

# Nebraska Highway Safety Improvement Program 2014 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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### **Executive Summary**

Nebraska had a very successful year during state FY 2014, obligating about \$34 million in HSIP funds. This figure eclipses the amount obligated in any previous year. While we continue to build the traditional safety projects, intersection improvements, etc., these jobs tend to take longer to complete the project development phase and so can not be depended upon to use up available funds in a timely fashion. During FY 2014 the NDOR was able to develop a number of high cost, systemic projects that boosted the obligation totals. These included durable pavement marking, shoulder and rumble strips, and dynamic message signs (DMS). In addition, NDOR used HSIP funds for several non-infrastructure projects including selective enforcement and PI&E for NHTSA's "Click It or Ticket" and "You Drink, You Drive, You Lose" campaigns.

#### 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

Frogram Administration	
How are Highway Safety Improvement Program funds allocated in a State?	
⊠Central Central	
District	
Other	

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 two largest cities, Omaha and Lincoln, 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. During State FY 2014 seven HSIP

projects let were on local roads. In addition, most of Nebraska's High Risk Rural Roads projects were built on local roads. Many local projects, especially intersection improvements in Omaha and Lincoln, are not listed here because they are located on state highways.

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

Design
⊠Planning
Maintenance
⊠Governors Highway Safety Office
Other: Other-Traffic Engineering
Other: Other-Highway Safety
Other: Other-Local Projects
Other: Other-Program Management
◯ Other: Other-Rail & Public Transportation

#### 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. 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 Project 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

2014

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 NDOR has begun using the Highway Safety Manual procedures in the analysis and evaluation of some HSIP projects.

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

Metropolitan Planning Organizations
⊠Governors Highway Safety Office
∑Local Government Association
Other: Other-City of Omaha Public Works Department
Other: Other-City of Lincoln Public Works Department
Other: Other-FHWA Division Office
Other: Other-NE Local Technical Assistance Program (LTAP)
Identify any program administration practices used to implement the HSIP that have changed since the last reporting period.
Multi-disciplinary HSIP steering committee
Other: Other-NDOR is working with FHWA to develop a Strategic Plan for HSIP Expenditures

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

crashes only

Nebraska is currently working on updating its HSIP process document. NDOR is also issuing an RFP for the purchase of a web-based automatic collision diagramming system, to be paid for with HSIP funds.

#### **Program Methodology** Select the programs that are administered under the HSIP. Median Barrier Intersection Safe Corridor Horizontal Curve Bicycle Safety Rural State Highways Skid Hazard Crash Data Red Light Running Prevention Roadway Departure Low-Cost Spot Improvements Sign Replacement And Improvement Local Safety Pedestrian Safety Right Angle Crash Left Turn Crash Shoulder Improvement Segments Other: Program: Intersection **Date of Program Methodology:** 9/27/1990 What data types were used in the program methodology? Crashes Roadway Exposure ⊠All crashes Traffic Median width Fatal crashes only ⊠Volume | Horizontal curvature Fatal and serious injury Population Functional classification

Other		Roadside features
	Other	Other-Land Use
		Other-Median Type
		◯ Other-Number of Lanes
What project identification metho	odology was used for this program?	
Expected crash frequency with I	EB adjustment	
Equivalent property damage on	ly (EPDO Crash frequency)	
EPDO crash frequency with EB a	adjustment	
Relative severity index		
⊠Crash rate		
Critical rate		
Level of service of safety (LOSS)		
Excess expected crash frequenc	y using SPFs	
Excess expected crash frequenc	y with the EB adjustment	
Excess expected crash frequenc	y using method of moments	
Probability of specific crash type	es	
Excess proportions of specific cr	rash types	
Other		
Are local roads (non-state owned	and operated) included or addresse	ed in this program?
⊠Yes		
□No		
If yes, are local road projects identi	ified using the same methodology a	s state roads?

Highway Safety Improvement Program

2014 Nebraska

Yes	
⊠No	
If no, describe the methodology used to	identify local road projects as part of this program.
The number of crashes occurring on a sp	pecific stretch of roadway or intersection.
How are highway safety improvement	projects advanced for implementation?
Competitive application process	
Selection committee	
Other	
rankings. If weights are entered, the su	s in project prioritization. Enter either the weights or numerical mm must equal 100. If ranks are entered, indicate ties by giving the next highest rank (as an example: 1, 2, 2, 4).
Rank of Priority Consideration	
⊠Ranking based on B/C	3
	2
☐Incremental B/C	
Ranking based on net benefit	
Other	
☑Design and Project Development Time	1

Highway Safety Improvement Program

2014

Nebraska

Program:	Roadway Departure						
Date of Program Methodology:	9/27/1990						
What data types were used in the	e program methodology?						
Crashes	Exposure	Roadway					
⊠All crashes	Traffic	Median width					
Fatal crashes only	⊠Volume	Horizontal curvature					
Fatal and serious injury crashes only	Population	Functional classification					
Other		Roadside features					
	Other	<b>◯</b> Other-Land Use					
		◯ Other-Median Type					
		Other-Number of Lanes					
What project identification meth	odology was used for this program?						
Expected crash frequency with EB adjustment							
Equivalent property damage of	nly (EPDO Crash frequency)						
EPDO crash frequency with EB	adjustment						
⊠Critical rate							
Level of service of safety (LOSS)							
Excess expected crash frequency using SPFs							
Excess expected crash frequency with the EB adjustment							

Excess expected crash frequency using method of moments
Probability of specific crash types
Excess proportions of specific crash types
Other
Are local roads (non-state owned and operated) included or addressed in this program?
⊠Yes
□No
If yes, are local road projects identified using the same methodology as state roads?
☐ Yes
⊠No
If no, describe the methodology used to identify local road projects as part of this program.
The number of roadway departure crashes on a particular section of roadway.
How are highway safety improvement projects advanced for implementation?
Competitive application process
Selection committee
Other
Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).
Relative Weight in Scoring
Rank of Priority Consideration

Highway Safety Improvement Program

2014

Nebraska

Other:

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

Although we have used the Highway Safety Manual and systemic project programming in the past, the use of both significantly increased in FY 2014. It is likely that the use of both will continue to increase in the future.

