Protection of Data from Discovery & Admission into Evidence

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

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

The 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 safety campaigns 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. 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 program. All roads are considered for HSIP and Safety Improvement projects.

HSIP funds are Centrally administered within the District of Columbia by the Department of Transportation through our Resource Administration and our Office of the Chief Financial Officer for the District of Columbia.
Identify which internal partners are involved with Highway Safety Improvement Program planning.

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

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

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

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

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 injuries in the District by fifty-percent (50%) by the year 2025. The District of Columbia does not have a local roads program. All roads are considered for the HSIP projects.
Program Methodology
Select the programs that are administered under the HSIP.

☐ 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
☒ All crashes
☐ Fatal crashes only
☐ Fatal and serious injury crashes only
☐ Other

Exposure
☐ Traffic
☒ Volume
☐ Population
☐ Lane miles

Roadway
☐ Median width
☐ Horizontal curvature
☒ Functional classification
☐ Roadside features
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?

<table>
<thead>
<tr>
<th>Crashes</th>
<th>Exposure</th>
<th>Roadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ All crashes</td>
<td>☑ Traffic</td>
<td>☑ Median width</td>
</tr>
<tr>
<td>☐ Fatal crashes only</td>
<td>☑ Volume</td>
<td>☑ Horizontal curvature</td>
</tr>
<tr>
<td>☑ Fatal and serious injury</td>
<td>☐ Population</td>
<td>☑ Functional classification</td>
</tr>
<tr>
<td>crashes only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Other</td>
<td>☑ Lane miles</td>
<td>☑ Roadside features</td>
</tr>
<tr>
<td></td>
<td>☑ Other</td>
<td>☐ Other</td>
</tr>
</tbody>
</table>

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

**Exposure**
- Traffic
- Volume
- Population
- Lane miles
- Other

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

What project identification methodology was used for this program?

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

<table>
<thead>
<tr>
<th>Crashes</th>
<th>Exposure</th>
<th>Roadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>All crashes</td>
<td>Traffic</td>
<td>Median width</td>
</tr>
<tr>
<td>Fatal crashes only</td>
<td>Volume</td>
<td>Horizontal curvature</td>
</tr>
<tr>
<td>Fatal and serious injury</td>
<td>Population</td>
<td>Functional classification</td>
</tr>
<tr>
<td>crashes only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Lane miles</td>
<td>Roadside features</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

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
2013 District Of Columbia Highway Safety Improvement Program

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

Exposure
- Traffic
- Volume
- Population
- Lane miles
- Other

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

What project identification methodology was used for this program?
- Crash frequency
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
- [x] Rank of Priority Consideration

- [ ] Ranking based on B/C
- [ ] Available funding
- [ ] Incremental B/C
- [ ] Ranking based on net benefit
- [ ] Cost Effectiveness
- [x] 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**
- [x] All crashes
- [ ] Fatal crashes only
- [ ] Fatal and serious injury crashes only

**Exposure**
- [x] Traffic
- [ ] Volume

**Roadway**
- [ ] Median width
- [x] Horizontal curvature
- [x] Functional classification
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
- □ All crashes
- □ Fatal crashes only
- □ Fatal and serious injury crashes only
- □ Other

### Exposure
- □ Traffic
- □ Volume
- □ Population

### Roadway
- □ Median width
- □ Horizontal curvature
- □ Functional classification
- □ Lane miles
- □ 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 SPF
- □ 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
- [x] All crashes
- [ ] Fatal crashes only
- [ ] Fatal and serious injury crashes only
- [ ] Other

Exposure
- [x] Traffic
- [ ] Volume
- [ ] Population
- [ ] Lane miles
- [ ] Other

Roadway
- [x] Median width
- [ ] Horizontal curvature
- [ ] Functional classification
- [ ] Roadside features
- [ ] Other

What project identification methodology was used for this program?
- [x] Crash frequency
- [ ] Expected crash frequency with EB adjustment
- [ ] Equivalent property damage only (EPDO Crash frequency)
- [ ] EPDO crash frequency with EB adjustment
- [ ] Relative severity index
- [x] Crash rate
- [ ] Critical rate
- [ ] Level of service of safety (LOSS)
- [ ] Excess expected crash frequency using SPF
- [ ] 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
Program: Local Safety
Date of Program Methodology: 10/1/2012

What data types were used in the program methodology?

