Highway Safety Improvement Program

Data Driven Decisions

West Virginia
Highway Safety Improvement Program
2016 Annual Report

Prepared by: WV

Disclaimer

Protection of Data from Discovery & Admission into Evidence

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

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

Table of Contents

Executive Summary

West Virginia's Highway Safety Improvement Program is coordinated by the Mobility and Safety Section of the WVDOH's Traffic Engineering Division. The Section is responsible for initially reviewing and evaluating any project that is a candidate for highway safety funding. The initial review and evaluation of a potential project will include the analysis of crash data for the location, a field review of the site, and the collection of any other information found appropriate to evaluate the proposed project. Once a positive safety benefit is determined to exist for a project, the methodology discussed below is used to select and prioritize projects for the State's HSIP. Once a project is selected for the HSIP, the Section is responsible for selecting an HSIP funding category for the project and submitting appropriate programming documents where HSIP funds are encumbered and projects are assigned to the State's Statewide Transportation Improvement Program (STIP). The Mobility and Safety Section remains responsible for monitoring and balancing the use of HSIP funds, and evaluating the effectiveness of a project following its completion.

The overall purpose of the HSIP is to achieve a significant reduction in traffic fatalities and incapacitating injuries through the implementation of infrastructure-related highway safety improvements. The Strategic Highway Safety Program (SHSP) plays a large roll in achieving the reduction. Emphasis Areas identified in the SHSP are evaluated and countermeasures developed under the HSIP.

WVDOH is currently updating their SHSP and the revised SHSP includes five emphasis areas:

1. Roadway Departure
2. Impaired Driving
3. Occupant Protection
4. Speeding/Aggressive Driving
5. Improving Highway Safety Data

West Virginia strives to insure that projects receiving HSIP funding are consistent with the goals and objectives set forth in the five emphasis areas of the SHSP. West Virginia has successfully participated in FHWA's EDC each year, and have implemented several new safety countermeasures such as SafetyEdge and High Friction Surface Treatments.

Since the SHSP implementation, West Virginia has seen 38% reduction in fatalities.

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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.

West Virginia Department of Transportation maintains approximately ninety-five percent (95%) of the roads in the State, including all secondary or county routes. As such, all HSIP funds are typically used for highway safety projects on the State Highway System. Very few of the State's municipalities own city streets. These are typically lower volume and do not have significant numbers of fatal or serious injury crashes occurring on them; however, should a safety concern exist on a municipal street, the project would be eligible to compete for available HSIP funds.

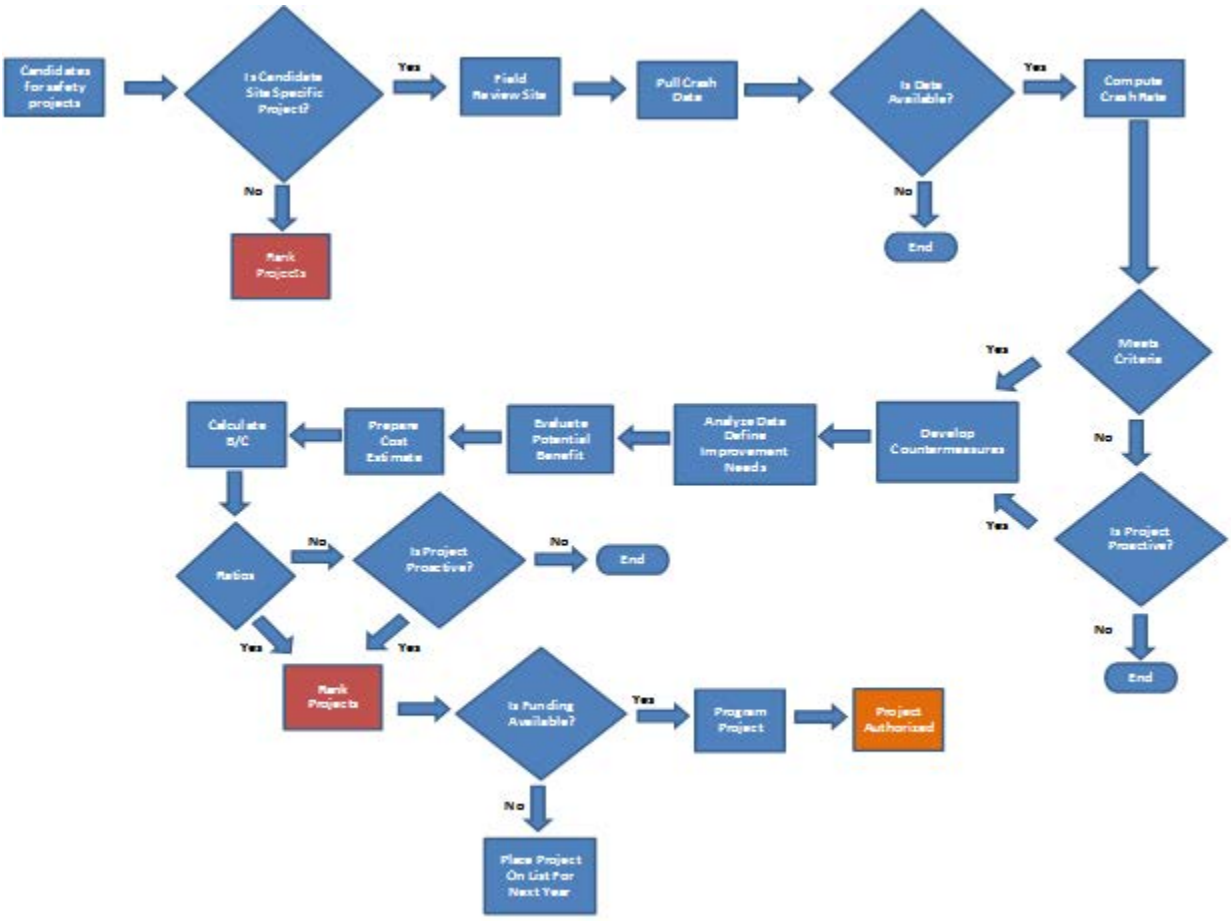
Identify which internal partners are involved with Highway Safety Improvement Program planning.

Design
Planning
Maintenance
Operations

Briefly describe coordination with internal partners.

The Mobility and Safety Section coordinate with every division within WVDOT. Any division or district within DOH, as well as safety partners, legislators or the public can recommend a location for safety improvements. The Mobility and Safety Section will review crash data and determine whether a safety concern exists. This review may include performing a Road Safety Audit (RSA) that can be performed either at district level or a full scale RSA involving multiple disciplines. Once the concern is identified, and countermeasures are determined, an estimate to implement the countermeasures is prepared. The Mobility and Safety Section shall perform a benefit/cost ratio to see if project is eligible for HSIP funding. All projects utilizing HSIP funds must be reviewed, approved and programmed by Mobility and Safety. The Mobility and Safety Section will provide Design Division with all recommendations, and will coordinate with all divisions throughout the multiple phases of a project.

The below flowchart graphically explains the HSIP funding process:



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

Metropolitan Planning Organizations
Governors Highway Safety Office

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

Other-No change

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

West Virginia's Highway Safety Improvement Program is coordinated by the Mobility and Safety Section of the WVDOH's Traffic Engineering Division. The Section is responsible for reviewing and evaluating any project that is a candidate for highway safety funding. The initial review and evaluation of a potential project will include the analysis of crash data for the location, a field review of the site, and the collection of any other information found appropriate to evaluate the proposed project.

Once a positive safety benefit is determined to exist for a project, the methodology is used to select and prioritize projects for the State's HSIP. Once a project is selected for the HSIP, the Section is responsible for selecting an HSIP funding category for the project and submitting appropriate programming documents where HSIP funds are encumbered and projects are assigned to the State's Statewide Transportation Improvement Program (STIP). The Mobility and Safety Section remains responsible for monitoring and balancing the use of HSIP funds, and evaluating the effectiveness of a project following its completion.

Program Methodology

Select the programs that are administered under the HSIP.

Roadway Departure

Program: **Roadway Departure**
Date of Program Methodology: **9/17/2007**

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
All crashes	Traffic	Functional classification

What project identification methodology was used for this program?
Crash frequency
Crash 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

Available funding	1

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

8%

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

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

What process is used to identify potential countermeasures?

Engineering Study
Road Safety Assessment

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

Other-no change

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

The overall purpose of the HSIP is to achieve a significant reduction in traffic fatalities and incapacitating injuries through the implementation of infrastructure related highway safety improvements. Components of West Virginia's HSIP include the Strategic Highway Safety Program (SHSP), the Highway Safety Improvement Program (HSIP), the High Risk Rural Roads Program (HRRRP), the Railway-Highway Grade Crossing Program (HRGX), and the Penalty Transfer (Section 154).

The High Risk Rural Road Program (HRRRP) no longer has a set aside amount, and was absorbed by the larger HSIP. In West Virginia, the HRRRP is managed through the Traffic Engineering Division's Traffic Mobility and Safety Section, as a part of the overall HSIP. Rural collectors or rural local roads generally correlate to the county route highway class and WVDOH maintains all of the State's more than 28,000 miles in county routes. The State has been able to allocate HSIP funds to some of the routes; however,as County Routes are the most rural and low-volume of the highway classes, they often lose out when competing for funding against projects on routes in highway classifications. The availability of HRRRP funding has provided WVDOH with the ability to combat this problem by utilizing HRRRP funding to implement safety improvements on routes with this system which have fatal and/or serious injury crash rates above the statewide average for county routes.

Progress in Implementing Projects

Funds Programmed

Reporting period for Highway Safety Improvement Program funding.

State Fiscal Year

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

Funding Category	Programmed*		Obligated	
HSIP (Section 148)	$32,941,234.00	70 %	$9,303,216.80	100 %
HRRRP (SAFETEA-LU)	$1,638,659.00	3 %	$0.00	0 %
Penalty Transfer - Section 154	$12,490,773.00	27 %	$0.00	0 %
Totals	$47,070,666.00	100%	$9,303,216.80	100%

How much funding is programmed to local (non-state owned and operated) safety projects?
$0.00
How much funding is obligated to local safety projects?
$0.00

How much funding is programmed to non-infrastructure safety projects?
$8,228,542.00
How much funding is obligated to non-infrastructure safety projects?
$8,228,542.00

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.

For the past several years, project prioritization has been a difficult task due to the combined effects of rapidly increasing HSIP funding and the Mobility and Safety Section being understaffed. As such, large surpluses of HSIP funding had accumulated without the staff to allocate it all.

Another concern in implementation is many other sections that could assist in the development of HSIP project were unfamiliar with the requirements of HSIP funding. The Mobility and Safety Section has reached out to all division through their respective annual conference to explain HSIP and eligibility for use of funds.

On September 23, 2014, WVDOH hosted a HSIP peer exchange. Staff from surrounding states came to West Virginia to discuss how to streamline the HSIP project delivery. Recommendations from this exchange included refining HSIP elements, expanding HSIP resources and streamlining the project delivery. Mobility and Safety have requested a consultant to assist with project delivery.

In addition to being short-staffed, Mobility and Safety Section has also been working with Traffic's Strategic Highway Safety Planning and Analysis Section to develop a new Safety Management System (SMS). The SMS was part of a larger project formally known as wvOASIS, which set out to modernize and consolidate nearly all of the State's data systems. Everything from human resources, to time keeping and payroll, and all other aspects of finance were to be included. Additionally, wvOASIS set out to develop a large Transportation Management System for WVDOH. The Transportation Management System was broken into modules which impacted nearly everything WVDOH does. Transportation Operations Management, which included one of largest Transportation Asset Inventories ever attempted, Right of Way, Fleet Management, Facilities Management and Highway Safety.

