



Highway Safety Improvement Program  
*Data Driven Decisions*

District Of Columbia  
Highway Safety Improvement Program  
2014 Annual Report

Prepared by: DC

## 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 .....	4
Program Structure .....	4
Program Administration .....	4
Program Methodology.....	10
Progress in Implementing Projects .....	46
Funds Programmed.....	46
General Listing of Projects .....	51
Progress in Achieving Safety Performance Targets .....	54
Overview of General Safety Trends .....	54
Application of Special Rules .....	69
Assessment of the Effectiveness of the Improvements (Program Evaluation) .....	72
SHSP Emphasis Areas .....	73
Groups of similar project types.....	78
Systemic Treatments.....	83
Glossary.....	96

## Executive Summary

The District of Columbia's Safety Program is the focal point of the HSIP program. The Safety Program has continued to evolve in the years 2011 to 2013. The Department took a major initiative in the year 2010 by aligning Divisions and staff to ensure that Safety becomes the core of every activity performed by the Department of Transportation. As a result, the Safety Division has been expanded to handle the added responsibilities. The Safety Team at District Department of Transportation (DDOT) reviews all the studies, either conducted by DDOT staff or by Consultants, and design plans at all stages of design and construction. The new alignment has helped with the integration of Safety into all tasks and activities performed within the District of Columbia.

The DDOT Executive Management has adopted the Six Sigma for process improvements. Six Sigma principles have been used as a foundation in shaping the new Safety Team. Six Sigma is a proven disciplined approach for improving measurable results for any organization. Using these tools has helped with the coordination performed by in-house staff, other District of Columbia agencies and residents of the District. Using data and applying Six Sigma methodologies has positively impacted all road users by helping the Safety Team be able to address issues using the appropriate data over the last year.

The Agency has continued to operate the Traffic Safety Data Center at Howard University was established to support DDOT and Metropolitan Police Department (MPD) in developing and sustaining an effective process for providing timely, accurate, complete, uniform and accessible traffic and related transportation data. In addition, DDOT has completed the upgrade of TARAS (Traffic Accident Record and Analysis System) in close coordination with the MPD. These efforts have assisted in the daily transfer and access to the critical transportation data and MPD's crash database. Developed by DDOT, the TARAS process automatically accesses the MPD's crash database and extracts all the delta records and pertinent fields from their PD-10 forms. DDOT has also participated in all the major safety campaigns as mandated by the NHTSA.

Further, DDOT Safety Team utilizes the annual reports on Crash Statistics and Commercial Motor Vehicles (CMV) in performing safety reviews and analyses for traffic operations and crash data at intersections, corridors and construction work zones. The Safety Program has been a success in reducing the accident rate and the fatality rate for pedestrians and bicyclists in the District of Columbia by implementing the innovative approaches to traffic safety. Over overall goal is to reduce serious and fatal injuries in the District by 50% by the year 2025.

DDOT has also implemented several transportation safety initiatives within the District such as:

1. MoveDC ([www.movedc.org](http://www.movedc.org))

- Develop a coordinated, multimodal long range transportation plan, addressing all modes of transportation in the District of Columbia.

2. goDCgo ([www.godcgo.com](http://www.godcgo.com))

- Provides information and website links on regional buses, DC Circulator, Metrobus and Metrorail as well as information on walking and biking in the District of Columbia.

3. Streetcar Safety ([www.dcstreetcar.com](http://www.dcstreetcar.com))

- The DC Streetcar Team sends regular construction and safety updates that encompass all aspects of DC Streetcar system's functions, including Traffic Control Plans (TCP's) during construction. In addition, the DDOT Safety Team reviews plans and drawings for final design, new traffic signals, traffic signage and pavement markings for the Streetcar system.

4. Safety Matters

- Safety Matters projects are high impact, low cost improvements to neighborhood streets such as new pavement markings, signs, signals, curb changes, or lighting to improve bicycle, pedestrian, and driver safety.

5. Safe Routes to School

- The DC Safe Routes to School Program works to:

\* Improve safety for students who walk and bicycle to school

\* Encourage students and their parents to walk and bicycle to school fuel consumption, and reduce pollution and traffic congestion near schools

6. Crash Data Improvement Program

- DDOT has established new Crash Data Improvement Program (CDIP) that would identify metrics in terms of timeliness, accuracy and completeness of the crash data

- DDOT organized CDIP workshop that included participants from DDOT agencies, MPD, FHWA, NHTSA, Highway Safety Office (HSO) and private consultants to familiarize the collectors, processors, maintainers and users with the concepts of data quality and how quality data improves safety decisions

- The CDIP workshop organized by DDOT TOA staff mainly focused on:

a. Crash Data Collection; b. Crash Data Reporting, and, c. Crash Data Processing

7. Traffic Incident Management Program

- DDOT has established new Traffic Incident Management (TIM) program that consists of a effectively planned and coordinated multidisciplinary process to detect, respond to and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible.

- DDOT organized TIM workshop that included participants from MPD, FHWA, NHTSA, HSO, Fire, EMS, VDOT, HSEMA, MDSHA, Maryland Police, Virginia Police, Howard University, DPW and several other

agencies

- TOA staff at DDOT has prepared draft legislation for Move Over Law and Memorandum of Understanding (MOU) with other participating agencies to implement and enforce laws for Traffic Incident Management program in the District of Columbia

In addition, DDOT has also implemented the following strategies to improve the safety of pedestrians and bicyclists in the District:

- Installed High-Intensity Activated CrossWalk (HAWK) traffic signals at 4 locations
- Implemented Leading Pedestrian Intervals (LPI) improvement at 50 intersections
- Updated Pedestrian Crossing times at approximately 600 intersections
- Installed 20 priority signals to improve pedestrian and bicyclist safety at various locations
  
- Reviewed and approved 9 miles of bike lanes and bike traffic signals

## 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.**

The District of Columbia does not have a local roads program. All roads are considered for HSIP and Safety Improvement projects.

HSIP funds are Centrally administered within the District of Columbia by the Department of Transportation through our Resource Administration and our Office of the Chief Financial Officer for the District of Columbia.

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

Design

Planning

Maintenance

Operations

Governors Highway Safety Office

Other: Other-Transportation Operations Admin. (TOA), Infrastructure Project Management Admin. (IPMA), Policy, Planning and Sustainability Admin. (PPSA), Progressive Transportation Services Admin. (PTSA) and Urban Forestry Admin. (UFA)

The DDOT HSO office is designated as the Mayor's Highway Safety Office in the District of Columbia.

**Briefly describe coordination with internal partners.**

The DDOT Safety Team is an independent, multidisciplinary team with members across DDOT and other District of Columbia agencies. The DDOT Safety Team meets on bi-monthly basis and reviews the overall Safety Program. The internal DDOT Safety Team has members from following organizations at DDOT that coordinate safety issues and education:

1. Transportation Operations Administration (TOA)
  - TOA team includes designers, traffic engineers, transportation technicians, parking specialists, signal operation engineers, maintenance staff and street light specialists.
  - TOA team identifies issues related to the vehicular safety, accidents, vehicle queuing, sight distance obstructions and other traffic safety concerns
  - TOA team performs traffic analysis, engineering design and develops recommendations addressing traffic safety concerns
2. Policy, Planning and Sustainability Administration (PPSA)
  - PPSA team includes ward planners, pedestrian and bicycle planners
  - PPSA team identifies pedestrian and bike issues and develops recommendations to improve pedestrian and bike safety
3. Progressive Transportation Services Administration (PTSA)

- PTSA team includes transportation planners for transit and metro
  - PTSA team provides estimates for transit ridership and identifies issues related to transit circulation and capacity and develops appropriate recommendations
4. Urban Forestry Administration (UFA)
- UFA team includes ward arborists
  - UFA team identifies streetscaping issues and provides appropriate recommendations
5. Infrastructure Project Management Administration (IPMA)
- IPMA team consists of engineers, technicians and field operations personnel
  - IPMA team is responsible for the design, engineering and construction of roadways, bridges, traffic signals and alley projects in the District of Columbia
  - IPMA also manages special construction projects and all roadway assets
6. Parking Operations Branch
- Parking Operations Branch manages operations and conditions of all parking meters
  - Parking Operations Branch consists of managers and technicians
7. Streetlights Operations Branch
- Streetlights Operations Branch manages operations and condition of the District's street, alley, bridge, tunnel and navigation lighting systems through a streetlight asset management contract
  - Streetlights Operations Branch consists of managers, engineers, technicians and field operations personnel
8. Safe Routes to School
- DC Safe Routes to School (SRTS) program receives funding from the Federal Highway Administration (FHWA)
  - DC Safe Routes to School Program works to:
    - DC Safe Routes to School (SRTS) program receives funding from the Federal Highway Administration (FHWA)
    - DC Safe Routes to School Program works
      - \* Improve safety for students who walk and bicycle to school
      - \* Encourage students and their parents to walk and bicycle to school
      - \* Boost student physical activity, reduce parents' fuel consumption, and reduce pollution and traffic congestion near schools

To help achieve those goals, DDOT offers Safe Routes to School planning assistance for DC Schools that are interested in improving safety for student walkers and cyclists

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

Metropolitan Planning Organizations

Governors Highway Safety Office

Local Government Association

Other: Other-Metropolitan Police Department (MPD), National Highway Traffic Safety Administration (NHTSA), Federal Highway Administration (FHWA) DC Division, Washington Metro Area Transit Authority (WMATA)

The DDOT HSO office is designated as Mayors' Highway Safety Office in the District of Columbia.

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

Multi-disciplinary HSIP steering committee

Other:

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

The District of Columbia's Safety Program is the focal point of the HSIP program. The Safety Program has continued to evolve from the years 2011 to 2013. The Department took a major initiative in the year

2010 by aligning Divisions and staff to ensure that Safety becomes the core of every activity performed by the Department of Transportation. As a result, the Safety Division has been expanded to handle the added responsibilities. District Department of Transportation (DDOT) Safety Team reviews all the studies, either conducted by DDOT staff or by Consultants, and design plans at all stages of design and construction. The new alignment has helped with the integration of Safety into all tasks and activities performed within the District of Columbia.

The DDOT Executive Management has adopted the Six Sigma for process improvements. Six Sigma principles have been used as a foundation in shaping the new Safety Team. Six Sigma is a proven disciplined approach for improving measurable results for any organization. Using these tools has helped with the coordination performed by in-house staff, other District of Columbia agencies and residents of the District. Using data and applying Six Sigma methodologies has positively impacted all road users by helping the Safety Team be able to address issues using the appropriate data. With reducing the number of fatalities and serious injuries as the primary goal of the Safety Program, a multi-level Safety Improvement Program has been implemented to allow the Safety Team to thoroughly, effectively and efficiently address and respond to all immediate, short-term and long-term safety concerns.

DDOT has used innovative practices in implementing the HSIP projects. These include: High Crash Location Analysis, Benefit and Cost Analysis, Road Safety Audits, Quick Field Safety Reviews and the "Decision Lens" (A software solution used for quickly collecting and synthesizing qualitative and quantitative information from multiple data sources and stakeholders for trade-off, prioritization and/or resource allocation decisions). With these innovative practices the Department is progressing toward a comprehensive, data-driven approach. As an example, those sites identified as needing a RSA will follow the recommended FHWA RSA procedures that includes the use of an independent, multi-disciplinary team with members from across DDOT and other District of Columbia agencies.

Further, DDOT Safety Team utilizes the annual reports on Crash Statistics and Commercial Motor Vehicles (CMV) in performing safety reviews and analyses for traffic operations and crash data at intersections, corridors and construction work zones. The Safety Program has been a success in reducing the accident rate and the fatality rate for pedestrians and bicyclists in the District of Columbia by implementing the innovative approaches to traffic safety. Over overall goal is to reduce serious and fatal injuries in the District by 50% by the year 2025.

DDOT has also implemented several transportation safety initiatives within the District such as:

1. MoveDC ([www.movedc.org](http://www.movedc.org))

Develop a coordinated, multimodal long range transportation plan, addressing all modes of transportation in the District

2. goDCgo ([www.godcgo.com](http://www.godcgo.com))

Provides information and website links on regional buses, DC Circulator, Metrobus and Metrorail as

well as information on walking and biking in the City

### 3. Streetcar Safety ([www.dcstreetcar.com](http://www.dcstreetcar.com))

DC Streetcar Team sends regular construction and safety updates that encompass all aspects of DC Streetcar system's functions, including during Construction. In addition, the DDOT Safety Team reviews plans and drawings for final design, new traffic signals, traffic signage and pavement markings for the Streetcar system.

### 4. Safety Matters

Safety Matters projects are high impact, low cost improvements to neighborhood streets such as new pavement markings, signs, signals, curb changes, or lighting to improve bicycle, pedestrian, and driver safety

### 5. Safe Routes to School

The DC Safe Routes to School Program works to:

- \* Improve safety for students who walk and bicycle to school
- \* Encourage students and their parents to walk and bicycle to school
- \* Boost student physical activity, reduce parents' fuel consumption, and reduce pollution and traffic congestion near schools

### 6. Crash Data Improvement Program

\* DDOT has established new Crash Data Improvement Program (CDIP) that would identify metrics in terms of timeliness, accuracy and completeness of the crash data

\* DDOT organized CDIP workshop that included participants from DDOT agencies, MPD, FHWA, NHTSA, Highway Safety Office (HSO) and private consultants to familiarize the collectors, processors, maintainers and users with the concepts of data quality and how quality data improves safety decisions

- \* The CDIP workshop organized by DDOT TOA staff mainly focused on:
  - a. Crash Data Collection
  - b. Crash Data Reporting
  - c. Crash Data Processing

### 7. Traffic Incident Management Program

\* DDOT has established new Traffic Incident Management (TIM) program that consists of a effectively planned and coordinated multidisciplinary process to detect, respond to and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible.

\* DDOT organized TIM workshop that included participants from MPD, FHWA, NHTSA, HSO, Fire, EMS, VDOT, HSEMA, MDSHA, Maryland Police, Virginia

Police, Howard University, DPW and several other agencies

- \* TOA staff at DDOT has prepared draft legislation for Move Over Law and Memorandum of

Understanding (MOU) with other participating agencies to implement and

enforce laws for Traffic Incident Management program in the District of Columbia

\* DDOT organized TIM Train-the-Trainer (TtT) workshop that included participants from MPD, FHWA, NHTSA, HSO, Fire, EMS, VDOT, HSEMA, MDSHA, Maryland Police, Virginia

Police, Howard University, DPW and several other agencies

\* DDOT organized the SHRP2 Transportation Management Systems and Operations (TMS&O) workshop for the entire Washington Metropolitan Region (DMV area) and First Responders

\* DDOT organized Bicycle and Pedestrian Safety Workshop for the entire Washington Metropolitan Region (DMV area)

\* DDOT staff participated in the FHWA Training Program for Complete Street Design

\* DDOT TOA staff attended the 2014 North American Travel Monitoring Exposition and Conference (NATMEC)

\* DDOT staff attended the annual Highway Information Seminar (HIS) training

In addition, DDOT has also implemented the following strategies to improve the safety of pedestrians and bicyclists in the District:

- Installed High-Intensity Activated crossWalk (HAWK) traffic signals at 6 locations
- Implemented Leading Pedestrian Intervals (LPI) improvement at 60 intersections
- Updated Pedestrian Crossing times at 600 intersections
- Installed 20 priority signals to improve pedestrian and bicyclist safety at various locations

DDOT Safety Team has identified the top five percent high hazard locations in the District for further safety analysis. Overall, the goal is to meet the SHSP goal - to reduce the total serious and fatal injuries in the District by fifty-percent (50%) by the year 2025. The District of Columbia does not have a local roads program. All roads are considered for the HSIP projects.

