Highway Safety Improvement Program

Data Driven Decisions

District Of Columbia
Highway Safety Improvement Program
2013 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 44

Funds Programmed 44

General Listing of Projects 50

Progress in Achieving Safety Performance Targets ..... **Error! Bookmark not defined.**

Overview of General Safety Trends ..... **Error! Bookmark not defined.**

Application of Special Rules ..... **Error! Bookmark not defined.**

Assessment of the Effectiveness of the Improvements (Program Evaluation) 73

SHSP Emphasis Areas ..... **Error! Bookmark not defined.**

Groups of similar project types ..... **Error! Bookmark not defined.**

Systemic Treatments ..... **Error! Bookmark not defined.**

Glossary 103

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 and 2012. 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 over the last year.

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 safetycampaings as mandated by the NHTSA.

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

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 80 intersections
- Updated Pedestrian Crossing times at 469 intersections
- Installed 20 priority signals to improve pedestrian and bicyclist safety at various locations

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 prorgram. 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 Safety Team is an independent and multidisciplinary team with members across DDOT and other District of Columbia agencies. The internal DDOT Safety Team has members from the following organizations at DDOT that coordinate safety issues and education:

1. Transportation Operations Administration (TOA)
2. Infrastructure Project Management Administration (IPMA)
3. Policy, Planning and Sustainability Administration (PPSA)
4. Progressive Transportation Services Administration (PTSA)
5. Urban Forestry Administration (UFA)

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

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)

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-Organization Changes: DDOT Safety Team has hired one Project Manager, two Transportation Engineers and one Program Analyst

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 in the years 2011 and 2012. The Department took a major initiative in the year 2010by aligning Divisions and staff to ensure that Safety becoms 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 methologies 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 adn respond to all immediate, short-term and long-term safety concerns.

DDOT has used innovative practices in implementing the HSIP proejcts. These include: High Crash Location Analysis, Benefit and Cost Analysis, Road Safety Audits, Quick Field Safety Reveiws 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 has also implemented several transportation safety initiatives within the District such as:

1. MoveDC (www.movedc.org)
   Develop a coordinated, multimodal long range transportation plan, addressing all modes of transportation in the District

2. goDCgo (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)
   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:
   * 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

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 80 intersections
- Updated Pedestrian Crossing times at 469 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 injries in the District by fiffty-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.

- ☐ Median Barrier
- ☒ Intersection
- ☒ Safe Corridor
- ☐ Horizontal Curve
- ☒ Bicycle Safety
- ☐ Rural State Highways
- ☒ Skid Hazard
- ☒ Crash Data
- ☒ Red Light Running Prevention
- ☐ Roadway Departure
- ☒ Low-Cost Spot Improvements
- ☒ Sign Replacement And Improvement
- ☒ Local Safety
- ☒ Pedestrian Safety
- ☒ Right Angle Crash
- ☒ Left Turn Crash
- ☐ Shoulder Improvement
- ☒ Segments
- ☒ Other: Other-Sight distance analysis

Program: **Intersection**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐Other ☐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-Projects are automatically moved from Design to Construction. Other projects compete using the "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	
☐ Cost Effectiveness	
☒ Number of injuries	3
☒ Number of injury collisions	2
☒ Total number of collisions	1

Program: **Safe Corridor**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
☒ All crashes	☒ Traffic	☐ Median width
☐ Fatal crashes only	☒ Volume	☒ Horizontal curvature
☐ Fatal and serious injury crashes only	☐ Population	☐ Functional classification
☐ Other	☐ Lane miles	☒ Roadside features
	☐ Other	☐ 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-Projects for Design are automatically implemented through Construction. The remaining projects compete for funds using the "Decision Lens" 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
- ☐Cost Effectiveness
- ☒Total number of collisions 1

Program: **Bicycle Safety**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐ Cost Effectiveness

☒ Total Number of Collisions 1

Program: **Skid Hazard**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐Cost Effectiveness

☒Total Number of Collisions 1

Program: **Crash Data**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐ Cost Effectiveness

☒ Total Number of Collisions 1

Program: **Red Light Running Prevention**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐ Other

☐ Lane miles

☒ Roadside features

☐ Other

☐ 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
- ☐ Cost Effectiveness
- ☒ Total Number of Collisions 1

Program: **Low-Cost Spot Improvements**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐Cost Effectiveness

☒Total Number of Collisions 1

Program: **Sign Replacement And Improvement**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐ Cost Effectiveness

☒ Total Number of Collisions 1

Program: **Local Safety**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐ Cost Effectiveness

☒ Total Number of Collisions 1

Program: **Pedestrian Safety**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐ Cost Effectiveness

☒ Total Number of Collisions 1

Program: **Right Angle Crash**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
☒ All crashes	☒ Traffic	☒ Median width
☐ Fatal crashes only	☒ Volume	☒ Horizontal curvature
☐ Fatal and serious injury crashes only	☐ Population	☒ Functional classification
☐ Other	☐ Lane miles	☒ Roadside features
	☐ Other	☐ 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 the 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
- ☐ Cost Effectiveness
- ☒ Total Number of Collisions 1

Program: **Left Turn Crash**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

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

☐Cost Effectiveness

☒Total Number of Collisions 1

Program: **Segments**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐Cost Effectiveness

☒Total Number of Collisions 1

Program: **Other-Sight distance analysis**

Date of Program Methodology: **10/1/2012**

What data types were used in the program methodology?

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

☐ Cost Effectiveness

☒ Total number of collisions 1

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

75

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

☐ Cable Median Barriers

☒ Traffic Control Device Rehabilitation

☒ Install/Improve Signing

☒ Upgrade Guard Rails

☐ Safety Edge

☒ Add/Upgrade/Modify/Remove Traffic Signal

☒ Rumble Strips

☐ Pavement/Shoulder Widening

☒ Install/Improve Pavement Marking and/or Delineation

☐ Clear Zone Improvements

☒ Install/Improve Lighting

☐ Other

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-DDOT has established new Performance Targets in HSIP and HSP Program

☒Other: Other-Installing HAWK System, Implementing LPI Improvements, Traffic Signal Optimization

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

A Traffic Safety Data Center at the 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 acecssible traffic and related transportation data. In addition, DDOT has completed the upgrade of TARAS (Traffic Accidents Record and Analysis System) in close coordination with the MPD. This effort has assisted in the daily transfer and access to the MPD's crash database. Developed by DDOT, the TARAS process automatically accesses MPD's crash database and extracts all the data records and pertinent fields from their PD10 forms. DDOT also began the process of updating the 2007 District of Columbia SHSP.

Annually, the District of Columbia uses crash data obtained from the MPD to performy various analyses to identify and prioritize high hazard locations for use by a comprehensive city-wide safety improvement program. Crash reports for the years 2010, 2011 and 2012 are used for developing the annual crash statistics reprot and the 2012 data is used for 5% report. The numer of fatal crashes occuring in the District of Columbia is too small to constitute a database from which significant statistical results can be concluded. Also, further examnination of these locations shows no significant cause was noted that could evolve into a program of effective countermeasures. As a result, fatal crashes have been included in the personal injury crashes, which are more substantial and provide the possibilities for the development of engineering countermeasures.

With this revised data set, DDOT uses three categories of crash statistics to define high hazard locations:

* Total number of crashes,
* Number of injury crashes, and
* Total number of injuries

Intersections are ranked from most sever to least severe in all three categories. DDOT has established crash and injury thresholds to determine high hazard locations. Intersections featuring twelve or more crashes per year, four or more injury crashes per year and five or more injuries per year are the established thresholds in each category, respectively. DDOT has defined the top five percent (5%) high accident locations as intersections that appear in at least two reporting categories at the five percent level. The following 15 intersections comprise the top five percent high accident locations in the District of Columbia for the calendar year 2012:

1. Montana Ave and New York Ave
2. Firth Sterling Ave and Suitland Pkwy
3. Minnesota Ave and Pennsylvania Ave
4. 2nd St and H St
5. Stanton Rd and Suitland Pkwy

6.	Florida Ave and New York Ave
7.	North Capitol St and Riggs Rd
8.	7th St and Florida Ave
9.	Fairlawn Ave and Pennsylvania Ave
10.	H St and Capitol St
11.	1st St and Michigan Ave
12.	Minnesota Ave and Benning Rd
13.	Fairview Ave and New York Ave
14.	New York Ave and Bladensburg Rd
15.	New York Ave and North Capitol St

Progress in Implementing Projects

Funds Programmed

Reporting period for Highway Safety Improvement Program funding.

☐ Calendar Year

☐ State Fiscal Year

☒ Federal Fiscal Year

Federal Fiscal Year; October 1, 2012 to September 30, 2013

Enter the programmed and obligated funding for each applicable funding category.

Funding Category	Programmed*		Obligated	
HSIP (Section 148)	8489181	77 %	5241129.34	67 %
HRRRP (SAFETEA-LU)				
HRRR Special Rule				
Penalty Transfer - Section 154	2553365	23 %	2553365	33 %
Penalty Transfer – Section 164				
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)				
State and Local Funds				
Totals	11042546	100%	7794494.34	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 obligatingthe Highway Safety Improvement Program funds. Since the District is different from other states we are required to address all Safety Issues and notjust 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 fro the District of Columbia. However, there are additional locations identified for the potential traffic safety improvement that hare not 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 approached to Safety Program as a pedestrian focus city. District has established several programs and initiatives to enhance public awareness and improve safety for bike, transite, peestrain and vehicular modes of travel. Some of the key transportation safety initiatives that have been implemented within District are as:

1. MoveDC (www.movedc.org)
   Develop a coordinated, multimodal long range transportation plan, addressing all modes of transportation in the District

2. goDCgo (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)
   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:

* 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

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 80 intersections
- Updated Pedestrian Crossing times at 469 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
Centralized Dynamic Message Signs	Advanced technology and ITS Dynamic message signs		1442864	1442864	HSIP (Section 148)	Districtwide				Keeping drivers alert	
FY12 Replacing and Upgrading Damaged Guardrail and Impact Attenuators	Roadside Barrier - other		43878	43878	HSIP (Section 148)	Districtwide				Increasing driver safety awareness	
FY08 Replace/Upgrade Damaged Guiderail and Impact Attenuators - Non-	Roadside Barrier- metal		246721	246721	HSIP (Section 148)	Districtwide				Increasing driver safety awareness	

Interstatae											
FY08 Replace/Upgrade Damaged Guiderail/Impact Attenuators - Interstate	Roadside Barrier-metal		246031	246031	HSIP (Section 148)	Districtwide				Increasing driver safety awareness	
FY08 Thermoplastic Pavement Markings	Roadway Pavement surface - miscellaneous		1115000	1115000	HSIP (Section 148)	Districtwide				Keeping drivers alert	
Citywide Road Safety audit Program	Roadway signs and traffic control Roadway signs and traffic control - other		1500000	1500000	HSIP (Section 148)	Districtwide				Improving the design and operation of highway intersections	Identifying traffic safety issues for all roadway users such as motorists, transit, pedestrians and bicyclists. Developing recommendations and mitigation strategies

Citywide Highway Safety Improvement Program	Roadway Roadway - other		900000	900000	HSIP (Section 148)	Districtwide				Improving the design and operation of highway intersections	
Traffic Safety Data Center at Howard University	Advanced technology and ITS Congestion detection / traffic monitoring system		500000	500000	HSIP (Section 148)	Districtwide				Curbing aggressive driving	Speed data is collected to identify vehicular speeding. Measures for traffic calming measures and enforcement are developed speeding issues
Traffic Safety Engineering Support Services	Miscellaneous		800000	800000	HSIP (Section 148)	Districtwide					
Traffic Safety Engineering Support Services	Miscellaneous		1000000	1000000	HSIP (Section 148)	Districtwide					