The Highway Safety Management System was scoped to enable better management of the State's Highway Safety Improvement Program (HSIP) through the implementation of the Highway Safety Manual Volume 1. The project enabled HSIP projects to be tracked cradle to grave with ties to WVDOH's new project management system that was also being developed within the framework of wvOASIS. Everything from data analysis, to project selection, prioritization, and pre and post evaluation were covered under the module. As a part of its data analysis features the Safety Module was to integrate data from the State's Crash Records Database, Citation Tracking System, Driver Records, Vehicle Registration, EMS Run data, and Trauma Registry. Additionally a Grants Management component of the module was developed for the use of the Governor's Highway Safety Program and the State's Commission on Drunk Driving Prevention. Similarly to HSIP management features, the grant management component would enable both entities to track grants from advertisement, to application, to evaluation and selection through post analysis. The majority of the Safety Module was developed by

AgileAssets using their Safety Analyst package, however some components of the Grants Management portion were developed in CGI's Advantage software. The wvOASIS project and subsequently the Safety Module were broken into phases. The first phase impacting the Safety Module went live in January of 2014. This phase included an interface of crash records data into the Safety Module and allowed the HSIP management portion of the module to go live, including the cradle to grave tracking of HSIP projects. The Grants Management components along with all of the other data interfaces were included in a later phase, which unfortunately has been met with delay after delay. Much work has been completed on this phase particularly on the development of interfaces with the various other data sets, which largely accounts for the Crash Records Database Project's many scope changes. However, there are a variety of outstanding issues which have prevented this phase from going live.

A timeframe for when the wvOASIS effort will be accomplished is still in debate within WVDOT management. Although, the sliding window analysis and hotspot identification portion of SMS is functional, the inaccuracy of the mileposts associated with the crashes has caused analysis efforts to be burdensome for the time being. Due to the percentage of inaccurate mileposts of crashes, hotspots that are identified by SMS drastically change upon further review/correction of mileposts. To remedy this situation we are working with our contractors to educate and provide better tools to enhance the accuracy of mileposts assigned to crashes. We anticipate that the accuracy will be reflected in our analysis in the coming year.

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

At the present time, the Strategic Highway Safety Planning and Analysis Section is working on rectifying the data quality issue. 80% of the crashes are able to be mapped using the SMS system. New straightline maps to better locate crashes have been developed and provided to contractor. Training to more accurately locate crashes for both police and contractor is ongoing.

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
Develop and Implement	Miscellaneous	1 Numbers	438500	1452000	HRRRP (SAFETEA-LU)	Statewide			State Highway Agency	Salary	
WV 28 / WV 956	Intersection traffic control Intersection traffic control - other	1 Numbers	157500	175000	HRRRP (SAFETEA-LU)	Rural Minor Arterial	7203	40	State Highway Agency	Intersections	
D2 and D3 Lane Departure	Roadway Pavement surface - high friction surface	9 Numbers	1042659	1042659	HRRRP (SAFETEA-LU)	Various			State Highway Agency	Roadway Departure	
West Run Road	Roadway Roadway widening - travel lanes	2 Miles	80100	89000	HSIP (Section 148)	Urban Major Collector	4300	25	State Highway Agency	Roadway Departure	
D8 Sign Inventory and Replace	Roadway signs and traffic control Roadway signs (including post) - new or updated	1 Numbers	310000	423000	HSIP (Section 148)	Various			State Highway Agency	Signage	
Skid Testing	Miscellaneous	1 Numbers	162441	250417	HSIP (Section 148)	Statewide			State Highway Agency	Data	
Strategic Highway Safety Plan	Non-infrastructure Transportation safety planning	1 Numbers	315000	400000	HSIP (Section 148)	Statewide			State Highway Agency	Data	

Road Safety audits	Non-infrastructure Road safety audits	1 Numbers	90000	100000	HSIP (Section 148)	Statewide			State Highway Agency	Study	
Highway Safety Improvement Program	Miscellaneous	1 Numbers	1315694	1452294	HSIP (Section 148)	Statewide			State Highway Agency	Salary	
Statewide Crash Records	Non-infrastructure Data/traffic records	1 Numbers	1355000	1450000	HSIP (Section 148)	Statewide			State Highway Agency	Data	
US 250 TWLTL	Roadway Roadway widening - travel lanes	1 Miles	22500	25000	HSIP (Section 148)	Rural Minor Arterial	8750	40	State Highway Agency	Intersections	
Advance Intersection	Intersection traffic control Modify traffic signal - add closed loop system	1 Numbers	720000	800000	HSIP (Section 148)	Statewide			State Highway Agency	Intersections	
Incident Management	Non-infrastructure Enforcement	1 Numbers	247500	275000	HSIP (Section 148)	Statewide			State Highway Agency	Incident Management	
Rock Cliff I/S Design	Non-infrastructure Transportation safety planning	1 Numbers	152100	169000	HSIP (Section 148)	Urban Minor Arterial	5600	25	State Highway Agency	Data	
WVSP ATMS Integration	Non-infrastructure Enforcement	1 Numbers	2125000	2125000	HSIP (Section 148)	Statewide			State Highway Agency	Enforcement	
I-70 Roadway Lighting	Lighting Continuous roadway lighting	5 Miles	5476122	6084580	HSIP (Section 148)	Urban Principal Arterial - Interstate	41044	65	State Highway Agency	Lighting	
I-70 Roadway Lighting	Lighting Continuous roadway lighting	6 Miles	4362385	4847050	HSIP (Section 148)	Urban Principal Arterial -	51439	55	State Highway Agency	Lighting	

						Interstate					
West Run Road	Roadway Roadway widening - travel lanes	2 Miles	270000	300000	HSIP (Section 148)	Urban Major Collector	4300	25	State Highway Agency	Roadway Departure	
District 4 Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	1194843	1194843	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
District 1 Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	932344	932344	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
District 8 Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	605877	635230	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Davis - Bismarck Sec 1-5	Roadway delineation Longitudinal pavement markings - new	10 Miles	1950951	73156587	HSIP (Section 148)	Rural Principal Arterial - Other	5000	65	State Highway Agency	Roadway Departure	
ADA Traffic Signal Upgrade	Pedestrians and bicyclists Pedestrian beacons	1 Numbers	352288	440360	HSIP (Section 148)	Statewide			State Highway Agency	Pedestrians	
East Huntington Signal System	Intersection traffic control Modify traffic signal - modernization/replacement	8 Numbers	1624543	196457 9	HSIP (Section 148)	Various			State Highway Agency	Intersections	
CR 45/5 Left Turn Lane	Intersection geometry Auxiliary lanes - add left-turn lane	1 Numbers	430900	430900	HSIP (Section 148)	Rural Minor Arterial	9127	45	State Highway Agency	Intersections	
Cantley Street Lighting	Lighting Intersection lighting	1 Numbers	264825	1215767	HSIP (Section 148)	Urban Principal Arterial - Other	42600	55	State Highway Agency	Intersections	

Harrison - Lost Creek Guardrail	Roadside Barrier- metal	3 Miles	809504	899449	HSIP (Section 148)	Rural Principal Arterial - Interstate	28301	70	State Highway Agency	Roadway Departure	
Wood WV 2 TWLTL	Roadway Roadway widening - add lane(s) along segment	1 Miles	1341781	1490868	HSIP (Section 148)	Rural Principal Arterial - Other	12400	55	State Highway Agency	Intersections	
Ohio CR 23 Guardrail	Roadside Barrier- metal	6 Miles	306200	340200	HSIP (Section 148)	Urban Major Collector	1663	35	State Highway Agency	Roadway Departure	
Patteson Drive Lighting	Lighting Continuous roadway lighting	1 Miles	80000	100000	HSIP (Section 148)	Urban Principal Arterial - Other	31094	35	State Highway Agency	Lighting	
Upgrade ITS and Traffic Control	Advanced technology and ITS Advanced technology and ITS - other	1 Numbers	2323500	5119355	HSIP (Section 148)	Statewide			State Highway Agency	Data	
I-77 Mink Shoals	Roadway Rumble strips - edge or shoulder	4 Miles	199500	5754013	HSIP (Section 148)	Urban Principal Arterial - Interstate	24769	70	State Highway Agency	Roadway Departure	
East Beckley Lighting Upgrade	Lighting Site lighting - interchange	2 Miles	90000	100000	HSIP (Section 148)	Urban Principal Arterial - Interstate	15424	70	State Highway Agency	Lighting	
Corridor G Bullnose Med Treatment	Roadside Barrier end treatments (crash cushions, terminals)	3 Numbers	13500	15000	HSIP (Section 148)	Rural Principal Arterial - Other	15500	65	State Highway Agency	Roadway Departure	
D-3 Recall Striping	Roadway delineation Longitudinal pavement	1 Numbe	124194	177392	HSIP (Section	Districtwide			State Highway	Roadway Departure	

	markings - remarking	rs			148)				Agency		
D-4 Recall Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	149371	186714	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
D-5 Recall Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	186070	265786	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
D-10 Recall Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	158513	226418	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Teays Valley TWLTL Study	Non-infrastructure Transportation safety planning	1 Numbers	211500	235000	HSIP (Section 148)	Urban Minor Arterial	10300	45	State Highway Agency	Data	
Patteson Drive Lighting	Lighting Continuous roadway lighting	1 Miles	40000	50000	HSIP (Section 148)	Urban Principal Arterial - Other	31094	35	State Highway Agency	Lighting	
Buffalo Bridge Right Turn Lane	Intersection geometry Auxiliary lanes - add right-turn lane	1 Numbers	67500	75000	HSIP (Section 148)	Rural Major Collector	4300	55	State Highway Agency	Intersections	
Hancock CR 11 Guardrail	Roadside Barrier- metal	1 Miles	59200	65800	HSIP (Section 148)	Urban Minor Arterial	1536	25	State Highway Agency	Roadway Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	216000	1303119	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	296100	1446344	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Roadway	Roadway delineation	1	22530	116678	HSIP	Districtwid			State	Roadway	

Striping	Longitudinal pavement markings - remarking	Numbers	0	2	(Section 148)	e			Highway Agency	Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	168200	163342 7	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	279600	154201 3	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	172400	103955 8	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	210800	116442 0	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	179600	101938 8	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	227300	125350 3	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
Roadway Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	219200	148655 2	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	
River Road	Roadway Rumble strips - edge or shoulder	2 Miles	66660	133319 8	HSIP (Section 148)	Urban Principal Arterial - Other	1460 5	35	State Highway Agency	Roadway Departure	
Guardrail Barbour CR 1	Roadside Barrier- metal	1 Miles	12998	14442	HSIP (Section 148)	Rural Local Road or Street	200	55	State Highway Agency	Roadway Departure	
D-2 Recall Striping	Roadway delineation Longitudinal pavement markings - remarking	1 Numbers	146330	182913	HSIP (Section 148)	Districtwide			State Highway Agency	Roadway Departure	

Traffic Incident Management	Non-infrastructure Educational efforts	1 Numbers	900000	1000000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Education	
Statewide Safety Campaign	Non-infrastructure Educational efforts	1 Numbers	4523342	5026000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Education	
Safety Culture Assessment	Miscellaneous	1 Numbers	200000	200000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Assessment	
WVSP Cad System Feasibility	Non-infrastructure Non-infrastructure - other	1 Numbers	100000	100000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Study	
WV Graduated Driver License	Non-infrastructure Non-infrastructure - other	1 Numbers	80000	80000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Study	
GSHP Highway Safety Plan Coordination	Non-infrastructure Non-infrastructure - other	1 Numbers	90000	90000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Coordination	
Continuum of Care Server	Non-infrastructure Data/traffic records	1 Numbers	70000	70000	Penalty Transfer -	Statewide			State Highway Agency	Data	

					Section 154						
Tucker US 219 Survey	Alignment Horizontal and vertical alignment	28 Miles	10000	10000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	2100	55	State Highway Agency	Data	
US 119 Survey	Alignment Horizontal and vertical alignment	2 Miles	10000	10000	Penalty Transfer - Section 154	Rural Principal Arterial - Other	10100	65	State Highway Agency	Data	
GSHP Highway Safety Plan Coordination	Non-infrastructure Non-infrastructure - other	1 Numbers	80000	80000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Coordination	
High Friction Surface Treatment	Roadway Pavement surface - high friction surface	3 Numbers	230191	230191	Penalty Transfer - Section 154	Urban Principal Arterial - Other	12700	55	State Highway Agency	Roadway Departure	
Saturation Patrols for Law Enforcement	Non-infrastructure Enforcement	1 Numbers	2020000	2020000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Enforcement	
US 19 Harrison Guardrail	Roadside Barrier- metal	2 Miles	59797	68655	Penalty Transfer - Section 154	Urban Minor Arterial	5438	45	State Highway Agency	Roadway Departure	
WV 7	Roadside Barrier- metal	6 Miles	35037	389308	Penalty	Rural	819	25	State	Roadway	