<table>
<thead>
<tr>
<th>Crashes</th>
<th>Exposure</th>
<th>Roadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ All crashes</td>
<td>☑ Traffic</td>
<td>☑ Median width</td>
</tr>
<tr>
<td>☐ Fatal crashes only</td>
<td>☑ Volume</td>
<td>☑ Horizontal curvature</td>
</tr>
<tr>
<td>☑ Fatal and serious injury</td>
<td>☐ Population</td>
<td>☑ Functional classification</td>
</tr>
<tr>
<td>crashes only</td>
<td></td>
<td>☑ Roadside features</td>
</tr>
<tr>
<td>☐ Other</td>
<td>☑ Lane miles</td>
<td>☐ Other</td>
</tr>
<tr>
<td></td>
<td>☐ Other</td>
<td></td>
</tr>
</tbody>
</table>

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
Program: Pedestrian Safety

Date of Program Methodology: 10/1/2012

What data types were used in the program methodology?

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

**Exposure**
- Traffic
- Volume
- Population
- Lane miles
- Other

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

What project identification methodology was used for this program?

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

Relative severity index

Crash rate

Critical rate

Level of service of safety (LOSS)

Excess expected crash frequency using SPFs

Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

Probability of specific crash types

Excess proportions of specific crash types

Other

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

Yes

No

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

Yes

No

How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

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

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

☑ Relative Weight in Scoring
☑ Rank of Priority Consideration
☑ Ranking based on B/C
☑ Available funding
☑ Incremental B/C
☑ Ranking based on net benefit
☑ 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?

<table>
<thead>
<tr>
<th>Crashes</th>
<th>Exposure</th>
<th>Roadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ All crashes</td>
<td>☑ Traffic</td>
<td>☑ Median width</td>
</tr>
<tr>
<td>☐ Fatal crashes only</td>
<td>☑ Volume</td>
<td>☑ Horizontal curvature</td>
</tr>
<tr>
<td>☐ Fatal and serious injury crashes only</td>
<td>☐ Population</td>
<td>☑ Functional classification</td>
</tr>
<tr>
<td>☐ Other</td>
<td>☐ Lane miles</td>
<td>☑ Roadside features</td>
</tr>
<tr>
<td></td>
<td>☐ Other</td>
<td>☑ Other</td>
</tr>
</tbody>
</table>
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
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
☒ All crashes
☐ Fatal crashes only

Exposure
☒ Traffic
☐ Volume

Roadway
☒ Median width
☒ Horizontal curvature
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

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?

<table>
<thead>
<tr>
<th>Crashes</th>
<th>Exposure</th>
<th>Roadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>All crashes</td>
<td>Traffic</td>
<td>Median width</td>
</tr>
<tr>
<td>Fatal crashes only</td>
<td>Volume</td>
<td>Horizontal curvature</td>
</tr>
<tr>
<td>Fatal and serious injury crashes only</td>
<td>Population</td>
<td>Functional classification</td>
</tr>
<tr>
<td>Other</td>
<td>Lane miles</td>
<td>Roadside features</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>Other</td>
</tr>
</tbody>
</table>

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?

<table>
<thead>
<tr>
<th>Crashes</th>
<th>Exposure</th>
<th>Roadway</th>
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<tbody>
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<tr>
<td>☐ Fatal crashes only</td>
<td>☒ Volume</td>
<td>☒ Horizontal curvature</td>
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<tr>
<td>☐ Fatal and serious injury</td>
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<td>☒ Functional classification</td>
</tr>
<tr>
<td>crashes only</td>
<td></td>
<td>☒ Roadside features</td>
</tr>
<tr>
<td>☐ Other</td>
<td>☒ Lane miles</td>
<td>☐ Other</td>
</tr>
<tr>
<td></td>
<td>☐ Other</td>
<td></td>
</tr>
</tbody>
</table>

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

75

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

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

What process is used to identify potential countermeasures?