Progress in Achieving Safety Performance Targets

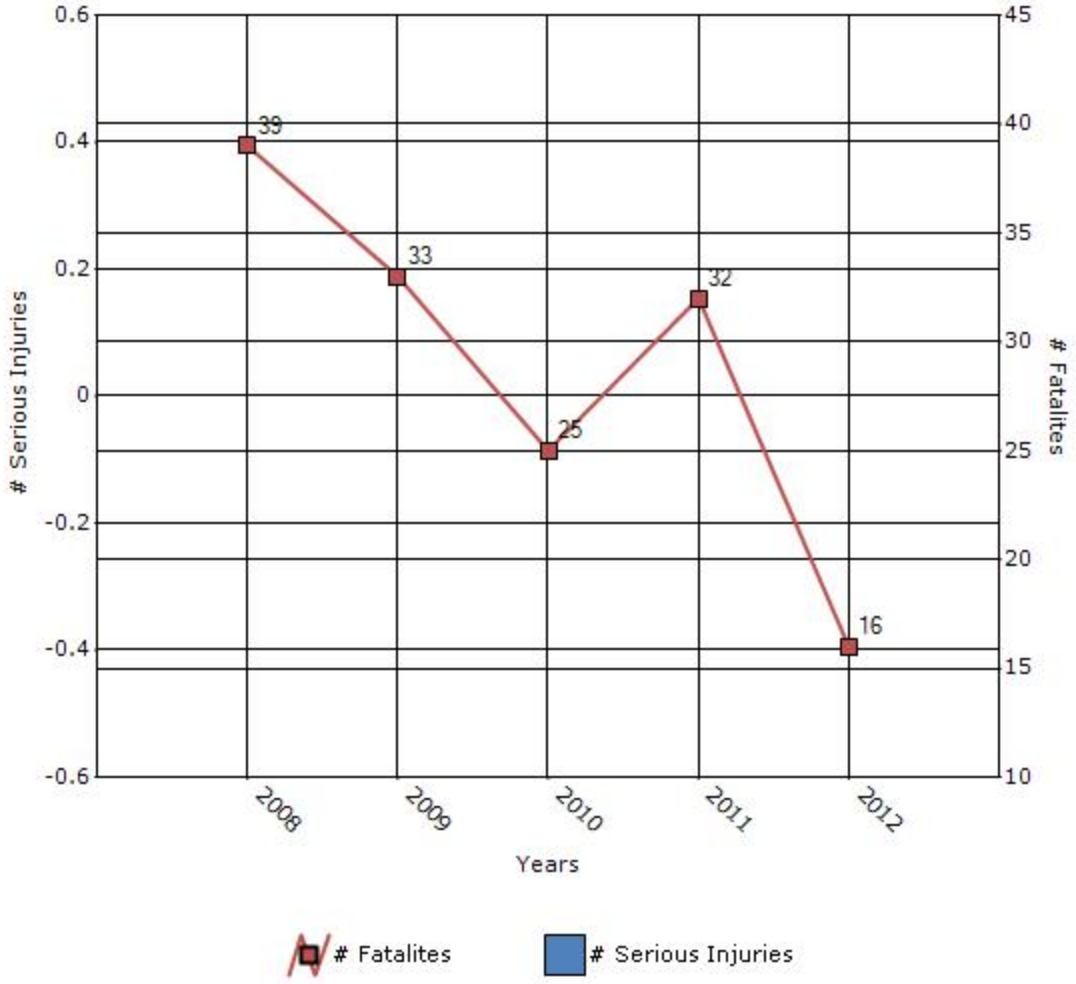
Overview of General Safety Trends

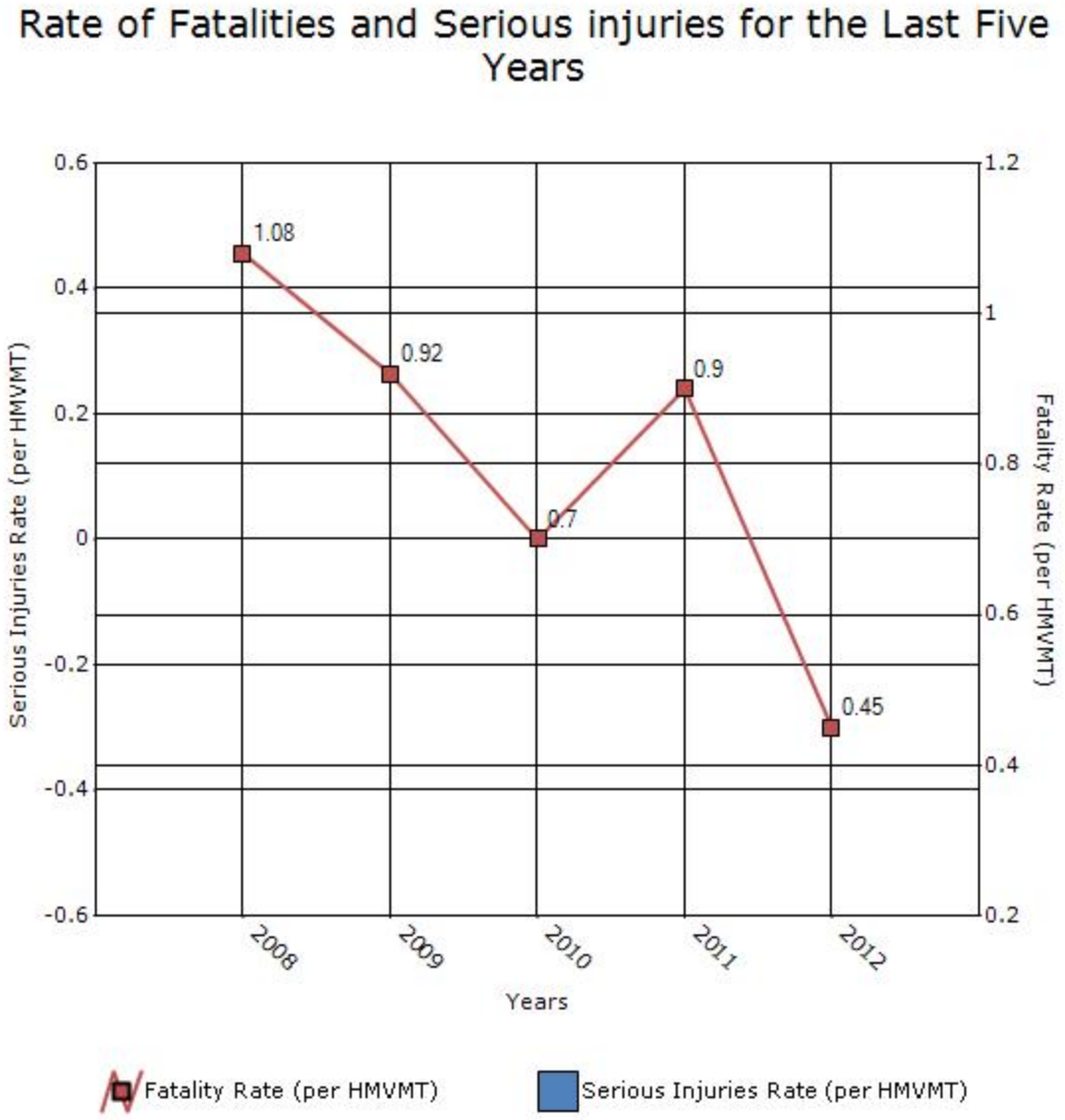
Present data showing the general highway safety trends in the state for the past five years.

Performance Measures*	2008	2009	2010	2011	2012
Number of fatalities	39	33	25	32	16
Number of serious injuries	0	0	0	0	0
Fatality rate (per HMVMT)	1.08	0.92	0.7	0.9	0.45
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



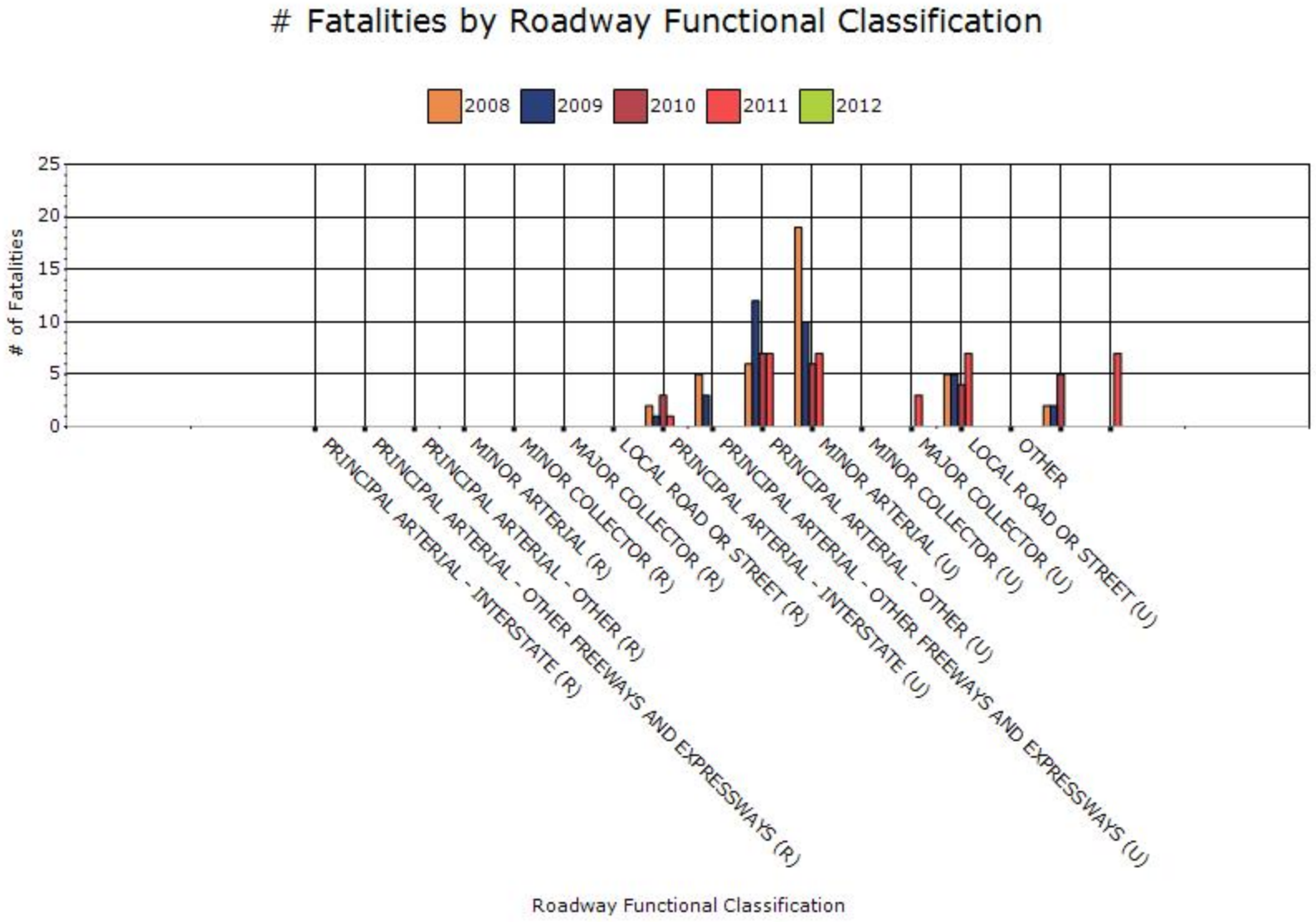

Rate of Fatalities and Serious injuries for the Last Five Years
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Serious Injuries Rate (per HMVMT)
1.2
1
0.8
0.6
0.4
0.2
Fatality Rate (per HMVMT)
1.08
0.92
0.7
0.9
0.45
2008
2009
2010
2011
2012
Years
Fatality Rate (per HMVMT)
Serious Injuries Rate (per HMVMT)

