Highway Safety Improvement Program

Data Driven Decisions

Nebraska
Highway Safety Improvement Program
2016 Annual Report

Prepared by: NE

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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2. Executive Summary

State fiscal year 2016 was a very successful one for the HSIP Program. Over $16 million in federal safety funds (combining HSIP with some remaining High Risk Rural Roads money) were obligated. The emphasis this year was on systemic projects, including several projects to replace obsolete guardrail, shoulder rumble strip projects on highways that were missed the first time around for various reasons, such as the poor quality of shoulders, durable pavement striping projects, and projects to replace outmoded dynamic message signs.

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

3. How are Highway Safety Improvement Program funds administered in the State?

Central

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

Local road projects are regularly funded under the HSIP. The NDOR's various safety committees identify potential locations for projects and send this information to local governments for their consideration as HSIP projects. City governments are encouraged to submit potential projects to the NDOR for consideration. Representatives of the state's four largest cities, Omaha, Lincoln, Bellevue, and Grand Island regularly attend Safety Committee meetings and officials from the smaller cities are always welcome. Representatives from the Nebraska LTAP Center and the Nebraska Highway Superintendents Association sit on the High Risk Rural Road committee, which continues to function despite the loss of dedicated funding. The number of projects built on local roads varies from year to year. Few local projects were completed in FY 2016, but several are in the planning stage, with funds for preliminary engineering obligated for ten local jobs. The HRRR area saw over $2 million obligated for a statewide object marker project and phase 3 of our horizontal curve signing project.

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

Design
Planning
Operations
Governors Highway Safety Office
Other-Traffic Engineering
Other-Highway Safety
Other-Local Projects
Other-Program Management
Other-Rail & Public Transportation
Other-NDOR Districts

Other-Communication

6. Briefly describe coordination with internal partners.

All of the above named disciplines play a role in the HSIP process. Highway Safety prepares collision diagrams, spot maps, or lists of high accident locations and presents them to committee members at their monthly meetings. They coordinate with the engineering divisions to get estimated project costs, from which they calculate benefit-cost ratios. They also complete evaluations of completed projects and present them to the group for use in making future decisions. Proposed projects on the state highway system are sent to the appropriate District Engineer for concurrence. The DE often submits the required paperwork to begin the project process. The Traffic Engineering Division is the lead office for all HSIP activity. All HSIP projects are approved by either the NDOR Safety Committee or the Strategic Safety Infrastructure Team. The usual procedure is for an approved HSIP project to be assigned to Roadway Design Division, Traffic Engineering Division, or the Local Projects Section of Materials and Research Division as the lead element, depending on the type of project and whether or not it is on a local road. These units work with Program Management to get the project scheduled and to make sure it is progressing adequately through the steps in the Clarity software, which is used for project programming. This includes the important step of working with the Environmental Section to make sure all environmental concerns are met. The lead units either design the project or oversee the design of a consultant and prepare the project for letting. If railroad property is involved in the project, Rail & Public Transportation Division must also be consulted. The Operations Division has taken the lead on projects involving bridge anti-icing systems, adaptive signal control, and dynamic message signs, which require systems engineering analysis. The Governor's Highway Safety Office is responsible for non-infrastructure projects addressing driver behavior issues. The NDOR stopped using HSIP funds for behavioral-type projects during the fiscal year to comply with changes in the FAST Act. The NDOR has begun using the Highway Safety Manual procedures in the analysis and evaluation of some HSIP projects. The Communication Division prepares professional documents for use in the HSIP program, such as the Strategic Highway Safety Plan, as well as television and radio commercials focusing on highway safety improvements, like roundabouts.

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

Governors Highway Safety Office
Local Government Association
Other-City of Omaha Public Works Department
Other-City of Lincoln Public Works Department
Other-FHWA Division Office
Other-NE Local Technical Assistance Program (LTAP)
Other-City of Bellevue
Other-City of Grand Island

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

Other-In accordance with the FAST Act requirements, HSIP funds are no longer used for behavioral-type safety projects.

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

NDOR selected *Crash Magic* for its automatic collision diagramming software. The vendor created a configuration file for the Nebraska crash database and the product has been loaded into the system. It is currently being tested.

The NDOR committed to producing a new crash report that is 100% compatible with Version 4 of MMUCC. The recent announcement that Version 5 of MMUCC has been proposed caused us to delay until the Version 5 changes are reviewed. Nebraska is also considering using HSIP funds to create a new crash database to replace the current one that was first used in 1993. The existing database was not designed to accept electronically submitted crash reports, and although it is currently doing that, we are not receiving the full value from the electronic report processes.

Program Methodology

10. Select the programs that are administered under HSIP.

Intersection

Roadway Departure

11. Program: Intersection

Date of Program Methodology: 9/27/1990

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
All crashes	Volume	Other-Land Use
Fatal and serious injury crashes only		Other-Median Type

Other-Number of Lanes

What project identification methodology was used for this program?
Crash frequency
Relative severity index
Crash rate
Critical rate
Probability of specific crash types

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?
No
If no, describe the methodology used to identify local road projects as part of this program.
The number and type of crashes to address systemic improvements and on occasion the same methodology as used on state roads.

How are highway safety improvement projects advanced for implementation?
selection committee

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	3
Available funding	2
Design and Project Development	1
Time	

11. Program: Roadway Departure

Date of Program Methodology: 9/27/1990

What data types were used in the program methodology?

Crashes	*Exposure*	*Roadway*
All crashes	Volume	Other-Land Use
	Lane miles	Other-Median Type
		Other-Number of Lanes

What project identification methodology was used for this program?
Crash frequency
Relative severity index
Crash rate
Critical rate

Probability of specific crash types

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?
No
If no, describe the methodology used to identify local road projects as part of this program.
The number and type of roadway departure crashes on a particular roadway to address systemic improvements.

How are highway safety improvement projects advanced for implementation?
selection committee

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	3
Available funding	2
Design and Project Development Time	1

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

77%

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

Rumble Strips
Install/Improve Signing
Install/Improve Pavement Marking and/or Delineation
Upgrade Guard Rails
Safety Edge
Install/Improve Lighting

13. What process is used to identify potential countermeasures?

Engineering Study

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

Systemic Approach
Other-None

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

We still plan to make more use of the Highway Safety Manual in our HSIP analysis, including ISATe and the IHSDM. NDOR staff has attended the FHWA-sponsored classes but have had trouble finding the time to really learn the techniques.

Progress in Implementing Projects

Funds Programmed

16. Reporting period for Highway Safety Improvement Program funding.

State Fiscal Year

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

Funding Category	Programmed*		Obligated	
	Amount	Percentage	Amount	Percentage
HSIP (Section 148)	$17,294,207.00	84 %	$13,716,290.00	85 %
HRRRP (SAFETEA-LU)	$3,168,360.00	15 %	$2,241,360.00	14 %
Penalty Transfer – Section 164	$96,740.00	0 %	$96,740.00	1 %
Totals	$20,559,307.00	100%	$16,054,390.00	100%

18. How much funding is programmed to local (non-state owned and operated) safety projects?

$3,496,199.00
How much funding is obligated to local safety projects?
$2,762,699.00

19. How much funding is programmed to non-infrastructure safety projects?
$1,094,550.00
How much funding is obligated to non-infrastructure safety projects?
$1,094,550.00

20. 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

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

Any major impediments to obligating HSIP funds have been cleared up. There is still a reluctance by some local governments to take part in federal projects, such as the County Safety Plans, but this is not a major concern. Pilot county safety plan projects with a few counties may help to improve participation in the program.

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

NDOR is in the second year of implementing a strategic plan for HSIP and RHCP expenditures. This multi-year plan allows NDOR to sustain obligations of HSIP funds. It provides a list of strategies that is intended as an implementation document for the Nebraska Strategic Highway Safety Plan. NDOR will also continue to use a crash-driven approach, including the programming of systemic projects.

General Listing of Projects

23. List the projects obligated using HSIP funds for 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
00772 County Road Intersection Signing	Intersection traffic control Intersection signing - miscellaneous/other/unspecified	6 Numbers	6254	6254	HRRRP (SAFETEA-LU)	Rural Local Road or Street	0	50	County Highway Agency	Intersections	Reduce crashes by improving signing
00787 Co. Rd Horizontal Curve Signing - Ph 3	Roadway signs and traffic control Curve-related warning signs and flashers	11 Numbers	260716	271913	HRRRP (SAFETEA-LU)	Rural Local Road or Street	0	50	County Highway Agency	Roadway Departure	Keep vehicles on the roadway
00860 Districts 1 & 2 - Guardrail Upgrade	Roadside Barrier- metal	14 Numbers	3297870	4702279	HSIP (Section 148)	Rural Minor Arterial			State Highway Agency	Roadway Departure	Protect errant vehicles from fixed objects
00863 Districts 6 & 7 - Guardrail Upgrade	Roadside Barrier- metal	10 Numbers	3299721	4148650	HSIP (Section 148)	Rural Minor Arterial			State Highway Agency	Roadway Departure	Protect errant vehicles from fixed objects
00864 Districts	Roadside Barrier- metal	9 Numbe	1974170	4823668	HSIP (Section	Rural Minor			State Highway	Roadway Departure	Protect errant

3 & 4 - Guardrail upgrades		rs			148)	Arterial			Agency		vehicles from fixed objects
00913 Statewide County Object Markers	Roadway delineation Delineators post-mounted or on barrier	49 Numbers	300000	300000	HRRRP (SAFETEA-LU)	Rural Local Road or Street		50	County Highway Agency	Roadway Departure	Keep vehicles from leaving the roadway
00919A TIM Safety Kits - Phase II	Roadway signs and traffic control Roadway signs and traffic control - other		200000	200000	HSIP (Section 148)	Rural Local Road or Street		50	County Highway Agency	Signs and barriers for Traffic Incident Management	Avoid secondary crashes at incident sites
00942B "Click It or Ticket" OT Enforcement	Non-infrastructure Enforcement		80000	80000	HSIP (Section 148)	Not Applicable			Not Applicable	Increase seat belt use	Increase enforcement of seat belt violators
00942C "Click It or Ticket" P I & E	Non-infrastructure Educational efforts		55003	55558	HSIP (Section 148)	Not Applicable			Not Applicable	Increase seat belt use	Increase seat belt use through education
00942D "You Drink & Drive, You Lose" Enforce	Non-infrastructure Enforcement		225000	225000	HSIP (Section 148)	Not Applicable			Not Applicable	Reduce Drinking and Driving	Increase enforcement of DUI laws
00942E "You	Non-infrastructure Educational efforts		110000	111114	HSIP (Section	Not Applicable			Not Applicab	Reduce Drinking &	Reduce Drinking

Drink & Drive, You Lose" P I & E					148)				le	Driving	& Driving through education
00943 Statewide Rumble Strips	Shoulder treatments Shoulder treatments - other	263 Miles	625988	700742	HSIP (Section 148)	Rural Minor Arterial			State Highway Agency	Roadway Departure	Keep vehicles from leaving the roadway
13152 District 1 - DMS Replacement	Advanced technology and ITS Dynamic message signs	3 Numbers	444137	543585	HSIP (Section 148)	Rural Principal Arterial - Interstate	44365	75	State Highway Agency	Education	Increase driver education
13263 Lincoln to Syracuse	Shoulder treatments Pave existing shoulders	27.11 Miles	4610938	5304790	HSIP (Section 148)	Rural Principal Arterial - Other Freeways and Expressways	10590	65	State Highway Agency	Roadway Departure	Keep vehicles on roadway
22503 Fremont - 1st St., Luther Rd - Johnson	Miscellaneous	0.59 Miles	1564582	1799728	HSIP (Section 148)	Urban Local Road or Street			City of Municipal Highway Agency	Re-route road to new school to avoid RR crossing	Avoid Rail-Highway crashes
22576 Nickerson - S. Jct. of US-77 & N-91	Intersection geometry Auxiliary lanes - add right-turn lane	1 Numbers	321831	388637	HSIP (Section 148)	Rural Principal Arterial - Other Freeways	10998	65	State Highway Agency	Intersections	Remove NB RTers from WB drivers' sight

						and Expressways					triangle
22693 District 2 - Striping	Roadway Roadway - restripe to revise separation between opposing lanes and/or shoulder widths	59.66 Miles	1714249	1905921	HSIP (Section 148)	Varies	58623		State Highway Agency	Lane Departure	Keep vehicles in their designated lanes
31417A Norfolk - 37th & Norfolk Avenue	Intersection traffic control Modify control - traffic signal to roundabout	1 Numbers	4355405	6988839	HSIP (Section 148)	Rural Principal Arterial - Other	7130	50	State Highway Agency	Intersections	Convert high crash intersections to roundabouts
32279 Platte County Safety Plan	Non-infrastructure Transportation safety planning	1 Numbers	74700	83000	HSIP (Section 148)	Not Applicable			County Highway Agency	County Safety Planning	Use education to reduce county road crashes
42560 Kearney West	Intersection geometry Auxiliary lanes - extend existing left-turn lane	1 Numbers	214464	2182795	HSIP (Section 148)	Rural Minor Arterial	4735	60	State Highway Agency	Intersections	Build LT lanes to reduce crashes at intersections
42570 Wood River North & South	Shoulder treatments Shoulder treatments - other	15.86 Miles	1345186	5860118	HSIP (Section 148)	Rural Minor Arterial	1428		State Highway Agency	Roadway Departure	Keep vehicles on the roadway
42811 Adams	Non-infrastructure Transportation safety	1 Numbe	74700	83000	HSIP (Section	Not Applicable			County Highway	County Safety	Use education