Monongalia Guardrail			7		Transfer - Section 154	Principal Arterial - Other			Highway Agency	Departure	
Access Management Study	Access management Access management - other	1 Numbers	250000	250000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Study	
Corridor H: Davis - Bismarck	Roadway delineation Longitudinal pavement markings - new	10 Miles	2418066	73156587	Penalty Transfer - Section 154	Rural Principal Arterial - Other		65	State Highway Agency	Roadway Departure	
Fusion Center Budget	Advanced technology and ITS Congestion detection / traffic monitoring system	1 Numbers	120000	1700000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Salary	
HSIP Data Analysis	Non-infrastructure Data/traffic records	1 Numbers	695200	1500000	Penalty Transfer - Section 154	Statewide			State Highway Agency	Data	
Cabell I-64 HFST	Roadway Pavement surface - high friction surface	1 Miles	283800	283800	Penalty Transfer - Section 154	Urban Principal Arterial - Interstate	37405	65	State Highway Agency	Roadway Departure	

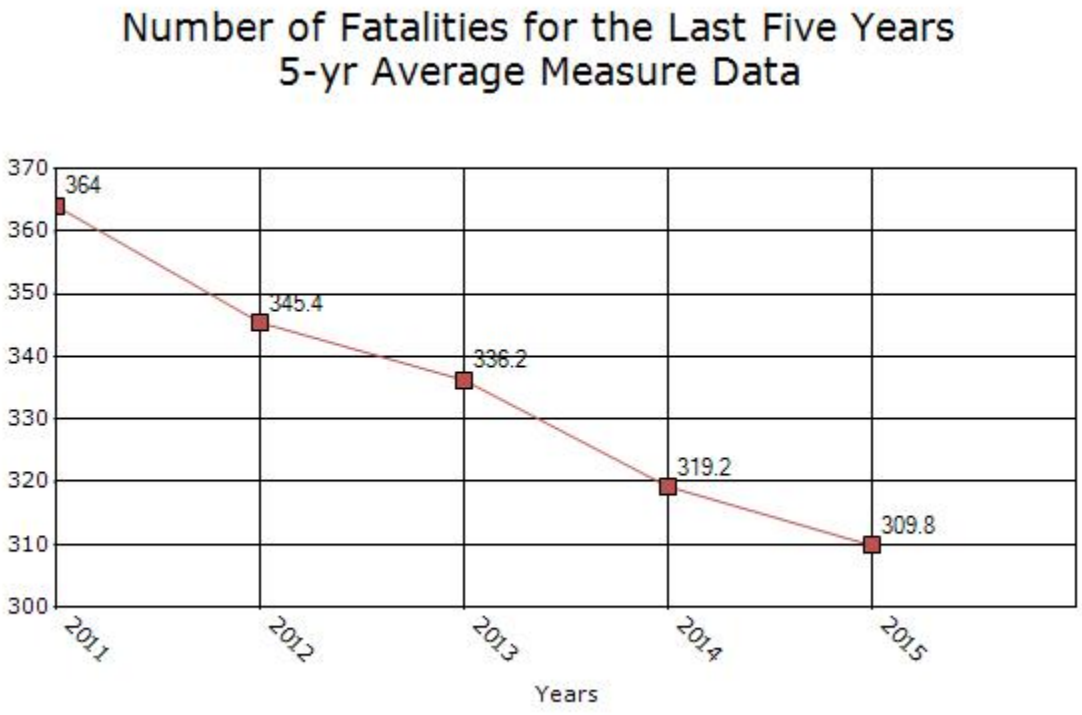
Progress in Achieving Safety Performance Targets

Overview of General Safety Trends

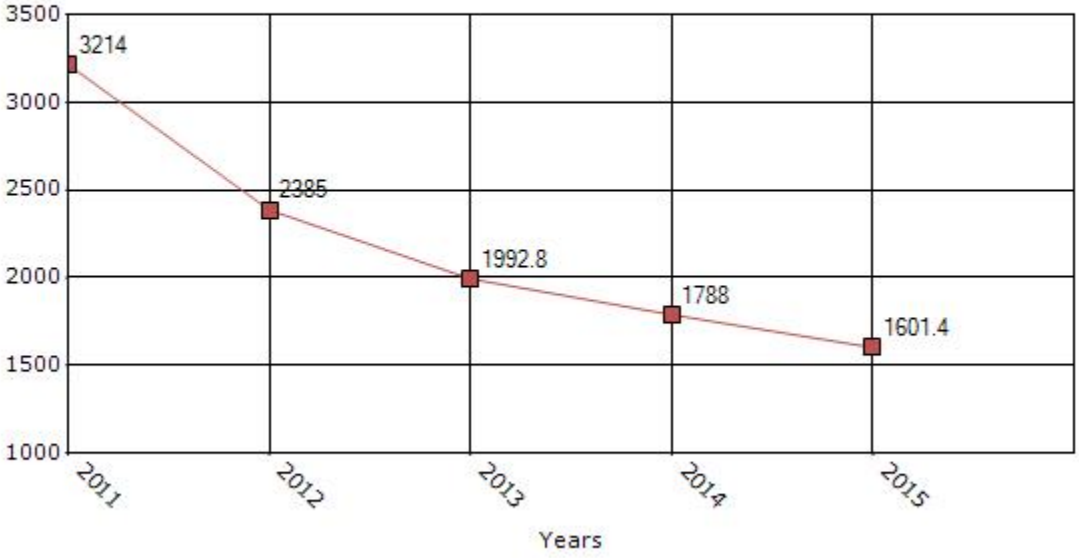
Present data showing the general highway safety trends in the state for the past five years.

Performance Measures*	2011	2012	2013	2014	2015
Number of fatalities	364	345.4	336.2	319.2	309.8
Number of serious injuries	3214	2385	1992.8	1788	1601.4
Fatality rate (per HMVMT)	1.888	1.808	1.776	1.704	1.648
Serious injury rate (per HMVMT)	16.612	12.448	10.526	9.558	8.53

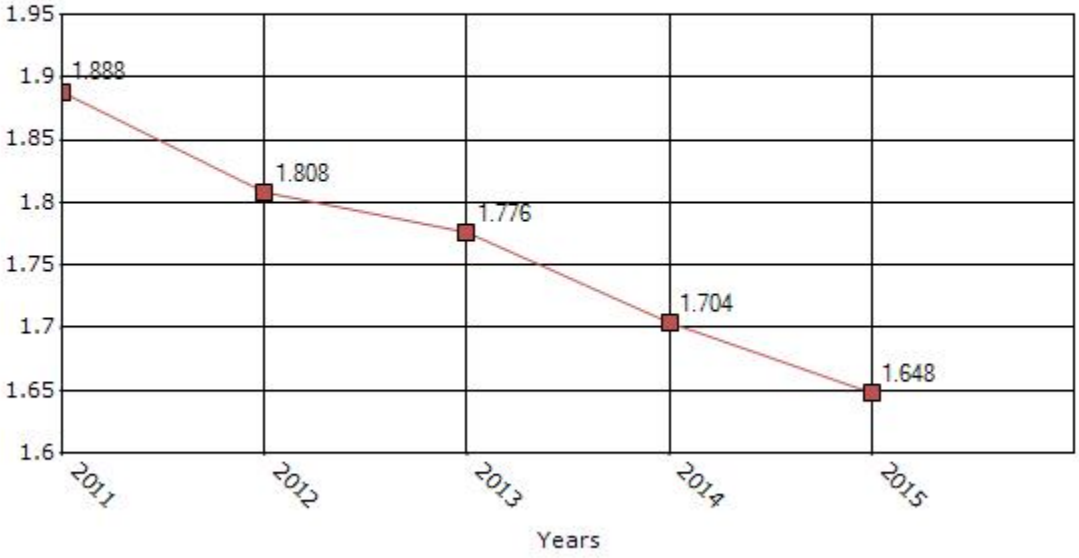
*Performance measure data is presented using a five-year rolling average.

