Highway Safety Improvement Program

Data Driven Decisions

Alaska
Highway Safety Improvement Program
2016 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 projects, and evaluates actual project and program effectiveness. HSIP dollars are distributed to the most effective projects from a single statewide fund. The purpose 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 DOT&PF's Chief Engineer for approval. Following 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.

Important Note on Performance Measures calculated by Online Reporting Tool: Alaska does not yet have serious injury data for 2014 and 2015. Alaska's serious injury performance measures for 2014 and 2015 will be updated when the data for those years are finalized.

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

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

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 DOT&PF Chief Engineer 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.

Other-Municipality of Anchorage

Other-City of Fairbanks
Other-FHWA

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

Other-new project approval

Under terms of the new stewardship and oversight agreement, approval of eligible projects is delegated to the state. DOT&PF's Chief Engineer now approves new project nominations for funding eligibility.

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.

Other-Entire HSIP

Program: **Other-Entire HSIP**
Date of Program Methodology: **1/1/2016**

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
All crashes	Volume	

What project identification methodology was used for this program?

Crash frequency
Crash rate
Critical rate

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

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

How are highway safety improvement projects advanced for implementation?
Competitive application process

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).
Rank of Priority Consideration

Ranking based on B/C	90
Available funding	10

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

54%

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

Traffic Control Device Rehabilitation
Pavement/Shoulder Widening
Install/Improve Signing
Install/Improve Pavement Marking and/or Delineation
Add/Upgrade/Modify/Remove Traffic Signal

What process is used to identify potential countermeasures?

Engineering Study

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

Other-none

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

-Data Used: Intersection screening is based on all crashes, 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: Railway-Highway grade separations, High-Friction Surface Treatments, illumination, roadway signing and delineation, intersection/signal improvements
-Spot vs. System wide improvements: About 54% of current year project funding addressed system wide improvements. Regional engineers rank segments or corridors (the systems) within their region based on crash performance, and evaluate whether implementing a particular countermeasure throughout the segment (system) would improve crash performance.
-HSIP/SHSP Alignment: All HSIP projects align with SHSP emphasis areas.
-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.

Federal Fiscal Year

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

Funding Category	Programmed*		Obligated	
HSIP (Section 148)	$49,414,649.00	64 %	$33,865,009.00	54 %
HRRR Special Rule	$900,000.00	1 %	$975,178.00	2 %
Penalty Transfer - Section 154	$10,415,000.00	14 %	$12,419,997.00	20 %
Penalty Transfer – Section 164	$10,415,000.00	14 %	$11,489,287.00	18 %

State and Local Funds	$5,590,517.00	7 %	$3,484,019.00	6 %
Totals	$76,735,166.00	100%	$62,233,490.00	100%

How much funding is programmed to local (non-state owned and operated) safety projects?
$6,949,105.00
How much funding is obligated to local safety projects?
$6,067,654.00

How much funding is programmed to non-infrastructure safety projects?
$6,533,040.00
How much funding is obligated to non-infrastructure safety projects?
$1,011,500.00

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
HSIP: COLLEGE ROAD RIGHT TURN LANES	Intersection geometry Auxiliary lanes - add right-turn lane	1 Numbers	381485	381485	Penalty Transfer - Section 154	Urban Minor Arterial	14076	35	State Highway Agency	Intersections	Implement infrastructure projects to address inter
Fairbanks Area Signal Upgrades (combines 10NR01, 1	Intersection traffic control Modify traffic signal - add flashing yellow arrow	57 Numbers	20306156.2	22399618	HSIP (Section 148)	Mixed FCs	0	0	State Highway Agency	Intersections	Implement infrastructure projects to address inter
Parks Highway Rest Areas	Parking Truck parking facilities	29.759 Miles	244896	244896	Penalty Transfer - Section 154	Rural Principal Arterial - Other	0	0	State Highway Agency	Roadway Departure	Implement infrastructure projects to address run-o
Copper River	Roadway signs and traffic control Roadway	36.3 Miles	135705	135705	Penalty	Rural Major	0	0	State Highwa	Roadway Departur	Implement

Highway Signing and Striping	signs and traffic control - other				Transfer – Section 164	Collector			y Agency	e	infrastructure projects to address run-o
Fairbanks Area Signing and Striping	Roadway signs and traffic control Roadway signs and traffic control - other	86.561 Miles	290278	290278	Penalty Transfer – Section 164	Mixed FCs	0	0	State Highway Agency	Roadway Departure	Implement infrastructure projects to address run-o
NR Parks Highway Signing and Striping	Roadway signs and traffic control Roadway signs and traffic control - other	181.068 Miles	541438	541438	Penalty Transfer – Section 164	Rural Principal Arterial - Other	0	0	State Highway Agency	Roadway Departure	Implement infrastructure projects to address run-o
Eastern Alaska Named Highways Signing and Striping	Roadway signs and traffic control Roadway signs and traffic control - other	388.2 Miles	2541520	2541520	Penalty Transfer – Section 164	Mixed FCs	0	0	State Highway Agency	Roadway Departure	Implement infrastructure projects to address run-o
Dalton, Elliott and Steese Highways Signing and St	Roadway signs and traffic control Roadway signs and traffic control - other	711.1 Miles	2234414	2234414	Penalty Transfer – Section 164	Mixed FCs	0	0	State Highway Agency	Roadway Departure	Implement infrastructure projects to address run-o

Parks Hwy MP 321 Speed Feedback Sign	Roadway signs and traffic control Roadway signs and traffic control - other	1 Numbers	5874	5874	Penalty Transfer – Section 164	Rural Principal Arterial - Other	1485	65	State Highway Agency	Roadway Departure	Implement infrastructure projects to address run-o
Fox Intersection Conspicuity Improvements	Roadway Rumble strips - transverse	1 Numbers	67500	75000	HSIP (Section 148)	Rural Principal Arterial - Other	3700	55	State Highway Agency	Intersections	Implement infrastructure projects to address inter
College Median Extension	Access management Median crossover - close crossover	0.2 Miles	180000	200000	HSIP (Section 148)	Urban Principal Arterial - Other	15036	35	State Highway Agency	Intersections	Implement infrastructure projects to address inter
Badger Road Two Way Left Turn Lane	Intersection geometry Auxiliary lanes - add two-way left-turn lane	10 Miles	378000	420000	HSIP (Section 148)	Rural Minor Arterial	9600	55	State Highway Agency	Intersections	Implement infrastructure projects to address inter
Richardson Hwy MP 351 Interchange	Interchange design Convert at-grade intersection to interchange	1 Numbers	837000	930000	HSIP (Section 148)	Rural Principal Arterial - Other	16858	55	State Highway Agency	Intersections	Implement infrastructure projects to address

											inter
Fairbanks Ramp Sight Distance Improvements	Alignment Horizontal and vertical alignment	3 Numbers	182700	203000	HSIP (Section 148)	Mixed FCs	0	0	State Highway Agency	Intersections	Implement infrastructure projects to address inter
Phillips Field Road Safety Improvements	Roadside Roadside grading	0.65 Miles	450000	450000	Penalty Transfer - Section 154	Urban Major Collector	5120	40	Other State Agency	Roadway Departure	Implement infrastructure projects to address run-o
HSIP: 36th Ave, Arctic to C St 5 Lane Conversion t	Intersection geometry Intersection geometrics - miscellaneous/other/unspecified	0.75 Miles	249917.4	277686	HSIP (Section 148)	All FCs - channelization & other geometric improvements at multiple locations	0	0	City of Municipal Highway Agency	Intersections	Implement infrastructure projects to address inter
Lake Otis Parkway @ 68th Avenue Channelization Imp	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	384165.9	426851	HSIP (Section 148)	Urban Principal Arterial - Other	26054	45	City of Municipal Highway Agency	Intersections	Implement infrastructure projects to address inter
Son of Downtown	Intersection geometry Intersection geometrics -	18 Numb	3958408	4387120	HSIP (Sectio	Mixed FCs	0	0	City of Municip	Intersections	Implement

Anchorage Curb Bulb Project	modify intersection corner radius	ers			n 148)				al Highway Agency		infrastructure projects to address inter
Johns Road and Klatt Road Intersection	Intersection traffic control Modify control - two-way stop to roundabout	1 Numbers	4102363.6	4384935	HSIP (Section 148)	Urban Minor Collector	10153	40	City of Municipal Highway Agency	Intersections	Implement infrastructure projects to address inter
Muldoon Road Channelization Improvements: 11th Cou	Access management Raised island - install new	0.75 Miles	375671	375671	Penalty Transfer - Section 154	Urban Principal Arterial - Other	0	40	State Highway Agency	Intersections	Implement infrastructure projects to address inter
CR Traffic Safety Corridor Left Turn Lanes	Intersection geometry Auxiliary lanes - add left-turn lane	3 Numbers	300000	300000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	0	55	State Highway Agency	Intersections	Implement infrastructure projects to address rear
Kodiak Bridge Rail Upgrades	Roadside Barrier - other	18 Numbers	3690276	3690276	Penalty Transfer - Section 154	Rural Major Collector, Rural Minor Collector	0	0	State Highway Agency	Roadway Departure	Implement infrastructure projects to preemptively

