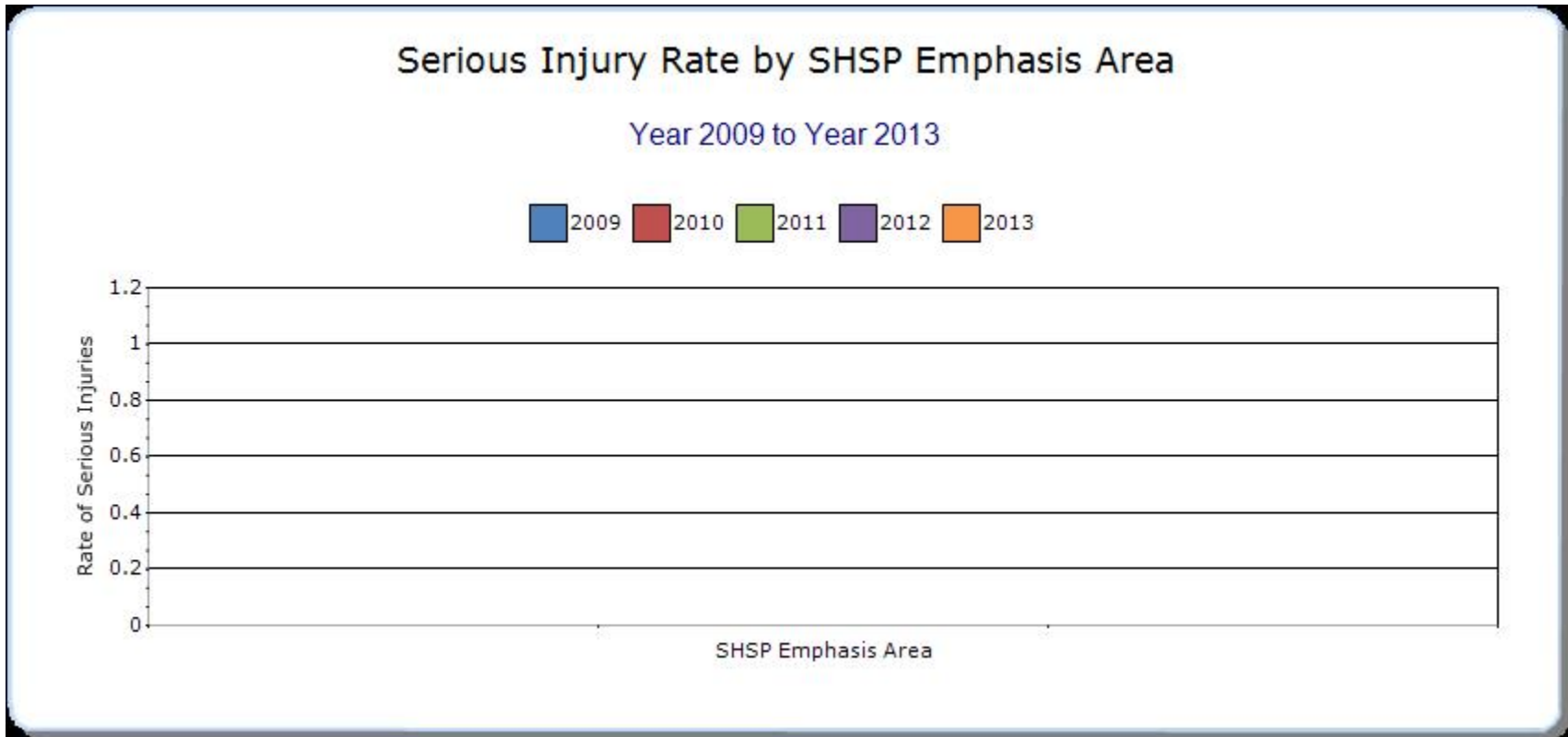
### Year - 2013

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
<b>Distracted Driving</b>	All	232	2339.6	0.41	4.17	0	0	0
<b>Impaired Driving</b>	All	171.2	531.6	0.3	0.95	0	0	0
<b>Aggressive Driving</b>	All	50.6	351.4	0.09	0.63	0	0	0
<b>Occupant Protection</b>	All	121.6	344.8	0.22	0.61	0	0	0
<b>Highway Infrastructure</b>	Intersection, CZ, ROR	328	2383.8	0.58	4.25	0	0	0
<b>Pedestrian Crashes</b>	Vehicle/pedestrian	106	363.8	0.19	0.65	0	0	0