## Program Methodology

Select the programs that are administered under the HSIP.

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

Other: Other-Sight distance analysis

---

**Program:** Intersection

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

**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

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

- Yes
- No

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

- Competitive application process
- Selection committee
- Other
- Other-DDOT Safety Team utilizes the annual reports on Crash statistics and Commercial Motor Vehicles (CMV) in performing safety reviews and analyses for traffic operations and crash data at intersections, corridors and construction work zones

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

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Other

Number of injuries 3

Number of injury collisions 2

Total number of collisions 1

---

**Program:** Safe Corridor

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

**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

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?**



<i>Crashes</i>	<i>Exposure</i>	<i>Roadway</i>
<input checked="" type="checkbox"/> All crashes	<input checked="" type="checkbox"/> Traffic	<input checked="" type="checkbox"/> Median width
<input type="checkbox"/> Fatal crashes only	<input checked="" type="checkbox"/> Volume	<input checked="" type="checkbox"/> 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 checked="" type="checkbox"/> Lane miles	<input checked="" 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

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-Separate funds are allocated to implement bike safety projects

**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

Total Number of Collisions      1

**Program:** Skid Hazard

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

**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

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-Skid improvement projects are implemented by "Decision Lens" software program used by all DDOT Managers

**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



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

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

- Yes
- No

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

- Yes
- No

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

- Competitive application process
- Selection committee
- Other
- Other-Projects for Design are automatically implemented through Construction. These projects are advanced by "Decision Lens" and internal review of annual Crash statistics report and Commercial Motor Vehicles (CMV) report

**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).**



- 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



- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Fatal crashes only                    | <input checked="" type="checkbox"/> Volume     | <input checked="" type="checkbox"/> Horizontal curvature      |
| <input type="checkbox"/> Fatal and serious injury crashes only | <input checked="" type="checkbox"/> Population | <input checked="" type="checkbox"/> Functional classification |
| <input type="checkbox"/> Other                                 | <input type="checkbox"/> Lane miles            | <input checked="" 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

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

Yes

No

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

Competitive application process

Selection committee

Other

Other-Projects for Design are automatically implemented through Construction. These projects are advanced by "Decision Lens" and internal review of annual Crash statistics report and Commercial Motor Vehicles (CMV) report

**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

Total Number of Collisions      1

**Program:** Sign Replacement And Improvement

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

**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

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

- Yes
- No

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

- Competitive application process
- Selection committee
- Other
- Other-These projects are advanced by "Decision Lens" and internal review of annual Crash statistics report and Commercial Motor Vehicles (CMV) report

**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



- 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-These projects are advanced by "Decision Lens" program utilized by all DDOT Managers

**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).**



- 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







<i>Crashes</i>	<i>Exposure</i>	<i>Roadway</i>
<input checked="" type="checkbox"/> All crashes	<input checked="" type="checkbox"/> Traffic	<input checked="" type="checkbox"/> Median width
<input type="checkbox"/> Fatal crashes only	<input checked="" type="checkbox"/> Volume	<input checked="" type="checkbox"/> 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 checked="" 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

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-These projects are advanced by "Decision Lens" program utilized by all DDOT Managers

**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

Total Number of Collisions      1

**Program:** Segments

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

**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

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-These projects are advanced by "Decision Lens" program utilized by all DDOT Managers

**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



- 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-These projects are utilized by "Decision Lens" program utilized by all DDOT Managers

**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
- Total number of collisions      1

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

75

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

- |  |   |
|--|---|
| <input type="checkbox"/> Cable Median Barriers                               | <input checked="" type="checkbox"/> Rumble Strips                                       |
| <input checked="" type="checkbox"/> Traffic Control Device Rehabilitation    | <input type="checkbox"/> Pavement/Shoulder Widening                                     |
| <input checked="" type="checkbox"/> Install/Improve Signing                  | <input checked="" 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: Other-Design Review, Capital Project Review, Sight Distance Analysis, Roadway Geometry, Accident Analysis

**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-Highway Capacity Manual (HCM), MUTCD, AASHTO Green Book, DDOT Design and Engineering Manual, DDOT Temporary Traffic Control Manual

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

District of Columbia participates in the FHWA focused approach to Safety Program as a pedestrian focus city. District has established several programs and initiatives to enhance public awareness and improve safety for bike, transit, pedestrian and vehicular modes of travel. Some of the key transportation safety initiatives that have been implemented within District areas:

1. MoveDC ([www.movedc.org](http://www.movedc.org))

- Develop a coordinated, multimodal long range transportation plan, addressing all modes of transportation in the District

## 2. goDCgo ([www.godcgo.com](http://www.godcgo.com))

- Provides information and website links on regional buses, DC Circulator, Metrobus and Metrorail as well as information on walking and biking in the City

## 3. Streetcar Safety ([www.dcstreetcar.com](http://www.dcstreetcar.com))

- DC Streetcar Team sends regular construction and safety updates that encompass all aspects of DC Streetcar system's functions, including during construction

## 4. Safety Matters

- Safety Matters projects are high impact, low cost improvements to neighborhood streets such as new pavement markings, signs, signals, curb changes, or lighting to improve bicycle, pedestrian, and driver safety

## 5. Safe Routes to School

- The DC Safe Routes to School Program works to:

\* Improves safety for students who walk and bicycle to school

\* Encourage students and their parents to walk and bicycle to school

\* Boost student physical activity, reduce parents' fuel consumption, and reduce pollution and traffic congestion near schools

## 6. Crash Data Improvement Program

- DDO has established new Crash Data Improvement Program (CDIP) that would identify metrics in terms of timeliness, accuracy and completeness of the crash data

- DDO organized CDIP workshop that included participants from DDO agencies, MPD, FHWA, NHTSA, Highway Safety Office (HSO) and private consultants to familiarize the collectors, processors, maintainers and users with the concepts of data quality and how quality data improves safety decisions

-The CDIP workshop organized by DDOT TOA staff mainly focussed on:

- a. Crash Data Collection
- b. Crash Data Reporting
- c. Crash Data Processing

#### 7. Traffic Incident Management Program

-DDOT has established new Traffic Incident Management (TIM) program that consists of a effectively planned and coordinated multidisciplinary process to detect, respond to and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible.

-DDOT organized TIM workshop that included participants from MPD, FHWA, NHTSA, HSO, Fire, EMS, VDOT, HSEMA, MDSHA, Maryland Police, Virginia Police, Howard University, DPW and several other agencies

-TOA staff at DDOT has prepared draft legislation for Move Over Law and Memorandum of Understanding (MOU) with other participating agencies to implement and enforce laws for Traffic Incident Management program in the District of Columbia

In addition, DDOT has also implemented the following strategies to improve the safety of pedestrians and bicyclists in the District:

- Installed High-Intensity Activated cross Walk (HAWK) traffic signals at 6 locations
- Implemented Leading Pedestrian Intervals (LPI) improvement at 60 intersections
- Updated Pedestrian Crossing times at 600 intersections
- Installed 20 priority signals to improve pedestrian and bicyclist safety at various locations

## 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)	8500000	77 %	5950000	
HRRRP (SAFETEA-LU)				
HRRR Special Rule				
Penalty Transfer - Section 154	2554000	23 %	766200	11 %
Penalty Transfer - Section 164				
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)				

<b>Totals</b>	11054000	100%	6716200	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?**

\$0.00

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

0 %

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

\$0.00

**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?**

\$0.00

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

DDOT will work with our Safety Consultants in obligating the Highway Safety Improvement Program funds. Since the District is different from other states we are required to address all Safety Issues and not just the High Hazard locations. DDOT has completed the upgrade of TARAS (Traffic Accident Record and Analysis System) database with close coordination from the MPD. The TARAS database generates the list of High Hazard Locations for the District of Columbia. However, there are additional locations identified for the potential traffic safety improvement that have not been included in the list of High Hazard Locations. DDOT uses its "Safety Matters" program to address these traffic safety issues at these additional locations using the same data driven approach for the High Hazard Location. The "Safety Matters" program is not funded and is being done through coordination with our Pavement Rehabilitation and Reconstruction Program and Maintenance Program which is not sufficient. Therefore, we would like to have our complete safety program included for our HSIP funding.

DDOT is also coordinating with the SHSO to ensure data-driven approaches are utilized to establish the performance targets for the HSIP and HSP program.

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

District of Columbia participates in the FHWA focused approach to Safety Program as a pedestrian focus city. District has established several programs and initiatives to enhance public awareness and improve safety for bike, transit, pedestrian and vehicular modes of travel. Some of the key transportation safety initiatives that have been implemented within District areas:

1. MoveDC ([www.movedc.org](http://www.movedc.org))

- Develop a coordinated, multimodal long range transportation plan, addressing all modes of transportation in the District

2. goDCgo ([www.godcgo.com](http://www.godcgo.com))

- Provides information and website links on regional buses, DC Circulator, Metrobus and Metrorail as well as information on walking and biking in the City

3. Streetcar Safety ([www.dcstreetcar.com](http://www.dcstreetcar.com))

- DC Streetcar Team sends regular construction and safety updates that encompass all aspects of DC Streetcar system's functions, including during construction

4. Safety Matters

- Safety Matters projects are high impact, low cost improvements to neighborhood streets such as new pavement markings, signs, signals, curb changes, or lighting to improve bicycle, pedestrian, and driver safety

5. Safe Routes to School

- The DC Safe Routes to School Program works to:

\* Improves safety for students who walk and bicycle to school

\* Encourage students and their parents to walk and bicycle to school

\* Boost student physical activity, reduce parents' fuel consumption, and reduce pollution and traffic congestion near schools

6. Crash Data Improvement Program

- DDO has established new Crash Data Improvement Program (CDIP) that would identify metrics in terms of timeliness, accuracy and completeness of the crash data

- DDO organized CDIP workshop that included participants from DDO agencies, MPD, FHWA, NHTSA, Highway Safety Office (HSO) and private consultants to familiarize the collectors, processors, maintainers and users with the concepts of data quality and how quality data improves safety decisions

- The CDIP workshop organized by DDO staff mainly focused on:

a. Crash Data Collection

b. Crash Data Reporting

c. Crash Data Processing

7. Traffic Incident Management Program

-DDOT has established new Traffic Incident Management (TIM) program that consists of a effectively planned and coordinated multidisciplinary process to detect, respond to and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible.

-DDOT organized TIM workshop that included participants from MPD, FHWA, NHTSA, HSO, Fire, EMS, VDOT, HSEMA, MDSHA, Maryland Police, Virginia Police, Howard University, DPW and several other agencies

-TOA staff at DDOT has prepared draft legislation for Move Over Law and Memorandum of Understanding (MOU) with other participating agencies to implement and enforce laws for Traffic Incident Management program in the District of Columbia

In addition, DDOT has also implemented the following strategies to improve the safety of pedestrians and bicyclists in the District:

-Installed High-Intensity Activated Crosswalk (HAWK) traffic signals at 6 locations

-Implemented Leading Pedestrian Intervals (LPI) improvement at 60 intersections

-Updated Pedestrian Crossing times at 600 intersections

-Installed 20 priority signals to improve pedestrian and bicyclist safety at various locations

**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
<b>FY09 Citywide Traffic Safety Construction</b>	Roadway signs and traffic control Roadway signs and traffic control - other		450000			Citywide					
<b>Safety Improvements of 15th St, W St, Florida Ave &amp; New Hampshire Ave, NW (#3)</b>	Intersection traffic control Systemic improvements - signal-controlled		11779			Urban Minor Arterial					
<b>Safety Improvements of 15th St, W St, Florida Ave &amp; New Hampshire Ave, NW (#4)</b>	Intersection traffic control Systemic improvements - signal-controlled		91800			Urban Minor Arterial					

<b>Safety Improvements of 15th St, W St, Florida Ave &amp; New Hampshire Ave, NW (#5)</b>	Intersection traffic control Systemic improvements - signal-controlled		44891			Urban Minor Arterial					
<b>Citywide Highway Safety Improvement Program Design</b>	Roadway signs and traffic control Roadway signs and traffic control - other		500000			Citywide					
<b>Pavement Skid Testing</b>	Roadway Pavement surface - high friction surface		54000			Citywide					
<b>15th Street NW Improvements</b>	Roadway Roadway - other		786661			Urban Minor Arterial					
<b>Blair Road, Cedar Street, and 4th Street (Construction)</b>	Intersection traffic control Systemic improvements - signal-controlled		2710821			Urban Minor Arterial					

<b>Preliminary Study of Canal Road, Chain Bridge to M Street</b>	Roadway signs and traffic control Roadway signs and traffic control - other		287791			Urban Principal Arterial - Other					