Central Region Sign Assembly Compliance Improvemen	Roadway signs and traffic control Roadway signs (including post) - new or updated	2100 Numbers	73617.291	81796.99	HSIP (Section 148)	Mixed FCs	0	0	State Highway Agency	Roadway Departure	Implement infrastructure to improve signing/delin
54474 Flashing Yellow Arrows - Kenai and Mat-Su	Intersection traffic control Modify traffic signal - add flashing yellow arrow	18 Numbers	101109	101109	Penalty Transfer – Section 164	Mixed FCs	0	0	State Highway Agency	Intersections	Implement infrastructure to address intersection c
Sterling Highway Shoulder Widening - Soldotna to C	Shoulder treatments Widen shoulder - paved or other	20.3 Miles	324800	324800	Penalty Transfer - Section 154	Rural Principal Arterial - Other	4677	55	State Highway Agency	Roadway Departure	Implement infrastructure to address SVROR and head
Eklutna Overpass Low Bridge Warning System	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numbers	780632	780632	Penalty Transfer – Section 164	Urban Principal Arterial - Other	29950	65	State Highway Agency	Roadways	Implement infrastructure to address existing highw
16th Avenue @ A Street Channelization Improveme	Intersection geometry Intersection geometrics - modify intersection corner radius	0	22458.6	24954	HSIP (Section 148)	Urban Principal Arterial - Other	0	0		Intersections	Implement infrastructure projects to address

nts											inter
SGY Dyea Road Improvements	Roadway Roadway widening - curve	6 Numbers	27000	30000	HSIP (Section 148)	Rural Minor Collector	243	25	State Highway Agency	Lane Departure	Implement infrastructure projects to address head-
KTN - North Tongass Highway Illumination Upgrade	Lighting Continuous roadway lighting	4.876 Miles	5140482.92	5140482.92	Penalty Transfer - Section 154	Urban Minor Arterial	0	0	State Highway Agency	Lane Departure	Implement infrastructure projects to address night
JNU - Glacier Highway Safety Improvements	Roadside Barrier- metal	0.6 Miles	470933.2	476933.2	Penalty Transfer – Section 164	Rural Minor Arterial	1120	50	State Highway Agency	Roadway Departure	Implement infrastructure projects to address run-o
KTN - N. Tongass Highway Delineation Improvements	Roadway delineation Roadway delineation - other	6.2 Miles	147588.777	163987.53	HSIP (Section 148)	Rural Major Collector	0	0	State Highway Agency	Roadway Departure	Implement infrastructure projects to address run-o
FFY14-16 STRATEGIC HIGHWAY SAFETY	Non-infrastructure Non-infrastructure - other	1 Numbers	251000	251000	Penalty Transfer –	N/A	0	0	N/A	Roadways	See "Supporting Text" for

PLAN IMPLEMENTAT					Section 164						relavant strategy
SR FFY16-17 HSIP/SMS	Non-infrastructure Non-infrastructure - other	1 Numbers	0	0	HSIP (Section 148)	N/A	0	0	N/A	Roadways	See "Supporting Text" for relavant strategy
FFY 16-17 HSIP Safety Management	Non-infrastructure Non-infrastructure - other	1 Numbers	0	0	HSIP (Section 148)	N/A	0	0	N/A	Roadways	See "Supporting Text" for relavant strategy
CR: SMS/HSIP Program 2015-2017	Non-infrastructure Non-infrastructure - other	1 Numbers	0	0	HSIP (Section 148)	N/A	0	0	N/A	Roadways	See "Supporting Text" for relavant strategy
Kenai Peninsula Systemic Maintenance Decision Supp	Non-infrastructure Data/traffic records	1 Numbers	414450	460500	HSIP (Section 148)	N/A	0	0	N/A	Roadways	See "Supporting Text" for relavant strategy
Third Party Data Entry for APD Crash Reports	Non-infrastructure Data/traffic records	1 Numbers	270000	300000	HSIP (Section 148)	N/A	0	0	N/A	Roadways	See "Supporting Text" for relavant strategy

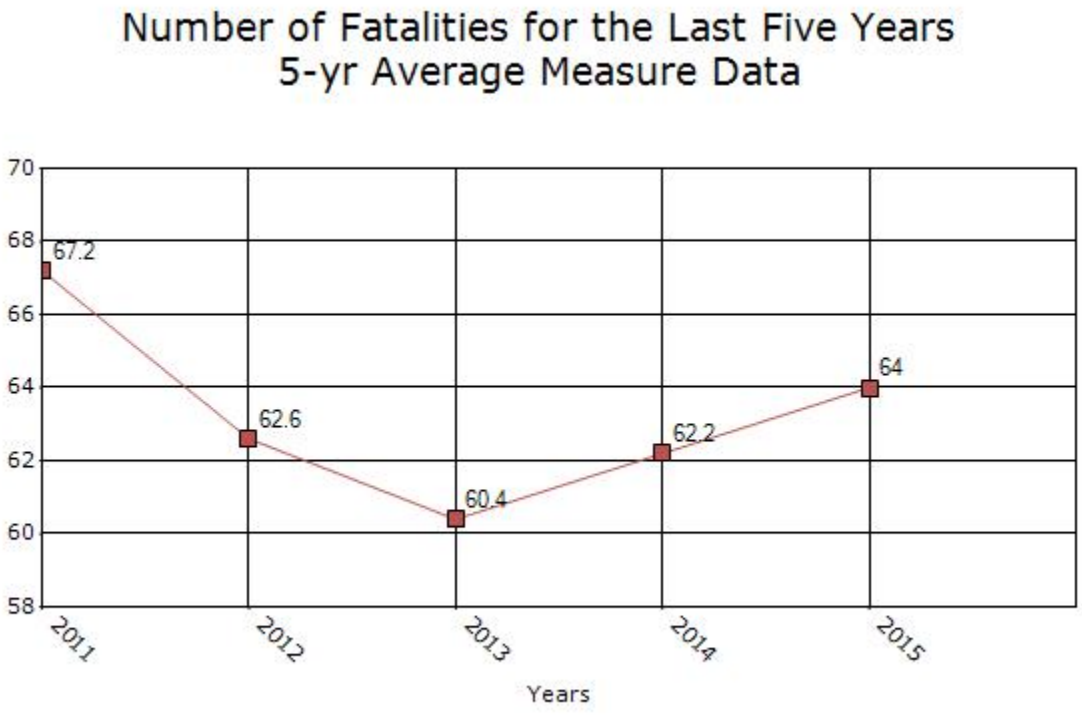
Progress in Achieving Safety Performance Targets

Overview of General Safety Trends

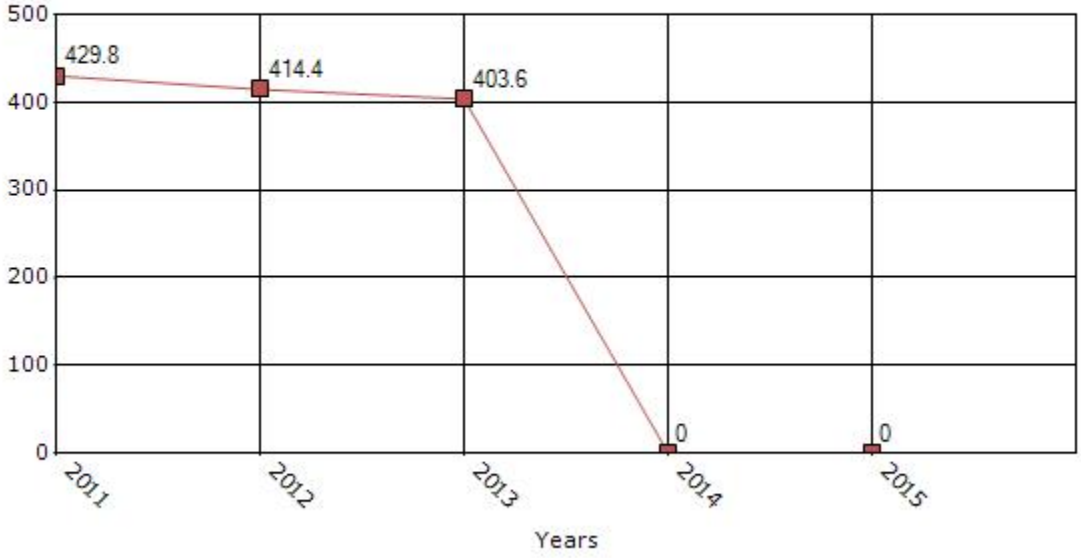
Present data showing the general highway safety trends in the state for the past five years.