## **Progress in Implementing Projects**

#### **Funds Programmed**

Reporting period for Highway Safety Improvement Program funding.
Calendar Year
State Fiscal Year
Federal Fiscal Year

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

Funding Category	Programmed*		Obligated		
HSIP (Section 148)	38663738	85 %	33979022	77 %	
HRRRP (SAFETEA-LU)	1557000	3 %	1326353	3 %	
HRRR Special Rule					
Penalty Transfer - Section 154					
Penalty Transfer - Section 164	0	0 %	2544479	6 %	
Incentive Grants - Section 163					
Incentive Grants (Section 406)					
Other Federal-aid Funds (i.e. STP, NHPP)	0	0 %	0	0 %	
State and Local Funds	5039738	11 %	6051943	14 %	

Totals	45260476	100%	43901797	100%

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

\$5,050,615.00

How much funding is obligated to local safety projects?

\$3,853,648.00

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

\$1,651,000.00

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

\$1,650,880.00

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.

Although the NDOR has learned to work with the existing rules in order to move projects along, the main impediment to obligating HSIP funds remains the time and cost of meeting NEPA requirements. Projects continue to be held up for lengthy periods as they proceed through the environmental process. At the same time, the Department of Roads and local governments have been discouraged from pursuing lower cost projects because of the concern that the NEPA work will be more costly than the project. There was some hope that projects could be sped up by making Programmatic Agreements with FHWA, but the PA's used so far have been of limited value.

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

FY 2014 was the biggest year ever for obligating HSIP funds in Nebraska. By preparing some high cost, systemic projects, the NDOR was able to obligate about \$34 million in HSIP funds. Systemic durable pavement marking, surfaced shoulder and rumble strip, and dynamic message sign (DMS) projects were the most responsible for getting the funds spent.

#### **General Listing of Projects**

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

Project	Improveme nt Category	Output	HSIP Cost	Total Cost	Funding Categor	Functional Classificati	AAD T	Spee d	Roadway Ownershi	Relationship	to SHSP
	category				у	on	•	_	р	Emphasis Area	Strategy
00793 Lancaster County - County road pavement marking	Roadway delineation Longitudinal pavement markings - remarking		909052	999957	HRRRP (SAFETE A-LU)	Rural Major Collector			County Highway Agency	Roadway Departure	Keep vehicles in their lane
00793A Cass County - County road pavement marking	Roadway delineation Longitudinal pavement markings - remarking		170025	187028	HRRRP (SAFETE A-LU)	Rural Major Collector			County Highway Agency	Roadway Departure	Keep vehicles in their lane
00793B Saline County - County road pavement marking	Roadway delineation Longitudinal pavement markings - remarking		76815	84497	HRRRP (SAFETE A-LU)	Rural Major Collector			County Highway Agency	Roadway Departure	Keep vehicles in their lane

00793C Platte County - County road pavement marking	Roadway delineation		123697	136067	HRRRP (SAFETE A-LU)	Rural Major Collector			County Highway Agency	Roadway Departure	Keep vehicles in their lane
00908D "Click It or Ticket" selective Overtime Enforceme nt	Non- infrastructu re Enforcemen t	4967 Numbers	275000	305558	HSIP (Section 148)					Seat Belt Usage	Conduct highly publicized enforcement campaigns
00908E "Click It or Ticket" PI&E Messaging	Non- infrastructu re Educational efforts	14817828 8 Numbers	200000	222225	HSIP (Section 148)					Seat Belt Usage	Provide enhanced education to groups with low belt usage rates
12888B Goehner Truck Parking Phase II	Parking Truck parking facilities	1 Numbers	675456	767607	HSIP (Section 148)	Rural Principal Arterial - Interstate	2504 5	75	State Highway Agency	Roadway Departure	Reduce driver distractions
12975 Lincoln	Intersection geometry	1 Numbers	559387	777889 0	HSIP (Section	Rural Principal	5710	60	State Highway	Intersectio ns	Reduce conflicts by

Districtwid e Striping	Longitudinal pavement markings - remarking		3	8	148)	Arterial - Other			Agency	Departure	their lane
13242 (2) District 1 - Districtwid e Striping	Roadway delineation Longitudinal pavement markings - remarking	320 Miles	251747 9	550903 8	Penalty Transfer – Section 164	Rural Principal Arterial - Other	3778	65	State Highway Agency	Roadway Departure	Keep vehicles in their lane
13248 District 1 - Districtwid e Surfaced Shoulders, Rumble Strips	Roadway Rumble strips - edge or shoulder	14 Miles	164872 9	184202	HSIP (Section 148)	Rural Minor Arterial	4472	60	State Highway Agency	Roadway Departure	Keep vehicles from encroaching on the roadside
22366 Bellevue - US-75 Ramps at Cornhusker Road	Interchange design Installation of new lane on ramp	1 Numbers	389292	619525	HSIP (Section 148)	Urban Principal Arterial - Other	2710 0	45	City of Municipal Highway Agency	Intersectio ns	Reduce conflicts by geometric design improvemen ts
22372 (1) Omaha - 102nd & Maple	Intersection geometry Intersection geometrics -	1 Numbers	76455	642183	HSIP (Section 148)	Urban Minor Arterial	4930 4	45	City of Municipal Highway	Intersectio ns	Realign intersection approaches to reduce or

Districtwid e Surfaced Shoulders and Rumble Strips	strips - edge or shoulder				148)	Arterial - Other			Agency	Departure	from encroaching on the roadside
32081A South Sioux City - Dakota Avenue	Roadway Roadway widening - add lane(s) along segment	1 Miles	102658 4	145714 5	HSIP (Section 148)	Urban Principal Arterial - Other	1328 0	35	City of Municipal Highway Agency	Roadway Departure	Minimize the likelihood of crashing into another vehicle
32114 South of Oakland - Jct. of US- 77 & N-32	Intersection geometry Intersection geometry - other	1 Numbers	250883 5	304073 8	HSIP (Section 148)	Rural Minor Arterial	4765	60	State Highway Agency	Intersectio ns	Convert 4- way intersections to roundabouts
32167 District 3 - DMS Replaceme nt	Advanced technology and ITS Dynamic message signs	1 Numbers	124191	148090	HSIP (Section 148)	Urban Principal Arterial - Interstate	1600 0	60	State Highway Agency	Roadway Departure	Keep vehicles from encroaching on the roadside
32215 District 3 - Districtwid	Roadway delineation Longitudinal pavement	123 Miles	201717	224140 0	HSIP (Section 148)	Rural Principal Arterial -	3464	65	State Highway Agency	Roadway Departure	Keep vehicles in their lane

and Rumble Strips	
71177 Roadway 211 Miles 330253 366958 HSIP District 7 - delineation Districtwid Extriping pavement markings - remarking	Rural 2967 65 State Roadway Keep Principal Arterial - Other Agency
80960 Roadway delineation Districtwid e Striping pavement markings - remarking Possible Possi	Rural 2784 65 State Highway Departure vehicles in their lane