## Progress in Achieving Safety Performance Targets

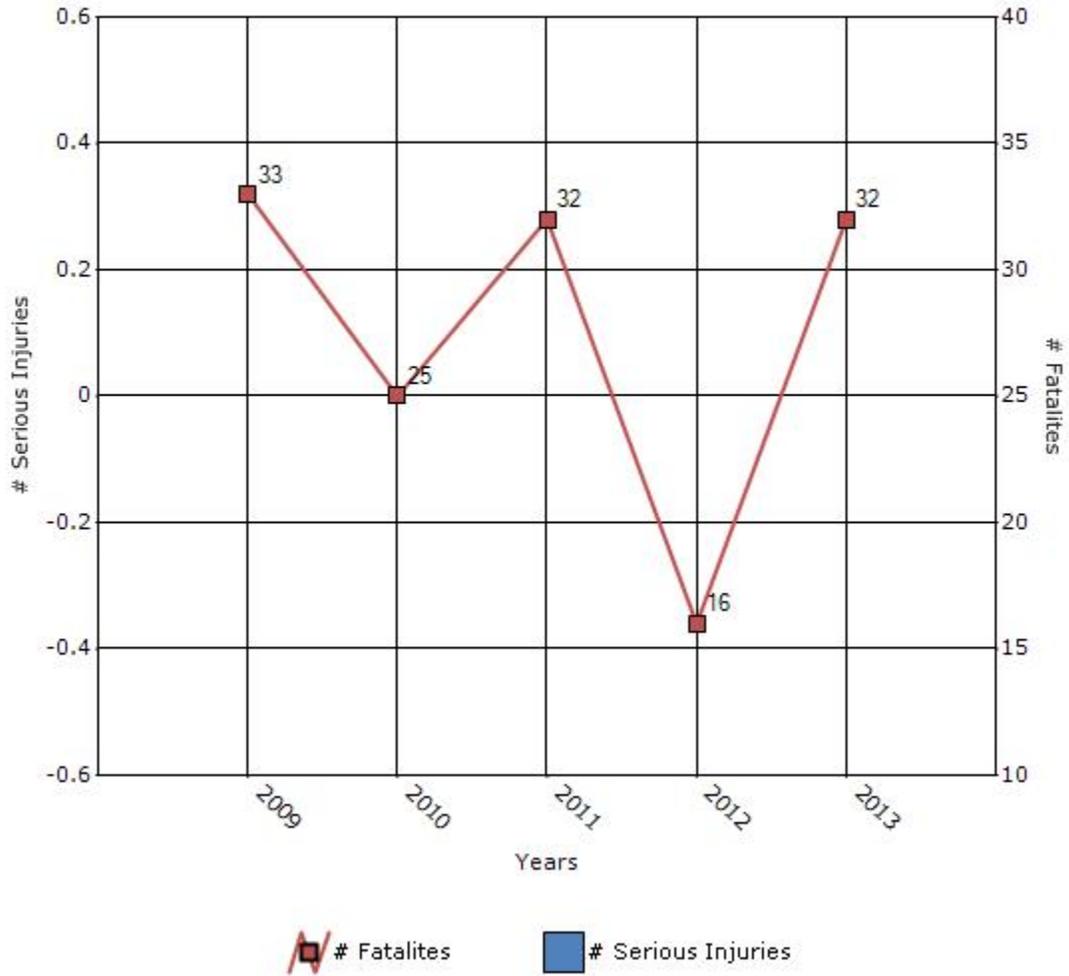
### Overview of General Safety Trends

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

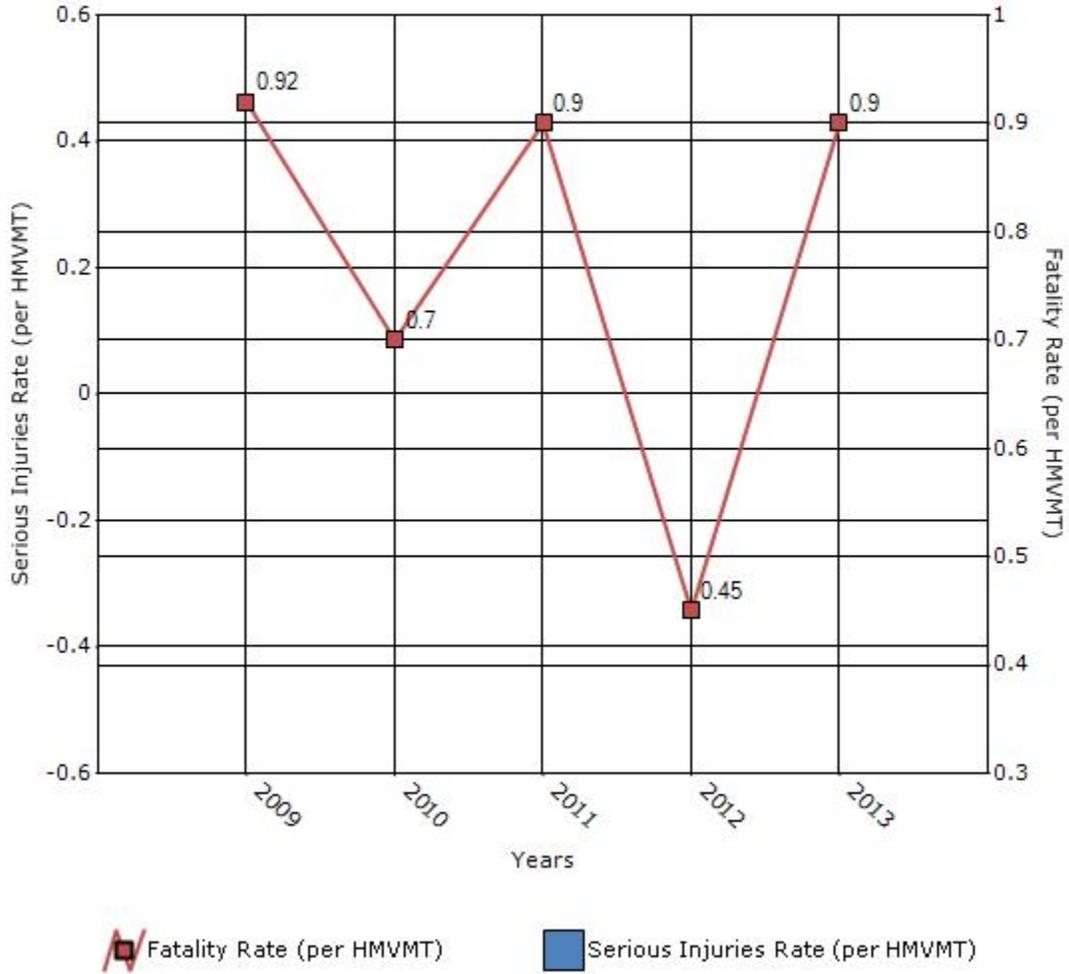
Performance Measures*	2009	2010	2011	2012	2013
Number of fatalities	33	25	32	16	32
Number of serious injuries	0	0	0	0	0
Fatality rate (per HMVMT)	0.92	0.7	0.9	0.45	0.9
Serious injury rate (per HMVMT)	0	0	0	0	0

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

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



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



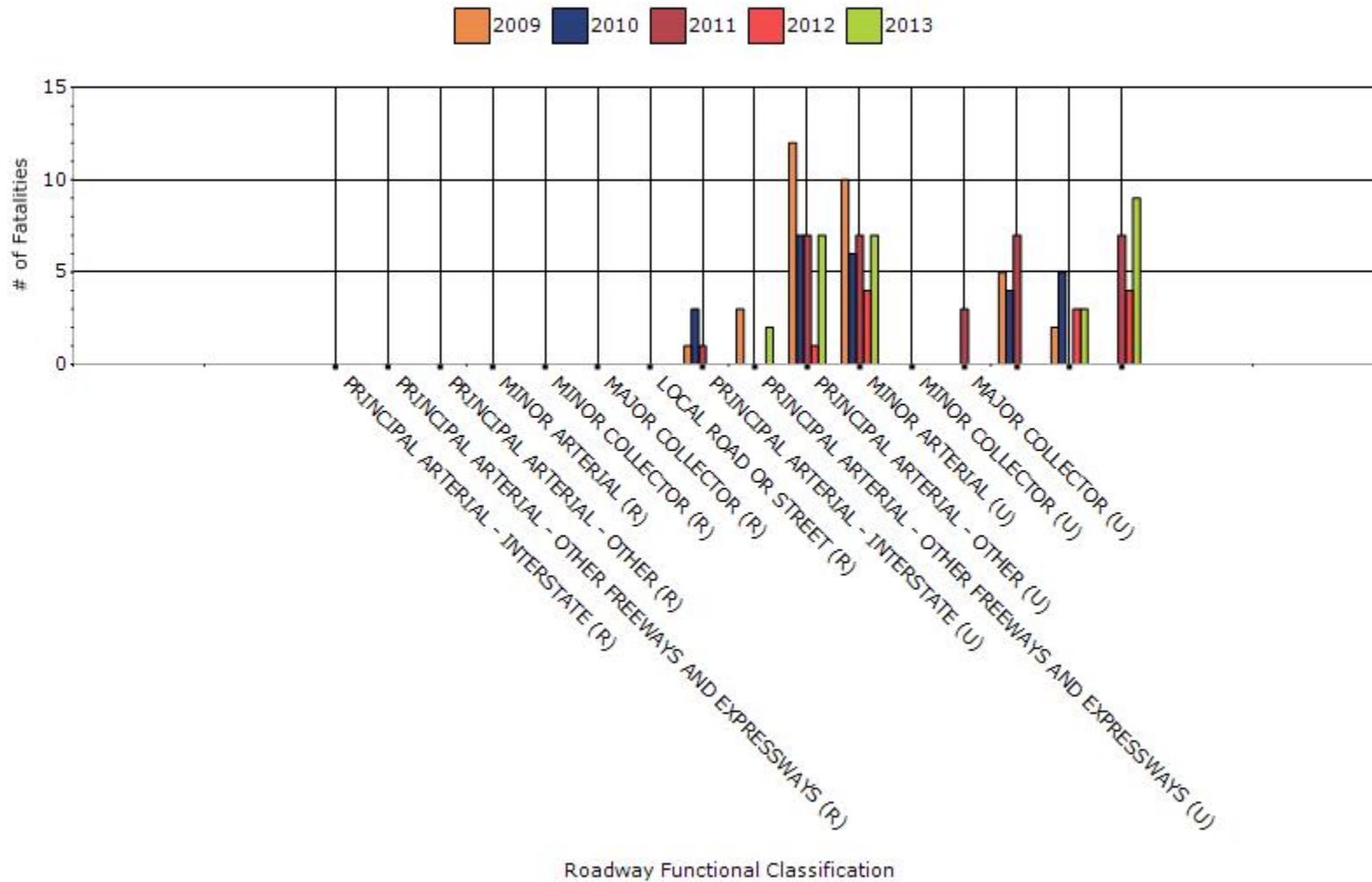
To the maximum extent possible, present performance measure\* data by functional classification and ownership.

**Year - 2013**

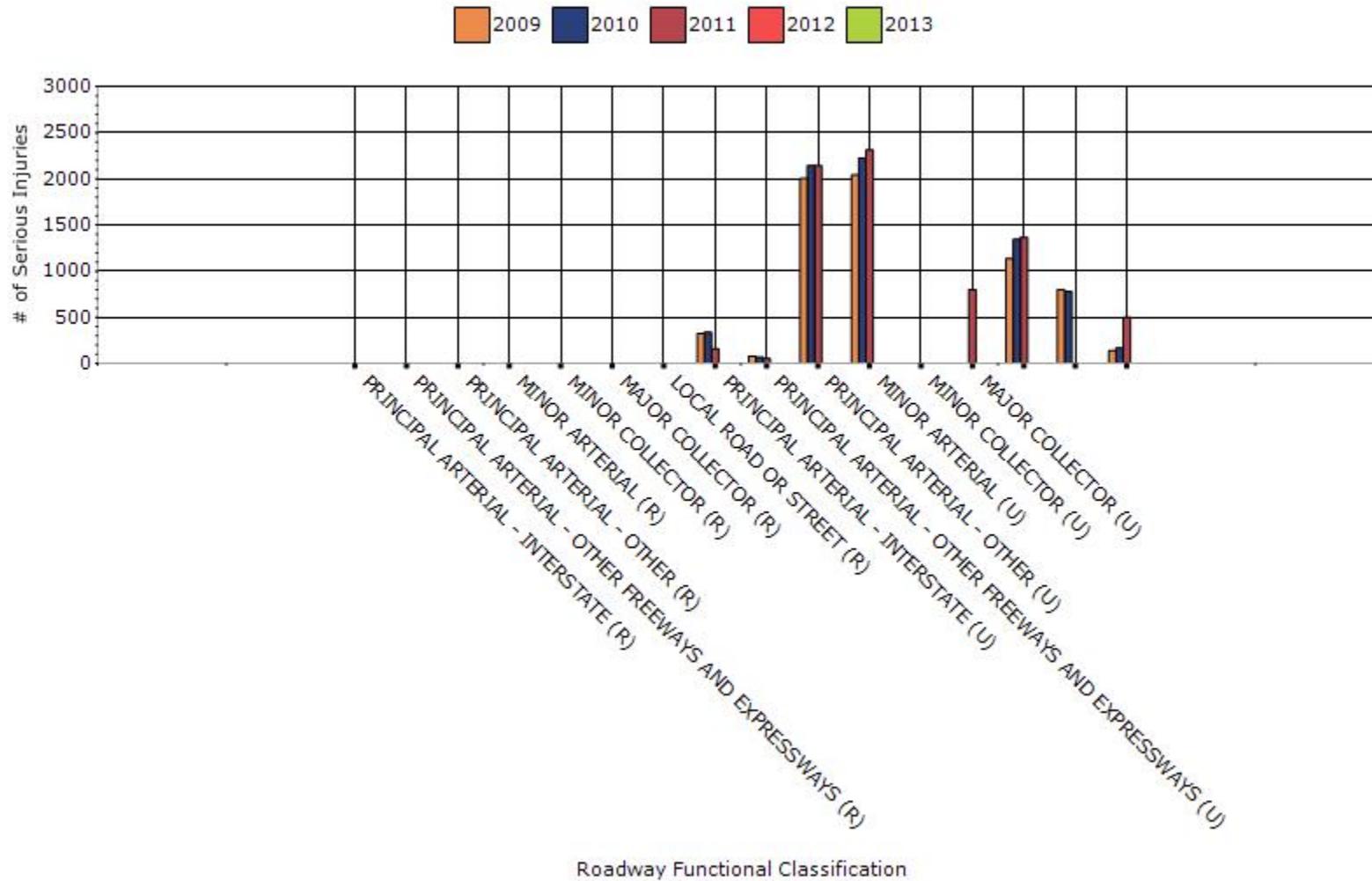
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER	0	0	0	0
RURAL MINOR ARTERIAL	0	0	0	0
RURAL MINOR COLLECTOR	0	0	0	0
RURAL MAJOR COLLECTOR	0	0	0	0
RURAL LOCAL ROAD OR STREET	0	0	0	0
URBAN PRINCIPAL	0	0	0	0

<b>ARTERIAL - INTERSTATE</b>				
<b>URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS</b>	2	0	0.06	0
<b>URBAN PRINCIPAL ARTERIAL - OTHER</b>	7	0	0.2	0
<b>URBAN MINOR ARTERIAL</b>	7	0	0.19	0
<b>URBAN MINOR COLLECTOR</b>	0	0	0	0
<b>URBAN MAJOR COLLECTOR</b>	0	0	0	0
<b>URBAN LOCAL ROAD OR STREET</b>	0	0	0	0
<b>URBAN COLLECTOR</b>	3	0	0.08	0
<b>URBAN LOCAL</b>	9	0	0.25	0

