



Highway Safety Improvement Program
Data Driven Decisions

Ohio
Highway Safety Improvement Program
2015 Annual Report

Prepared by: OH

Disclaimer

Protection of Data from Discovery & Admission into Evidence

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

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

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Executive Summary

One of the greatest challenges facing Ohio is reducing the number of fatalities and injuries and the costs associated with traffic crashes statewide.

In 2014, there were 282,368 crashes in Ohio – 1,008 people were killed and 100,554 people were injured. In addition to the emotional impact, the economic cost to Ohio is about \$14 billion per year in lost wages, increased health care and other related costs.

The vast majority of these crashes are caused by driver error. To reduce crashes and injuries, and save lives, the Ohio Department of Transportation is working with the Department of Public Safety, the public and local, state and federal agencies to: identify and improve high-crash and severe-crash locations through engineering; enforce traffic laws; and promote safe driving behavior through public education.

Despite these numbers, Ohio has made significant improvements in highway safety over the past several years. Since 2005, Ohio fatalities have decreased 24%; serious injuries decreased 21%; all injuries decreased 23%; and all crashes decreased 21%.

To reduce crashes and injuries, and save lives, the Ohio Department of Transportation routinely works with local, state and federal safety advocates to:

- Identify and improve locations with potential for safety improvement (physical construction projects)
- Enforce traffic laws
- Promote safe driving behavior through public education

Many fatalities are preventable. Hundreds of lives could be saved each year if all motorists used a seatbelt, drove sober and traveled at appropriate speeds.

Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP MAP-21 Reporting Guidance dated February 13, 2013 and consists of four sections: program structure, progress in implementing HSIP projects, progress in achieving safety performance targets, and assessment of the effectiveness of the improvements.

Program Structure

Program Administration

How are Highway Safety Improvement Program funds allocated in a State?

Central

District

Other

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

Local road safety improvements are a focus of both Ohio's SHSP and HSIP. Through our close collaboration with the Local Technical Assistance Program, County Engineers Association and Metropolitan Planning Organizations, we have been expanding training, technical assistance, and funding opportunities available to our local partners.

This collaboration begins with local involvement in developing and implementing Ohio's SHSP. Our plan focuses on the safety of all public roads and all road users, including cars, trucks, trains, motorcycles, pedestrians and bikes.

Ohio has formed a statewide steering committee with local government representation and involvement. This committee meets quarterly to 1) review crash trends and 2) discuss key strategies being implemented across agencies and jurisdictions to reduce fatalities and serious injuries on all Ohio roads. These agencies are then tasked with sharing information and resources with other safety organizations throughout Ohio.

Emphasis Areas

Ohio has identified five emphasis areas in the plan based on crash data:

1. Improve the quality, accuracy, timeliness and availability of crash data.
2. Reduce the occurrence and severity of run-off-road, intersection and head-on collisions.
3. Address high-risk drivers and behaviors such as young drivers, impaired driving, low seat belt use, distracted driving and excessive speed.
4. Target motorcycle and bicycle riders, pedestrians and commercial vehicles, which are more likely to be involved in serious crashes.
5. Reduce the high number of rear-end collisions caused by congestion and work zones.

These emphasis areas were chosen because they represent the greatest causes of serious injuries and deaths on Ohio roads. A complete listing of target areas and strategies are elaborated in the Highway Safety Improvement Program implementation section of this report, prior to the project listings.

Local governments can qualify for funding and technical assistance to address emphasis areas through HSIP programs administered by ODOT and the County Engineers Association.

ODOT uses the SHSP as a basis for developing its HSIP. ODOT has one of the largest programs in the country, dedicating about \$102 million annually for engineering improvements at high-crash and severe-crash locations across the state. We also dedicate a portion of the funding for low-cost, systematic safety improvements that prevent roadway departure and intersection crashes identified in the SHSP. A small portion of this funding is also used to conduct work zone enforcement efforts and other small enforcement and education efforts.

This funding can be used by ODOT District Offices or local governments to improve safety on any public roadway. While the majority of HSIP investments focus on engineering improvements, ODOT uses a portion of the funding to supplement education (everymove.ohio.gov) and enforcement programs that encourage safer driving.

To qualify for funding, local governments identify and study high-crash or severe-crash locations within their own jurisdiction. To determine the best countermeasures for these locations, local governments typically conduct an engineering analysis that includes a review of existing roadway conditions and crash reports. This analysis will help identify common crash patterns and determine the best strategies to reduce crashes.

Projects sponsors are encouraged to examine a full range of options from short-term, low-cost strategies, such as new signs, pavement markings and drainage improvements to mid-cost, mid-term strategies such as new traffic signals, turn lanes and realignments.

Local governments may pay for these improvements through their annual budget or they can seek money each spring (April 30) and fall (September 30) through ODOT's Highway Safety Improvement Program. The maximum amount of funding available is \$5 million per project. A multi-discipline committee at ODOT headquarters reviews all applications and supporting safety studies. The committee can approve a proposal, select a different safety strategy or request further study before allocating money. ODOT spends approximately \$85 million dollars in safety funds annually through this program.

Once funding is secured, safety projects are scheduled for construction. How quickly projects proceed to construction depends on the available funding and complexity of the project. Short-term, low-cost projects can be implemented within a few months. Other projects that require environmental mitigation, complex engineering design and/or utility and right of way relocation may take several years. In all cases, ODOT encourages sponsors to act as quickly as possible. Upon project completion, the department monitors locations to make sure the improvements are reducing crashes as designed.

ODOT also provides an additional \$12 million, separate from \$102 million, annually to the County Engineers Association of Ohio (CEAO) to make safety improvements on county-maintained roads. This funding can be used to make spot and systematic improvements tied to the SHSP. Applications are accepted once a year and scored using criteria developed in conjunction with ODOT.

The CEAO subdivides the \$12 million in to several smaller funding categories. Each county is permitted to program eligible construction projects up to \$5 million overall for spot safety improvements. In addition to spot safety improvements, CEAO provides up to \$300,000 per county for each guardrail project, \$150,000 per county for each pavement marking project, \$75,000 per county for each raised pavement marker project, and \$15,000 per county for curve signage upgrade projects.

ODOT continues to look for opportunities for deployment of safety improvements. With a data driven focus, we have been able to use innovative contracting practices and partnerships through LTAP and CEAO to improve safety performance on local maintained roads. We have developed creative methods to quickly produce signage for local governments and allow them to install them with their own forces. This methodology is being used to upgrade signage in curves to prevent roadway departure crashes and around schools to make walking and biking safer for kids.

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

Design

Planning

- Maintenance
- Operations
- Governors Highway Safety Office
- Other: Other-Local Technical Assistance Program (LTAP)

Briefly describe coordination with internal partners.

ODOT's Office of Program Management accepts applications – accompanied by safety studies – from ODOT District Offices and local governments twice a year. Applications must be submitted through the District Offices, which have a multi-disciplinary committee that reviews and approves them for Central Office consideration. Projects are then reviewed and selected for funding by the Safety Review Committee in Central Office, which includes expertise in safety, planning, geometric design, and traffic operations.

Priority is given to any project that improves safety at a roadway location with high frequency, severity and rate of crashes. Projects are scored based on:

- Expected Crash Frequency
- Ratio of Observed Fatal and Serious Injuries to Observed Total Crashes
- Relative Severity Index
- Equivalent Property Damage Only Index
- Volume to Capacity Ratio
- Benefit-Cost Ratio (anticipated savings in crash costs, property damage, injuries and fatalities relative to the cost of the improvement plus cost of maintenance for the life of the project). Consideration is also given to lower-volume, lower-crash local roads with identified needs and cost-effective countermeasures.
- Highway Safety Improvement Program Funding Percentage

Funding awarded through the program is used to make traditional safety improvements at spot locations, such as intersections, and along sections or corridors throughout the state.

Ohio's program also works collaboratively with other local, state and federal agencies to develop multi-agency safety initiatives through the Strategic Highway Safety Plan. These efforts allow ODOT to pair

engineering expertise with education and enforcement initiatives that play a key role in reducing injuries and deaths.

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

Metropolitan Planning Organizations

Governors Highway Safety Office

Local Government Association

Other:

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-Expanded Training Efforts

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

Ohio uses a focused approach to safety that targets resources based on the greatest need and greatest opportunity for improvements. We also promote the use of proven, cost-effective, systematic safety solutions that target critical, severe-crash types such roadway departure and intersections crashes. These focus areas are embodied in both the HSIP and the state's Strategic Highway Safety Plan.

We advanced the HSIP through the balanced deployment and implementation of a host of traditional spot safety investments and a host of systematic safety investments.

ODOT's Highway Safety Improvement Program and AASHTOWare Safety Analyst Implementation

Each year, ODOT staff reviews the top safety locations in Ohio. Ohio is one of the first states in the country to fully implement Safety Analyst and use it to prioritize safety locations across Ohio. Safety Analyst uses state-of-the-art statistical methodologies to identify roadway locations and safety improvements with the highest potential for reducing crashes. The software systems flags spot locations and road segments that have higher-than-predicted crash frequencies. It also flags locations for review based on crash severity. This methodology is more efficient and cost effective and will allow the department to study fewer locations yet address more crashes each year.

ODOT has developed six priority lists based on rural and urban roadway types. The urban system covers all streets, roads, and highways located within urban boundaries designated by the U.S. Census Bureau. The Bureau defines two types of urban areas based on population. Small urban areas are urban places with a population of 5,000 or more and not located within any urbanized area. An urbanized area is an area with a population of 50,000 or more. As might be expected, the rural functional classification system covers all other streets, roads, and highways that are not located within the boundaries of small urban and urbanized areas. Approximately, \$85 million is used to fund projects through this program.

The priority lists are:

1. Rural Intersection Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted crash frequency for each intersection. Approximately, the Top 50 locations will be studied.
2. Rural Non-Freeway Peak Searching Excess Segment Locations: These locations were selected because they have a higher-than-predicted crash frequency for this roadway type. Approximately, the Top 50 locations will be studied. Only crashes indicated on the OH-1 as being non-intersection crashes were included in this analysis.
3. Rural Freeway Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted crash frequency for this roadway type or interchange location. Approximately, the Top 50 locations will be studied.
4. Urban Intersection Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for each intersection. Approximately, the Top 50 locations will be studied.
5. Urban Non-Freeway Peak Searching Excess Segment Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for this roadway type. Approximately, the Top 50 locations will be studied. Only crashes indicated on the OH-1 as being non-intersection crashes were included in this analysis.
6. Urban Freeway Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for this roadway type or interchange location. Approximately, the Top 50 locations will be studied.

Systematics Safety Program

The Ohio Department of Transportation spends approximately \$15 million annually of the \$102 million program on systematic safety improvements. These are safety improvements that can be installed across hundreds of road miles for a relatively small public investment. Systematic safety improvements are low cost improvements that are complete at similar locations to address a specific type of crash pattern.

Examples of systematic project types are Curve Signing Upgrade, Edge Line Rumble Stripes, Cable Barrier, Signal Upgrade, Intersection Signing Upgrade, Wider Pavement Markings, and Guardrail End Treatment Upgrade Projects.

Safe Routes to School Program

ODOT uses \$4 million from the Transportation Alternatives Program to fund Ohio's Safe Routes to School Program. Again, this is separate and in addition to the \$102 million ODOT HSIP program. Funds can be used on any public roadway as long as the school has completed a School Travel Plan. The School Travel Plan outlines where investments should be made for a specific school district.

Other Programs

Small portions of ODOT's HSIP Program funding (\$102 million) are used for work zone enforcement, OVI checkpoints, and other educational opportunities. Although money is not specifically set aside for the High Risk Rural Roads Program in Ohio at this time, we still encourage agencies to apply for funding through our traditional application process. Any projects that are prioritized based on the HRRR Program are funded through the ODOT's HSIP Program (\$102 million).

ODOT also combines HSIP funding with other funding sources (such as MPO and Ohio Rail Development Commission) to make safety improvements.

Program Methodology

Select the programs that are administered under the HSIP.

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

Program

Program

Rural Road

Program: Other-State HSIP Program

Date of Program Methodology: 5/1/2015

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
- Other-Volume to Capacity Ratio
- Other-(Total Fatal and Serious Injuries) / Total Crashes

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

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 1

Available funding 3

Incremental B/C

Ranking based on net benefit

Cost Effectiveness 2

Program: Other-CEAO HSIP Program

Date of Program Methodology: 7/1/2011

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-Rural County Highway System

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-Amount of Funding Requested

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

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 1

Available funding 3

Incremental B/C

Ranking based on net benefit

Cost Effectiveness 2

Program: **Other-State High Risk Rural Road**

Date of Program Methodology: **6/1/2008**

What data types were used in the program methodology?

Crashes

All crashes

Fatal crashes only

Fatal and serious injury

Exposure

Traffic

Volume

Population

Roadway

Median width

Horizontal curvature

Functional classification

crashes only

Other-Fatal and All Injury
Crashes Only

Lane miles

Roadside features

Other

Other

What project identification methodology was used for this program?

Crash frequency

Expected crash frequency with EB adjustment

Equivalent property damage only (EPDO Crash frequency)

EPDO crash frequency with EB adjustment

Relative severity index

Crash rate

Critical rate

Level of service of safety (LOSS)

Excess expected crash frequency using SPFs

Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

Probability of specific crash types

Excess proportions of specific crash types

Other-(Fatal and Serious Injuries) / Total Crashes

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

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 1 Available funding 3 Incremental B/C Ranking based on net benefit Cost Effectiveness 2**What proportion of highway safety improvement program funds address systemic improvements?**

10

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

- | | |
|--|--|
| <input checked="" type="checkbox"/> Cable Median Barriers | <input type="checkbox"/> Rumble Strips |
| <input type="checkbox"/> Traffic Control Device Rehabilitation | <input type="checkbox"/> Pavement/Shoulder Widening |
| <input type="checkbox"/> Install/Improve Signing | <input type="checkbox"/> Install/Improve Pavement Marking and/or Delineation |
| <input checked="" type="checkbox"/> Upgrade Guard Rails | <input type="checkbox"/> Clear Zone Improvements |
| <input type="checkbox"/> Safety Edge | <input type="checkbox"/> Install/Improve Lighting |
| <input checked="" type="checkbox"/> Add/Upgrade/Modify/Remove Traffic Signal | <input checked="" type="checkbox"/> Other Other-ODOT - Roadway Departure |
| <input checked="" type="checkbox"/> Other Other-ODOT - Wet Pavement Locations | <input checked="" type="checkbox"/> Other Other-ODOT - Intersection Signage |
| <input checked="" type="checkbox"/> Other Other-CEAO - Upgrade / Install Guardrail | <input checked="" type="checkbox"/> Other Other-CEAO - Upgrade Pavement Markings |
| <input checked="" type="checkbox"/> Other Other-CEAO - Upgrade / Install RPMs | <input checked="" type="checkbox"/> Other Other-CEAO - Upgrade / Install Curve Signage |

What process is used to identify potential countermeasures?

- Engineering Study
- Road Safety Assessment
- Other: Other-AASHTOWare Safety Analyst

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:

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

None.

Progress in Implementing Projects

Funds Programmed

Reporting period for Highway Safety Improvement Program funding.

Calendar Year

State Fiscal Year

Federal Fiscal Year

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

Funding Category	Programmed*		Obligated	
HSIP (Section 148)	84592896	30 %	49811033	26 %
HRRRP (SAFETEA-LU)	3990075	1 %	812807	0 %
HRRR Special Rule				
Penalty Transfer - Section 154				
Penalty Transfer - Section 164	21465633	8 %	21459967	11 %
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)	89254676	32 %	38798705	20 %
State and Local Funds	81774088	29 %	81774088	42 %

Totals	281077368	100%	192656600	100%
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How much funding is programmed to local (non-state owned and maintained) safety projects?

\$45,394,147.00

How much funding is obligated to local safety projects?

\$26,672,803.00

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

\$58,000.00

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

\$58,000.00

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

\$0.00

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

\$0.00

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

In FFY 2014, Ohio obligated 100% of its HSIP funds. For SFY 2015, Ohio has obligated approximately 64%. ODOT's safety program is making great progress working with our SHSP partners to further highway safety in Ohio.

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

Ohio uses the Strategic Highway Safety Plan to guide project selection for the HSIP Program. The following contains a complete list of Emphasis Areas, Targets Areas, and Strategies at the following link: zerodeaths.ohio.gov

These have been provided at the end of each SHSP Strategy field in the project listing table in the following section. An example of improve signage or install warning signs for a fixed object crash location would be coded as "II-a-4".

Emphasis Area I – Data and Support SystemsTargets

- α. Timely Data
- β. Reliable Data
- γ. Comprehensive Data
- δ. Integrated Data and Analysis Systems

Strategies

1. Provide statistical crash information and reports to outside agencies through web-based applications that allow local governments, law enforcement and the public to download the information quickly.

2. Develop a multi-jurisdictional, statewide road inventory network that contains accurate centerline information, valid address ranges and other information features critical to improving crash information, analysis and emergency response.
3. Design and implement a centralized statewide citation tracking system so law enforcement officers, court personnel and prosecutors have up-to-date driver histories
4. Improve railroad crossing data and integrate into statewide crash analysis system
5. Identify those municipal and county law enforcement agencies that report the largest number of crashes and work with them to reduce delays in submitting crash reports to ODPS
6. Implement Ohio's Crash Outcome Data Evaluation System (CODES)
7. Use this information in crash analysis, problem identification, and program evaluation to improve decision-making at the local, state and national levels
8. Update the Emergency Medical System Incident Reporting System to meet the standards set forth by the National EMS Information System (NEMSIS).