## **Progress in Achieving Safety Performance Targets**

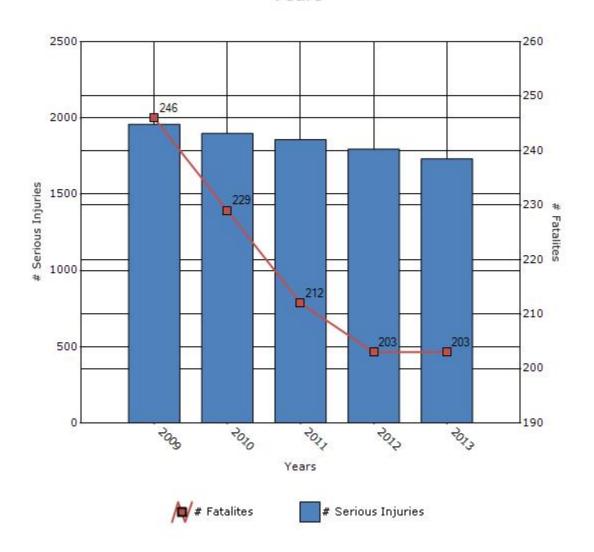
#### **Overview of General Safety Trends**

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

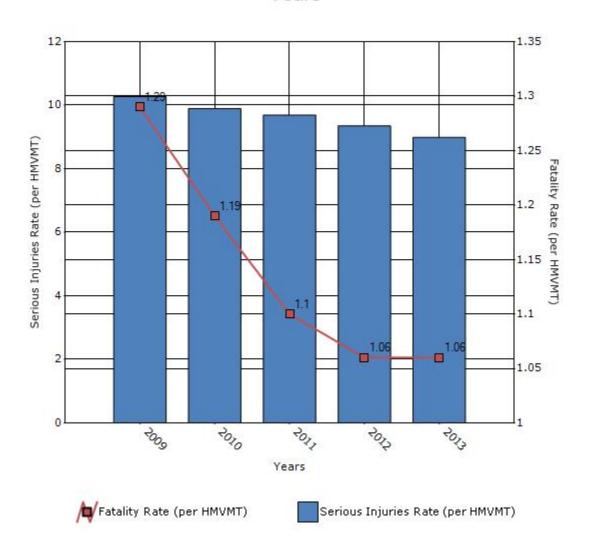
Performance Measures*	2009	2010	2011	2012	2013
Number of fatalities	246	229	212	203	203
Number of serious injuries	1958	1898	1858	1795	1732
Fatality rate (per HMVMT)	1.29	1.19	1.1	1.06	1.06
Serious injury rate (per HMVMT)	10.27	9.89	9.69	9.35	8.99

<sup>\*</sup>Performance measure data is presented using a five-year rolling average.

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



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



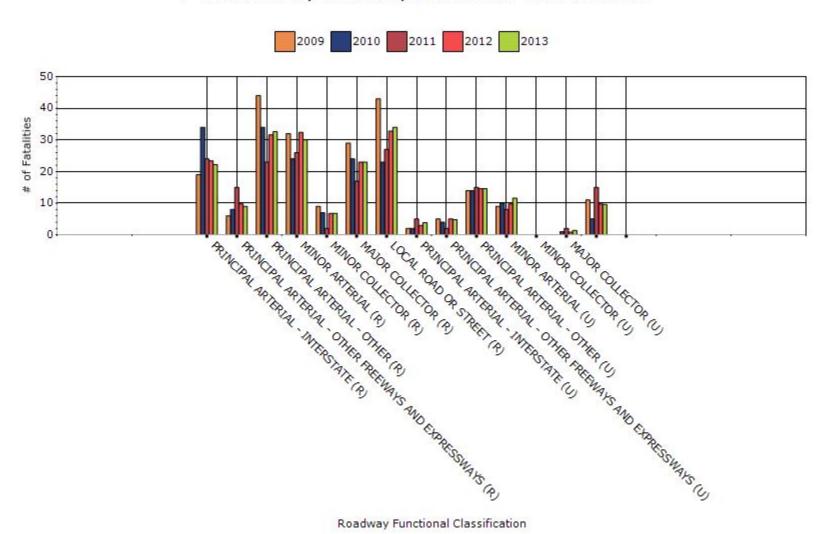
To the maximum extent possible, present performance measure\* data by functional classification and ownership.

Year - 2013

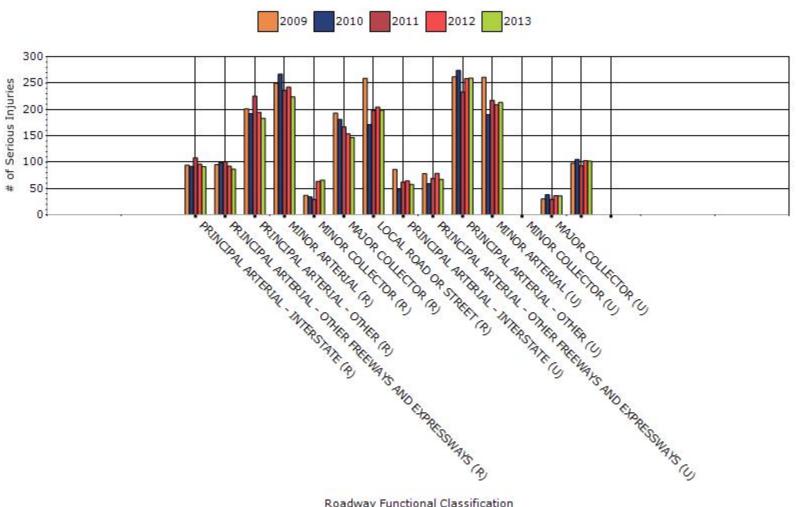
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
RURAL PRINCIPAL ARTERIAL - INTERSTATE	22.2	91.4	0.85	3.51
RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	9	86.6	0.86	8.23
RURAL PRINCIPAL ARTERIAL - OTHER	32.6	183	1.46	8.18
RURAL MINOR ARTERIAL	30	223.6	1.29	9.61
RURAL MINOR COLLECTOR	6.8	65.8	2.84	27.49
RURAL MAJOR COLLECTOR	23	146.6	1.49	9.5
RURAL LOCAL ROAD OR STREET	34	198.8	3.12	18.23
URBAN PRINCIPAL	3.8	57.8	0.28	4.21