Performance Measures*	2011	2012	2013	2014	2015
Number of fatalities	67.2	62.6	60.4	62.2	64
Number of serious injuries	429.8	414.4	403.6		
Fatality rate (per HMVMT)	1.38	1.31	1.26	1.3	1.33
Serious injury rate (per HMVMT)	8.82	8.63	8.43		

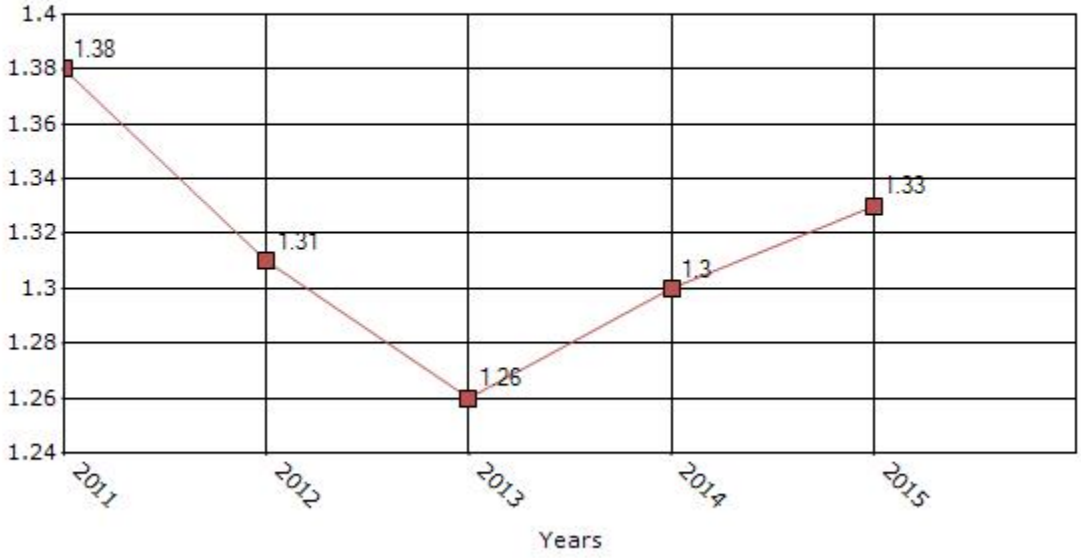
*Performance measure data is presented using a five-year rolling average.

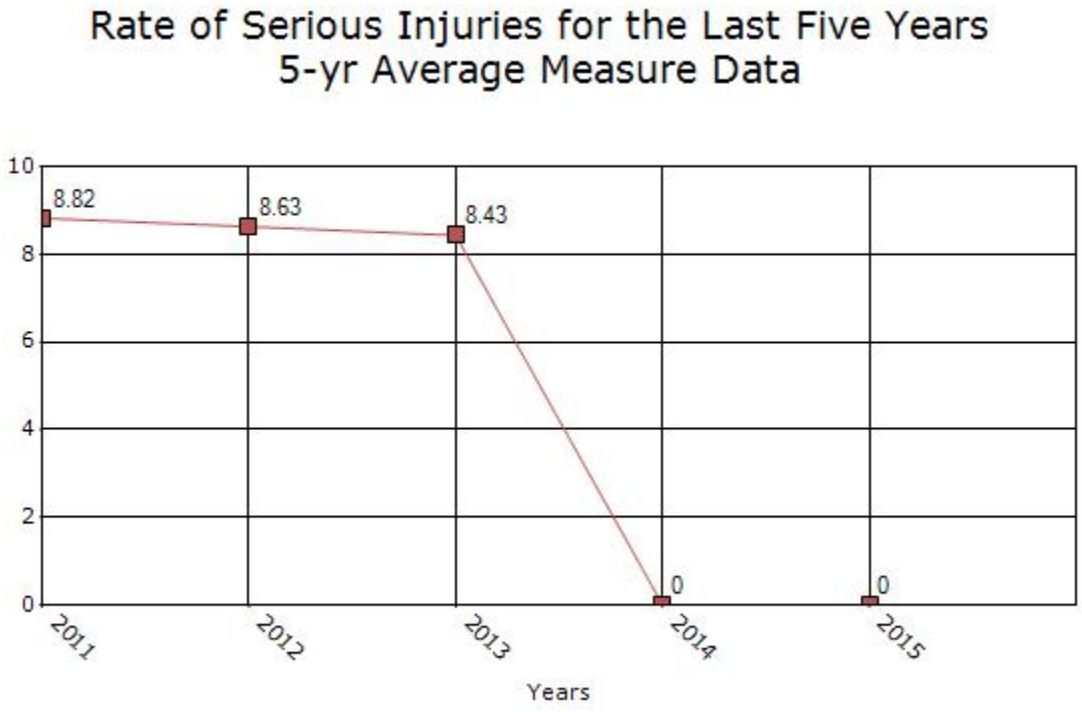


Number of Serious Injuries for the Last Five Years
5-yr Average Measure Data



Rate of Fatalities for the Last Five Years
5-yr Average Measure Data





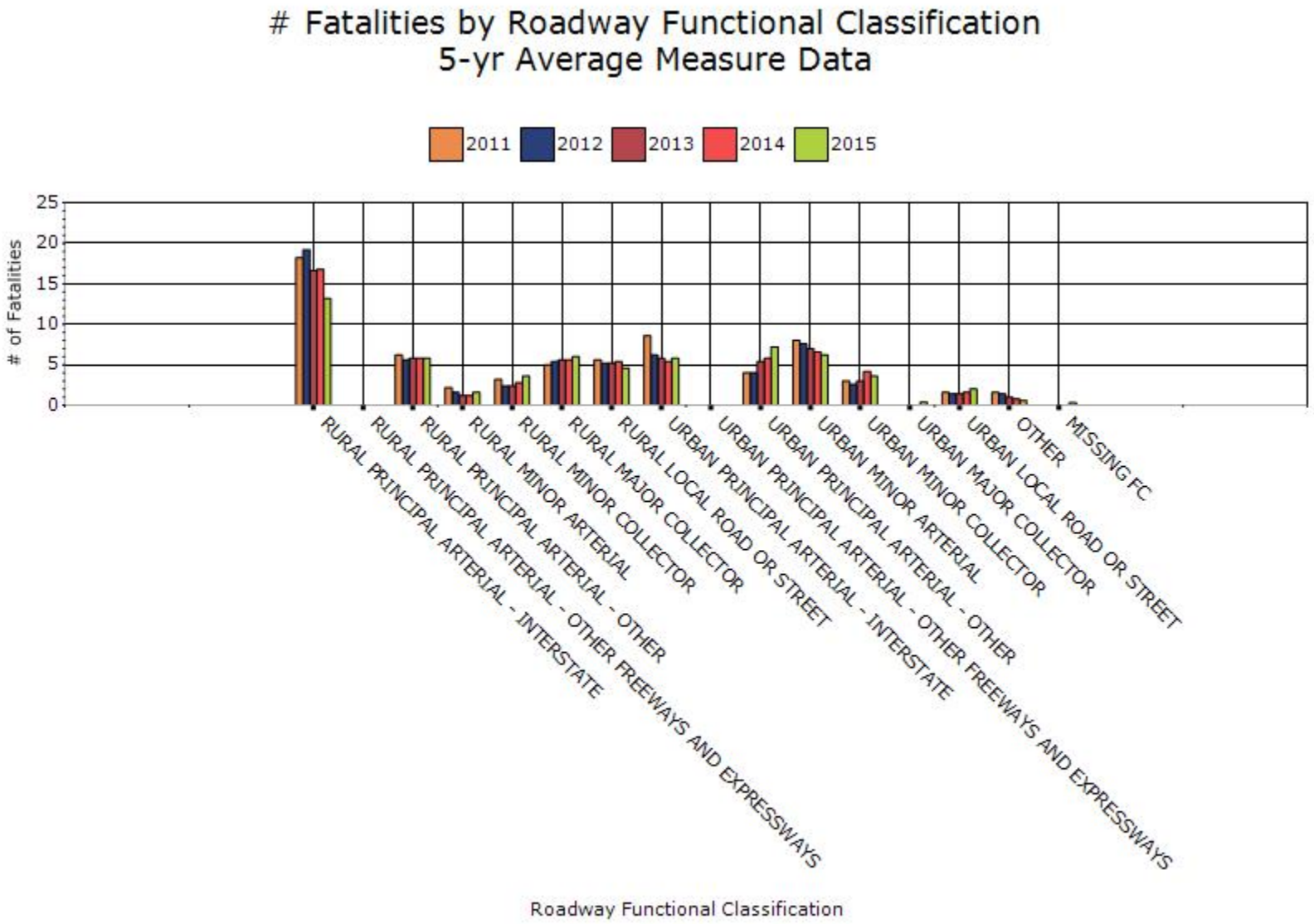
Alaska does not yet have serious injury data for 2013 and 2014. Alaska's serious injury performance measures for 2014 and 2015 will be updated when the data for those years are finalized.

