
Highway Safety Improvement Program

*Data Driven Decisions*

# Alaska
# Highway Safety Improvement Program
# 2013 Annual Report

Prepared by: AK

## 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

Under the Alaska Highway Safety Improvement Program (HSIP), the Alaska DOT&PF identifies high risk intersections and roads, scopes and prioritizes corrective projects, funds the most cost-effective ones, and evaluates actual project and program effectiveness. HSIP dollars are distributed to the most effective projects from a single statewide fund. The goal of the Alaska HSIP is to "maximize lives saved and major injuries eliminated per dollar spent."

Regional Traffic and Safety personnel identify, scope, estimate, and rank candidate projects according to benefit-cost ratio (ranked projects) and potential for crash reduction (non-ranked projects). HQ Traffic & Safety reviews proposed new projects, works with the regions to clarify project description and scope, and submits recommended projects to the Federal Highway Administration for approval. Following FHWA approval of new HSIP projects, HQ Traffic and Safety selects the most effective projects and proposes a statewide HSIP funding plan for the coming federal fiscal year for approval by the Chief Engineer and the Director of Program Development.

The HSIP funding plan typically includes a blend of on-going projects and new projects. Regions design and construct funded projects and generate before-after studies when three years of post improvement crash data becomes available. HQ Traffic & Safety manages funding for the statewide HSIP, annually updates the HSIP Handbook, maintains program effectiveness data, and produces the annual HSIP report.

# Introduction

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

# Program Structure

## Program Administration

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

☒ Central

☐ District

☐ Other

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

Safety projects on all public roads in Alaska are eligible to compete for HSIP funding. The same process is used to prioritize projects on both state and non-state (including local) roads.

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

☒ Design

☒ Planning

☒Maintenance

☒Operations

☒Governors Highway Safety Office

☐Other:

**Briefly describe coordination with internal partners**.

Design: Regional Traffic and Safety personnel identify, scope, estimate, and rank candidate projects according to benefit-cost ratio (ranked projects) and potential for crash reduction (non-ranked projects).

HQ Traffic & Safety reviews proposed new projects, works with the regions to clarify project description and scope, and submits recommended projects to the Federal Highway Administration for funding approval.

Planning: Funding plan developed in coordination with the Office of Program Development.

Maintenance and Operations: M&O staff consulted to determine alternative project nominations where safety problems may exist despite the lack of historic crash data.

Governors Highway Safety Office: Split penalty transfer funding to address engineering solutions to highway safety.

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

☐Metropolitan Planning Organizations

☐Governors Highway Safety Office

☐Local Government Association

☒Other: Other-Municipality of Anchorage

☒Other: Other-City of Fairbanks

☒Other: Other-FHWA

**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-None

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

No response.

## 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-Entire HSIP

**Program:** **Other-Entire HSIP**

**Date of Program Methodology:** **5/10/2012**

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

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

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

☒ Crash frequency

☐ Expected crash frequency with EB adjustment

☐ Equivalent property damage only (EPDO Crash frequency)

☐ EPDO crash frequency with EB adjustment

☐ Relative severity index

☒ Crash rate

☒ Critical rate

☐ Level of service of safety (LOSS)

☐ Excess expected crash frequency using SPFs

☐ Excess expected crash frequency with the EB adjustment

☐ Excess expected crash frequency using method of moments

☐ Probability of specific crash types

☐ Excess proportions of specific crash types

☐ Other

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

☒ Yes

☐ No

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

☒ Yes

☐ No

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

☒ Competitive application process

☐ selection committee

☐ Other

**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 90
- ☒ Available funding 10
- ☐ Incremental B/C
- ☐ Ranking based on net benefit
- ☐ Cost Effectiveness

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

47

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

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

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

☒Engineering Study

☐Road Safety Assessment

☐Other:

**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.**

-Data Used: All crashes are used for intersection screening, with an emphasis on fatalities and major injuries. Segment screening is based on fatalities and major injuries.
-Project Identification: Project identification results from intersection and segment crash screening, initial project scope, cost estimate, and estimated crash reduction.
-Countermeasures implemented this year: rumble strips, warning signs and delineators, urban intersection & pedestrian improvements, passing lanes, and bridge barrier upgrades. We have also used HSIP funding to implement safety countermeasures on Highway Safety Corridors.
-Spot vs. System wide improvements: About 47% of current year project funding addressed system wide improvements. Prior year system improvements include flashing yellow arrow, animal-vehicle collision prevention, slow-vehicle turnouts, and continuous illumination projects.

-HSIP/SHSP Alignment: All HSIP projects align with SHSP emphasis areas. See following discussion under General Listing of Projects.
-Project Prioritization Process: Project prioritization is based on cost of crashes eliminated. Using crash cost results in a greater emphasis on severe crashes. For "ranked" projects, prioritization is based on benefit-cost ratio (estimated cost of crashes eliminated / cost of construction and maintenance). For "non-ranked" projects, prioritization is based on a subjective estimate of potential for reducing severe crashes.

## 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)** | 37681616 | 61 % | 39581264.23 | 61 % |
| **HRRRP (SAFETEA-LU)** | | | | |
| **HRRR Special Rule** | | | | |
| **Penalty Transfer - Section 154** | 10311864 | 17 % | 10410884.38 | 16 % |
| **Penalty Transfer – Section 164** | 10311864 | 17 % | 10552909 | 16 % |
| **Incentive Grants -** | | | | |

| | | | | |
|---|---|---|---|---|
| **Section 163** | | | | |
| **Incentive Grants (Section 406)** | | | | |
| **Other Federal-aid Funds (i.e. STP, NHPP)** | | | | |
| **State and Local Funds** | 3275228 | 5 % | 3873150.83 | 6 % |
| **Totals** | 61580572 | 100% | 64418208.44 | 100% |

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

$8,667,536.00

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

$3,567,028.00

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

$1,985,500.00

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

$2,005,500.00

**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**.

HSIP projects are often smaller projects that must compete with other state priorities for the same resources (personnel, equipment, etc.) as the larger projects in the state. Strategies for overcoming these impediments include bundling
projects in the construction phase with larger projects, and consider program revisions to allow leveraging HSIP funds by combining with other eligible federal funding.

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

No response.

## 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 |
| **College Road/ Antoinette Ave/ Margaret Ave Intersection Reconstruction** | Intersection geometry Intersection geometrics - realignment to align offset cross streets | 1 Numbers | 100000 | 100000 | Penalty Transfer - Section 154 | Urban Minor Arterial | 14120 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Fairbanks Flashing Yellow Arrow Signal Upgrade** | Intersection traffic control Modify traffic signal - add flashing yellow arrow | 35 Numbers | 45000 | 50000 | HSIP (Section 148) | Mixed FCs | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | crashes |
| **Fairbanks: Spot Intersection Improvements** | Intersection traffic control Intersection signing - add enhanced regulatory sign (double-up and/or oversize) | 5 Numbers | 27000 | 30000 | HSIP (Section 148) | All FCs - systemic install | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Johansen Expressway Curve Delineation** | Roadway delineation Delineators post-mounted or on barrier | 1.69 Miles | 18103.5 | 20115 | HSIP (Section 148) | Urban Principal Arterial - Other | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address run-off-road crashes |
| **Parks Highway MP 215-219 Enhanced Curve Delineation** | Roadway delineation Delineators post-mounted or on barrier | 3 Miles | 61000 | 61000 | HSIP (Section 148) | Rural Principal Arterial - Other | 1245 | 65 | State Highway Agency | Roadways | Implement infrastructure projects to |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | address run-off-road crashes |
| **Steese Highway MP 18-20 Enhanced Curve Delineation** | Roadway delineation Delineators post-mounted or on barrier | 3 Miles | 51000 | 51000 | HSIP (Section 148) | Rural Minor Arterial | 350 | 55 | State Highway Agency | Roadways | Implement infrastructure projects to address run-off-road crashes |
| **Parks Highway Centerline Rumble Strips, Nenana to Sheep Creek Road** | Roadway Rumble strips - center | 48 Miles | 709251 | 709251 | Penalty Transfer - Section 154 | Rural Principal Arterial - Other | 8365 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address head-on crashes |
| **Richardson Highways MP 291-295 Enhanced** | Roadway delineation Delineators post-mounted or on barrier | 4 Miles | 61000 | 61000 | HSIP (Section 148) | Rural Principal Arterial - Other | 1180 | 65 | State Highway Agency | Roadways | Implement infrastructure |

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| **Curve Delineation** | | | | | | | | | | | projects to address run-off-road crashes |
| **Steese Expressway/Chena Hot Springs Road Ramp Termini Roundabouts** | Intersection traffic control Modify control - two-way stop to roundabout | 2 Numbers | 405900 | 451000 | HSIP (Section 148) | Urban Principal Arterial - Other | 8155 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Northern Region Pedestrian Intervals and Signal Phases Updates** | Intersection traffic control Modify traffic signal timing - general retiming | 60 Numbers | 50000 | 50000 | HSIP (Section 148) | All FCs - systemic install | 0 | 0 | State Highway Agency | Special Users | Identify and implement appropriate engineering strategies to address high- |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | crash locations involving pedestrians |
| **City of Fairbanks Pedestrian Intervals and Signal Phases Updates** | Intersection traffic control Modify traffic signal timing - general retiming | 22 Numbers | 50000 | 50000 | HSIP (Section 148) | All FCs - systemic install | 0 | 0 | State Highway Agency | Special Users | Identify and implement appropriate engineering strategies to address high-crash locations involving pedestrians |
| **Northern Region Avalanche Gates** | Roadway signs and traffic control Roadway signs and traffic control - other | 5 Numbers | 70000 | 70000 | HSIP (Section 148) | Rural Principal Arterial and Rural Major | 0 | 0 | State Highway Agency | Roadways | See "Supporting Text" for relavant |

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| | | | | | | Collector | | | | | strategy |
| **Northern Region Pedestrian Improvements** | Pedestrians and bicyclists Crosswalk | 59 Numbers | 100000 | 100000 | HSIP (Section 148) | All FCs - systemic install | 0 | 0 | Other Local Agency | Special Users | Identify and implement appropriate engineering strategies to address high-crash locations involving pedestrians |
| **Richardson Highway Speed Disparity - HSIP** | Speed management Modify speed limit | 270 Miles | 1232399.5 | 1331555 | HSIP (Section 148) | Rural Principal Arterial - Other | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address head-on crashes |

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| **Richardson Hwy MP276-341 Centerline Rumble Strips - HSIP** | Roadway Rumble strips - center | 64 Miles | 1088132 | 1088132 | Penalty Transfer - Section 154 | Rural Principal Arterial - Other | 0 | 65 | State Highway Agency | Roadways | Implement infrastructure projects to address head-on crashes |
| **Signal Head Size Upgrades - HSIP** | Intersection traffic control Modify traffic signal - replace existing indications (incandescent-to-LED and/or 8-to-12 inch dia.) | 47 Numbers | 50000 | 50000 | HSIP (Section 148) | All FCs - systemic install | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Parks Highway Passing Lanes - Northern Region HSIP** | Roadway Roadway widening - add lane(s) along segment | 5 Numbers | 28500995 | 28500995 | HSIP (Section 148) | Rural Principal Arterial - Other | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address head-on |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | crashes |
| **Bogard Road @ Peck Street 3 Lane and Traffic Signal** | Intersection geometry Auxiliary lanes - add two-way left-turn lane | 1 Numbers | 103022.1 | 114469 | HSIP (Section 148) | Rural Major Collector | 10962 | 50 | | Roadways | Implement infrastructure projects to address intersection crashes |
| **Bragaw Street @ 16th Avenue 5 Lane** | Intersection geometry Auxiliary lanes - add two-way left-turn lane | 0.5 Miles | 372870 | 414300 | HSIP (Section 148) | Urban Principal Arterial - Other | 18583 | 0 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to address run-off-road crashes |
| **Northern Lights Boulevard @ UAA Drive** | Intersection geometry Auxiliary lanes - add left-turn lane | 1 Numbers | 2698141 | 2698141 | Penalty Transfer - Section 154 | Urban Principal Arterial - Other | 41858 | 40 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | address intersection crashes |
| **Seward Highway: Turnagain Pass to Potter Slow Vehicle Turnouts (SVT) & Passing Lanes** | Intersection geometry Auxiliary lanes - miscellaneous/other/unspecified | 7 Numbers | 20799.522 | 23110.58 | HSIP (Section 148) | Rural Principal Arterial - Other | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address head-on crashes |
| **Central Region Traffic Signal Modifications, 2011** | Intersection traffic control Modify traffic signal - miscellaneous/other/unspecified | 4 Numbers | 1356297.36 | 1356297.36 | HSIP (Section 148) | All FCs - systemic install | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Sterling Highway: Soldotna to Homer Hill** | Intersection geometry Auxiliary lanes - miscellaneous/other/unspecified | 56.5 Miles | 10144249.2 | 11271388 | HSIP (Section 148) | Rural Principal Arterial - Other | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure |

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| **Slow Vehicle Turnouts (SVT)** | | | | | | | | | | | projects to address head-on crashes |
| **Minnesota Drive Moose-Vehicle Crash Mitigation** | Animal-related | 4.6 Miles | 3675452.4 | 4083836 | HSIP (Section 148) | Urban Principal Arterial - Other | 0 | 60 | State Highway Agency | Roadways | Implement infrastructure projects to address animal-vehicle collisions |
| **Rabbit Creek Rd & Goldenview Dr OH Beacon** | Intersection traffic control Intersection flashers - add overhead (continuous) | 1 Numbers | 307857.07025 | 307857.07025 | HSIP (Section 148) | Urban Minor Arterial | 4021 | 45 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Huffman & Elmore Rd OH** | Intersection traffic control Intersection | 1 Numb | 302632.92 | 302632.92 | HSIP (Secti | Urban Minor | 4600 | 45 | State Highwa | Roadways | Implement |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Beacon** | flashers - add overhead (continuous) | ers | | | on 148) | Arterial | | | y Agency | | infrastructure projects to address intersection crashes |
| **Glenn Hwy & Muldoon Rd Interchange Improvements** | Intersection traffic control Modify traffic signal - miscellaneous/other/unspecified | 2 Numbers | 112500 | 125000 | HSIP (Section 148) | Urban Principal Arterial - Other | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Johns Road and Klatt Road Intersection** | Intersection traffic control Modify control - two-way stop to roundabout | 1 Numbers | 246256 | 246256 | HSIP (Section 148) | Urban Minor Arterial | 10153 | 40 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to address intersection |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | crashes |
| **Outer Springer Loop RR Xing Lighting via UTILITIES AGRMT** | Lighting Intersection lighting | 1 Numbers | 4991 | 4991 | HSIP (Section 148) | Rural Minor Collector | 14370 | 35 | State Highway Agency | Roadways | See "Supporting Text" for relavant strategy |
| **Sterling Highway & Main Street (Homer) Intersection Improvements** | Intersection traffic control Intersection traffic control - other | 1 Numbers | 575000 | 575000 | HSIP (Section 148) | Rural Principal Arterial - Other | 11405 | 35 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Parks Hwy & Petersville Rd Intersection Improvements** | Intersection traffic control Intersection flashers - add overhead (continuous) | 1 Numbers | 75000 | 75000 | HSIP (Section 148) | Rural Principal Arterial - Other | 1753 | 55 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |

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| **Sterling Hwy & North Fork Rd (Anchor Pt) Intersection Improvement** | Intersection traffic control Intersection flashers - add overhead (continuous) | 1 Numbers | 75000 | 75000 | HSIP (Section 148) | Rural Principal Arterial - Other | 5450 | 45 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Pioneer Ave & Main Street (in Homer) Intersection Improvements** | Intersection geometry Intersection geometrics - modify intersection corner radius | 1 Numbers | 75000 | 75000 | HSIP (Section 148) | Urban Minor Arterial | 6504 | 25 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **O'Malley Road @ Elmore Road Intersection Improvements** | Intersection traffic control Intersection flashers - add overhead (continuous) | 1 Numbers | 75000 | 75000 | HSIP (Section 148) | Urban Minor Arterial | 9784 | 45 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to address intersecti |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | on crashes |
| **Bogard Road @ Seldon Road Intersection Improvements** | Intersection traffic control Intersection flashers - add overhead (continuous) | 1 Numbers | 75000 | 75000 | HSIP (Section 148) | Urban Minor Arterial | 12099 | 50 | City of Municipal Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **Glenn Highway Continuous Lighting Project, MP 27-31** | Lighting Continuous roadway lighting | 4 Miles | 720000 | 720000 | HSIP (Section 148) | Rural Principal Arterial - Other | 27210 | 65 | State Highway Agency | Roadways | See "Supporting Text" for relavant strategy |
| **Central Region Guardrail Delineation Enhancements: Post Top Delineators** | Roadway delineation Delineators post-mounted or on barrier | 758 Miles | 65000 | 65000 | HSIP (Section 148) | All FCs - systemic install | 0 | 0 | Other Local Agency | Roadways | Implement infrastructure projects to address run-off-road |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | crashes |
| **C Street Advance Train Warning System** | Railroad grade crossings Upgrade railroad crossing signal | 1 Numbers | 105000 | 105000 | Penalty Transfer - Section 154 | Urban Principal Arterial - Other | 18893 | 50 | State Highway Agency | Roadways | See "Supporting Text" for relavant strategy |
| **Kodiak Areawide Delineation Improvements** | Roadway delineation Delineators post-mounted or on barrier | 90 Miles | 578617.09 | 578617.09 | HSIP (Section 148) | All FCs - systemic install | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address run-off-road crashes |
| **HSIP: Jewel Lake Rd: 63rd Ave to Old Int'l Airport Rd** | Access management Change in access - miscellaneous/unspecified | 1 Miles | 686479 | 686479 | HSIP (Section 148) | Urban Minor Arterial | 12437 | 40 | State Highway Agency | Roadways | See "Supporting Text" for relavant strategy |
| **Glenn Hwy Speed Limit Evaluation: Palmer to** | Speed management Modify speed limit | 140 Miles | 1281962 | 1281962 | HSIP (Section | Rural Principal Arterial - | 0 | 55 | | Roadways | Implement infrastructure |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Glennallen** | | | | | 148) | Other | | | | | projects to address head-on crashes |
| **AK Peninsula Highway: King Salmon-Naknek Pavement Preservation** | Roadway Pavement surface - miscellaneous | 15 Miles | 1863140.79 | 1863140.79 | HSIP (Section 148) | Rural Major Collector | 1400 | 55 | State Highway Agency | Roadways | Implement infrastructure projects to address run-off-road crashes |
| **Parks Hwy Safety Cooridor Median and Cont. Lighting** | Access management Grassed median - extend existing | 6 Miles | 1849693 | 1849693 | | Rural Principal Arterial - Other | 0 | 55 | State Highway Agency | Roadways | Implement infrastructure projects to address head-on crashes |
| **JNU Thane Road Curve at Sheep** | Roadway Roadway - other | 2 Numbers | 2135152 | 2135152 | HSIP (Section | Urban Minor Collector | 611 | 40 | State Highway | Roadways | Implement infrastruc |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| **Creek Safety Improvement** | | | | | 148) | | | | Agency | | ture projects to address run-off-road crashes |
| **JNU Egan Drive Additional Illumination** | Lighting Continuous roadway lighting | 5 Miles | 4524597.16 | 4524597.16 | Penalty Transfer - Section 154 | Urban Principal Arterial - Other | 0 | 0 | State Highway Agency | Roadways | See "Supporting Text" for relavant strategy |
| **JNU Montana Creek Road Intersection Illumination** | Lighting Intersection lighting | 1 Numbers | 29600 | 29600 | HSIP (Section 148) | Urban Minor Collector | 7987 | 45 | State Highway Agency | Roadways | Implement infrastructure projects to address intersection crashes |
| **POW Craig-Klawock Hwy Guardrail Improvement** | Roadside Barrier - other | 7 Miles | 60831 | 67590 | HSIP (Section 148) | Rural Major Collector | 1729 | 0 | State Highway Agency | Roadways | Implement infrastructure |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | projects to address run-off-road crashes |
| **SEA Areawide Avalanche Gates** | Roadway signs and traffic control Roadway signs and traffic control - other | 5 Numbers | 60000 | 60000 | HSIP (Section 148) | VARIES | 0 | 0 | State Highway Agency | Roadways | See "Supporting Text" for relavant strategy |
| **KTN South Tongass Guardrail Replacement** | Roadside Barrier - other | 5 Miles | 128870 | 128870 | HSIP (Section 148) | Urban Minor Arterial | 0 | 0 | State Highway Agency | Roadways | Implement infrastructure projects to address run-off-road crashes |
| **NR: SMS/HSIP** | Non-infrastructure Non-infrastructure - other | 1 Numbers | 214234 | 235500 | HSIP (Section 148) | N/A | 0 | 0 | N/A | Roadways | See "Supporting Text" for relavant |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | strategy |
| **CR: SMS/HSIP** | Non-infrastructure<br>Non-infrastructure - other | 1<br>Numbers | 409365 | 450000 | HSIP (Section 148) | N/A | 0 | 0 | N/A | Roadways | See "Supporting Text" for relavant strategy |
| **SR: SMS/HSIP** | Non-infrastructure<br>Non-infrastructure - other | 1<br>Numbers | 181940 | 200000 | HSIP (Section 148) | N/A | 0 | 0 | N/A | Roadways | See "Supporting Text" for relavant strategy |
| **HQ: APD Crash Form Interface** | Non-infrastructure<br>Data/traffic records | 1<br>Numbers | 20000 | 20000 | Penalty Transfer – Section 164 | N/A | 0 | 0 | N/A | Roadways | See "Supporting Text" for relavant strategy |
| **HQ: SMS/HSIP** | Non-infrastructure<br>Non-infrastructure - other | 1<br>Numbers | 636790 | 700000 | HSIP (Section 148) | N/A | 0 | 0 | N/A | Roadways | See "Supporting Text" for relavant strategy |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **SHSP** | Non-infrastructure Non-infrastructure - other | 1 Numbers | 363880 | 400000 | HSIP (Section 148) | N/A | 0 | 0 | N/A | Roadways | See "Supporting Text" for relavant strategy |
| | | | | | | | | | | | |

Identify and implement work zone and rail-highway crossing safety improvements, planning activities, improvements in data collection and analysis, road safety audits, and engineering strategies that correct or improve a hazardous road location or feature, or addresses a highway safety problem as allowed under 23 CFR 924 Highway Safety Improvement Program.