### # Fatalities by Roadway Functional Classification

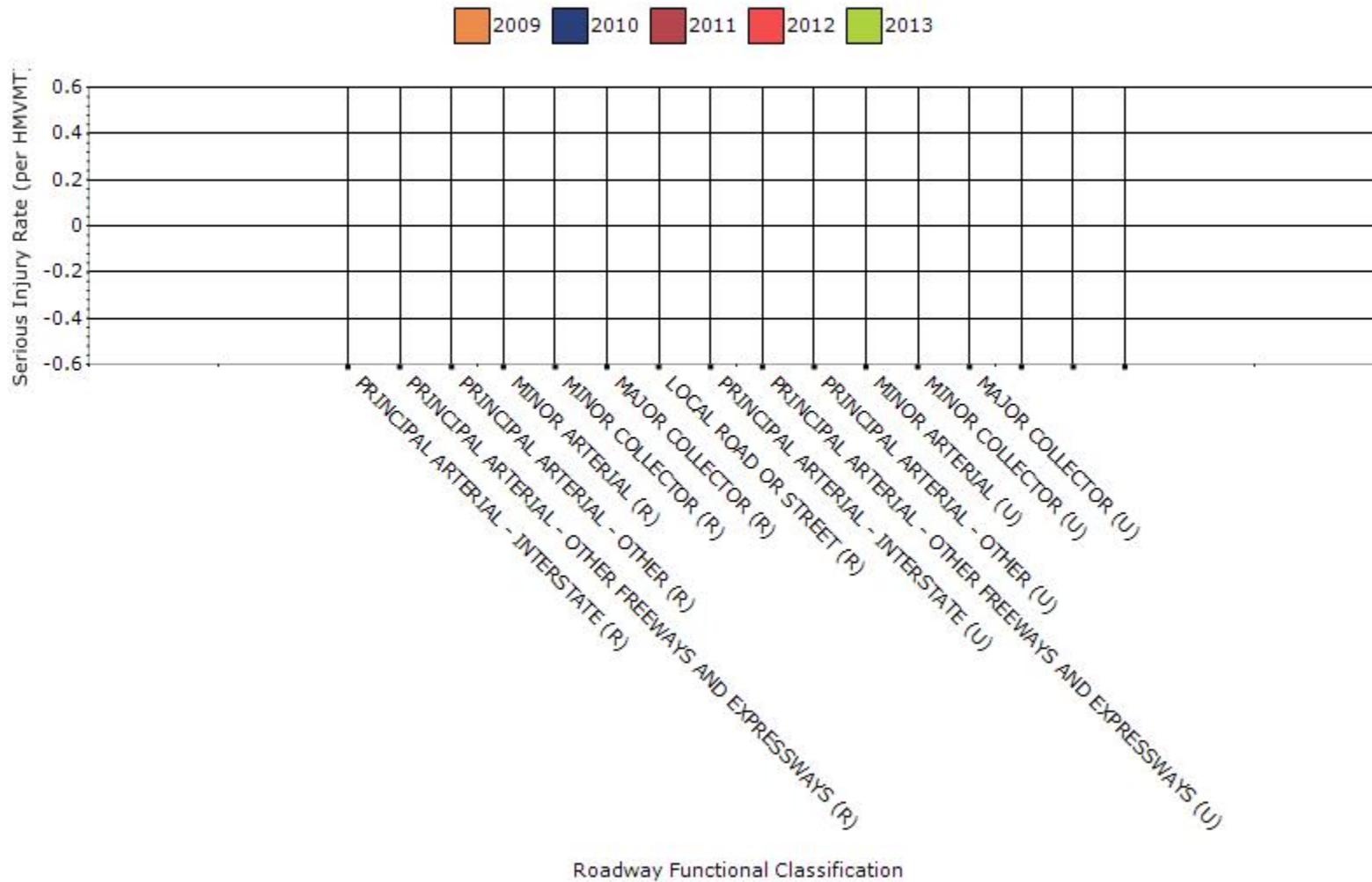


### # Serious Injuries by Roadway Functional Classification





### Serious Injury Rate by Roadway Functional Classification

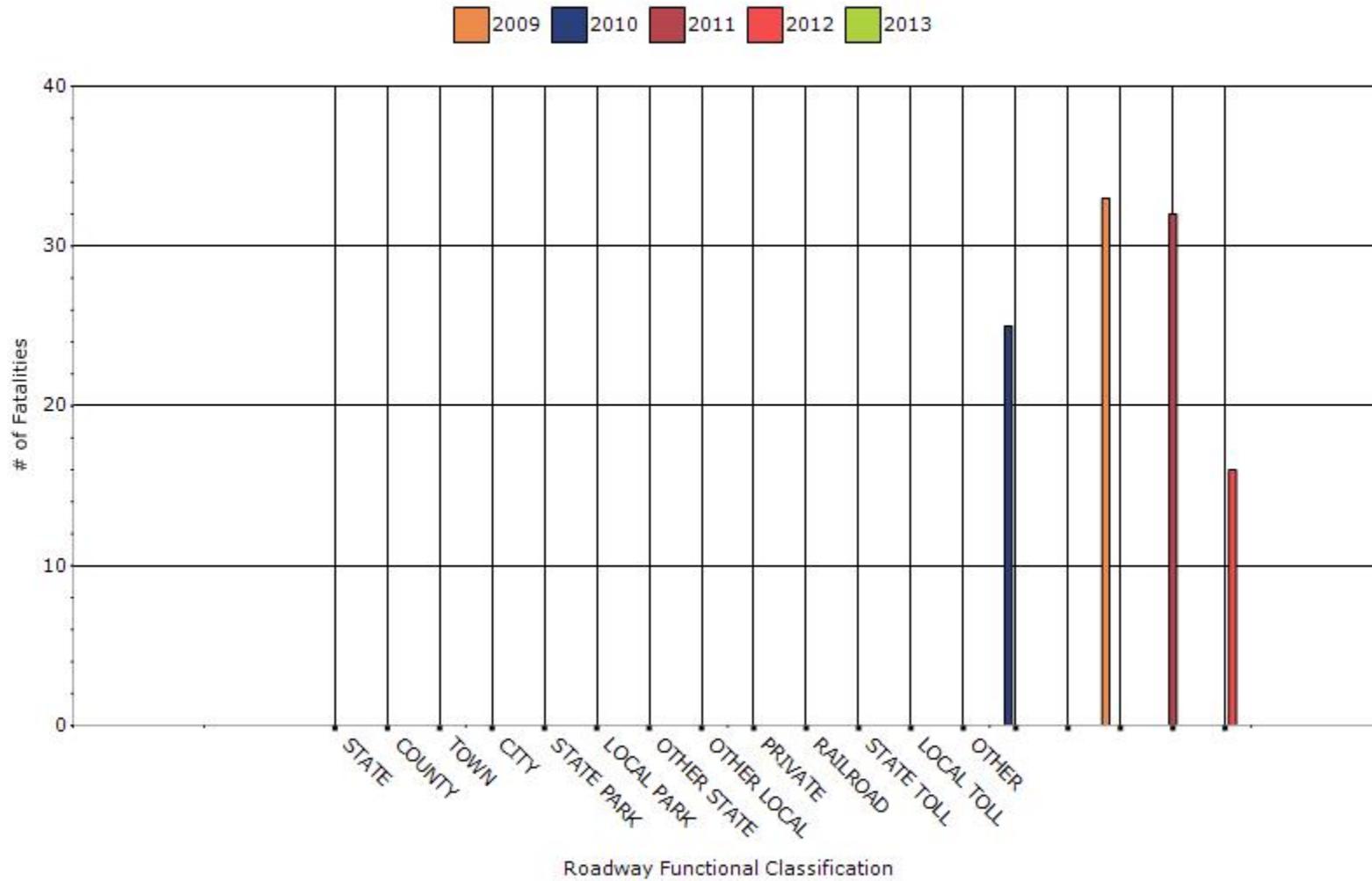


**Year - 2012**

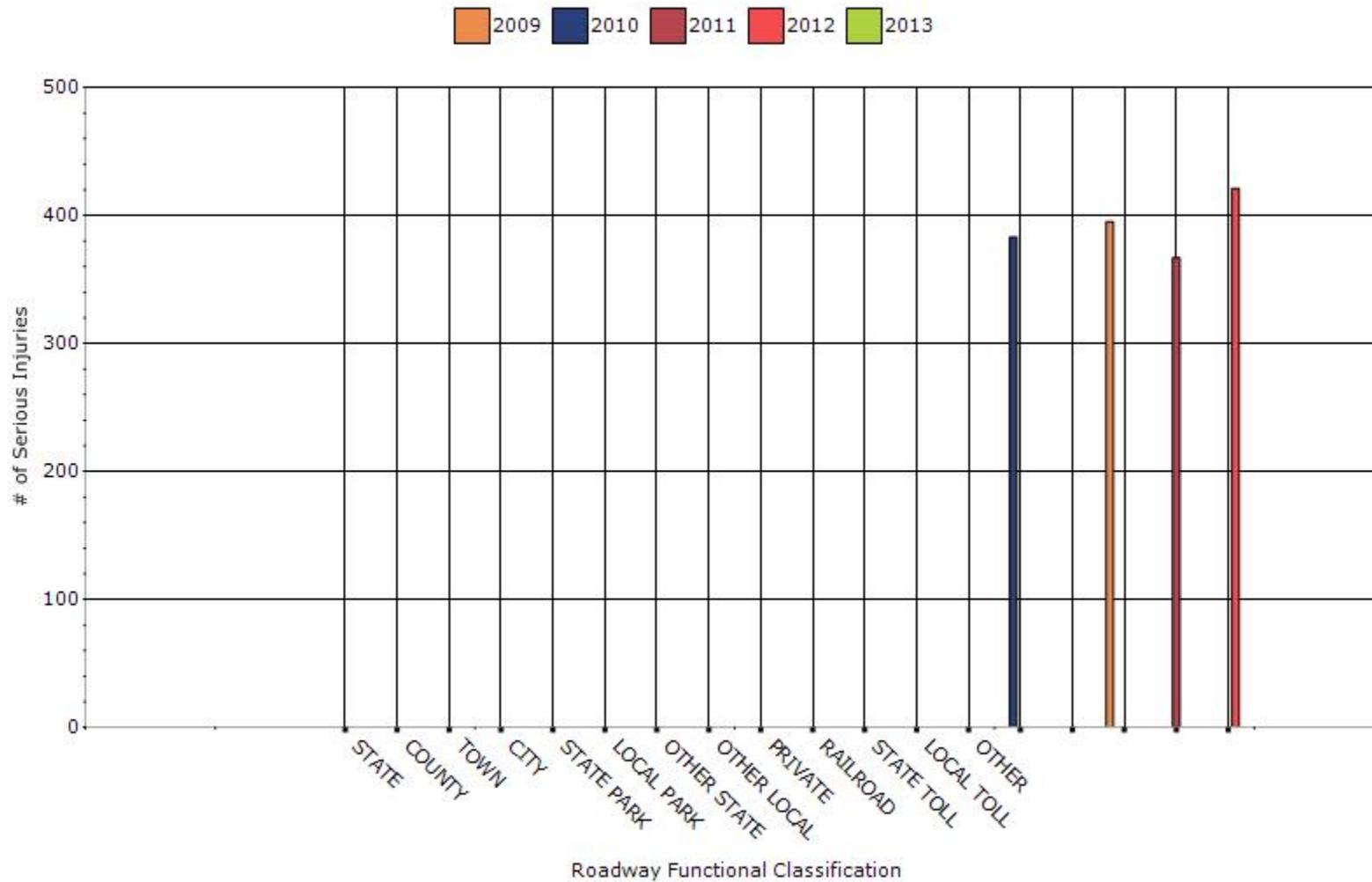
Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	0	0	0	0
COUNTY HIGHWAY AGENCY	0	0	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	0	0	0	0
STATE PARK, FOREST, OR RESERVATION AGENCY	0	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
2010 DISTRICTWIDE	0	0	0	0

<b>2008 DISTRICTWIDE</b>	0	0	0	0
<b>2009 DISTRICTWIDE</b>	0	0	0	0
<b>2011 DISTRICTWIDE</b>	0	0	0	0
<b>2012 DISTRICTWIDE</b>	16	421	0.45	0

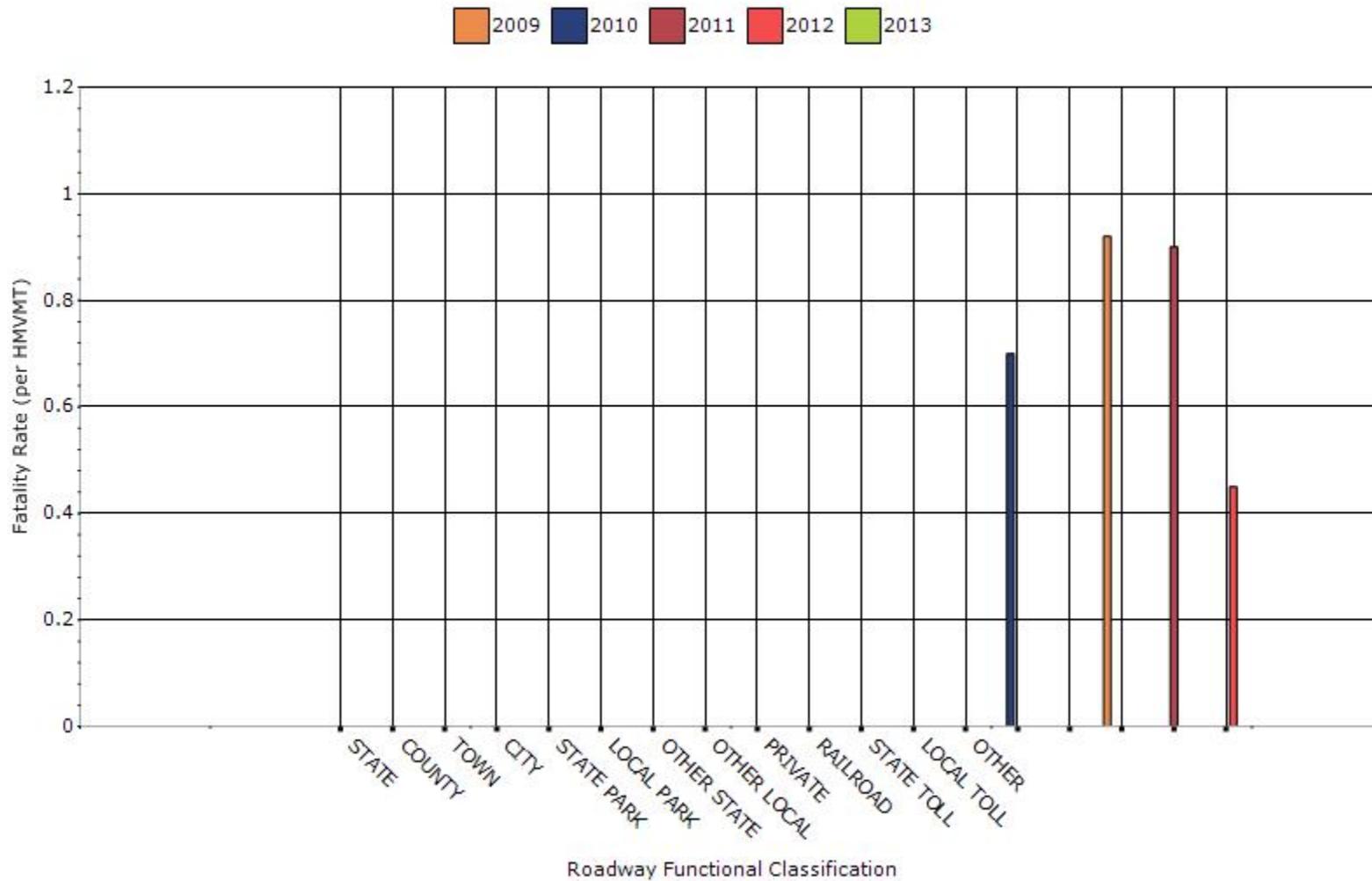
### Number of Fatalities by Roadway Ownership