County Safety Plan	planning	rs			148)				Agency	Plans	to reduce county road crashes
42828 District 4 - Striping	Roadway delineation Longitudinal pavement markings - remarking	33.86 Miles	431337	480463	HSIP (Section 148)	Rural Principal Arterial - Interstate	2011 6	75	State Highway Agency	Lane Departure	Keep vehicles in their designated lanes
51578 Scotts Bluff County Safety Plan	Non-infrastructure Transportation safety planning	1 Numbers	74700	55852	HSIP (Section 148)	Not Applicable			County Highway Agency	County Highway Safety Planning	Improve Highway Safety through education
71175 Phelps Co. - US-183 & Co. Rd. 747	Intersection geometry Auxiliary lanes - add left-turn lane	2 Numbers	829339	965687	HSIP (Section 148)	Rural Principal Arterial - Other	3540	65	State Highway Agency	Intersections	Reduce LT crashes by adding LT lanes

Progress in Achieving Safety Performance Targets

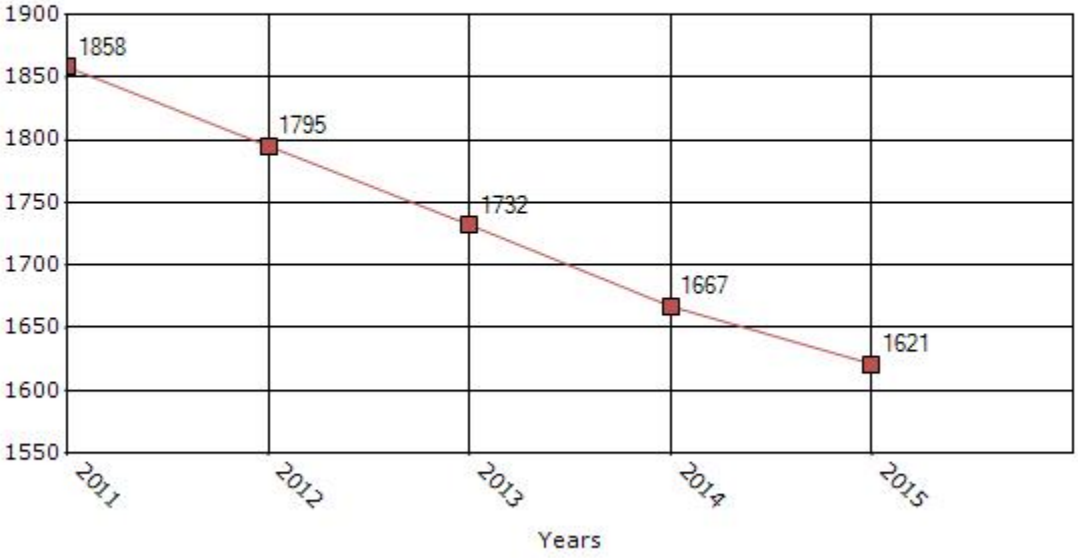
Overview of General Safety Trends

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

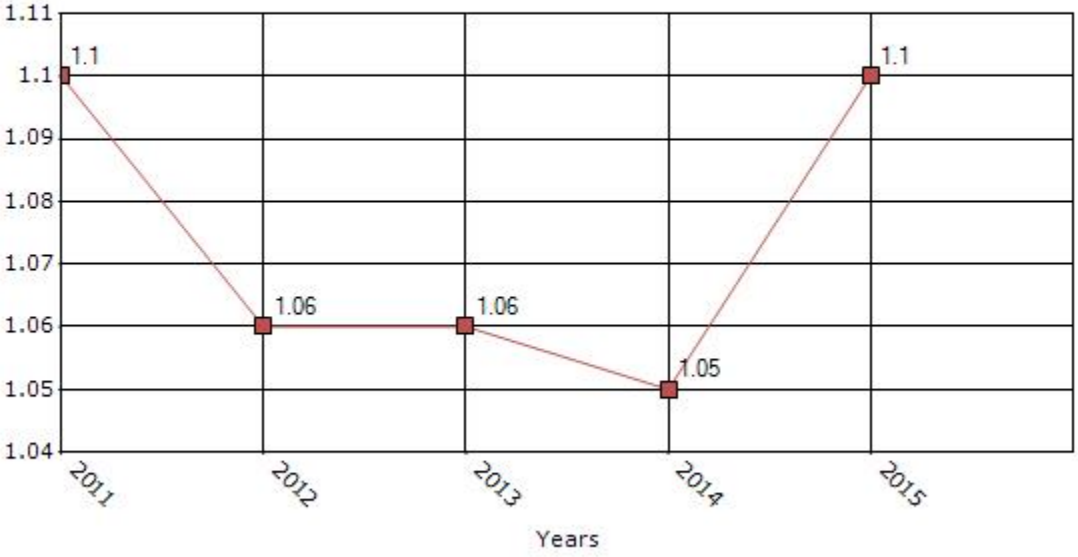
Performance Measures*	2011 (5-yr avg)	2012 (5-yr avg)	2013 (5-yr avg)	2014 (5-yr avg)	2015 (5-yr avg)
Number of fatalities	212	203	203	204	215
Number of serious injuries	1858	1795	1732	1667	1621
Fatality rate (per HMVMT)	1.1	1.06	1.06	1.05	1.1
Serious injury rate (per HMVMT)	9.69	9.35	8.99	8.61	8.31

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

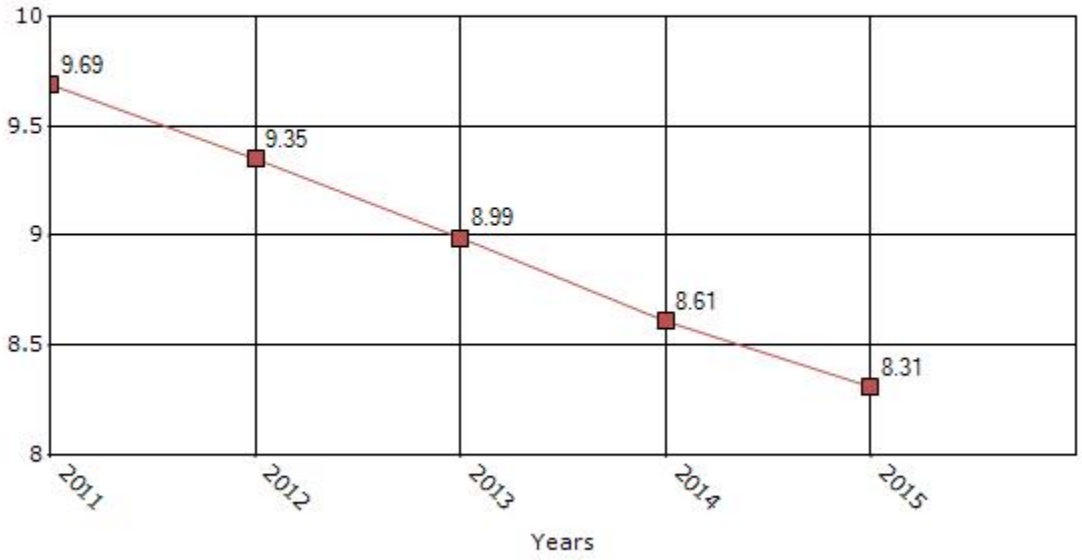
Number of Serious Injuries for the Last Five Years
5-yr Average Measure Data



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

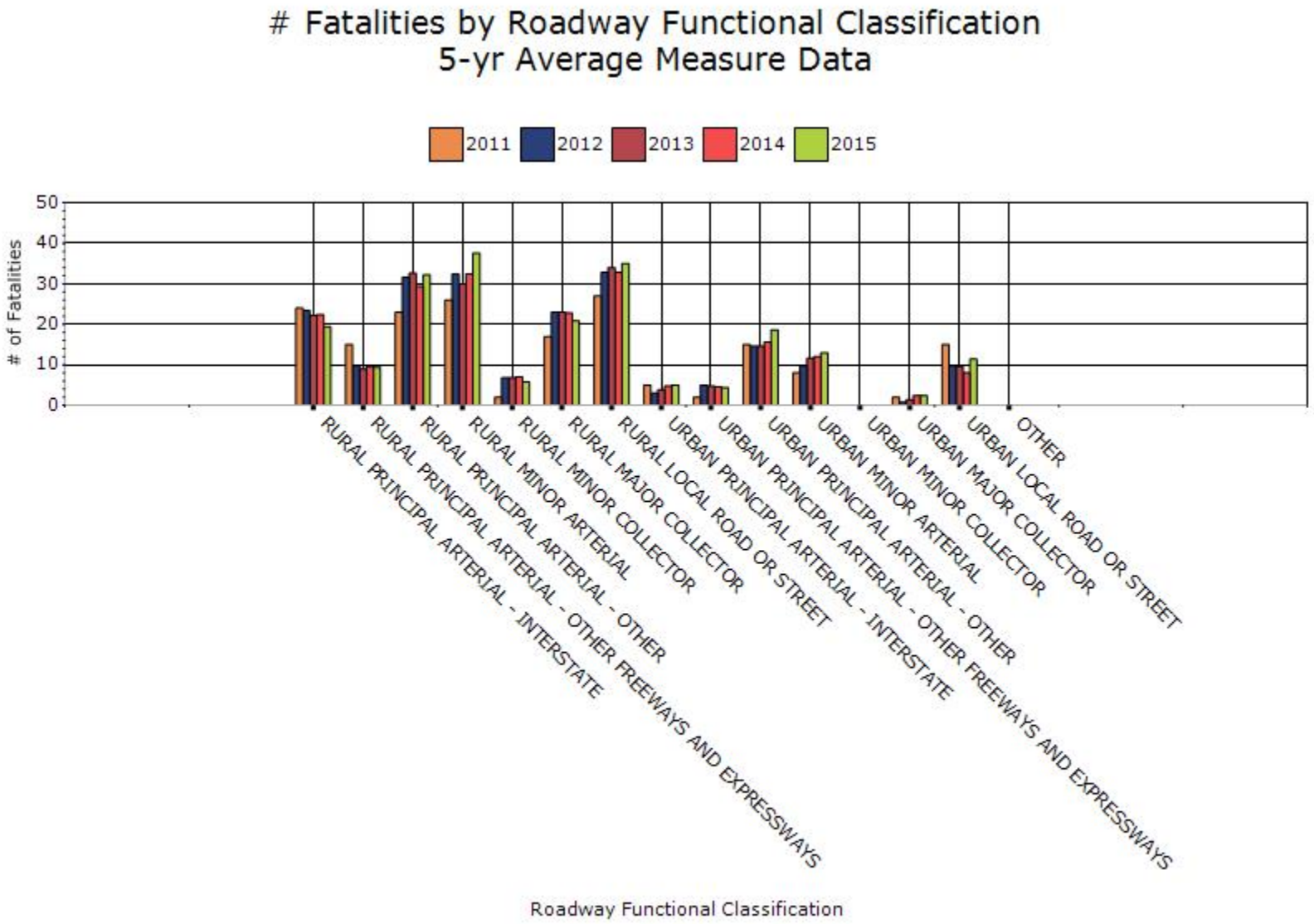


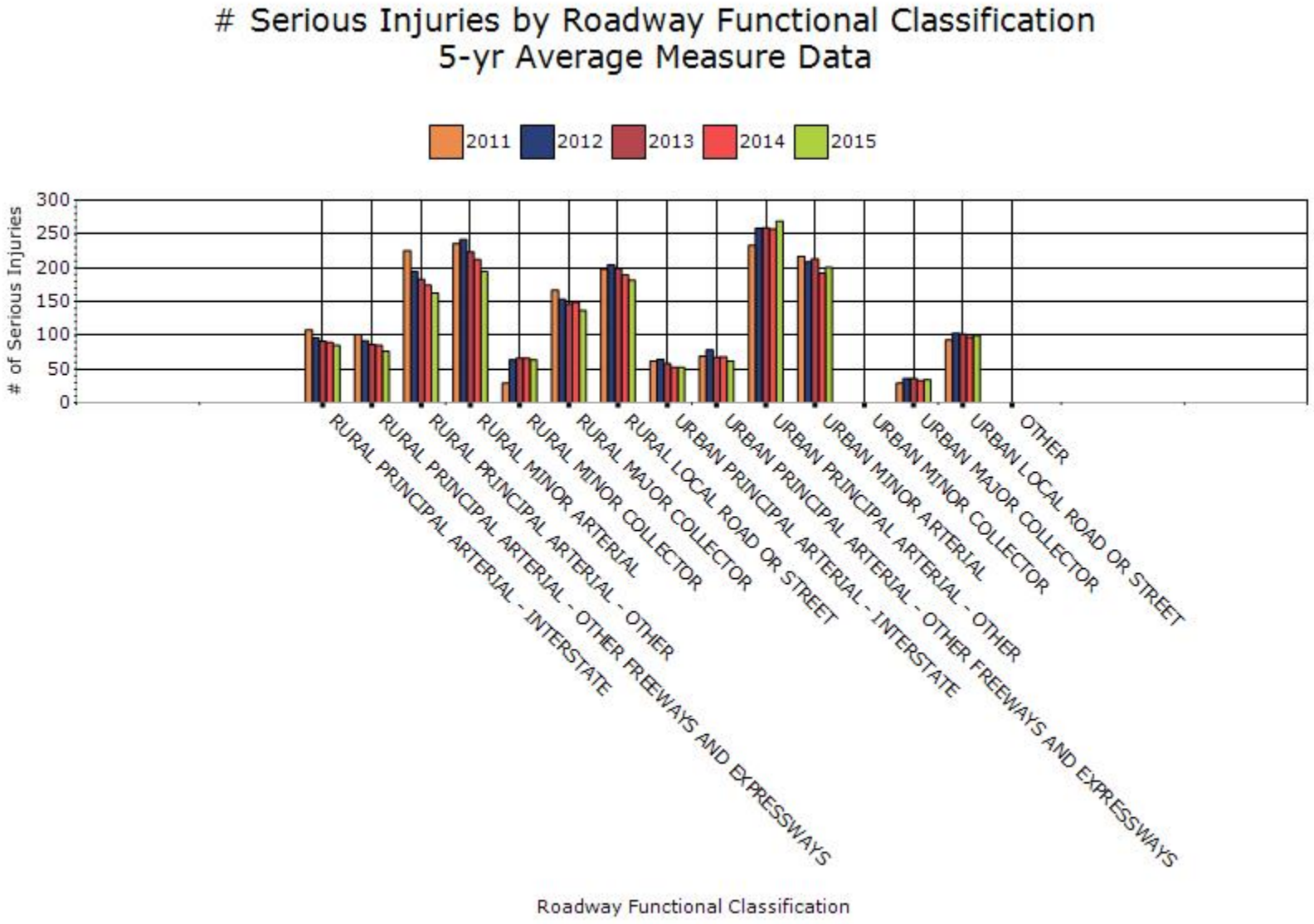
25. To the maximum extent possible, present performance measure data by functional classification and ownership.