# Progress in Achieving Safety Performance Targets

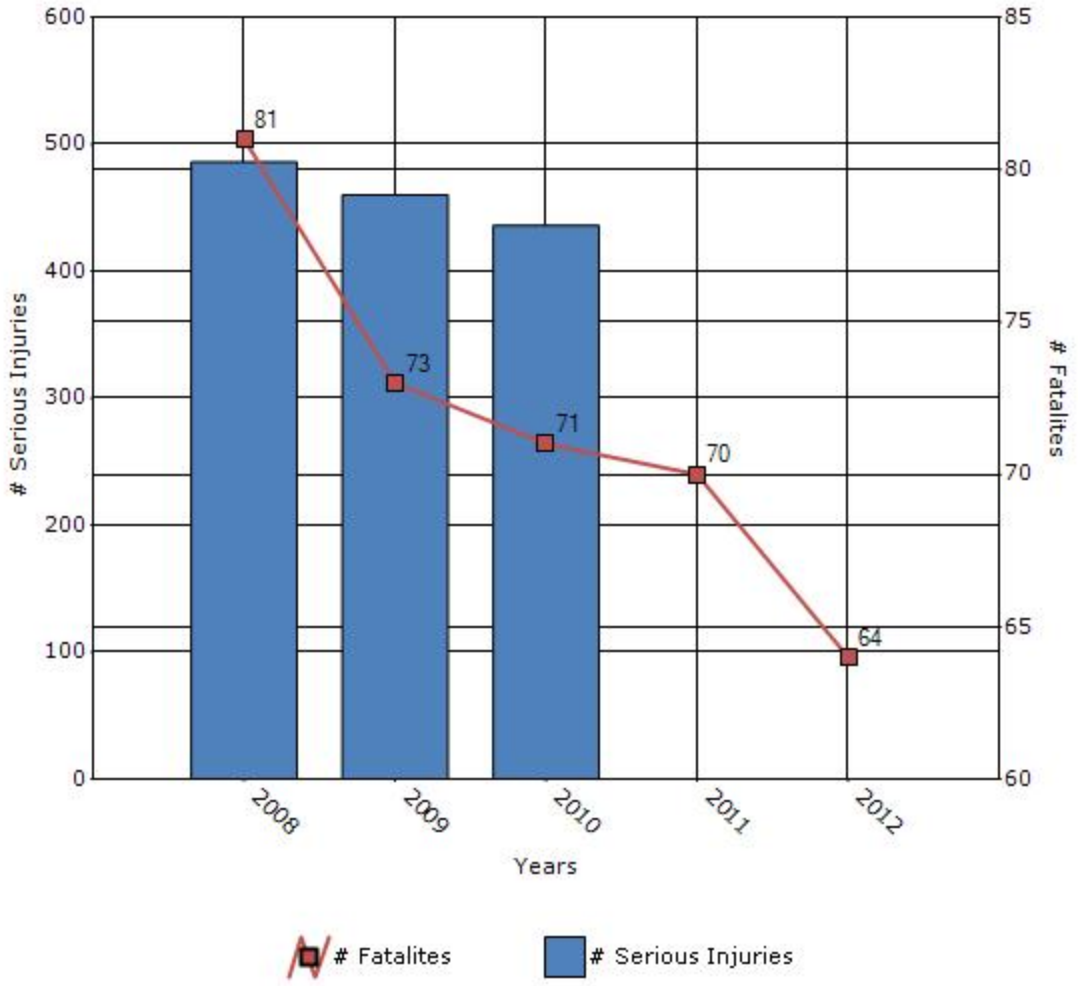
## Overview of General Safety Trends

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

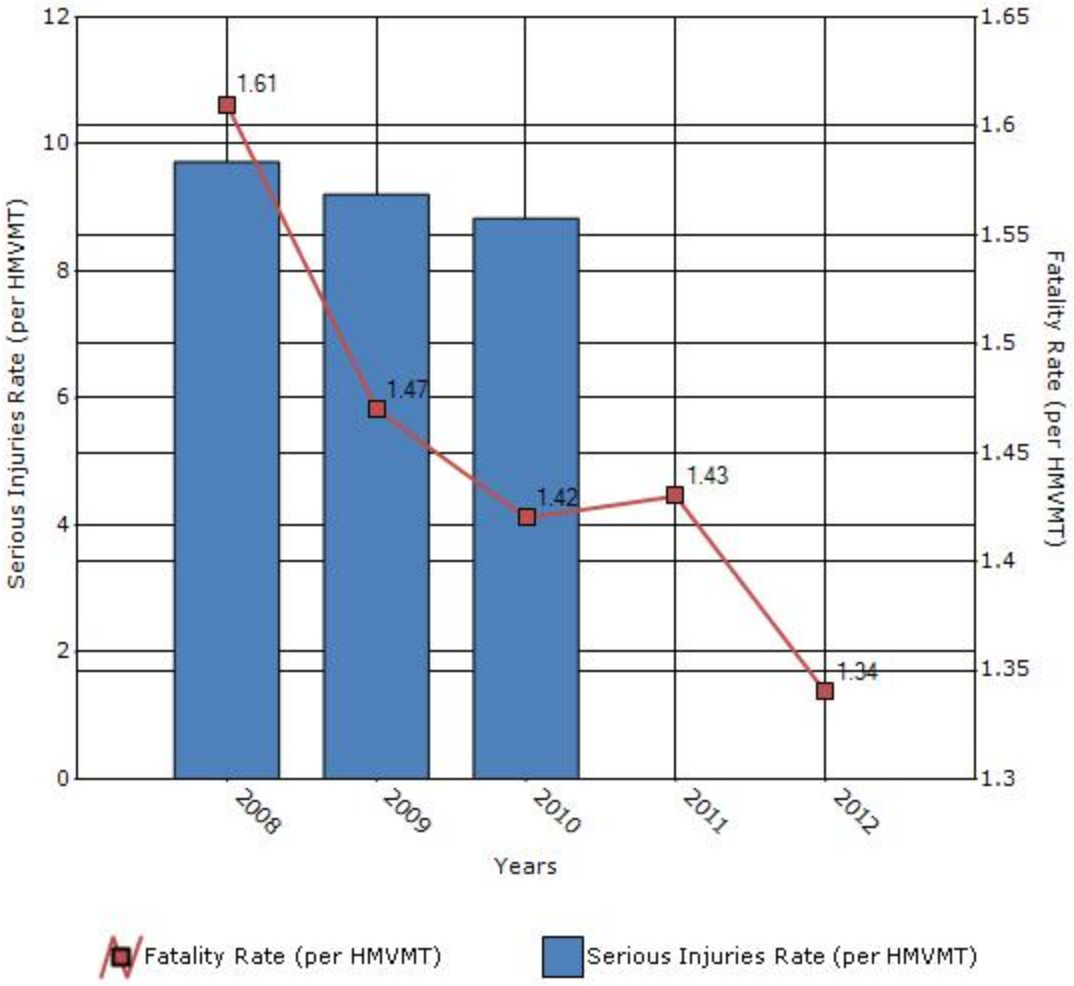
| Performance Measures* | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| **Number of fatalities** | 81 | 73 | 71 | 70 | 64 |
| **Number of serious injuries** | 486 | 460 | 436 | 0 | 0 |
| **Fatality rate (per HMVMT)** | 1.61 | 1.47 | 1.42 | 1.43 | 1.34 |
| **Serious injury rate (per HMVMT)** | 9.72 | 9.21 | 8.83 | 0 | 0 |

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

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



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

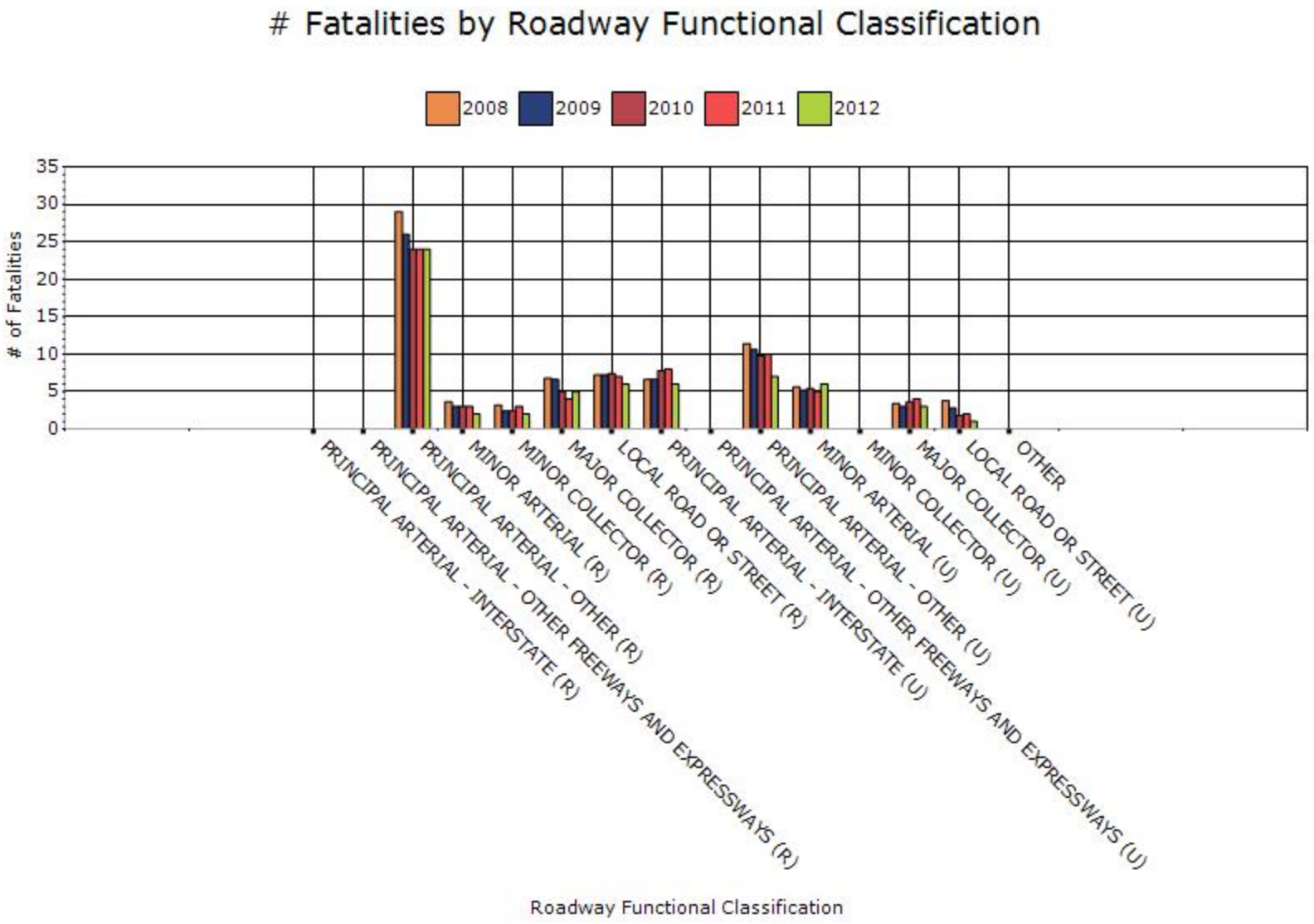


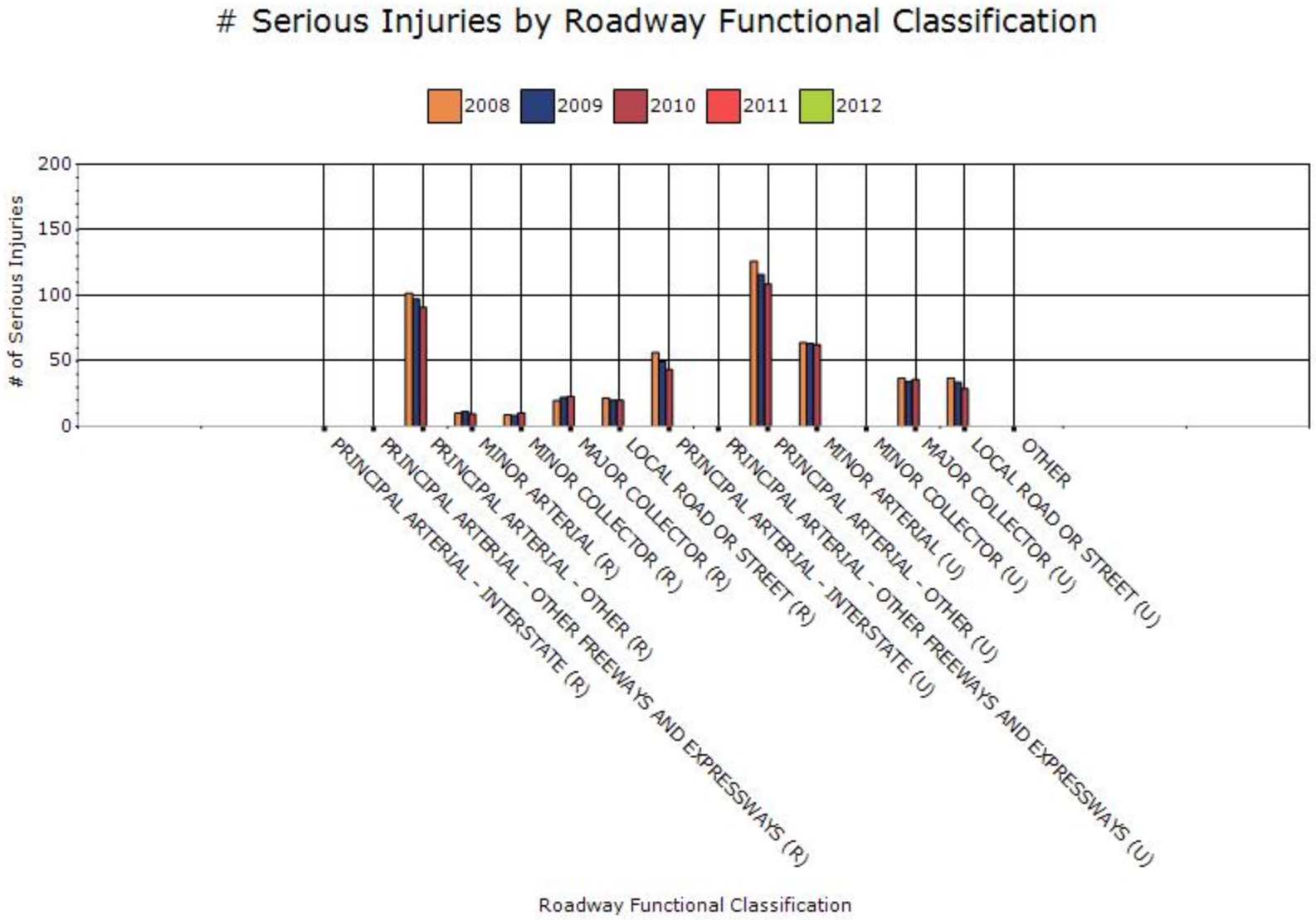
**To the maximum extent possible, present performance measure* data by functional classification and ownership.**