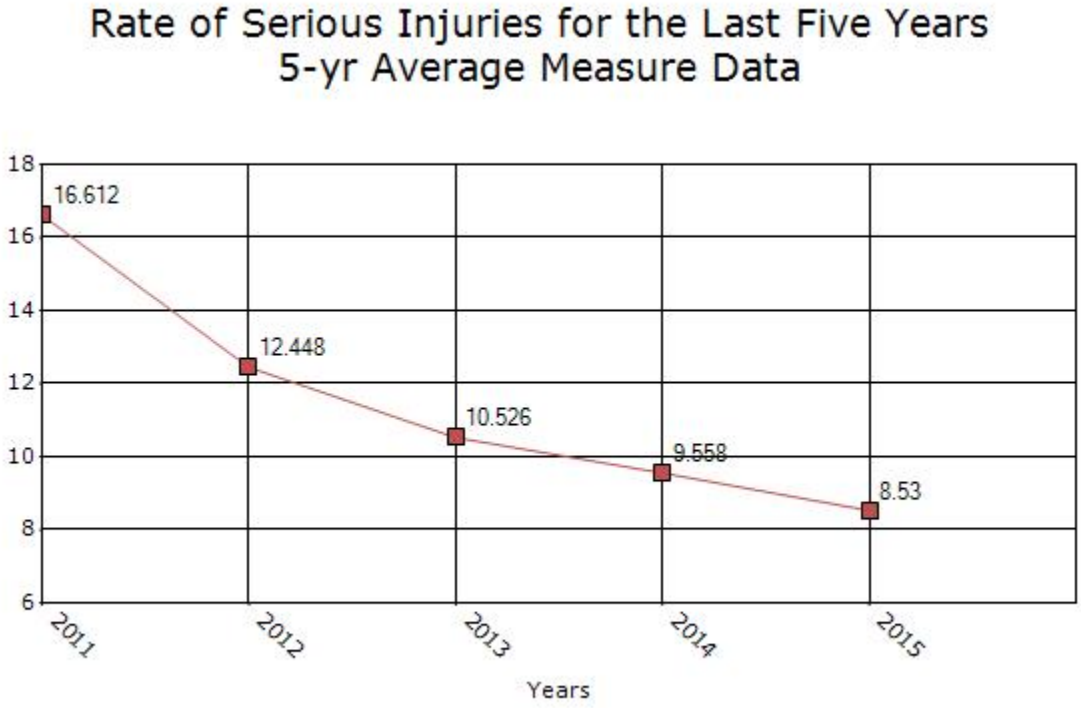


Number of Serious Injuries for the Last Five Years
5-yr Average Measure Data



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



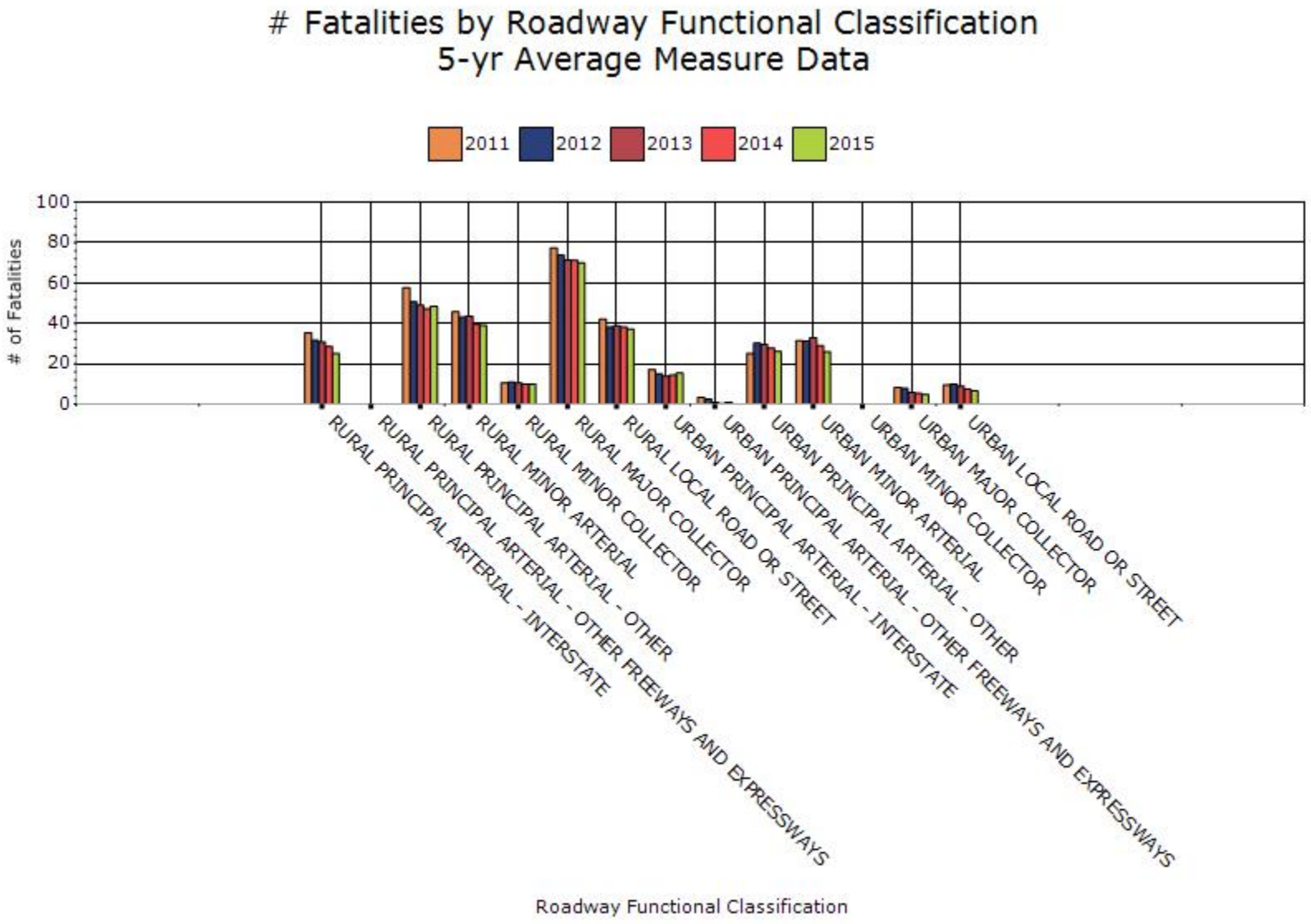

Rate of Serious Injuries for the Last Five Years
5-yr Average Measure Data
18
16
14
12
10
8
6
16.612
12.448
10.526
9.558
8.53
2011
2012
2013
2014
2015
Years

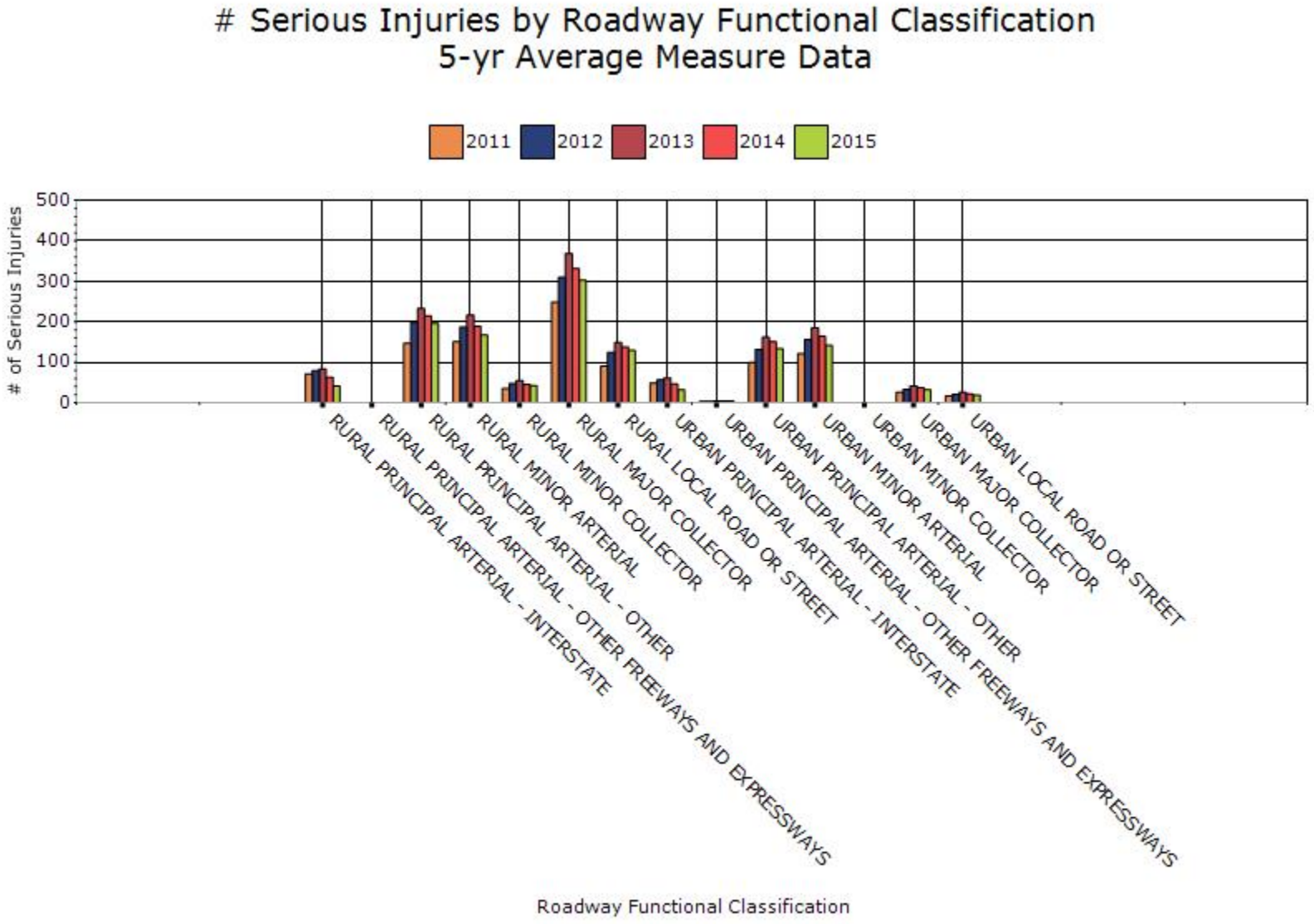
To the maximum extent possible, present performance measure* data by functional classification and ownership.