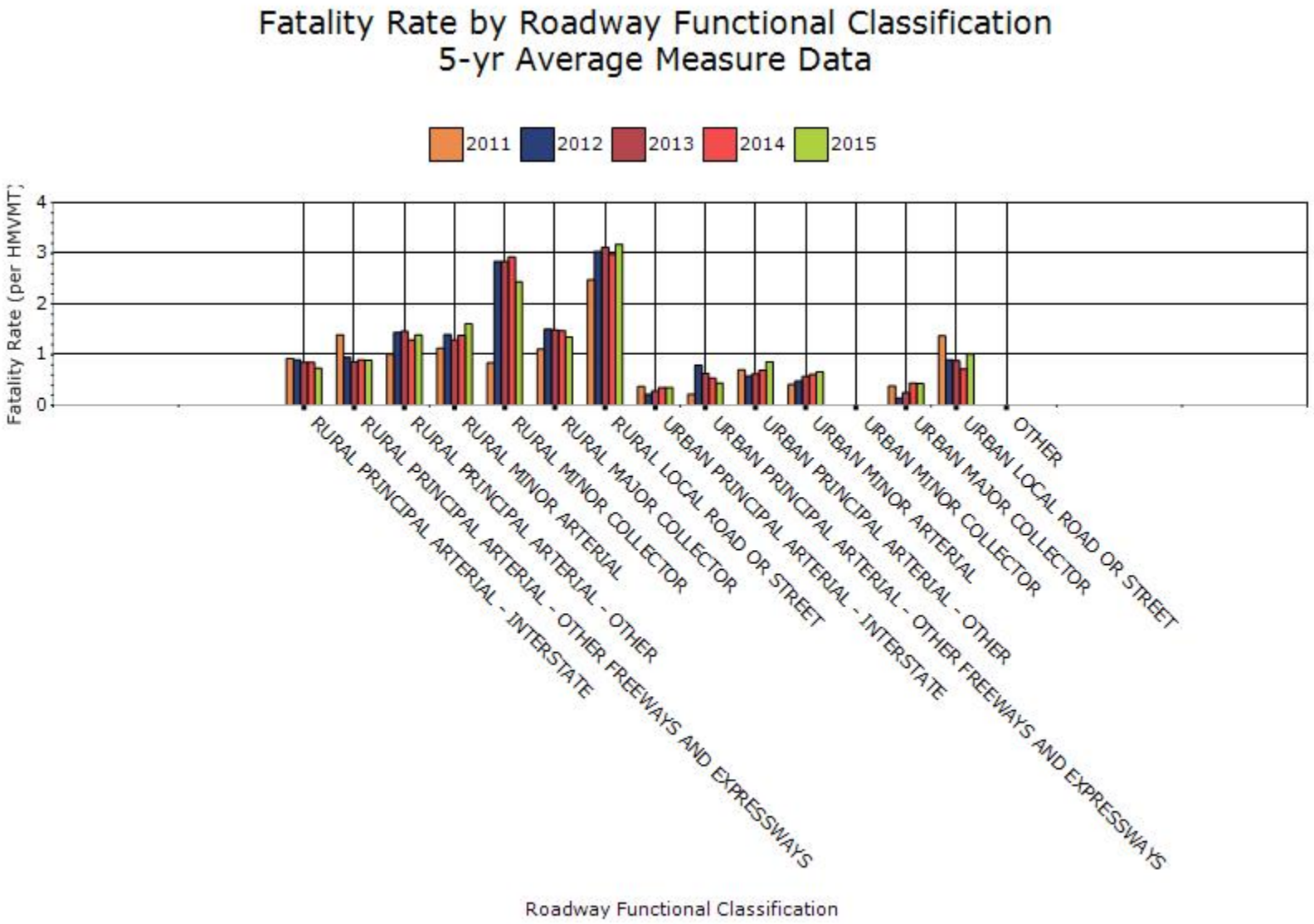
Year - 2015

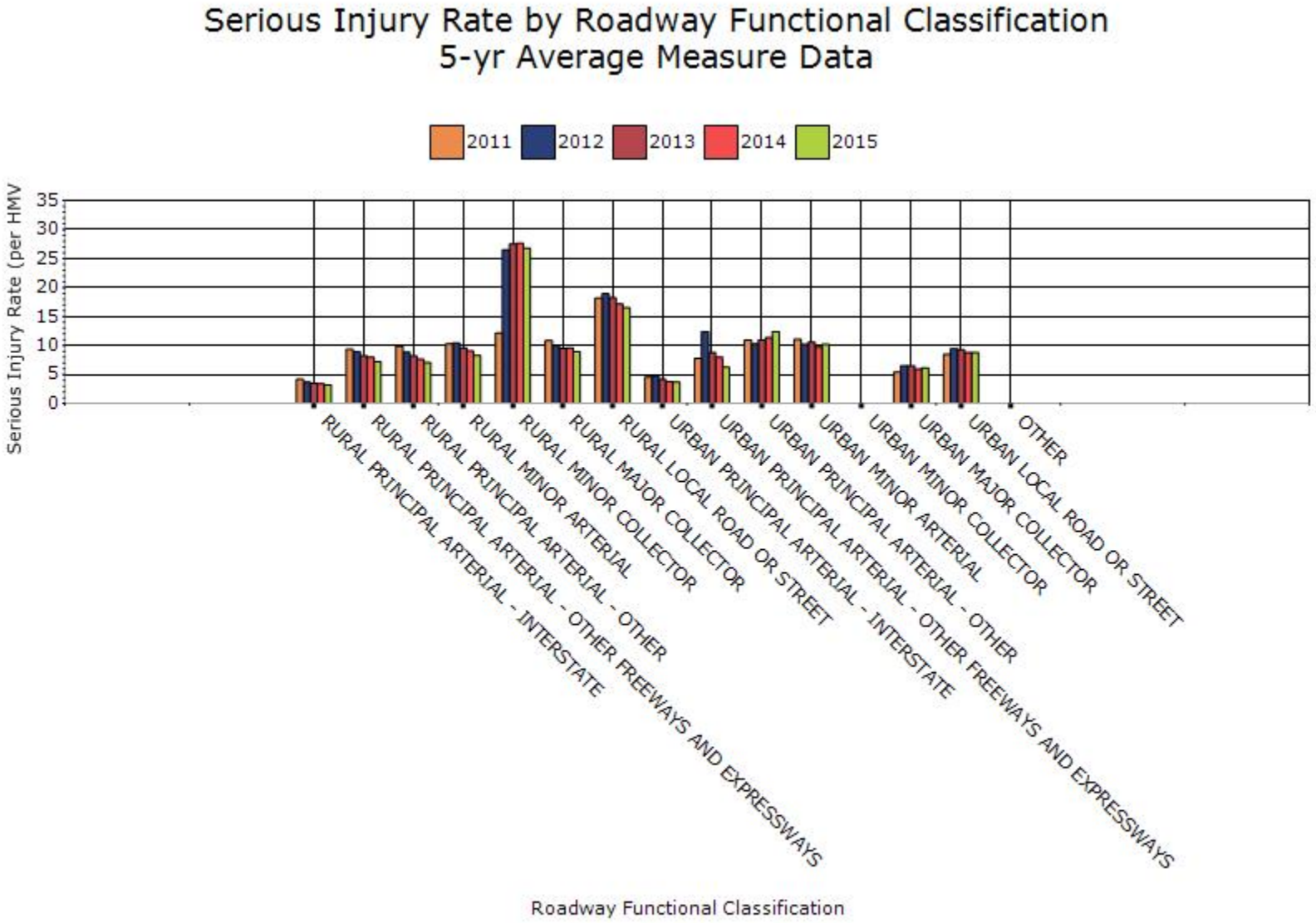
Function Classification	Number of fatalities (5-yr avg)	Number of serious injuries (5-yr avg)	Fatality rate (per HMVMT) (5-yr avg)	Serious injury rate (per HMVMT) (5-yr avg)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	19.4	85	0.73	3.19
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	9.4	76.4	0.89	7.22
RURAL PRINCIPAL ARTERIAL - OTHER	32.2	162.8	1.39	7.03
RURAL MINOR ARTERIAL	37.6	194.4	1.61	8.3
RURAL MINOR COLLECTOR	5.8	63.8	2.44	26.8
RURAL MAJOR COLLECTOR	20.8	137	1.35	8.9
RURAL LOCAL ROAD OR STREET	35	181.8	3.18	16.5
URBAN PRINCIPAL ARTERIAL - INTERSTATE	5	52.6	0.35	3.71
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	4.4	62	0.44	6.25
URBAN PRINCIPAL ARTERIAL - OTHER	18.6	269	0.86	12.38
URBAN MINOR ARTERIAL	13	200.8	0.66	10.24

URBAN MAJOR COLLECTOR	2.4	34.4	0.43	6.16
URBAN LOCAL ROAD OR STREET	11.4	99.8	1.01	8.81


Fatalities by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Fatalities
50
40
30
20
10
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
Roadway Functional Classification

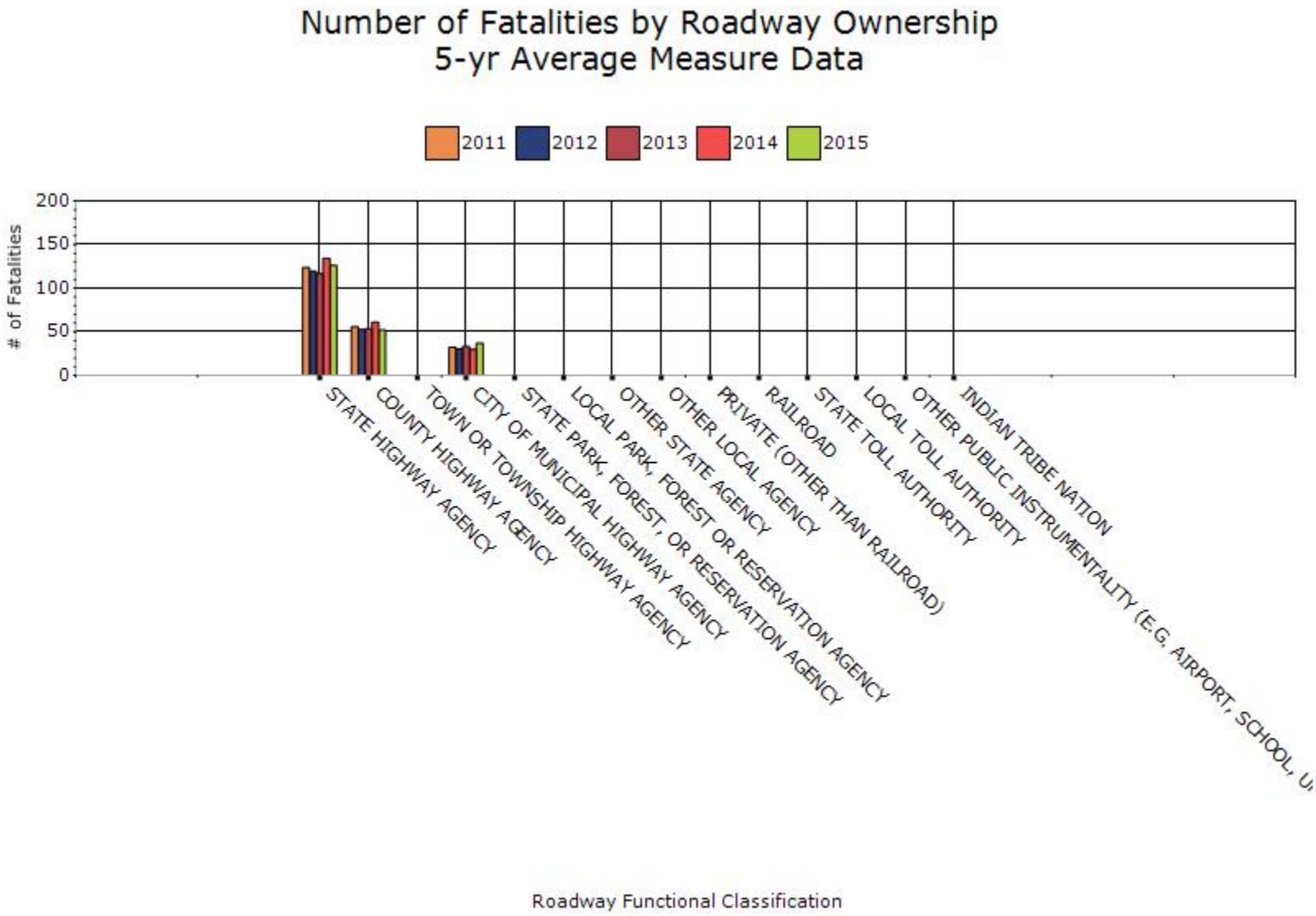

Serious Injuries by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Serious Injuries
300
250
200
150
100
50
0
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
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
Roadway Functional Classification