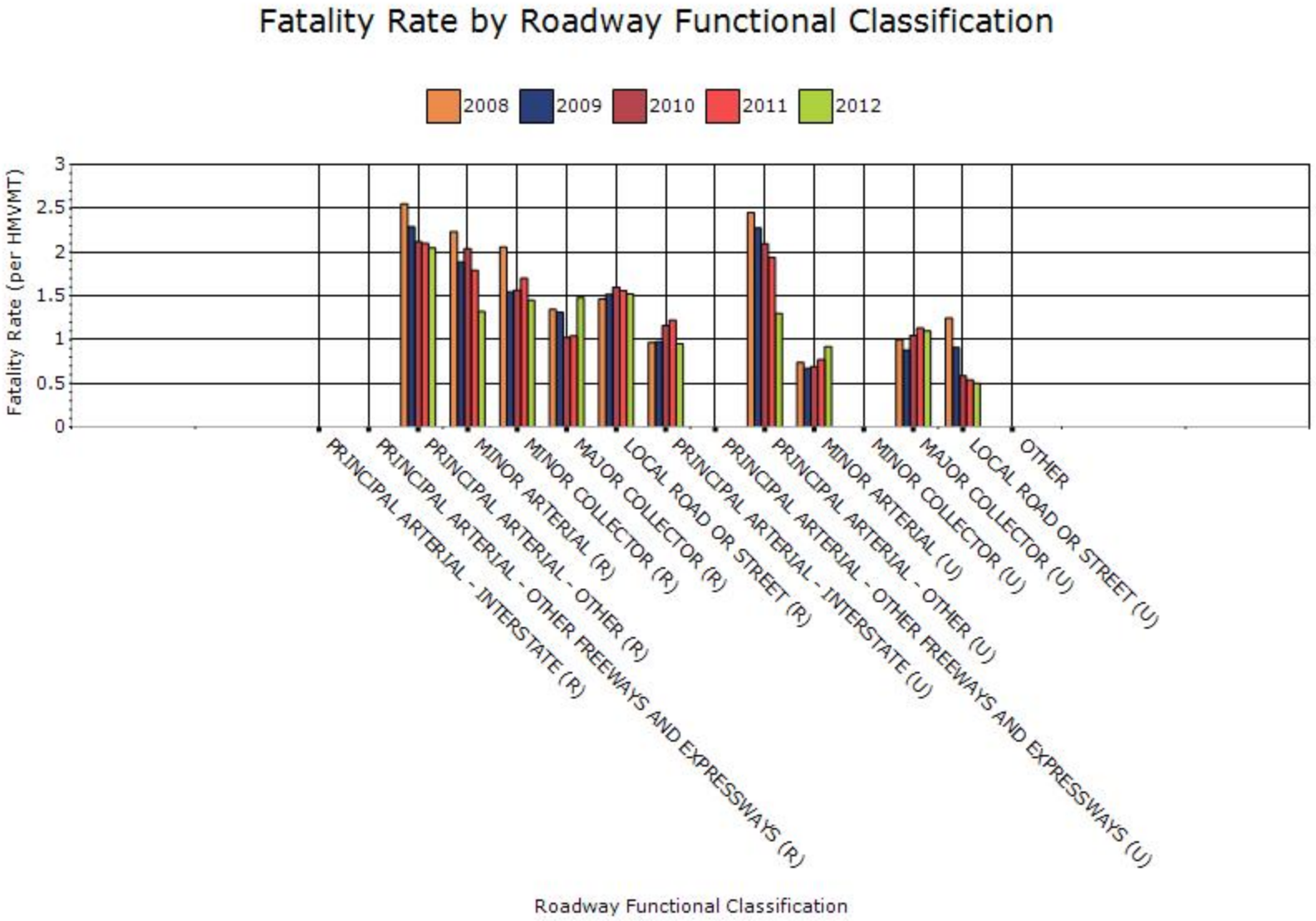
## Year - 2012

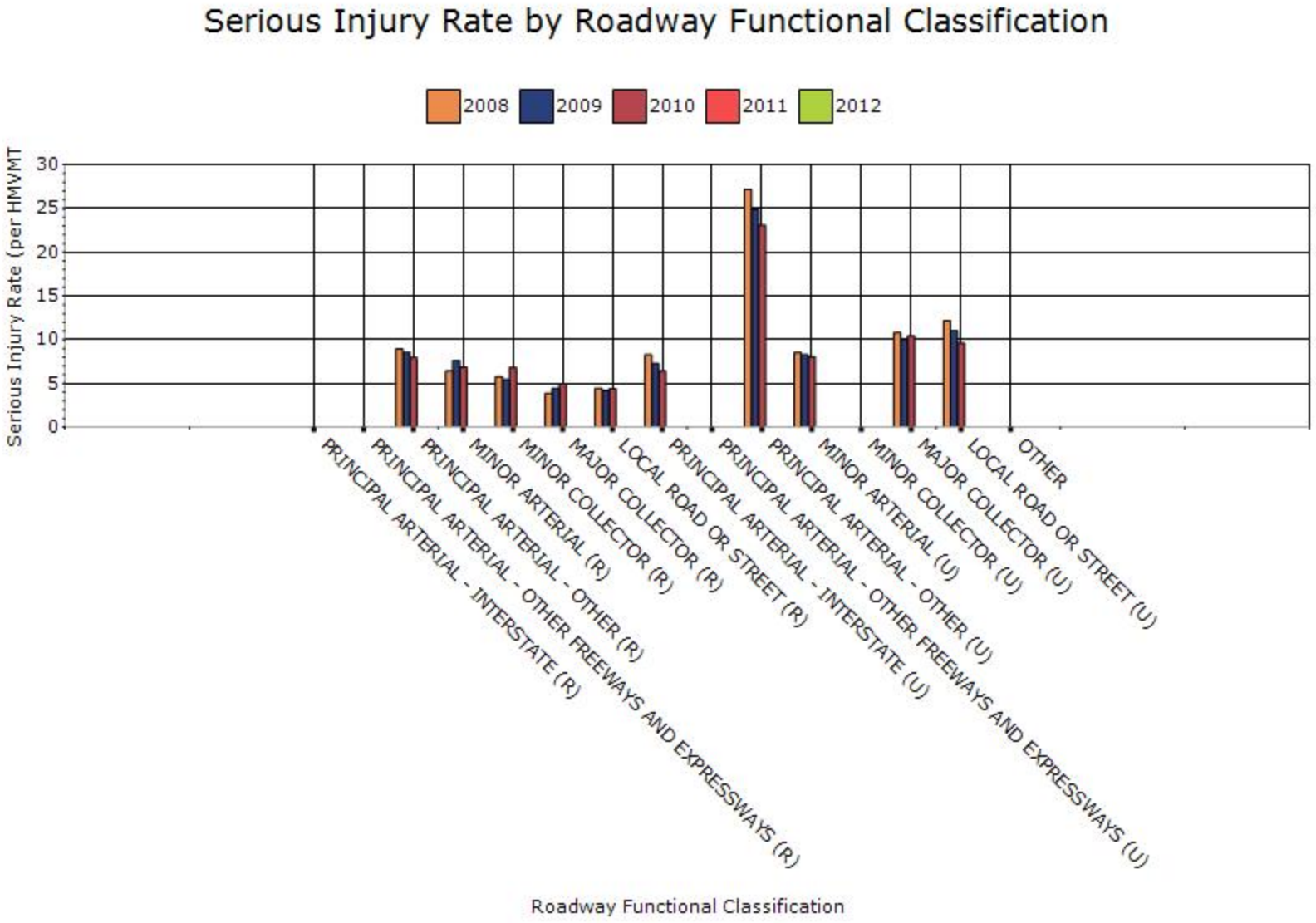
| Function Classification | Number of fatalities | Number of serious injuries | Fatality rate (per HMVMT) | Serious injury rate (per HMVMT) |
|---|---|---|---|---|
| **RURAL PRINCIPAL ARTERIAL - INTERSTATE** | 0 | 0 | 0 | 0 |
| **RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS** | 0 | 0 | 0 | 0 |
| **RURAL PRINCIPAL ARTERIAL - OTHER** | 24 | 0 | 2.05 | 0 |
| **RURAL MINOR ARTERIAL** | 2 | 0 | 1.32 | 0 |
| **RURAL MINOR COLLECTOR** | 2 | 0 | 1.45 | 0 |
| **RURAL MAJOR COLLECTOR** | 5 | 0 | 1.48 | 0 |
| **RURAL LOCAL ROAD OR STREET** | 6 | 0 | 1.52 | 0 |
| **URBAN PRINCIPAL** | 6 | 0 | 0.95 | 0 |

| | | | | |
|---|---|---|---|---|
| **ARTERIAL - INTERSTATE** | | | | |
| **URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS** | 0 | 0 | 0 | 0 |
| **URBAN PRINCIPAL ARTERIAL - OTHER** | 7 | 0 | 1.3 | 0 |
| **URBAN MINOR ARTERIAL** | 6 | 0 | 0.92 | 0 |
| **URBAN MINOR COLLECTOR** | 0 | 0 | 0 | 0 |
| **URBAN MAJOR COLLECTOR** | 3 | 0 | 1.1 | 0 |
| **URBAN LOCAL ROAD OR STREET** | 1 | 0 | 0.5 | 0 |
| **OTHER** | 0 | 0 | 0 | 0 |
| **OTHER** | 0 | 0 | 0 | 0 |


# Fatalities by Roadway Functional Classification
2008
2009
2010
2011
2012
# of Fatalities
35
30
25
20
15
10
5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
LOCAL ROAD OR STREET (U)
OTHER
Roadway Functional Classification


# Serious Injuries by Roadway Functional Classification
2008
2009
2010
2011
2012
# of Serious Injuries
200
150
100
50
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
LOCAL ROAD OR STREET (U)
OTHER
Roadway Functional Classification

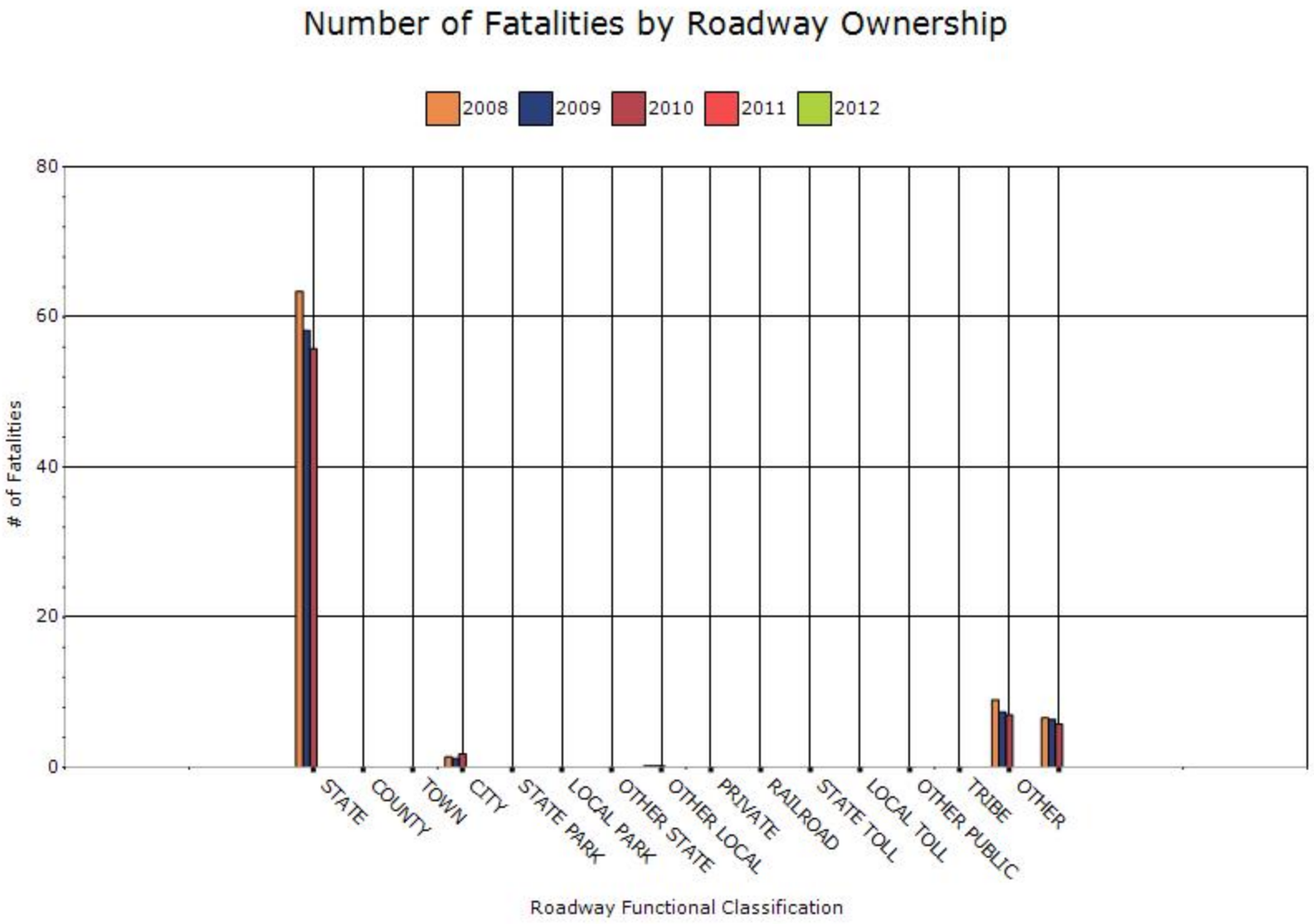

Fatality Rate by Roadway Functional Classification
2008
2009
2010
2011
2012
Fatality Rate (per HMVMT)
3
2.5
2
1.5
1
0.5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
LOCAL ROAD OR STREET (U)
OTHER
Roadway Functional Classification

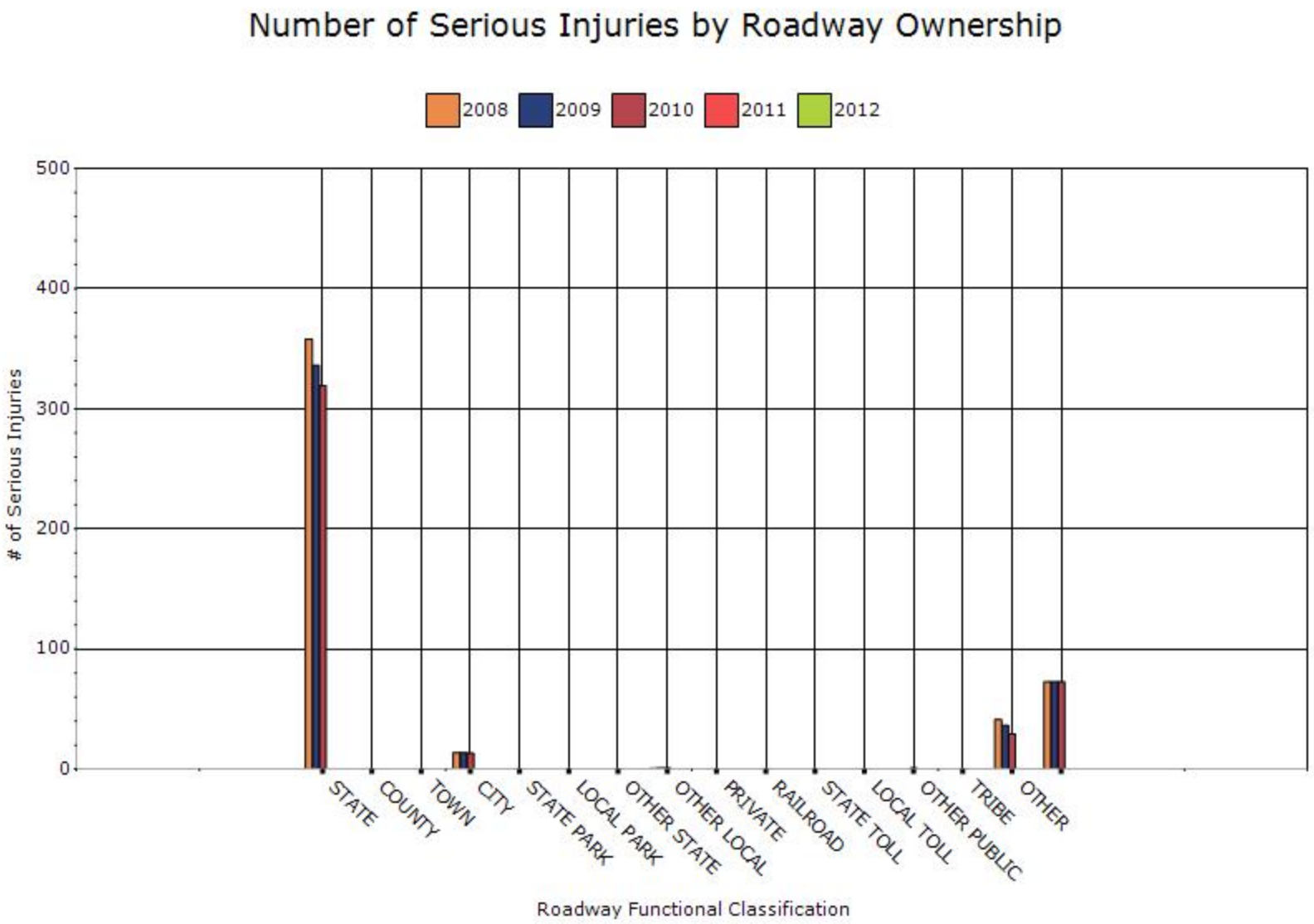

Serious Injury Rate by Roadway Functional Classification
2008
2009
2010
2011
2012
Serious Injury Rate (per HMVMT
30
25
20
15
10
5
0
PRINCIPAL ARTERIAL - INTERSTATE (R)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (R)
PRINCIPAL ARTERIAL - OTHER (R)
MINOR ARTERIAL (R)
MINOR COLLECTOR (R)
MAJOR COLLECTOR (R)
LOCAL ROAD OR STREET (R)
PRINCIPAL ARTERIAL - INTERSTATE (U)
PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS (U)
PRINCIPAL ARTERIAL - OTHER (U)
MINOR ARTERIAL (U)
MINOR COLLECTOR (U)
MAJOR COLLECTOR (U)
LOCAL ROAD OR STREET (U)
OTHER
Roadway Functional Classification