- [x] Engineering Study
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 accessible 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 perform 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 report and the 2012 data is used for 5% report. The number of fatal crashes occurring in the District of Columbia is too small to constitute a database from which significant statistical results can be concluded. Also, further examination 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 severe 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
Federal Fiscal Year; October 1, 2012 to September 30, 2013

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

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>Programmed*</th>
<th>Obligated</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSIP (Section 148)</td>
<td>8489181</td>
<td>5241129.34</td>
</tr>
<tr>
<td>HRRRP (SAFETEA-LU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRRR Special Rule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penalty Transfer - Section 154</td>
<td>2553365</td>
<td>2553365</td>
</tr>
<tr>
<td>Penalty Transfer – Section 164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentive Grants - Section 163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentive Grants (Section 406)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Federal-aid Funds (i.e. STP, NHPP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State and Local Funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>11042546</td>
<td>7794494.34</td>
</tr>
</tbody>
</table>
How much funding is programmed to local (non-state owned and maintained) safety projects?
0%

How much funding is obligated to local safety projects?
$0.00

How much funding is programmed to non-infrastructure safety projects?
0%

How much funding is obligated to non-infrastructure safety projects?
$0.00

How much funding was transferred in to the HSIP from other core program areas during the reporting period?
0%

How much funding was transferred out of the HSIP to other core program areas during the reporting period?
$0.00
Discuss impediments to obligating Highway Safety Improvement Program funds and plans to overcome this in the future.

DDOT will work with our Safety Consultants in obligating the Highway Safety Improvement Program funds. Since the District is different from other states we are required to address all Safety Issues and not just the High Hazard locations. DDOT has completed the upgrade of TARAS (Traffic Accident Record and Analysis System) database with close coordination from the MPD. The TARAS database generates the list of High Hazard Locations for the District of Columbia. However, there are additional locations identified for the potential traffic safety improvement that are 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 approach to Safety Program as a pedestrian focus city. District has established several programs and initiatives to enhance public awareness and improve safety for bike, transite, pedestrian 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.

<table>
<thead>
<tr>
<th>Project</th>
<th>Improvement Category</th>
<th>Output</th>
<th>HSIP Cost</th>
<th>Total Cost</th>
<th>Funding Category</th>
<th>Functional Classification</th>
<th>AADT</th>
<th>Speed</th>
<th>Roadway Ownership</th>
<th>Relationship to SHSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralized Dynamic Message Signs</td>
<td>Advanced technology and ITS Dynamic message signs</td>
<td></td>
<td>144286 4</td>
<td>144286 4</td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td></td>
<td></td>
<td></td>
<td>Keeping drivers alert</td>
</tr>
<tr>
<td>FY12 Replacing and Upgrading Damaged Guardrail and Impact Attenuators</td>
<td>Roadside Barrier - other</td>
<td></td>
<td>43878</td>
<td>43878</td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td></td>
<td></td>
<td></td>
<td>Increasing driver safety awareness</td>
</tr>
<tr>
<td>FY08 Replace/Upgrade Damaged Guardrail and Impact Attenuators - Non-</td>
<td>Roadside Barrier-metal</td>
<td></td>
<td>246721</td>
<td>246721</td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td></td>
<td></td>
<td></td>
<td>Increasing driver safety awareness</td>
</tr>
<tr>
<td></td>
<td>FY08 Replace/Upgrade Damaged Guiderail/Impact Attenuators - Interstate</td>
<td></td>
<td></td>
<td>246031</td>
<td></td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td>Increasing driver safety awareness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>---</td>
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<tr>
<td>Interstate</td>
<td>Roadside Barrier-metal</td>
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<td></td>
<td>FY08 Thermoplastic Pavement Markings</td>
<td></td>
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<td>1115000</td>
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<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td>Keeping drivers alert</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Roadway Pavement surface - miscellaneous</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Citywide Road Safety audit Program</td>
<td></td>
<td></td>
<td>1500000</td>
<td></td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td>Improving the design and operation of highway intersections</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roadway signs and traffic control</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Identifying traffic safety issues for all roadway users such as motorists, transit, pedestrians and bicyclists. Developing recommendatio and mitigation strategies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citywide Highway Safety Improvement Program</td>
<td>Roadway Roadway - other</td>
<td>900000</td>
<td>900000</td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td>Improving the design and operation of highway intersections</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Safety Data Center at Howard University</td>
<td>Advanced technology and ITS Congestion detection / traffic monitoring system</td>
<td>500000</td>
<td>500000</td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td>Curbing aggressive driving</td>
<td>Speed data is collected to identify vehicular speeding. Measures for traffic calming measures and enforcement are developed speeding issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Safety Engineering Support Services</td>
<td>Miscellaneous</td>
<td>800000</td>
<td>800000</td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Safety Engineering Support Services</td>
<td>Miscellaneous</td>
<td>1000000</td>
<td>1000000</td>
<td>HSIP (Section 148)</td>
<td>Districtwide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 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.