ARTERIAL - INTERSTATE				
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	4.8	67.2	0.63	8.79
URBAN PRINCIPAL ARTERIAL - OTHER	14.6	259.2	0.62	10.96
URBAN MINOR ARTERIAL	11.6	213.2	0.57	10.56
URBAN MINOR COLLECTOR	0	0	0	0
URBAN MAJOR COLLECTOR	1.4	35.8	0.25	6.47
URBAN LOCAL ROAD OR STREET	9.6	101.8	0.88	9.28
OTHER	0	0	0	0

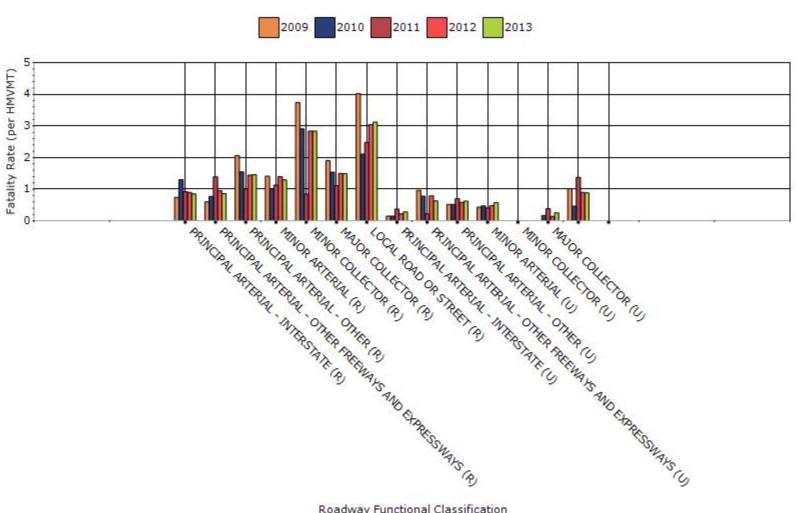
### # Fatalities by Roadway Functional Classification



### # Serious Injuries by Roadway Functional Classification

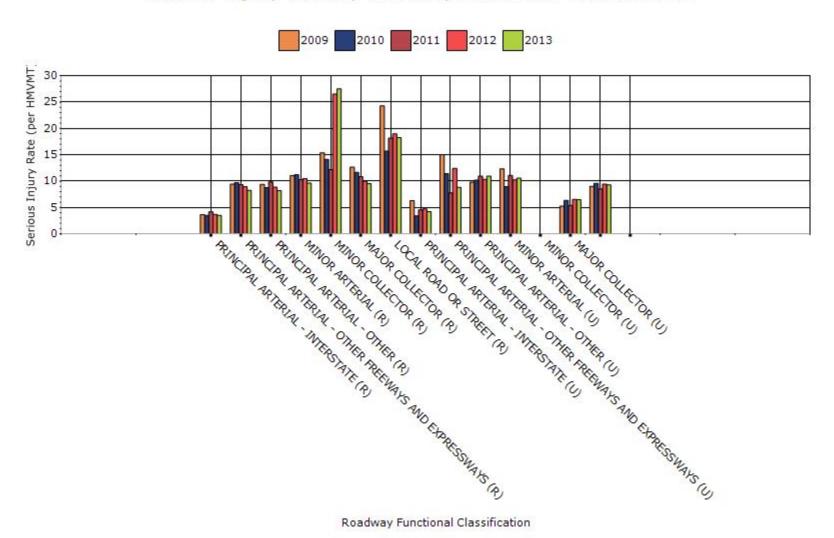


## Fatality Rate by Roadway Functional Classification



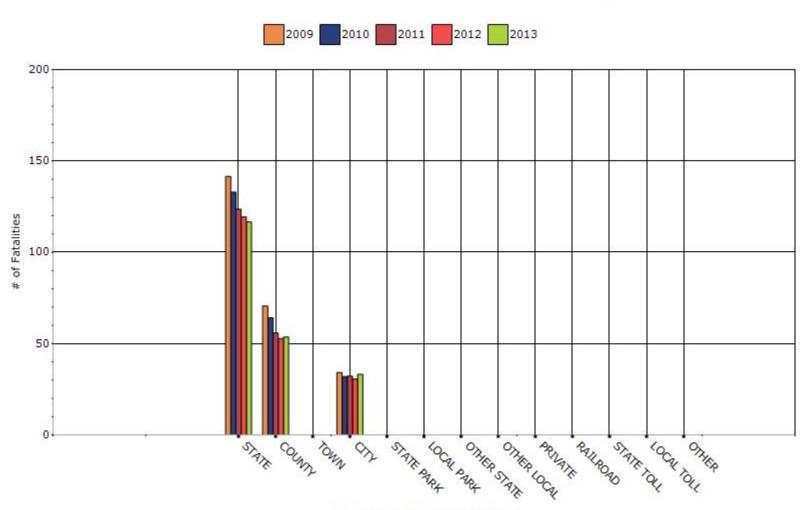
Roadway Functional Classification

## Serious Injury Rate by Roadway Functional Classification

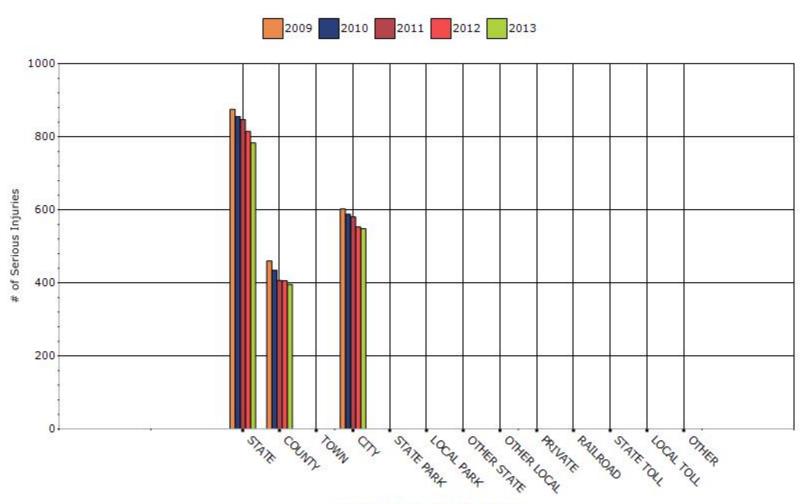


Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	116.6	783	0.96	6.41
COUNTY HIGHWAY AGENCY	53.6	395.6	2.29	16.92
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	33.2	548	0.7	11.61
STATE PARK, FOREST, OR RESERVATION AGENCY	0	0	0	0
LOCAL PARK, FOREST OR RESERVATION AGENCY	0	0	0	0
OTHER STATE AGENCY	0	0	0	0
OTHER LOCAL AGENCY	0	0	0	0
PRIVATE (OTHER THAN RAILROAD)	0	0	0	0
RAILROAD	0	0	0	0
STATE TOLL AUTHORITY	0	0	0	0
LOCAL TOLL AUTHORITY	0	0	0	0
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)	0	0	0	0