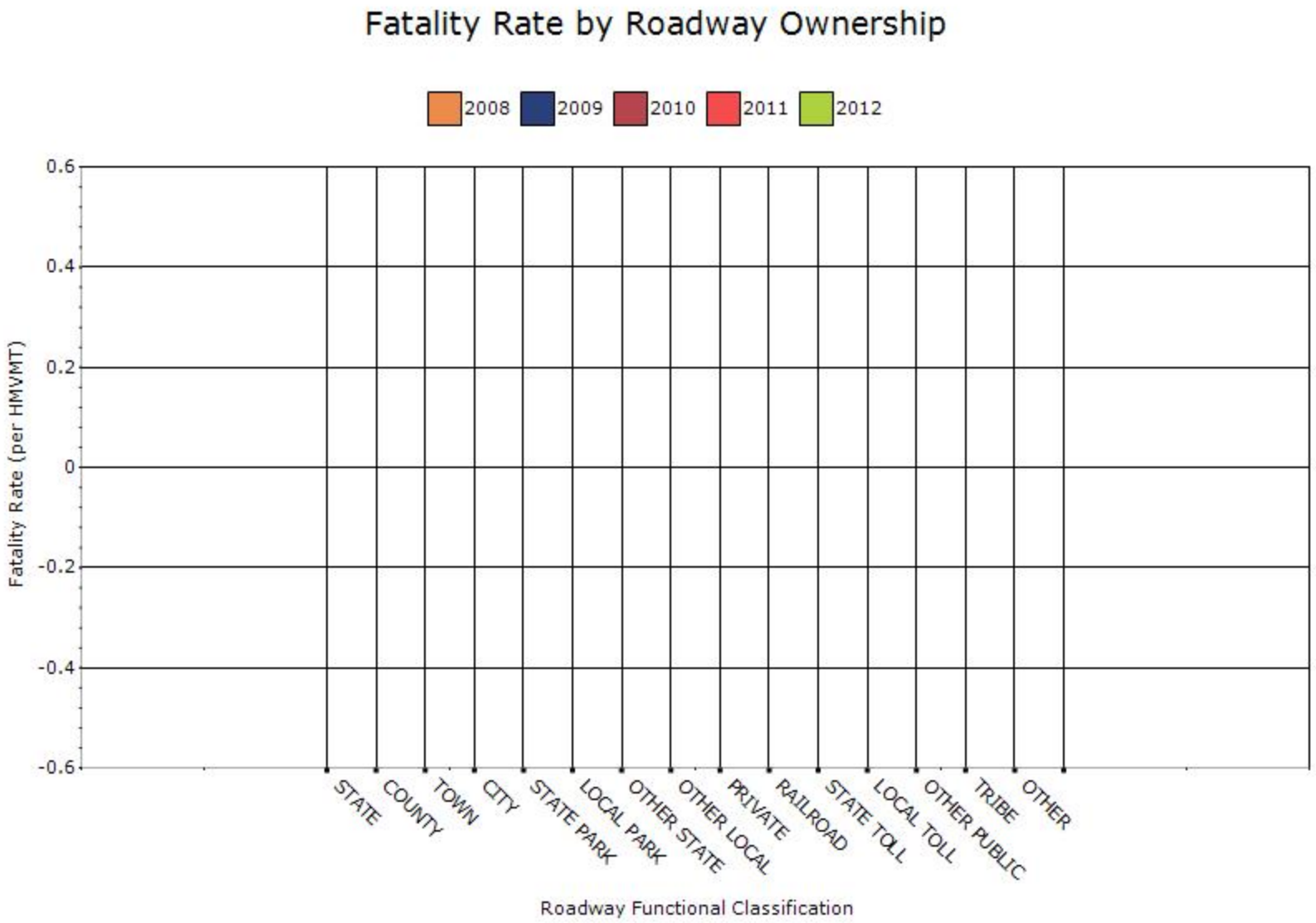
# Year - 2012

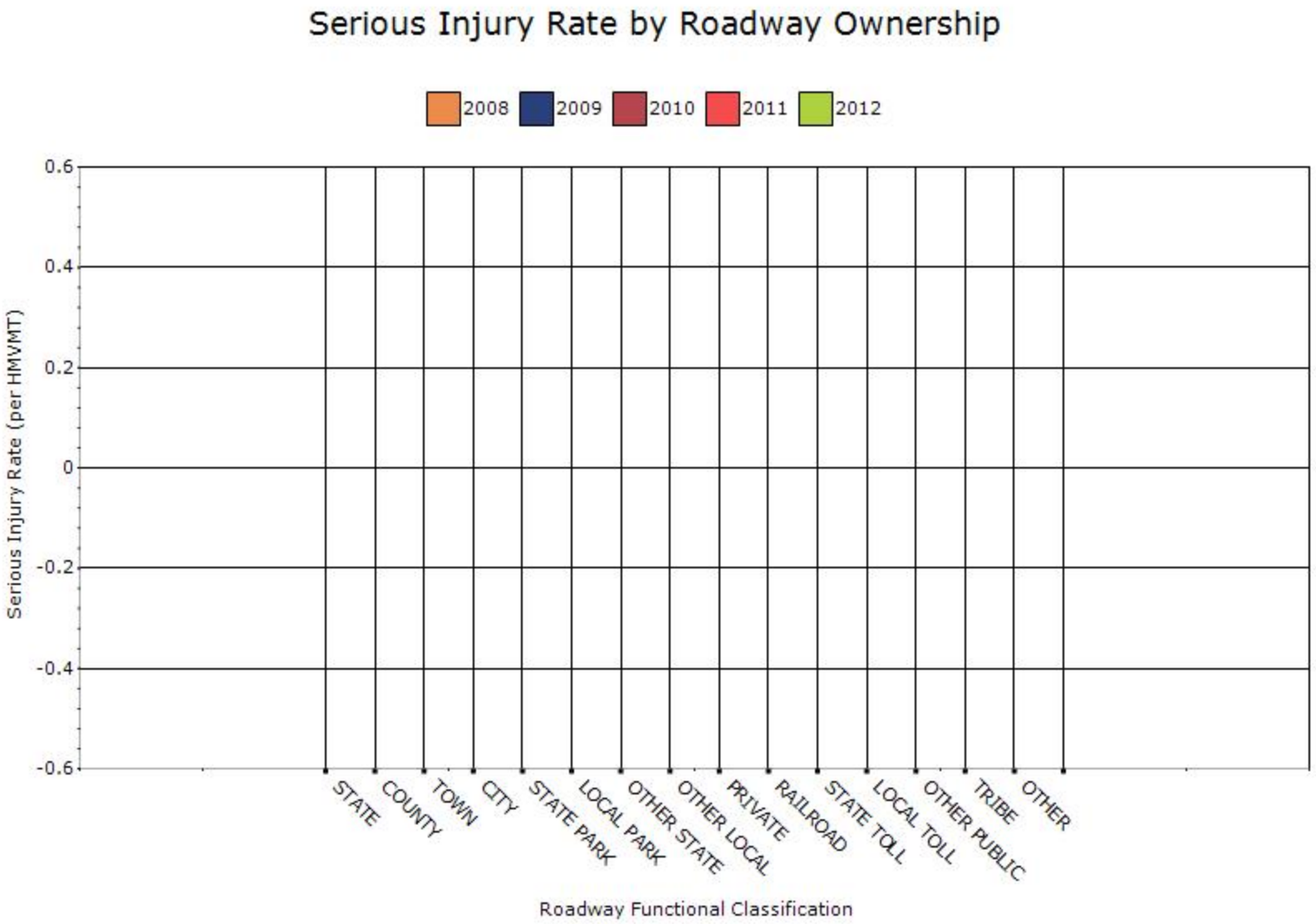
| Roadway Ownership | Number of fatalities | Number of serious injuries | Fatality rate (per HMVMT) | Serious injury rate (per HMVMT) |
|---|---|---|---|---|
| **STATE HIGHWAY AGENCY** | 0 | 0 | 0 | 0 |
| **COUNTY HIGHWAY AGENCY** | 0 | 0 | 0 | 0 |
| **TOWN OR TOWNSHIP HIGHWAY AGENCY** | 0 | 0 | 0 | 0 |
| **CITY OF MUNICIPAL HIGHWAY AGENCY** | 0 | 0 | 0 | 0 |
| **STATE PARK, FOREST, OR RESERVATION AGENCY** | 0 | 0 | 0 | 0 |
| **LOCAL PARK, FOREST OR RESERVATION AGENCY** | 0 | 0 | 0 | 0 |
| **OTHER STATE AGENCY** | 0 | 0 | 0 | 0 |
| **OTHER LOCAL AGENCY** | 0 | 0 | 0 | 0 |
| **PRIVATE (OTHER THAN RAILROAD)** | 0 | 0 | 0 | 0 |

| | | | | |
|---|---|---|---|---|
| **RAILROAD** | 0 | 0 | 0 | 0 |
| **STATE TOLL AUTHORITY** | 0 | 0 | 0 | 0 |
| **LOCAL TOLL AUTHORITY** | 0 | 0 | 0 | 0 |
| **OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)** | 0 | 0 | 0 | 0 |
| **INDIAN TRIBE NATION** | 0 | 0 | 0 | 0 |
| **OTHER** | 0 | 0 | 0 | 0 |
| **BOROUGH** | 0 | 0 | 0 | 0 |
| **BOROUGH** | 0 | 0 | 0 | 0 |


Number of Fatalities by Roadway Ownership
2008
2009
2010
2011
2012
80
60
40
20
0
# of Fatalities
STATE
COUNTY
TOWN
CITY
STATE PARK
LOCAL PARK
OTHER STATE
OTHER LOCAL
PRIVATE
RAILROAD
STATE TOLL
LOCAL TOLL
OTHER PUBLIC
TRIBE
OTHER
Roadway Functional Classification


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


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


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

Functional Class: 2011 and 2012 serious injury data is not available. Five year averages for number of serious injuries and serious injury rate were not computed for those years.

Ownership: 2011 and 2012 serious injury data is not available. Five year averages for number of serious injuries and serious injury rate were not computed for those years. Fatality data for 2011 and 2012 have not been linked to ownership data at the time of this report. Five year averages for number of fatalities and fatality rate were not computed for those years. The ADOT does not have VMT by ownership so cannot compute the fatality and serious injury rates per HMVMT for any year. Most crashes do occur on state roads.

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

No response.

## 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<br><br>Performance Measures | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| **Fatality rate (per capita)** | 0.1 | 0.08 | 0.08 | 0.07 | 0.07 |
| **Serious injury rate (per capita)** | 0.28 | 0.25 | 0.27 | 0.27 | 0 |
| **Fatality and serious injury rate (per capita)** | 0.37 | 0.32 | 0.35 | 0.35 | 0 |

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

Compute five year rolling average rates for Older Drivers and Pedestrians.

Tabulate Annual totals for a. Fatal Driver, b. Fatal Ped, c. SI Driver, d. Serious Injury Ped and e. Total of Fatal/SI drivers and Peds.