<table>
<thead>
<tr>
<th>Performance Measures*</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fatalities</td>
<td>39</td>
<td>33</td>
<td>25</td>
<td>32</td>
<td>16</td>
</tr>
<tr>
<td>Number of serious injuries</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fatality rate (per HMVMT)</td>
<td>1.08</td>
<td>0.92</td>
<td>0.7</td>
<td>0.9</td>
<td>0.45</td>
</tr>
<tr>
<td>Serious injury rate (per HMVMT)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*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

![Graph showing the rate of fatalities and serious injuries over the last five years. The graph indicates a decrease in both fatality and serious injury rates from 2009 to 2012. The fatality rate per HMVMT decreases from 1.08 in 2009 to 0.45 in 2012. The serious injuries rate per HMVMT also decreases from 0.92 in 2009 to 0.7 in 2010, and then increases in 2011 to 0.9 before decreasing again in 2012 to 0.45.]}
To the maximum extent possible, present performance measure* data by functional classification and ownership.

**Year - 2012**

<table>
<thead>
<tr>
<th>Function Classification</th>
<th>Number of fatalities</th>
<th>Number of serious injuries</th>
<th>Fatality rate (per HMVMT)</th>
<th>Serious injury rate (per HMVMT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL PRINCIPAL ARTERIAL - INTERSTATE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AND EXPRESSWAYS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RURAL PRINCIPAL ARTERIAL - OTHER</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL MINOR ARTERIAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL MINOR COLLECTOR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL MAJOR COLLECTOR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL LOCAL ROAD OR STREET</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>URBAN PRINCIPAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Class</td>
<td>Total</td>
<td>First Quarter</td>
<td>Second Quarter</td>
<td>Third Quarter</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------</td>
<td>---------------</td>
<td>----------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Arterial - Interstate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban Principal Arterial - Other Freeways and Expressways</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban Principal Arterial - Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban Minor Arterial</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban Minor Collector</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban Major Collector</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban Local Road or Street</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Urban Collector</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
# Fatalities by Roadway Functional Classification

![Bar chart showing fatalities by roadway functional classification for different years (2008-2012). The chart displays the number of fatalities along the y-axis and the roadway functional classification along the x-axis.](chart.png)

Roadway Functional Classification
Serious Injury Rate by Roadway Functional Classification

Roadway Functional Classification

- Major Road - Arterial (U)
- Major Road - Collector (U)
- Local Road or Street (U)
- Minor Road - Arterial (U)
- Minor Road - Collector (U)
- Principal Road - Arterial (U)
- Principal Road - Collector (U)
- Principal Road - Other (U)
- Principal Road - Other Freeways and Expressways (U)
- Minor Road - Other (U)
- Interstate (U)

2008
2009
2010
2011
2012
### Year - 2012

<table>
<thead>
<tr>
<th>Roadway Ownership</th>
<th>Number of fatalities</th>
<th>Number of serious injuries</th>
<th>Fatality rate (per HMVMT)</th>
<th>Serious injury rate (per HMVMT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATE HIGHWAY AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>COUNTY HIGHWAY AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOWN OR TOWNSHIP HIGHWAY AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CITY OF MUNICIPAL HIGHWAY AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>STATE PARK, FOREST, OR RESERVATION AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LOCAL PARK, FOREST OR RESERVATION AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER STATE AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER LOCAL AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PRIVATE (OTHER THAN RAILROAD)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Railroad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>State Toll Authority</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Local Toll Authority</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other Public Instrumentity (E.g. Airport, School, University)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Indian Tribe Nation</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2010 Districtwide</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2008 Districtwide</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2009 Districtwide</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011 Districtwide</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2012 Districtwide</td>
<td>16</td>
<td>421</td>
<td>0.45</td>
<td>0</td>
</tr>
<tr>
<td>2012 Districtwide</td>
<td>16</td>
<td>421</td>
<td>0.45</td>
<td>0</td>
</tr>
</tbody>
</table>
Number of Fatalities by Roadway Ownership

![Graph showing the number of fatalities by roadway ownership across different years.]
Number of Serious Injuries by Roadway Ownership

Roadway Functional Classification

- State
- County
- City
- Local Park
- Other Local
- Private
- Railroad
- State Toll
- Local Toll
- Other Public
- Tribe
- Other
Fatality Rate by Roadway Ownership

- 2008
- 2009
- 2010
- 2011
- 2012

Fatality Rate (per HVMNT)

Roadway Functional Classification

- State
- County
- City
- Local Park
- Other State
- Private
- Railroad
- State Toll
- Local Toll
- Tribe
- Other
Serious Injury Rate by Roadway Ownership

![Graph showing serious injury rate by roadway ownership for different years (2008, 2009, 2010, 2011, 2012). The x-axis represents roadway functional classification, and the y-axis represents the serious injury rate (per HAYMT).]
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.