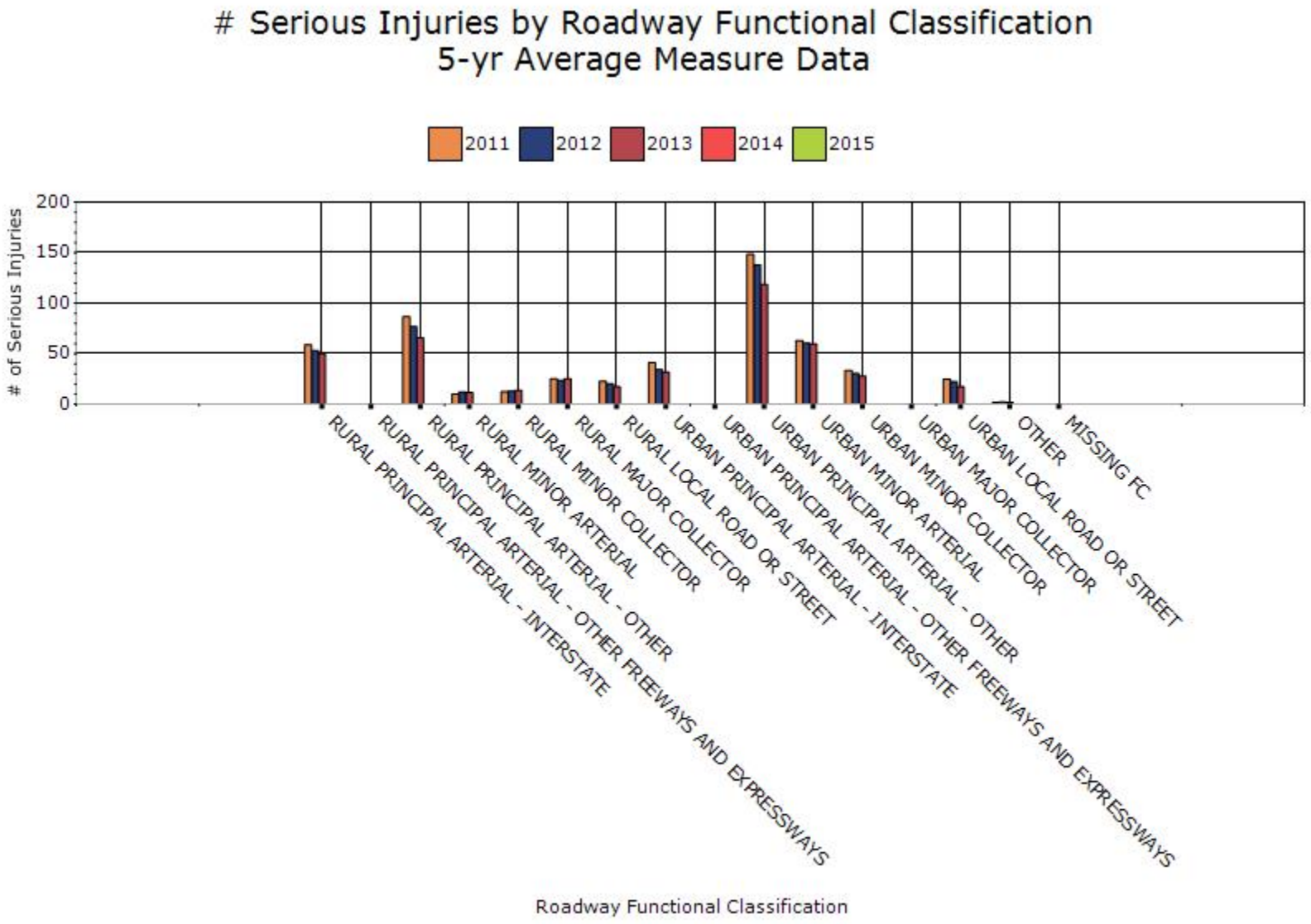
To the maximum extent possible, present performance measure* data by functional classification and ownership.