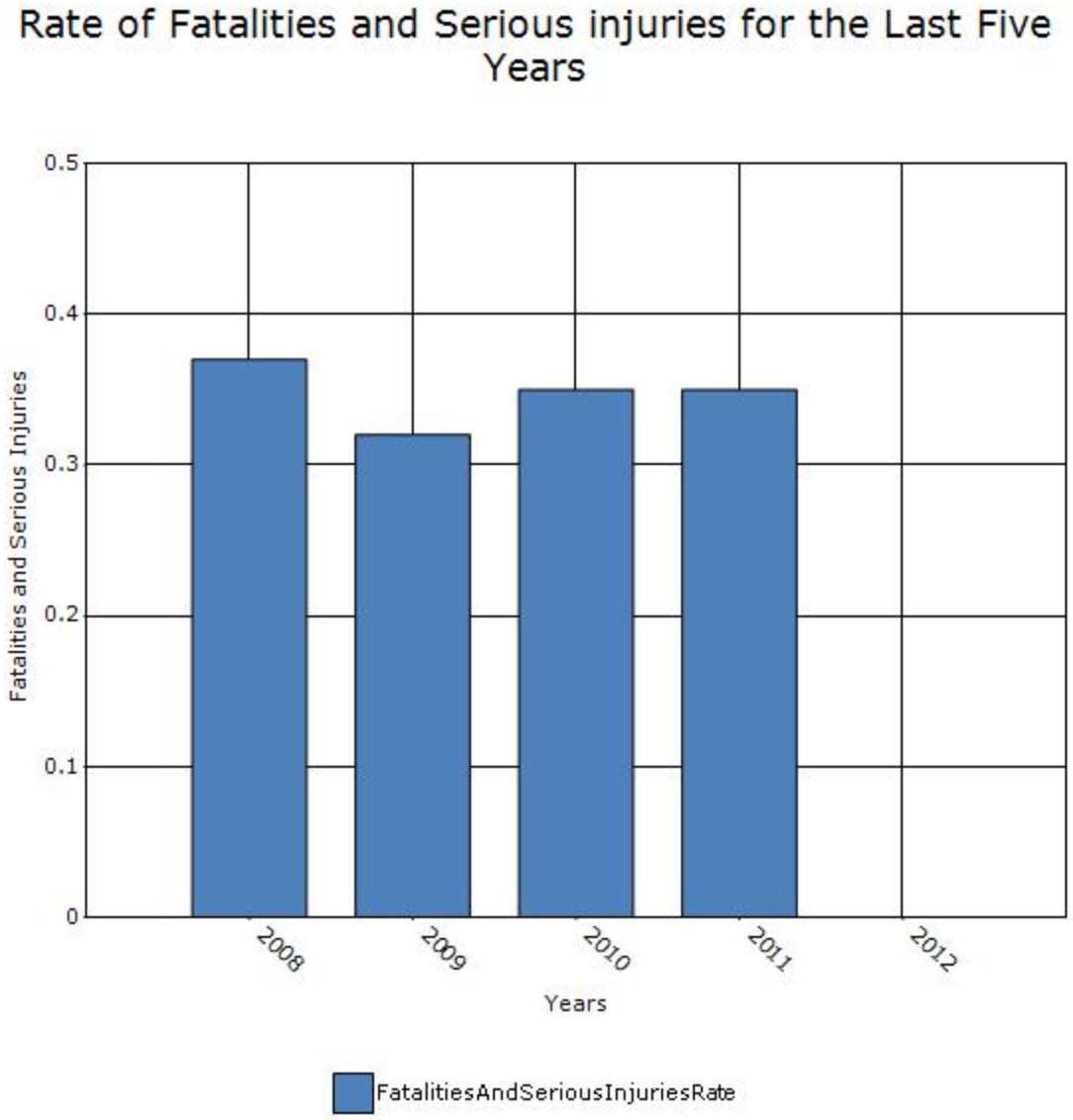
Population Figures were provided by state in the MAP-21 Older Driver Guidance web page.

Compute annual rates for each grouping for years 2004 through 2012 using Population Figures for the applicable year (F+MI 2008/ PopFig 2008) .

Sum five consecutive years and divide by 5 years to produce 5 year rolling average.

Example:

F+SI Rate 2011 =[(F+MI 2007/PopFig 2007)+(F+MI 2008/ PopFig 2008)+(F+MI 2009/ PopFig 2009)+(F+MI 2010/ PopFig 2010)+(F+MI 2011/ PopFig 2011)]/5




**Does the older driver special rule apply to your state?**

Yes

**If yes, describe the approach to include respective strategies to address the increase in those rates in the State SHSP.**

<p>Enhance older driver safe driving programs as described in the Alaska Strategic Highway Safety Plan - 2013 Revision. Identify and implement appropriate engineering strategies to address high-crash locations involving older drivers and pedestrians. Actions of this strategy emphasize engineering measures described in FHWA Highway Design Handbook for Older Drivers and Pedestrians from among

other applicable countermeasures.</p>

## 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:

**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-Systemic

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

Alaska has initiated a process to accept systemic projects into the HSIP.

## SHSP Emphasis Areas

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

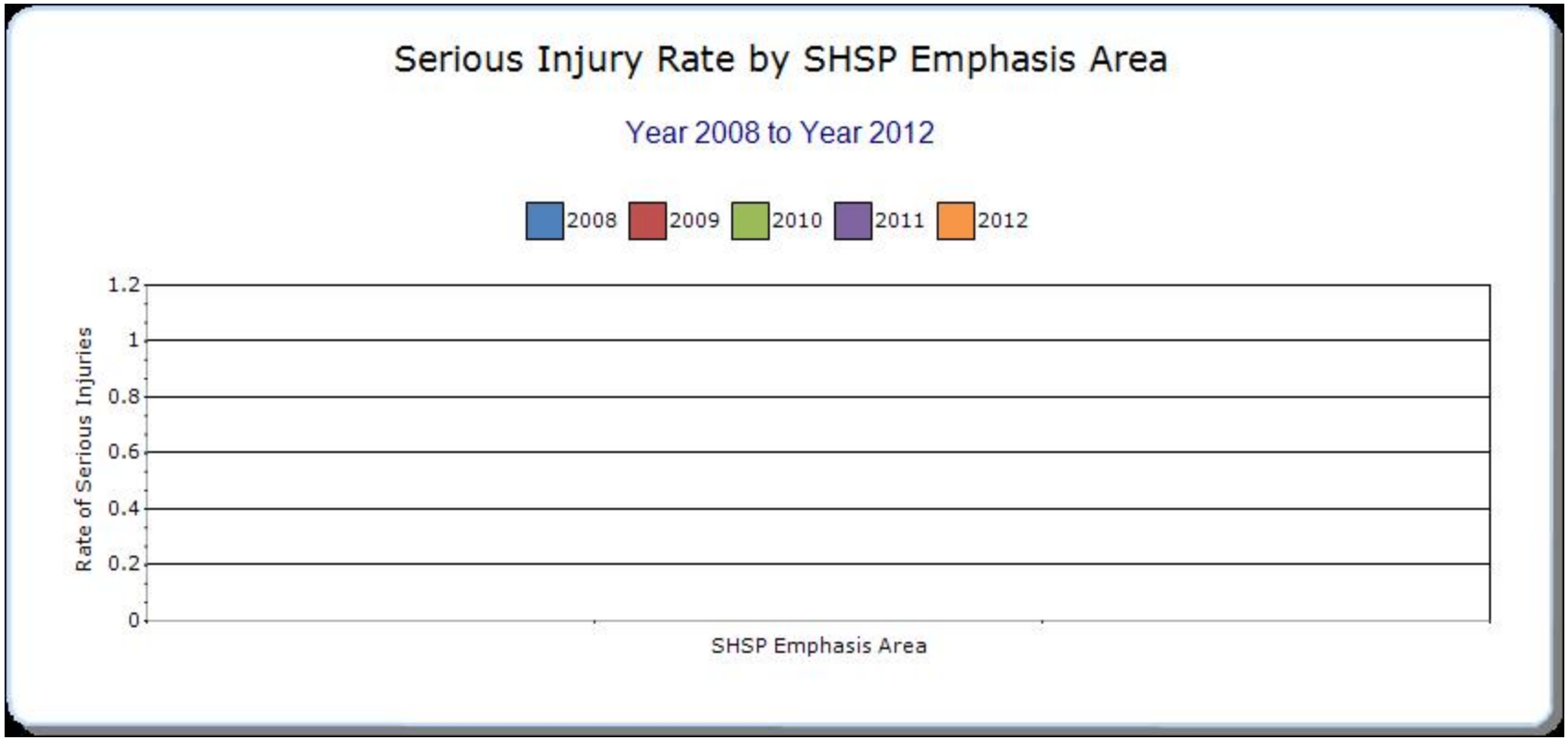
## Year - 2012

| HSIP-related SHSP Emphasis Areas | Target Crash Type | Number of fatalities | Number of serious injuries | Fatality rate (per HMVMT) | Serious injury rate (per HMVMT) | Other-1 | Other-2 | Other-3 |
|---|---|---|---|---|---|---|---|---|
| **Roadways** | **Lane Departure, Intersection** | **50** | **0** | **1.05** | **0** | **0** | **0** | **0** |
| **Driver Behavior** | Young Drivers, Impaired Driving | 30 | 0 | 0.62 | 0 | 0 | 0 | 0 |
| **Special Users** | Pedestrians, Bicycles, Motorcycles | 17 | 0 | 0.36 | 0 | 0 | 0 | 0 |
| | | | | | | | | |


Number of Fatalities by SHSP Emphasis Area
Year 2008 to Year 2012
2008
2009
2010
2011
2012
1.2
1
0.8
0.6
0.4
0.2
0
# of Fatalities
SHSP Emphasis Area


Number of Serious Injuries by SHSP Emphasis Area
Year 2008 to Year 2012
2008
2009
2010
2011
2012
1.2
1
0.8
0.6
0.4
0.2
0
# of Serious Injuries
SHSP Emphasis Area


Fatality Rate by SHSP Emphasis Area
Year 2008 to Year 2012
2008
2009
2010
2011
2012
1.2
1
0.8
0.6
0.4
0.2
0
Rate of Fatalities
SHSP Emphasis Area



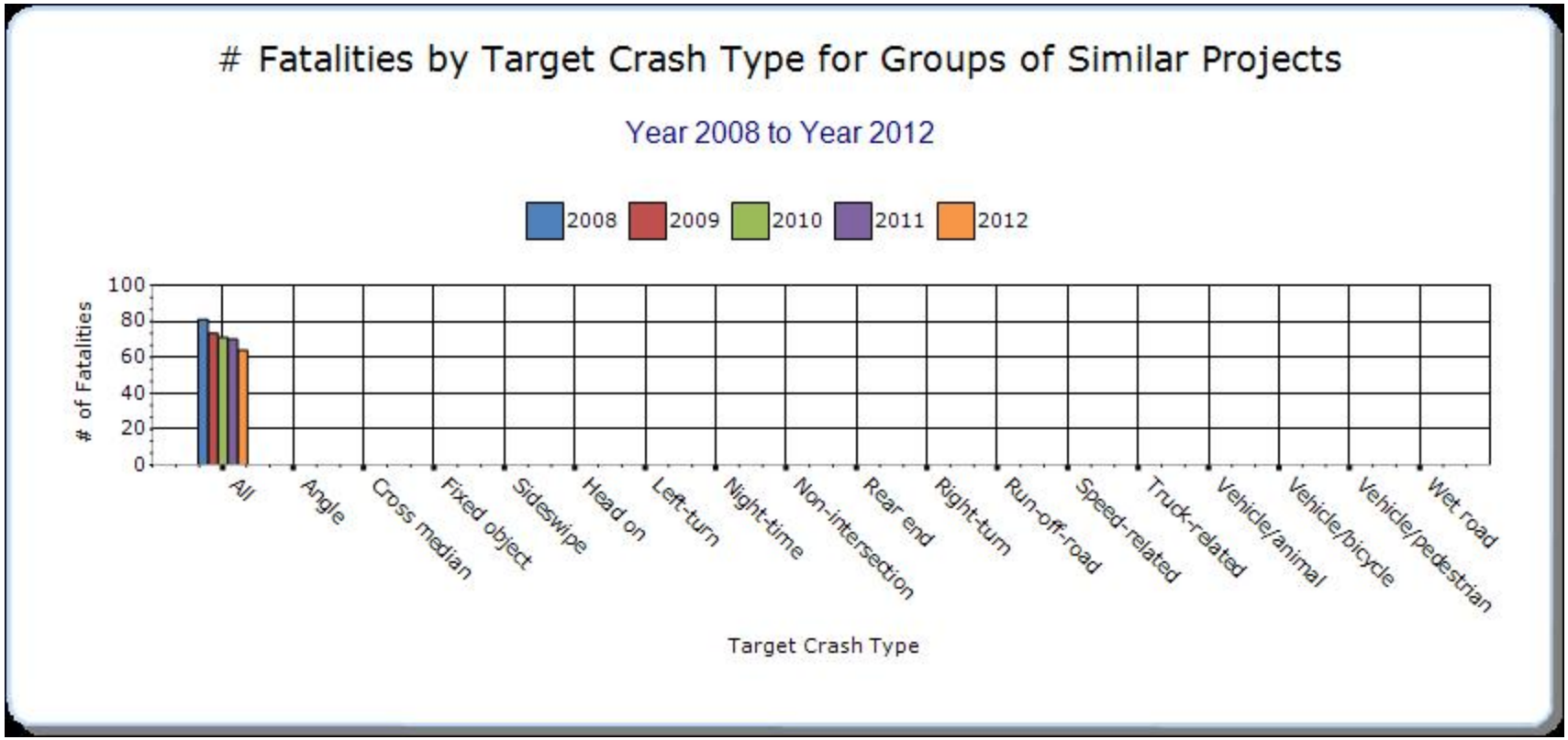

2011 and 2012 serious injury data is not available.