Emphasis Area II – Serious Crash Types

Targets

- α. Fixed Object Crashes
- β. Intersection Crashes
- γ. Head-On Crashes
- δ. Cross-Median Crashes
- ε. Highway/Railroad Crossing Crashes

Strategies – Fixed Object Crashes (a)

1. Identify areas with disproportionate number of roadway departure crashes
2. Implement asset management for roadside safety features
3. Conduct roadway safety audits
4. Improve signs or install warning signs
5. Remove or relocate obstacles, or delineate with reflective paint and/or reflectors
6. Provide adequate clear zones, flatten slopes and reduce sharp curves
7. Shield motorists from trees, poles, or other fixed objects using guardrail or other barrier types
8. Alert motorists by installing rumble strips (pilot locations to be selected)
9. Provide selective enforcement aimed at speeding and impaired driving
10. Investigate new technologies

Strategies – Intersection Crashes (b)

1. Stop approach rumble strips

2. Improve signs and visibility of the intersection including the installation of sign post/drive post delineators, dual stop and stop ahead signs and flashing LED or beacon enhanced stop signs
3. Improve sight distance
4. Improve signal timing
5. Dynamic flashing beacons
6. Install or enhance intersection lighting
7. Increase enforcement of intersection violations
8. Access management to reduce intersection conflicts
9. Conduct roadway safety audits
10. Investigate new technologies
11. Educate motorists on intersection crash issues and encourage safer driving behavior

Strategies – Head-On Crashes (c)

1. Identify areas with disproportionate number of roadway departure crashes
2. Deploy centerline rumble strips
3. Deploy, as appropriate, “No Passing Zone” signs
4. Deploy, as appropriate, passing lanes on rural, two-lane roads
5. Train and educate motorists on passing zone markings and lanes
6. Provide selective enforcement aimed at speeding and impaired driving

Strategies – Cross-Median Crashes (d)

1. Identify areas with a disproportionate number of cross-median crashes
2. Establish policy and guidelines for installing median barrier
3. In congested areas, install “Watch for stopped traffic” signs to prevent cross-median crashes
4. Provide selective enforcement aimed at speeding, impaired and aggressive driving

Strategies – Highway/Railroad Crossing Crashes (e)

1. Streamline the process to help local governments reduce crossing profiles, eliminate redundant crossings and separate highway/rail crossings
2. Market existing programs that expand the use of alternative crash prevention methods, such as improved street lighting at approaches, rumble strips, warning signs and flashing lights
3. Continue the use of visible, high-profile law enforcement programs at problem crossings to deter drivers from violating gates and lights
4. Use automated enforcement of crossing violations to the extent allowed by law
5. Encourage greater participation in programs that establish multi-disciplinary teams to examine railroad corridors for improvements and fatal crash locations for quick corrective action
6. Modify the project selection by hazard index to include the review of older circuitry on gates and lights

7. Encourage all Ohio counties to develop or expand the County Task Force Program to encourage grass roots interest in railroad safety and to identify problem locations
8. Expand involvement with Operation Lifesaver and other highway safety education and enforcement programs
9. Encourage railroads to provide accurate and timely railroad crossing data such as crash, train volume and speed data, which can be better integrated into the Federal Railroad Administration's Accident Prediction Model and other statewide analysis systems used to create safer crossings
10. Develop policies that encourage ODOT district offices and local governments to identify and include rail improvements early in the project development process for highway improvements
11. Encourage the closure of redundant crossings through policies and funding commitments To ensure railroad compliance at crossings, FRA will increase inspection activities with railroad managers by conducting field test and observations of crossing activation failures

Emphasis Area III – High-Risk Behaviors/Drivers

Targets

- α. Occupant Protection Devices – Nonuse and Misuse
- β. Impaired by Alcohol
- χ. Young Driver – 15 to 25
- δ. Distracted or Fatigued Driver
- ε. Aggressive Driving
- φ. Older Driver – 65 or Older

Strategies – Occupant Protection Devices – Nonuse and Misuse (a)

1. Support efforts to enact primary safety belt legislation through state law or local ordinances
2. Upgrade child restraint law to include booster seats
3. Expand the Rural Demonstration Project designed to increase safety belt use in rural areas
4. Implement media and education campaign targeting pick-up drivers
5. Encourage law enforcement to aggressively enforce safety belt and child restraint laws
6. Increase emphasis on special occupant protection mobilizations (public information and high visibility enforcement campaigns)
7. Continue campaigns to educate the general public and target groups about the importance of occupant protection
8. Pilot test the "I'm Safe" Occupant Protection Program for K through Second Grade and continue to provide other child-based educational programs
9. Educate parents, caregivers, and grandparents about proper selection and installation of child safety seats and booster seats

10. Encourage corporations to enact policies to require safety belt use in company vehicles or when driving on company or personal time

Strategies – Impaired by Alcohol (b)

1. Targeted Alcohol Counties –Continue target law enforcement and educational grants to those counties with the worst fatal alcohol crash problems
2. You Drink & Drive. You Lose. (YD&DYL) Crackdown – Ohio will continue to participate in the national crackdown, which combines highly visible law enforcement with both local and national media exposure.
3. Continued use of OVI checkpoints
4. Implement an OVI Tracking System to collect data from all law enforcement, courts and treatment facilities
5. Develop Statewide Citation Tracking System to improve the OVI process and Conviction rate
6. Streamline the impaired driving arrest process and provide standardized electronic OVI reporting format to all law enforcement agencies
7. Pilot Test the OVI Court Model, which is a multidisciplinary effort to forcefully intervene and break the cycle of substance abuse, addiction, crime and impaired driving
8. Expand “Traffic Safety Resource Prosecutor Program” to improve prosecution of impaired driving cases, serve as an information resource for prosecutors and conduct training for prosecutors as needed
9. Expand alcohol server programs for on and off-premise sales
10. Increase law enforcement training on alcohol-related detection techniques and issues, including training to address underage consumption and detection of impaired motorcyclists

Strategies – Young Driver – 15 to 25 (c)

1. Support strengthening the Graduated Driver Licensing (GDL) law to restrict the number of passengers and nighttime driving
2. Continue Safe Communities programs that target young drivers and passengers. These community-based organizations conduct youth educational programs, including safety belt challenges, mock crashes, “None for Under 21” rallies and teen countermeasure programs like “Every 15 Minutes,” “You Hold the Key,” and “Buckle Up for a Successful Season”
3. Expand alcohol server programs for on and off-premise sales
4. Increase law enforcement training on alcohol-related youth programs
5. Provide selective enforcement aimed at speeding and impaired drivers
6. Support court-based programs, such as the Clermont County Sheriff’s Office, “Last Chance” program, which uses educational strategies to reduce repeat driving offenses among 16 to 24-year-olds.

Strategies – Distracted or Fatigued Driver (d)

1. Deploy shoulder, edge line and centerline rumble strips
2. Expand available parking in rest areas
3. Educate roadway users and employers on the dangers of distracted and fatigued driving
4. Consider public and corporate policies regulating cell phone use and other electronic devices

Strategies – Aggressive Driving (e)

1. Develop common definition for aggressive driving in Ohio
2. Expand high visibility enforcement , such as Operation TRIAD (Targeting Reckless Intimidating and Aggressive Drivers), which uses aircraft and on-road target enforcement and media coverage to discourage unsafe driving behavior
3. Educate roadway users on the dangers of aggressive driving and the rules of the road
4. Expand use of speed monitoring and changeable message signs
5. Minimize work zone delays, which can lead to aggressive driving
6. Support legislative efforts to define aggressive driving and impose increasing penalties and fines on repeat offenders of aggressive driving laws
7. Add aggressive driving as a causative crash factor on Ohio’s crash reports (OH-1) once it is defined by law

Strategies – Older Driver – 65 or Older (f)

1. Expand use of Mature Driver Program and senior driver presentations that educate older drivers and their caregivers about driving risks associated with this age group
2. Expand number of facilities to test older drivers
3. Expand and maintain roadway features including larger signs and more visible pavement markings
4. Increase safety belt use among older drivers

Emphasis Area IV – Special Vehicles/Roadway Users

Targets

- α. Commercial Vehicles
- β. Motorcycles
- χ. Bicycles
- δ. Pedestrians

Strategies – Commercial Vehicles (a)

1. Enhance the electronic data capture software used to report commercial vehicle crashes to increase the accuracy and timeliness of data reported by local law enforcement (90-day requirement to report)
2. Expand use of Commercial Vehicle Information Systems and Networks program, which electronically collects and exchanges motor carrier safety, registration and other related information used for national roadside screening
3. Reduce the percentage of “at-fault” commercial vehicle drivers involved in work zone crashes by raising the awareness of the possibility of enforcement in work zones
4. Expand number of work zones targeted for increased enforcement, crash data and speed monitoring. Post “Target Zone Enforcement” signs to alert and deter unwanted behavior
5. Maintain and improve efforts to ensure only qualified drivers and properly maintained vehicles are used on Ohio highways. (Continue FMSCA audit of new carriers and compliance reviews on existing carriers)
6. Continue aggressive driver/vehicle inspections throughout Ohio
7. Identify high-crash corridors and initiate appropriate engineering and enforcement interventions
8. Coordinate efforts regarding hazardous moving violations by cars and trucks under the new SAFETEA-LU FMCSA authority
9. Educate roadway users, motor carriers and the agriculture community on commercial vehicle performance, visibility, and regulations including the Share the Road Program, hazardous materials, Highway Watch, etc.
10. Conduct analysis on commercial motor vehicle seat belt use in Ohio to better understand geographic locations and causes for nonuse.
11. Expand commercial motor vehicle seat belt outreach efforts

Strategies – Motorcycles (b)

1. Encourage the use of FMVSS 218 compliant helmets and other protective gear
2. Initiate a program to decrease the number of unendorsed motorcyclists
3. Expand Ohio motorcycle rider education programs through public and private sponsors and continue marketing campaigns to encourage training
4. Increase the awareness among motorcyclists of the dangers of riding impaired and enlist the support of motorcycle organizations to promote the separation between drinking and riding
5. Distribute NHTSA’s “Detection of DWI Motorcyclists” materials to law enforcement agencies
6. Increase the use of warning signs to alert motorcyclists when roadway surface conditions are changing significantly (metal bridge gratings, bumps, rain grooves, grating of roadway surface, etc.)
7. Provide training to law enforcement on OH-1 Failure to Control code relative to motorcycle crashes
8. Educate roadway users on motorcycle performance, visibility, sharing the roadway with motorcyclists, etc.

9. Establish a motorcycle liaison at OSHP facilities who can speak to groups about motorcycle safety and respond to related inquiries and issues
10. Hold motorcycle awareness month to educate the public about motorcycle safety issues.

Strategies – Bicycles (c)

1. Increase enforcement, education and training in bicycle/pedestrian laws and safety through Ohio's Safe Routes to Schools Program
2. Increase problem identification and infrastructure planning for bicycle and pedestrian facilities through Ohio's Safe Routes to Schools Program
3. Conduct target enforcement of bicycle/pedestrian traffic laws in high crash zones
4. Strengthen penalties/enforcement for right of way, assured clear distance and marked lane violations that endanger bicyclists and pedestrians
5. Conduct law enforcement and judicial awareness seminars to educate these groups in the violations and penalties associated with bicycle/pedestrian related traffic violations

Strategies – Pedestrians (d)

1. Improve pedestrian signs and road markings
2. Increase enforcement, education and training in bicycle/pedestrian laws and safety through Ohio's Safe Routes to Schools Program
3. Increase problem identification and infrastructure planning for bicycle and pedestrian facilities through Ohio's Safe Routes to Schools Program
4. Conduct target enforcement of bicycle/pedestrian traffic laws in high crash zones
5. Strengthen penalties/enforcement for right of way, assured clear distance and marked lane violations that endanger bicyclists and pedestrians.
6. Conduct law enforcement and judicial awareness seminars to educate these groups in the violations and penalties associated with bicycle/pedestrian related traffic violations.

Emphasis Area V – Incident and Congestion Related Crashes

Targets

- α. Rear End Crashes
- β. Work Zone Crashes

Strategies - Rear End Crashes (a)

1. Target congested highway segments for improvements, including adding roadway capacity and Intelligent Transportation Systems, as well as deploying access management techniques

2. Continue to develop innovative practices designed to maintain traffic flow throughout construction
3. Develop pre-planned detours for closures on any link of the state freeway system to reduce the impact of lane closures due to spills, crashes etc.
4. Educate motorists to move minor crashes off the road
5. Educate law enforcement and fire departments on “Quick Clear” protocols
6. Work with law enforcement agencies to develop special enforcement programs that target congested, high-crash areas, such as Ohio Safe Commute
7. Educate motorists and EMS on the use of urban freeway reference markers so cellular telephone callers can accurately report crash locations
8. Deploy freeway service patrols to clear debris and minor incidents before they cause a major problem
9. Develop intelligent transportation systems (cameras, overhead message signs) to inform motorists of incidents, congestion and detours
10. Develop Homeland Security and Critical Incident Management Plan to prepare and respond to natural disasters and terrorism incidents.

Strategies - Work Zone Crashes (b)

1. Evaluate effectiveness of special enforcement and crash data collection effort in select work zones for possible expansion
2. Consider use of innovative technology in candidate work zones to supplement available law enforcement officers
3. Advertise (signs) work zones with increased law enforcement
4. Reduce the percentage of “at-fault” commercial vehicle drivers involved in work zone crashes by raising the awareness of the possibility of enforcement in work zones
5. Provide work zone training to ODOT, local agencies, law enforcement, contractors, and utility companies
6. Provide work zone information to the public
7. Update current state guidelines, policies, regulations and statutes pertaining to work zone safety including those of public safety and motor vehicles to adopt the FHWA final rule on Work Zone Safety and Mobility
8. Utilize new and innovative ITS technologies to obtain traffic count data, verify traffic queue lengths in order to deploy a reliable traffic alert system.
9. Require trucks to use lanes that don’t have conflicting merges/diverges due to ramps
10. Require paved shoulders of at least 2’ wherever practical and possible
11. Use rumble strips to alert motorists of construction work zones and changes in traffic patterns

General Listing of Projects

List each highway safety improvement project obligated during the reporting period.

Project	Improvement Category	Output	HSIP Cost	Total Cost	Funding Category	Functional Classification	AADT	Speed	Roadway Ownership	Relationship to SHSP	
										Emphasis Area	Strategy
87823 - FRA CR 14 5.41	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	500000	5421959	HSIP (Section 148)	Urban Minor Arterial	19708	40	County Highway Agency	Intersections	Constructing turn lanes to rear end and left turn crashes (II-b-2)
96444 - D08 Wet Crash Locations	Roadway Pavement surface - high friction surface	8.4 Miles	1670000	1697113.21	HSIP (Section 148)	Urban Principal Arterial - Interstate	20341	70	State Highway Agency	Roadway Departure	Installing high friction surfaces to reduce the number of roadway departure and rear end crashes

											(II-a-10)
83078 - HAM US 27 18.32	Interchange design Interchange design - other	0.2 Miles	158000 0	2086560. 77	HSIP (Section 148)	Urban Minor Arterial	6831	40	City of Municipal Highway Agency	Intersections	Constructing a new exit ramp to reduce angle and rear end crashes (V-a-1)
86797 - HAM US 127 15.16	Intersection geometry Auxiliary lanes - add two-way left-turn lane	0.15 Miles	802341	1264440. 99	HSIP (Section 148)	Urban Principal Arterial - Other	1806 0	40	City of Municipal Highway Agency	Intersections	Constructing a Two Way Left Turn Lane to reduce the number of head-on, sideswipe meeting, rear end and turning-related crashes (II-b-2)
85678 - HIG CR 5/ CR 74	Intersection geometry Intersection geometry -	1 Numb	717000	1149446. 12	HSIP (Section 148)	Rural Minor	264	55	County Highway	Intersections	Improve sight

/ T192 Intersect	other	ers			n 148)	Collector			y Agency		distance to reduce rear end and angle crashes (II-b-3)
94564 - CHP US 68 3.45	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numb ers	558279	616944.3 5	HSIP (Sectio n 148)	Rural Principal Arterial - Other	1609 0	55	State Highwa y Agency	Intersect ions	Constructi ng turn lanes to rear end and left turn crashes (II-b-2)
91596 - LUC Sylvania- Meta/Mitcha w Rndabt	Intersection traffic control Modify control - two-way stop to roundabout	1 Numb ers	533294. 9	895662.0 3	HSIP (Sectio n 148)	Urban Major Collector	8237	50	County Highwa y Agency	Intersect ions	Constructi ng a roundabo ut to reduce angle and left turn crashes (II-b-10)
89910 - CLE SR 125 4.12	Intersection geometry Auxiliary lanes - add right-turn lane	1 Numb ers	504084	404913.4 1	HSIP (Sectio n 148)	Urban Principal Arterial - Other	3073 8	50	State Highwa y Agency	Intersect ions	Constructi ng turn lanes to rear end

											crashes (II-b-2)
96902 - SCICR VAR GR FY14 Phase 1	Roadside Barrier- metal	5.3 Miles	472271.75	473271.75	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
96903 - SCICR VAR GR FY14 Phase 2	Roadside Barrier- metal	4.86 Miles	451543.58	434487.64	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
80680 - STA Paris Avenue (CR-44-9.34)	Intersection geometry Intersection geometry - other	2 Numbers	897409.48	3043905.94	HSIP (Section 148)	Rural Major Collector	2761	55	County Highway Agency	Intersections	Improving sight distance to reduce rear end and angle crashes (II-b-3)

<p>93791 - HAM CR 163 4.69</p>	<p>Roadway Pavement surface - high friction surface</p>	<p>0.8 Miles</p>	<p>343440</p>	<p>2966371.55</p>	<p>HSIP (Section 148)</p>	<p>Urban Minor Arterial</p>	<p>28539</p>	<p>35</p>	<p>City of Municipal Highway Agency</p>	<p>Roadway Departure</p>	<p>Installing high friction surfaces to reduce the number of roadway departure and rear end crashes (II-a-10)</p>
<p>93304 - MAH/POR TSG FY2014 (UPS)</p>	<p>Intersection traffic control Modify traffic signal - miscellaneous/other/unspecified</p>	<p>55 Numbers</p>	<p>330000</p>	<p>348687.45</p>	<p>HSIP (Section 148)</p>	<p>Urban Principal Arterial - Other</p>	<p>12696</p>	<p>45</p>	<p>City of Municipal Highway Agency</p>	<p>Intersections</p>	<p>Installing battery backup units to reduce intersection related crashes during outages. (II-b-10)</p>
<p>95225 - HOL VAR GR Phase 8</p>	<p>Roadside Barrier- metal</p>	<p>3.13 Miles</p>	<p>284782.63</p>	<p>299537.76</p>	<p>HSIP (Section 148)</p>	<p>Rural Minor Collector</p>	<p>721</p>	<p>45</p>	<p>County Highway</p>	<p>Roadway Departure</p>	<p>Installing guardrail to address issue of</p>

