

Highway Safety Improvement Program Data Driven Decisions

Delaware Highway Safety Improvement Program 2014 Annual Report

Prepared by: DE

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

The Delaware Department of Transportation (DelDOT) has prepared this Annual Report for state fiscal year 2014 (July 1, 2013 – June 30, 2014) to demonstrate the success of their safety program. Crash statistics reported in this Annual Report are for calendar year 2013 (January 1, 2013 – December 31, 2013). During the 2014 reporting period, DelDOT continued its successful core HSIP programs – Hazard Elimination Program (HEP), Highway Rail-Grade Crossing Program (HRGX), and Strategic Highway Safety Plan (SHSP) and began pursuing the development and implementation of systemic-based programs.

On an annual basis, HEP sites are selected using the Critical Rate methodology to identify high crash locations for all HSIP components. The Critical Ratio method (also known as the Rate Quality Control Method) uses a statistical test to determine whether the crash rate at a particular location is significantly higher than a predetermined average crash rate for locations of similar characteristics. A total of 15 corridors were studied under HEP and 12 highway-grade crossings were studied under HRGX. Both programs continued to identify both low-cost remedial improvements and long-term safety improvement needs. Pedestrian safety audits were initiated to evaluate pedestrian safety along two corridors with identified pedestrian crash trends. The success of these programs is demonstrated by the number of fatalities and serious injuries (based on 5-year rolling averages) gradually decreasing from 2009 to 2013. In addition, DelDOT continued working towards the development of a new crash analysis reporting system, and continued to identify future program-level needs and changes related to the MAP-21 legislation.

Introduction

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

Program Structure

Program Administration

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

Central

District

Other

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

All roadways throughout the state are eligible for safety funding; however, the calculations used to identify high crash locations for the Hazard Elimination Program (HEP) include state roadways in DelDOT's road inventory where traffic volumes are available. Traffic volume data is required in order to calculate crash rates required for the critical ratio calculations and is not available on subdivision streets and municipal roadways. Based on a review of statewide crash data on all public roadways from 2009 to 2011, only 4 percent of fatal and incapacitating injury crashes occur on subdivision streets and municipal roadways, indicating that crashes reported on these roadways would not likely meet the minimum crash criteria for the various HSIP elements.

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

Design

Planning

Maintenance

☑Operations

Governors Highway Safety Office

Other:

Briefly describe coordination with internal partners.

Strategic Highway SafetyPlan (SHSP) - Delaware's SHSP is a statewide-coordinated safety plan that provides a comprehensive framework, identifies specific goals and objectives, and integrates the four E's - engineering, education, enforcement and emergency medical services (EMS). Delaware's SHSP coordinating agencies include DelDOT, Federal Highway Administration (FHWA), National Highway Traffic Safety Administration (NHTSA), Office of Highway Safety (OHS), Delaware State Police (DSP), Department of Justice, and Delaware Office of Emergency Medical Services (OEMS). Together, the SHSP coordinating agencies compared statewide fatality crash rates to national crash rates to identify areas with a higher than average occurrence in Delaware and drafted the SHSP. Additionally, working groups, including representatives from relevant partners and stakeholders, meet to discuss implementation plans for specific emphasis areas.

Hazard Elimination Program (HEP) - Fifteen spot locations throughout the state are chosen for safety studies as part of the HEP. For each site selected, DelDOT's Traffic Section reviews crash data, performs a field review, and identifies potential safety improvement alternatives. For candidate locations where improvements are in project development, design, or construction, a safety audit is performed to confirm that the proposed improvements will address the identified crash problem. The HEP committee, which includes representatives from DelDOT (Traffic, Planning, Project Development, and the Maintenance Districts), DSP, FHWA, MPOs, and the counties and municipalities, meets to reach a consensus on the recommended safety improvements. Traffic control device improvements (i.e., signing, striping, lighting, and traffic signal upgrades) are then designed by DelDOT's Traffic Section and implemented by DelDOT's maintenance forces and/or on-call contractors. Projects requiring detailed

design, public involvement, or resulting in right-of-way or environmental impacts are forwarded to DelDOT's Project Development section for prioritization and inclusion in the Capital Transportation Program (CTP).

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

Metropolitan Planning Organizations

Governors Highway Safety Office

Local Government Association

Other: Other-Federal Highway Administration, National Highway Traffic Safety Administration, Office of Highway Safety, Delaware State Police, Department of Justice, Delaware Office of Emergency Medical Services

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-no change

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

During FY 2014 (July 1, 2013 - June 30, 2014), components of Delaware's HSIP included the Strategic Highway Safety Plan (SHSP), the Hazard Elimination Program (HEP), and the Highway-Rail Grade Crossing Safety Program (HRGX). In addition, development of several systemic-style programs continued.

Program Methodology

Select the programs that are administered under the HSIP.



Program:	Crash Data
Date of Program Methodology:	7/1/2013

What data types were used in the program methodology?