<table>
<thead>
<tr>
<th>Older Driver Performance Measures</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatality rate (per capita)</td>
<td>0.03</td>
<td>0.01</td>
<td>0.01</td>
<td>0.01</td>
<td>0</td>
</tr>
<tr>
<td>Serious injury rate (per capita)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fatality and serious injury rate (per capita)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*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 \((r) = \frac{f}{N} \times 1000 = 0.027\)

**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 \((r) = \frac{f}{N} \times 1000 = 0.008\)
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 \( r = \frac{f}{N} \times 1000 = 0.012 \)

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 \( r = \frac{f}{N} \times 1000 = 0.0010 \)

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 \( r = \frac{f}{N} \times 1000 = 0.0000 \)
Rate of Fatalities and Serious injuries for the Last Five Years

Does the older driver special rule apply to your state?

No
Assessment of the Effectiveness of the Improvements (Program 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

<table>
<thead>
<tr>
<th>HSIP-related SHSP Emphasis Areas</th>
<th>Target Crash Type</th>
<th>Number of fatalities</th>
<th>Number of serious injuries</th>
<th>Fatality rate (per HMVMT)</th>
<th>Serious injury rate (per HMVMT)</th>
<th>Other-1</th>
<th>Other-2</th>
<th>Other-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instituting graduated licensing for younger drivers</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>Ensuring drivers are licensed and fully competent</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sustaining proficiency in older drivers</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Curbing aggressive driving</td>
<td>Speeding</td>
<td>3</td>
<td>29</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>Reducing impaired driving</td>
<td>All</td>
<td>11</td>
<td>42</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Keeping drivers alert</td>
<td>Distracted Driving</td>
<td>0</td>
<td>35</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Increasing driver safety awareness</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
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<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Increasing seat belt use and improving airbag effectiveness</td>
<td>All</td>
<td>5</td>
<td>43</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Making walking and street crossing easier</td>
<td>Vehicle/pedestrian</td>
<td>7</td>
<td>260</td>
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<td>0</td>
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<td>0</td>
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<tr>
<td>Ensuring safer bicycle travel</td>
<td>Vehicle/bicycle</td>
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<td>362</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Improving motorcycle safety and increasing motorcycle awareness</td>
<td>Motorcyclist</td>
<td>3</td>
<td>115</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Making truck travel safer</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Increasing safety enhancements in vehicles</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reducing vehicle-train crashes</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Keeping vehicles in the roadway</td>
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<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>Minimizing the consequences of</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Leaving the Road</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Improving the design and operation of highway intersections</td>
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<td>Reducing head-on and across-median crashes</td>
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<td>Designing safer work zones</td>
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<td>Enhancing emergency medical capabilities to increase survivability</td>
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<tr>
<td>Improving information and decision support systems</td>
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</tbody>
</table>
Fatality Rate by SHSP Emphasis Area

Year 2008 to Year 2012

2008  2009  2010  2011  2012

Rate of Fatalities

SHSP Emphasis Area
Serious Injury Rate by SHSP Emphasis Area

Year 2008 to Year 2012

SHSP Emphasis Area
Groups of similar project types
Present the overall effectiveness of groups of similar types of projects.

### Year - 2012

<table>
<thead>
<tr>
<th>HSIP Sub-program Types</th>
<th>Target Crash Type</th>
<th>Number of fatalities</th>
<th>Number of serious injuries</th>
<th>Fatality rate (per HMVMT)</th>
<th>Serious injury rate (per HMVMT)</th>
<th>Other-1</th>
<th>Other-2</th>
<th>Other-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skid Hazard</td>
<td>Road Defects</td>
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<tr>
<td>Low-Cost Spot Improvements</td>
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<td>0</td>
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<td>Right Angle Crash</td>
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<td>0</td>
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<td>Intersection</td>
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<tr>
<td>Red Light Running Prevention</td>
<td>Red Light Violation</td>
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<td>Pedestrian Safety</td>
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<td>Left Turn Crash</td>
<td>Left-turn</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>
# Fatalities by Target Crash Type for Groups of Similar Projects