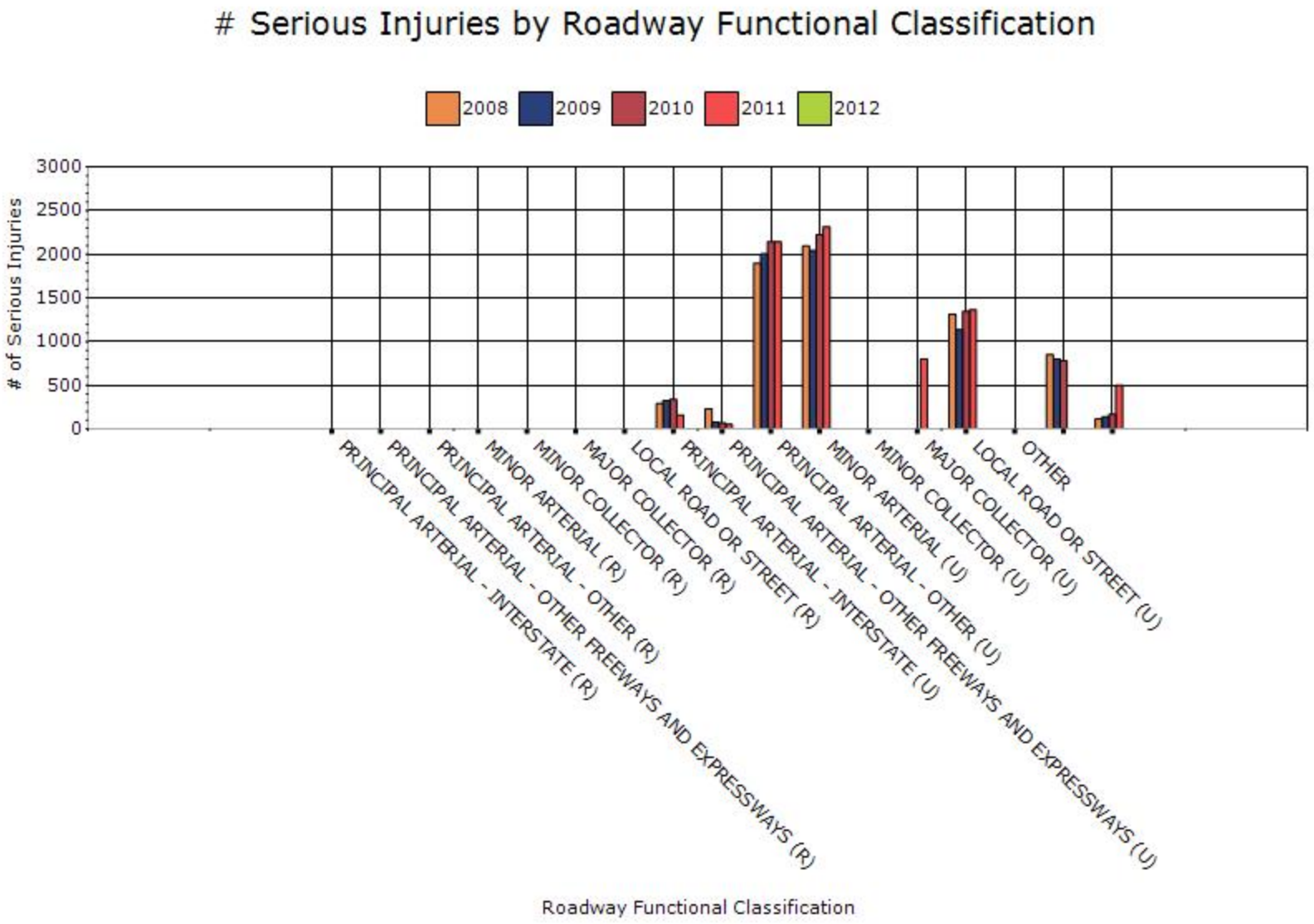
To the maximum extent possible, present performance measure* data by functional classification and ownership.

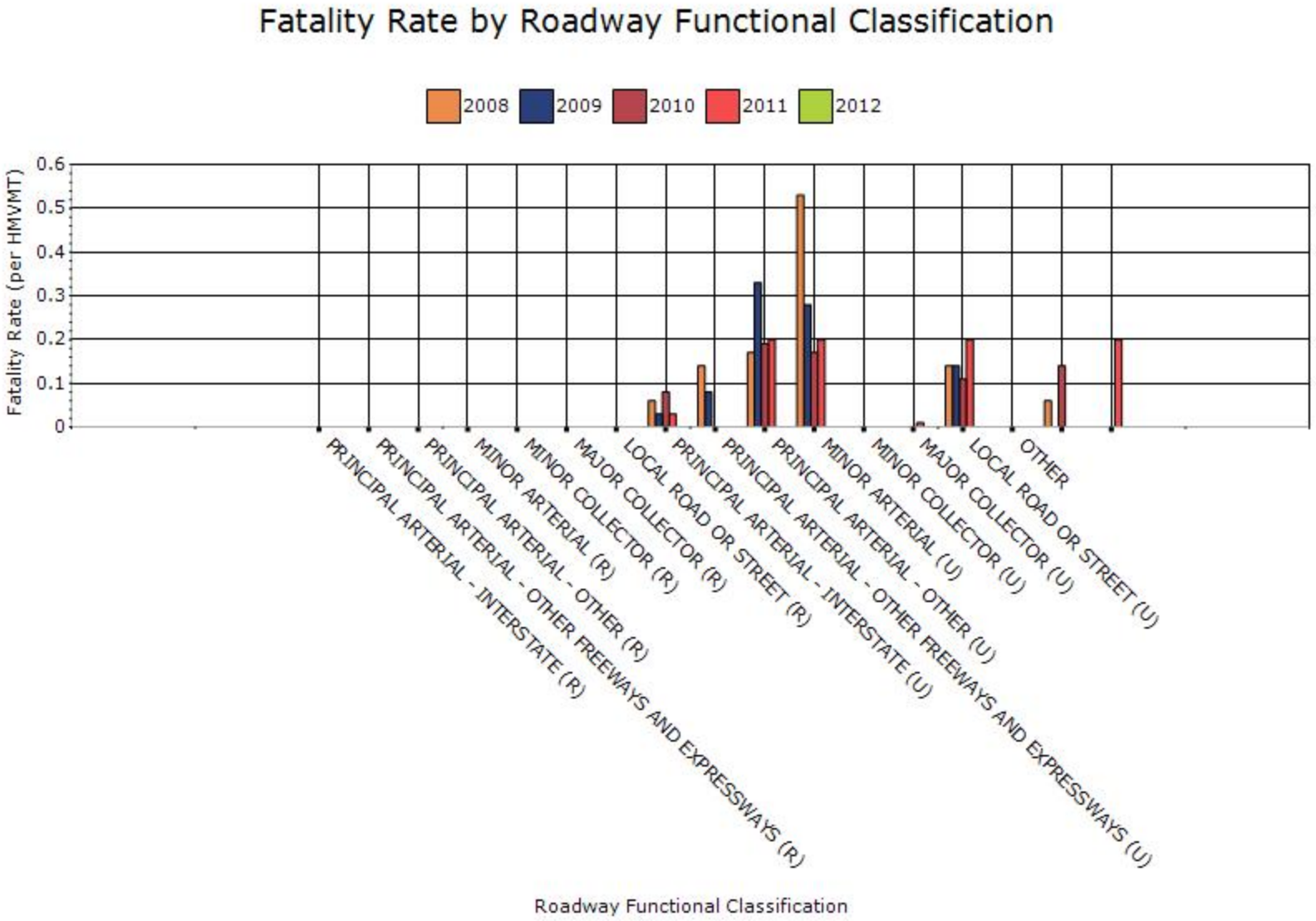
Year - 2012

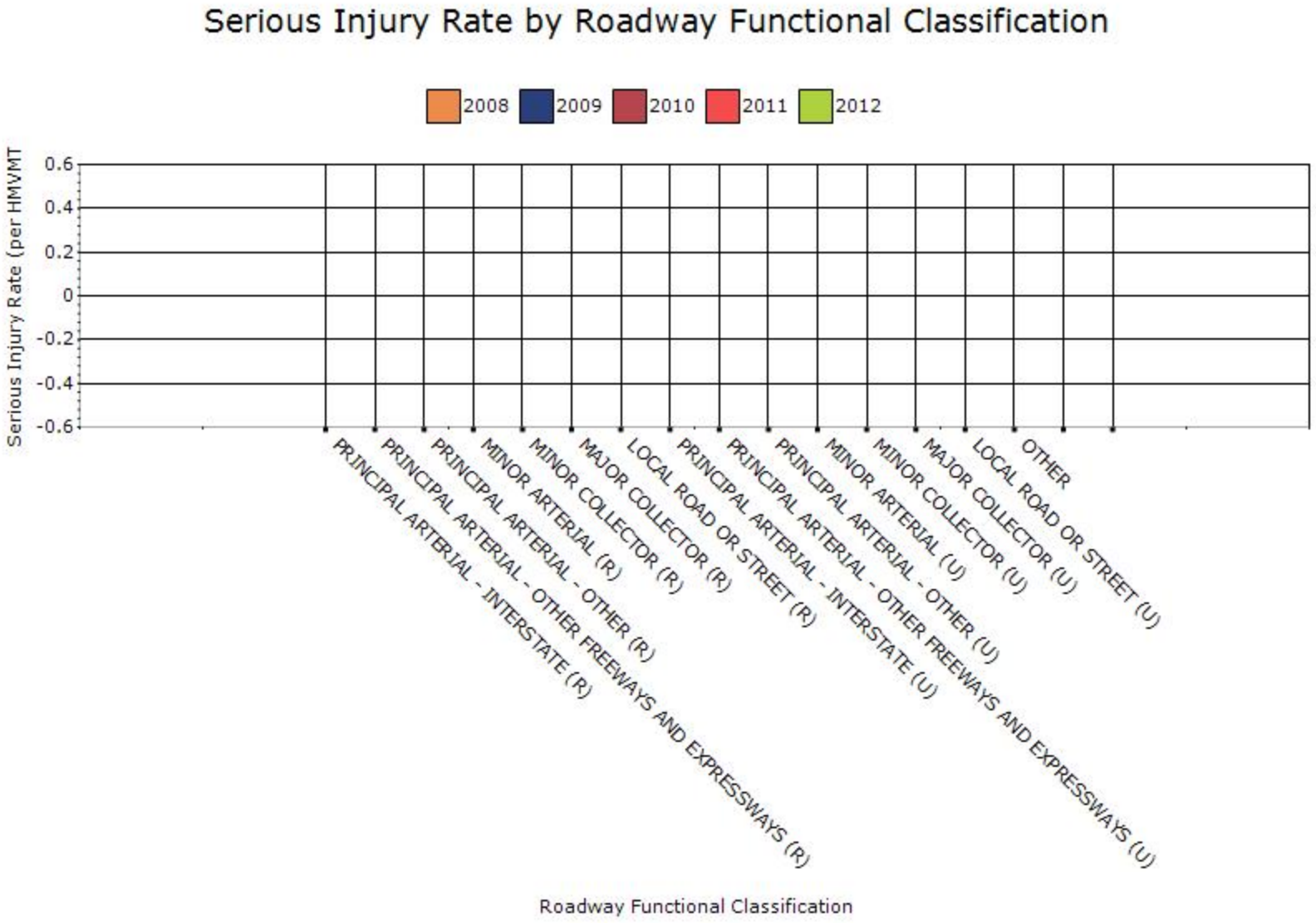
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
RURAL PRINCIPAL ARTERIAL - OTHER	0	0	0	0
RURAL MINOR ARTERIAL	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

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0
URBAN PRINCIPAL ARTERIAL - OTHER	0	0	0	0
URBAN MINOR ARTERIAL	0	0	0	0
URBAN MINOR COLLECTOR	0	0	0	0
URBAN MAJOR COLLECTOR	0	0	0	0
URBAN LOCAL ROAD OR STREET	0	0	0	0
OTHER	0	0	0	0
URBAN COLLECTOR	0	0	0	0
UNKNOWN	0	0	0	0
UNKNOWN	0	0	0	0


Fatalities by Roadway Functional Classification
2008
2009
2010
2011
2012
# of Fatalities
25
20
15
10
5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
LOCAL ROAD OR STREET (U)
OTHER
Roadway Functional Classification


Serious Injuries by Roadway Functional Classification
2008
2009
2010
2011
2012
# of Serious Injuries
3000
2500
2000
1500
1000
500
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
LOCAL ROAD OR STREET (U)
OTHER
Roadway Functional Classification