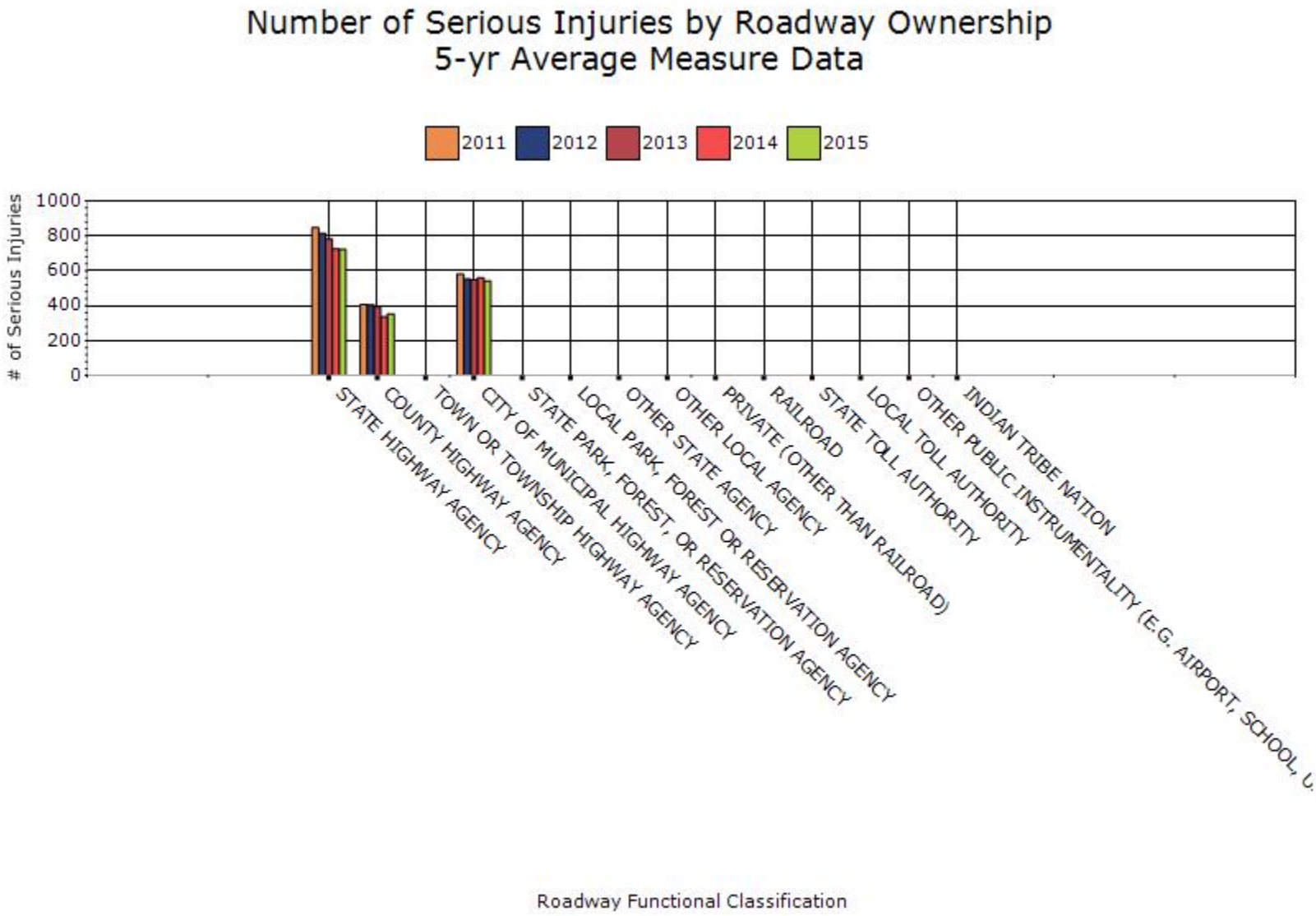

Fatality Rate by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
Fatality Rate (per HMVMT)
0
1
2
3
4
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
RURAL MINOR COLLECTOR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

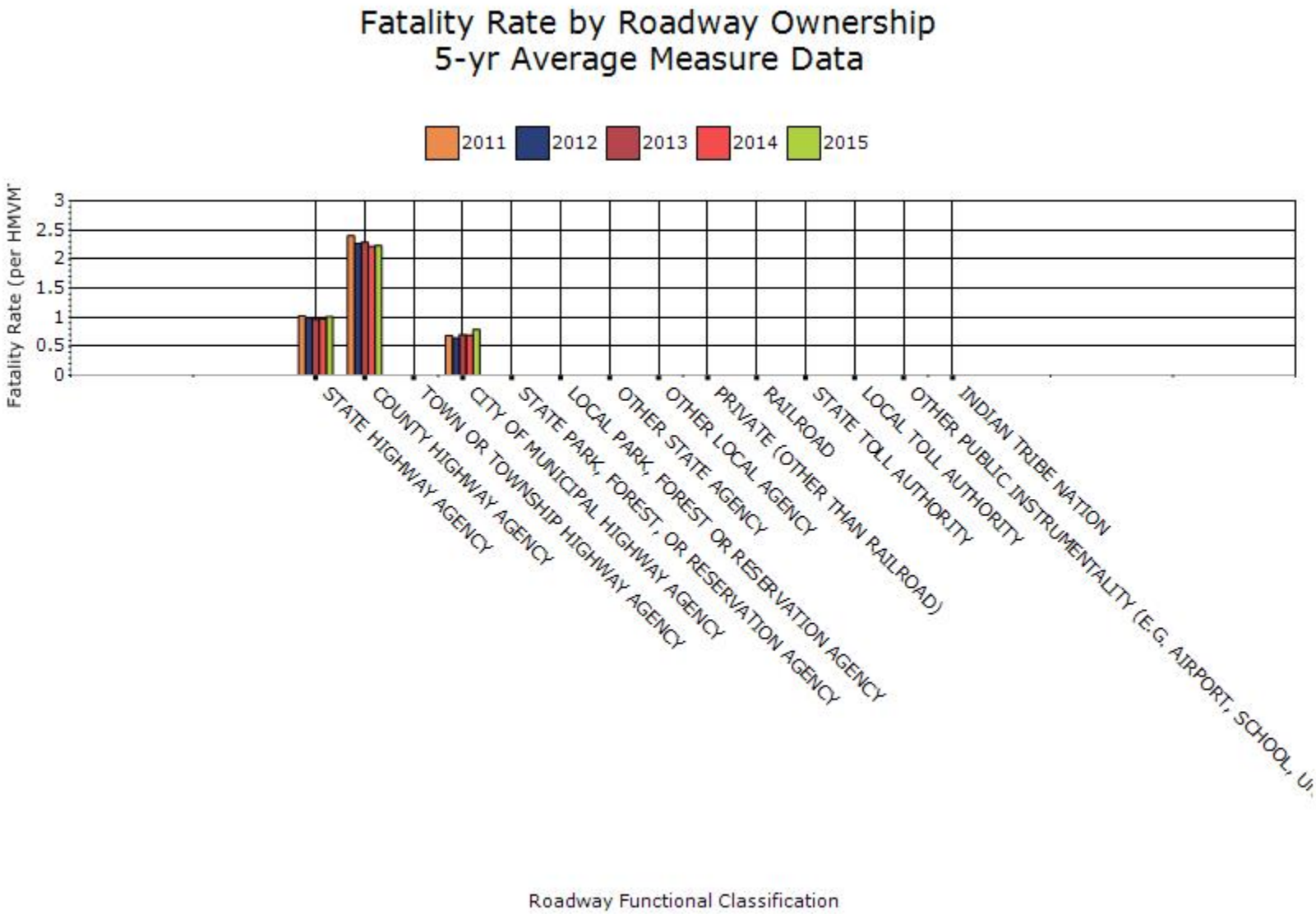

Serious Injury Rate by Roadway Functional Classification
5-yr Average Measure Data
2011
2012
2013
2014
2015
Serious Injury Rate (per HMV
35
30
25
20
15
10
5
0
RURAL PRINCIPAL ARTERIAL - INTERSTATE
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS
RURAL PRINCIPAL ARTERIAL - OTHER
RURAL MINOR ARTERIAL
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
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	126	724	1.01	5.78
COUNTY HIGHWAY AGENCY	52	352.2	2.23	15.12
CITY OF MUNICIPAL HIGHWAY AGENCY	37	542.2	0.79	11.65


Number of Fatalities by Roadway Ownership
5-yr Average Measure Data
2011
2012
2013
2014
2015
# of Fatalities
200
150
100
50
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
1000
800
600
400
200
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
3
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
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RAILROAD
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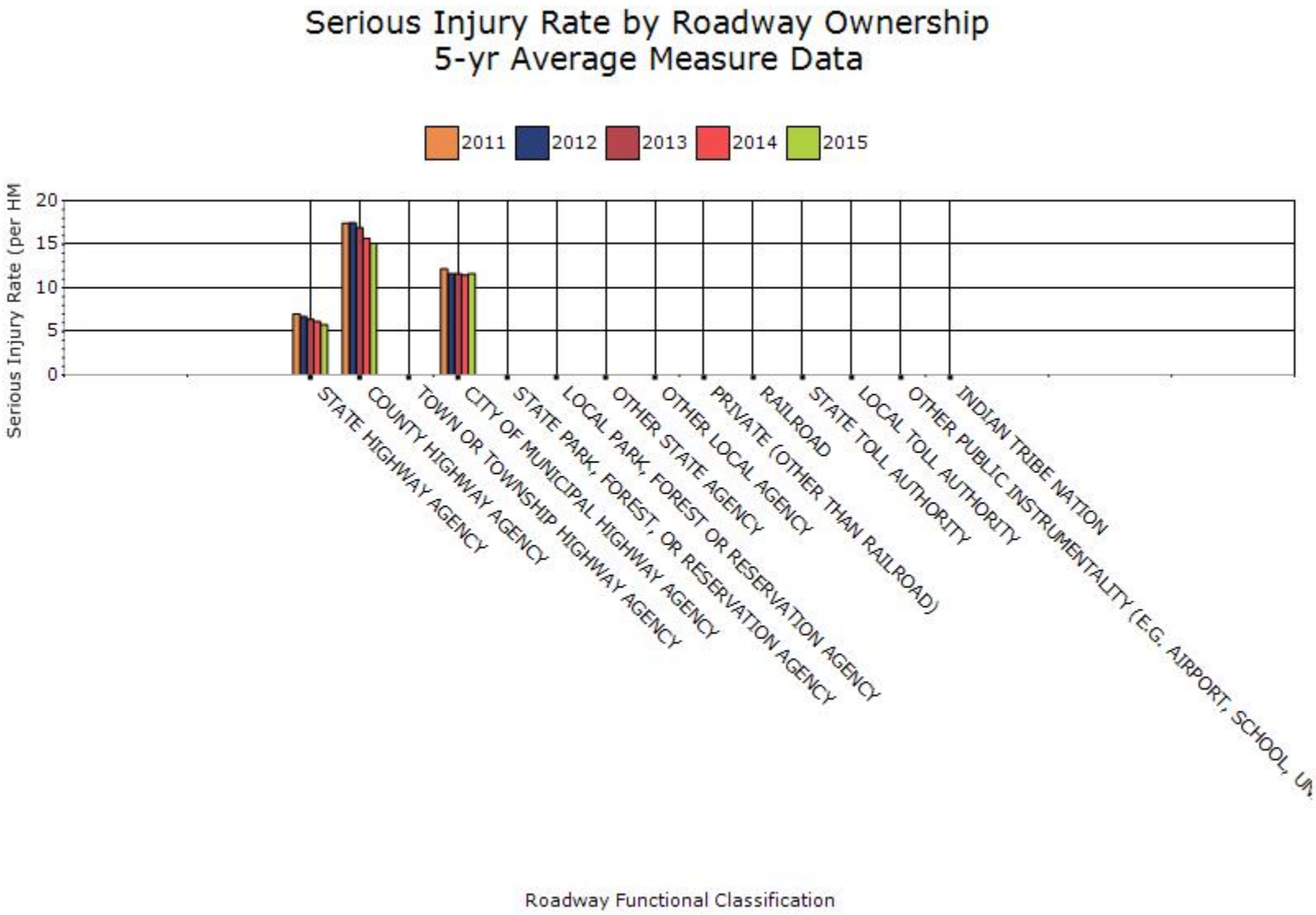
LOCAL TOLL AUTHORITY
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, U
INDIAN TRIBE NATION
Roadway Functional Classification


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

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

Traffic fatalities in Nebraska have increased during the last two years, with the 246 deaths recorded in 2015 representing the highest number of fatalities since 2007. Serious Injuries, on the other hand, have consistently declined over the last decade. We look forward to this trend continuing into the future.