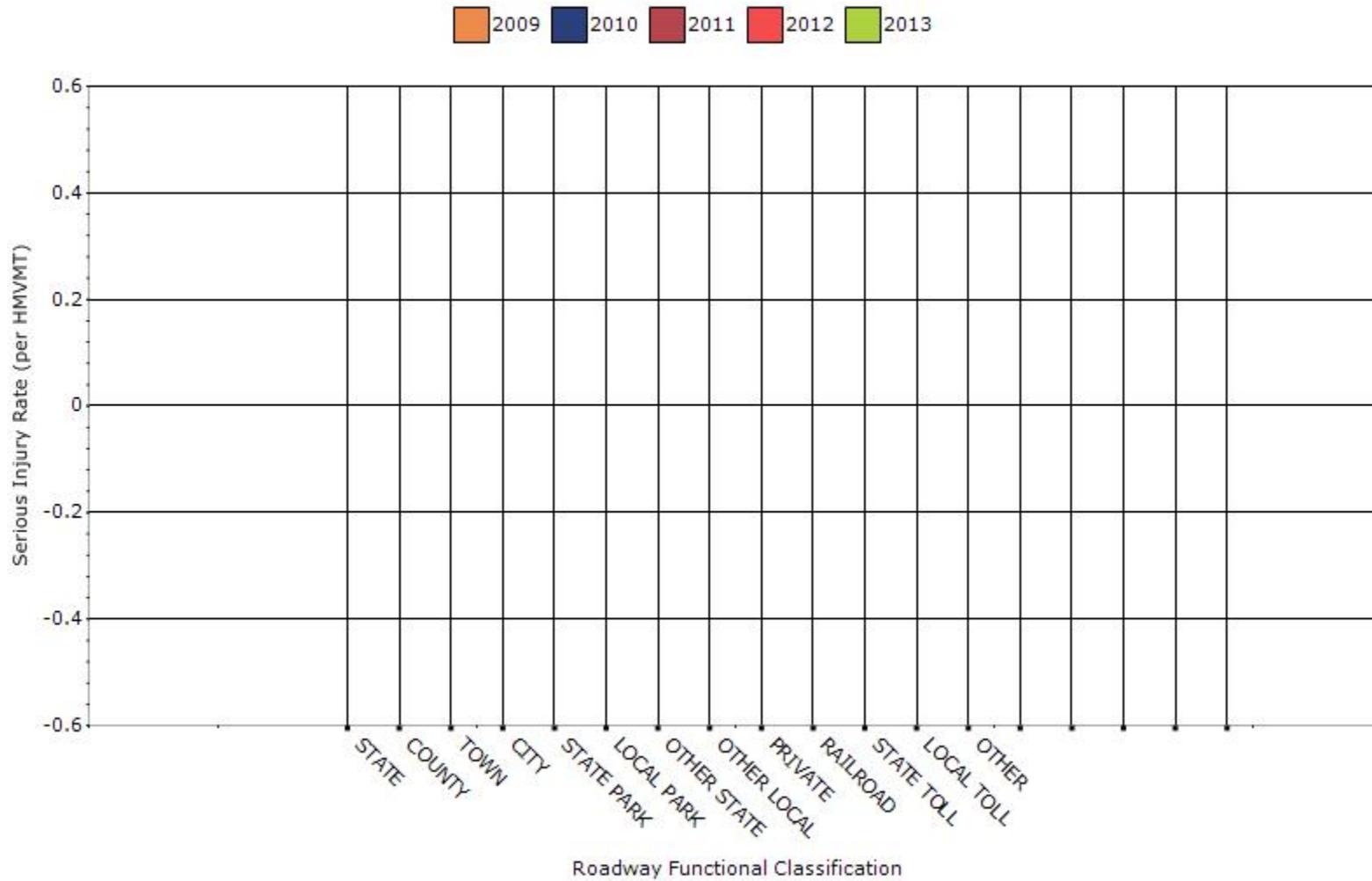
### Number of Serious Injuries by Roadway Ownership



### 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.**

The general highway safety trends for the year 2012 are as follows:

- Fatality Rate for the year 2013 is higher than the year 2012
  - Fatality Rate for the year 2013 is proximal to the 5-year average fatality rate (2008-2012)
- Total number of Disabling Injuries for the year 2013 is less than the year 2012

### 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)	0.008	0.01	0.012	0.012	0.008
Serious injury rate (per capita)	0	0	0	0	0
Fatality and serious injury rate (per capita)	0	0	0	0	0

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

Fatality rate per capita (r) is the ratio of total number of fatalities of drivers and pedestrians at the age of 65 or over (f) per 1,000 resident population (N) for the District of Columbia. Below is the calculation of fatality rate per capita (r) for the following years:

#### 2008

- Total number of fatalities for drivers and pedestrians at the age of 65 or over (f) in 2008 = 16

- Total population for the District of Columbia (N) in the year 2008 = 595,130 residents

- Fatality rate per capita (r) =  $f/N * 1000 = \underline{0.027}$

2009

-Total number of fatalities for drivers and pedestrians at the age of 65 or over (f) in 2009=5

-Total population for the District of Columbia (N) in the year 2009=598,426 residents

-Fatality rate per capita (r)=  $f/N * 1000 = \underline{0.008}$

2010

-Total number of fatalities for drivers and pedestrians at the age of 65 or over (f) in 2010=7

-Total population for the District of Columbia (N) in the year 2010=601,723 residents

-Fatality rate per capita (r)=  $f/N * 1000 = \underline{0.012}$

2011

-Total number of fatalities for drivers and pedestrians at the age of 65 or over (f) in 2011=6

-Total population for the District of Columbia (N) in the year 2011=617,023 residents

-Fatality rate per capita (r)=  $f/N * 1000 = \underline{0.00}$

2012

-Total number of fatalities for drivers and pedestrians at the age of 65 or over (f) in 2012=0

-Total population for the District of Columbia (N) in the year 2012=632,323 residents

-Fatality rate per capita (r)=  $f/N * 1000 = \underline{0.0000}$

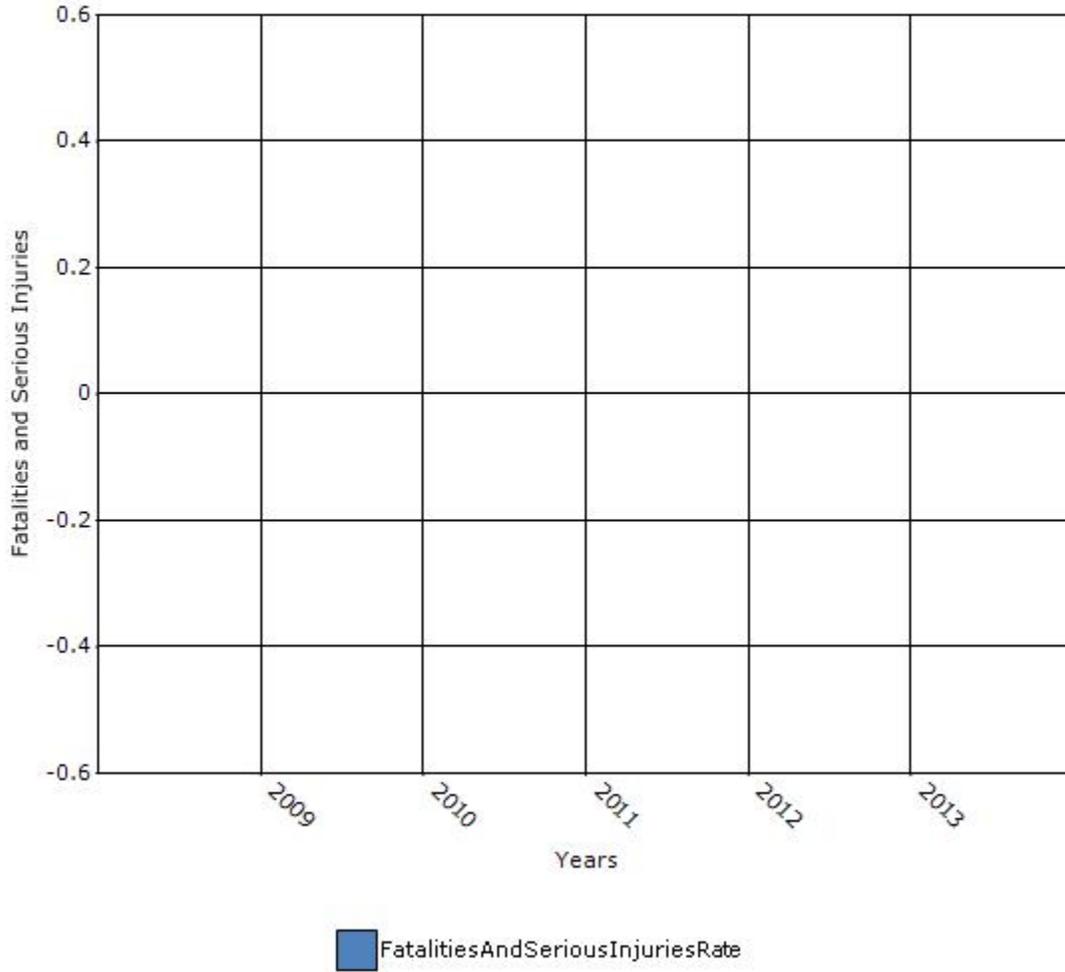
2013

-Total number of fatalities for drivers and pedestrians at the age of 65 or over (f) in 2013=8

-Total population for the District of Columbia (N) in the year 2013= 646,449 residents

-Fatality rate per capita (r)=  $f/N * 1000 = \underline{0.0000}$

### 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

**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-Number of fatalities, Fatality rate, Number of injury accident, Injury accident rate

**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-DDOT has established Performance Targets in SHSP and HSIP program

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

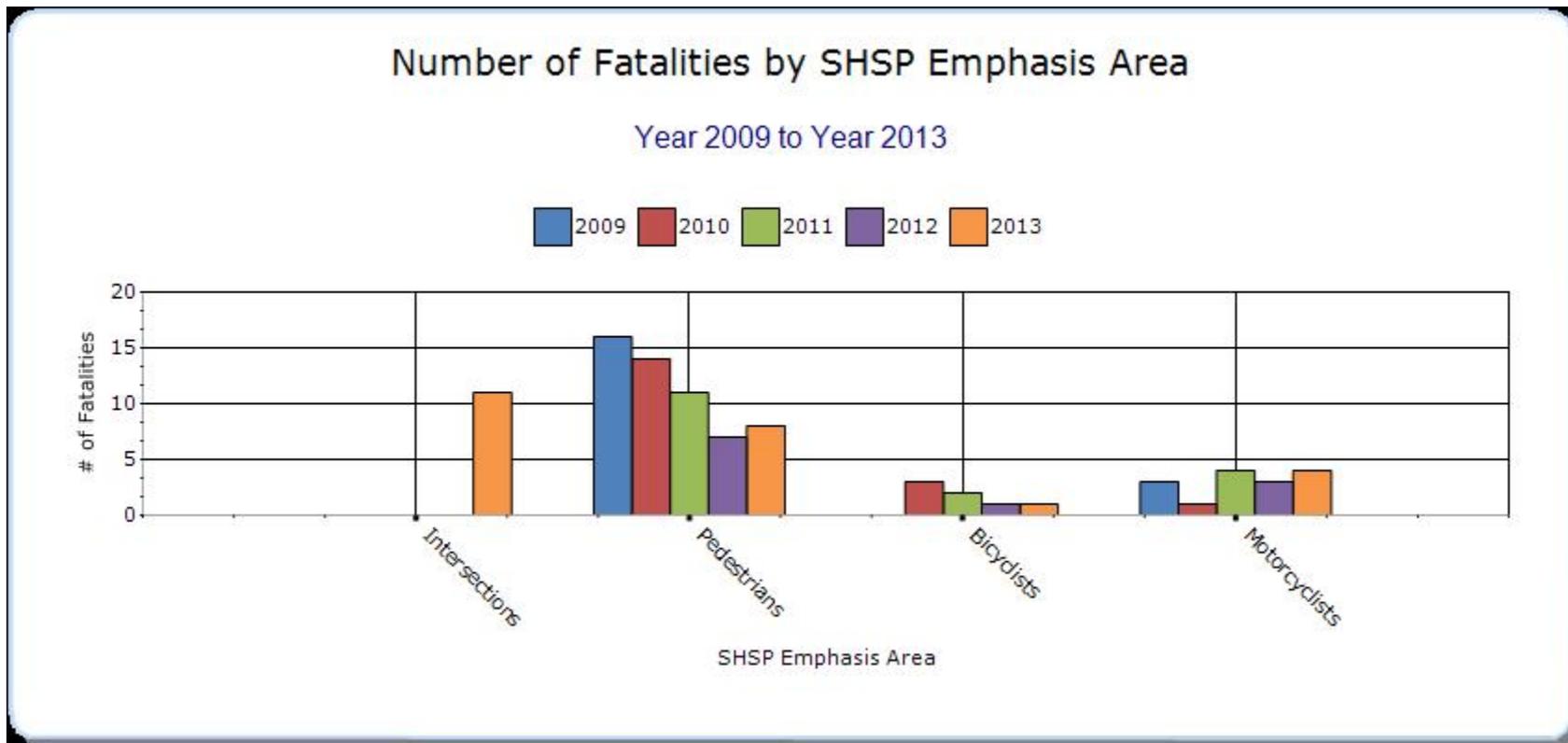
DDOT has hired one Transportation Engineer and one Program Analyst in the Safety Team under the Transportation Operations Administration (TOA).