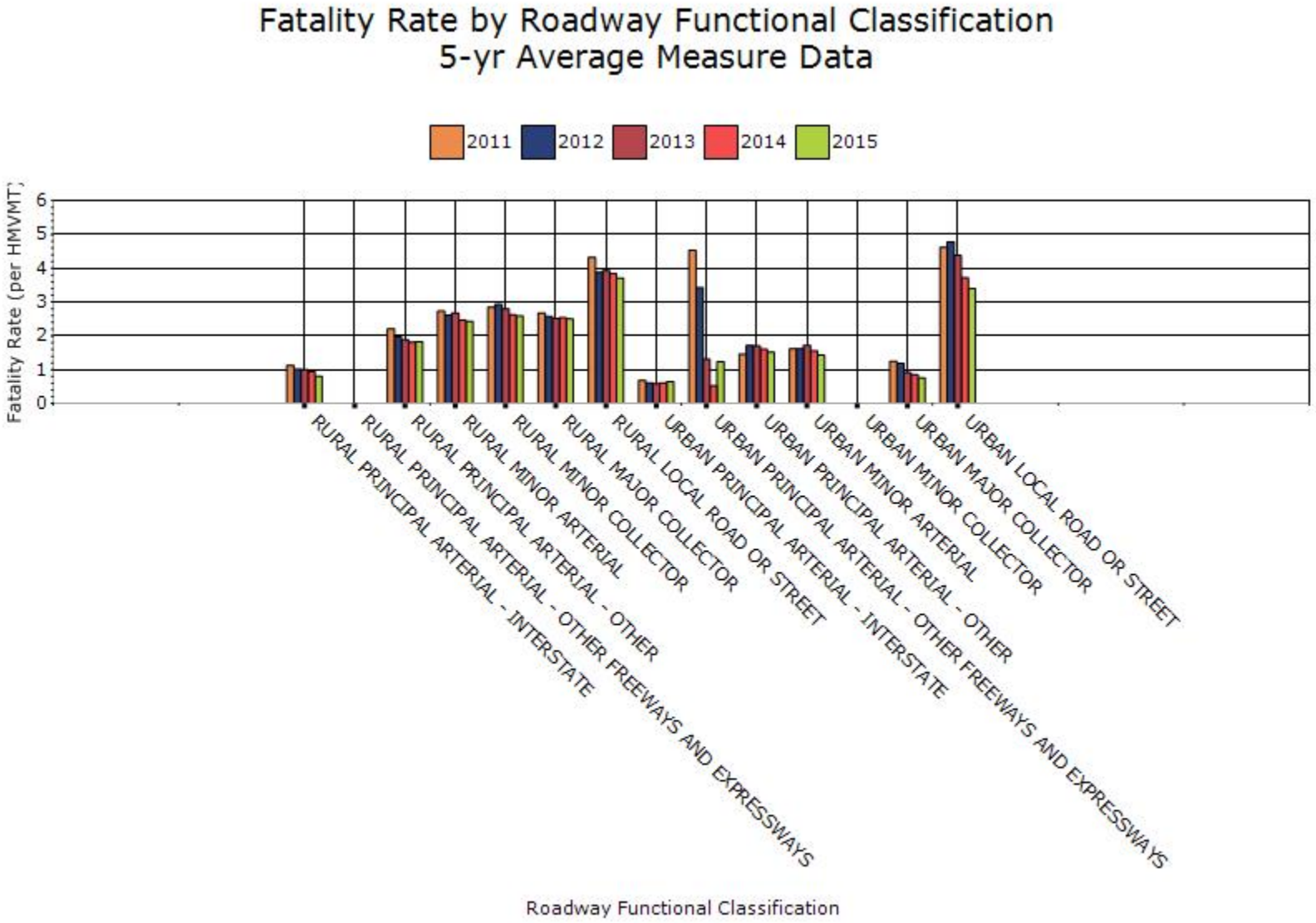
Year - 2015

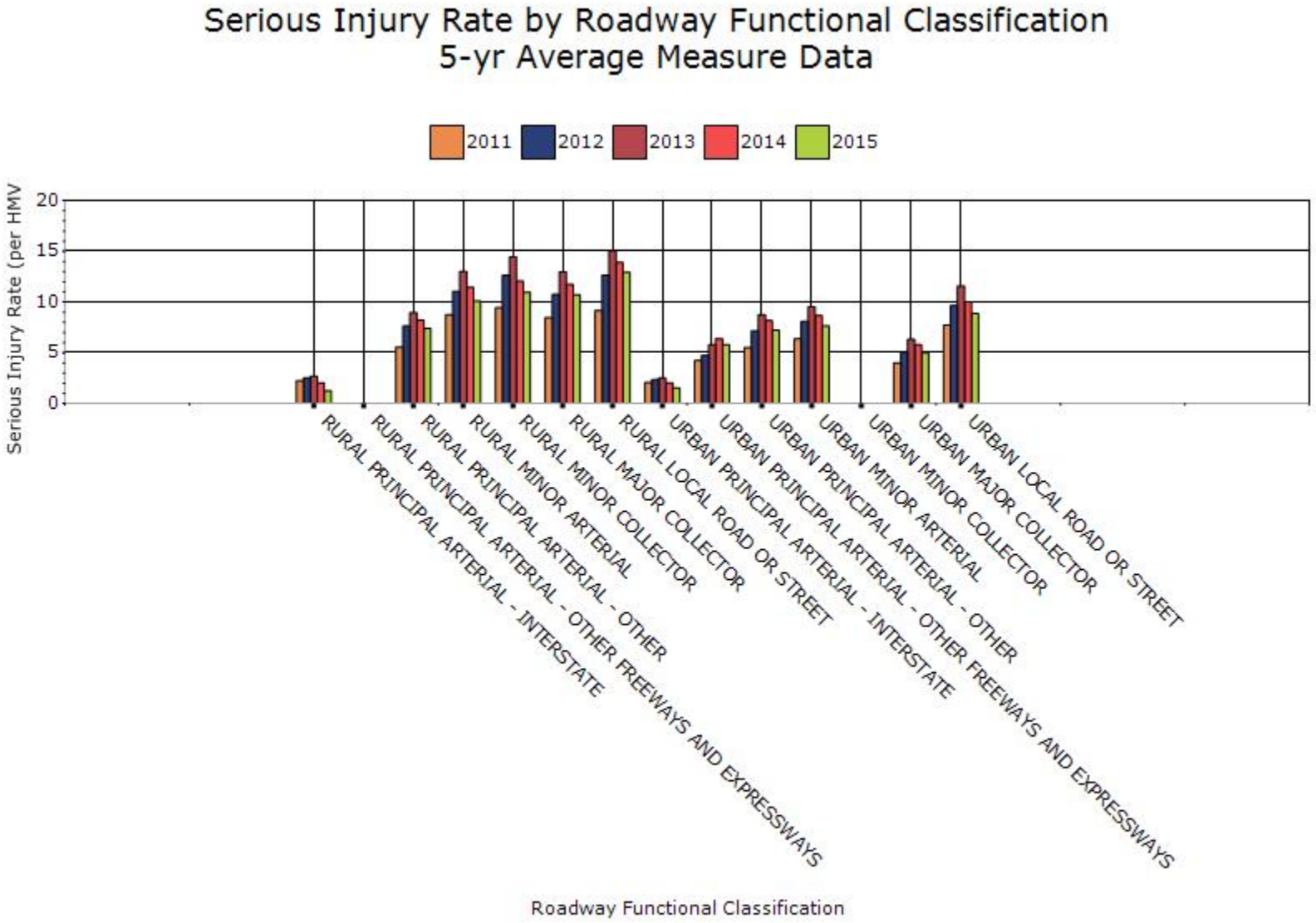
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	25.2	41.8	0.81	1.25
RURAL PRINCIPAL ARTERIAL - OTHER	48.4	196.2	1.83	7.39
RURAL MINOR ARTERIAL	39	167.4	2.43	10.09
RURAL MINOR COLLECTOR	10	42.6	2.59	10.97
RURAL MAJOR COLLECTOR	70	302.6	2.5	10.7
RURAL LOCAL ROAD OR STREET	37.2	129.2	3.71	12.94
URBAN PRINCIPAL ARTERIAL - INTERSTATE	15.4	32.6	0.64	1.52
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	1	4.6	1.24	5.79

URBAN PRINCIPAL ARTERIAL - OTHER	26.2	133.2	1.52	7.25
URBAN MINOR ARTERIAL	26	142	1.43	7.63
URBAN MAJOR COLLECTOR	4.8	32.4	0.76	5
URBAN LOCAL ROAD OR STREET	6.6	19.4	3.4	8.87


Fatalities by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Fatalities
100
80
60
40
20
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
Roadway Functional Classification

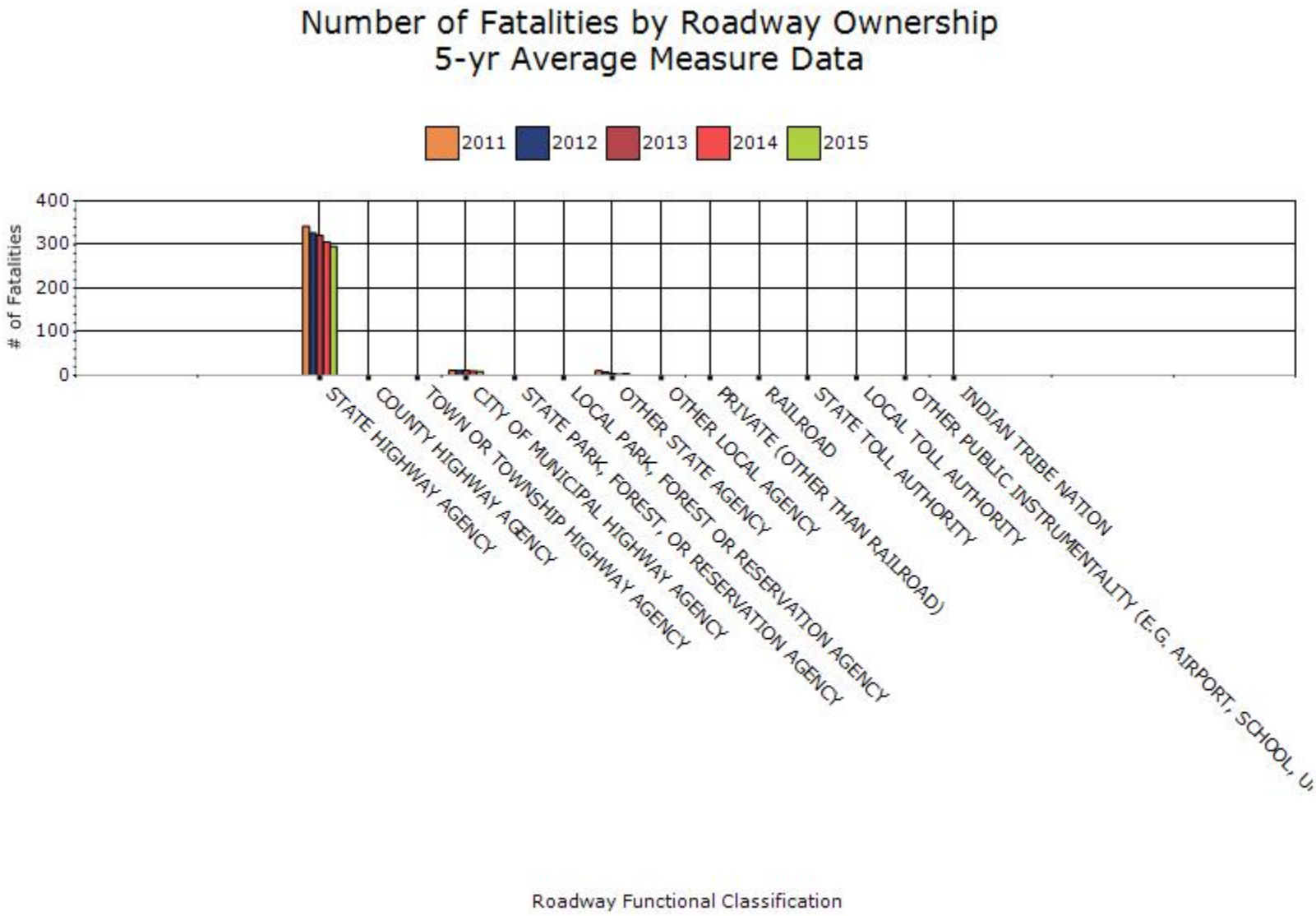

Serious Injuries by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Serious Injuries
500
400
300
200
100
0
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
RURAL 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
Roadway Functional Classification

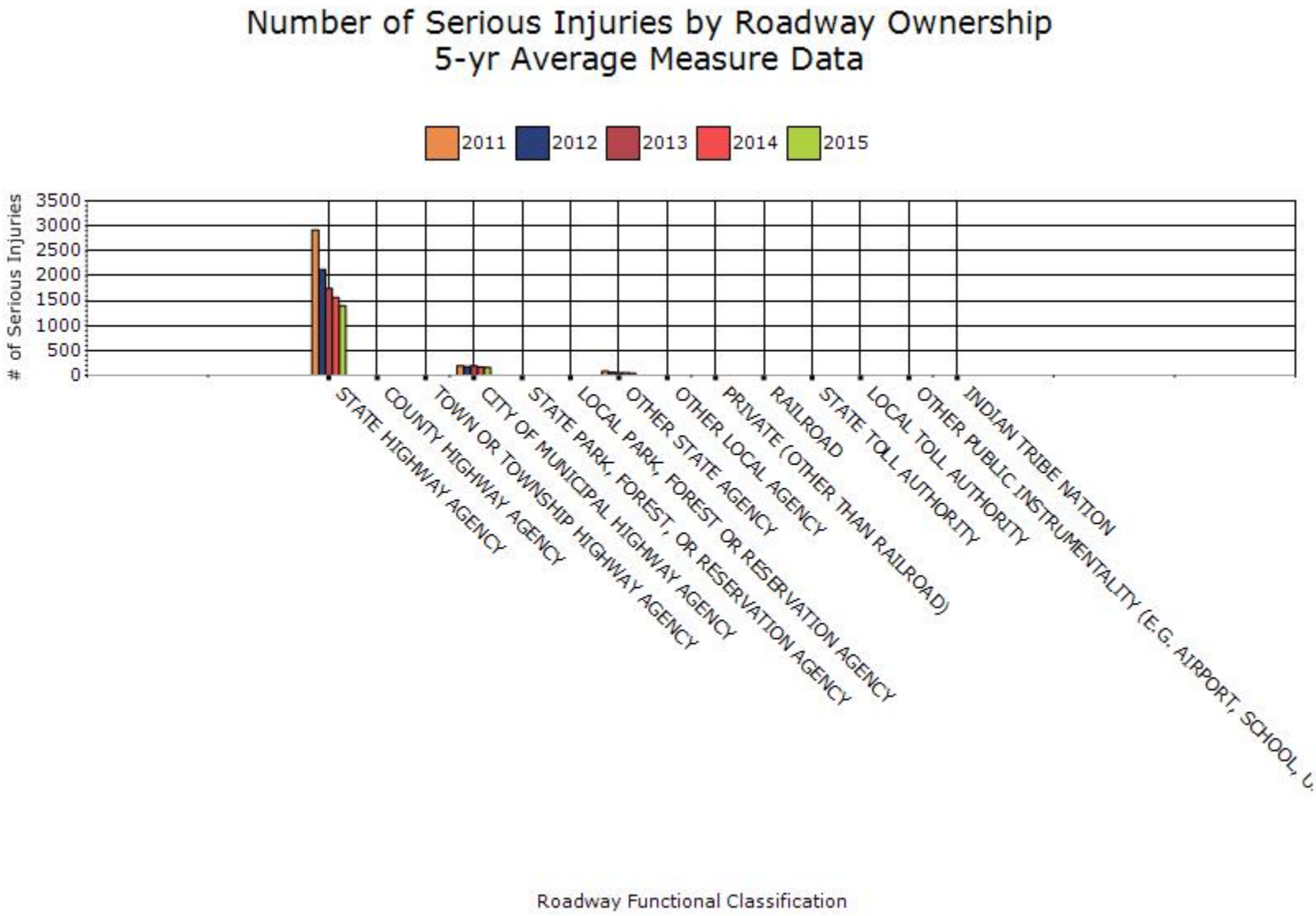

Fatality Rate by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
Fatality Rate (per HMVMT)
0
1
2
3
4
5
6
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
RURAL MINOR 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
Roadway Functional Classification