Application of Special Rules

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

Older Driver Performance Measures	2010 (5-yr avg)	2011 (5-yr avg)	2012 (5-yr avg)	2013 (5-yr avg)	2014 (5-yr avg)
Fatality rate (per capita)	0.226	0.186	0.152	0.138	0.142
Serious injury rate (per capita)	1.1	0.92	0.76	0.72	0.7
Fatality and serious injury rate (per capita)	1.32	1.1	0.91	0.86	0.85

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

From Nebraska state crash database:

Drivers and Pedestrians age 65 and over:

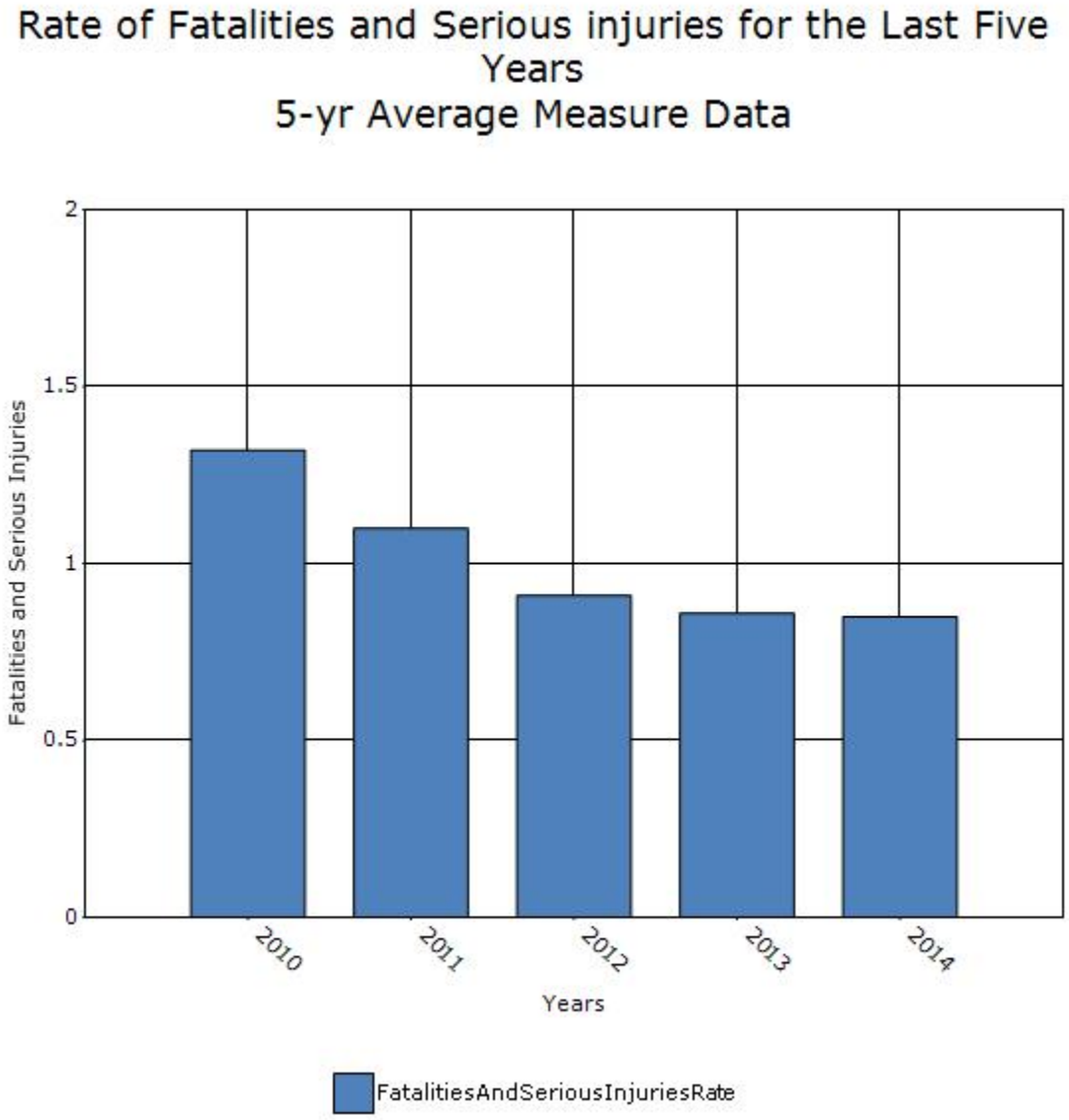
Year	2008	2009	2010	2011	2012	2013	2014
Fatalities (Driver + Peds)	42	35	39	29	38	29	46
Serious Injuries (Drvr + Peds)	196	191	189	189	180	165	186
Fatalities + Serious Injuries	238	226	228	218	218	195	232
Population Factor (FHWA)	240	241	248	250	257	265	271

Fatality + Serious Injury Rate (5-Yr. Rolling average 2008-2012): (238 + 226 + 228 + 218 + 218)/

(240 + 241 + 248 + 250 + 257) = 0.91

Fatality + Serious Injury Rate (5-Yr. Rolling average 2010-2014): (228 + 218 + 218 + 195 + 232)/

(248 + 250 + 257 + 265 + 271) = 0.85



The change in the over 65 population figures provided by FHWA caused us to redo the crash numbers for all previous time periods. The resulting figures were in some cases somewhat different than what was reported last year. Since our database is dynamic, I was unable to go back and reconstruct last year's figures. The numbers that are reported this year were calculated twice with the same results. I believe they are the accurate. Whether last year's numbers were in error, or if the database had changed this much, it is impossible to tell.

28. Does the older driver special rule apply to your state?

No

Assessment of the Effectiveness of the Improvements (Program Evaluation)

29. 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.

3.83

Policy change

if 'policy change', list the policy changes made.

Shoulder rumble strips are built on highways with adequate surfaced shoulders. Beveled edge is constructed on highways that meet certain criteria

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

Other-In accordance with the FAST Act changes, NDOR no longer uses HSIP funds for behavioral-type safety projects.

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

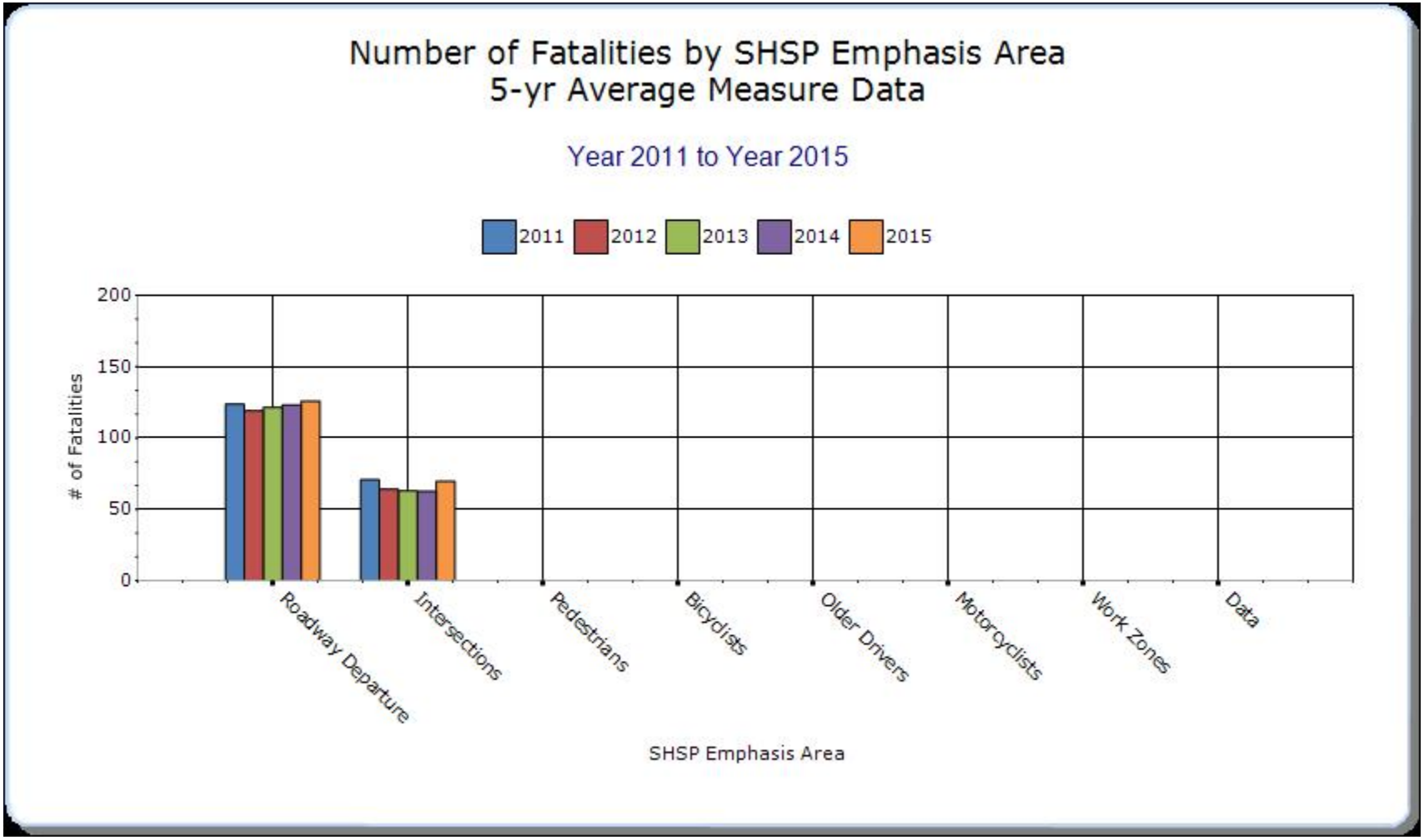
During the last year, NDOR concentrated on funding systemic HSIP projects, a significant change from the previous year.