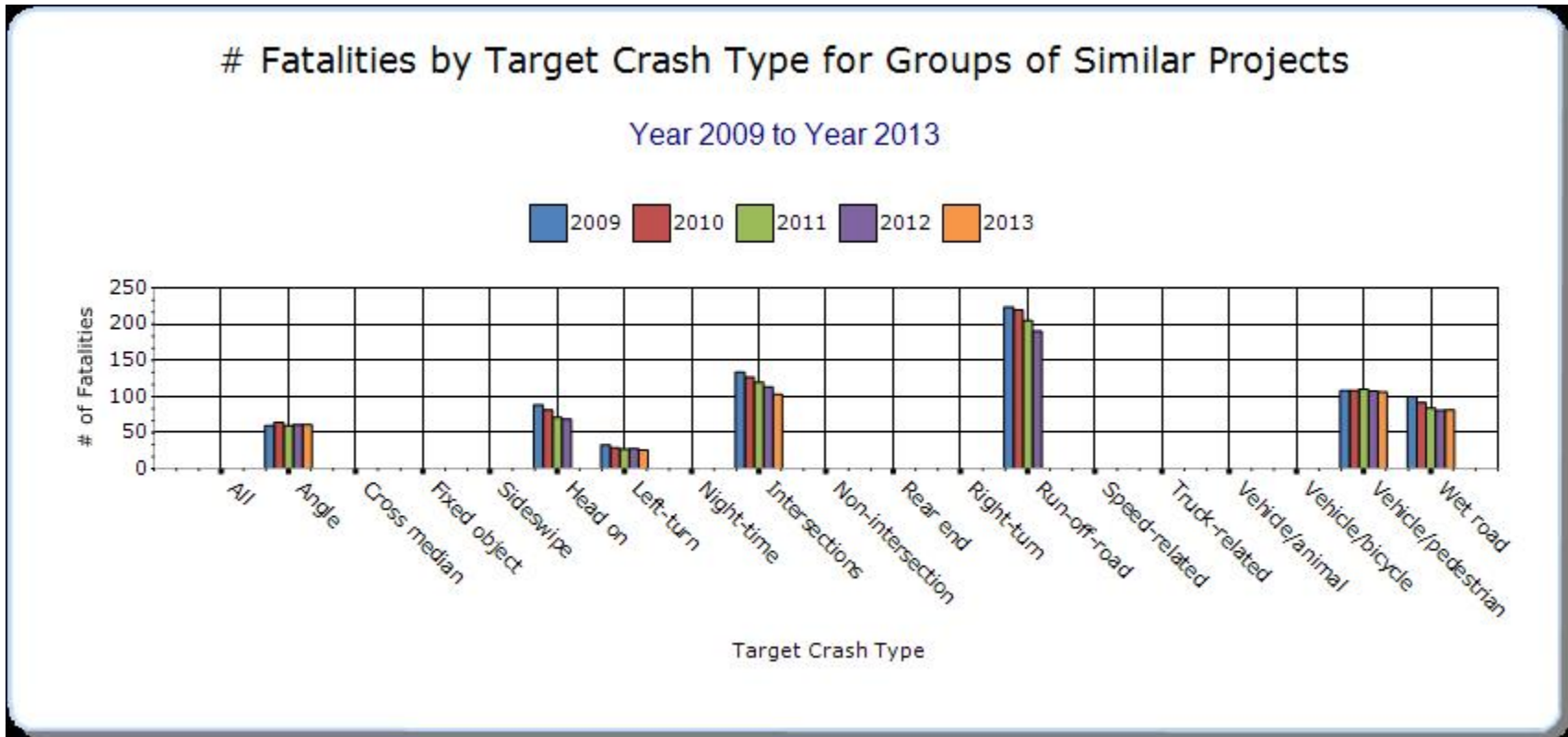


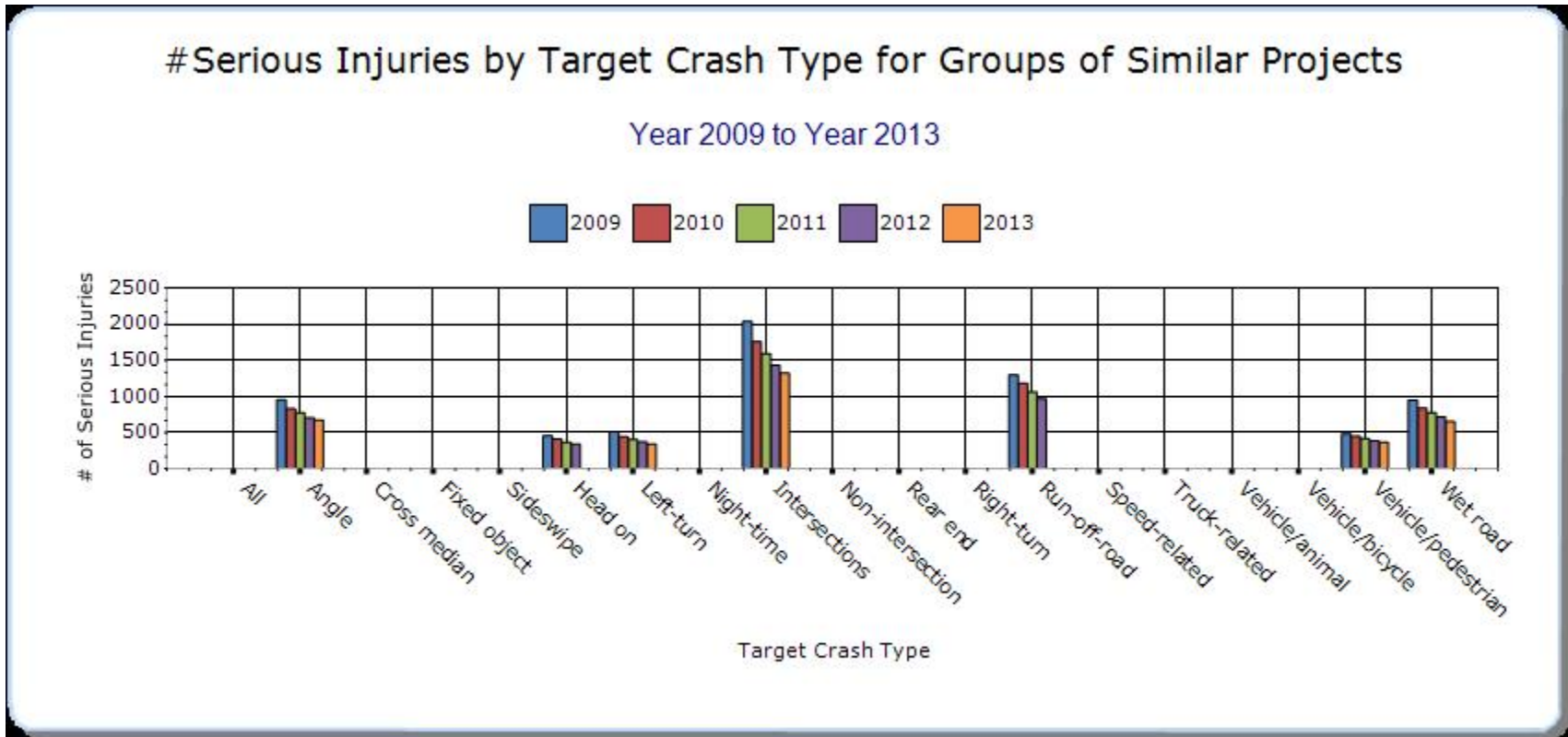
### Groups of similar project types