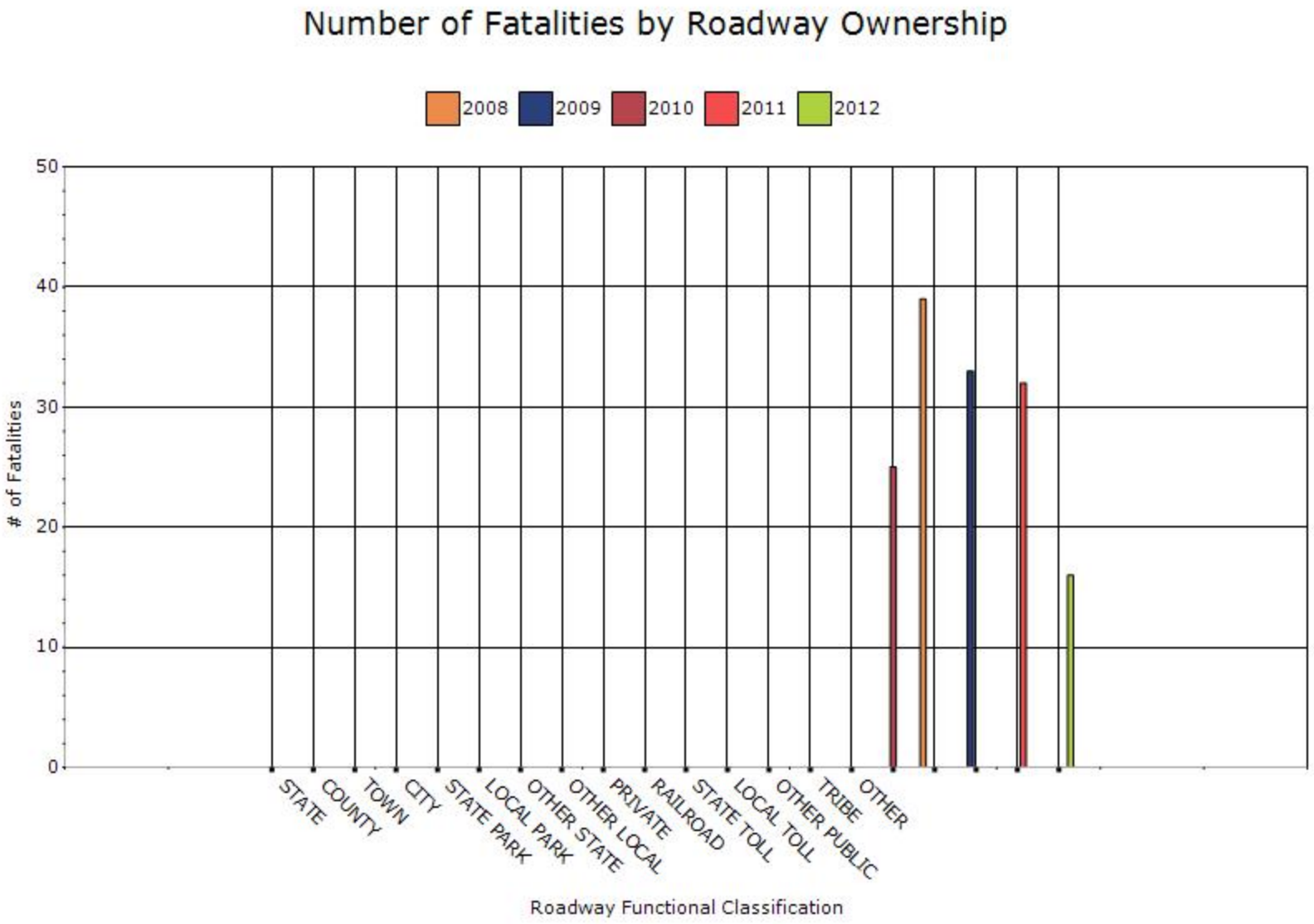

Fatality Rate by Roadway Functional Classification
2008
2009
2010
2011
2012
Fatality Rate (per HMVMT)
0.6
0.5
0.4
0.3
0.2
0.1
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
LOCAL ROAD OR STREET (U)
OTHER
Roadway Functional Classification

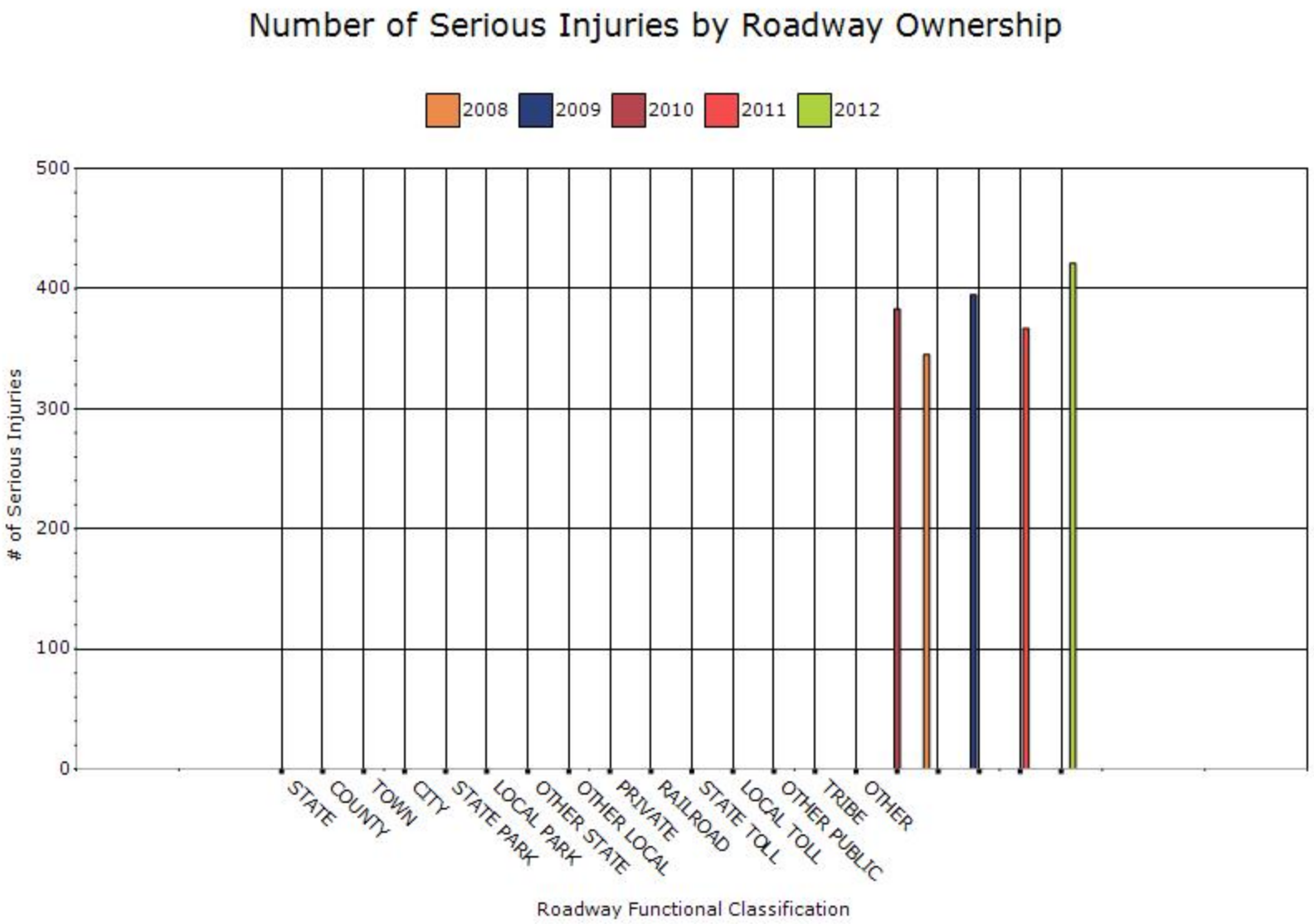

Serious Injury Rate by Roadway Functional Classification
2008
2009
2010
2011
2012
Serious Injury Rate (per HMVMT
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
LOCAL ROAD OR STREET (U)
OTHER
Roadway Functional Classification