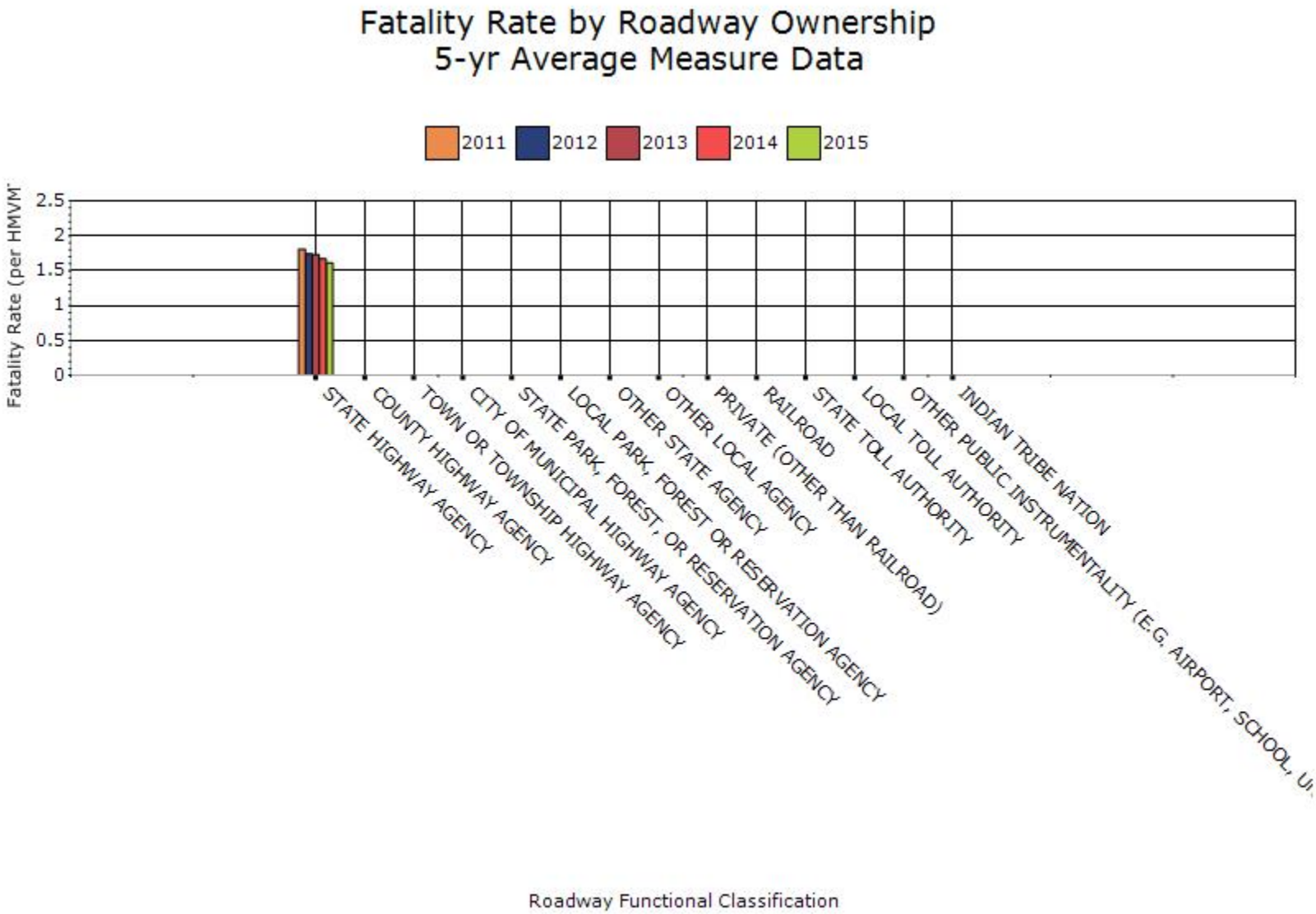

Serious Injury Rate by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
Serious Injury Rate (per HMV
20
15
10
5
0
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
RURAL 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
Roadway Functional Classification

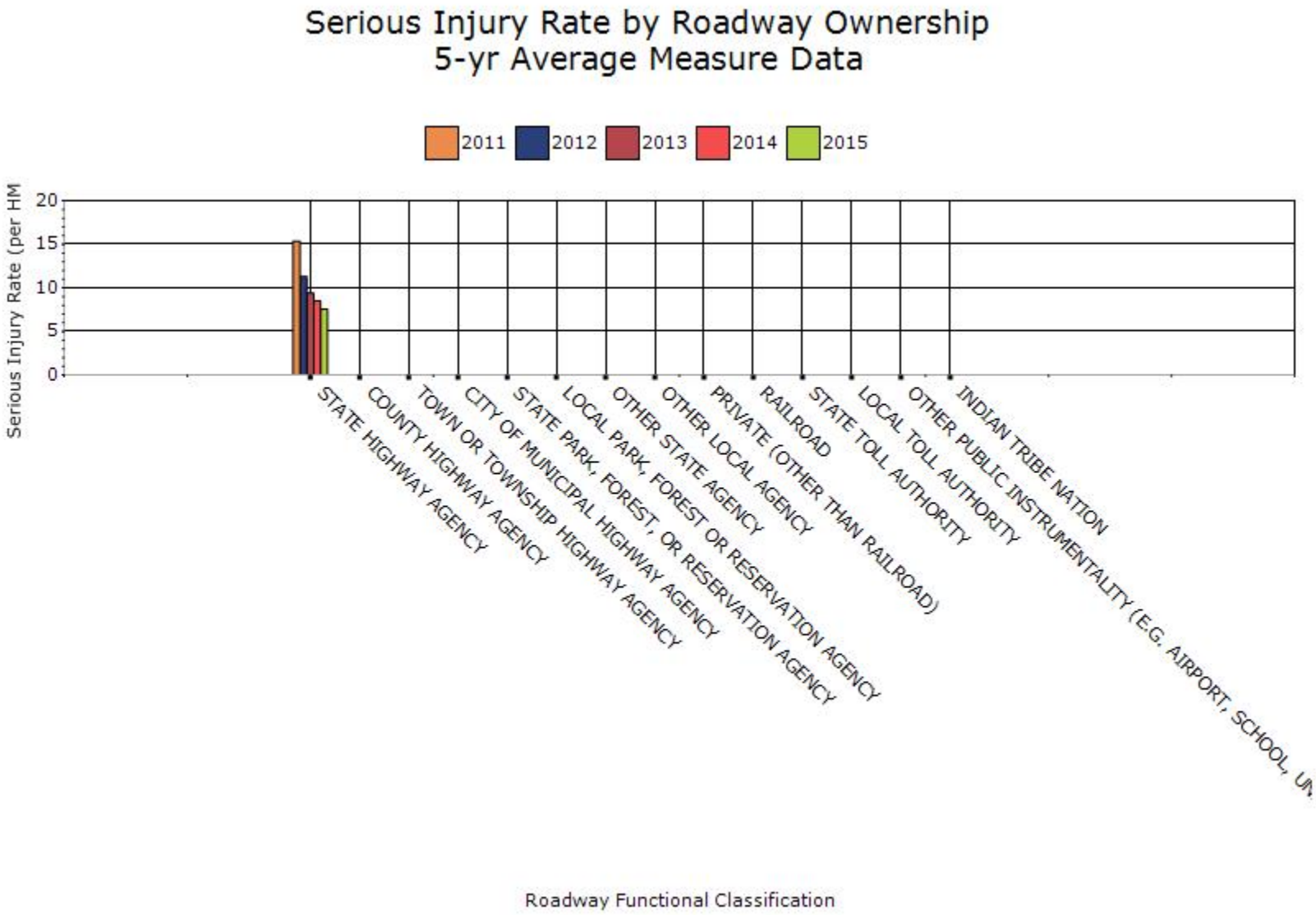
Year - 2015

Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	296.2	1396.2	1.61	7.58
CITY OF MUNICIPAL HIGHWAY AGENCY	9.4	158.8		
OTHER STATE AGENCY	4.2	46.4		


Number of Fatalities by Roadway Ownership
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Fatalities
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
Roadway Functional Classification


Number of Serious Injuries by Roadway Ownership
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Serious Injuries
3500
3000
2500
2000
1500
1000
500
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
Roadway Functional Classification


Fatality Rate by Roadway Ownership
5-yr Average Measure Data
2011
2012
2013
2014
2015
Fatality Rate (per HMVM
2.5
2
1.5
1
0.5
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
Roadway Functional Classification


Serious Injury Rate by Roadway Ownership
5-yr Average Measure Data
2011
2012
2013
2014
2015
Serious Injury Rate (per HM
20
15
10
5
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
Roadway Functional Classification

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

West Virginia has seen the number of fatalities decease since 2007. In 2007, there were 432 fatalities. This number dropped to 268 in 2015. The number of serious injuries has decreased over the past 9 years. In 2007, there were 6,034 serious injuries. By 2015, the number has decreased to 1,268.

The fatality fate has decreased in 2015. In 2006, it was 2.21 per HMVMT and in 2015, it was 1.42 per HMVMT. The serious injury rate has dropped significantly. In 2007, it was 30.92 per HMVMT and in 2015, it was 6.72 per HMVMT.

Application of Special Rules

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

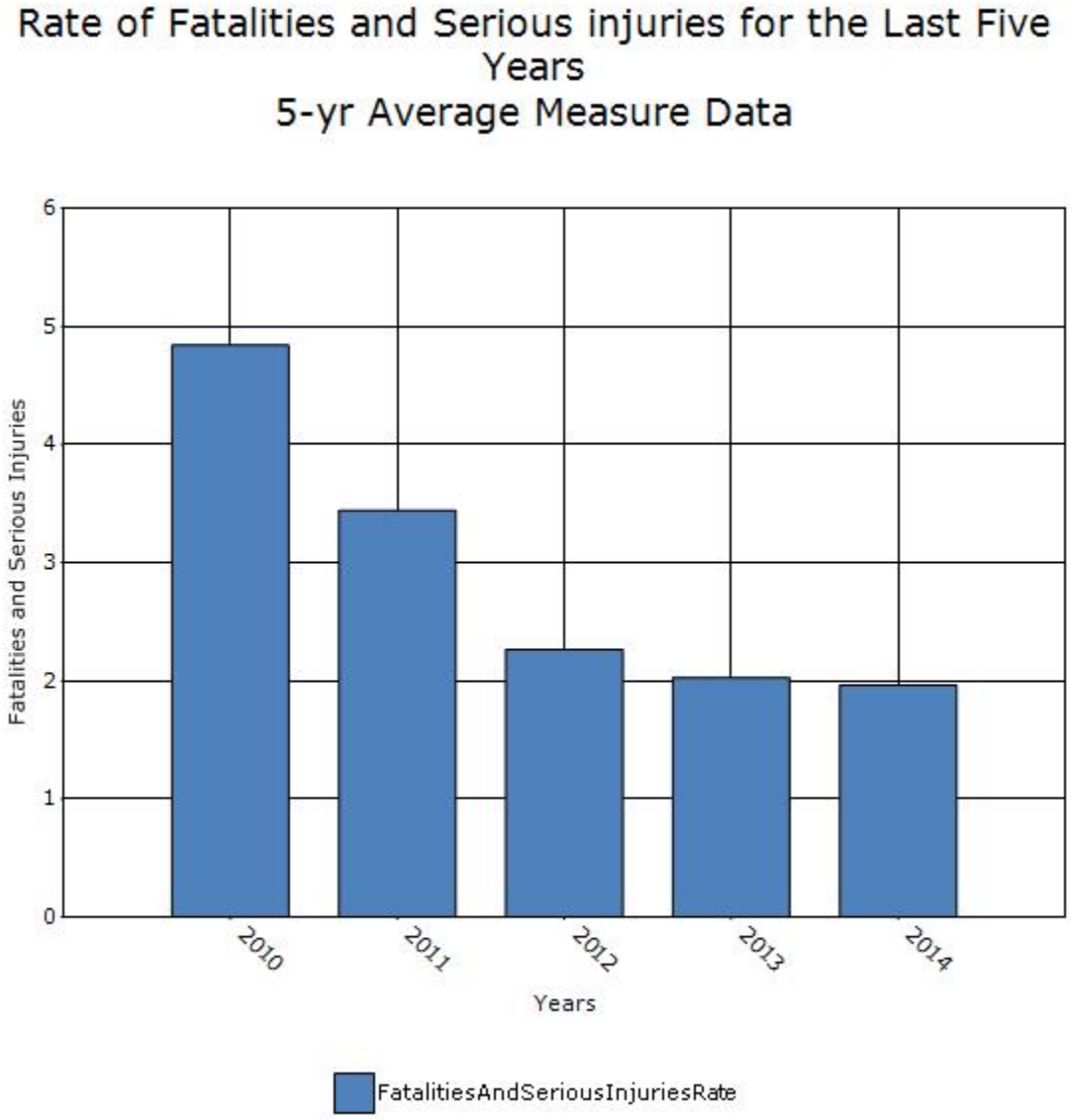
Older Driver Performance Measures	**2010**	**2011**	**2012**	**2013**	**2014**
Fatality rate (per capita)	0.494	0.534	0.538	0.542	0.492
Serious injury rate (per capita)	4.344	2.904	1.726	1.484	1.47
Fatality and serious injury rate (per capita)	4.84	3.44	2.266	2.026	1.962

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

In 2014, the population per 10,000 for drivers and pedestrians 65 years of age and older was 173. There were 55 fatalities and 273 serious injures for people in this age group.