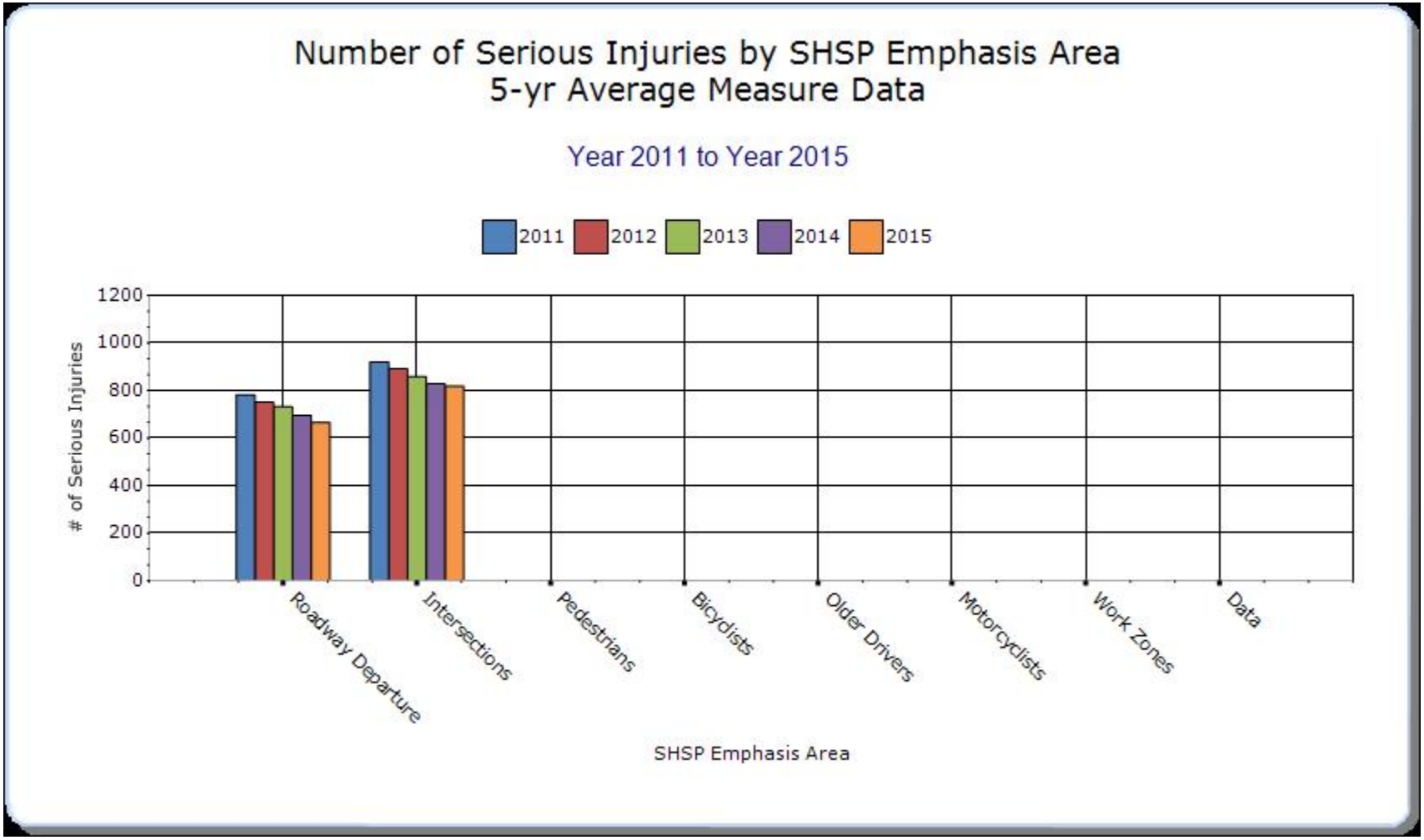
SHSP Emphasis Areas

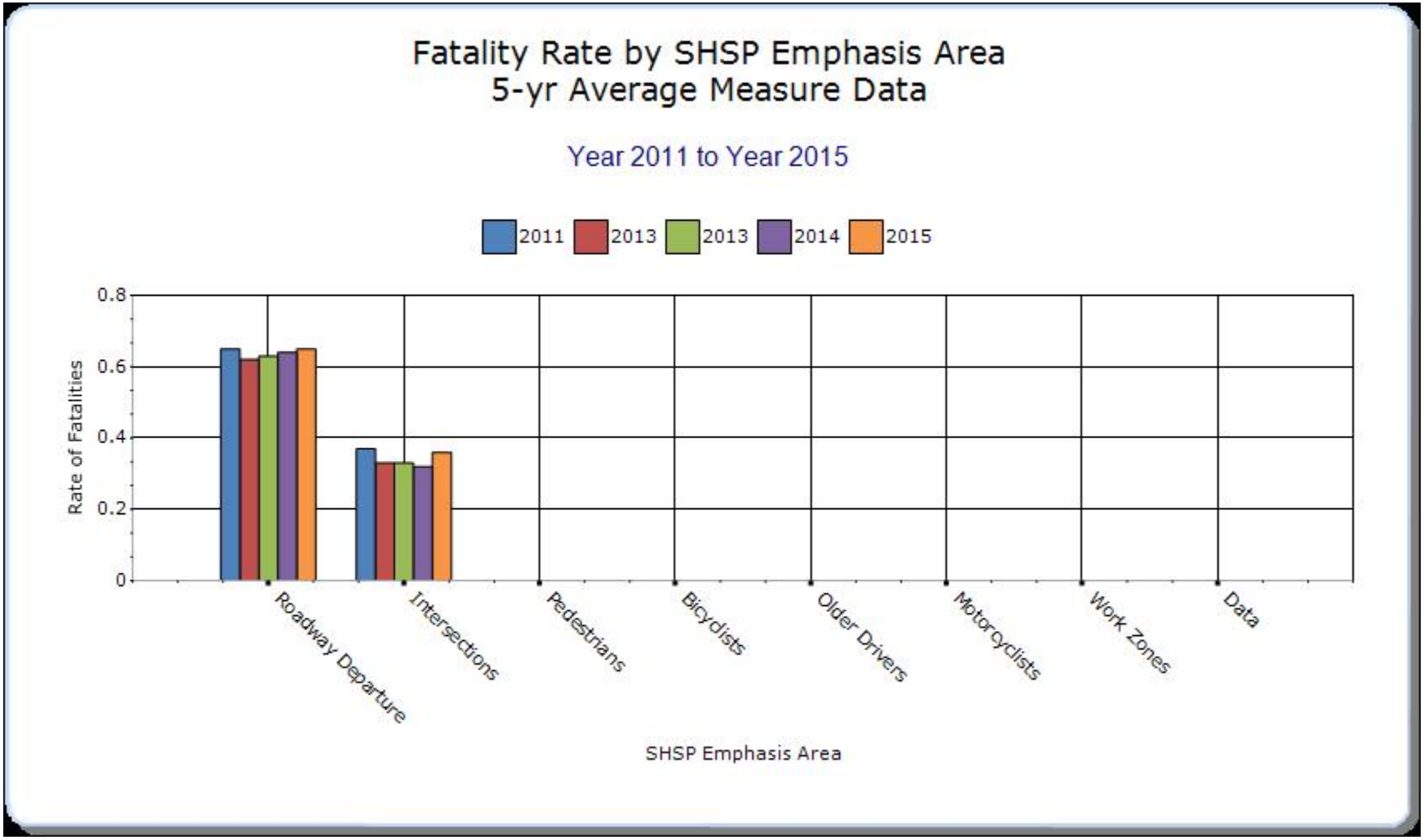
32. Present and describe trends in SHSP emphasis area performance measures.

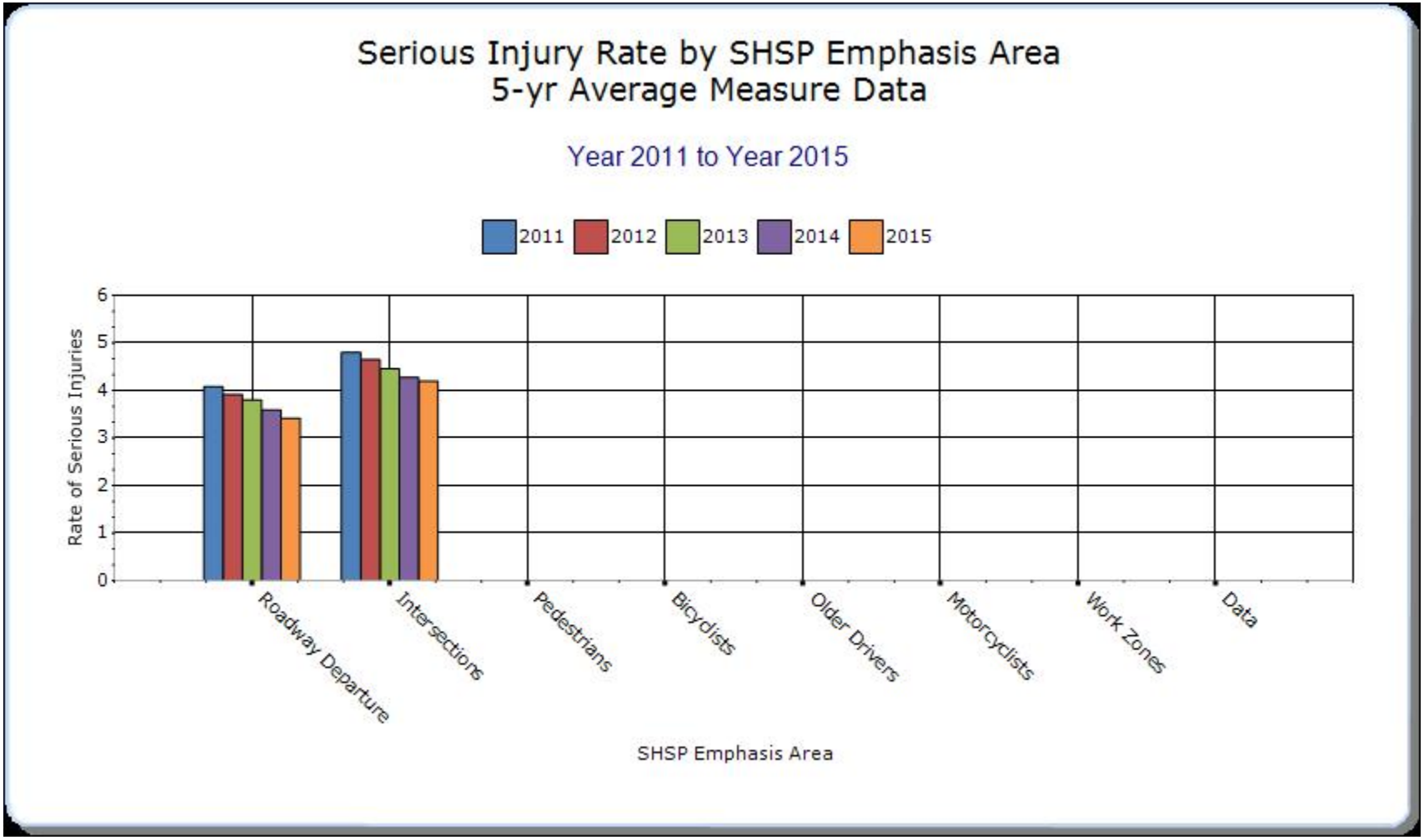
Year - 2015

HSIP-related SHSP Emphasis Areas	Target Crash Type	Number of fatalities (5-yr avg)	Number of serious injuries (5-yr avg)	Fatality rate (per HMVMT) (5-yr avg)	Serious injury rate (per HMVMT) (5-yr avg)	Other-1 (5-yr avg)	Other-2 (5-yr avg)	Other-3 (5-yr avg)
Roadway Departure	Run-off-road	126	666.4	0.65	3.42			
Intersections	Intersections	69.8	819	0.36	4.2			


Number of Fatalities by SHSP Emphasis Area
5-yr Average Measure Data
Year 2011 to Year 2015
2011
2012
2013
2014
2015
200
150
100
50
0
# of Fatalities
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
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
# of Serious Injuries
1200
1000
800
600
400
200
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
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
0.8
0.6
0.4
0.2
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Data
SHSP Emphasis Area