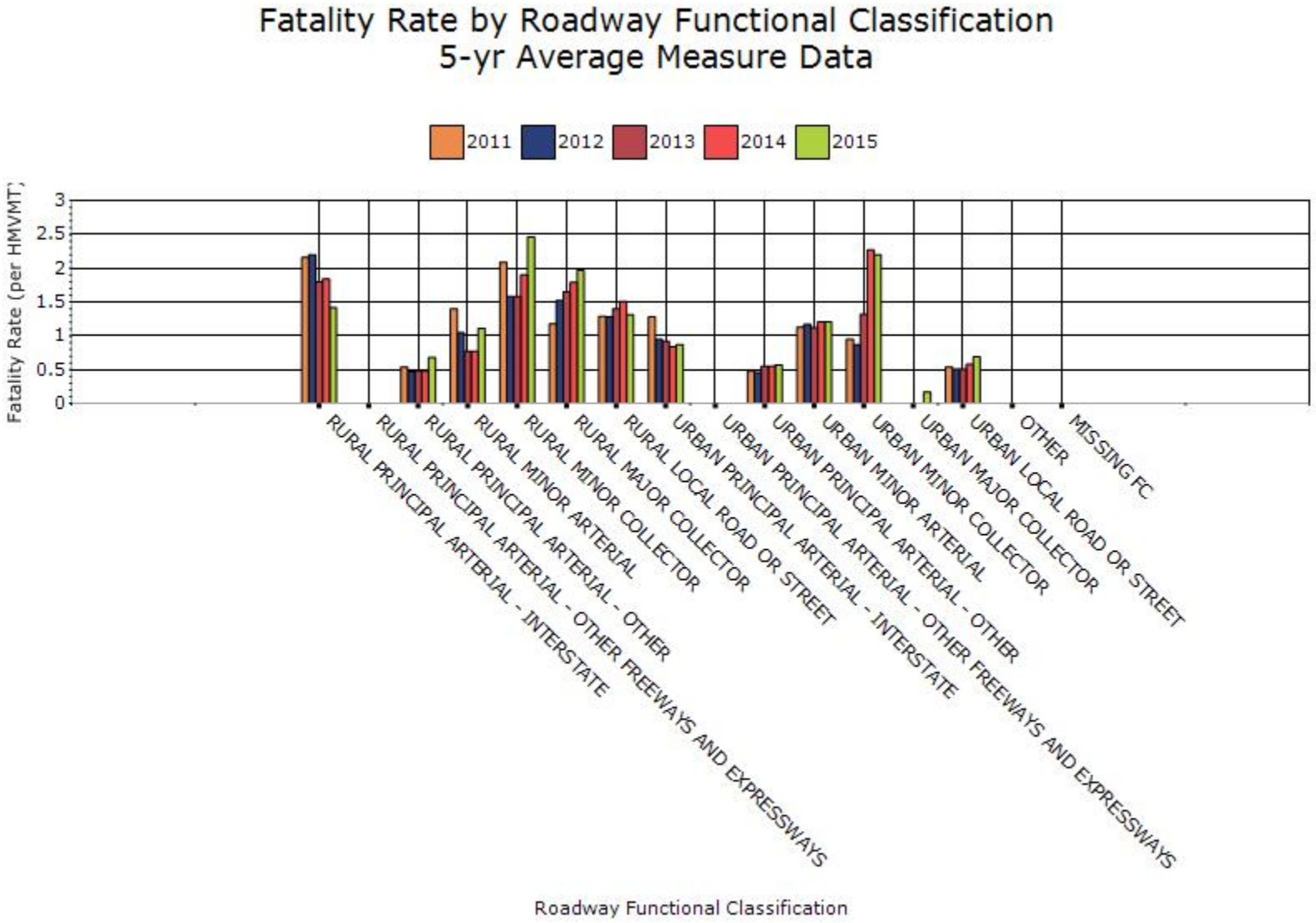
Year - 2015

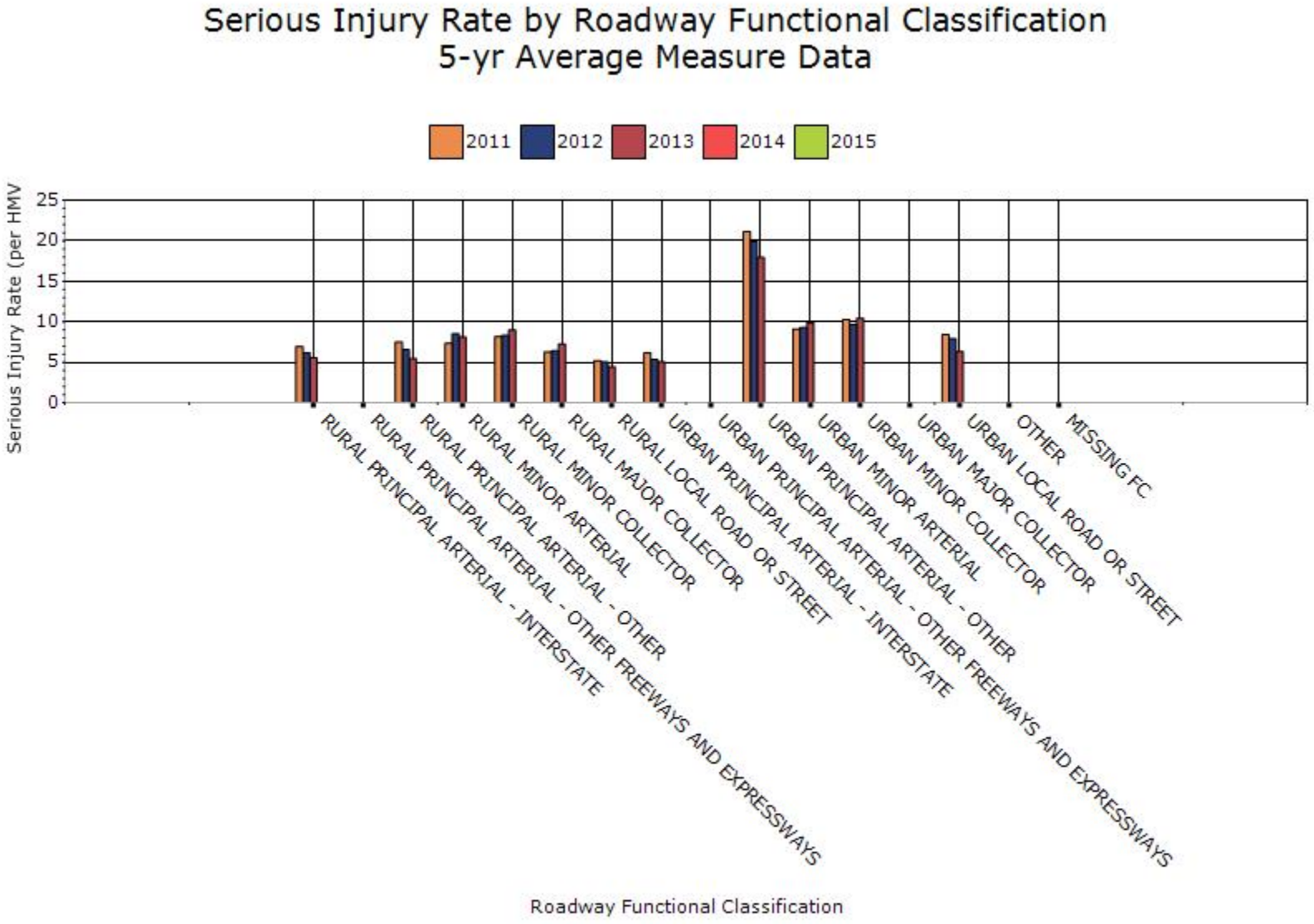
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	13.2		1.42	
RURAL PRINCIPAL ARTERIAL - OTHER	5.8		0.68	
RURAL MINOR ARTERIAL	1.6		1.11	
RURAL MINOR COLLECTOR	3.6		2.46	
RURAL MAJOR COLLECTOR	6		1.97	
RURAL LOCAL ROAD OR STREET	4.6		1.31	
URBAN PRINCIPAL ARTERIAL - INTERSTATE	5.8		0.87	
URBAN PRINCIPAL ARTERIAL - OTHER	7.2		0.57	
URBAN MINOR	6.2		1.21	

ARTERIAL				
URBAN MINOR COLLECTOR	3.6		2.2	
URBAN MAJOR COLLECTOR	0.4		0.17	
URBAN LOCAL ROAD OR STREET	2		0.69	
OTHER	0.6			
MISSING FC	0.33			


Fatalities by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Fatalities
25
20
15
10
5
0
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
RURAL MINOR COLLECTOR
RURAL MAJOR COLLECTOR
RURAL LOCAL ROAD OR STREET
URBAN PRINCIPAL ARTERIAL - INTERSTATE
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
URBAN PRINCIPAL ARTERIAL - OTHER
URBAN MINOR ARTERIAL
URBAN MINOR COLLECTOR
URBAN MAJOR COLLECTOR
URBAN LOCAL ROAD OR STREET
OTHER
MISSING FC
Roadway Functional Classification

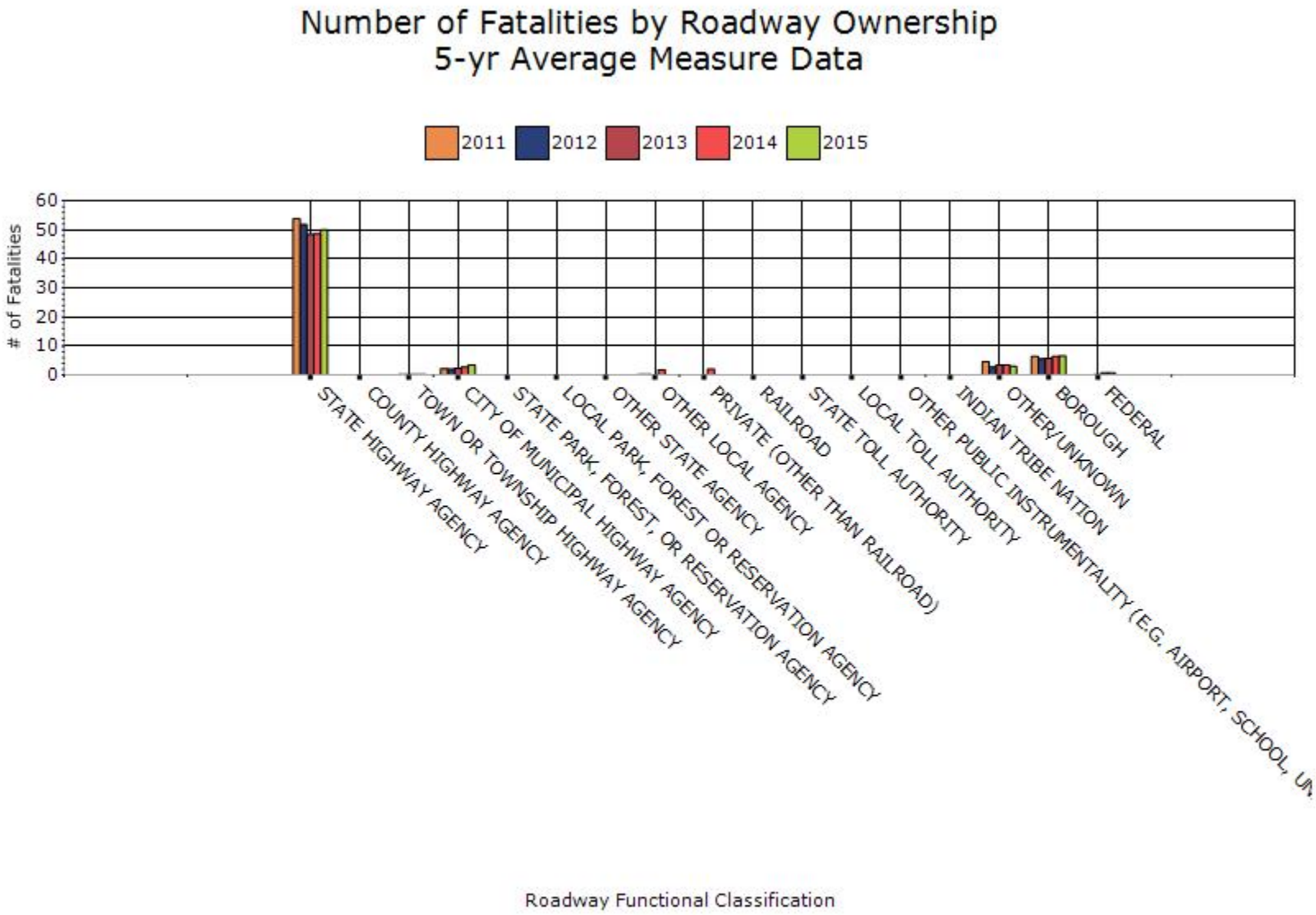

Serious Injuries by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Serious Injuries
200
150
100
50
0
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
RURAL MINOR COLLECTOR
RURAL MAJOR COLLECTOR
RURAL LOCAL ROAD OR STREET
URBAN PRINCIPAL ARTERIAL - INTERSTATE
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
URBAN PRINCIPAL ARTERIAL - OTHER
URBAN MINOR ARTERIAL
URBAN MINOR COLLECTOR
URBAN MAJOR COLLECTOR
URBAN LOCAL ROAD OR STREET
OTHER
MISSING FC
Roadway Functional Classification