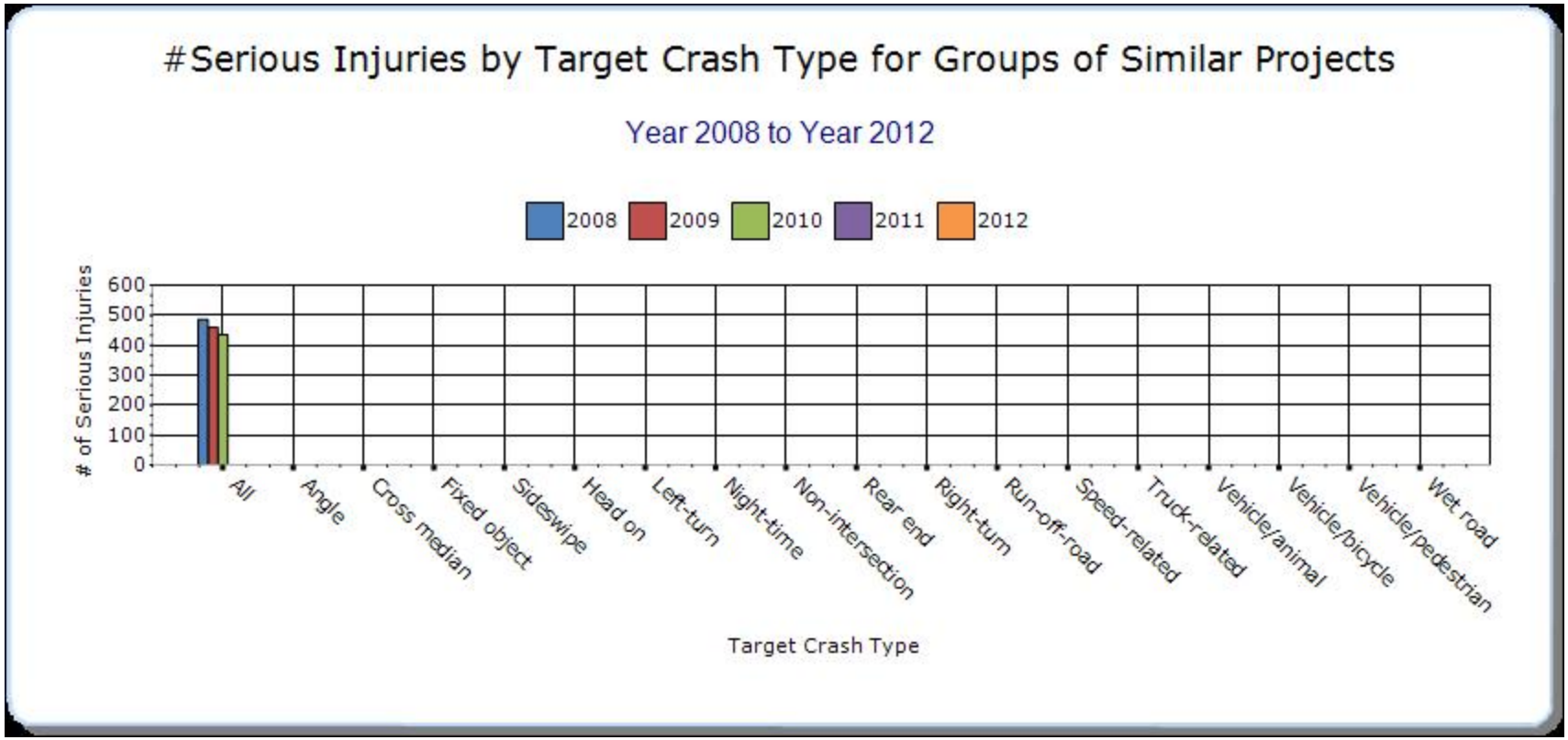
## Groups of similar project types

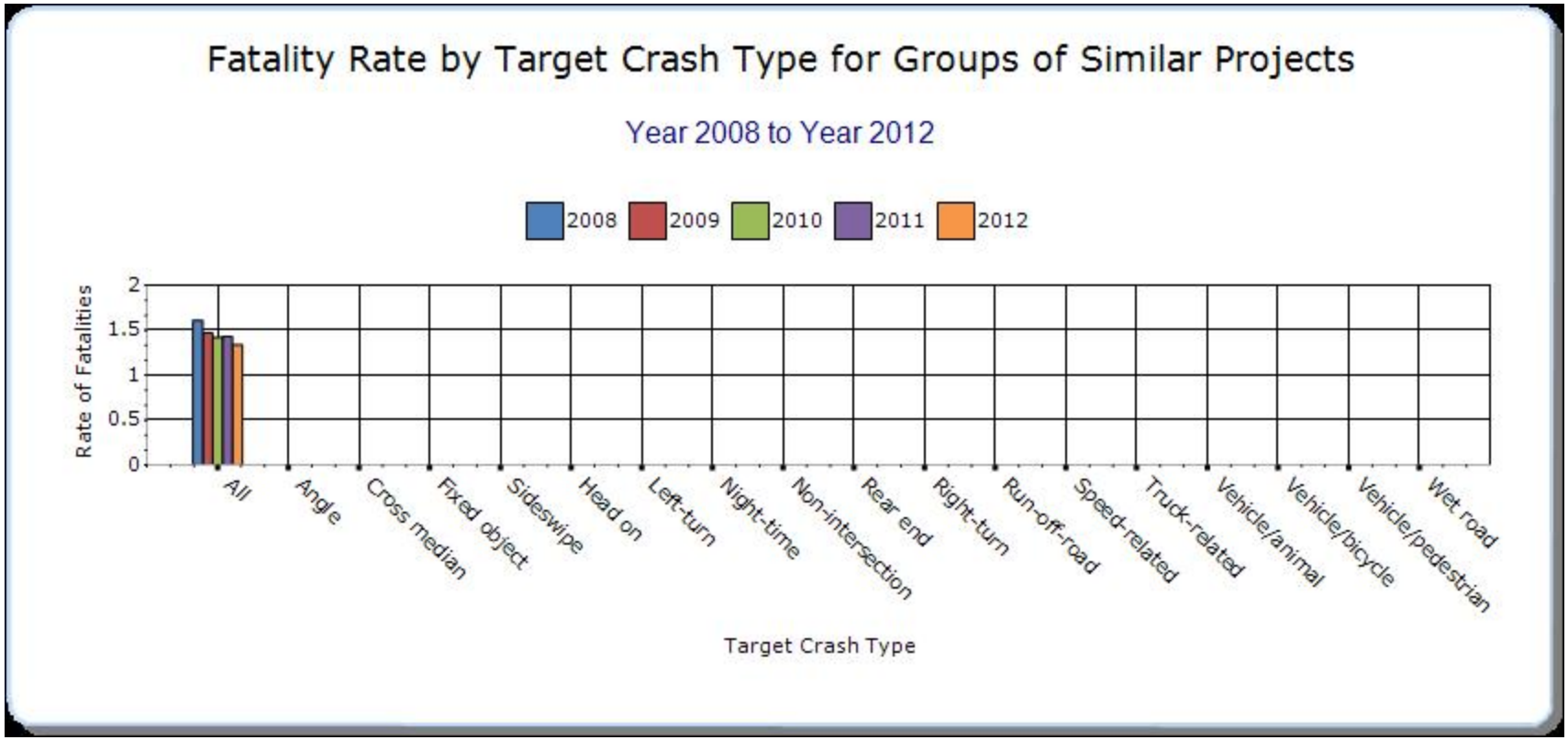
**Present the overall effectiveness of groups of similar types of projects.**

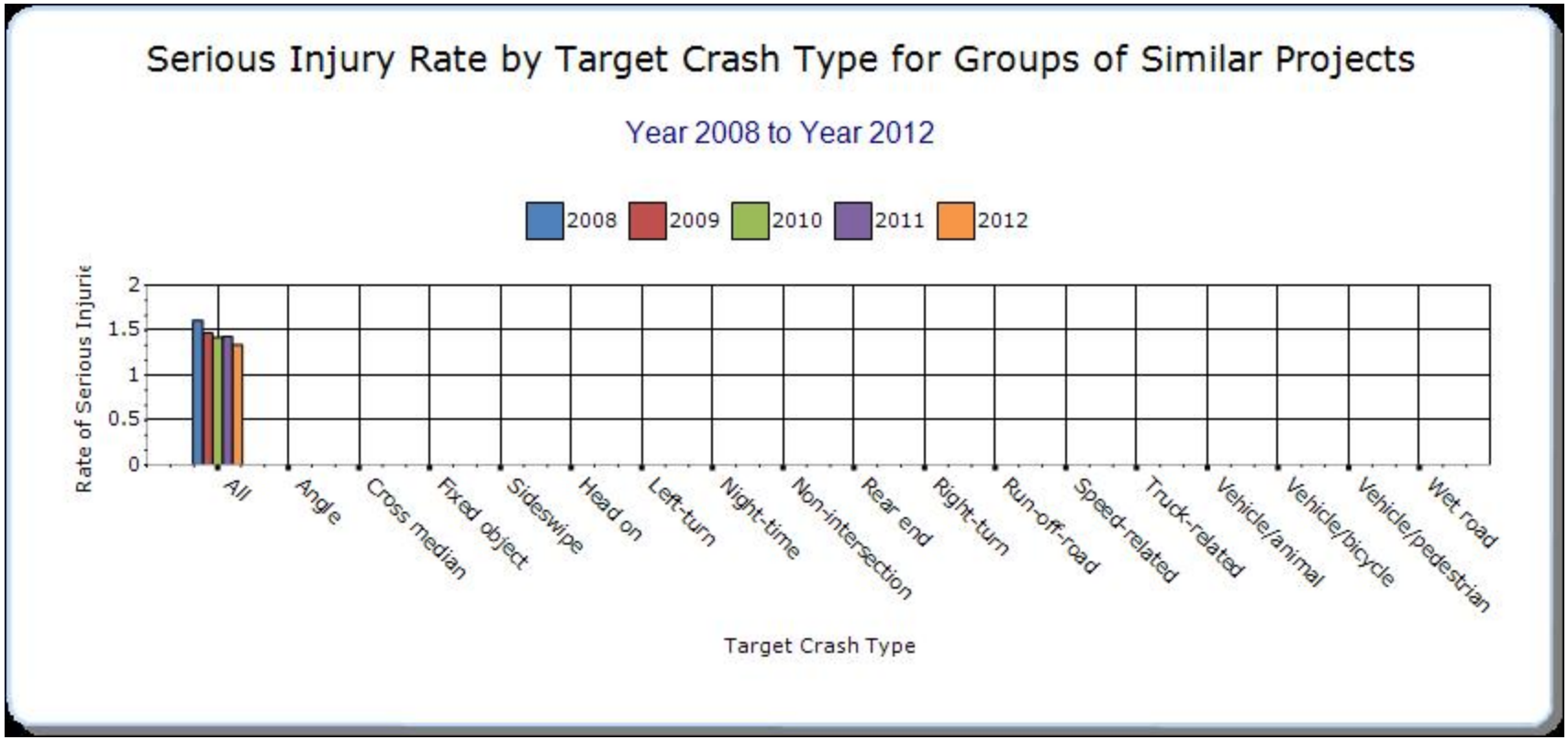
## Year - 2012

| HSIP Sub-program Types | Target Crash Type | Number of fatalities | Number of serious injuries | Fatality rate (per HMVMT) | Serious injury rate (per HMVMT) | Other-1 | Other-2 | Other-3 |
|---|---|---|---|---|---|---|---|---|
| Other-Entire HSIP | All | 64 | 0 | 1.34 | 0 | 0 | 0 | 0 |
| | | | | | | | | |


# Fatalities by Target Crash Type for Groups of Similar Projects
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Fatalities
100
80
60
40
20
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


#Serious Injuries by Target Crash Type for Groups of Similar Projects
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Serious Injuries
600
500
400
300
200
100
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Fatality Rate by Target Crash Type for Groups of Similar Projects
Year 2008 to Year 2012
2008
2009
2010
2011
2012
Rate of Fatalities
2
1.5
1
0.5
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

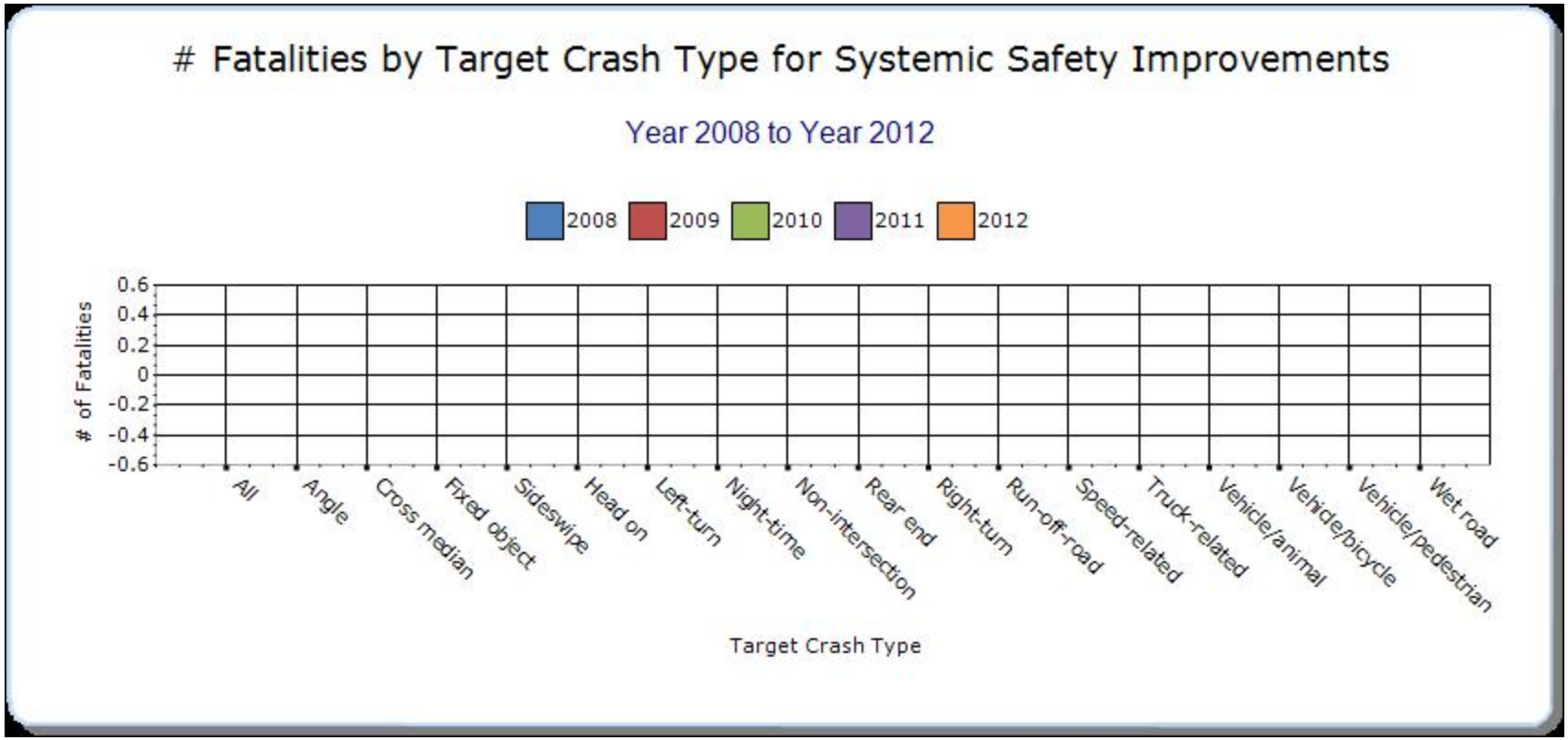

Serious Injury Rate by Target Crash Type for Groups of Similar Projects
Year 2008 to Year 2012
2008
2009
2010
2011
2012
Rate of Serious Injurie
2
1.5
1
0.5
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