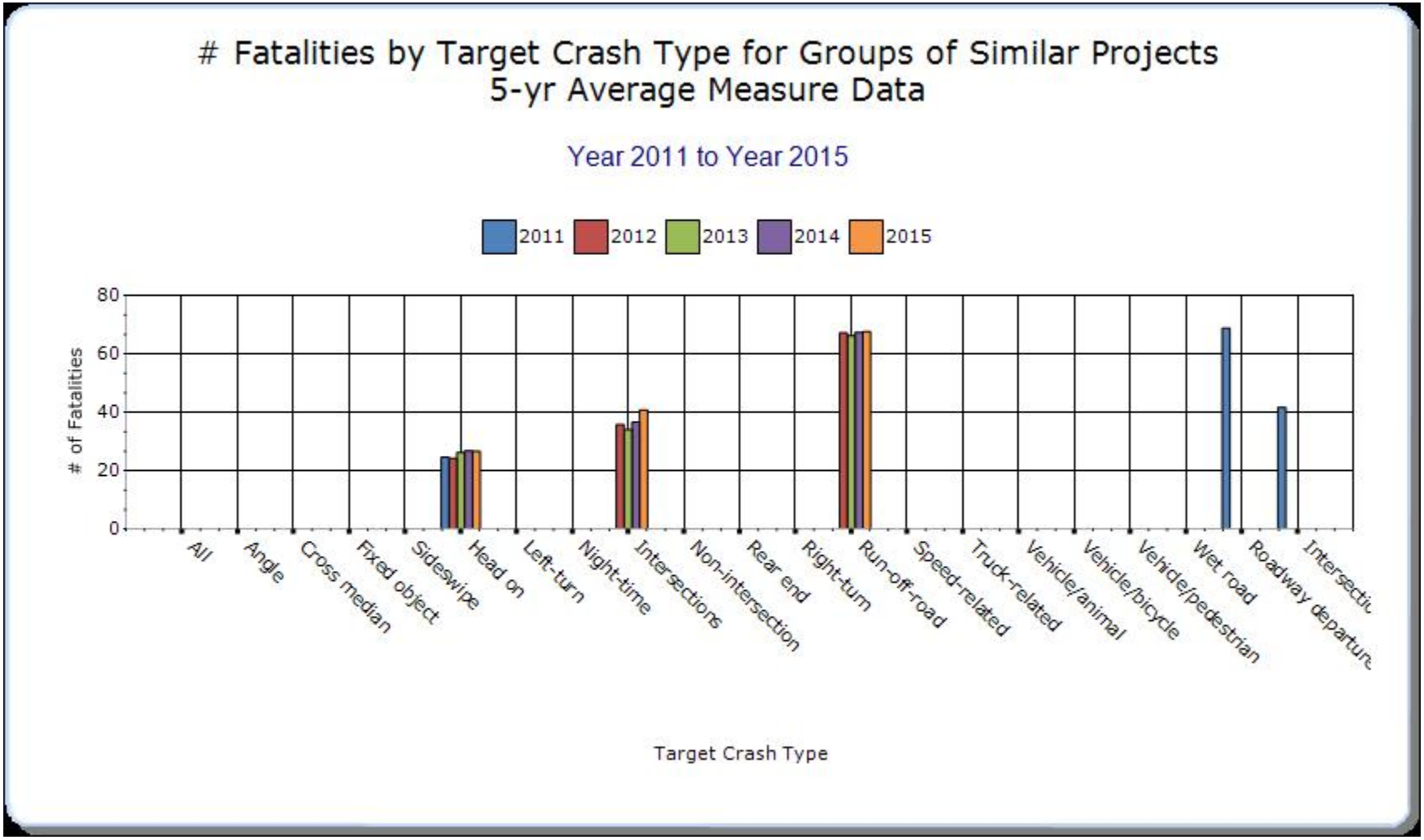


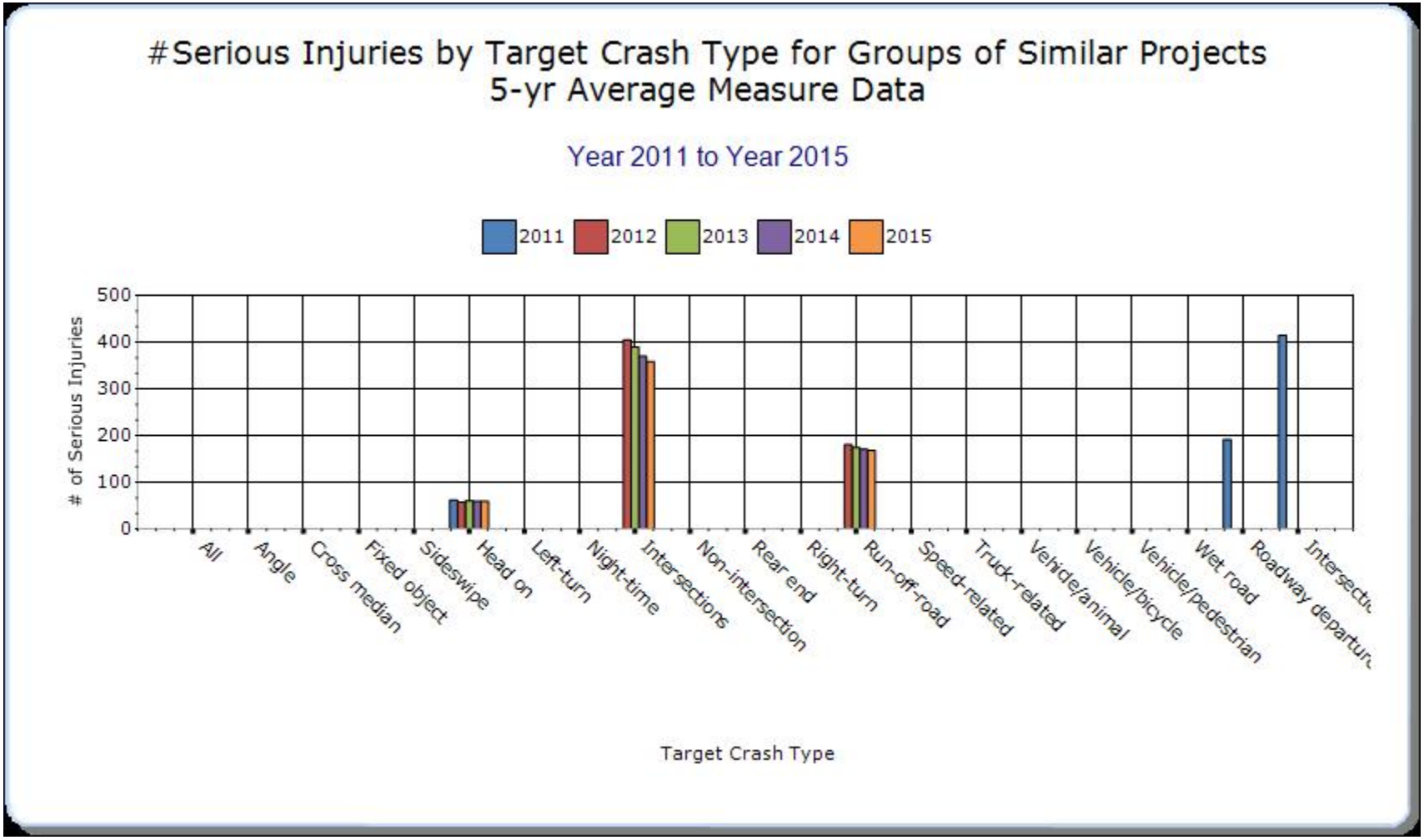
Groups of similar project types

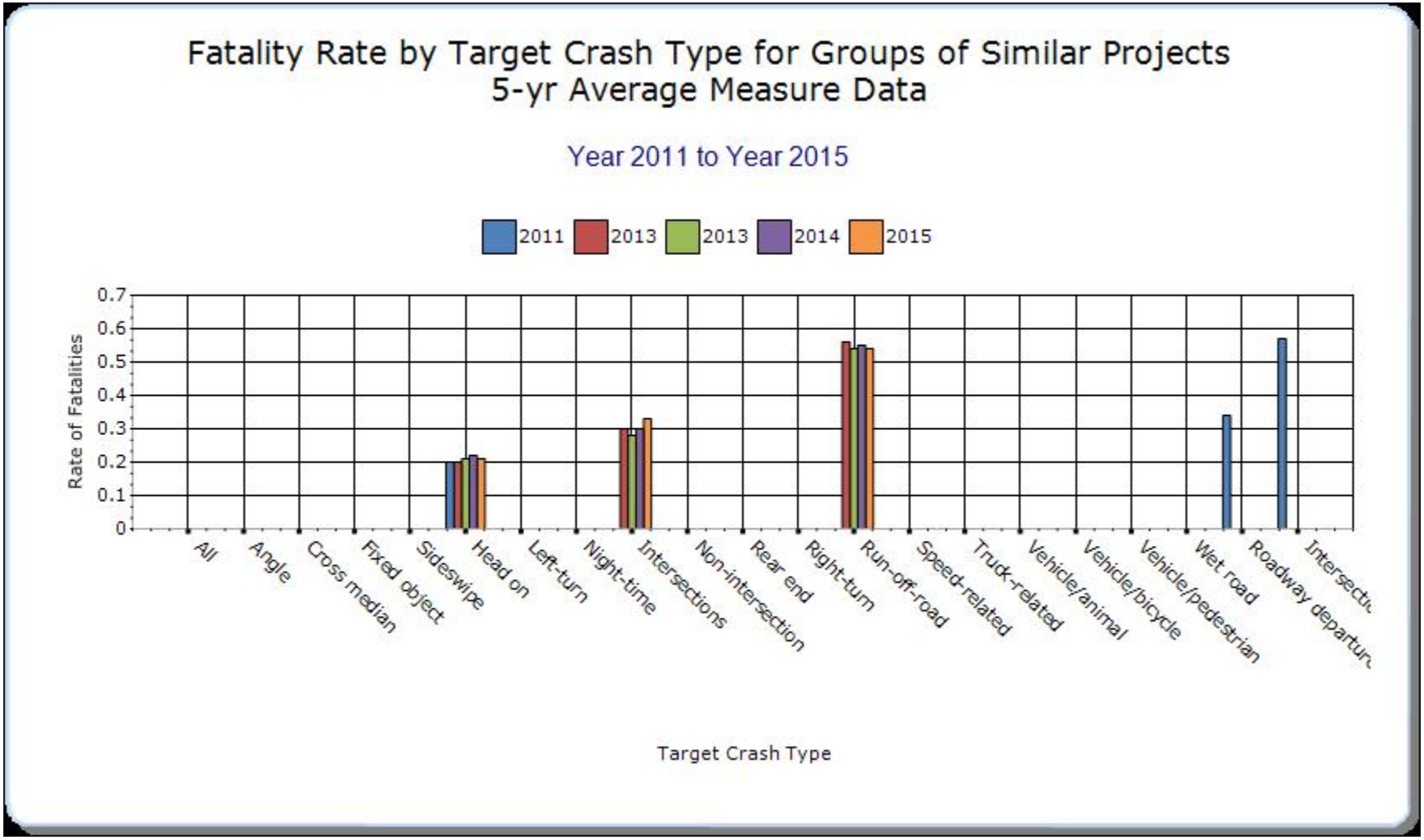
33. Present the overall effectiveness of HSIP subprograms.

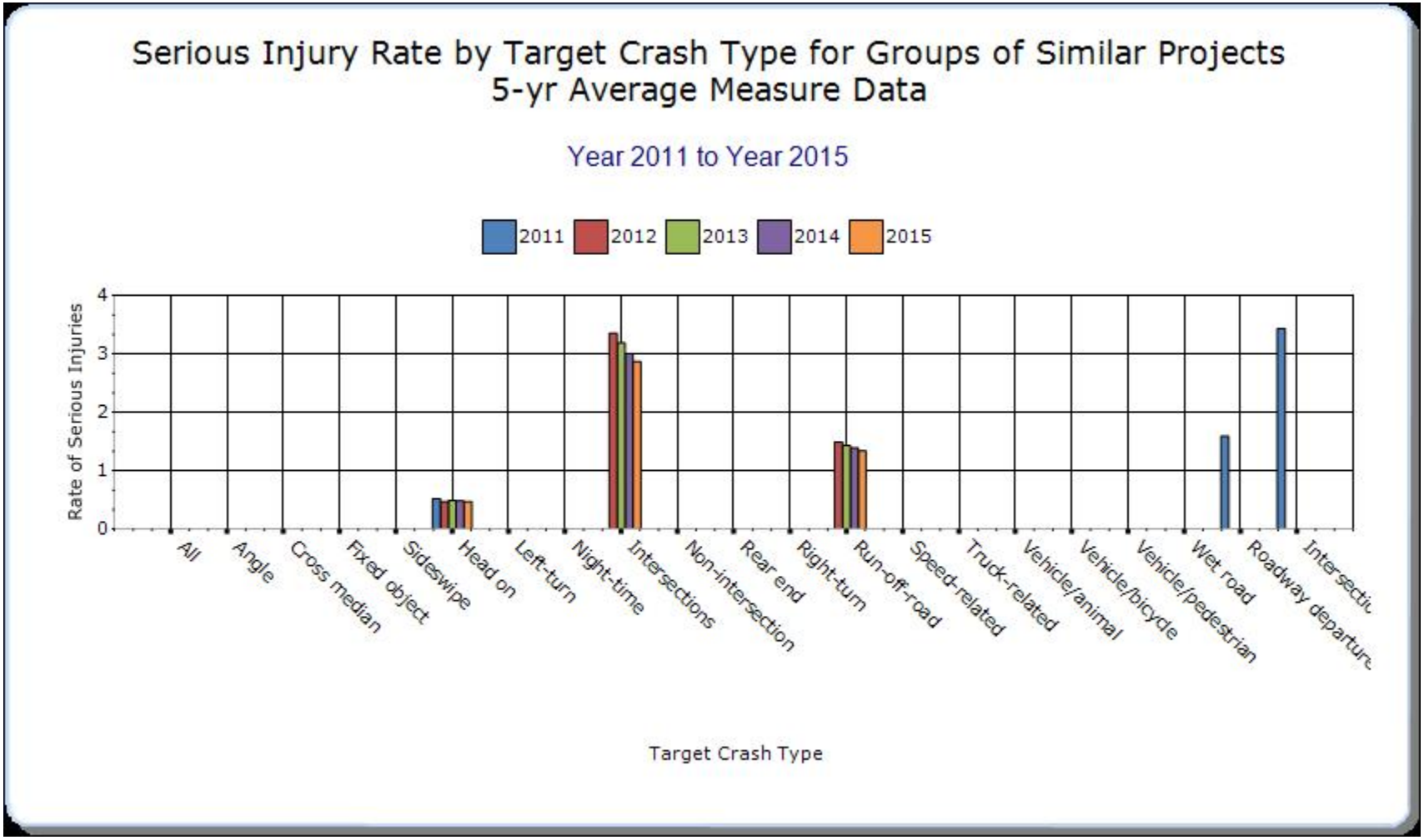
Year - 2015

HSIP Sub-program Types	Target Crash Type	Number of fatalities (5-yr avg)	Number of serious injuries (5-yr avg)	Fatality rate (per HMVMT) (5-yr avg)	Serious injury rate (per HMVMT) (5-yr avg)	Other-1 (5-yr avg)	Other-2 (5-yr avg)	Other-3 (5-yr avg)
Roadway Departure	Run-off-road	67.6	168.2	0.54	1.34			
Intersection	Intersections	40.8	358.6	0.33	2.87			
Centerline Rumble Strips	Head on	26.6	59.4	0.21	0.47			


Fatalities by Target Crash Type for Groups of Similar Projects
5-yr Average Measure Data
Year 2011 to Year 2015
2011
2012
2013
2014
2015
# of Fatalities
80
60
40
20
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Roadway departure
Target Crash Type


#Serious Injuries by Target Crash Type for Groups of Similar Projects
5-yr Average Measure Data
Year 2011 to Year 2015
2011
2012
2013
2014
2015
# of Serious Injuries
500
400
300
200
100
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Roadway departur
Intersecti
Target Crash Type


Fatality Rate by Target Crash Type for Groups of Similar Projects
5-yr Average Measure Data
Year 2011 to Year 2015
2011
2013
2013
2014
2015
Rate of Fatalities
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Roadway departur
Intersecti
Target Crash Type



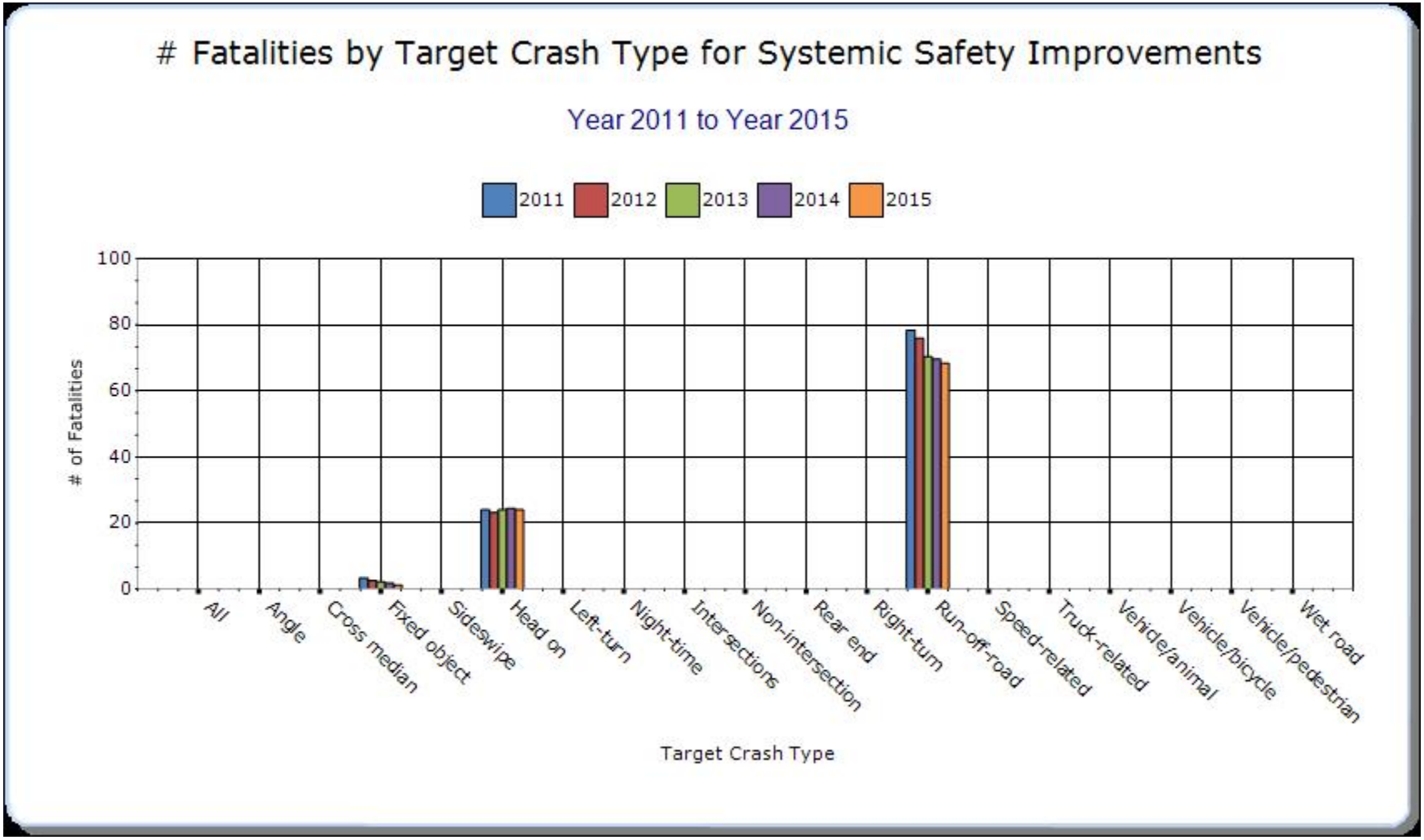
Subprogram data includes only those crashes that occurred on the State Highway System. Improvement in safety should eventually show as the result of changes in policy.