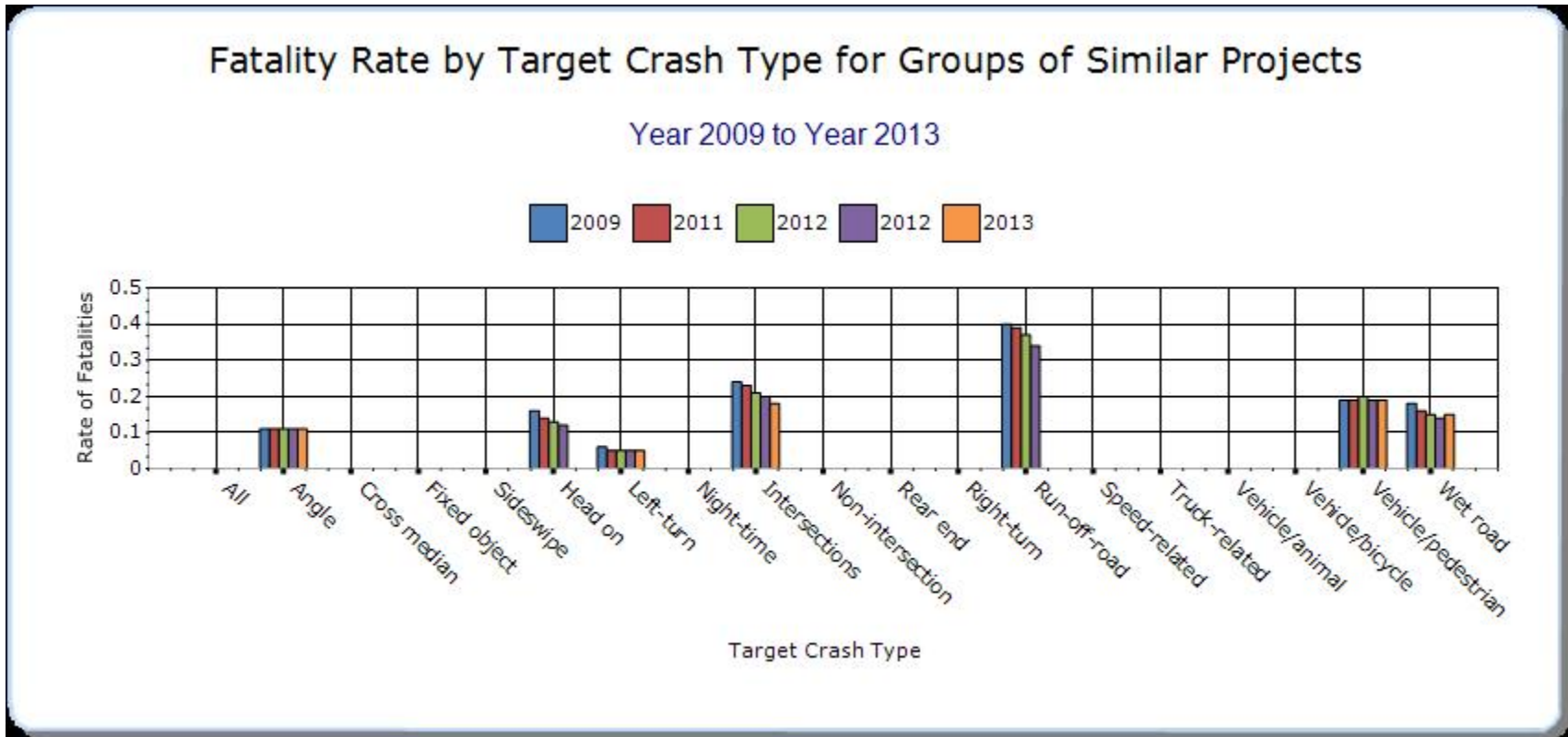
Present the overall effectiveness of groups of similar types of projects.