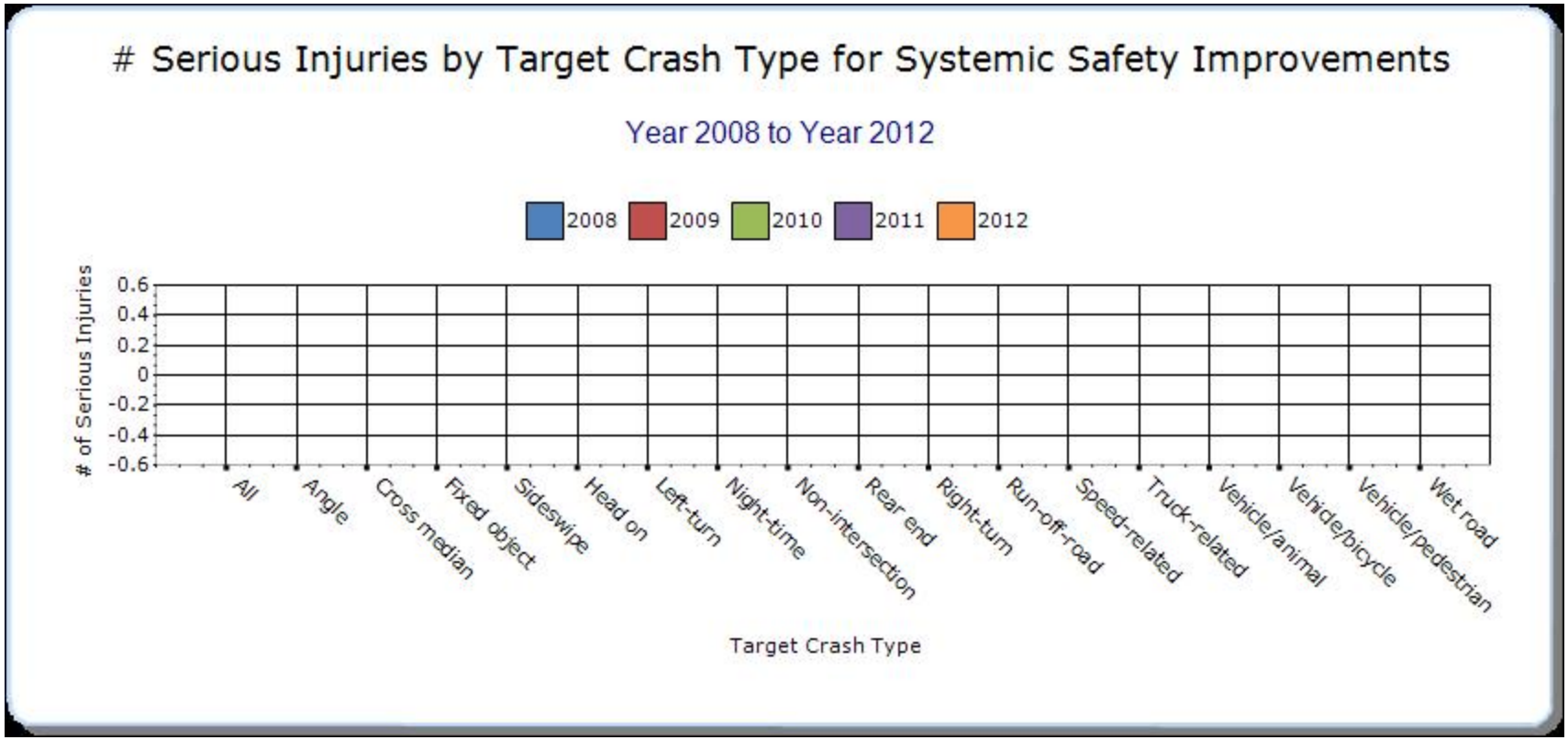
## Systemic Treatments

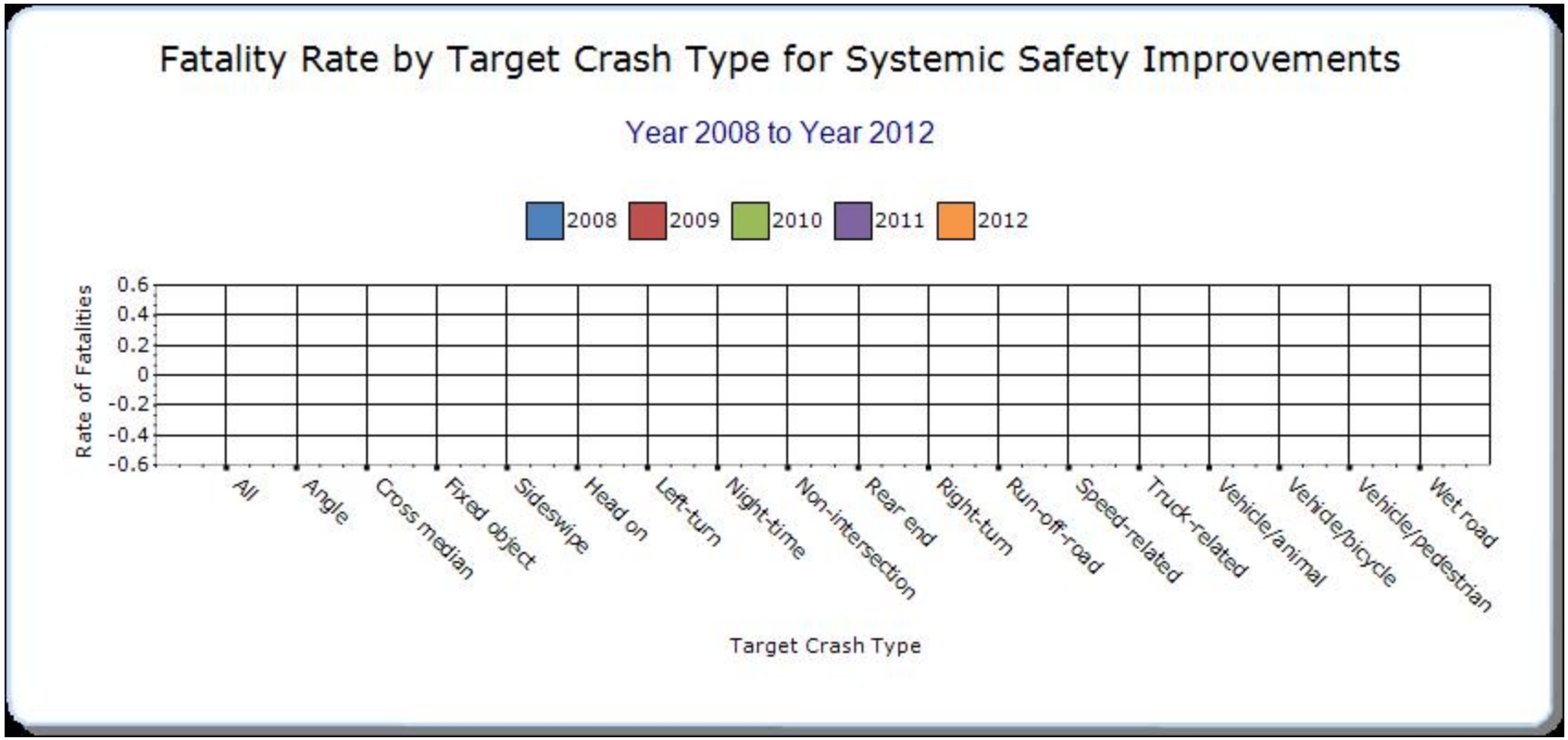
**Present the overall effectiveness of systemic treatments.**.

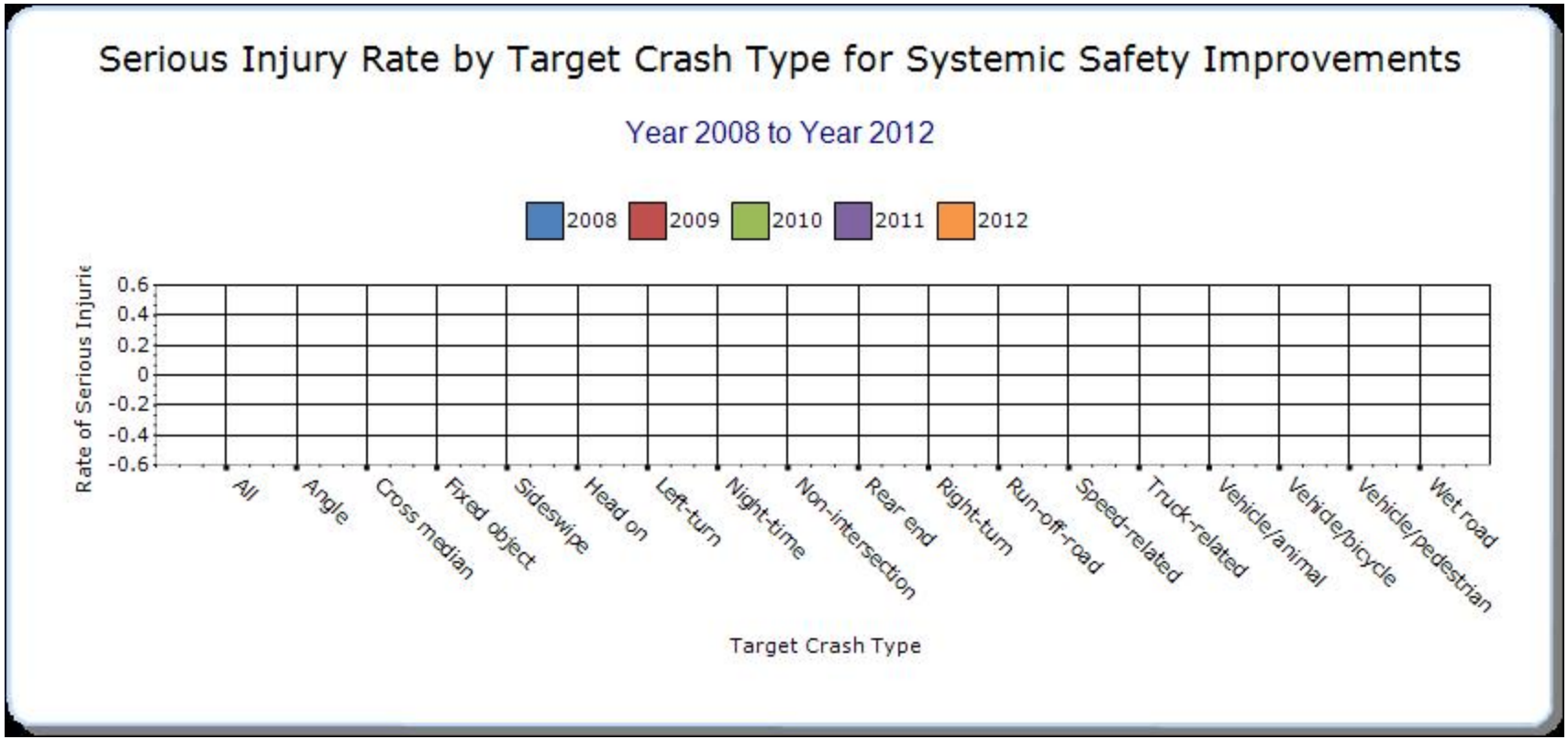
## Year - 2012

| Systemic improvement | Target Crash Type | Number of fatalities | Number of serious injuries | Fatality rate (per HMVMT) | Serious injury rate (per HMVMT) | Other-1 | Other-2 | Other-3 |
|---|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | | |


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


# Serious Injuries by Target Crash Type for Systemic Safety Improvements
Year 2008 to Year 2012
2008
2009
2010
2011
2012
# of Serious Injuries
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


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


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

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

No response.

**Provide project evaluation data for completed projects (optional).**

| Location | Functional Class | Improvement Category | Improvement Type | Bef-Fatal | Bef-Serious Injury | Bef-Other Injury | Bef-PDO | Bef-Total | Aft-Fatal | Aft-Serious Injury | Aft-Other Injury | Aft-PDO | Aft-Total | Evaluation Results (Benefit/ Cost Ratio) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Northern Lights at Rose Street, Anchorage** | Urban Principal Arterial - Other | Access management | Change in access - close or restrict existing access | 0 | 0 | 7 | 3 | 10 | 0 | 0 | 0 | 5 | 5 | 7.12 |
| **Parks Highway MP 315-321** | Rural Principal Arterial - Other | Roadway signs and traffic control | Roadway signs and traffic control - other | 1 | 2 | 11 | 12 | 26 | 0 | 0 | 3 | 3 | 6 | 30.75 |
| | | | | | | | | | | | | | | |

# Optional Attachments

| Sections | Files Attached |
| --- | --- |
| **Program Structure: Program Administration** | 2013.03.21 HSIP Hdbk FINALwAppdx.pdf |

# 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.