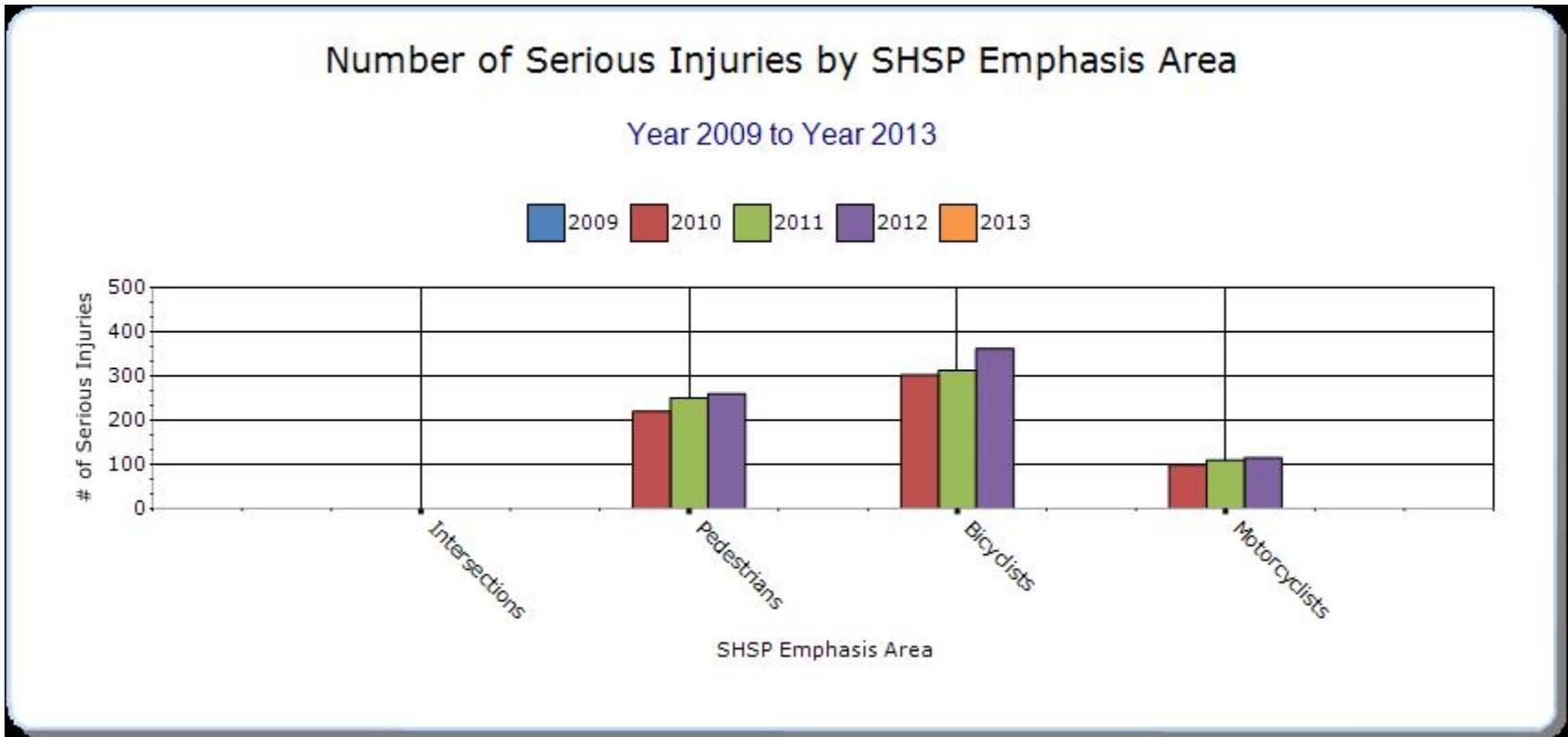
### SHSP Emphasis Areas

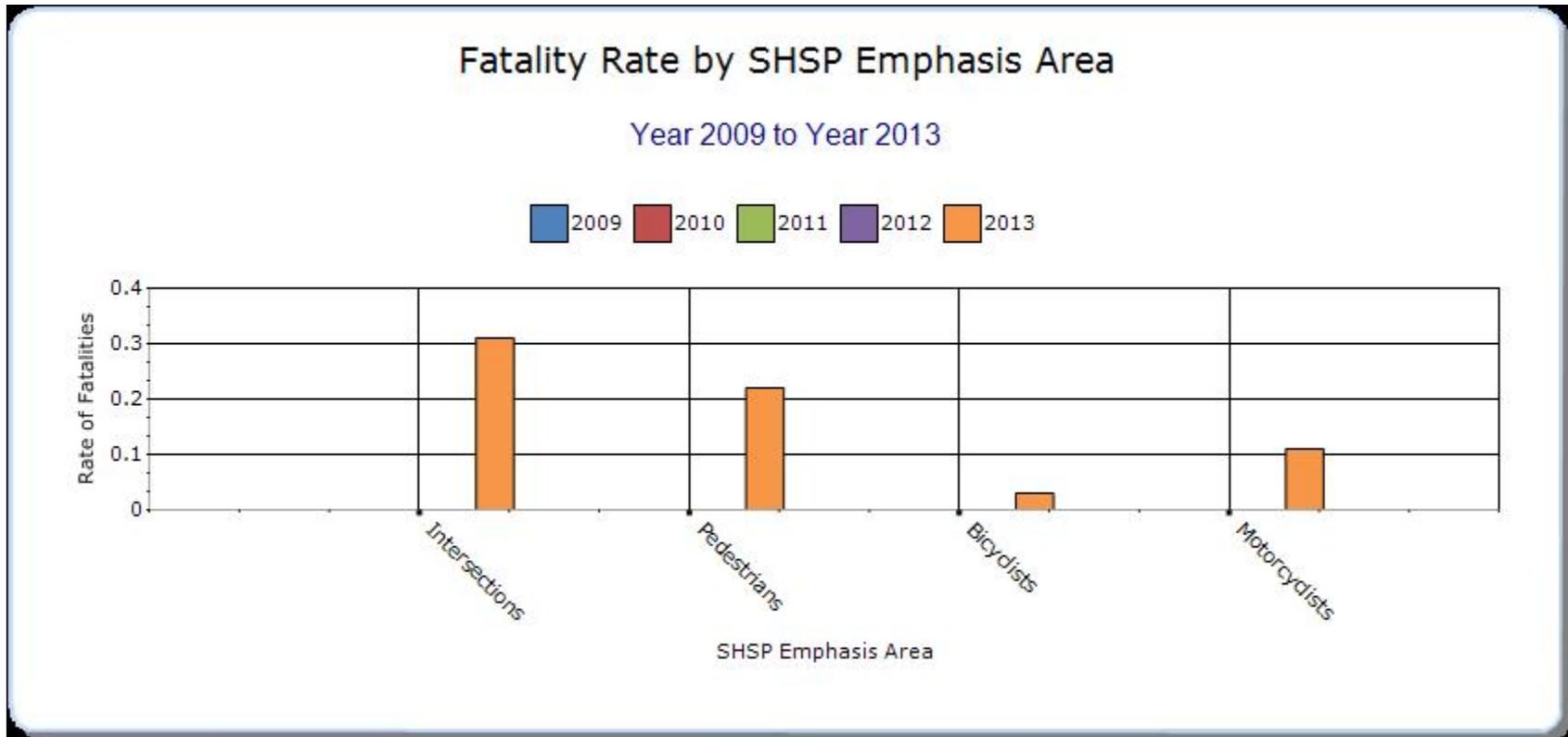
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

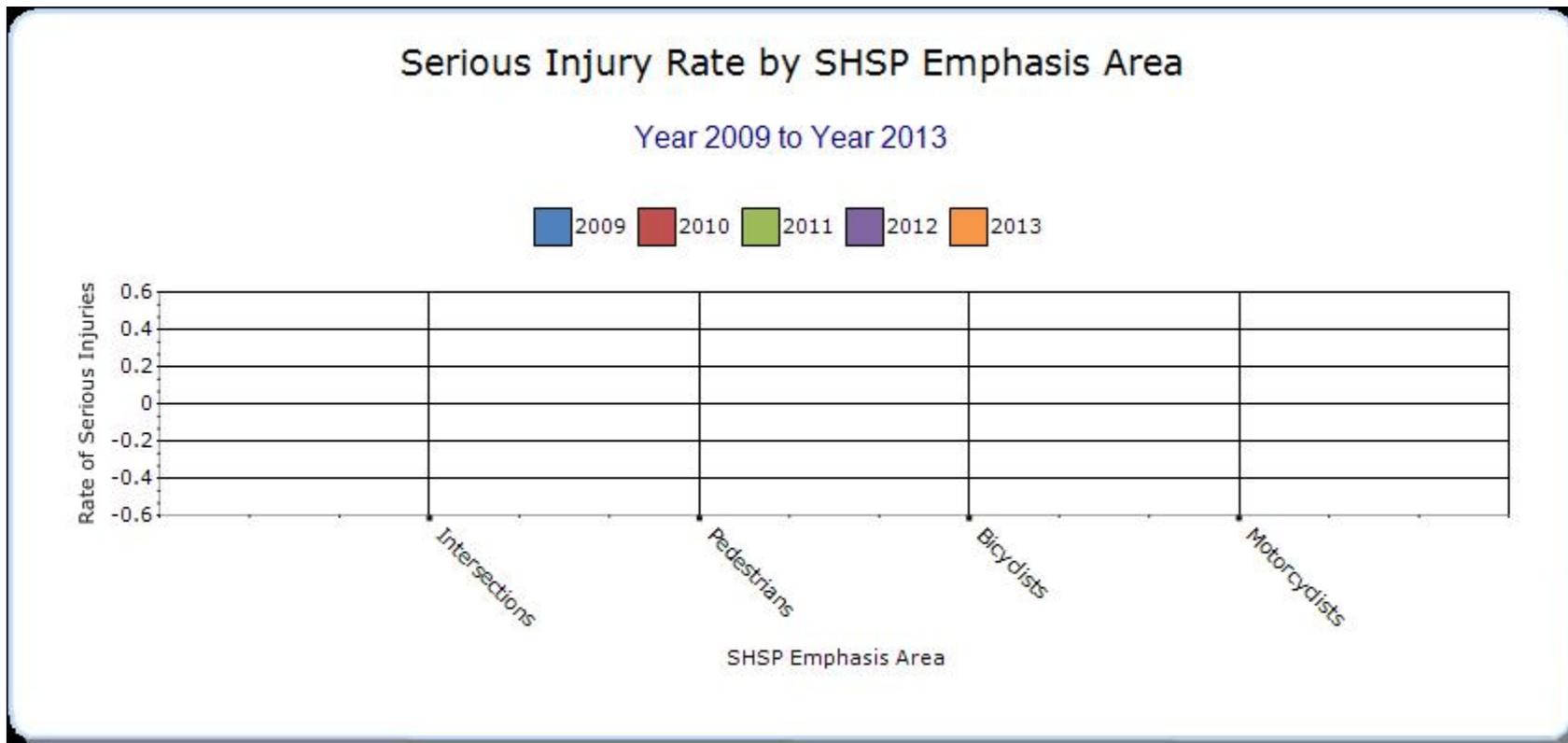
#### Year - 2013

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>Intersections</b>	Intersection	11	0	0.31	0	0	0	0
<b>Pedestrians</b>	Vehicle/pedestrian	8	0	0.22	0	0	0	0
<b>Bicyclists</b>	Vehicle/bicycle	1	0	0.03	0	0	0	0
<b>Motorcyclists</b>	Vehicle/Motorcycle	4	0	0.11	0	0	0	0