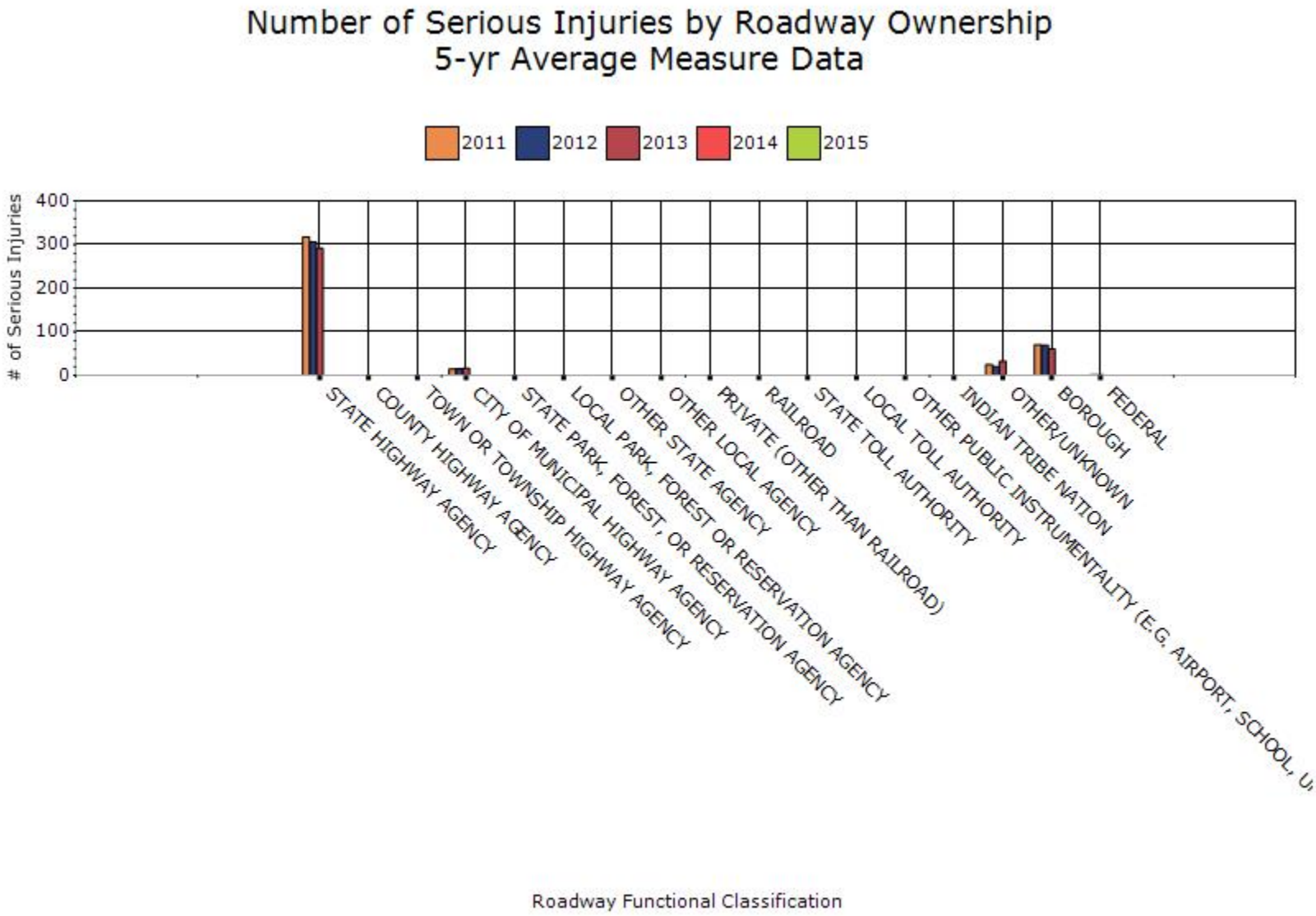

Fatality Rate by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
Fatality Rate (per HMVMT)
3
2.5
2
1.5
1
0.5
0
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
RURAL MINOR COLLECTOR
RURAL MAJOR COLLECTOR
RURAL LOCAL ROAD OR STREET
URBAN PRINCIPAL ARTERIAL - INTERSTATE
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
URBAN PRINCIPAL ARTERIAL - OTHER
URBAN MINOR ARTERIAL
URBAN MINOR COLLECTOR
URBAN MAJOR COLLECTOR
URBAN LOCAL ROAD OR STREET
OTHER
MISSING FC
Roadway Functional Classification


Serious Injury Rate by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
Serious Injury Rate (per HMV
25
20
15
10
5
0
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
RURAL MINOR COLLECTOR
RURAL MAJOR COLLECTOR
RURAL LOCAL ROAD OR STREET
URBAN PRINCIPAL ARTERIAL - INTERSTATE
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
URBAN PRINCIPAL ARTERIAL - OTHER
URBAN MINOR ARTERIAL
URBAN MINOR COLLECTOR
URBAN MAJOR COLLECTOR
URBAN LOCAL ROAD OR STREET
OTHER
MISSING FC
Roadway Functional Classification

Year - 2015

Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	50			
TOWN OR TOWNSHIP HIGHWAY AGENCY	0.2			
CITY OF MUNICIPAL HIGHWAY AGENCY	3.4			
OTHER/UNKNOWN	3			
BOROUGH	6.6			
FEDERAL	0.8			


Number of Fatalities by Roadway Ownership
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Fatalities
60
50
40
30
20
10
0
STATE HIGHWAY AGENCY
COUNTY HIGHWAY AGENCY
TOWN OR TOWNSHIP HIGHWAY AGENCY
CITY OF MUNICIPAL HIGHWAY AGENCY
STATE PARK, FOREST, OR RESERVATION AGENCY
LOCAL PARK, FOREST OR RESERVATION AGENCY
OTHER STATE AGENCY
OTHER LOCAL AGENCY
PRIVATE (OTHER THAN RAILROAD)
RAILROAD
STATE TOLL AUTHORITY
LOCAL TOLL AUTHORITY
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UN
INDIAN TRIBE NATION
OTHER/UNKNOWN
BOROUGH
FEDERAL
Roadway Functional Classification


Number of Serious Injuries by Roadway Ownership
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Serious Injuries
400
300
200
100
0
STATE HIGHWAY AGENCY
COUNTY HIGHWAY AGENCY
TOWN OR TOWNSHIP HIGHWAY AGENCY
CITY OF MUNICIPAL HIGHWAY AGENCY
STATE PARK, FOREST, OR RESERVATION AGENCY
LOCAL PARK, FOREST OR RESERVATION AGENCY
OTHER STATE AGENCY
OTHER LOCAL AGENCY
PRIVATE (OTHER THAN RAILROAD)
RAILROAD
STATE TOLL AUTHORITY
LOCAL TOLL AUTHORITY
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, U
INDIAN TRIBE NATION
OTHER/UNKNOWN
BOROUGH
FEDERAL
Roadway Functional Classification

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 Performance Measures	2010	2011	2012	2013	2014
Fatality rate (per capita)	0.09	0.1	0.1	0.08	0.07
Serious injury rate (per capita)	0.4	0.47	0.52	0.53	
Fatality and serious injury rate (per capita)	0.48	0.56	0.62	0.61	

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

Alaska does not yet have Older Driver Serious Injury data for 2014.