									Agency		roadway departure crashes (II-a-7)
96785 - GAL CR 50 Var GR FY2014	Roadside Barrier- metal	2.84 Miles	278832.92	278832.92	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
95231 - COL VAR GR Phase 2	Roadside Barrier- metal	2.4 Miles	275096.26	302381.26	HSIP (Section 148)	Rural Minor Collector	0	55	City of Municipal Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
85681 - ROS CR 205 6.00 GR	Roadside Barrier- metal	2.55 Miles	272316.3	306424.3	HSIP (Section 148)	Rural Minor Collector	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes

											(II-a-7)
96276 - MEG CR VAR GR FY2014	Roadside Barrier- metal	2.02 Miles	269590	273143.83	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
97021 - MAH County GR FY 2014	Roadside Barrier- metal	2.17 Miles	253475	236061.3	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
87838 - LAW CR 12/CR 18 Guardrail	Roadside Barrier- metal	1.53 Miles	231080.87	247989.88	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
91786 - ATB Guardrail FY	Roadside Barrier- metal	1.4	222117.	210245.2	HSIP (Section 148)	Rural Local	0	55	County Highway	Roadway Departure	Installing guardrail

2014		Miles	5	9	n 148)	Road or Street			y Agency	e	to address issue of roadway departure crashes (II-a-7)
83600 - TRU CR 0142 04.68	Intersection traffic control Modify traffic signal - modernization/replacement	1 Numbers	207000	590720.63	HSIP (Section 148)	Urban Major Collector	7958	25	City of Municipal Highway Agency	Intersections	Improving signal operation and visibility to reduce intersection related crashes (II-b-2)
86129 - FAI GR 2014	Roadside Barrier- metal	0.44 Miles	160000	162577.54	HSIP (Section 148)	Rural Major Collector	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
96920 - RIC CR PM FY2014 (2)	Roadway delineation Longitudinal pavement markings - new	75.92 Miles	150000	150755.41	HSIP (Section 148)	Rural Local Road or	0	55	County Highway	Roadway Departure	Adding pavement markings

						Street			Agency		to reduce roadway departure crashes (II-a-5)
85288 - LUC IR 475 4.51 Ramps @ SR-2	Interchange design Interchange design - other	1 Numb ers	87539.9 7	102545.8 4	HSIP (Sectio n 148)	Urban Principal Arterial - Interstat e	7042 8	65	State Highwa y Agency	Roadway Departur e	Replacing pavement to improve superelev ation to reduce roadway departure crashes (V-a-1)
92458 - FAI SR 256 00.00 Part 1 & 2	Roadway Roadway widening - add lane(s) along segment	2 Miles	492930 3.6	8473578. 89	HSIP (Sectio n 148)	Urban Principal Arterial - Other	3521 6	50	City of Munici pal Highwa y Agency	Intersect ions	Constructi ng traveled lanes to reduce angle and rear end crashes (V-a-1)
90259 - LUC SR 246 2.00	Intersection geometry Auxiliary lanes - add	2 Numb	403892 0.2	6257444. 6	HSIP (Sectio	Urban Principal	2547 8	40	City of Munici	Intersect ions	Constructi ng turn

Safety	left-turn lane	ers			n 148)	Arterial - Other			pal Highway Agency		lanes to rear end and left turn crashes (II-b-2)
85299 - STA 12th Street HSP	Intersection geometry Auxiliary lanes - add left-turn lane	4 Numbers	3887208	23083114.65	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	15573	35	City of Municipal Highway Agency	Intersections	Constructing turn lanes to rear end and left turn crashes (II-b-2)
84563 - SUM SR 8/82 20.27/0.14	Intersection geometry Auxiliary lanes - add two-way left-turn lane	0.58 Miles	1579500	3417457.87	HSIP (Section 148)	Urban Minor Arterial	10414	45	City of Municipal Highway Agency	Intersections	Constructing a Two Way Left Turn Lane to reduce the number of head-on, sideswipe meeting, rear end and turning-related

											crashes (II-b-2)
92691 - MED SR 0057 17.67	Intersection traffic control Modify control - traffic signal to roundabout	1 Numbers	1576305	2503934.26	HSIP (Section 148)	Rural Minor Collector	2380	55	State Highway Agency	Intersections	Constructing a roundabout to reduce angle and rear end crashes (II-b-10)
88721 - MOT SR 48 16.21	Intersection traffic control Modify traffic signal - modernization/replacement	11 Numbers	1532940	1750455.46	HSIP (Section 148)	Urban Principal Arterial - Other	15892	45	City of Municipal Highway Agency	Intersections	Improving signal operation and visibility to reduce intersection related crashes (II-b-2)
92381 - FRA RAMP METER UPGRADE	Interchange design Ramp metering	22 Numbers	1396070	1397070	HSIP (Section 148)	Urban Principal Arterial - Interstate	99458	65	State Highway Agency	Intersections	Modernizing ramp metering equipment to reduce

											rear end crashes (V-a-1)
93601 - LAK US 020 25.52 Intersection	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	119454 1.95	1782376	HSIP (Section 148)	Urban Principal Arterial - Other	1507 0	45	City of Municipal Highway Agency	Intersections	Constructing turn lanes to rear end and left turn crashes (II-b-2)
96421 - HAM/BUT-75-17.22/0.00	Interchange design Extend existing lane on ramp	0.38 Miles	113066 1	1225630	HSIP (Section 148)	Urban Principal Arterial - Interstate	1089 82	65	State Highway Agency	Intersections	Lengthening acceleration lane to reduce the number of rear end and sideswipe - passing crashes (V-a-1)
97097 - TUS US 250 5.16	Intersection traffic control Modify traffic signal -	2 Numbers	103763 7.8	1371289	HSIP (Section 148)	Urban Principal Arterial -	9995	55	City of Municipal	Intersections	Improving signal operation

	modernization/replacement					Other			Highway Agency		and visibility to reduce intersection related crashes (II-b-2)
97577 - GAL CR 35 2.440	Intersection geometry Auxiliary lanes - add left-turn lane	1.77 Miles	880000	1352224.5	HSIP (Section 148)	Rural Major Collector	10312	45	County Highway Agency	Intersections	Constructing turn lanes to rear end and left turn crashes (II-b-2)
88739 - ASD US 0042 07.75	Interchange design Interchange design - other	1 Numbers	855000	10040733.31	Other Federal-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	14799	55	City of Municipal Highway Agency	Intersections	Replacing existing interchange and ramps with an at-grade signal to reduce rear end and angle crashes

											(V-a-1)
93565 - LUC US20A 5.56 Roundabt @ Eber	Intersection traffic control Modify control - two-way stop to roundabout	1 Numb ers	840096	1945569. 94	HSIP (Sectio n 148)	Urban Minor Arterial	3988	55	City of Munici pal Highwa y Agency	Intersect ions	Constructi ng a roundabo ut to reduce angle crashes (II-b-10)
88043 - BEL SR 7 (20.84)(21.8 5)	Intersection geometry Auxiliary lanes - add right-turn lane	1 Numb ers	646069. 56	1899939. 74	HSIP (Sectio n 148)	Urban Principal Arterial - Other	3554 6	40	City of Munici pal Highwa y Agency	Intersect ions	Constructi ng turn lanes to rear end crashes (II-b-2)
92582 - OTT SR 53 4.90 Safety Improv	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numb ers	624636	1019134. 2	HSIP (Sectio n 148)	Urban Minor Arterial	5918	55	City of Munici pal Highwa y Agency	Intersect ions	Constructi ng turn lanes to rear end and left turn crashes (II-b-2)
96890 - TRU SR 5/82 06.60/14.08	Roadside Barrier - cable	9.94 Miles	553725	1299945. 94	HSIP (Sectio n 148)	Urban Principal Arterial - Other	2223 7	55	City of Munici pal Highwa	Roadway Departur e	Installing cable median barrier to

						Freeways and Expressways			City Agency		reduce the likelihood of cross median crashes (II-d-1)
97134 - HAM SR 562 0.65 Queue Detection	Advanced technology and ITS Congestion detection / traffic monitoring system	5 Numbers	472300	863512	HSIP (Section 148)	Urban Principal Arterial - Other Freeways and Expressways	62037	55	City of Municipal Highway Agency	Intersections	Providing advanced warning signage to reduce high speed rear end collisions (V-A-9)
96221 - BUT US 127 0.00	Intersection geometry Auxiliary lanes - extend existing left-turn lane	0.17 Miles	469107	620193	HSIP (Section 148)	Urban Principal Arterial - Other	20650	50	City of Municipal Highway Agency	Intersections	Extending left turn lane to reduce sideswipe passing, left turn, angle, and rear end crashes

											(II-b-2)
90252 - ROS CR 1/60/92 VAR GR 2013	Roadside Barrier- metal	3.18 Miles	334400	306804.1 4	HSIP (Section 148)	Rural Major Collector	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
92897 - ASD SR 0096 06.21 (Signals)	Intersection traffic control Modify traffic signal - modernization/replacement	4 Numbers	330290	453070.1 9	HSIP (Section 148)	Urban Principal Arterial - Other	1688 4	35	City of Municipal Highway Agency	Intersections	Improving signal operation and visibility to reduce intersection related crashes (II-b-2)
87840 - ROS CR 235/240/24 1 VAR GR	Roadside Barrier- metal	1.94 Miles	303600	308013.2 5	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)

97426 - ASD CR GR FY2015	Roadside Barrier- metal	2.27 Miles	300000	388140	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
88312 - MRG CR 2/VAR- 0.00/VAR- GR	Roadside Barrier- metal	2.58 Miles	288590	279404.7 5	HSIP (Section 148)	Rural Major Collector	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
96900 - ADA CR VAR Guardrail FY14	Roadside Barrier- metal	1.7 Miles	229796. 58	220911.9 2	HSIP (Section 148)	Rural Minor Collector	0	55	County Highway Agency	Roadway Departure	Installing guardrail to address issue of roadway departure crashes (II-a-7)
91466 - HAM IR 275 32.20	Intersection geometry Auxiliary lanes - modify free-flow turn lane	1 Numbers	212508	236120	HSIP (Section 148)	Urban Principal Arterial -	9310 4	60	State Highway	Intersections	Removing off ramp slip ramp

						Interstate			Agency		to reduce rear end and sideswipe passing crashes (II-a-7)
98768 - LUC US 24 21.47 Detroit@Gleendale	Intersection traffic control Modify traffic signal - modernization/replacement	1 Numbers	152000	169778.45	HSIP (Section 148)	Urban Minor Arterial	13602	40	City of Municipal Highway Agency	Intersections	Improving signal operation and visibility to reduce intersection related crashes (II-b-2)
90254 - ROS CR Various PM 2015	Roadway delineation Longitudinal pavement markings - new	90.11 Miles	145960	153173.59	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Adding pavement markings to reduce roadway departure crashes (II-a-5)
97490 - ATH CR VAR PM	Roadway delineation Longitudinal pavement	67.3 Miles	143600	137259.69	HSIP (Section 148)	Rural Local	0	55	County Highway	Roadway Departure	Adding pavement

	markings - new				n 148)	Road or Street			y Agency	e	markings to reduce roadway departure crashes (II-a-5)
96855 - CRA CR PM FY2014	Roadway delineation Longitudinal pavement markings - new	74.7 Miles	125000	125000	HSIP (Section 148)	Rural Major Collector	0	55	County Highway Agency	Roadway Departure	Adding pavement markings to reduce roadway departure crashes (II-a-5)
92554 - GRE CR 36 0.27	Roadway delineation Longitudinal pavement markings - new	0.24 Miles	120028.27	189694.82	HSIP (Section 148)	Rural Principal Arterial - Other	1652	25	City of Municipal Highway Agency	Roadway Departure	Adding pavement markings to reduce roadway departure crashes (II-a-5)
96901 - ADA CR Various PM FY14	Roadway delineation Longitudinal pavement markings - new	57.27 Miles	103457.75	99478.93	HSIP (Section 148)	Rural Local Road or Street	0	55	County Highway Agency	Roadway Departure	Adding pavement markings to reduce roadway

											departure crashes (II-a-5)
96567 - MED SR 0094 14.61 (I-271 Ramp)	Intersection traffic control Modify traffic signal - modernization/replacement	1 Numbers	97070	142179.43	HSIP (Section 148)	Rural Minor Collector	10986	55	State Highway Agency	Intersections	Installing traffic signals to reduce angle, left turn and rear end crashes (II-a-5)
98818 - D06 Regional Signals	Intersection traffic control Modify traffic signal - add backplates with retroreflective borders	70 Numbers	882301	914601	HSIP (Section 148)	Rural Minor Arterial	15658	40	City of Municipal Highway Agency	Intersections	Improving signal operation and visibility to reduce intersection related crashes (II-b-2)
96463 - LIC TR 35 00.00	Roadway Pavement surface - high friction surface	2.45 Miles	226273	239139.9	HSIP (Section 148)	Rural Local Road or Street	2097	25	City of Municipal Highway	Roadway Departure	Installing high friction surfaces to reduce

									Agency		the number of roadway departure and rear end crashes (II-a-10)
99042 - BEL SR 149 23.790	Intersection traffic control Modify traffic signal - modernization/replacement	1 Numbers	344520	486722.86	HSIP (Section 148)	Rural Minor Collector	7492	55	State Highway Agency	Intersections	Constructing a traffic signal and turn lanes to reduce angle and rear end crashes (II-b-10)
93316 - MAR CR 221-A1	Roadway Roadway - other	0.62 Miles	500000	3060278.4	State and Local Funds	Urban Minor Arterial	6648	45	City of Municipal Highway Agency	Intersections	Constructing connector roadway to reduce angle and rear end crashes on adjacent facilities.

											(II-b-10)
82295 - HOC US 33 0.00	Intersection geometry Auxiliary lanes - add right-turn lane	1 Numb ers	495153	2440790	Other Federa l-aid Funds (i.e. STP, NHPP)	Rural Principal Arterial - Other	2258 1	70	State Highwa y Agency	Intersect ions	Constructi ng turn lanes to rear end crashes (II-b-2)
83912 - WAR US 22 4.20	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numb ers	339399. 01	1556161. 42	Other Federa l-aid Funds (i.e. STP, NHPP)	Urban Principal Arterial - Other	1615 2	45	City of Munici pal Highwa y Agency	Intersect ions	Constructi ng turn lanes to rear end and left turn crashes (II-b-2)
97279 - WOO 75/795/Clar k & 25/5Pts Int	Intersection geometry Auxiliary lanes - add left-turn lane	2 Numb ers	45035.9	1987011. 79	Other Federa l-aid Funds (i.e. STP, NHPP)	Urban Minor Arterial	8210	55	City of Munici pal Highwa y Agency	Intersect ions	Constructi ng turn lanes to rear end and left turn crashes (II-b-2)
76938 - FAI US 33 05.60(Carrol	Interchange design Convert at-grade intersection to	1 Numb	651771 9.94	4560458 4.57	State and Local	Rural Principal Arterial -	3833 5	70	State Highwa y	Intersect ions	Constructi ng an new interchang

I Area)	interchange	ers			Funds	Other Freeways and Expressways			Agency		e to high speed intersection crashes (V-a-1)
88405 - FAI CR 71 00.93	Intersection geometry Intersection geometrics - modify skew angle	1 Numbers	578150. 77	587667.0 2	HRRRP (SAFET EA-LU)	Rural Local Road or Street	305	55	County Highway Agency	Intersections	Realigning intersection to reduce skew angle and reduce the number of angle crashes (II-b-2)

Funding contained in the project listing is total project cost. Larger projects are likely funded in multiple fiscal years. The total safety dollars shown in the project listing will not match the fiscal year expenditures.