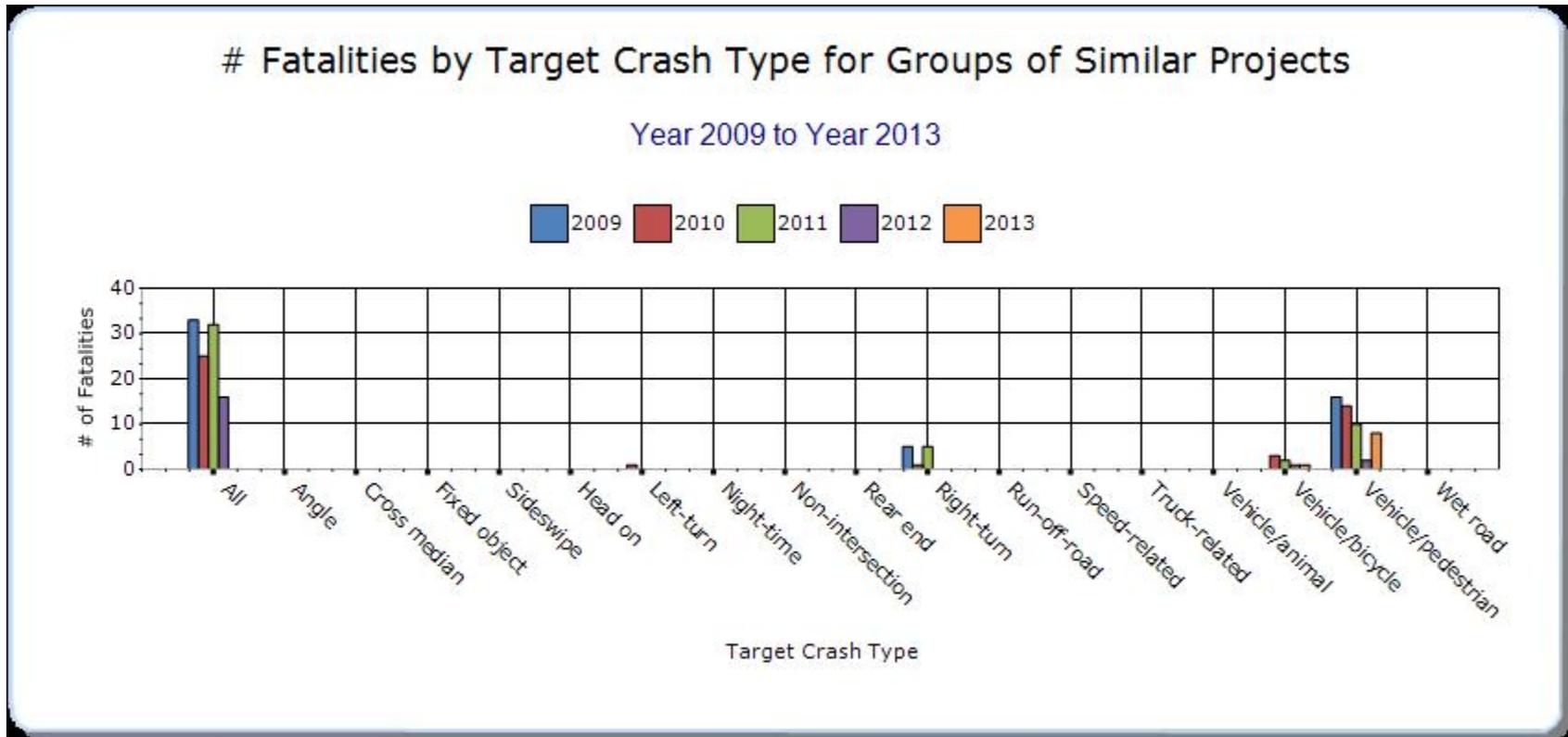


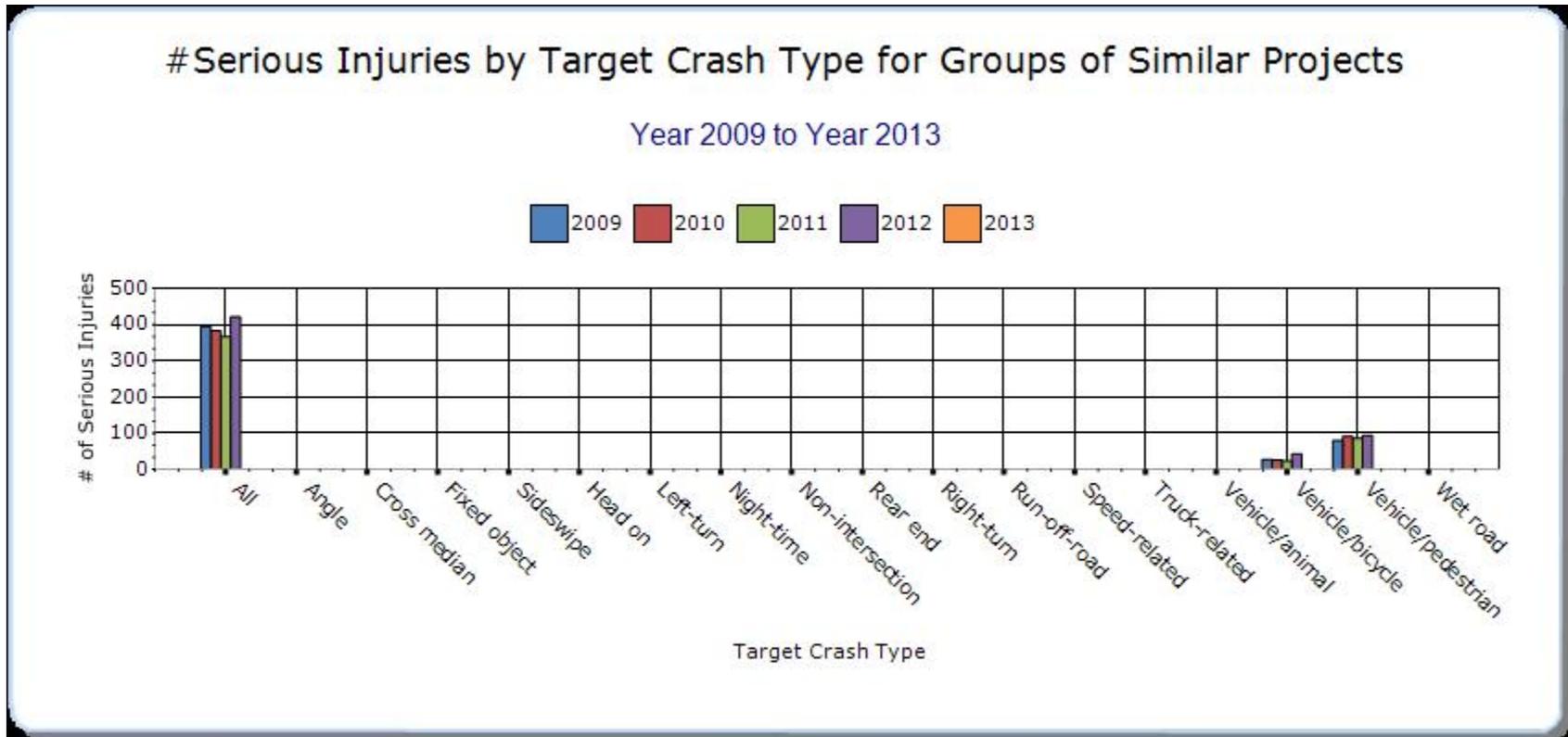
### Groups of similar project types

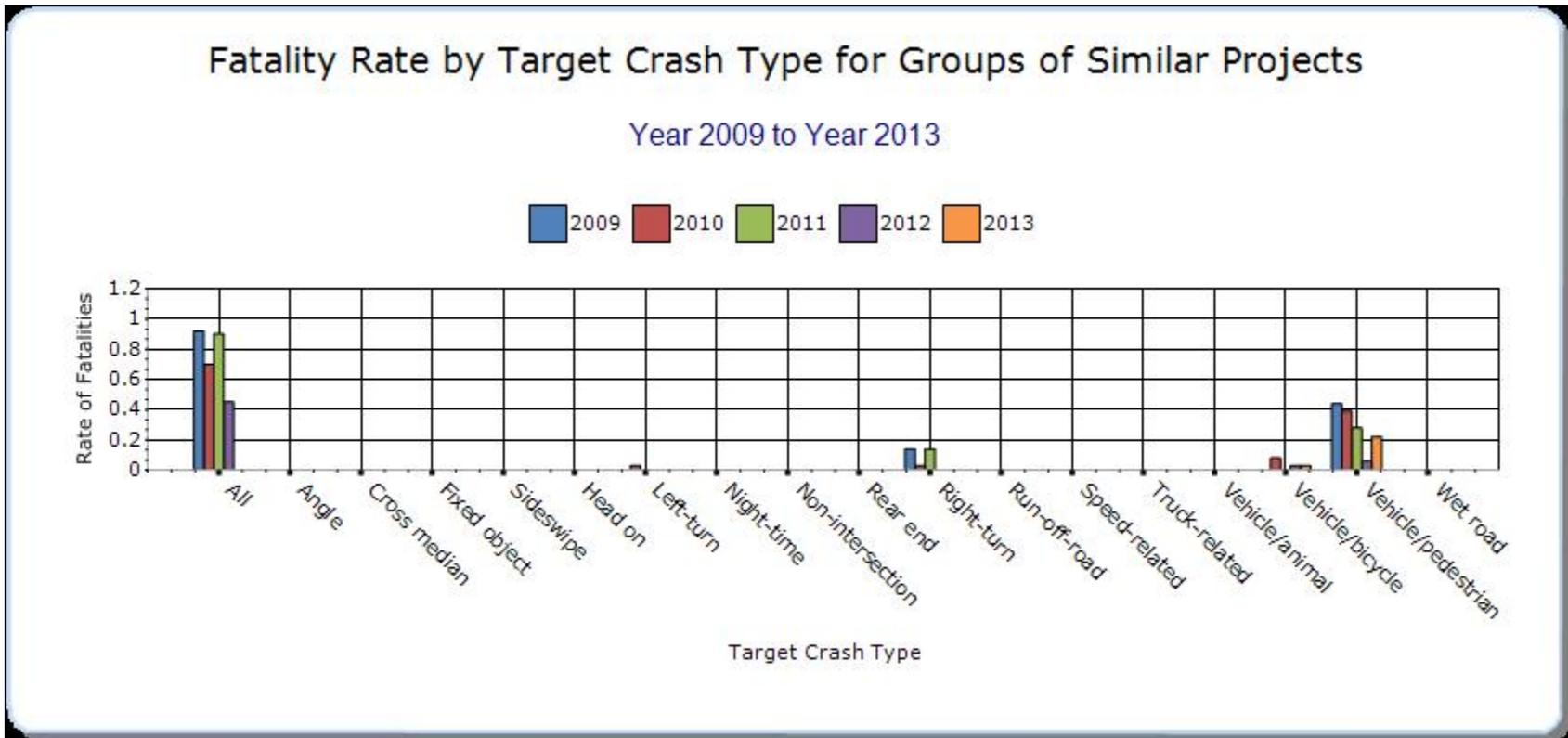
Present the overall effectiveness of groups of similar types of projects.

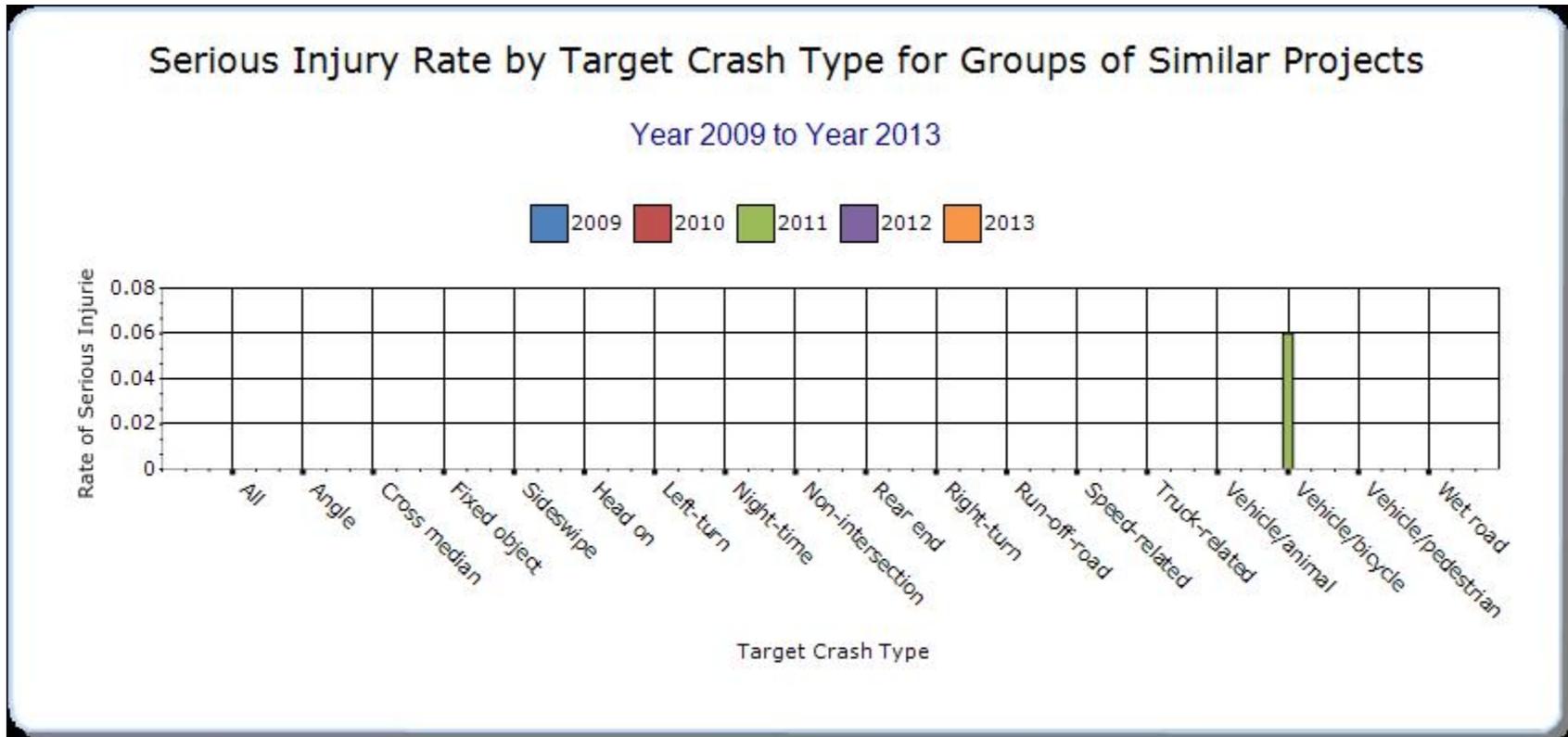
#### Year - 2013

HSIP Sub-program Types	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
<b>Left Turn Crash</b>	Left-Turn Crashes	1	0	0.03	0	0	0	0
<b>Pedestrian Safety</b>	Vehicle/pedestrian	8	0	0.22	0	0	0	0
<b>Red Light Running Prevention</b>	Red Light Running	1	0	0.03	0	0	0	0
<b>Intersection</b>	At Intersections	11	0	0.31	0	0	0	0
<b>Right Angle Crash</b>	Right Angle Crashes	4	0	0.11	0	0	0	0
<b>Bicycle Safety</b>	Vehicle/bicycle	1	0	0.03	0	0	0	0