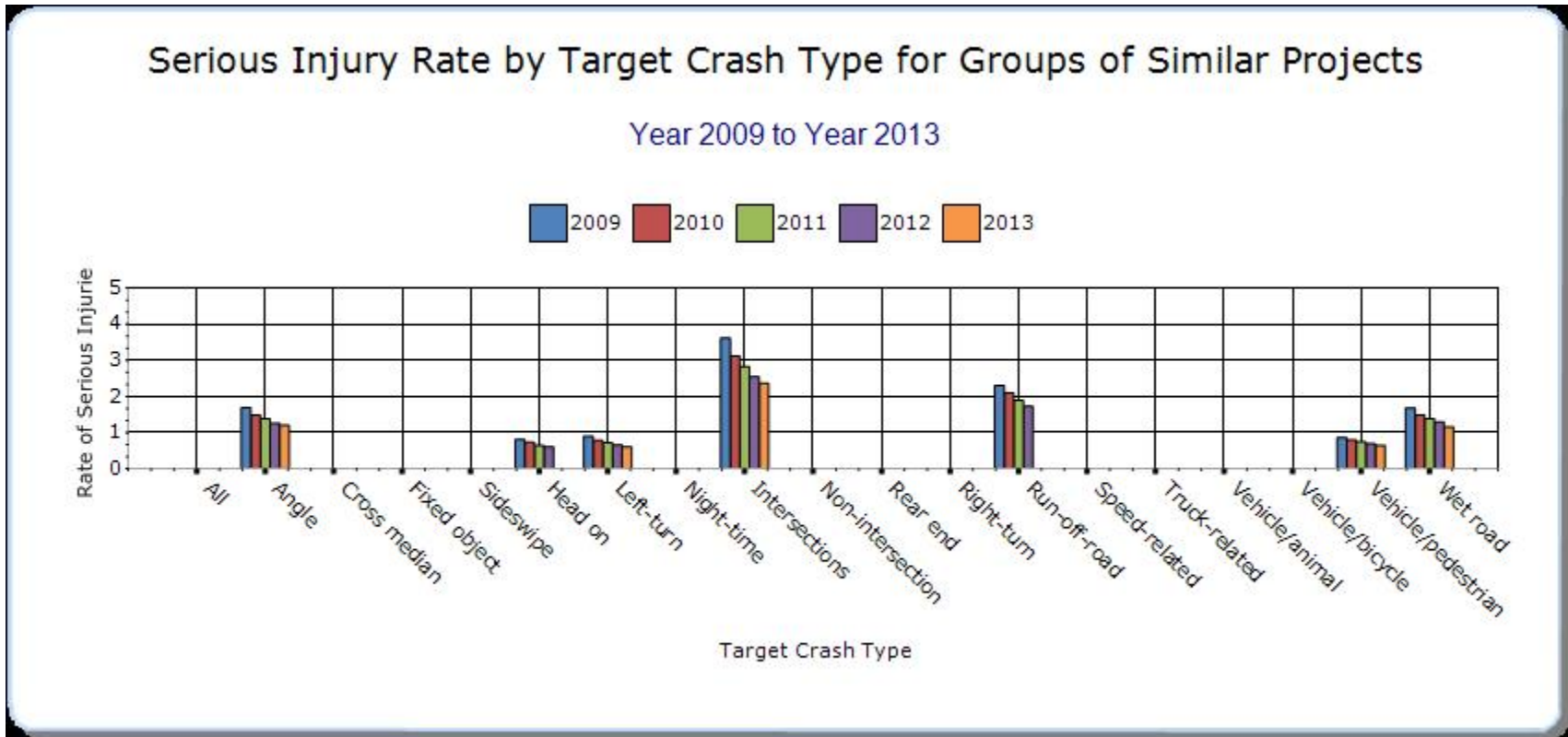
#### Year - 2013

HSIP Sub-program Types	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMMVT)	Serious injury rate (per HMMVT)	Other-1	Other-2	Other-3
<b>Pedestrian Safety</b>	Vehicle/pedestrian	106	363.8	0.19	0.65	0	0	0
<b>Angle Crash</b>	Angle	60.8	675.4	0.11	1.2	0	0	0
<b>Wet Surface Crashes</b>	Wet road	81.6	652.2	0.15	1.16	0	0	0
<b>Intersection</b>	Intersections	102.8	1322.2	0.18	2.36	0	0	0
<b>Left Turn Crash</b>	Left-turn	26	340	0.05	0.6	0	0	0