The fatality rate for drivers 65 years of age and older was calculated by taking 55 divided by 173 and the serious injury rate as calculated by taking 273 divided by 173.

It should be noted that we determined the population of drivers 65 years of age and older by using the MAP-21 / guidance / Section 148: Older Drivers and Pedestrian Special Rule Interim Guidance. Additionally it should be noted that HMVMT for 2015 was unable for this report. We used 2014 HMVMT numbers when calculating 2015 rates.



Does the older driver special rule apply to your state?

No

Assessment of the Effectiveness of the Improvements (Program Evaluation)

What indicators of success can you use to demonstrate effectiveness and success in the Highway Safety Improvement Program?

Benefit/cost

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

great than one

Other-Significant reduction in traffic fatalities and incapacitating injuries

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.

The first phase of West Virginia's Safety Management Module, completed as a part of wvOASIS went live in January 2014. The wvOASIS project is informally referred to as the Enterprise Resource Planning (ERP) project. This portion of the project enabled the State to partially begin managing the HSIP through the new Safety Management System. Specifically the State is able to complete network screening and analysis (such as outlined in Chapter 4 of the HSM) to identify locations on the State's Highway Network that may be in need of some type of highway safety improvement. This analysis can be completed for a wide variety of categories, including the entire roadway network, roadway departure crashes only, etc. As locations are identified through the analysis, safety engineers further analyze sites through the review of crash report narratives and diagrams. Following this additional review, site visits to narrowed list of locations are completed. From these, potential projects are developed. The potential projects are "built" within the Safety Management Module where Information from the National CMF Clearinghouse is utilized to conduct benefit/cost analysis for potential projects. From there, projects showing a b/c ratio of greater than 1 are progressed through the system. Under the currently live phase of ERP, candidate projects cannot automatically be submitted to the project selection process; however, the phase of the ERP project which is currently under development will rectify this situation streamlining the project submission process for safety. The current "live" portion of the system requires manual intervention to progress projects through the system from cradle to grave. Currently all Highway Safety staff within Traffic Engineering Division have access to all of the

components of the ERP system that are live. Additionally, district traffic engineers and MPO safety personnel have access to the data within the system; however, not to the project analysis and development portions of the system.

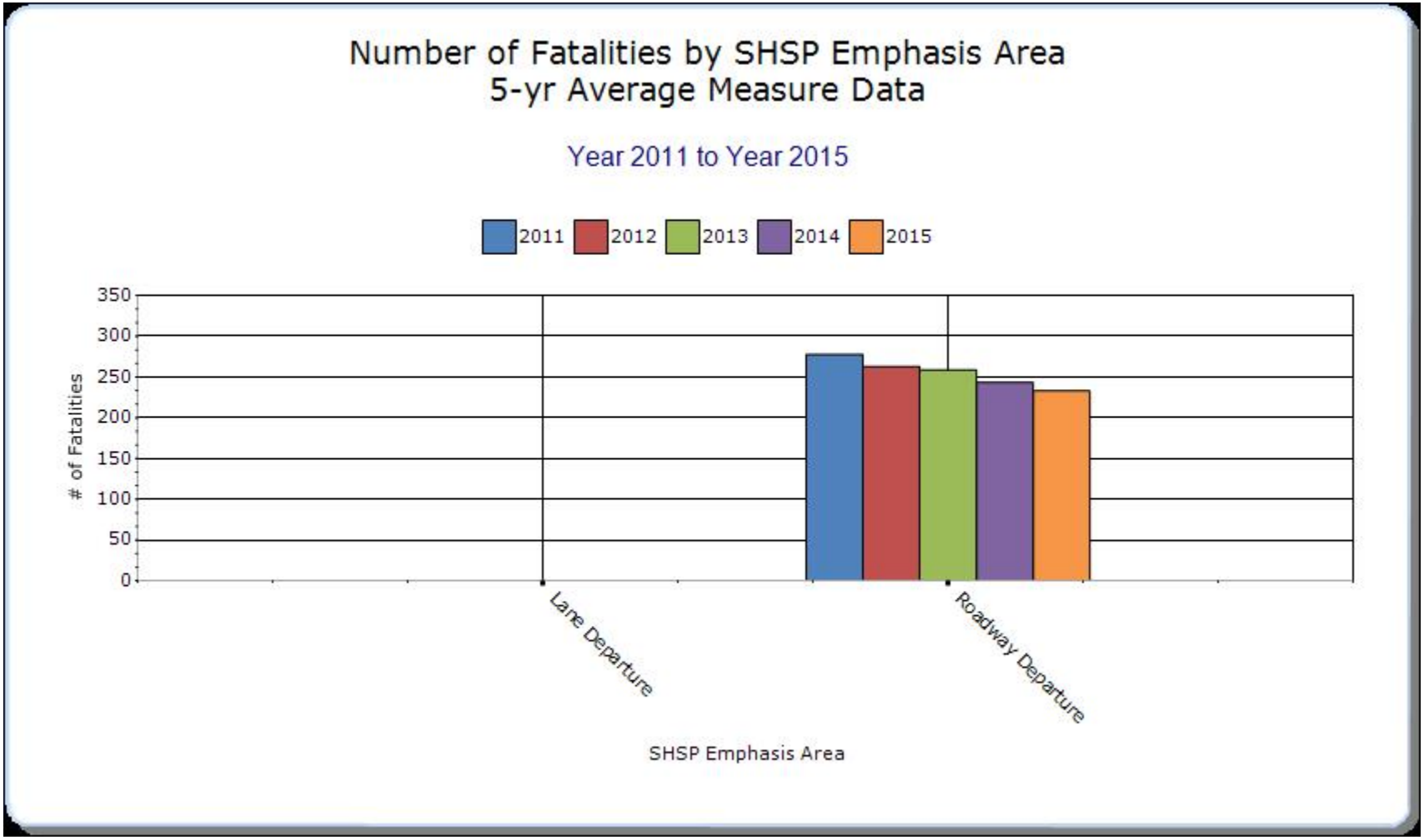
As with any new system, WV's safety management system is not without faults; however most of its faults are known and will be overcome quickly following the completion of the remainder of the ERP project. Not all crashes on the State Highway System currently locate on the LRS which means those crashes are excluded from network screening analysis. There are a couple of reasons for this problem, but fortunately the fix is the same for all. WV's LRS is relatively new, developed simultaneously with the ERP system, as such crashes have never been located on the LRS before moving them into this system so minor errors of as little as 1/100 of a mile can result in a crash errors get out on the LRS. Additionally, the crash data in the system predates the LRS data so situations where a road has been realigned, renumbered, etc. result in crash location errors. Lastly, the LRS in the live portion of ERP is currently static so crashes can potentially have a more up to date location than is available in the system, thus they may error when locating on the LRS as well. As the remaining phase of ERP is completed older "not located" crashes are being Corrected. When the remaining portion of ERP is completed and the LRS interface begins to operate the newer "not located" crashes will largely locate without intervention and only a few will require manual intervention. It should also be noted that any crashes, regardless of age, that have occurred on municipal streets currently are not locating on the LRS. This is because prior to the development of the LRS for ERP municipal streets did not have a "route" assigned to them, as such crashes have always been stored by municipality and street name. As the final phase of ERP is completed crash data for municipal street crashes has to have those "route" numbers assigned to them. All of this crash data cleansing takes a lot of resources, which unfortunately the Strategic Highway Safety Planning and Analysis Section currently does not have. The work can be accomplished however under current constraints it will take some time.