Progress in Achieving Safety Performance Targets

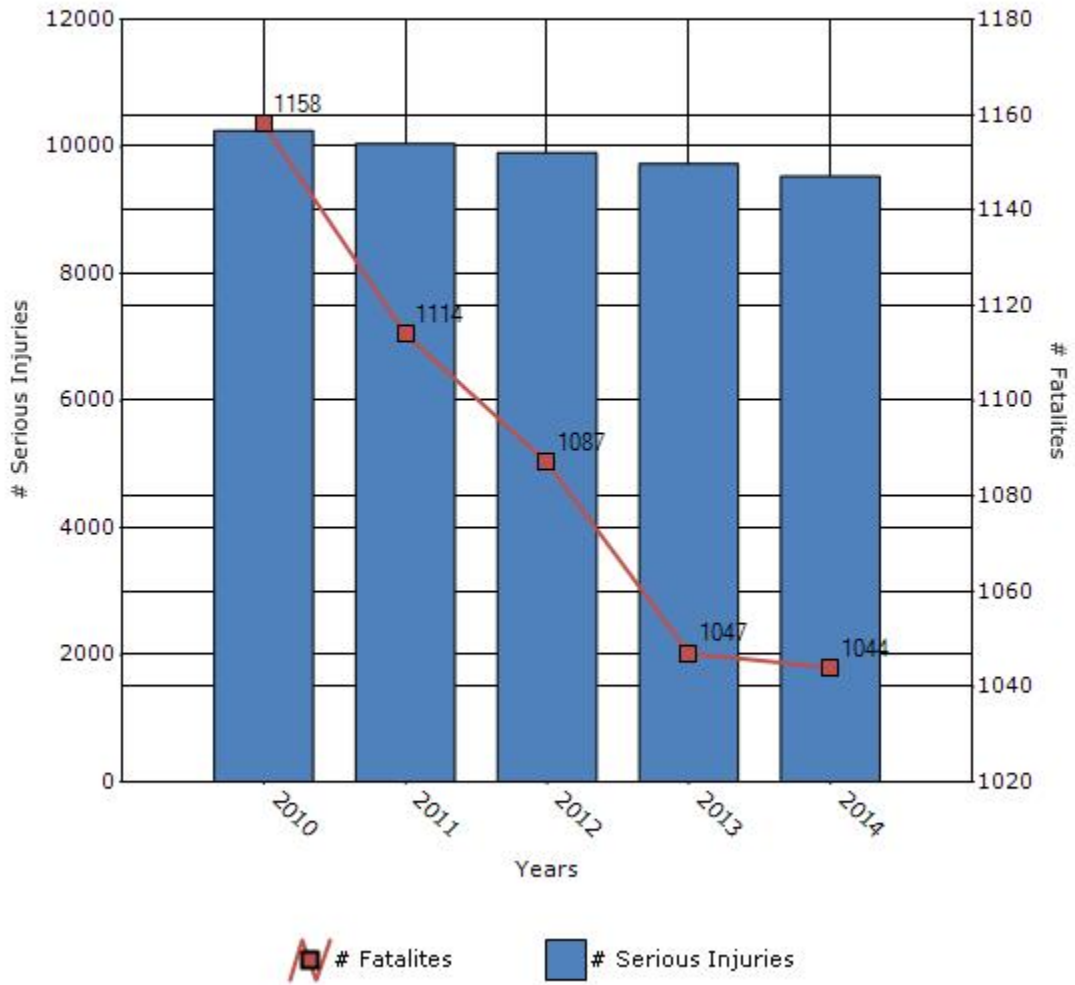
Overview of General Safety Trends

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

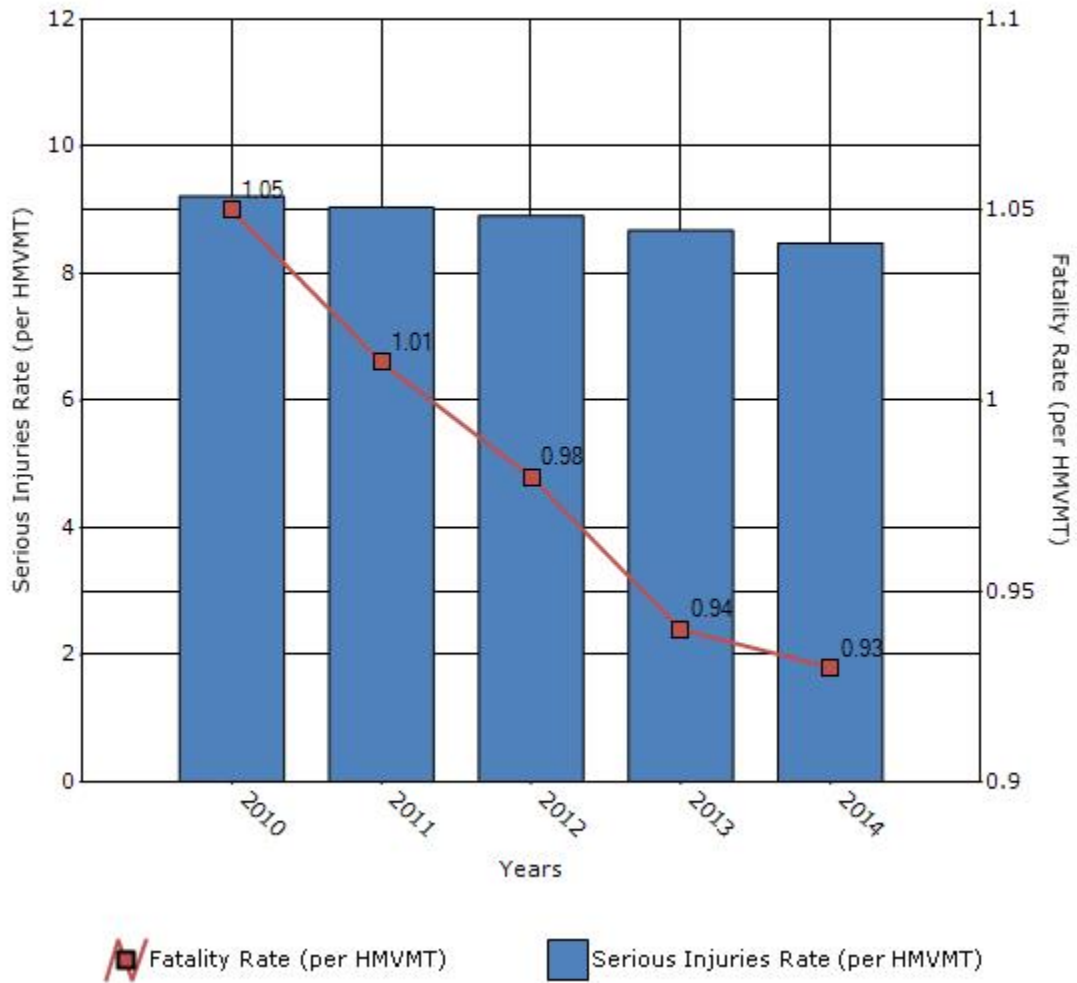
Performance Measures*	2010	2011	2012	2013	2014
Number of fatalities	1158	1114	1087	1047	1044
Number of serious injuries	10249	10041	9902	9727	9529
Fatality rate (per HMVMT)	1.05	1.01	0.98	0.94	0.93
Serious injury rate (per HMVMT)	9.22	9.04	8.91	8.68	8.48

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

Number of Fatalities and Serious injuries for the Last Five Years



Rate of Fatalities and Serious injuries for the Last Five Years



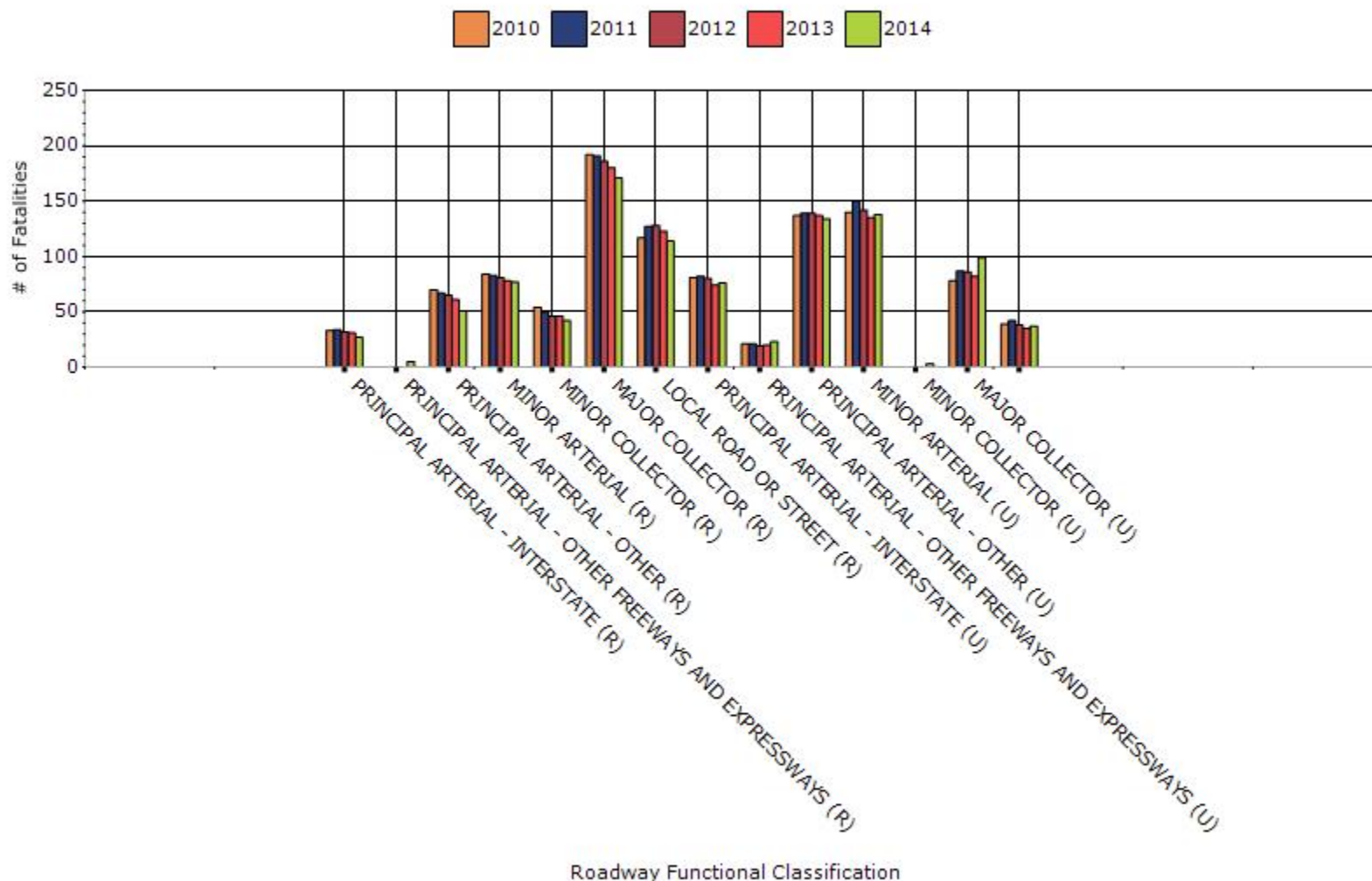
To the maximum extent possible, present performance measure* data by functional classification and ownership.

Year - 2014

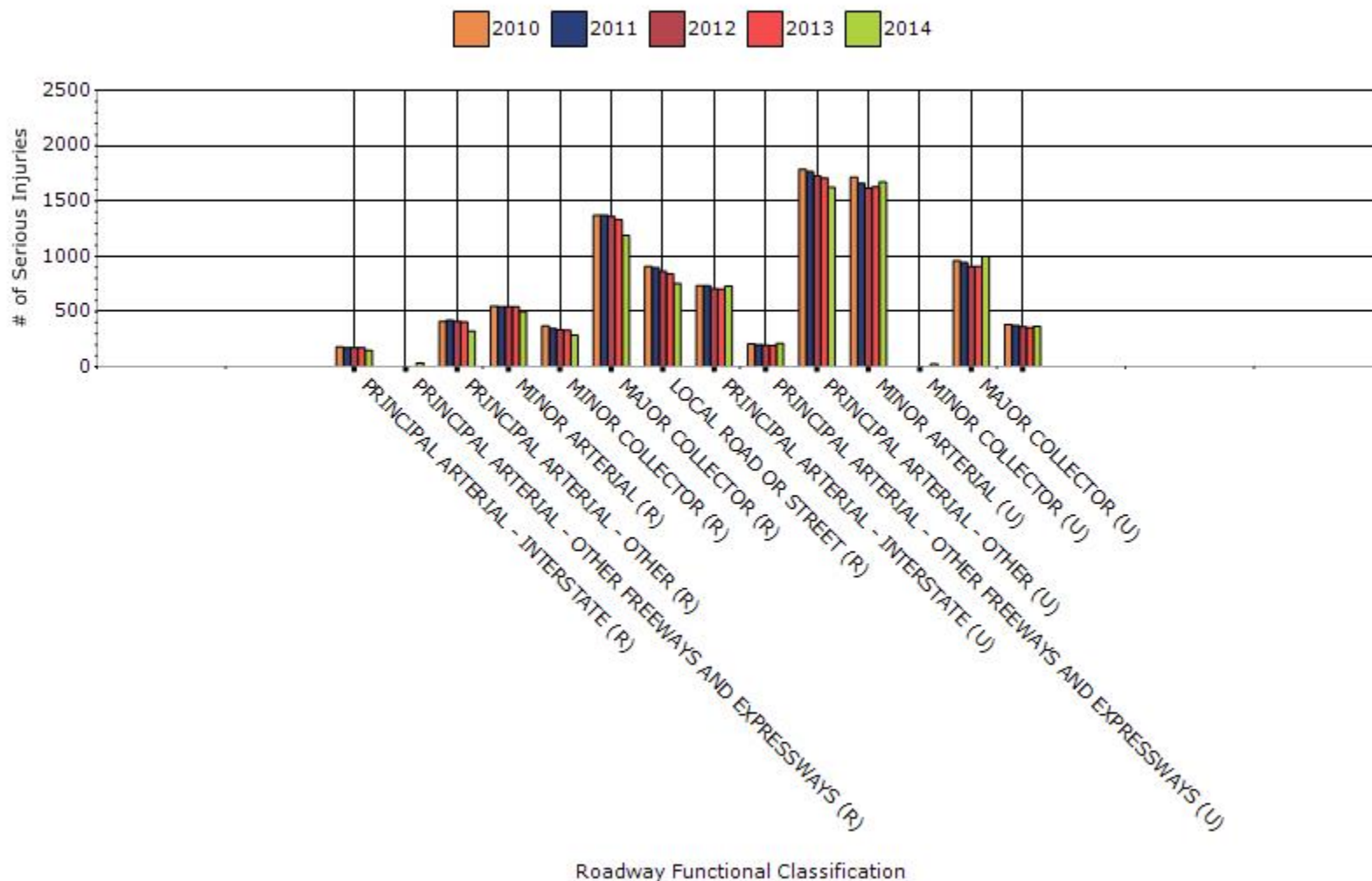
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	27	149	0.32	1.78
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	5	35	0.29	2.08
RURAL PRINCIPAL ARTERIAL - OTHER	51	321	1.2	7.52
RURAL MINOR ARTERIAL	77	499	1.81	11.81
RURAL MINOR COLLECTOR	42	286	2.57	17.5
RURAL MAJOR COLLECTOR	171	1187	2.2	15.3
RURAL LOCAL ROAD OR STREET	114	754	2.07	13.78
URBAN PRINCIPAL	76	729	0.32	3.14

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	23	212	0.36	3.33
URBAN PRINCIPAL ARTERIAL - OTHER	134	1622	0.99	12.5
URBAN MINOR ARTERIAL	138	1671	1.02	12.34
URBAN MINOR COLLECTOR	3	26	0.68	6.19
URBAN MAJOR COLLECTOR	99	1000	1	10.07
URBAN LOCAL ROAD OR STREET	37	364	0.29	2.91

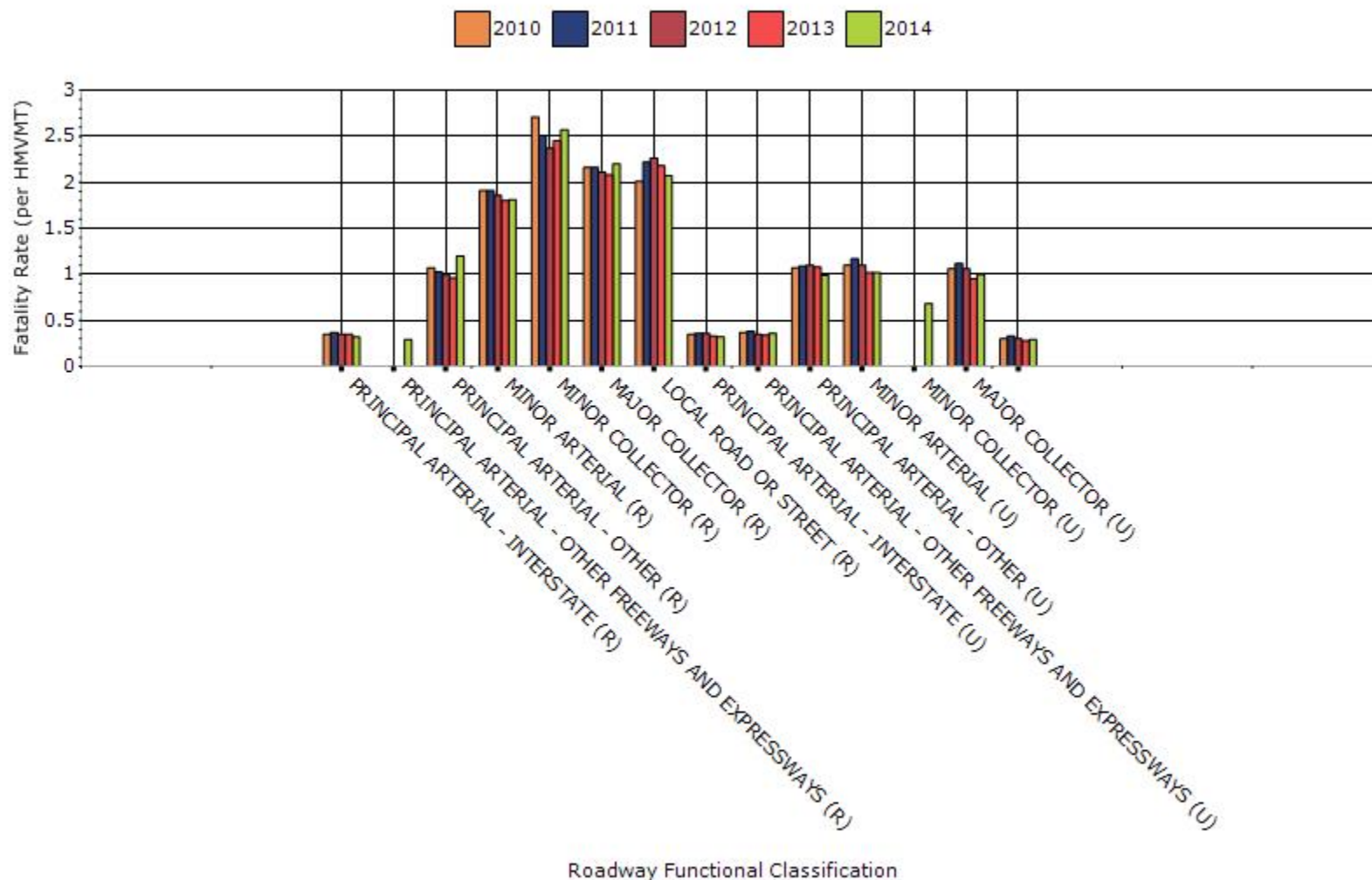
Fatalities by Roadway Functional Classification