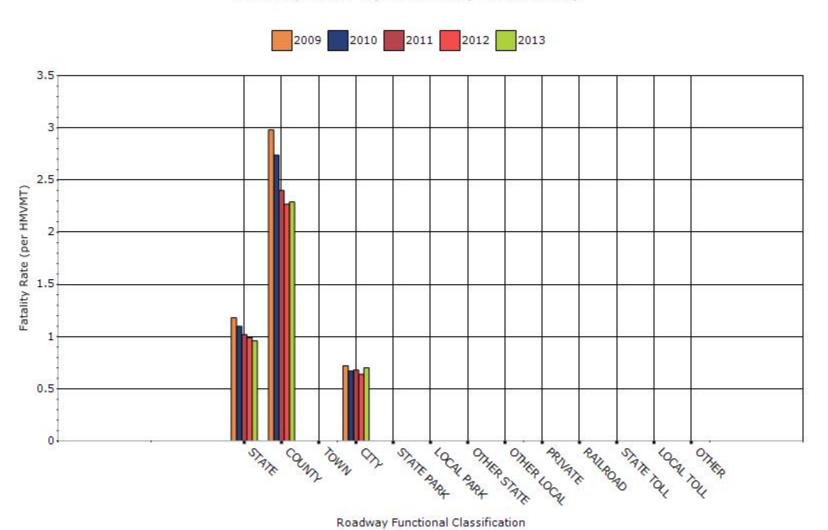
# Number of Fatalities by Roadway Ownership



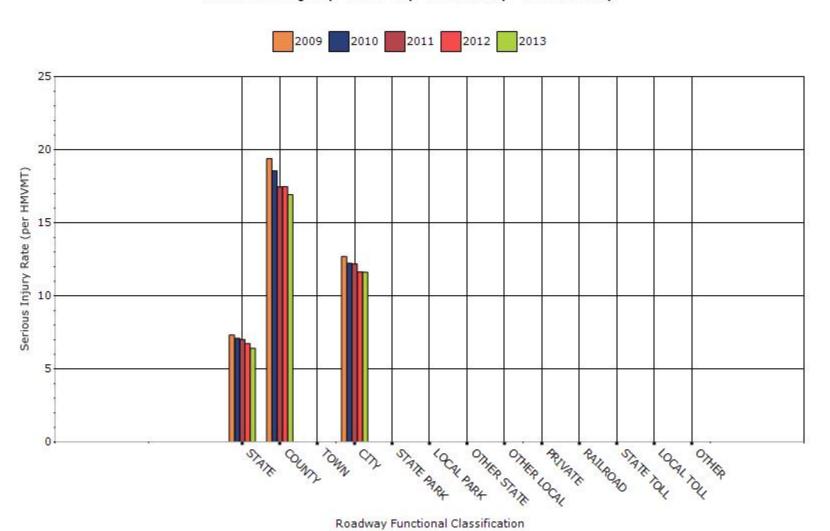
## Number of Serious Injuries by Roadway Ownership



### Fatality Rate by Roadway Ownership



### Serious Injury Rate by Roadway Ownership



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

Fatalities in Nebraska dipped significantly in 2010 and 2011, going below the 200 mark for the first time since 1944. With the end of the recent recession, fatalities jumped back up to 212 and 211 in 2012 and 2013. Nevertheless, these numbers represent a large improvement over the years prior to 2008. Nebraska had over 300 fatalities as recently as 2002.

Serious injuries also continue to trend downward, going from over 2,000 in 2005 to just over 1,500 in 2013.

#### **Application of Special Rules**

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

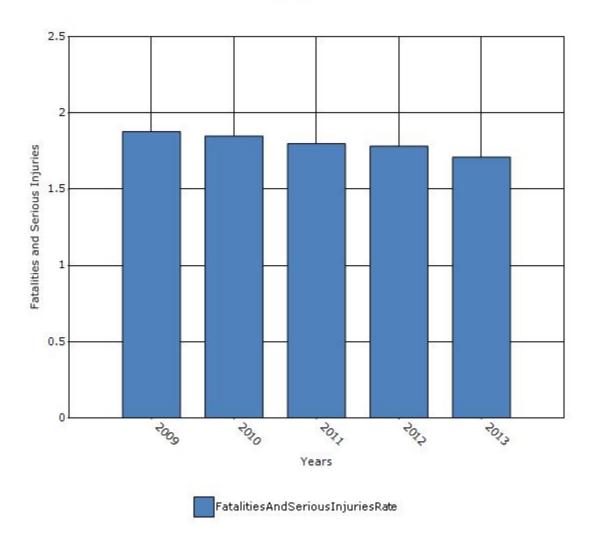
Older Driver Performance Measures	2009	2010	2011	2012	2013
Fatality rate (per capita)	0.3	0.304	0.282	0.274	0.252
Serious injury rate (per capita)	1.582	1.546	1.516	1.506	1.452
Fatality and serious injury rate (per capita)	1.878	1.848	1.798	1.782	1.71

<sup>\*</sup>Performance measure data is presented using a five-year rolling average.

Calculations included totalling older driver and pedestrian (65 years and older) fatalities, A-injuries and the combination of fatalities and A-injuries for 5-year periods and dividing by the sum of the population factors (provided by FHWA in the February 13, 2013 guidance) for the same 5-year period.

Example: In 2009 Nebraska had 36 older driver/pedestrian fatalities, 206 A-injuries, for a combined total of 242 fatalities + A-injuries. The population factor supplied by FHWA was 134. The 2009 crash data was then combined with similar data from 2005-2008 and divided by the sum of the 2005-2009 population factors to give 5-year rolling average rates.