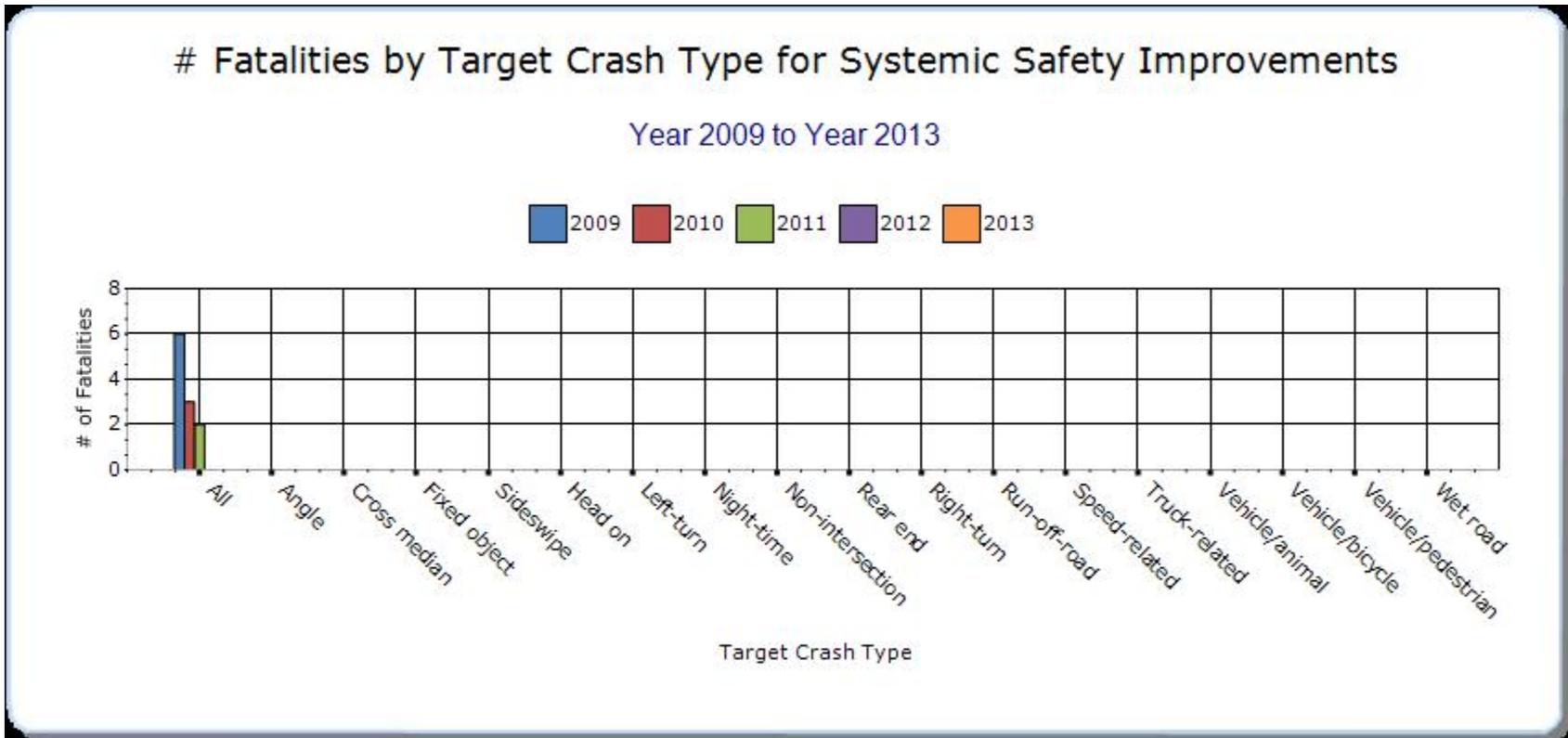


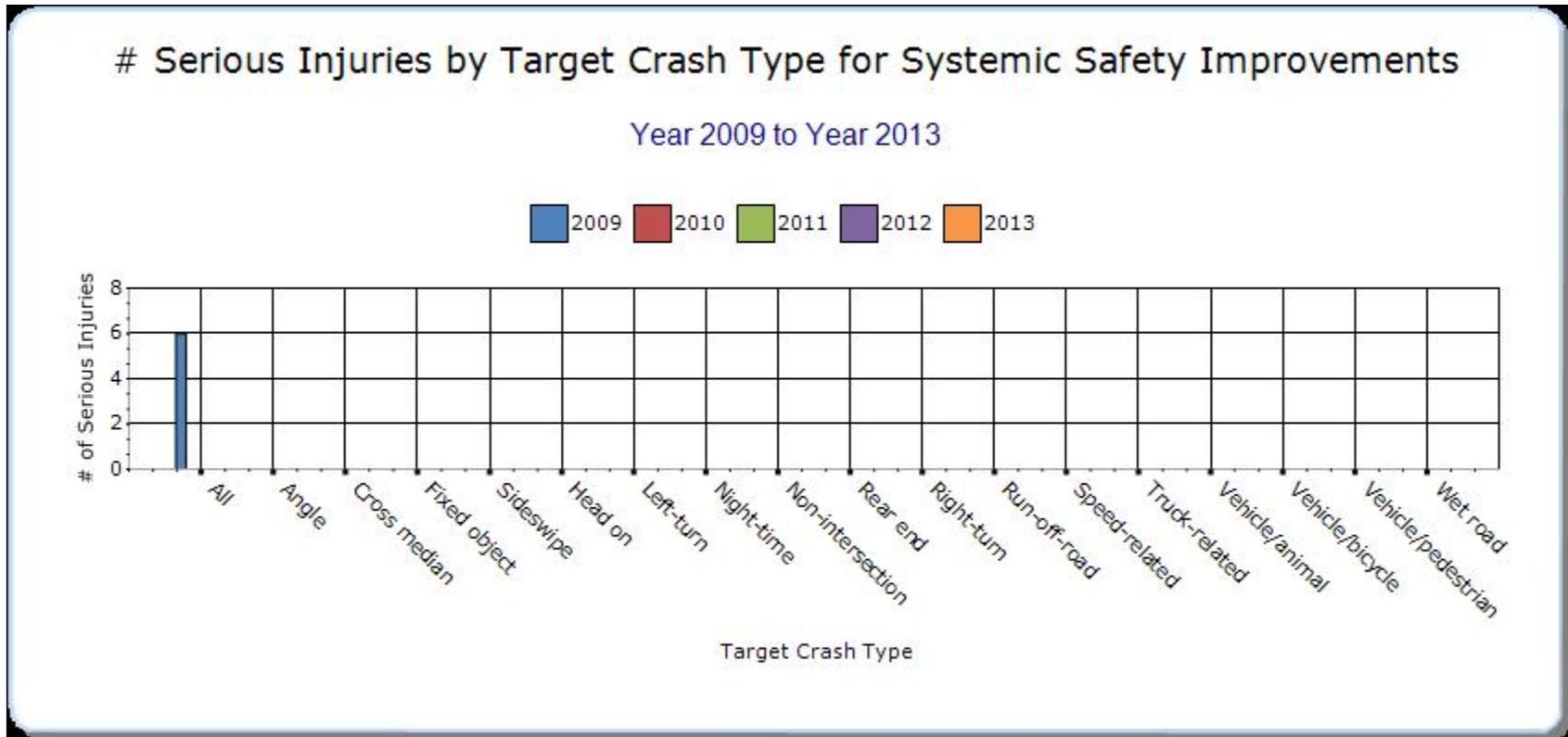
### Systemic Treatments

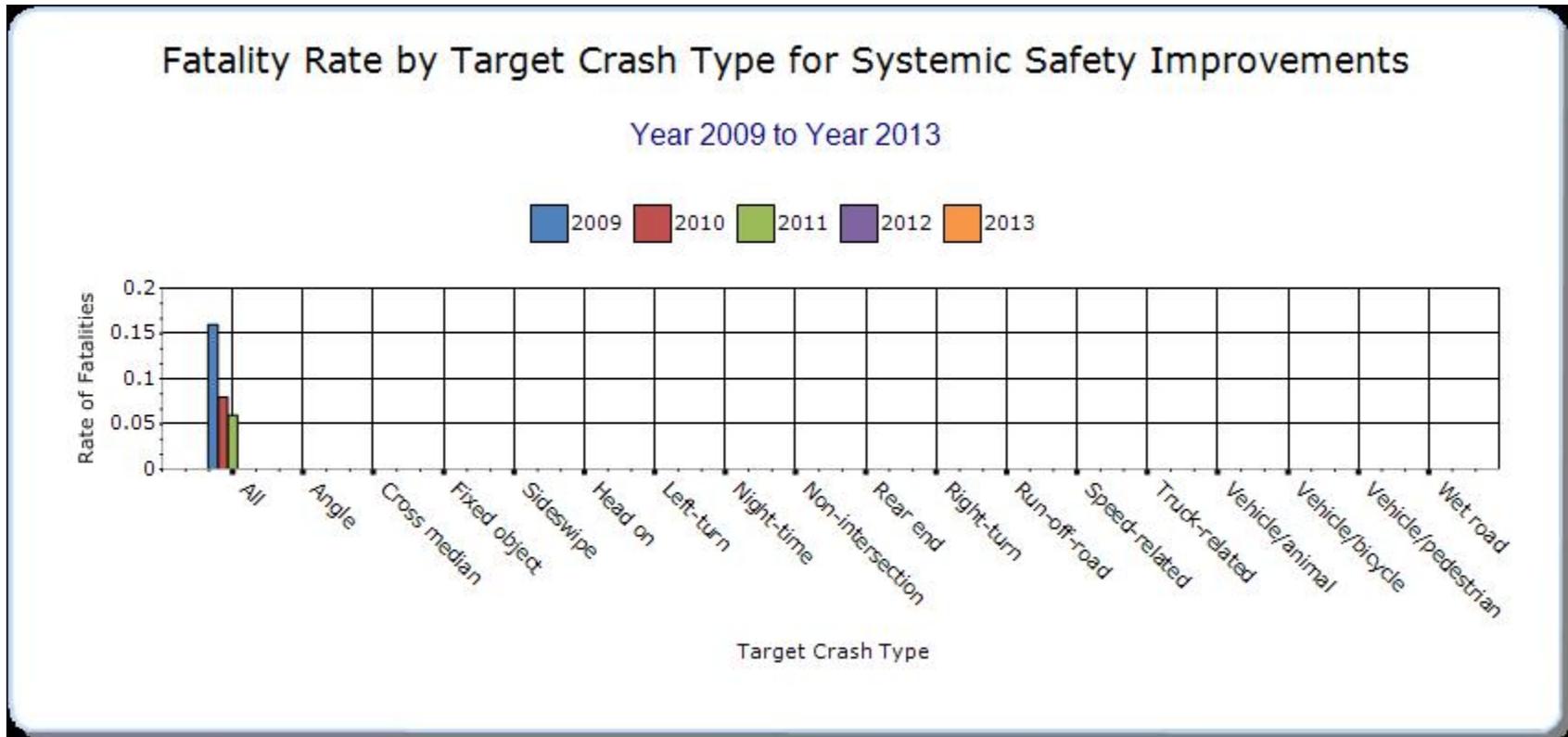
Present the overall effectiveness of systemic treatments.

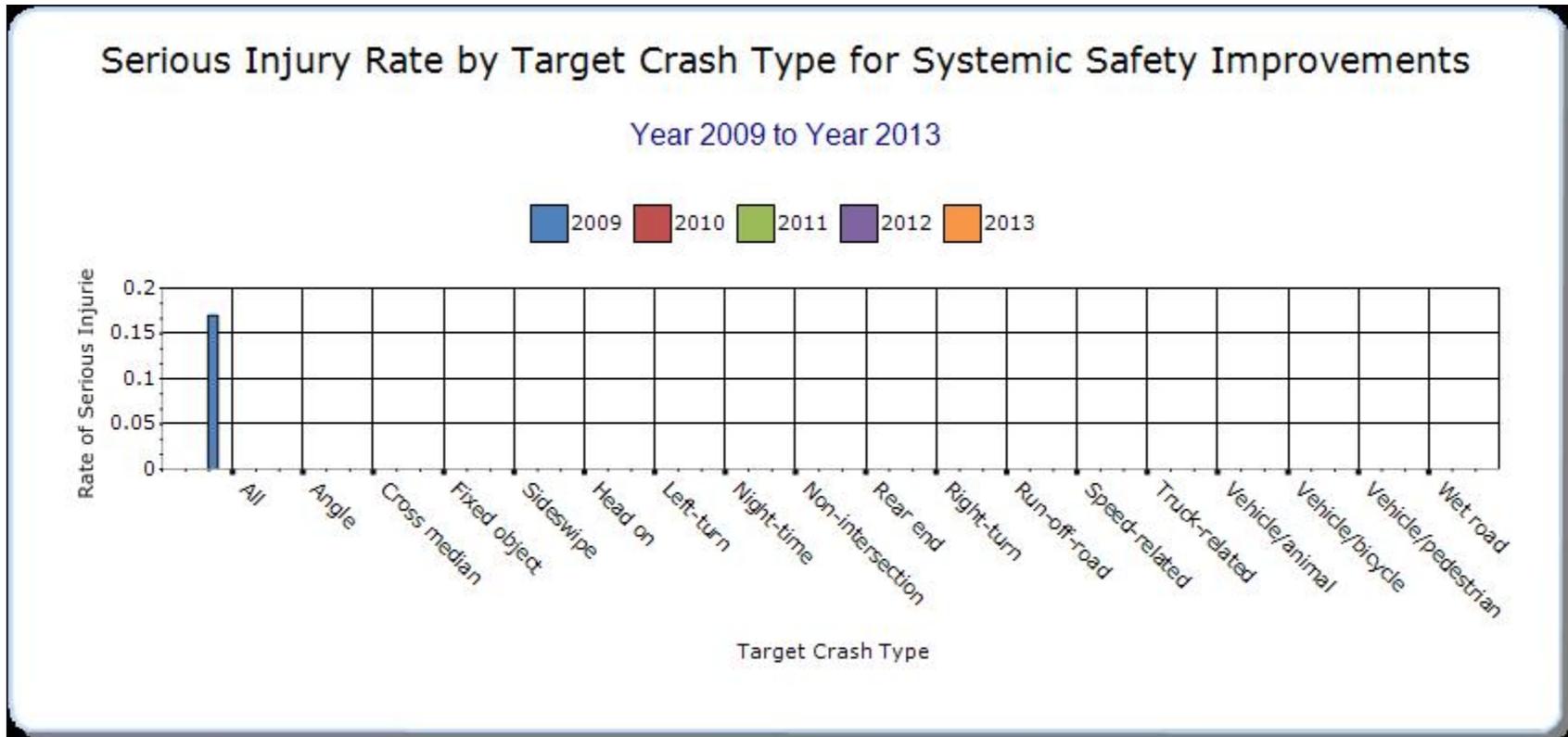
#### Year - 2013

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
Install/Improve Pavement Marking and/or Delineation	Road Defects	0	0	0	0	0	0	0
Install/Improve Signing	Improve Signing	0	0	0	0	0	0	0
Add/Upgrade/Modify/Remove Traffic Signal	Signal	0	0	0	0	0	0	0
Install/Improve Lighting	Defective Street Lighting	0	0	0	0	0	0	0









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

The DDOT Executive Management has adopted the Six Sigma for process improvements. Six Sigma principles have been used as a foundation in shaping the new Safety Team. Six Sigma is a proven disciplined approach for improving measurable results for any organization. Using these tools has helped with the coordination performed by in-house staff, other District of Columbia agencies and residents of the District. Using data and applying Six Sigma methodologies has positively impacted all road users by helping the Safety Team be able to address issues using the appropriate data. With reducing the number of fatalities and serious injuries as the primary goal of the Safety Program, a multi-level Safety Improvement Program has been implemented to allow the Safety Team to thoroughly, effectively and efficiently address and respond to all immediate, short-term and long-term safety concerns.

DDOT has used innovative practices in implementing the HSIP project. These include: High Crash Location Analysis, Benefit and Cost Analysis, Road Safety Audits, Quick Field Safety Reviews and the "Decision Lens" (A software solution used for quickly collecting and synthesizing qualitative and quantitative information from multiple data sources and stakeholders for trade-off, prioritization and/or resource allocation decisions). With these innovative practices the Department is progressing toward a comprehensive, data-driven approach. As an example, those sites identified as needing a RSA will follow the recommended FHWA RSA procedures that includes the use of an independent, multi-disciplinary team with members from across DDOT and other District of Columbia agencies.

DDOT Safety Team has completed safety reviews and road safety audits on several intersections and corridors within the District. Following are some of the main projects where road safety audits and reviews have been conducted by DDOT Safety Team:

1. Traffic safety analysis for Ward Circle

- DDOT Safety Team performed extensive traffic safety analysis for the Ward Circle

2. Road Safety Audit for Blair/Cedar/4th St

- DDOT Safety Team prepared road safety audit (RSA) report for the intersection of Blair Rd/Cedar St/4th St summarizing geometric improvement, roadway improvements and traffic signal improvements

- The redesign of Blair/Cedar/4th St intersection, based on the recommendations in the RSA report, was contracted out to private engineering consulting firms

- The engineering consultants have already submitted the 100% design plans for this project

3. Road Safety Audit for Foxhall Road corridor

- DDOT Safety Team has prepared the RSA report summarizing geometric improvements, roadway improvements and traffic signal improvements on over 20 intersections along Foxhall Road corridor

4. Road Safety Audit for Edgewood St, NE

- DDOT Safety Team has prepared Justification Report for conducting the road safety audit for approximately 5 schools in vicinity of Edgewood St, NE

- The Justification Report identifies traffic safety concerns for pedestrians, especially school children, school buses, motorists and transit on Edgewood St

5. N Capitol St and New Hampshire Ave,

- DDOT Safety Team has prepared Justification Report for the intersection of N Capitol St and

New Hampshire Avenue

- The Justification Report identifies traffic safety concerns for pedestrians, motorists, transit and bicyclists utilizing this intersection

DDOT has nearly completed several main projects as described below:

1. Upgrading pedestrian facilities on Naylor Rd

- DDOT staff and Toole Design Group have completed the designs of pedestrian facilities along Naylor Road corridor, from Good Hope Road to 25th Street.

- DDOT Asset Management has installed pedestrian facilities, e.g. pedestrian signs, pavement markings, along Naylor Rd corridor.

2. MLK Streetscape Project

- DDOT IPMA is nearing completion of the MLK Streetscape Project as part of the Great Streets project

### 3. Reconstruction Project on Pennsylvania Avenue

- DDOT IPMA has completed the reconstruction/streetscape project on Pennsylvania Avenue corridor from 27th Avenue to Southern Avenue.

### 4. Reconstruction Project on Sherman Avenue

- DDOT IPMA has completed the reconstruction/streetscape project on Sherman Avenue.

### 5. Streetscape Project on U Street

- DDOT IPMA has completed the first streetscape project on U Street. The second streetscape project on U Street is under design.

### 6. 15th Street Bike Lanes

- DDOT has completely resurfaced the bike lane on 15th Street from K Street to Swann Street.

### 7. L Street Bike Lanes

- DDOT has installed bike lanes on L Street from 11th Street to Pennsylvania Avenue/24th Street.

### 8. M Street Bike Lanes

- DDOT has completed design of bike lanes on M Street from 14th Street to 28th Street.

### 9. Multimodal Transportation Study on M Street

- DDOT has also completed the multimodal transportation study on M Street

DDOT is also also managing several traffic data collection and accident data projects that are essential to the successful implementation of HSIP:

1. ITS Master Plan
2. Video Detection System (VDS) project
3. Dynamic Message Sign (DMS) project
4. Weigh In Motion (WIM) project
5. Advanced Traffic Management System (ATMS) CAPTOP project
6. Traffic data collection contracts
7. Traffic Accident Records and Analysis System (TARAS) project

As mentioned earlier, DDOT has also implemented several comprehensive transportation safety and planning initiatives within the District of Columbia such as:

1. MoveDC ([www.movedc.org](http://www.movedc.org))

Develop a coordinated, multimodal long range transportation plan, addressing all modes of transportation in the District of Columbia.

2. goDCgo ([www.godcgo.com](http://www.godcgo.com))

Provides transportation related information and website links on regional buses, DC Circulator, Metrobus and Metrorail as well as information on walking and biking in the District of Columbia.

3. Streetcar Safety ([www.dcstreetcar.com](http://www.dcstreetcar.com))

DC Streetcar Team sends regular construction and safety updates that encompass all aspects of DC Streetcar system's functions, including Traffic Control Plans during Construction.

#### 4. Safety Matters

Safety Matters projects are high impact, low cost improvements to neighborhood streets such as new pavement markings, signs, signals, curb changes, or lighting to improve bicycle, pedestrian, and driver safety.

#### 5. Safe Routes to School

The DC Safe Routes to School Program works to:

- \* Improve safety for students who walk and bicycle to school
- \* Encourage students and their parents to walk and bicycle to school
- \* Boost student physical activity, reduce parents' fuel consumption, and reduce pollution and traffic congestion near schools

#### 6. Crash Data Improvement Program

\* DDOT has established new Crash Data Improvement Program (CDIP) that would identify metrics in terms of timeliness, accuracy and completeness of the crash data

\* DDOT organized CDIP workshop that included participants from DDOT agencies, MPD, FHWA, NHTSA, Highway Safety Office (HSO) and private consultants to

familiarize the collectors, processors, maintainers and users with the concepts of data

quality and how quality data improves safety decisions

\* The CDIP workshop organized by DDOT TOA staff mainly focussed on:

a. Crash Data Collection b. Crash Data Reporting c. Crash Data Processing

## 7. Traffic Incident Management Program

\* DDOT has established new Traffic Incident Management (TIM) program that consists of a effectively planned and coordinated multidisciplinary process to detect,

respond to and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible.

\* DDOT organized TIM workshop that included participants from MPD, FHWA, NHTSA, HSO, Fire, EMS, VDOT, HSEMA, MDSHA, Maryland Police, Virginia

Police, Howard University, DPW and several other agencies

\* TOA staff at DDOT has prepared draft legislation for Move Over Law and Memorandum of

Understanding (MOU) with other participating agencies to implement and

enforce laws for Traffic Incident Management program in the District of Columbia

8. DDOT uses social media extensive to public outreach and safety notice realtime to local and regional stakeholders. (both planned and unplanned events)

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)
Intersection of 7th Street and Mt Vernon Pl, NW	Urban Minor Arterial	Intersection traffic control	LPI	0	12	7		19	0	7	1		8	

TARAS database does not provide estimate for Serious Injuries. Hence, Total Injuries have been reported under the Serious Injuries tab

Both Pedestrian and Bicycle Injuries have been reported in the "Other Injuries" tab

## **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.