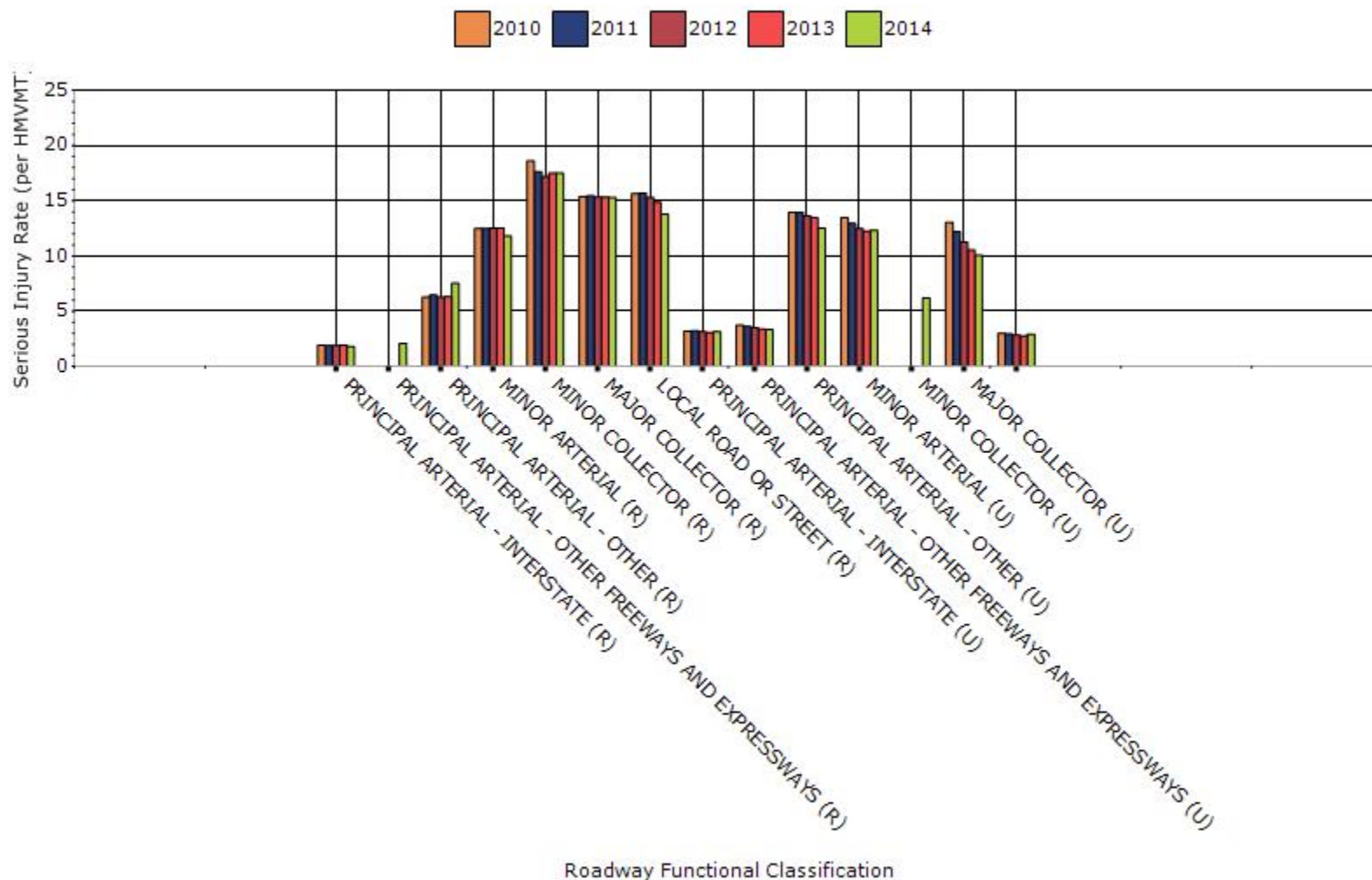
Serious Injuries by Roadway Functional Classification



Fatality Rate by Roadway Functional Classification



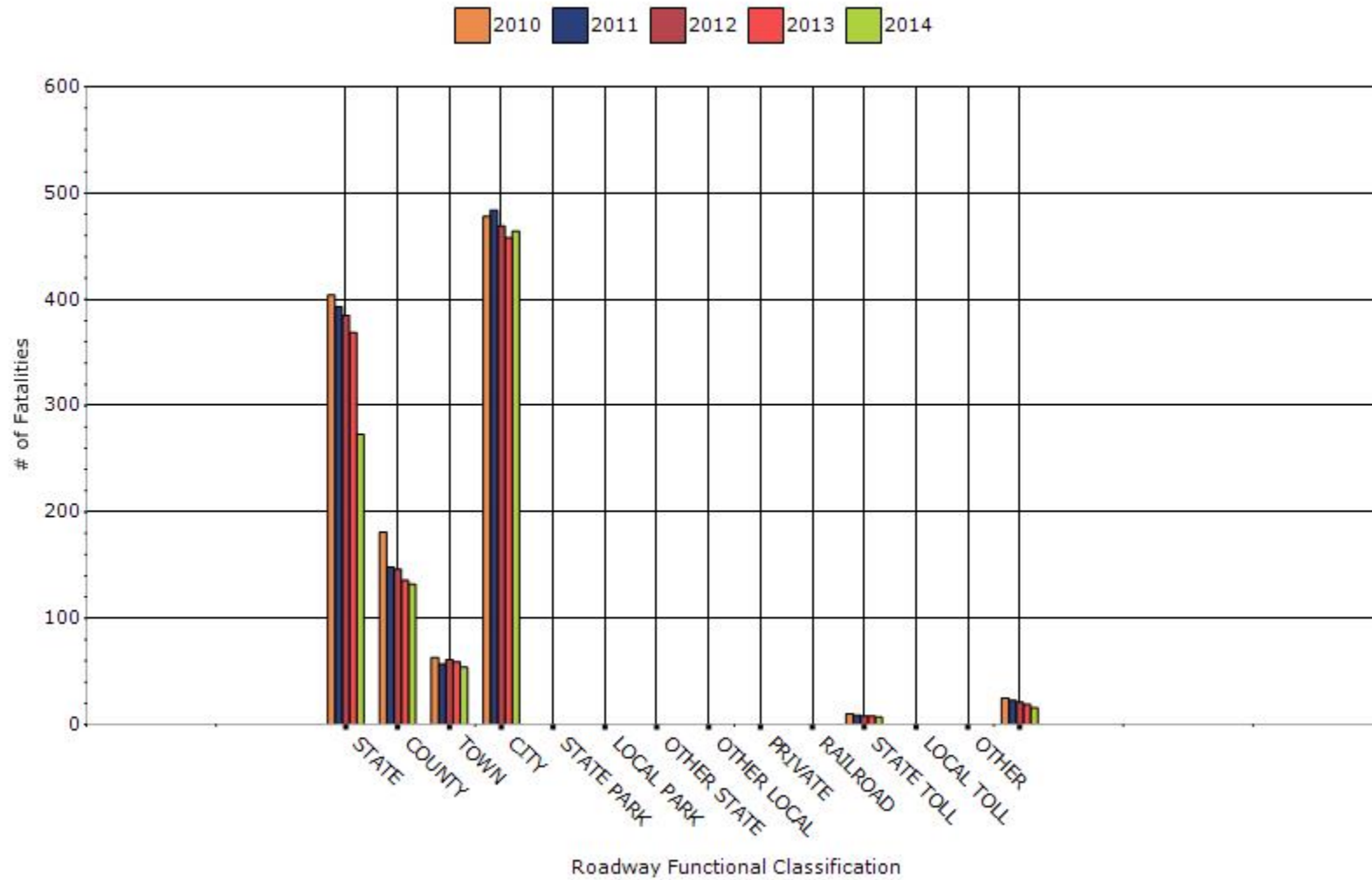
Serious Injury Rate by Roadway Functional Classification



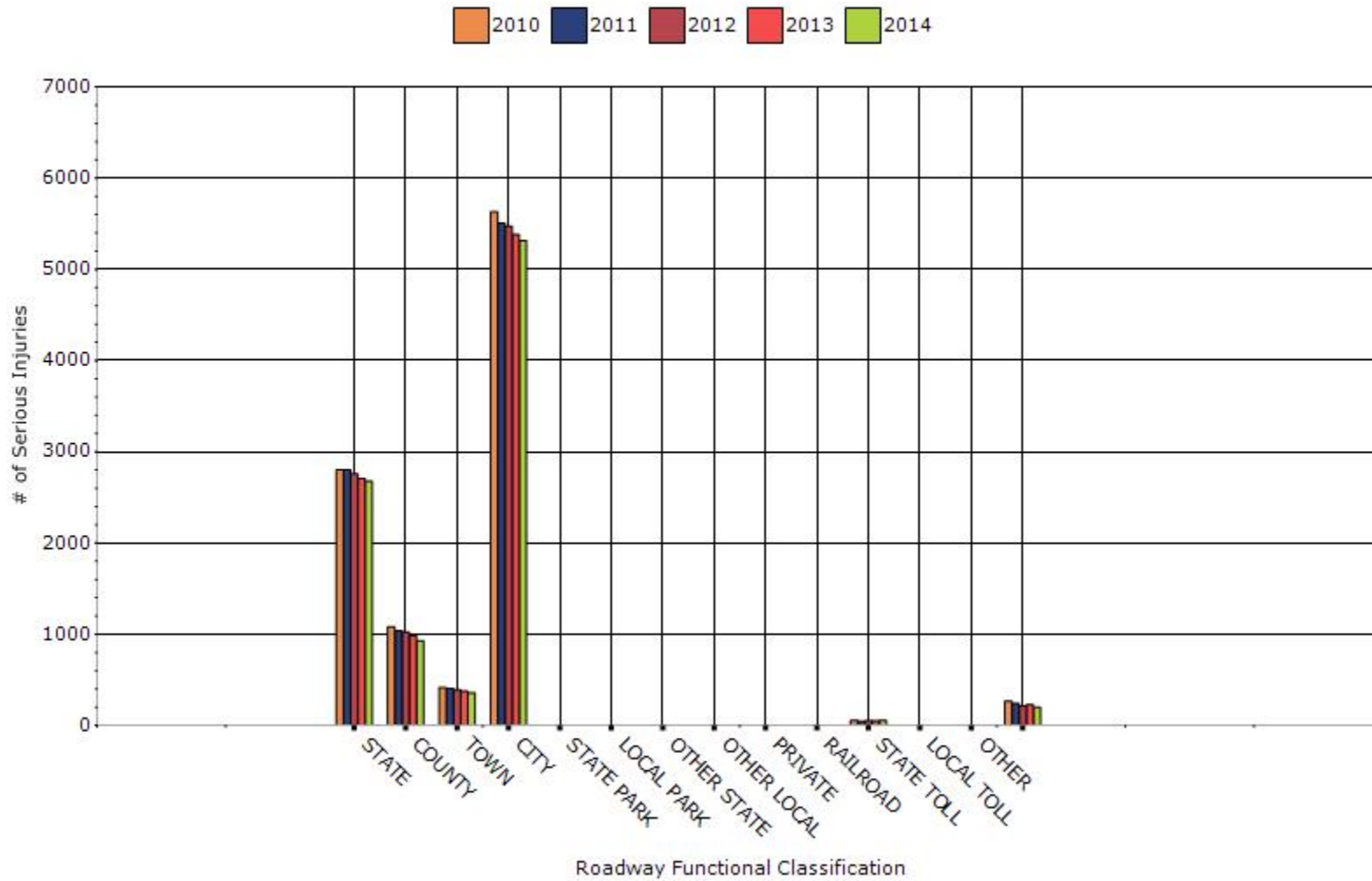
Year - 2014

Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	273	2676	0	0
COUNTY HIGHWAY AGENCY	132	930	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	54	358	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	464	5316	0	0
STATE PARK, FOREST, OR RESERVATION AGENCY	0	0	0	0
LOCAL PARK, FOREST OR RESERVATION AGENCY	0	0	0	0
OTHER STATE AGENCY	0	0	0	0
OTHER LOCAL AGENCY	0	0	0	0
PRIVATE (OTHER THAN RAILROAD)	0	0	0	0
RAILROAD	0	0	0	0
STATE TOLL AUTHORITY	7	53	0	0
LOCAL TOLL AUTHORITY	0	0	0	0
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)	0	0	0	0
OTHER	16	199	0	0

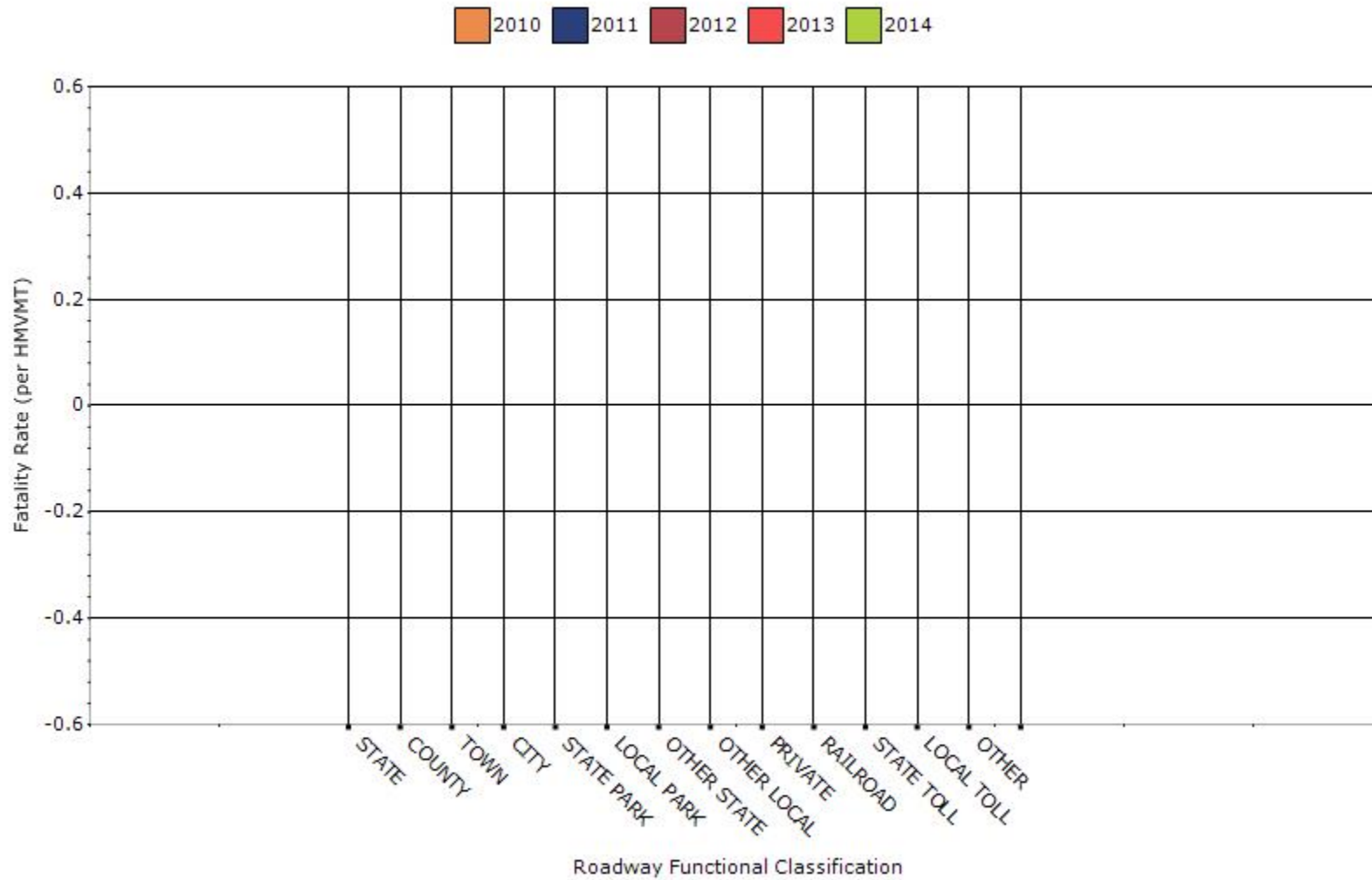
Number of Fatalities by Roadway Ownership



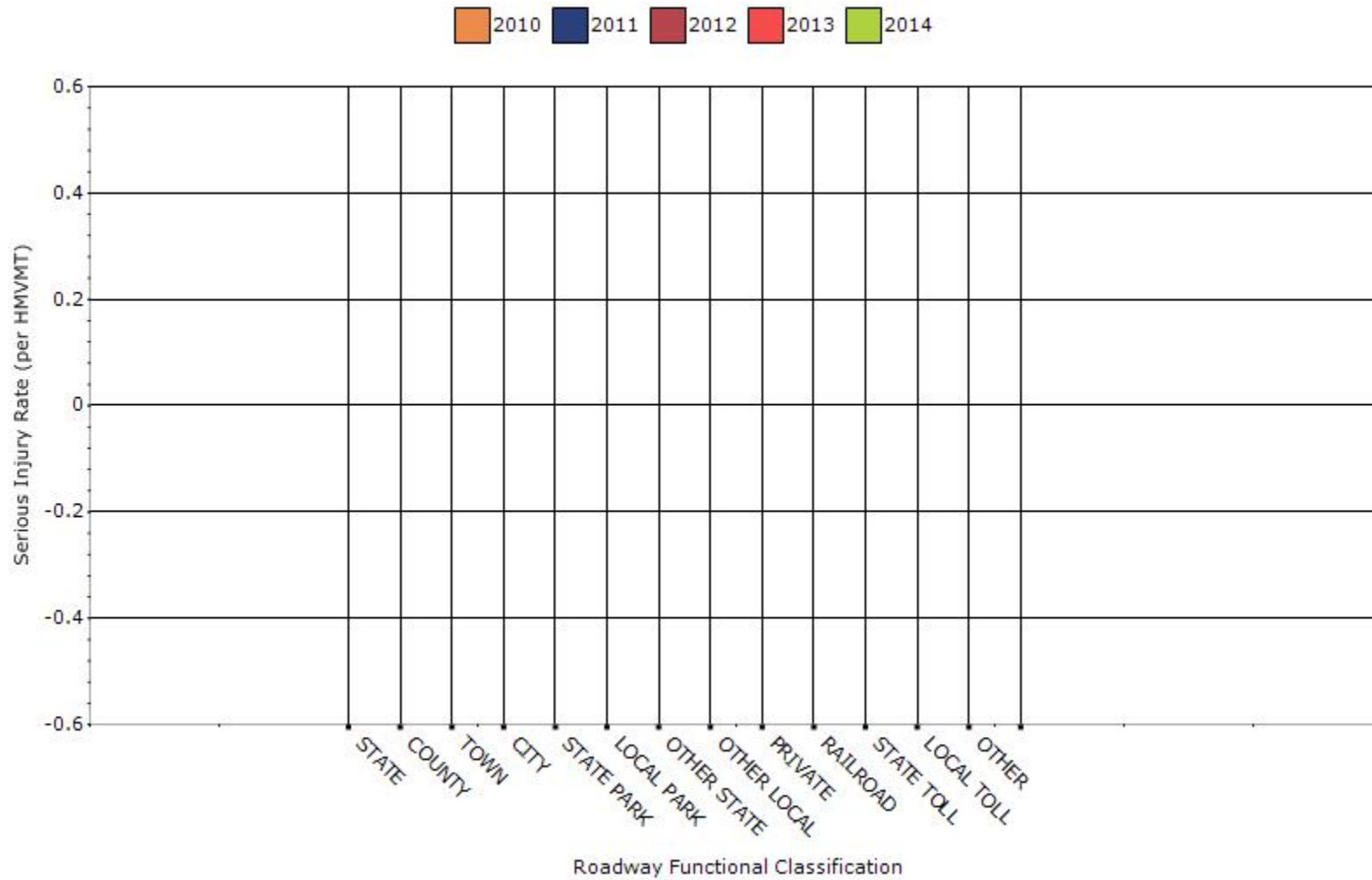
Number of Serious Injuries by Roadway Ownership



Fatality Rate by Roadway Ownership



Serious Injury Rate by Roadway Ownership



Note: Data for 2014 **SHOULD NOT** be compared to earlier data. In 2014, the functional class system was updated to new codes (1-7) from the legacy codes (1-19). Additionally, the functional class designation was updated based on the 2010 census.