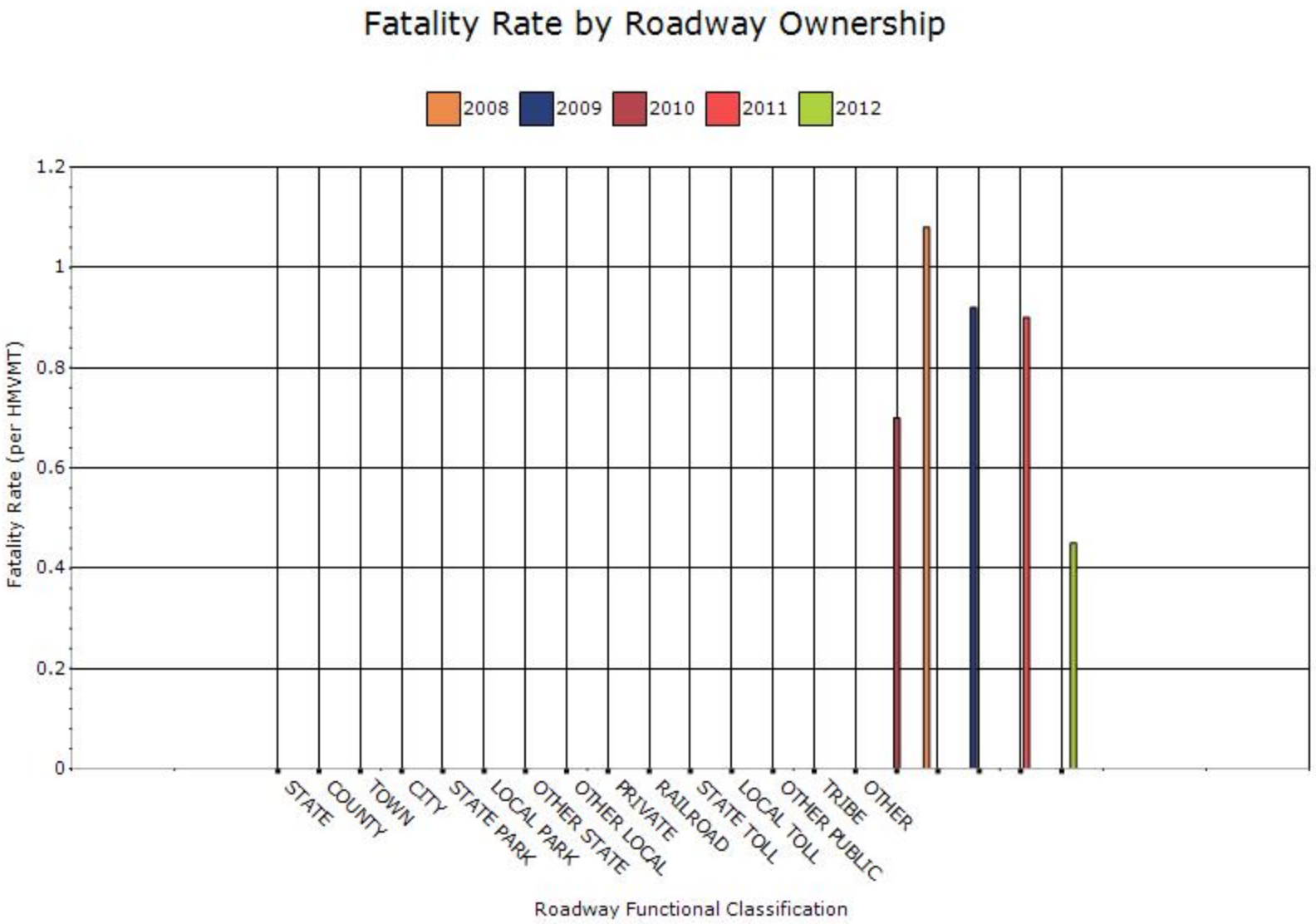
Year - 2012

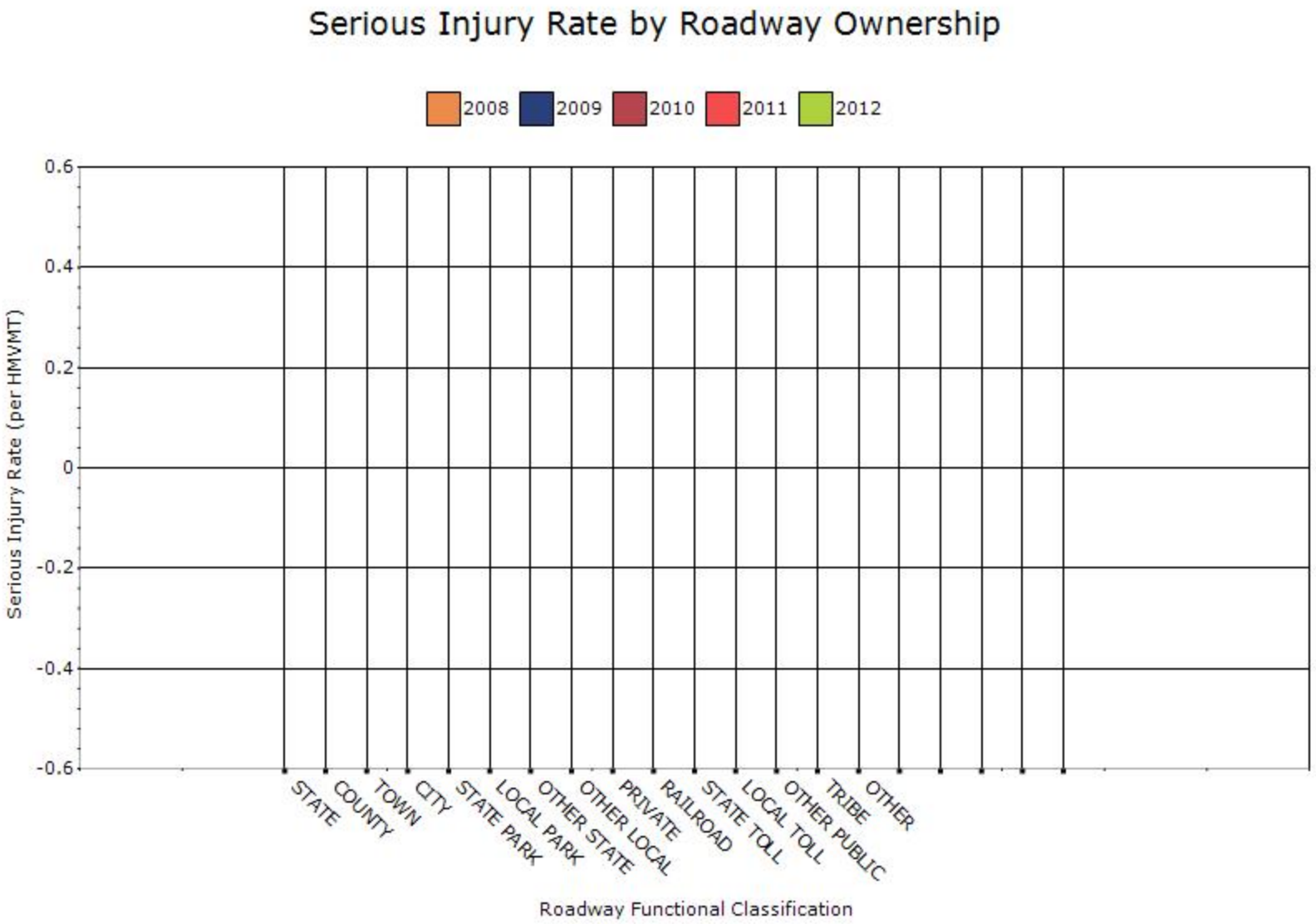
Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	0	0	0	0
COUNTY HIGHWAY AGENCY	0	0	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	0	0	0	0
STATE PARK, FOREST, OR RESERVATION AGENCY	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
INDIAN TRIBE NATION	0	0	0	0
OTHER	0	0	0	0
2010 DISTRICTWIDE	0	0	0	0
2008 DISTRICTWIDE	0	0	0	0
2009 DISTRICTWIDE	0	0	0	0
2011 DISTRICTWIDE	0	0	0	0
2012 DISTRICTWIDE	16	421	0.45	0
2012 DISTRICTWIDE	16	421	0.45	0


Number of Fatalities by Roadway Ownership
2008
2009
2010
2011
2012
50
40
30
20
10
0
# of Fatalities
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER PUBLIC
TRIBE
OTHER
Roadway Functional Classification


Number of Serious Injuries by Roadway Ownership
2008
2009
2010
2011
2012
500
400
300
200
100
0
# of Serious Injuries
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER PUBLIC
TRIBE
OTHER
Roadway Functional Classification


Fatality Rate by Roadway Ownership
2008
2009
2010
2011
2012
Fatality Rate (per HMVMT)
1.2
1
0.8
0.6
0.4
0.2
0
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER PUBLIC
TRIBE
OTHER
Roadway Functional Classification


Serious Injury Rate by Roadway Ownership
2008
2009
2010
2011
2012
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Serious Injury Rate (per HMVMT)
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER PUBLIC
TRIBE
OTHER
Roadway Functional Classification

TARAS database does not provide accident data for "Serious Injuries". It provides accident data for disabling injuries and non-disabling injuries. Therefore, number of injuries listed in the "Serious Injuries" are actually "Disabling Injuries".

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 2012 is considerably less, about 50%, less than the year 2011
- Fatality rate for the year 2012 is less than the 5-year average fatality rate (2007-2011)
- Disabling injuries for the year 2012 was slightly higher than the year 2011

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**	**2008**	**2009**	**2010**	**2011**	**2012**
Fatality rate (per capita)	0.03	0.01	0.01	0.01	0
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.

TARAS does not accidents that involve "Serious Injuries". Hence we cannot report Performance Measures pertaining to Serious Injuries.

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 = **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 = **0.008**

2010

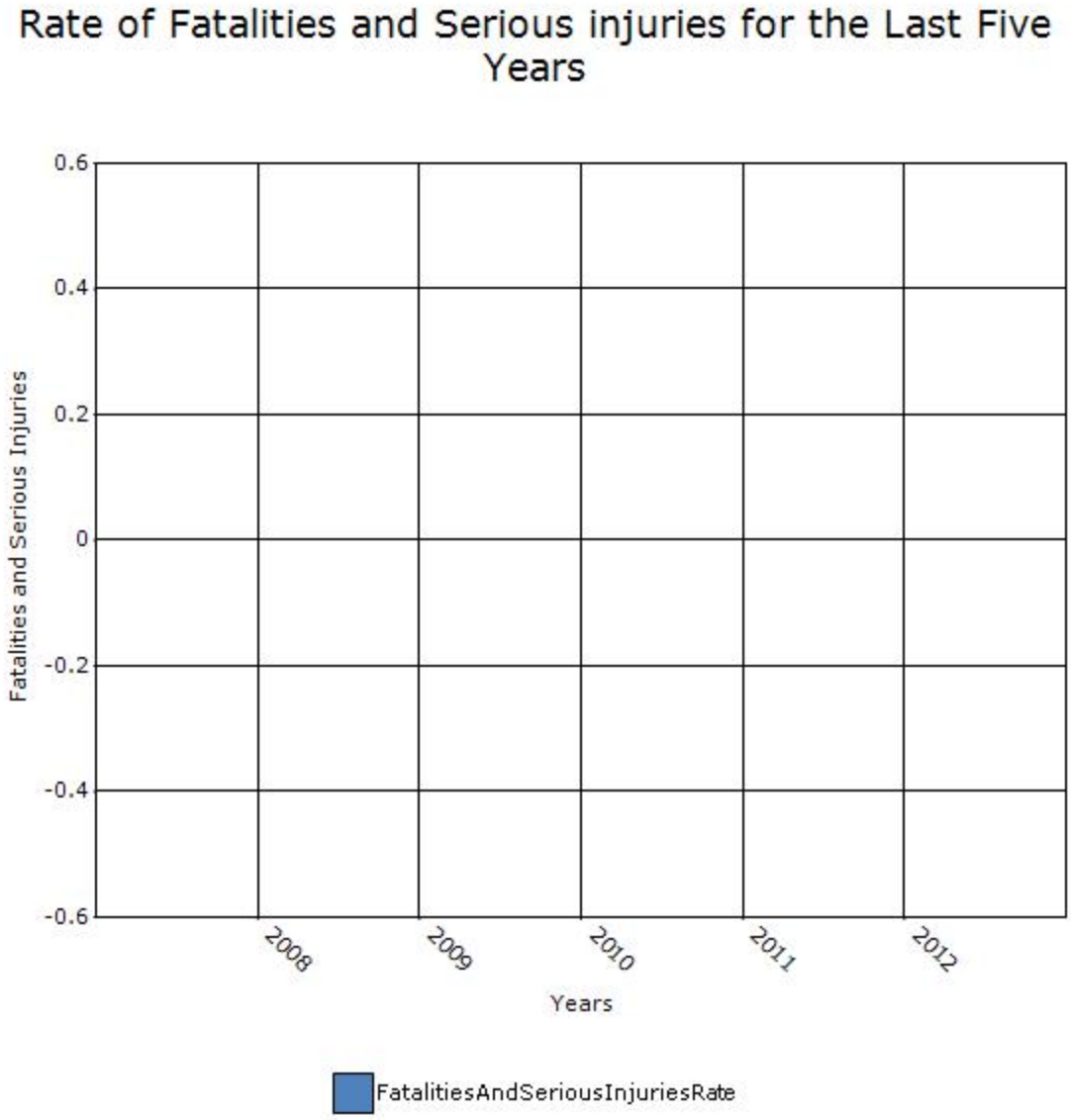
- Total number of fatalities for drivers and pedestrians at the age of 65 or over (f) in 2010 = 7
- Total population for the District of Columbia (N) in the year 2010 = 601,723 residents
- Fatality rate per capita (r) = f/N*1000 = **0.012**

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 = **0.0010**

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 = **0.0000**



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-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 HSIP and HSP program

DDOT Safety Team has hired one Project Manager, two Transportation Engineers and one Program Analyst in the current Fiscal year.

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

Organizational Changes

DDOT has hired one Project Manager, two Transportation Engineers and one Policy Analyst in the Safety Team for Transportation Operations Administration (TOA).

Establishing Performance Targets

DDOT has also established Performance Targets for the HSIP and HSP program. The Performance Targets have been established for the following four Performance Measures.

1. Number of fatalities - Reduce the number of fatalities by 9% by the end of year 2014
2. Fatality rate - Reduce the fatality rate by 9% by the end of year 2014
3. Number of serious injuries - Reduce the number of serious injuries by 5% by the end of year 2014
4. Serious injuries rate - Reduce the number of serious injuries rate by 5% by the end of year 2014

DDOT has been used the 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 "Decision Lens".

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.

SHSP Emphasis Areas

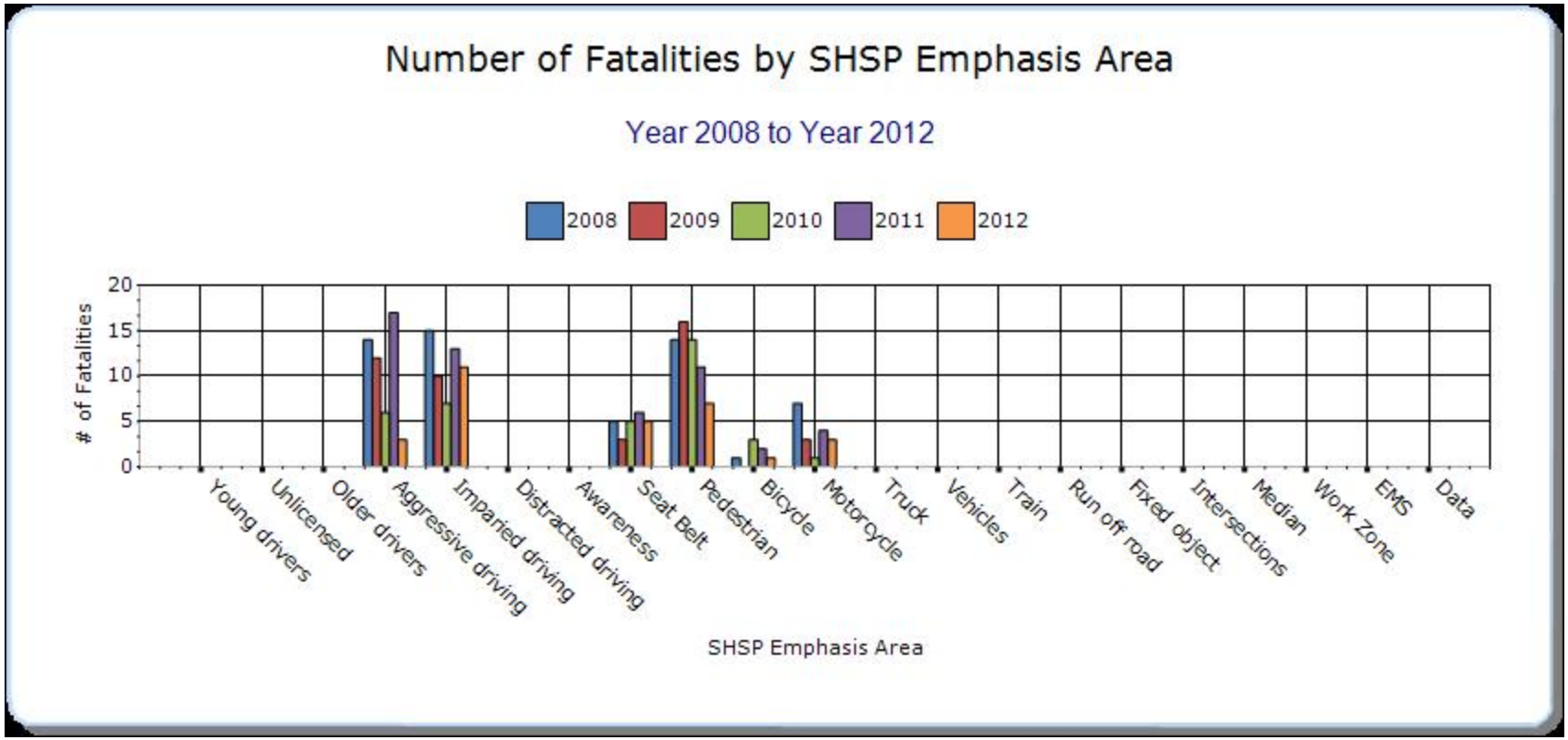
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