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



Does the older driver special rule apply to your state?

No

# Assessment of the Effectiveness of the Improvements (Program **Evaluation)**

What indicators of success can you use to demonstrate effectiveness and success in the Highway Safety Improvement Program?
None
⊠Benefit/cost
Policy change
Other:
What significant programmatic changes have occurred since the last reporting period?
Shift Focus to Fatalities and Serious Injuries
Include Local Roads in Highway Safety Improvement Program
Organizational Changes
⊠None
Other:

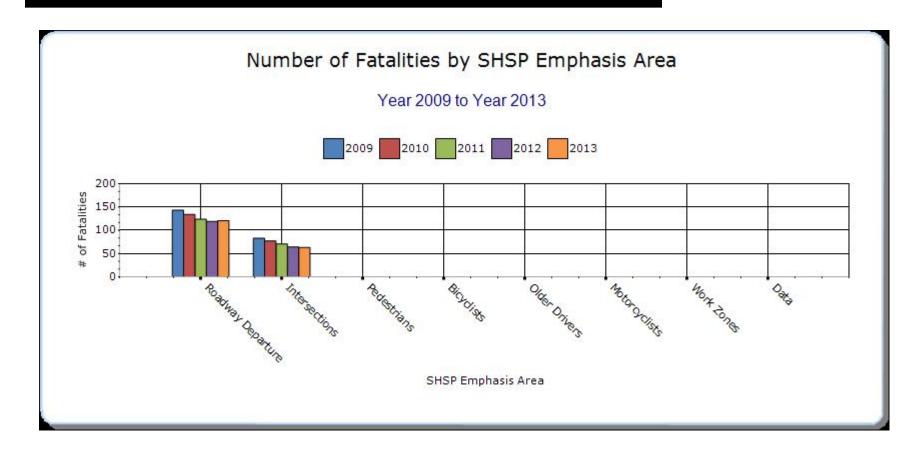
Briefly describe significant program changes that have occurred since the last reporting period.

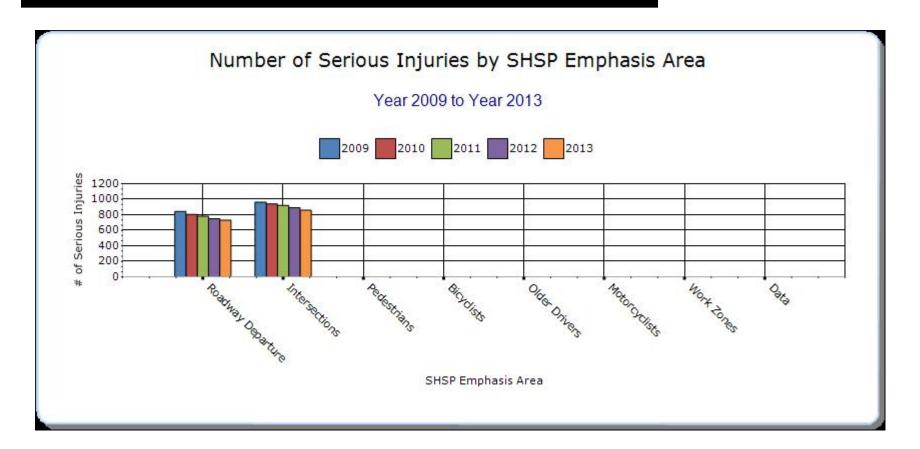
The NDOR has placed more emphasis on fatality and serious injury crashes in its HSIP planning, has included local roads in HSIP analysis, and has had significant organizational changes (the creation of the Local Projects Section), but all of these things occurred prior to the current fiscal year.

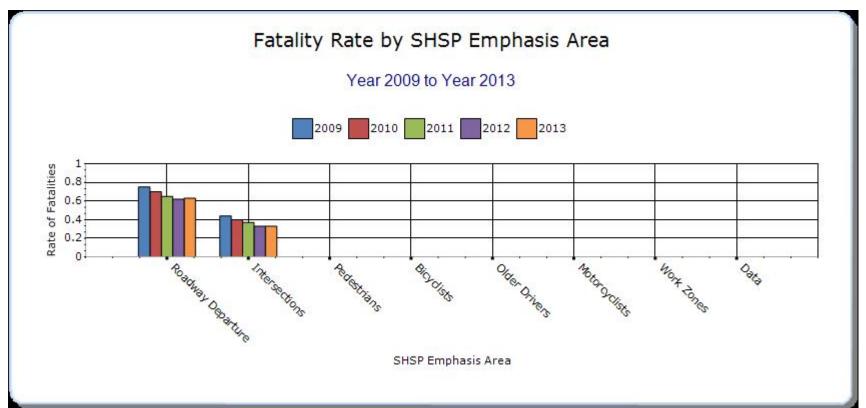
### **SHSP Emphasis Areas**

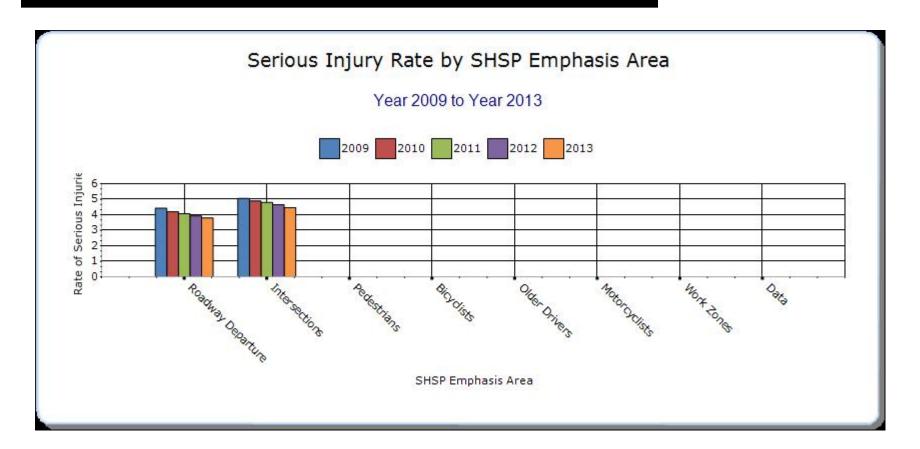
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

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	All	120.8	731.4	0.63	3.8	0	0	0
Intersections	All	63	858.8	0.33	4.46	0	0	0