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

Note: Data for 2014 **SHOULD NOT** be compared to earlier data. In 2014, the functional class system was updated to new codes (1-7) from the legacy codes (1-19). Additionally, the functional class designation was updated based on the 2010 census.

The Functional Class conversion should have little to no impacted on the Special Rule for High Risk Rural Roads. However, when looking at the Special Rule for High Risk Rural Road, crash rates were impacted as well due to changing of the urban and rural boundary limits.

Application of Special Rules

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

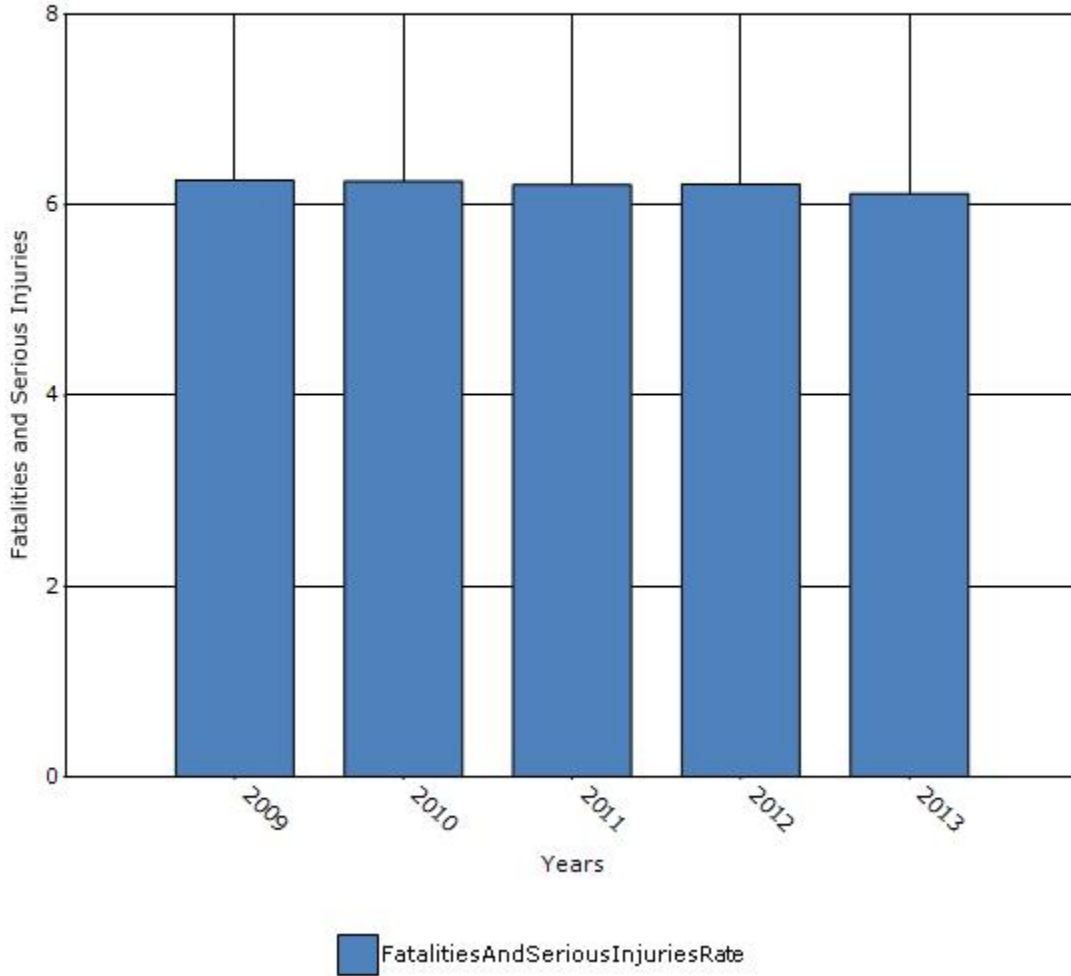
Older Driver Performance Measures	2009	2010	2011	2012	2013
Fatality rate (per capita)	1.09	1.05	1.02	1.04	1.01
Serious injury rate (per capita)	5.164	5.198	5.192	5.186	5.12
Fatality and serious injury rate (per capita)	6.26	6.25	6.21	6.22	6.12

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

Example calculation for 2009:

$$\frac{[(F+SI\ 2009\ Drivers\ and\ Pedestrians\ 65\ years\ of\ age\ and\ older/2009\ Population\ Figure) + (F+SI\ 2008\ Drivers\ and\ Pedestrians\ 65\ years\ of\ age\ and\ older/2008\ Population\ Figure) + (F+SI\ 2007\ Drivers\ and\ Pedestrians\ 65\ years\ of\ age\ and\ older/2007\ Population\ Figure) + (F+SI\ 2006\ Drivers\ and\ Pedestrians\ 65\ years\ of\ age\ and\ older/2006\ Population\ Figure) + (F+SI\ 2005\ Drivers\ and\ Pedestrians\ 65\ years\ of\ age\ and\ over/2005\ Population\ Figure)]}{5}$$

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:

Ohio routinely evaluates crash trends, quarterly and annually, to determine the effectiveness of its Highway Safety Improvement Program.

The safety benefits are calculated by using the total number of crashes by year and severity in order to determine a 5-year average. Crash cost was calculated for 2014 based on the Highway Safety Manual methodologies. For each year, the crash severity was multiplied by its associated cost and then summed for all severity levels. A five-year rolling average was calculated for 2013 (2009-2013) and 2014 (2010-2014). The difference between these two values equates to the safety benefits between the two years and is equal to \$94 million. ODOT receives a total of \$82 million in Federal HSIP dollars annually on safety projects. The ratio of the safety benefits and program cost equates to a benefit-cost ratio of 1.16.

We also track our statewide progress in implementing systematic safety treatments that target serious crash types and roadway features that can potentially increase the likelihood of crashes. This program element has been successful in reducing crashes based on the naïve before-and-after results for the different systematic treatments. In addition, we have increased our efforts to complete systematic projects on locally maintained roads by working with MPOs, County Engineers and LTAP to provide technical assistance and funding for local road safety improvements.

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-Systematic Safety Improvements

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

ODOT has made changes in the safety program based on past experiences and new research. We strive to increase our systematic safety programs (median barrier, LED signals & backplates, rumble stripes, guardrail upgrades, curve signing, etc) to continue to reduce crashes. ODOT has also increased outreach efforts to other state, federal, and local agencies as a result of the SHSP. ODOT has also worked closely with MPOs and county engineers on local roadways as a result of the HSIP.

ODOT and the Mid-Ohio Regional Planning Commission have launched an MPO-led pilot program to advance low-cost systemic safety improvements on locally maintained roads. The two-year, \$2 million program will be funded with HSIP and MPO-allocated federal funds, and it will be used to develop a template for other MPO regions across the state.

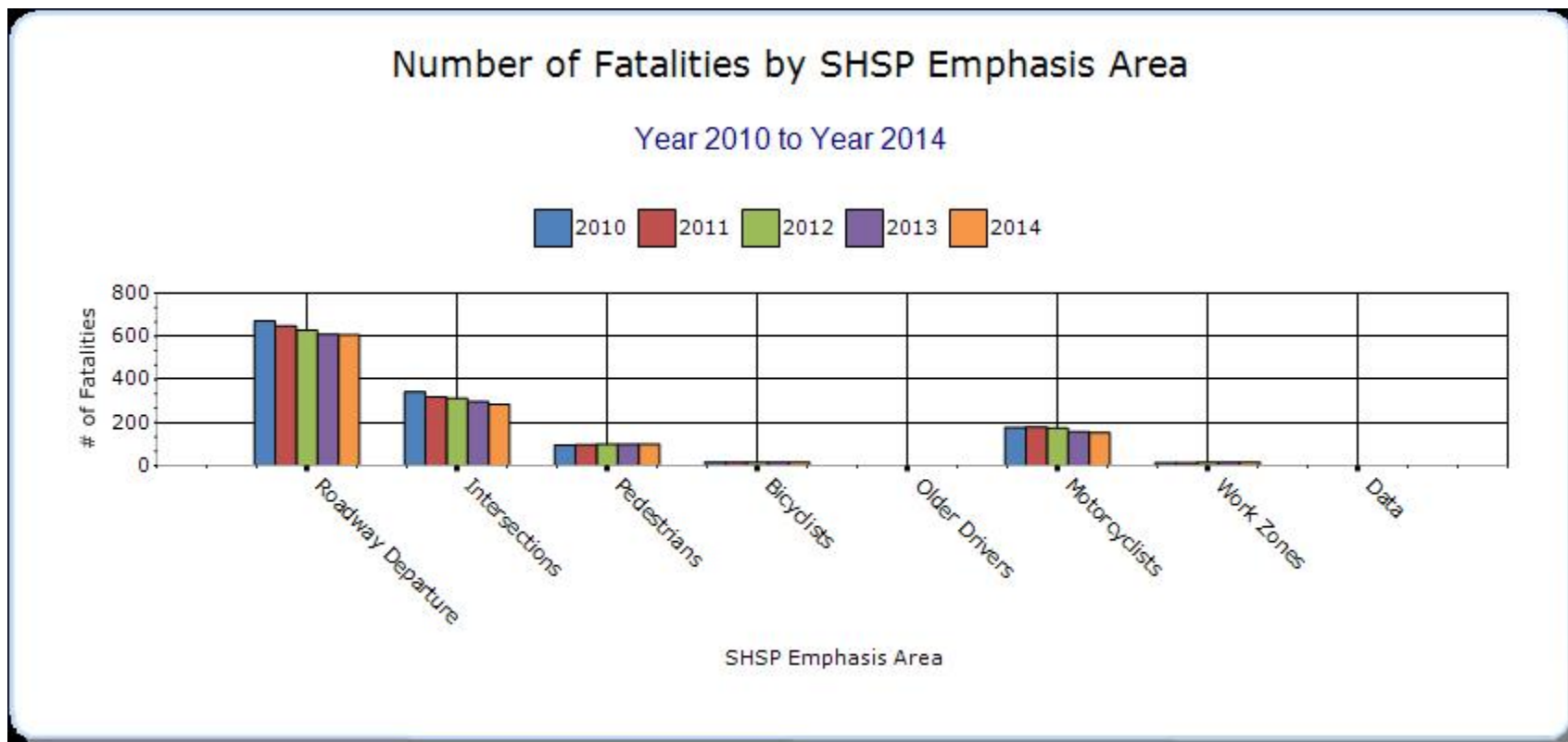
Because local roadway inventory data is incomplete, ODOT and MORPC are using a modified systemic safety process that identifies serious crash types and high-risk roadway features; selects low-cost safety improvements; then screens and prioritizes locations for improvements.

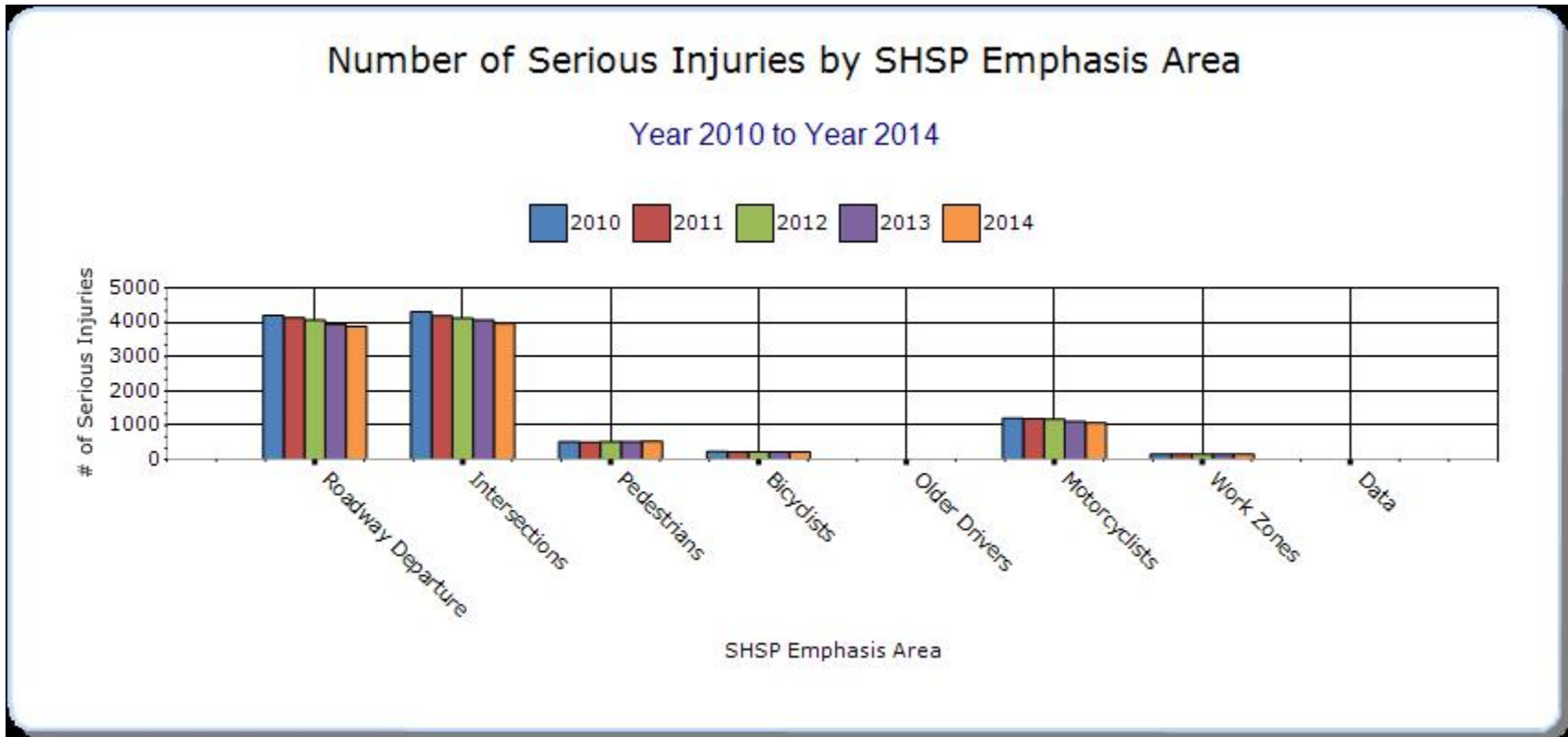
SHSP Emphasis Areas

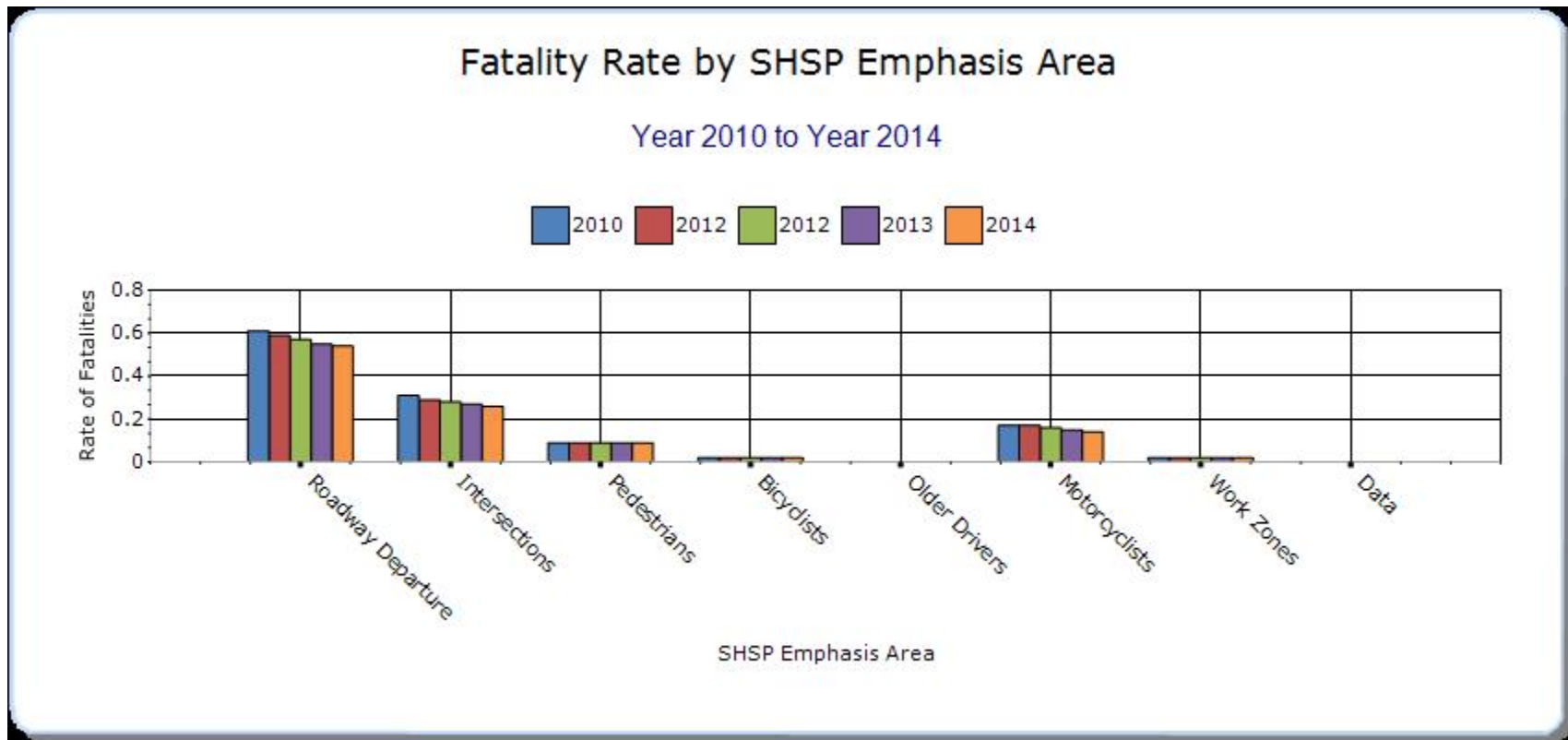
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