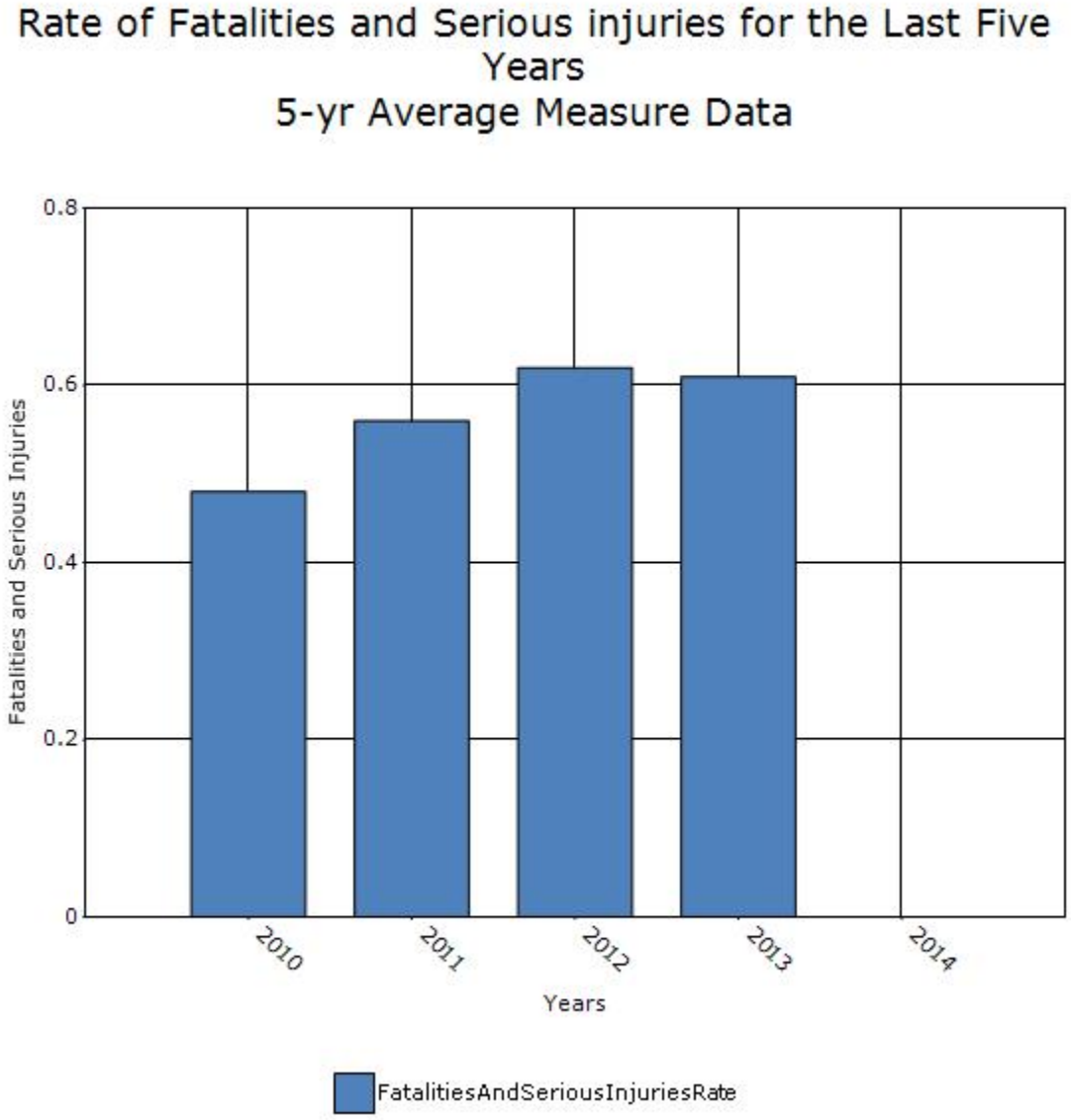
Compute five year rolling average rates for Older Drivers and Pedestrians.

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 in Attachment 2 of, "Section 148: Older Drivers and Pedestrians Special Rule Final Guidance", published May 19, 2016 (https://www.fhwa.dot.gov/map21/guidance/guideolder.cfm).

Compute annual rates for each grouping for years 2006 through 2014 using Population Figures for the applicable year (F+MI 2008/ PopFig 2008).

Used upload template. 5-yr rolling averages computed by the ORT.



Last year Alaska could not report on 2013 serious injuries. Consequently, we didn't have the data to determine whether we triggered this special rule. We only received 2013 data in May 2016. Looking back we can determine that Alaska would have triggered the special rule last year. We will continue to enhance older driver safe driving programs as described in the Alaska Strategic Highway Safety Plan - 2013 Revision. We will 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. Among other countermeasures Alaska's obligated funding for this year to address older driver and pedestrian crashes are the installation of flashing yellow arrows, illumination, signal retroreflective back plates, and railroad-highway grade crossing elimination.

Does the older driver special rule apply to your state?

No

Alaska does not have serious injury data for 2014. Alaska will provide the 2014 older driver data and resulting calculations in a amendment report when the data become available. Our response to question 28 may change at that time.

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?

Benefit/cost

If 'benefit/cost', indicate the overall Highway Safety Improvement Program benefit/cost ratio.

3.4:1

What significant programmatic changes have occurred since the last reporting period?

None

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

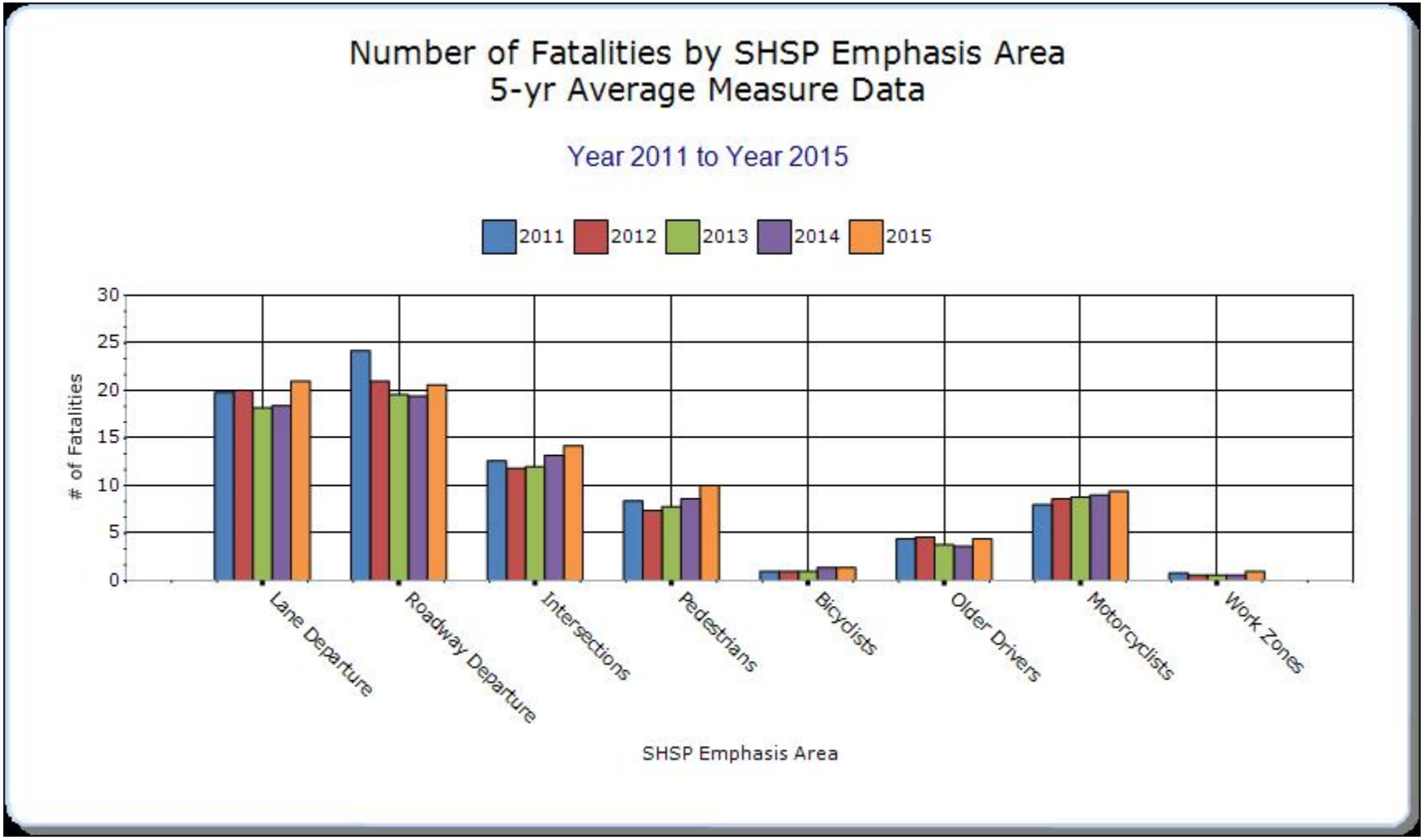
No response.