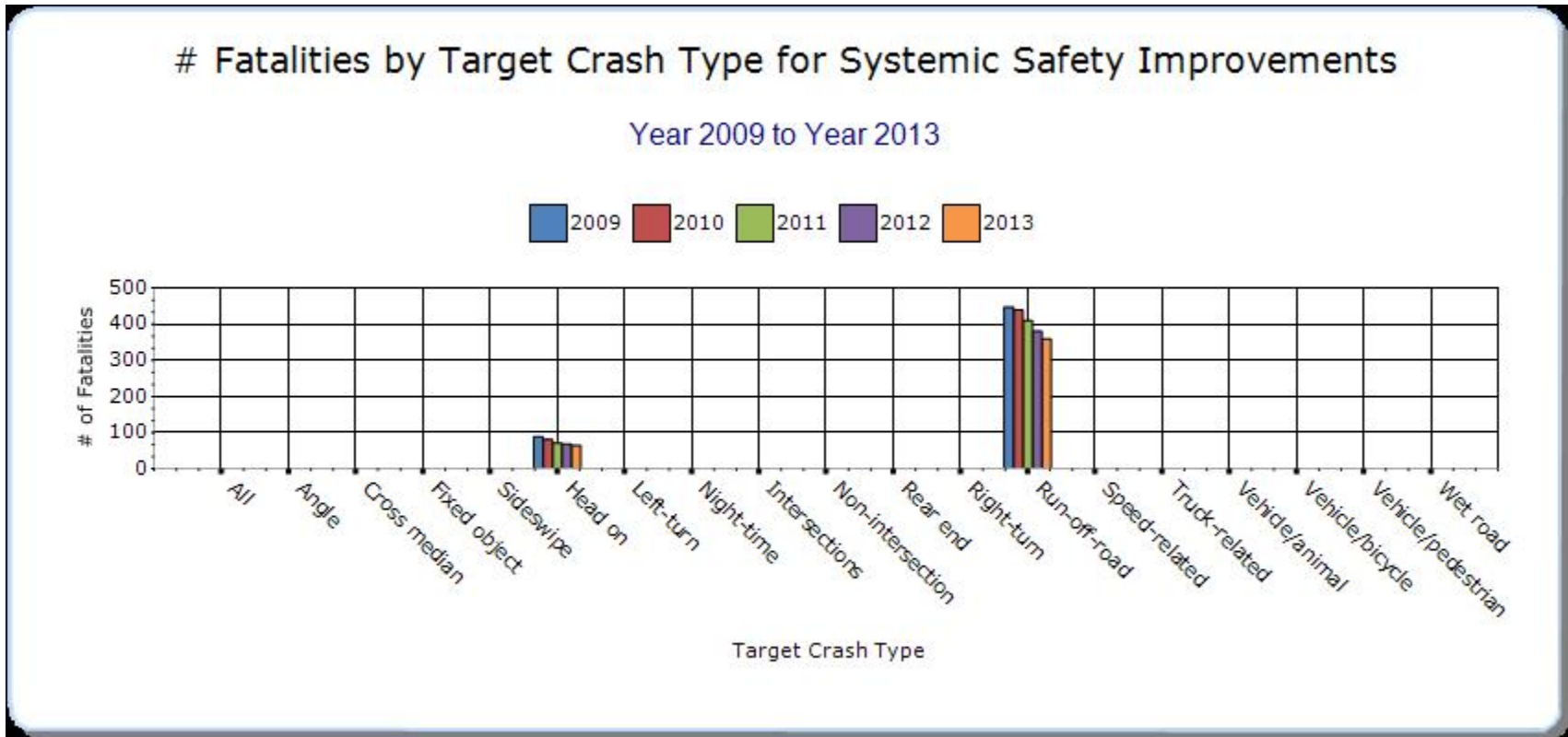


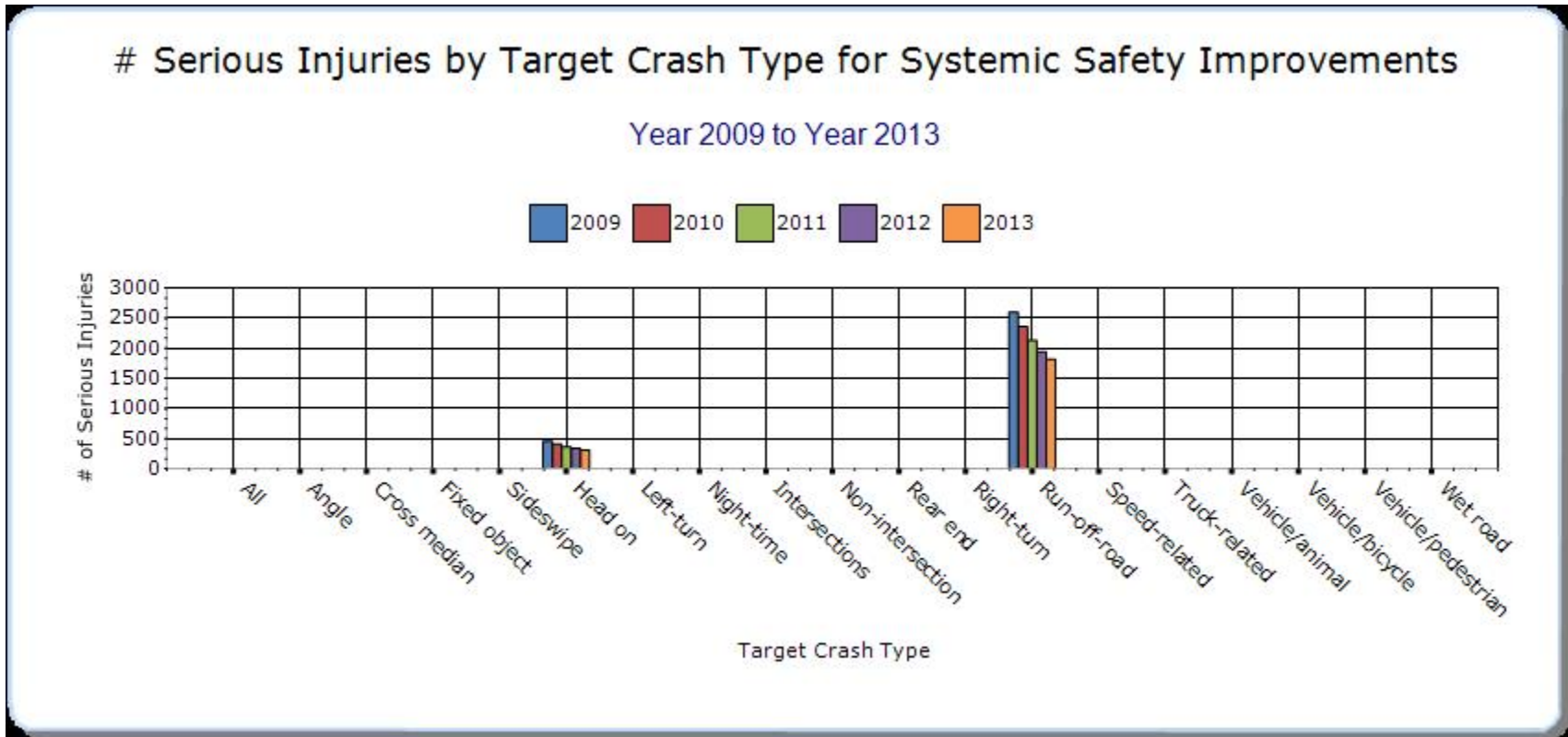
## Systemic Treatments

Present the overall effectiveness of systemic treatments.