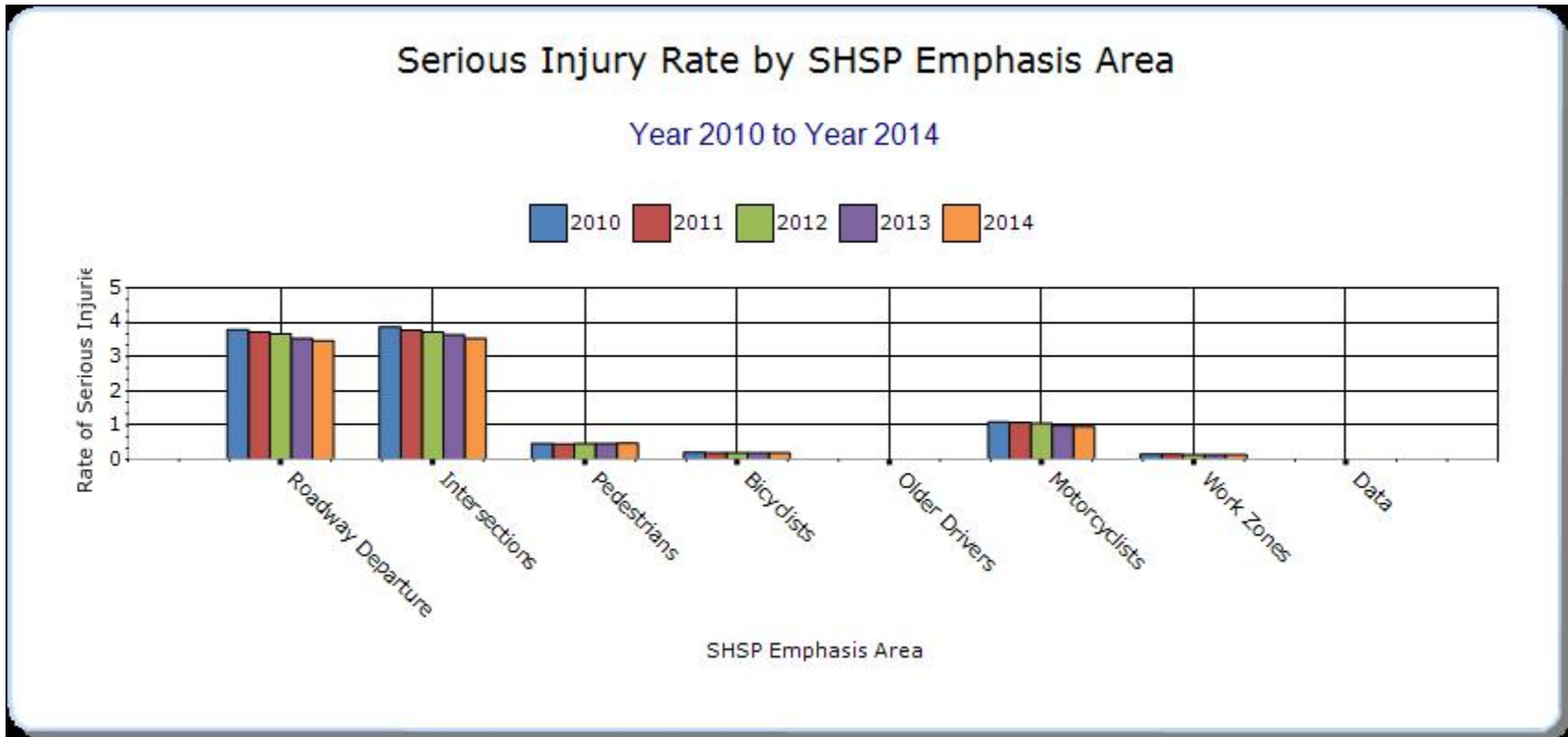
Year - 2014

HSIP-related SHSP Emphasis Areas	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Roadway Departure	Roadway Departure	607	3884	0.54	3.46	0	0	0
Intersections	Intersections	286	3970	0.26	3.53	0	0	0
Pedestrians	Vehicle/pedestrian	101	535	0.09	0.48	0	0	0
Bicyclists	Vehicle/bicycle	16	215	0.02	0.19	0	0	0
Motorcyclists	Motorcycle Involved	154	1072	0.14	0.96	0	0	0
Work Zones	Work Zone Related	17	148	0.02	0.14	0	0	0







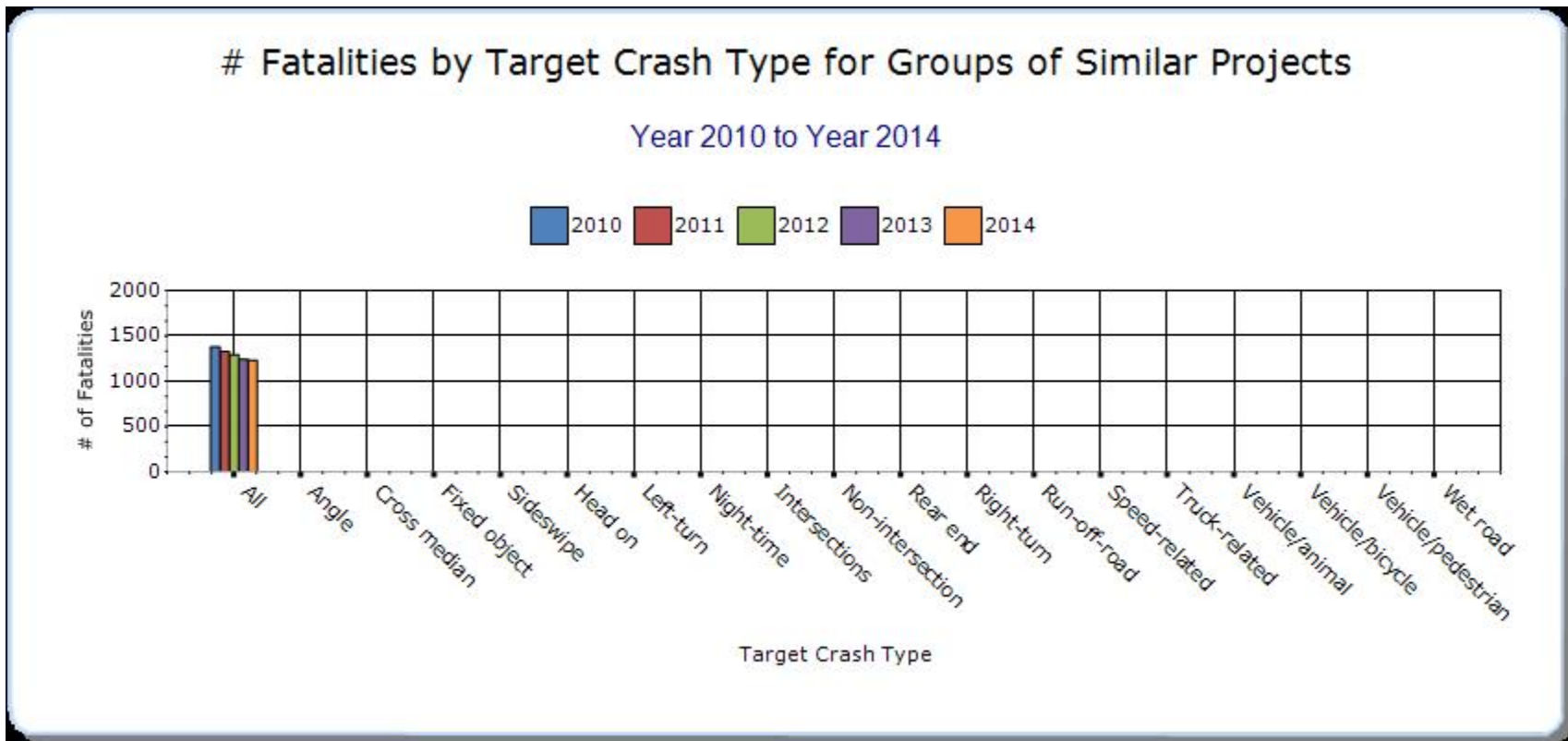


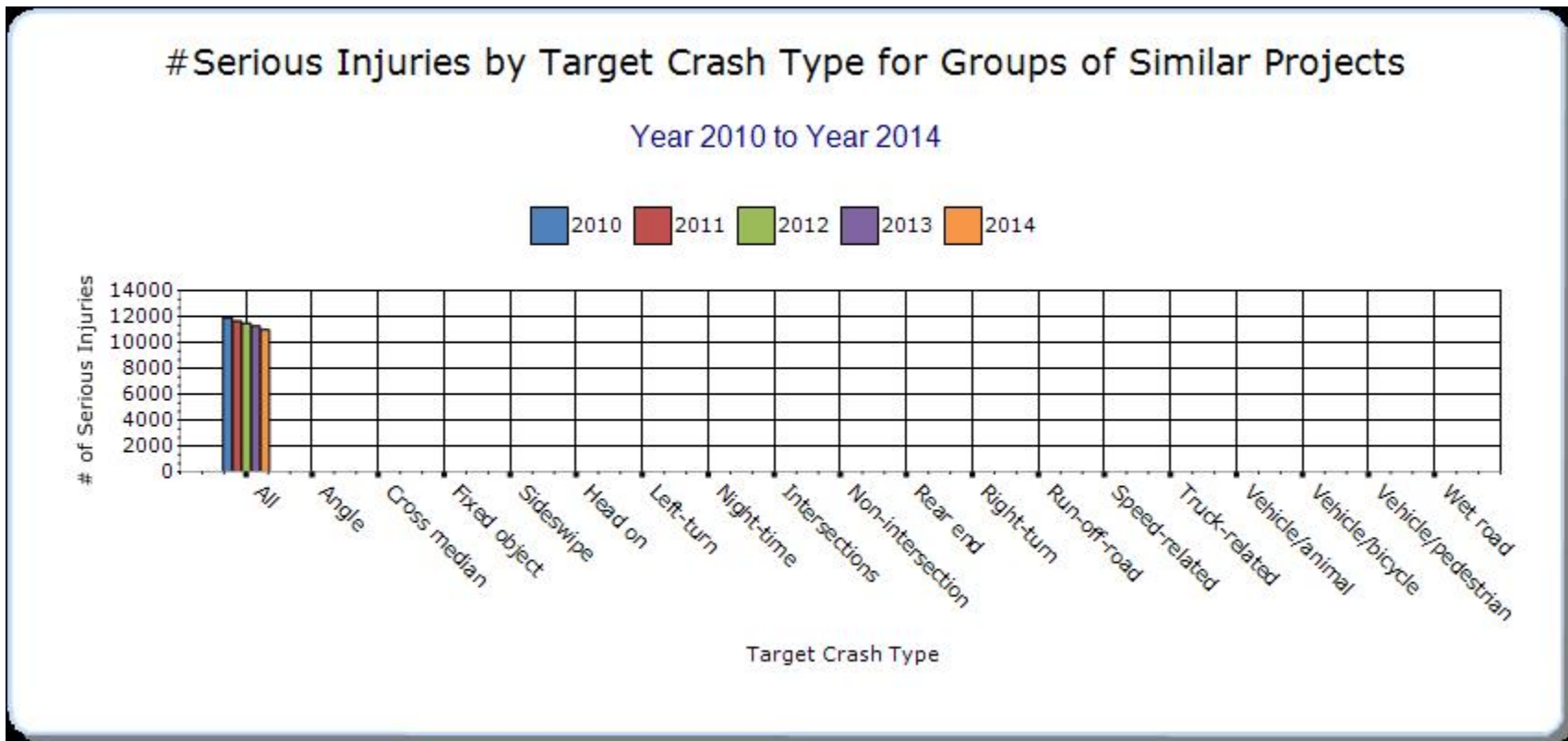
Groups of similar project types

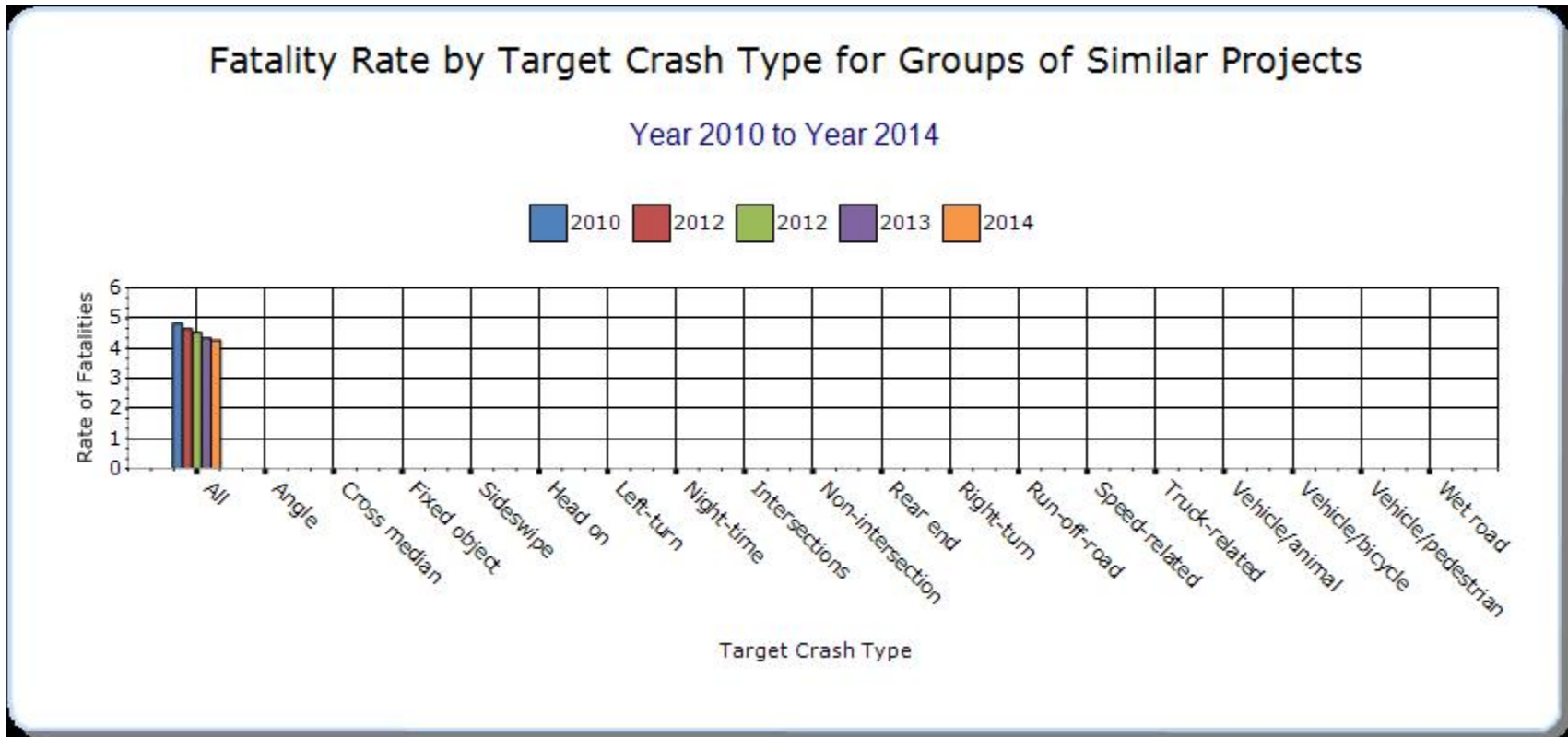
Present the overall effectiveness of groups of similar types of projects.

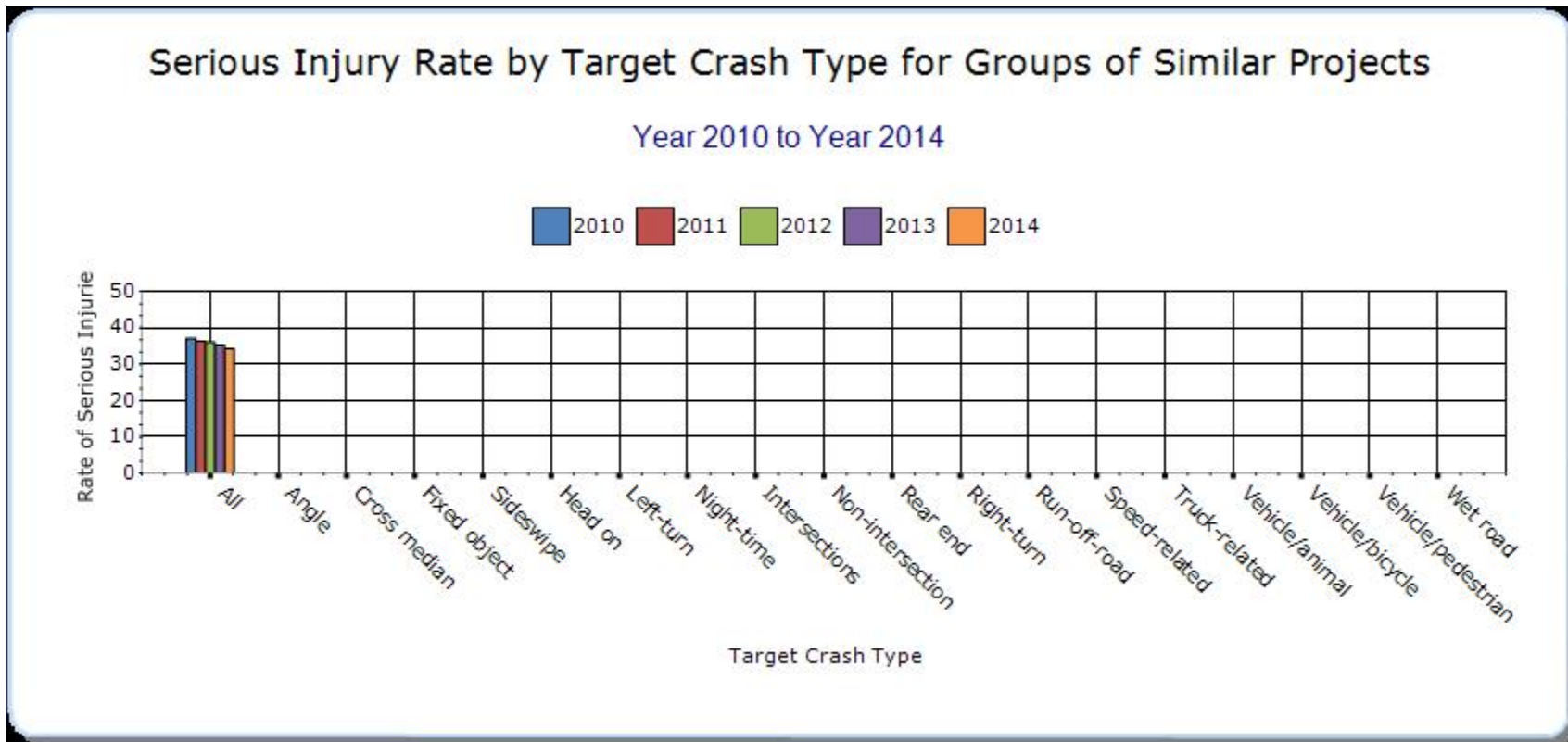
Year - 2014

HSIP Sub-program Types	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Other-State High Risk Rural Road	Serious Rural Crashes	383	2752	2.41	17.3	19460	0	0
Other-State HSIP Program	All	1044	9529	0.93	8.48	104583	0	0
Other-CEAO HSIP Program	All	188	1445	3.34	25.73	12555	0	0