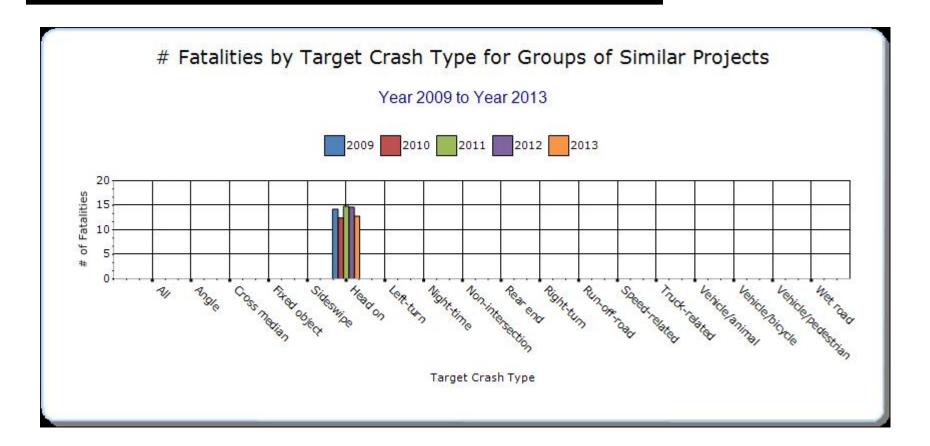


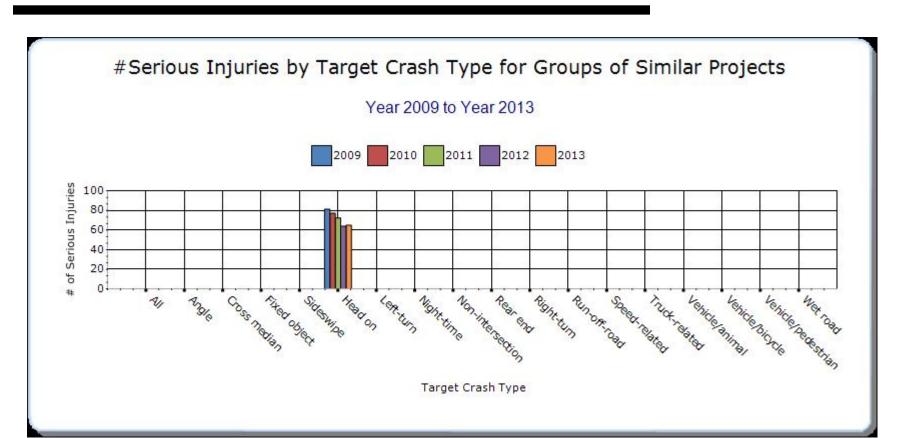


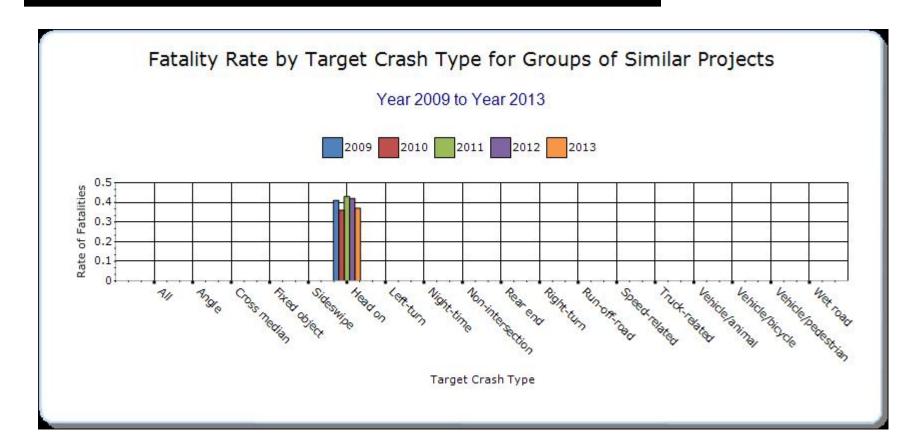
### **Groups of similar project types**

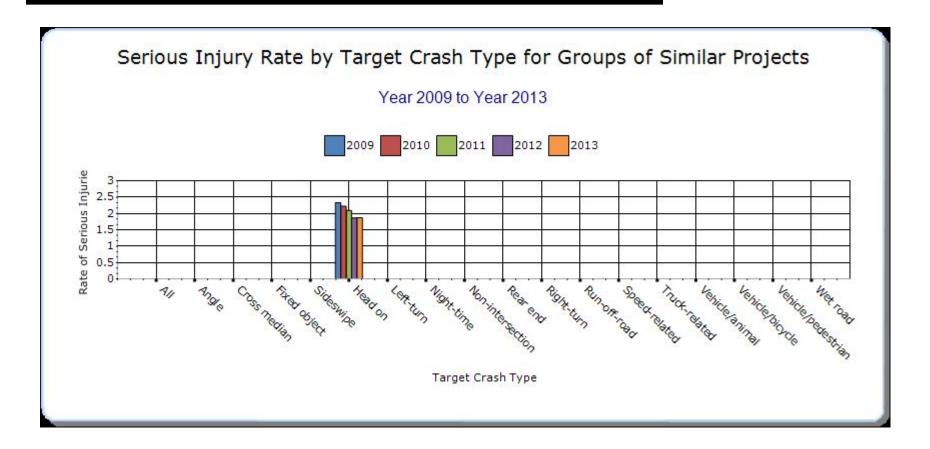
Present the overall effectiveness of groups of similar types of projects.