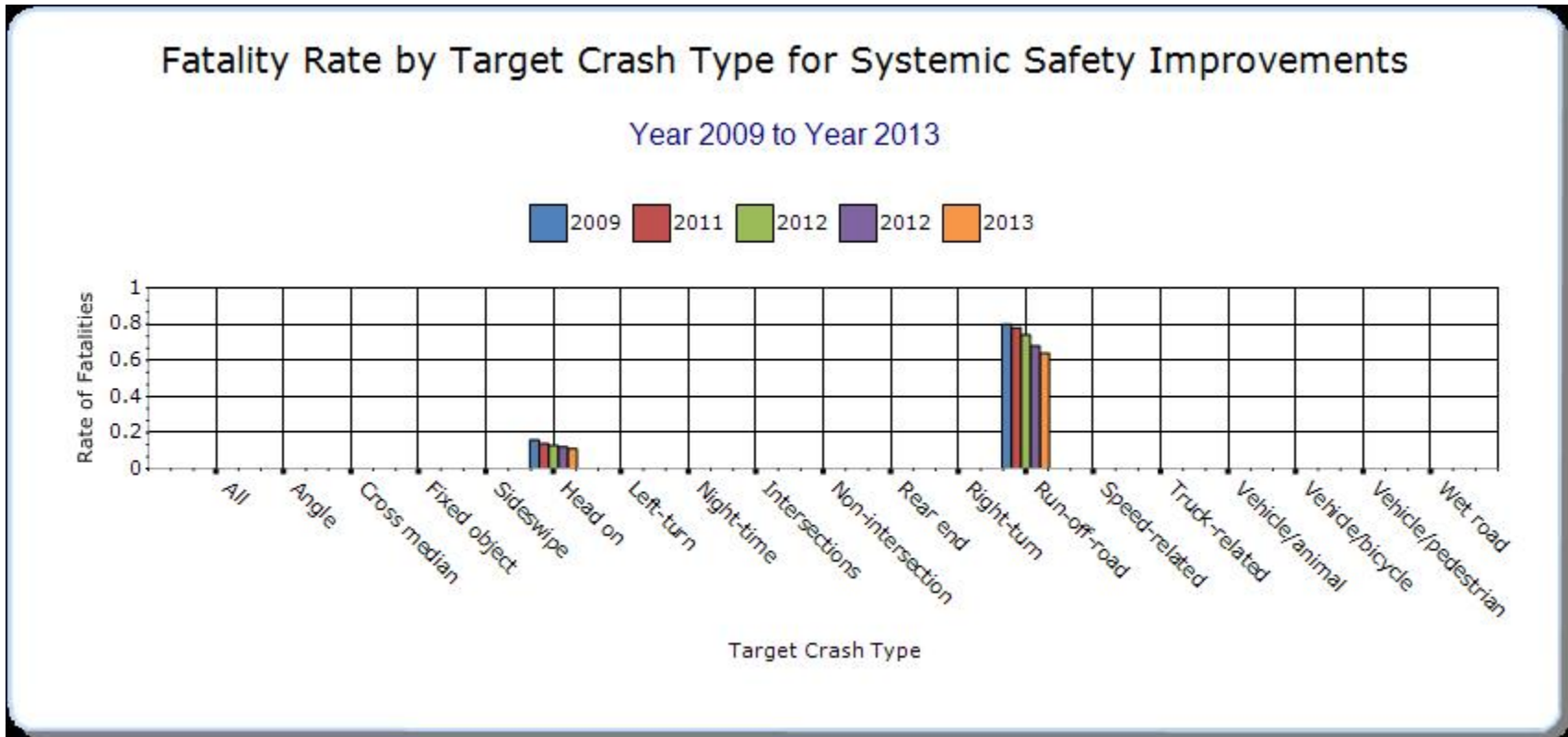
### Year - 2013

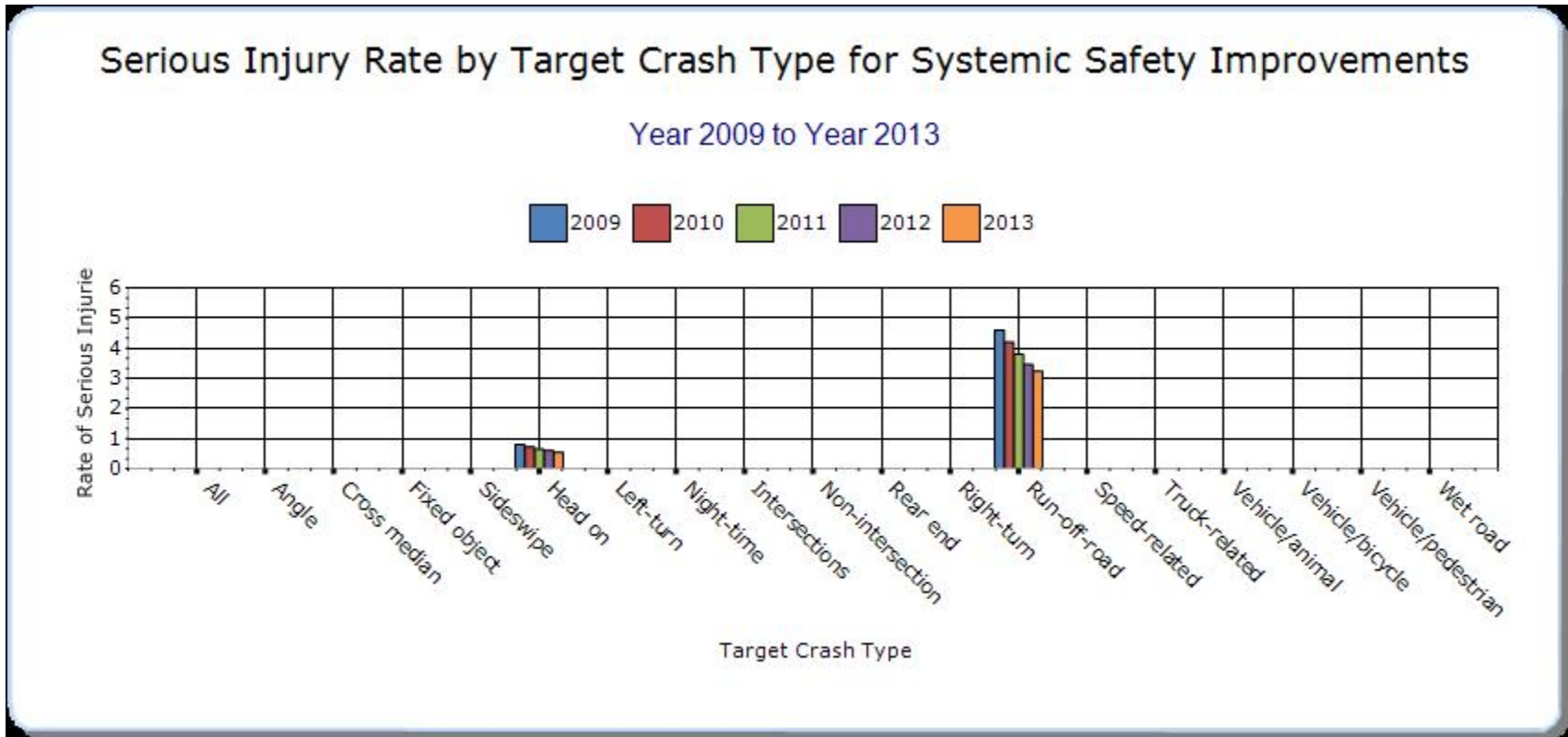
Systemic improvement	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Median Barrier	Head on	64.4	308.8	0.11	0.55	0	0	0
Horizontal Curve	Run-off-road	179.6	908	0.32	1.62	0	0	0
Roadway Departure	Run-off-road	179.6	908	0.32	1.62	0	0	0











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

1. 2014 crash data is unavailable as of reporting time for certain categories.
2. Under "Roadway Ownership" State Highway and State Toll (MDTA) totals are combined under "State Highway Agency" categorythe
3. No overall crash totals (except for fatalities) are available for federally maintained highways in Maryland.

### 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)

## **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.