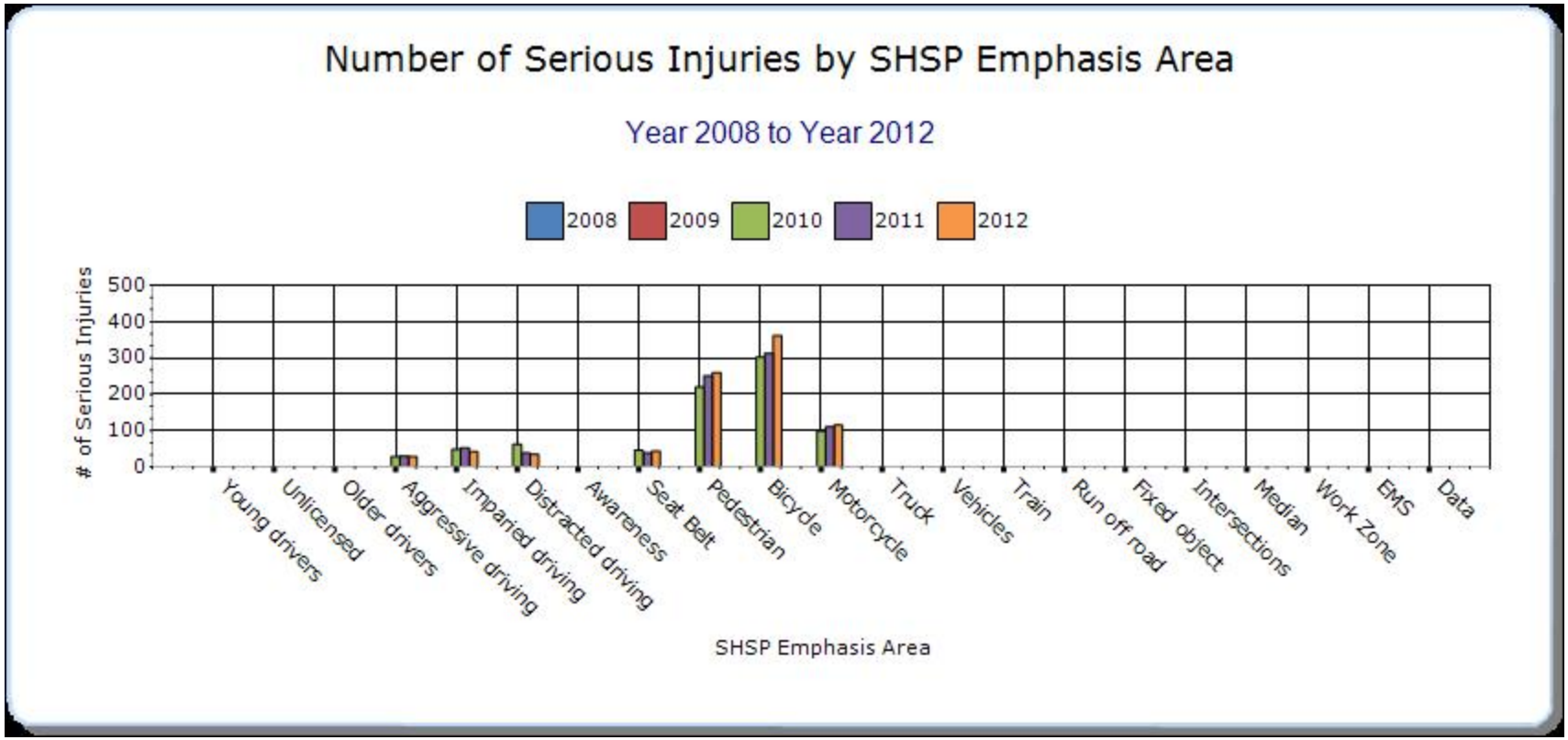
Year - 2012

HSIP-related SHSP Emphasis Areas	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Instituting graduated licensing for younger drivers		**0**	**0**	**0**	**0**	**0**	**0**	**0**
Ensuring drivers are licensed and fully competent		0	0	0	0	0	0	0
Sustaining proficiency in older drivers		0	0	0	0	0	0	0
Curbing aggressive driving	Speeding	3	29	0	0	0	0	0
Reducing impaired driving	All	11	42	0	0	0	0	0
Keeping drivers alert	Distracted Driving	0	35	0	0	0	0	0
Increasing driver safety awareness		0	0	0	0	0	0	0

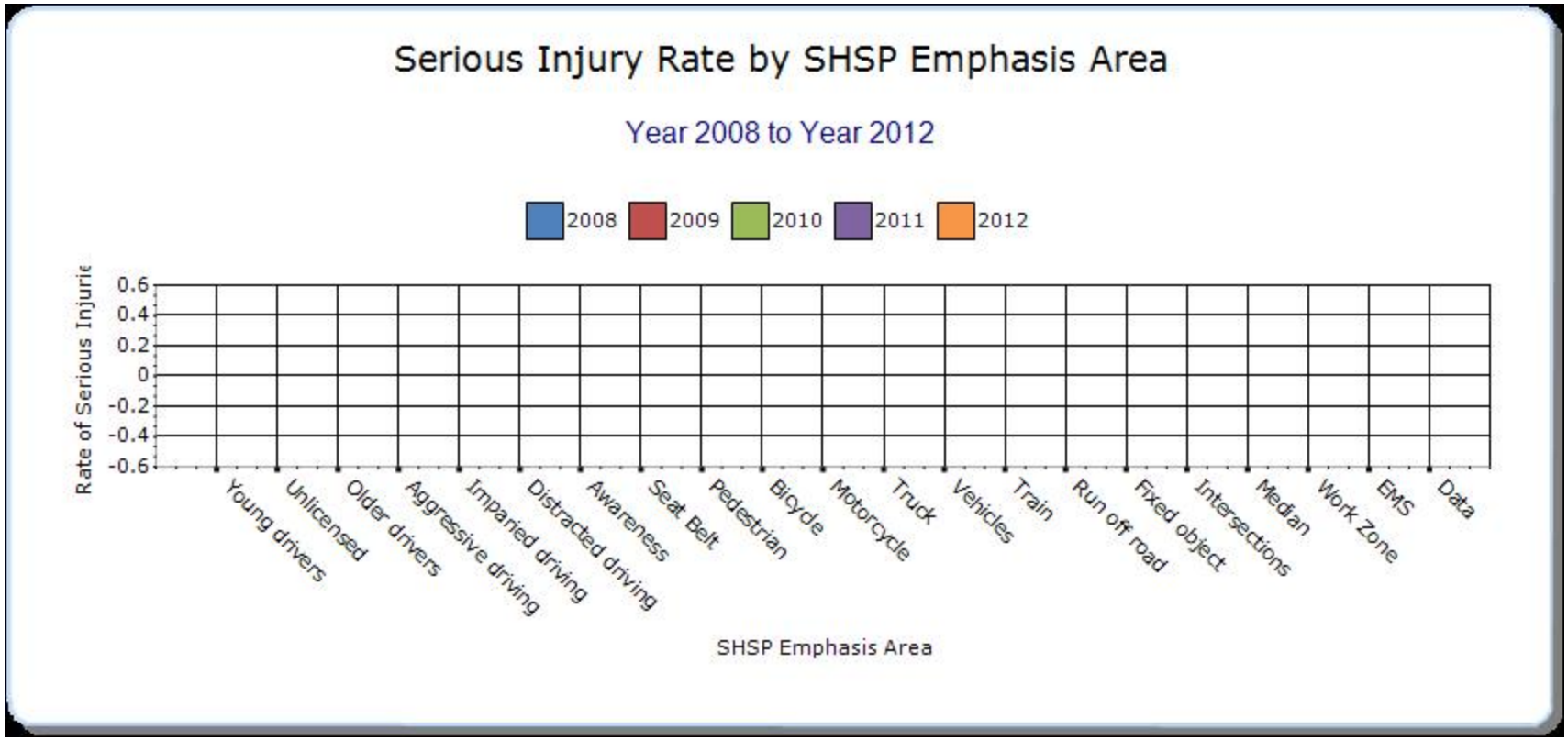
Increasing seat belt use and improving airbag effectiveness	All	5	43	0	0	0	0	0
Making walking and street crossing easier	Vehicle/pedestrian	7	260	0	0	0	0	0
Ensuring safer bicycle travel	Vehicle/bicycle	1	362	0	0	0	0	0
Improving motorcycle safety and increasing motorcycle awareness	Motorcyclist	3	115	0	0	0	0	0
Making truck travel safer		0	0	0	0	0	0	0
Increasing safety enhancements in vehicles		0	0	0	0	0	0	0
Reducing vehicle-train crashes		0	0	0	0	0	0	0
Keeping vehicles in the roadway		0	0	0	0	0	0	0
Minimizing the consequences of		0	0	0	0	0	0	0

leaving the road								
Improving the design and operation of highway intersections		0	0	0	0	0	0	0
Reducing head-on and across-median crashes		0	0	0	0	0	0	0
Designing safer work zones		0	0	0	0	0	0	0
Enhancing emergency medical capabilities to increase survivability		0	0	0	0	0	0	0
Improving information and decision support systems		0	0	0	0	0	0	0


Number of Fatalities by SHSP Emphasis Area
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Fatalities
20
15
10
5
0
Young drivers
Unlicensed
Older drivers
Aggressive driving
Impaired driving
Distracted driving
Awareness
Seat Belt
Pedestrian
Bicycle
Motorcycle
Truck
Vehicles
Train
Run off road
Fixed object
Intersections
Median
Work Zone
EMS
Data
SHSP Emphasis Area


Number of Serious Injuries by SHSP Emphasis Area
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Serious Injuries
500
400
300
200
100
0
Young drivers
Unlicensed
Older drivers
Aggressive driving
Impaired driving
Distracted driving
Awareness
Seat Belt
Pedestrian
Bicycle
Motorcycle
Truck
Vehicles
Train
Run off road
Fixed object
Intersections
Median
Work Zone
EMS
Data
SHSP Emphasis Area

Fatality Rate by SHSP Emphasis Area
Year 2008 to Year 2012
2008
2009
2010
2011
2012
Rate of Fatalities
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Young drivers
Unlicensed
Older drivers
Aggressive driving
Impaired driving
Distracted driving
Awareness
Seat Belt
Pedestrian
Bicycle
Motorcycle
Truck
Vehicles
Train
Run off road
Fixed object
Intersections
Median
Work Zone
EMS
Data
SHSP Emphasis Area