Year 2008 to Year 2012

Target Crash Type

- 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/pedestrian
- Wet road
#Serious Injuries by Target Crash Type for Groups of Similar Projects

Year 2008 to Year 2012

![Chart showing serious injuries by target crash type and year from 2008 to 2012.]
Fatality Rate by Target Crash Type for Groups of Similar Projects

Year 2008 to Year 2012

Target Crash Type:
- 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
- Wet road

Rate of Fatalities:
- 0.0
- 0.2
- 0.4
- 0.6
- 0.8
- 1.0
- 1.2

Colors represent:
- 2008
- 2009
- 2010
- 2011
- 2012
Serious Injury Rate by Target Crash Type for Groups of Similar Projects

Year 2008 to Year 2012
Systemic Treatments
Present the overall effectiveness of systemic treatments.

**Year - 2012**

<table>
<thead>
<tr>
<th>Systemic improvement</th>
<th>Target Crash Type</th>
<th>Number of fatalities</th>
<th>Number of serious injuries</th>
<th>Fatality rate (per HMVMT)</th>
<th>Serious injury rate (per HMVMT)</th>
<th>Other-1</th>
<th>Other-2</th>
<th>Other-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install/Improve Lighting</td>
<td>All</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rumble Strips</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Install/Improve Signing</td>
<td>All</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Add/Upgrade/Modify/Remove Traffic Signal</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
# Fatalities by Target Crash Type for Systemic Safety Improvements

Year 2008 to Year 2012

![Graph showing fatalities by target crash type](image)

**Target Crash Type**

- All
- Angle
- Cross median
- Head-on
- Left-turn
- Night-time
- Non-intersection
- Rear-end
- Right-turn
- Run-off-road
- Speed-related
- Truck-related
- Vehicle/animal
- Vehicle/bicycle
- Wet road

**# of Fatalities**

- 2008
- 2009
- 2010
- 2011
- 2012
# Serious Injuries by Target Crash Type for Systemic Safety Improvements

Year 2008 to Year 2012

<table>
<thead>
<tr>
<th>Target Crash Type</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
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<td>All</td>
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<tr>
<td>Angle</td>
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<td></td>
</tr>
<tr>
<td>Cross median</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed object</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sideswipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left-turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night-time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-intersection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear-end</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Run-off-road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed-related</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck-related</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle/animal</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle/bicycle</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Wet road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- The chart shows the number of serious injuries by target crash type from Year 2008 to Year 2012.
- Each year is represented by a different color.
- The chart highlights the types of crashes with the highest number of serious injuries.
Fatality Rate by Target Crash Type for Systemic Safety Improvements

Year 2008 to Year 2012

Target Crash Type

Rate of Fatalities

2008  2009  2010  2011  2012

Air  Angle  Cross median  Sideswipe  Head on  Left-turn  Night-time  Non-intersection  Rear-end  Right-turn  Run-off-road  Speed-related  Truck-related  Vehicle/animal  Vehicle/bicycle  Wet-road
Serious Injury Rate by Target Crash Type for Systemic Safety Improvements

Year 2008 to Year 2012

Rate of Serious Injuries

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 resurfaced the bike lane on 15th Street from K Street to Swann Street.

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

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

9. Multimodal Transportation Study on M Street
   - DDOT has also completed the multimodal transportation study on M Street

DDOT is also 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 focused on:
     a. Crash Data Collection
     b. Crash Data Reporting
     c. Crash Data Processing

7. Traffic Incident Management Program
   * DDOT has established new Traffic Incident Management (TIM) program that consists of an 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).

<table>
<thead>
<tr>
<th>Location</th>
<th>Functional Class</th>
<th>Improvement Category</th>
<th>Improvement Type</th>
<th>Bef-Fatal</th>
<th>Bef-Serious Injury</th>
<th>Bef-Other Injury</th>
<th>Bef-PDO</th>
<th>Bef-Total</th>
<th>Aft-Fatal</th>
<th>Aft-Serious Injury</th>
<th>Aft-Other Injury</th>
<th>Aft-PDO</th>
<th>Aft-Total</th>
<th>Evaluation Results (Benefit/Cost Ratio)</th>
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<tr>
<td>7th St and Mount Vernon Place, NW</td>
<td></td>
<td>Intersection traffic control</td>
<td>Intersection traffic control - other</td>
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<td>12</td>
<td>7</td>
<td>20</td>
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<td>4</td>
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### Optional Attachments

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<tr>
<th>Sections</th>
<th>Files Attached</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.