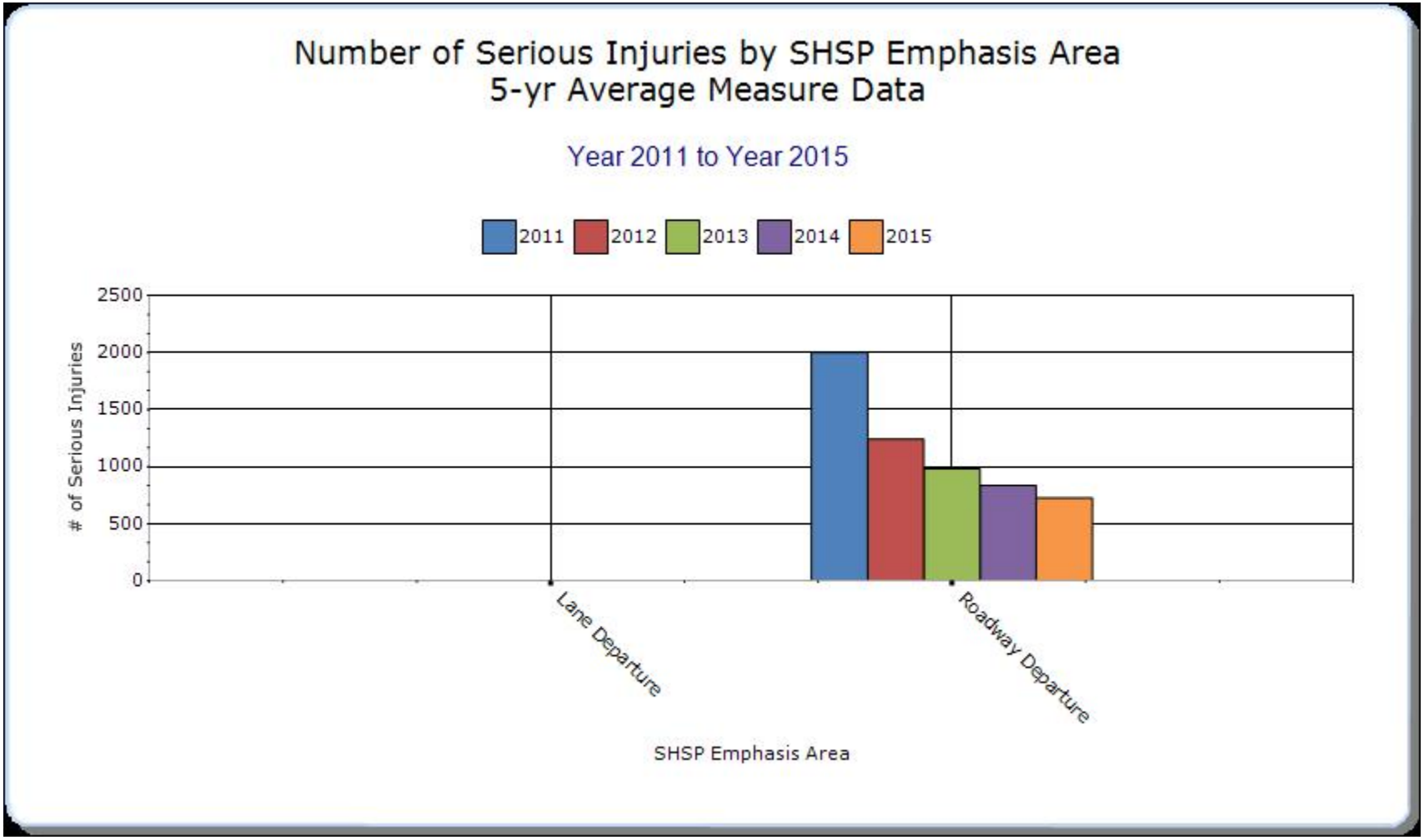
SHSP Emphasis Areas

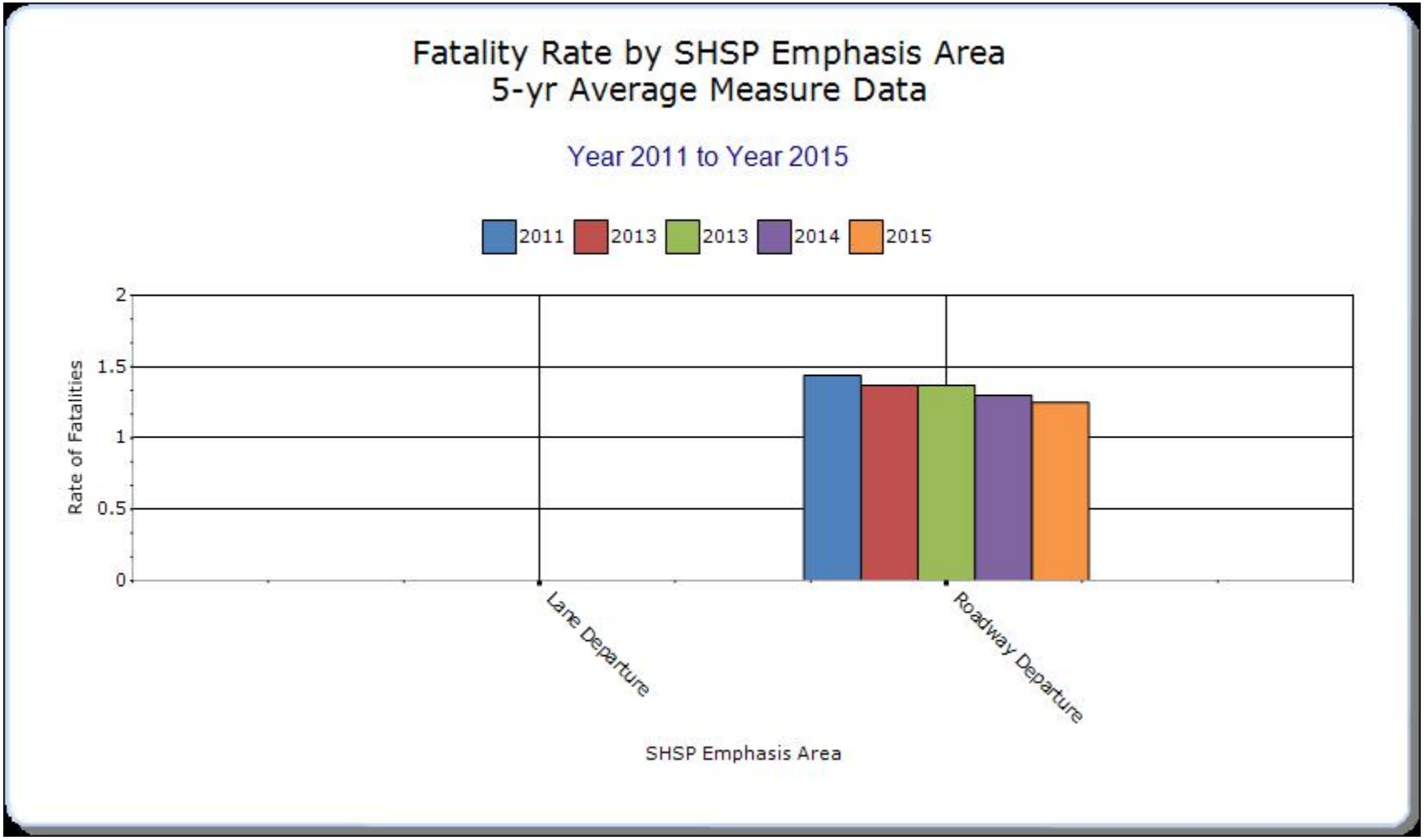
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

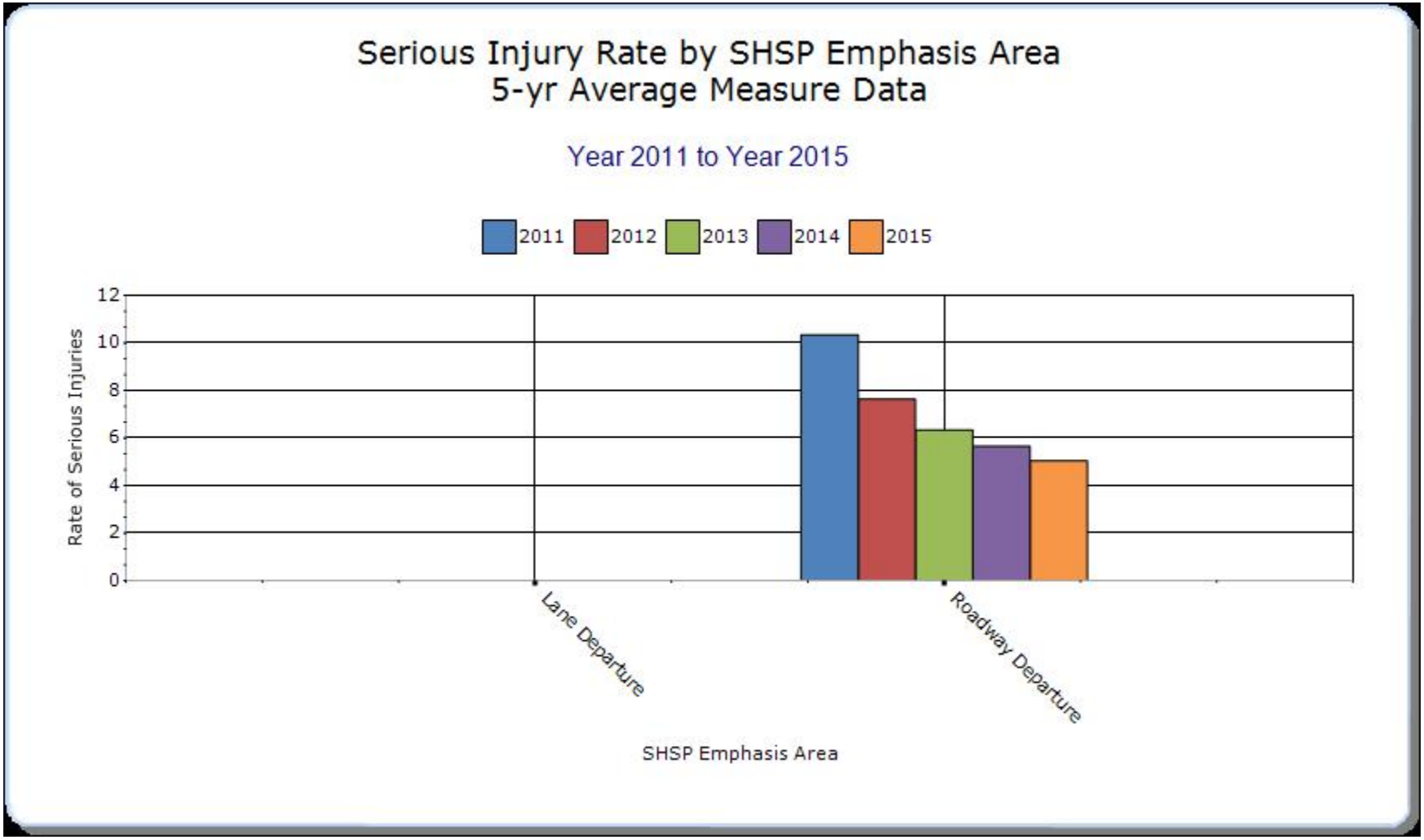
Year - 2015

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
Roadway Departure		233	725	1.25	5.05			


Number of Fatalities by SHSP Emphasis Area
5-yr Average Measure Data
Year 2011 to Year 2015
2011
2012
2013
2014
2015
# of Fatalities
350
300
250
200
150
100
50
0
Lane Departure
Roadway Departure
SHSP Emphasis Area


Number of Serious Injuries by SHSP Emphasis Area
5-yr Average Measure Data
Year 2011 to Year 2015
2011
2012
2013
2014
2015
2500
2000
1500
1000
500
0
# of Serious Injuries
Lane Departure
Roadway Departure
SHSP Emphasis Area


Fatality Rate by SHSP Emphasis Area
5-yr Average Measure Data
Year 2011 to Year 2015
2011
2013
2013
2014
2015
Rate of Fatalities
2
1.5
1
0.5
0
Lane Departure
Roadway Departure
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
Roadway Departure		233	930.8	1.24	4.96			

Systemic Treatments

Present the overall effectiveness of systemic treatments.

Year - 2015

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
Add/Upgrade/Modify/Remove		309.8	1601.4	1.65	8.53			

Traffic Signal								
Traffic Control Device Rehabilitation		309.8	1601.4	1.65	8.53			
Safety Edge		233	930.8	1.24	4.96			
Install/Improve Lighting		128.6	466	0.68	2.48			
Install/Improve Pavement Marking and/or Delineation		233	930.8	1.24	4.96			
Install/Improve Signing		309.8	1601.4	1.65	8.53			
Rumble Strips		233	930.8	1.24	4.96			
Cable Median Barriers		233	930.8	1.24	4.96			
Upgrade Guard Rails		233	930.8	1.24	4.96			
Pavement/Shoulder Widening		233	930.8	1.24	4.96			

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

The number of fatalities has generally decreased between 2007 and 2015. In 2007, there were 432 fatalities and it decreased to 268 in 2015. The number of serious injuries has decreased between 2007 and 2015. In 2007, there were 6,034 serious injuries. By 2015, this number has decreased to 1,268.

The fatality rate has decreased between 2007 and 2015. In 2007 the fatality rate was 2.21 per HMVMT. In 2015, the fatality rate was 1.42 per HMVMT. The serious injury rate also decreased between 2007 and 2015. In 2007 the serious injury rate was 30.92 per HMVMT. In 2015, the serious injury rate was 6.72 per HMVMT.

It should be noted that the 2015 HMVMT is unavailable at this time. Programming Division supplies Traffic Engineering Division with the most current HMVMT and at the time of preparing the report, they were currently updating their records. In order to calculate the fatality rate and serious injury rate, we used 2014 HMVMT.

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)
Webster County CR 46	Rural Major Collector	Roadway	Roadway widening - travel lanes	1		3	3	7			4	3	7	
Randolph County US 219	Rural Principal Arterial - Other	Roadside	Barrier- metal		6	24	55	85	1	2	28	63	94	

Lewis County I-79	Rural Principal Arterial - Interstate	Lighting	Site lighting - interchange		1	12	40	53			1	1	2	
Grant County US 220	Rural Minor Arterial	Roadside	Barrier - other											
Hampshire County US 50	Rural Minor Arterial	Roadway	Pavement surface - high friction surface			1	1	2			1	2	3	
Hampshire County WV 127	Rural Major Collector	Shoulder treatments	Pave existing shoulders	2	2	7	13	24		1	6	12	19	

Hampshire County WV 127	Rural Major Collector	Roadside	Barrier- metal	2	2	7	13	24		1	6	12	19	
Kanawha County CR 83	Rural Major Collector	Roadside	Barrier- metal	2	2	12	17	33		1	7	14	22	
Lewis County I-79	Rural Principal Arterial - Interstate	Roadway	Pavement surface - high friction surface			1	4	5						
Pendleton County US 33	Rural Minor Arterial	Roadway delineation	Raised pavement markers		1	3	5	9		1	4	3	8	

Preston County WV 26	Rural Minor Arterial	Roadway	Pavement surface - high friction surface			6	10	16			1		1	
Cabell County US 60	Urban Principal Arterial - Other	Intersection traffic control	Modify traffic signal - modernization/replacement			11	34	45			2	20	22	
Logan County WV 10	Urban Minor Arterial	Intersection traffic control	Systemic improvements - signal-controlled								1	6	7	
Kanawha County CR 25/47	Urban Major Collector	Intersection traffic control	Systemic improvements - signal-controlled			2	17	19			1	7	8	

Putnam County I-64	Urban Principal Arterial - Interstate	Roadway signs and traffic control	Roadway signs (including post) - new or updated	1	1	31	137	170		3	8	44	55	
Randolph County US 33	Urban Minor Arterial	Shoulder treatments	Widen shoulder - paved or other			6	18	24		4	7	18	29	

Optional Attachments

Sections	Files Attached

Glossary

5 year rolling average means the average of five individual, consecutive annual points of data (e.g. annual fatality rate).
Emphasis area means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.
Highway safety improvement project means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.
HMVMT means hundred million vehicle miles traveled.
Non-infrastructure projects are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.
Older driver special rule applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.
Performance measure means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.
Programmed funds mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.
Roadway Functional Classification means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.
Strategic Highway Safety Plan (SHSP) means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.
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.