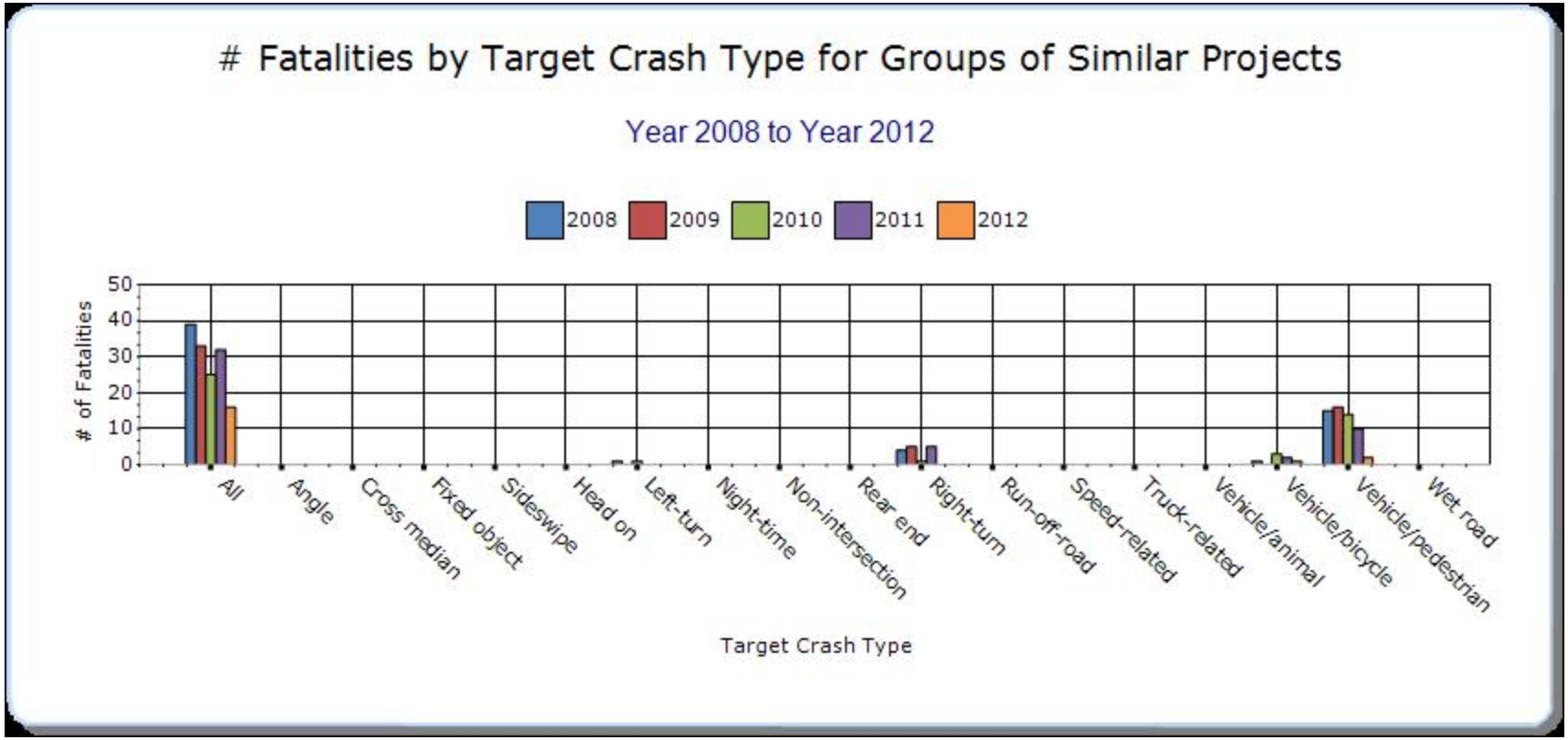

Serious Injury Rate by SHSP Emphasis Area
Year 2008 to Year 2012
2008
2009
2010
2011
2012
Rate of Serious Injurie
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Young drivers
Unlicensed
Older drivers
Aggressive driving
Impaired driving
Distracted driving
Awareness
Seat Belt
Pedestrian
Bicycle
Motorcycle
Truck
Vehicles
Train
Run off road
Fixed object
Intersections
Median
Work Zone
EMS
Data
SHSP Emphasis Area

Groups of similar project types

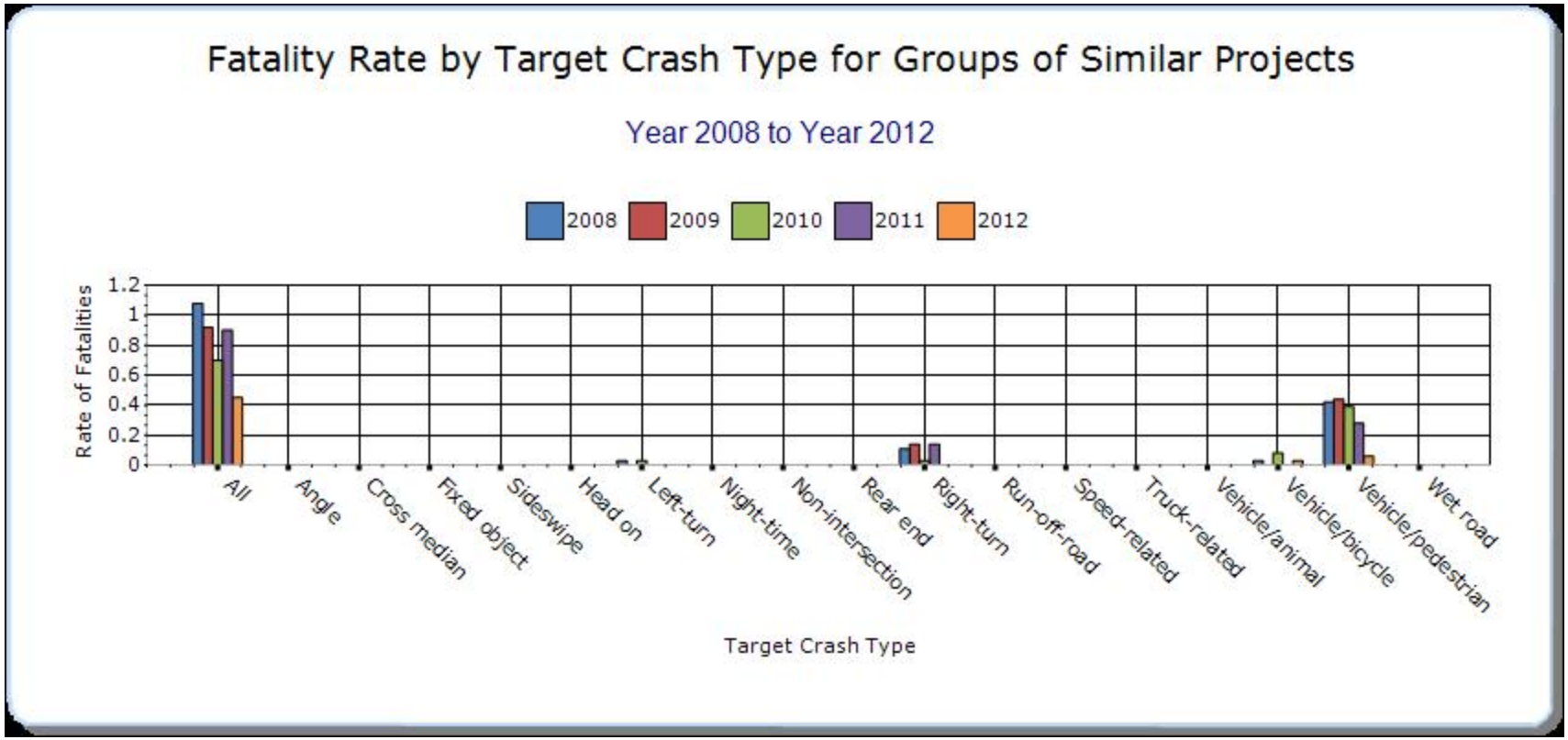
Present the overall effectiveness of groups of similar types of projects.

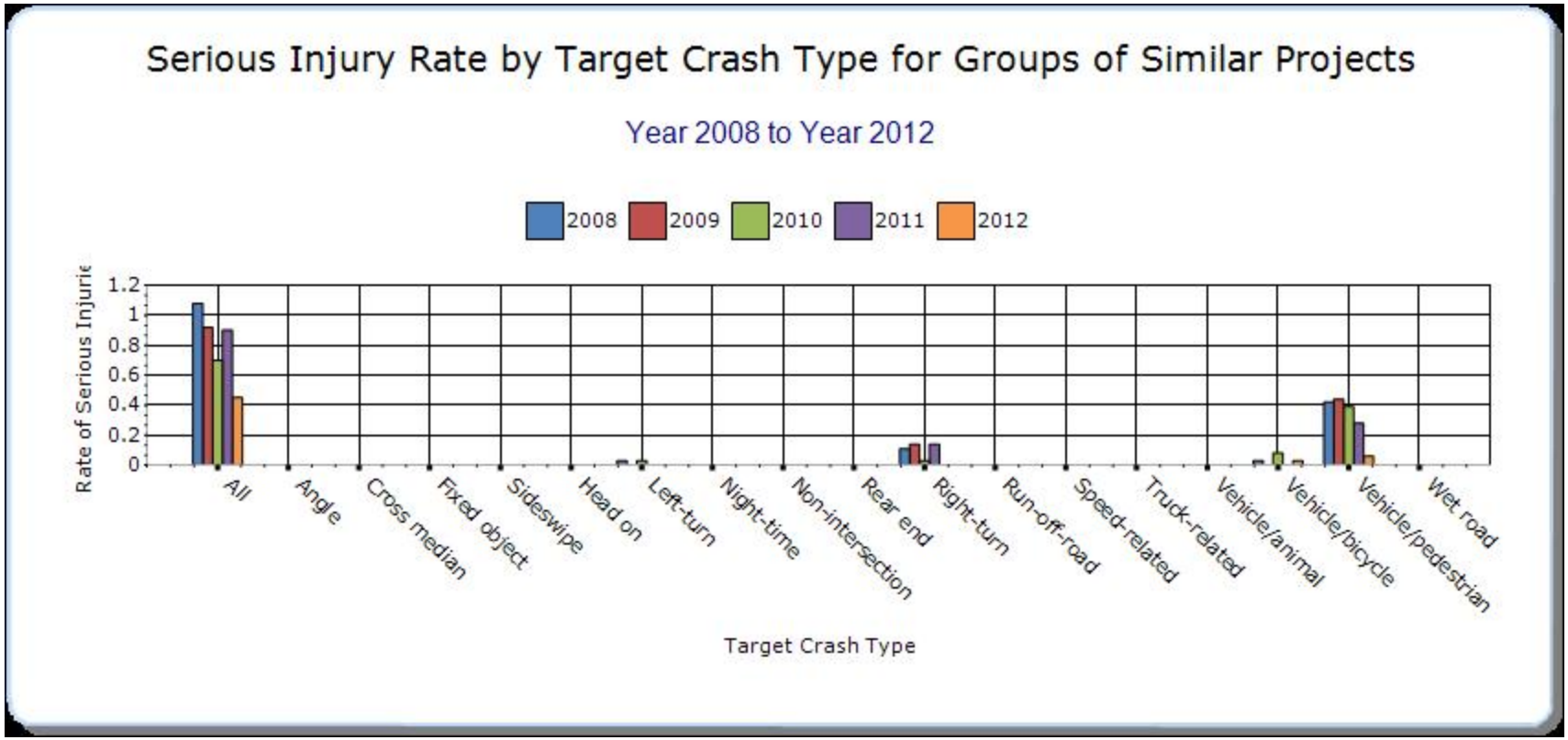
Year - 2012

HSIP Sub-program Types	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Skid Hazard	**Road Defects**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Low-Cost Spot Improvements		0	0	0	0	0	0	0
Right Angle Crash	Right-turn	0	0	0	0	0	0	0
Intersection	All	16	421	0.45	0	0	0	0
Bicycle Safety	Vehicle/bicycle	1	43	0.03	0	0	0	0
Red Light Running Prevention	Red Light Violation	0	28	0	0	0	0	0
Pedestrian Safety	Vehicle/pedestrian	2	94	0.06	0	0	0	0
Left Turn Crash	Left-turn	0	0	0	0	0	0	0


Fatalities by Target Crash Type for Groups of Similar Projects
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Fatalities
50
40
30
20
10
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

#Serious Injuries by Target Crash Type for Groups of Similar Projects
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Serious Injuries
500
400
300
200
100
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Fatality Rate by Target Crash Type for Groups of Similar Projects
Year 2008 to Year 2012
2008
2009
2010
2011
2012
Rate of Fatalities
1.2
1
0.8
0.6
0.4
0.2
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