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		0	0	0	0	0	0	0
Centerline Rumble Strips	Head on	12.8	64.8	0.37	1.87	0	0	0





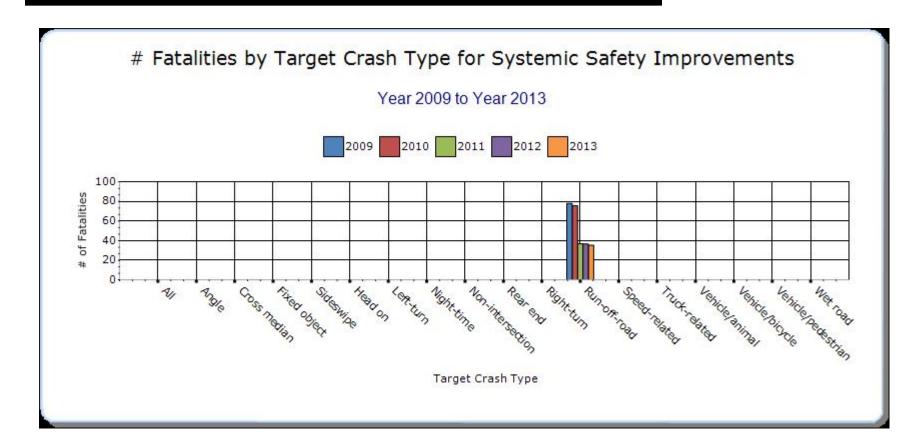


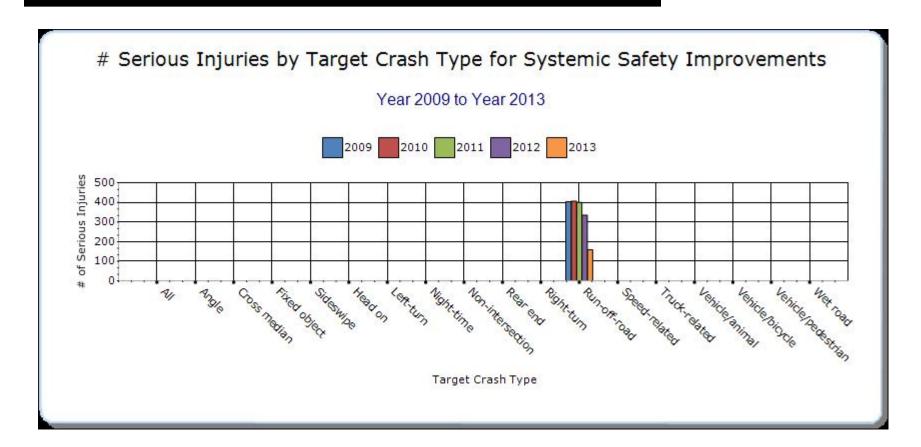


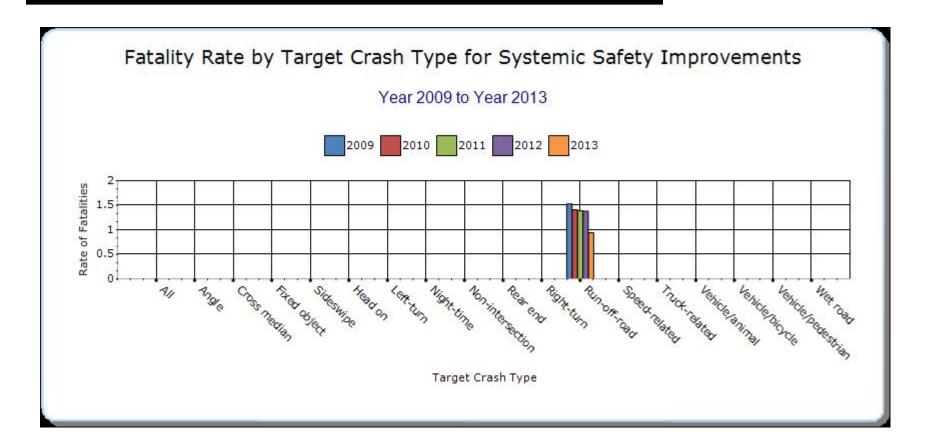
### **Systemic Treatments**

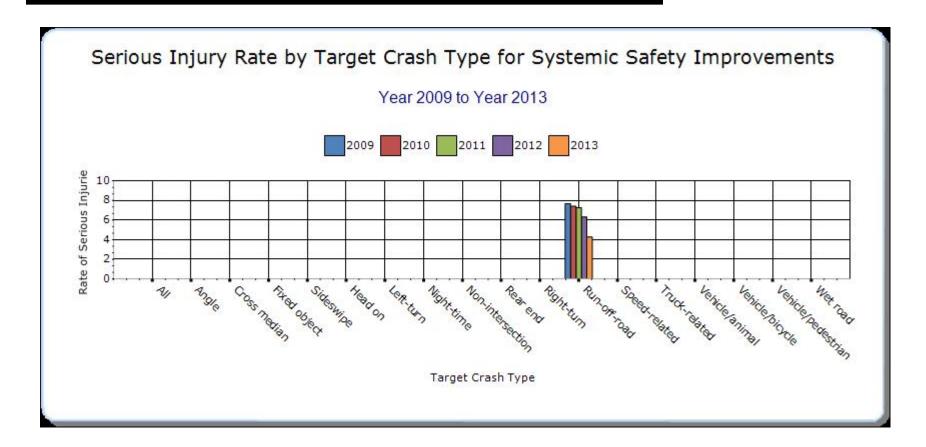
Present the overall effectiveness of systemic treatments.

Systemic improvement	Target Crash Type	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)	Other- 1	Other- 2	Other- 3
Rumble Strips		0	0	0	0	0	0	0
Install/Improve Pavement Marking and/or Delineation	Run-off- road	22.6	94.6	0.57	2.4	0	0	0









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

Several of the systemic treatments planned by NDOR have not yet been built or have had only a few short applications. Thus, there is no crash data available that could evaluate the effectiveness of these treatments. This includes the planned guardrail upgrades and the use of safety edge.

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

Location	Functional Class	Improvement Category	Improvement Type		Serious		Bef- PDO		Fatal	Serious	Aft- Other Injury	PDO	Total	Evaluation Results (Benefit/ Cost Ratio)
Waverly - Intersection of US-6 & Amberly Road	Rural Minor Arterial	geometry	Auxiliary lanes - modify right- turn lane offset	0	2	4	4	10	0	0	1	4	5	5.62
Hastings - Burlington Avenue (US- 34/281) from 7th Street to 9th Street	Urban Principal Arterial - Other	Roadway	Roadway widening - add lane(s) along segment	0	0	5	37	42	0	0	5	13	18	1.15
Omaha - Intersection of John J. Pershing Drive & 25th Street	Urban Minor Arterial		Intersection geometrics - realignment to align offset cross streets	0	1	3	12	16	0	0	0	14	14	None
Omaha - Intersection	Urban Minor	Intersection	Intersection traffic control -	0	1	4	15	20	0	0	3	5	8	17.71

of Redick Avenue & Martin Avenue/36th Avenue	traffic control	other						

# **Optional Attachments**

Sections Files Attached

#### **Glossary**

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

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

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

**HMVMT** means hundred million vehicle miles traveled.

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

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

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

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

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

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

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

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