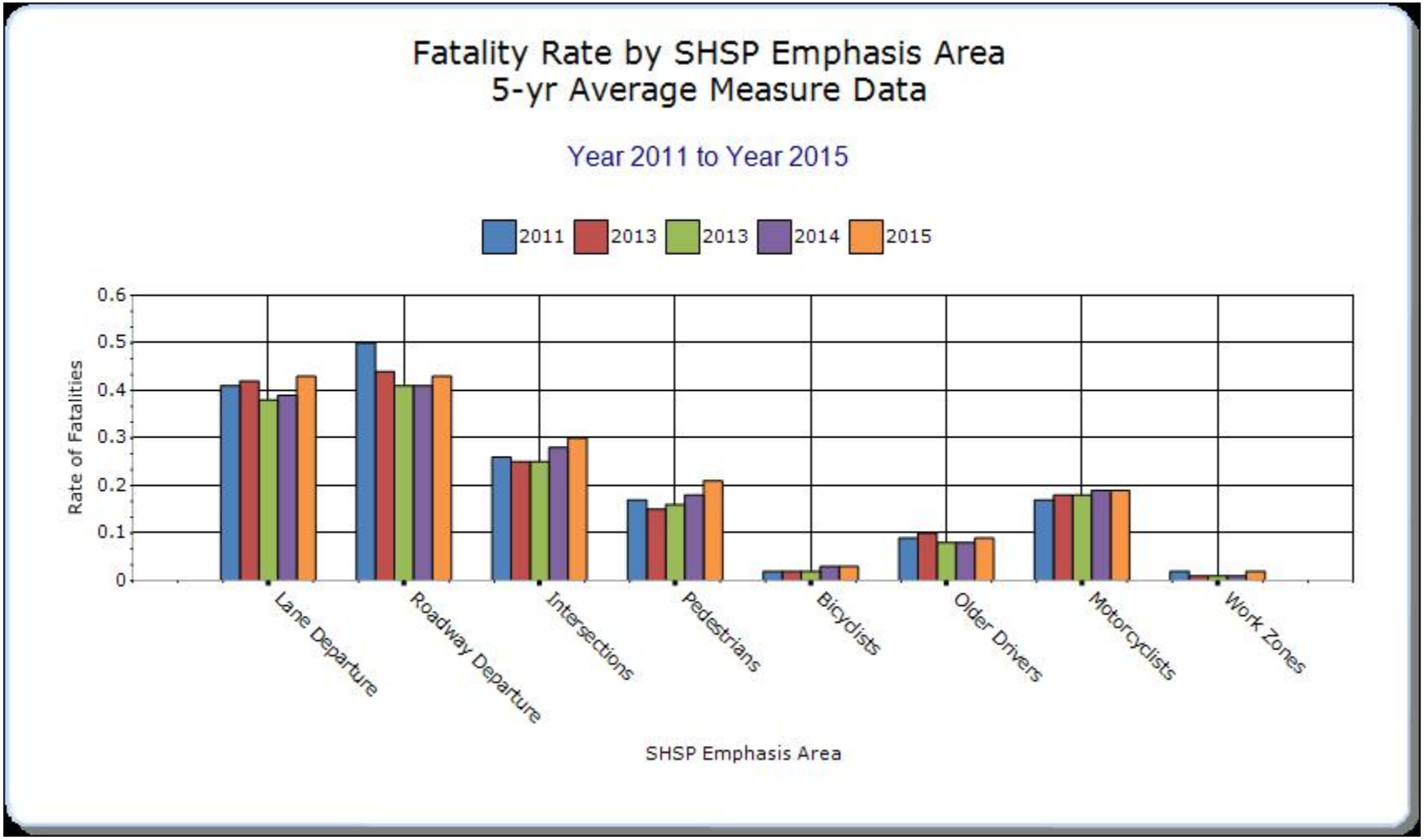
SHSP Emphasis Areas

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

Year - 2015

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
Lane Departure		21		0.43				
Roadway Departure		20.6		0.43				
Intersections		14.2		0.3				
Pedestrians		10		0.21				
Bicyclists		1.4		0.03				
Older Drivers		4.4		0.09				
Motorcyclists		9.4		0.19				
Work Zones		1		0.02				


Number of Fatalities by SHSP Emphasis Area
5-yr Average Measure Data
Year 2011 to Year 2015
2011
2012
2013
2014
2015
# of Fatalities
30
25
20
15
10
5
0
Lane Departure
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
SHSP Emphasis Area



Groups of similar project types

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

Year - 2015

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		64		1.33				

Alaska does not yet have serious injury data for 2014 and 2015. Alaska's serious injury performance measures for 2013 and 2014 will be updated when the data for those years are finalized.

Systemic Treatments

Present the overall effectiveness of systemic treatments.

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
SKIP	Alaska is still building the capacity to analyze the data and measure the performance of systemic improvements. We recognize the benefits, but right now we're approving systemic projects on a case by case basis, not as a fully realized							

	program.

Alaska is still building the capacity to analyze the data and measure the performance of systemic improvements. We recognize the benefits, but right now we're approving systemic projects on a case by case basis, not as a fully realized program.

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

No response.

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)
08CR08: Anchorage - Dowling Rd @ Seward Hwy	Urban Principal Arterial - Other	Intersection geometry	Intersection geometry - other			18	86	104			3	22	25	5.91:1
08CR11: Various Intersections in the Kenai, Kodiak Island, and Mat-Su Boroughs	Mixed FC	Pedestrians and bicyclists	Pedestrian signal - modify existing		4	13	4	21			5	4	9	5:39:1

07CR02: Anchorage - Boniface Pkwy @ Mountain View Dr	Urban Minor Arterial	Intersection traffic control	Modify control - remove right-turn yield		1	14	42	57			1	3	4	8.55:1
07CR04: Anchorage - Homer Dr @ 74th Ave Seward Hwy Off Ramp	Urban Minor Collector	Access management	Median crossover - close crossover			5	5	10			1	3	4	1.76:1
07CR05: Anchorage - 6th Ave @ H St	Urban Minor Arterial	Intersection traffic control	Intersection signing - miscellaneous/other/unspecified			2	23	25			1	1	2	0.35:1
07CR07: Anchorage - Brayton Dr @ Lore Rd (76th Ave)	Urban Minor Collector	Intersection geometry	Auxiliary lanes - add right-turn lane	1	2	12	18	33			3	2	5	3.38:1

07CR08: Anchorage - 4th Ave @ Eagle St	Urban Minor Arterial	Intersection geometry	Intersection geometrics - modify intersection corner radius		1	11	12	24			1	4	5	9.8:1
07CR09: Anchorage - 6th Ave @ Fairbanks St	Urban Principal Arterial - Other	Intersection geometry	Intersection geometrics - modify intersection corner radius		1	7	14	22						12.05:1
06CR01: Anchorage - 5th Ave @ C St	Urban Principal Arterial - Other	Intersection geometry	Auxiliary lanes - add left-turn lane		3	15	34	52			2	5	7	9.78:1
06CR02: Anchorage - Debarr Rd: Boniface Pkwy to Beaver Pl (Mile Point 2.1-2.6)	Urban Principal Arterial - Other	Access management	Access management - other		6	25	34	65			3	3	6	8:56:1

06CR03: Anchorage - Dimond Blvd @ Jewel Lake Rd	Urban Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn lane		1	11	15	27			3	1	4	2.04:1
06CR04: Anchorage - Dimond Blvd @ SB Minnesota Dr	Urban Principal Arterial - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified		1	5	16	22				1	1	10.54:1
06CR05: Anchorage - Seward Hwy @ 36th Ave	Urban Principal Arterial - Other	Interchange design	Interchange design - other		3	45	85	133			10	23	33	6.84:1
06CR07: Anchorage - DeArmoun Rd @ Hillside Dr	Urban Major Collector	Intersection traffic control	Intersection flashers - add overhead (continuous)	1	4	3	5	13						8.19:1

06CR08: Mat-Su - Lucille St @ Spruce St	Urban Minor Arterial	Lighting	Site lighting - intersection	1	2	10	14	27				1	1	5.56:1
03CR06: Mat-Su - Old Glenn Hwy: Matanuska River Bridge to Glenn Hwy (Mile Point 16.9-18.4)	Rural Minor Arterial	Intersection geometry	Auxiliary lanes - add two-way left-turn lane		3	33	78	114		1	2	10	13	1.3:1
JNU Whittier & Willoughby	Urban Principal Arterial - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified		4	15	20	39				3	3	4.35:1

SEA Tfc Sig Ped Impv	Mixed FC	Pedestrians and bicyclists	Pedestrian signal - install new at intersection		6	13	3	22		1	1	1	3	95.44:1
KTN N Tong Hwy Imp	Urban Minor Arterial	Roadway	Roadway widening - curve		1	7	6	14				1	1	3.02:1

Optional Attachments

Sections	Files Attached
Program Structure: Program Administration	L_8-26-16 HSIP Ann Report Cover_signed.pdf
Program Structure: Program Administration	HSIP Hdbk 16th Ed 010116.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.
Systematic refers to an approach where an agency deploys countermeasures at all locations across a system.
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.