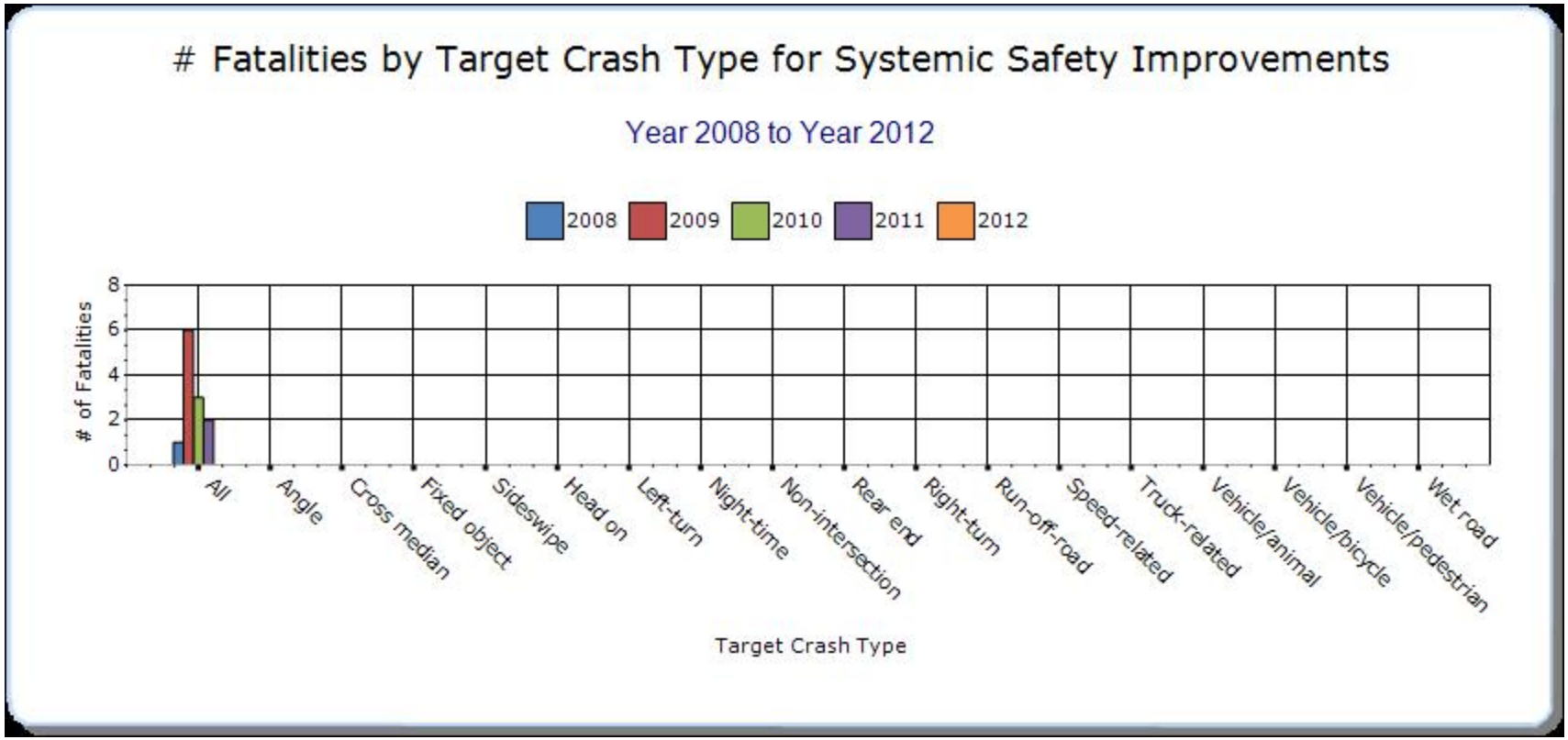

Serious Injury Rate by Target Crash Type for Groups of Similar Projects
Year 2008 to Year 2012
2008
2009
2010
2011
2012
Rate of Serious Injurie
1.2
1
0.8
0.6
0.4
0.2
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

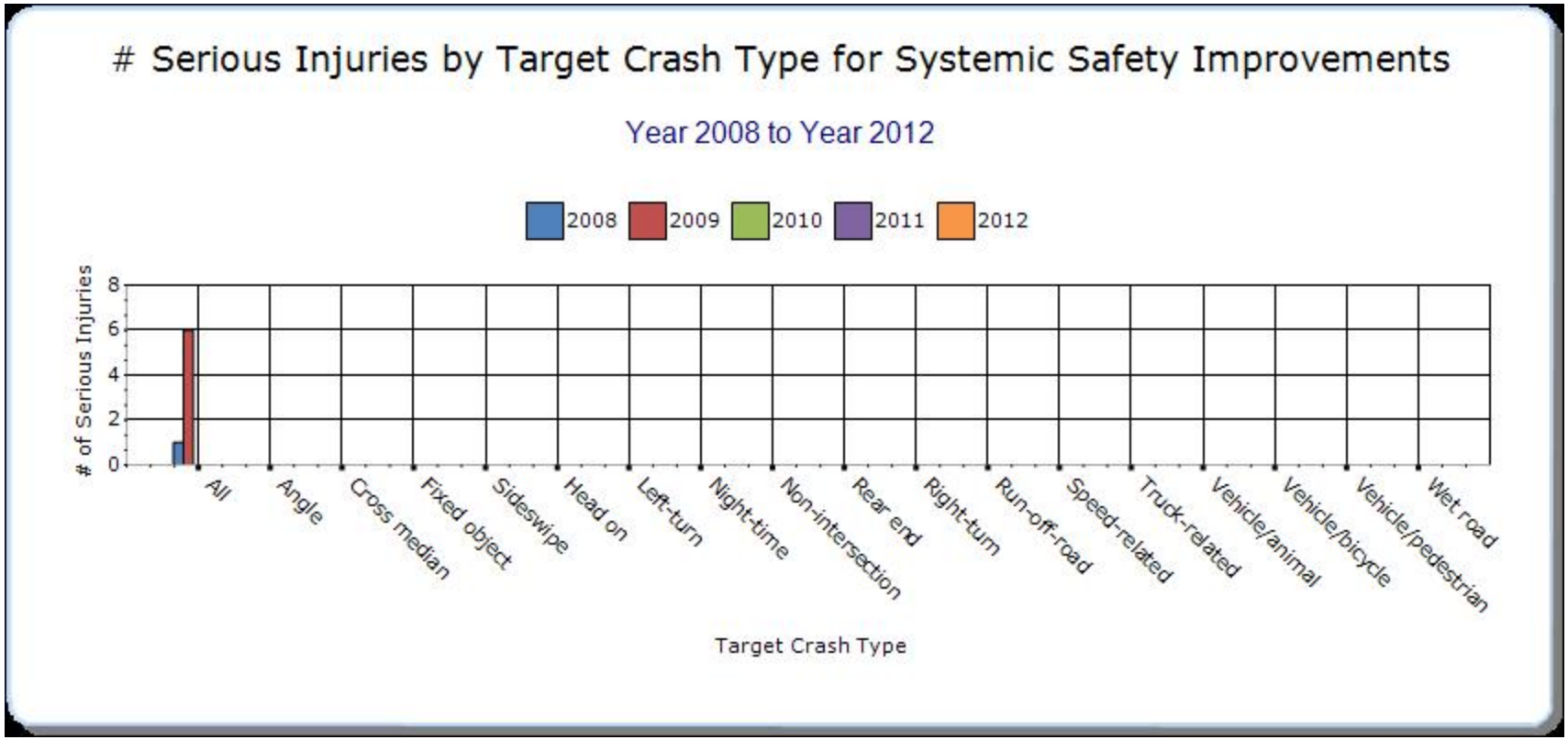
Systemic Treatments

Present the overall effectiveness of systemic treatments..

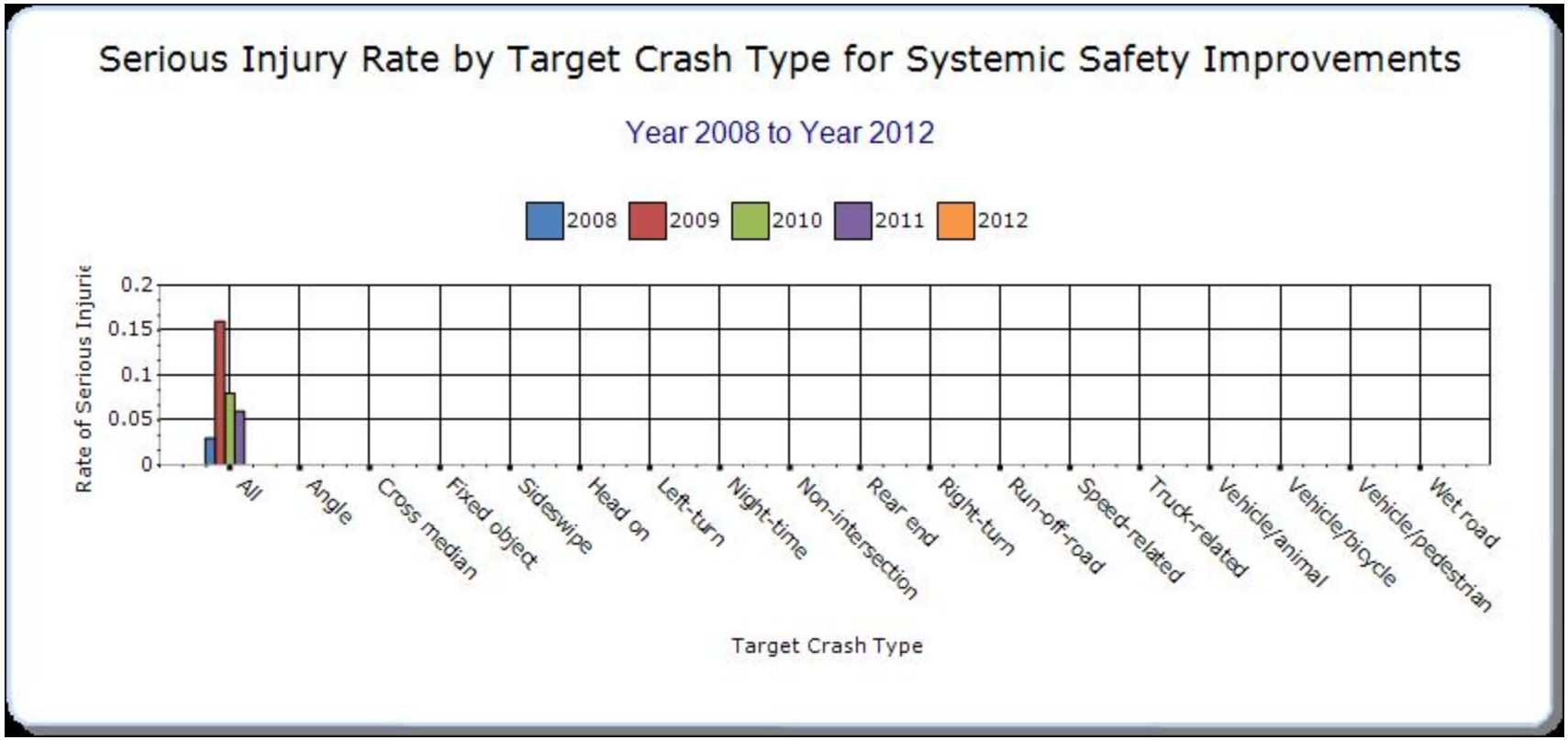
Year - 2012

Systemic improvement	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Install/Improve Lighting	**All**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Rumble Strips		0	0	0	0	0	0	0
Install/Improve Signing	All	0	0	0	0	0	0	0
Add/Upgrade/Modify/Remove Traffic Signal	All	0	0	0	0	0	0	0


Fatalities by Target Crash Type for Systemic Safety Improvements
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Fatalities
0
2
4
6
8
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Serious Injuries by Target Crash Type for Systemic Safety Improvements
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Serious Injuries
0
2
4
6
8
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

Fatality Rate by Target Crash Type for Systemic Safety Improvements
Year 2008 to Year 2012
2008
2009
2010
2011
2012
Rate of Fatalities
0.2
0.15
0.1
0.05
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Serious Injury Rate by Target Crash Type for Systemic Safety Improvements
Year 2008 to Year 2012
2008
2009
2010
2011
2012
Rate of Serious Injurie
0.2
0.15
0.1
0.05
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

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 65% 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 resurafced 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)
Develop a coordinated, multimodal long range transportation plan, addressing all modes of transportation in the District of Columbia.

2. goDCgo (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)

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)
7th St and Mount Vernon Place, NW		Intersection traffic control	Intersection traffic control - other	0	1	12	7	20	0	0	7	4	11	

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.