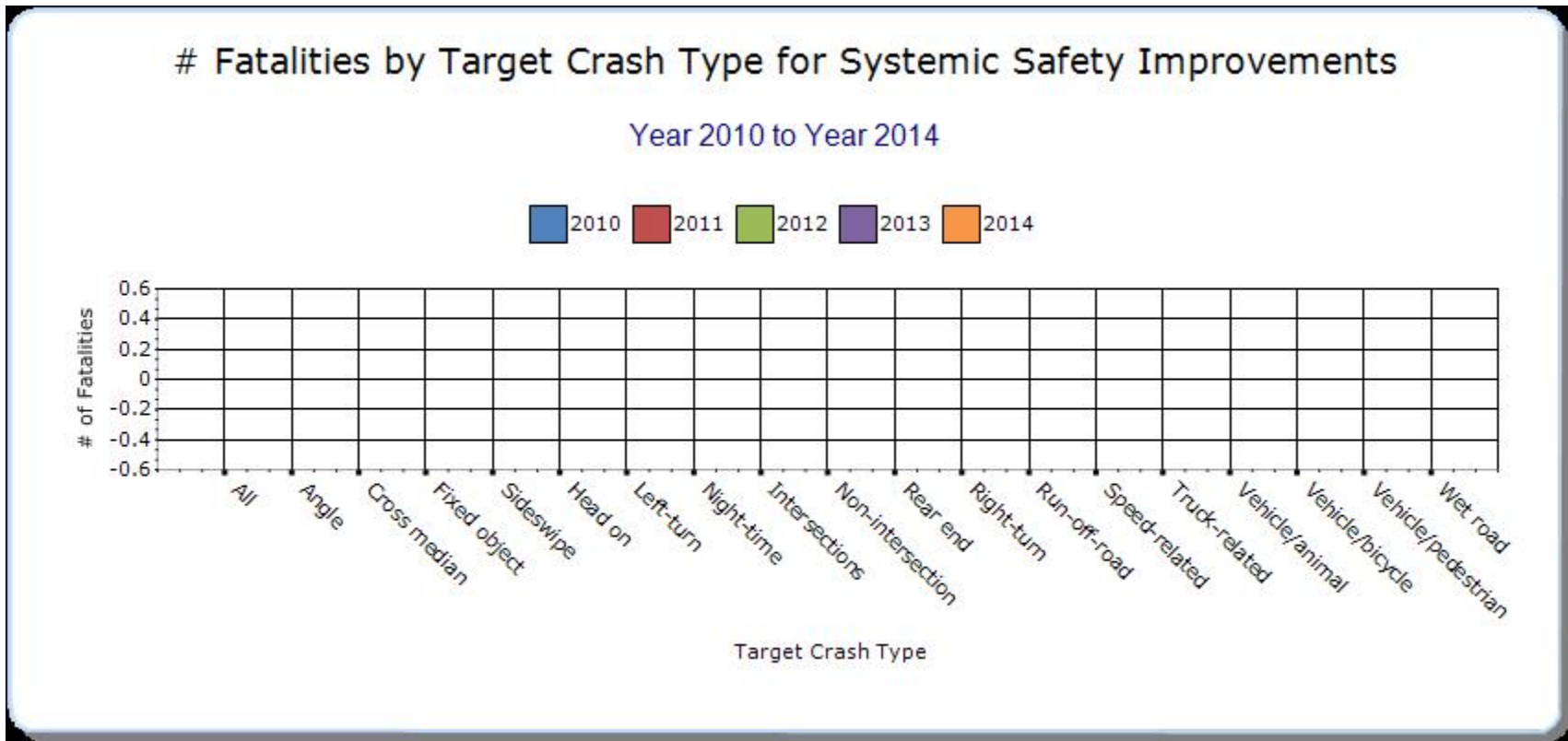
Systemic Treatments

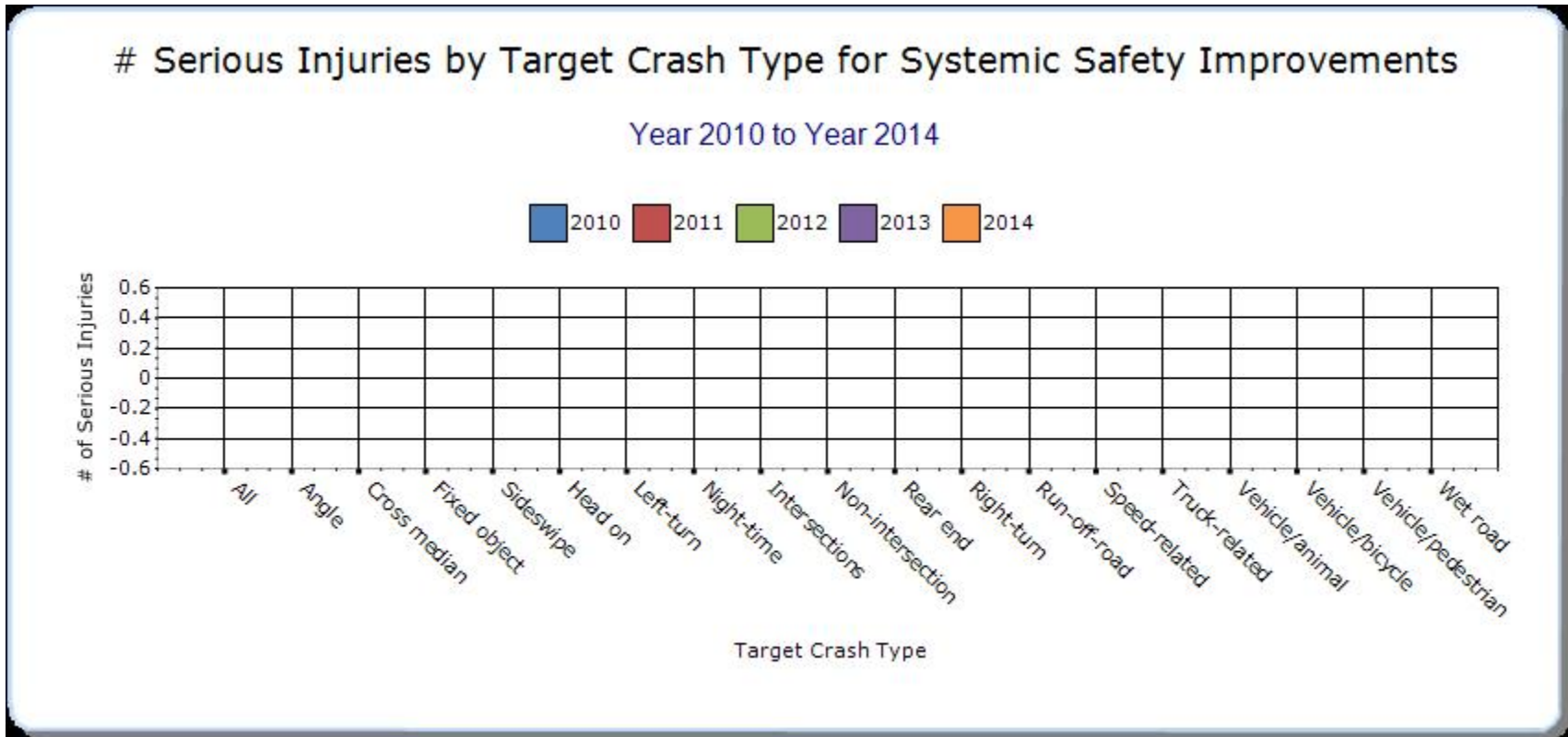
Present the overall effectiveness of systemic treatments.

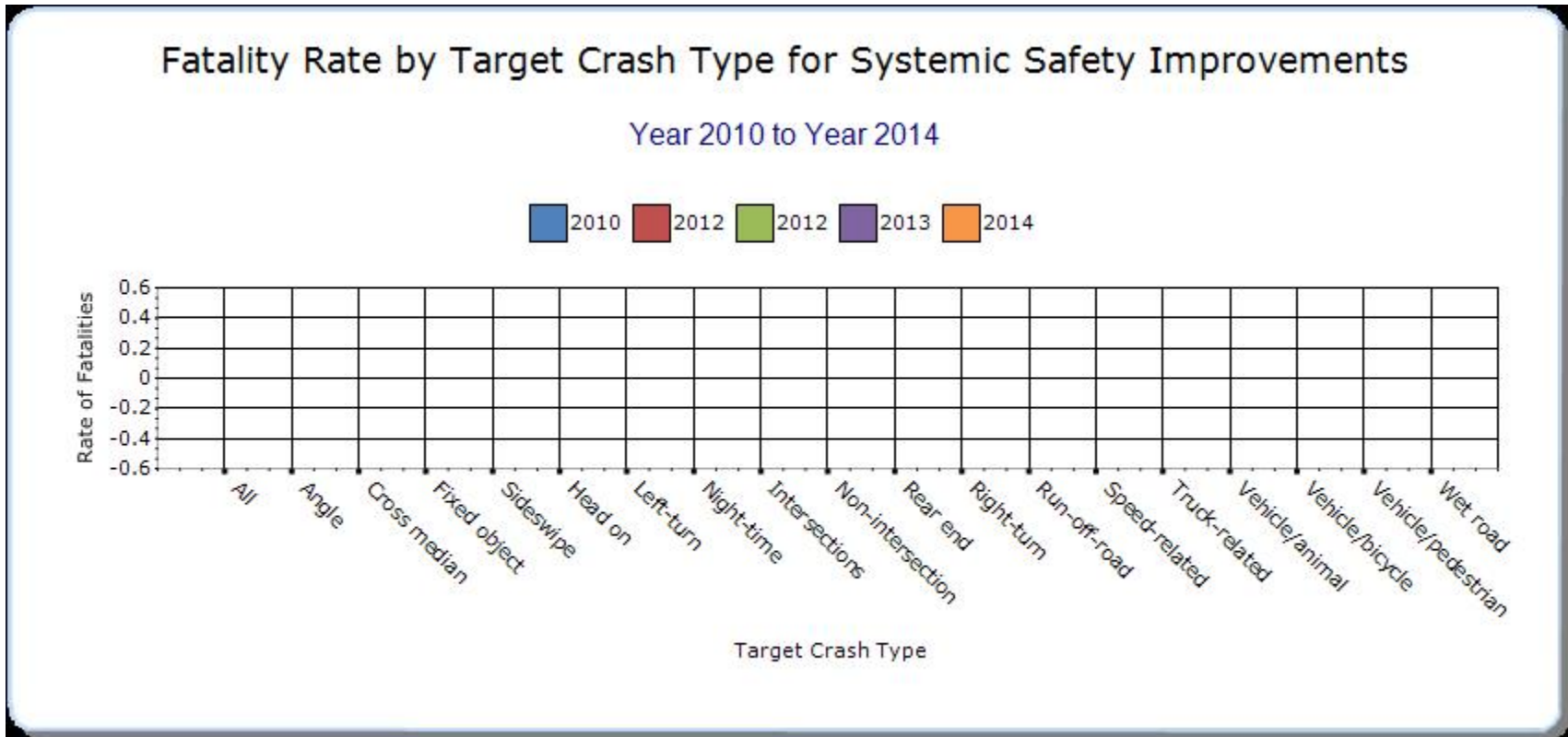
Year - 2014

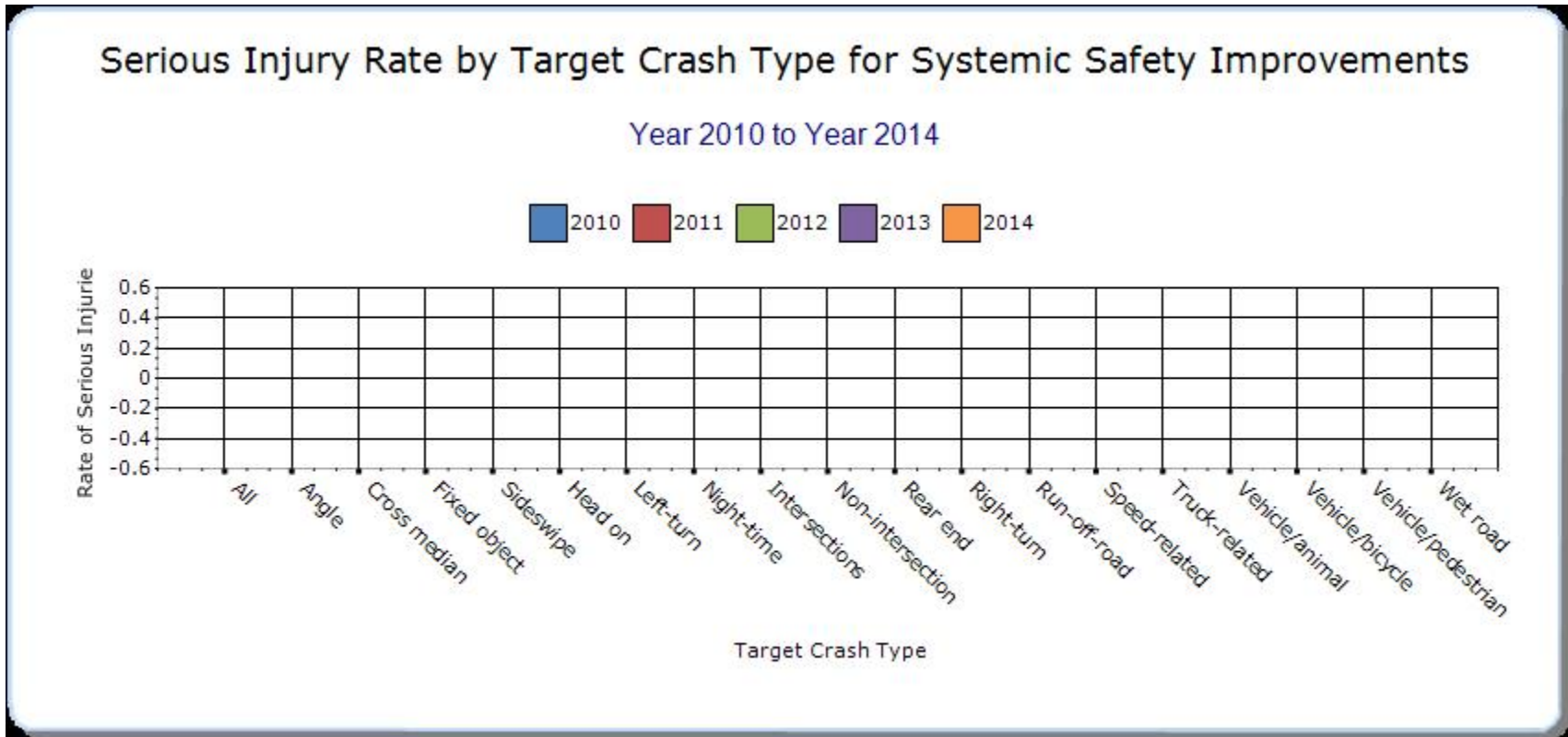
Systemic improvement	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other-1	Other-2	Other-3
Other-CEAO - Upgrade / Install Curve Signage		64	369	1.14	6.56	2505	0	0
Other-CEAO - Upgrade / Install Guardrail		116	788	2.07	14.02	5246	0	0
Other-CEAO - Upgrade / Install RPMs		125	786	2.22	13.99	5114	0	0
Other-ODOT - Wet Pavement Locations		57	480	0.06	0.43	4338	0	0
Other-ODOT - Roadway Departure		269	1553	1.05	6.04	10065	0	0
Add/Upgrade/Modify/Remove Traffic Signal		76	1485	0.07	1.32	24724	0	0
Cable Median Barriers		132	1144	0.13	1.1	13864	0	0
Other-CEAO - Upgrade Pavement Markings		125	786	2.22	13.99	5114	0	0
Upgrade Guard Rails		205	1291	0.8	5.02	7979	0	0

Other-ODOT - Intersection Signage		86	796	0.34	3.09	6396	0	0









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

Cable Barrier

Since 2003 – 350+ miles installed

Edge Line Rumble Stripes

Since 2010 - Installed 1590 miles of edge line rumble stripes

Curve and Intersection Upgrade

2010 - Upgraded 904 intersections with LED signal heads, backplates, and battery backups were applicable.

2011 - 576 curves investigated and improvements programmed

2012 - 800 intersections to be investigated

2013/2014 - 840 (672) curves investigated and improvements implemented

Wet Pavement Locations

2012 – 216 projects implemented to reduce wet pavement related crashes

2013/2014 – 20 sites investigated annually as part of ODOT systematic program

Pedestrian Improvements

2013/2014 – 19 locations investigated and identified improvements

*Moved to a two year cycle for 2013 and 2014. The 2015/2016 is currently being developed.

Project Evaluation

Provide project evaluation data for completed projects (optional).

Location	Functional Class	Improvement Category	Improvement Type	Bef-Fatal	Bef-Serious Injury	Bef-All Injuries	Bef-PDO	Bef-Total	Aft-Fatal	Aft-Serious Injury	Aft-All Injuries	Aft-PDO	Aft-Total	Evaluation Results (Benefit/Cost Ratio)
Not Completed														

Optional Attachments

Sections

Files Attached

Glossary

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

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

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

HMVMT means hundred million vehicle miles traveled.

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

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

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

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

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

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

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

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