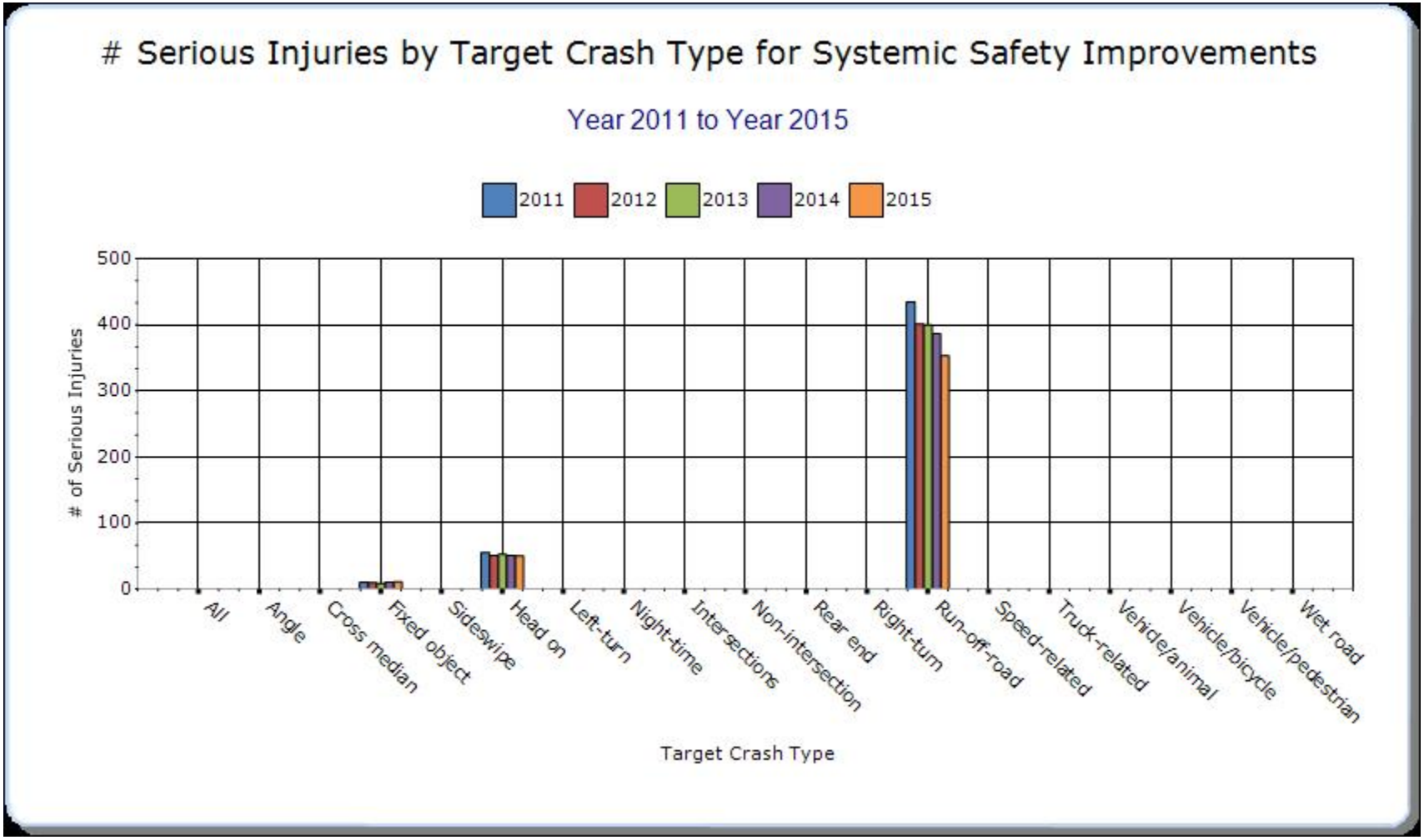
Systemic Treatments

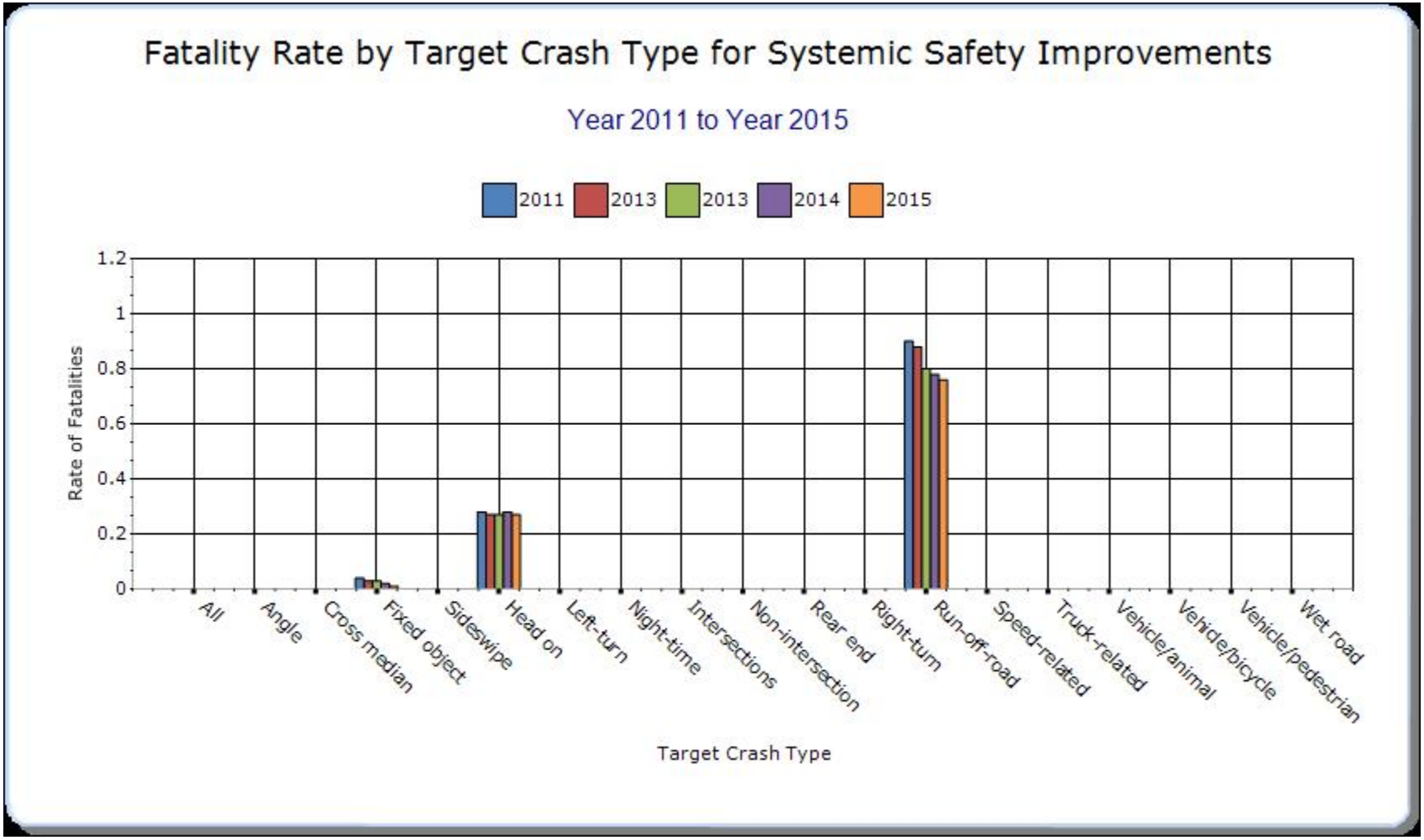
34. Present the overall effectiveness of systemic treatments.

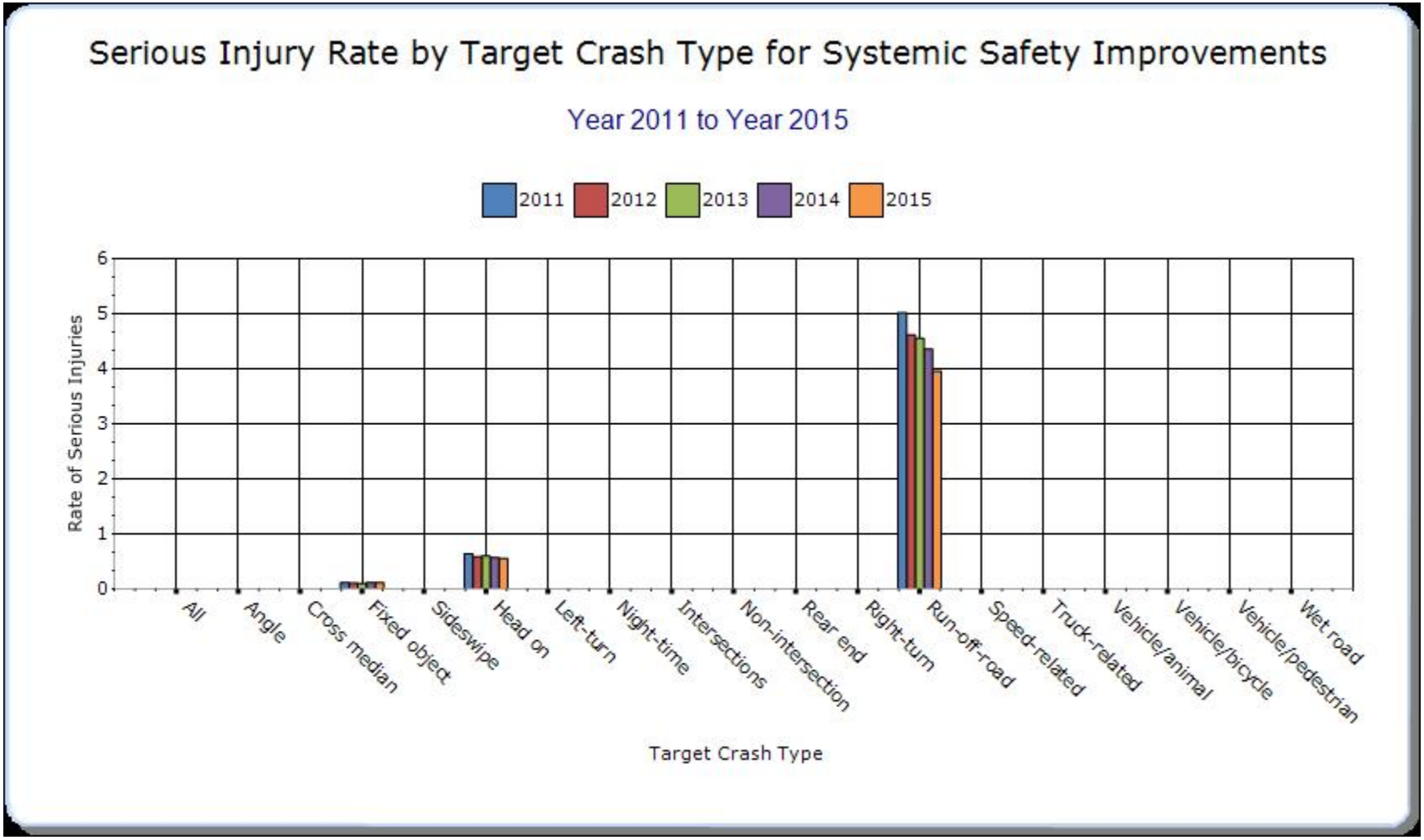
Year - 2015

Systemic improvement	Target Crash Type	Number of fatalities (5-yr avg)	Number of serious injuries (5-yr avg)	Fatality rate (per HMVMT) (5-yr avg)	Serious injury rate (per HMVMT) (5-yr avg)	Other-1 (5-yr avg)	Other-2 (5-yr avg)	Other-3 (5-yr avg)
Install/Improve Pavement Marking and/or Delineation	Run-off-road	34.2	176.6	0.38	1.98			
Shoulder Rumble Strips	Run-off-road	34.2	176.6	0.38	1.98			
Upgrade Guard Rails	Fixed object	1.2	11	0.01	0.12			
Rumble Strips	Head on	24	50.2	0.27	0.56			


Fatalities by Target Crash Type for Systemic Safety Improvements
Year 2011 to Year 2015
2011
2012
2013
2014
2015
# of Fatalities
100
80
60
40
20
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Serious Injuries by Target Crash Type for Systemic Safety Improvements
Year 2011 to Year 2015
2011
2012
2013
2014
2015
# of Serious Injuries
500
400
300
200
100
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Fatality Rate by Target Crash Type for Systemic Safety Improvements
Year 2011 to Year 2015
2011
2013
2013
2014
2015
Rate of Fatalities
1.2
1
0.8
0.6
0.4
0.2
0
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type


Serious Injury Rate by Target Crash Type for Systemic Safety Improvements
Year 2011 to Year 2015
2011
2012
2013
2014
2015
Rate of Serious Injuries
0
1
2
3
4
5
6
All
Angle
Cross median
Fixed object
Sideswipe
Head on
Left-turn
Night-time
Intersections
Non-intersection
Rear end
Right-turn
Run-off-road
Speed-related
Truck-related
Vehicle/animal
Vehicle/bicycle
Vehicle/pedestrian
Wet road
Target Crash Type

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

NDOR again succeeded in obligating more HSIP funds than they received for the year. This has moved us from the position of being unable to spend all of our HSIP funds to a position where we must now be more careful in prioritizing our projects, since funding is limited.

Project Evaluation

36. 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)
Colfax Co. - US-30 NE of Schuyler	Rural Principal Arterial - Other Freeways and Expressways	Roadway delineation	Delineators post-mounted or on barrier			2	11	13				1	1	9.14
Omaha - Intersection of 66th & Maple Street (N-64)	Urban Principal Arterial - Other	Intersection traffic control	Modify traffic signal - remove existing signal			3	12	15		1	4	10	15	None

Omaha - Intersection of NW Radial Hwy and Military Ave./Fontenelle Blvd.	Urban Principal Arterial - Other	Intersection geometry	Auxiliary lanes - add left-turn lane			9	58	67		1	18	37	56	None
Omaha - Intersection of 108th St. and Old Maple Road	Urban Minor Arterial	Intersection geometry	Auxiliary lanes - add left-turn lane		2	13	15	30			2	7	9	4.90
Lincoln Co. - I-80 Bridge over North Channel Platte River	Rural Principal Arterial - Interstate	Advanced technology and ITS	Advanced technology and ITS - other		3	6	10	19				3	3	15.05

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.