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

What project identification methodology w	vas used for this program?
---	----------------------------

Crash frequency

Expected crash frequency with EB adjustment

Equivalent property damage only (EPDO Crash frequency)

EPDO crash frequency with EB adjustment

Relative severity index

Crash rate

Critical rate

Level of service of safety (LOSS)

Excess expected crash frequency using SPFs

Excess expected crash frequency with the EB adjustment

Excess expected crash frequency using method of moments

Probability of specific crash types

Excess proportions of specific crash types

Other

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

Yes

No

How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental B/C

Ranking based on net benefit

Other

Program:	Pedestrian Safety		
Date of Program Methodology:	7/1/2013		
What data types were used in the program methodology?			
Crashes	Exposure	Roadway	
All crashes	Traffic	Median width	
Fatal crashes only	Volume	Horizontal curvature	
Fatal and serious injury crashes only	Population	Functional classification	
Other	Lane miles	Roadside features	

	Other
--	-------

Other

What project identification methodology was used for this program?
Crash frequency
Expected crash frequency with EB adjustment
Equivalent property damage only (EPDO Crash frequency)
EPDO crash frequency with EB adjustment
Relative severity index
Crash rate
Critical rate
Level of service of safety (LOSS)
Excess expected crash frequency using SPFs
Excess expected crash frequency with the EB adjustment
Excess expected crash frequency using method of moments
Probability of specific crash types
Excess proportions of specific crash types
Other
Are local roads (non-state owned and operated) included or addressed in this program?
Yes
No

How are highway safety improvement projects advanced for implementation?

Competitive application process

 \boxtimes Selection committee

Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C

Available funding

Incremental	B/C
-------------	-----

Ranking based on net benefit

Other

Program:	Segments		
Date of Program Methodology:	7/1/2013		
What data types were used in the program methodology?			
Crashes	Exposure	Roadway	
All crashes	Traffic	Median width	
Fatal crashes only	⊠Volume	Horizontal curvature	
Fatal and serious injury crashes only	Population	Functional classification	

Other	⊠Lane miles □Other	□Roadside features ⊠Other-Roadway Type
What project identification metho	dology was used for this program?	
Crash frequency		
Expected crash frequency with	EB adjustment	
Equivalent property damage on	ly (EPDO Crash frequency)	
EPDO crash frequency with EB a	djustment	
Relative severity index		
Crash rate		
Critical rate		
Level of service of safety (LOSS)		
Excess expected crash frequency using SPFs		
Excess expected crash frequency with the EB adjustment		
Excess expected crash frequency using method of moments		
Probability of specific crash types		
Excess proportions of specific cr	rash types	
Other		

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

- Yes
- No

How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Relative Weight in Scoring

Rank of Priority Consideration

Ranking based on B/C	3
Available funding	2
Incremental B/C	
Ranking based on net benefit	1
Other	

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

10

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

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	Clear Zone Improvements
Safety Edge	Install/Improve Lighting
Add/Upgrade/Modify/Remove Traffic Signal	Other Other-Systemic Programs are in development.

What process is used to identify potential countermeasures?

Engineering Study

Road Safety Assessment

Other:

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

Highway Safety Manual

Road Safety audits

Systemic Approach

Other: Other-No change; however, systemic programs continue to be under development

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

Please see attachment for the methodology on the HSIP Site Selection Process.

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)	12246044	44 %	11551044.98	54 %
HRRRP (SAFETEA-LU)	277800	1 %	0	0 %
HRRR Special Rule				
Penalty Transfer - Section 154	2263342	8 %	0	0 %
Penalty Transfer – Section 164				
Incentive Grants - Section 163				
Incentive Grants (Section 406)				
Other Federal-aid Funds (i.e. STP, NHPP)	12924000	47 %	7547490.15	35 %
State and Local Funds				

Other National Highway Systems	0	0 %	1033958.03	5 %
Other Urbanized Areas Surface Transportation Program	0	0 %	83161.09	0 %
Other Rail Program	0	0 %	1142400.25	5 %
Totals	27711186	100%	21358054.5	100%

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

\$1,733,196.00

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

\$1,733,196.00

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.

No impediments at this time.

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

None at this time.

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	Relationshi SHSP	p to
										Emphasis Area	Strategy
See attached spreadsheet attached to this section											

The reported total project costs and HSIP costs shown are the costs for the reporting period (i.e., FY 2014). Please see spreadsheet attached to this section of the report.

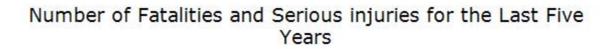
Progress in Achieving Safety Performance Targets

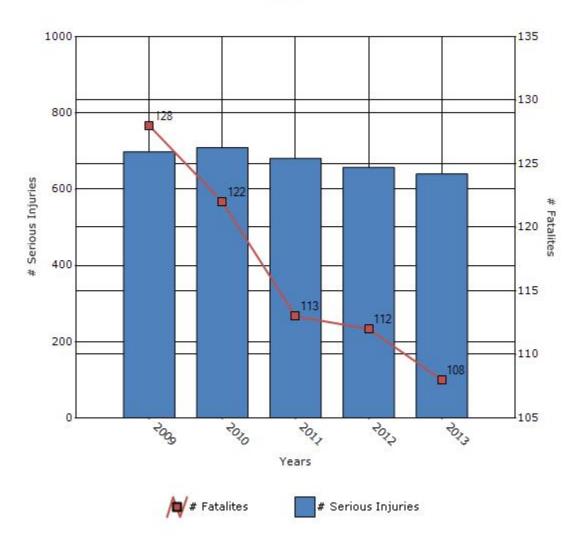
Overview of General Safety Trends

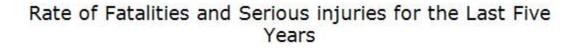
Present data showing the general highway safety trends in the state for the past five years.

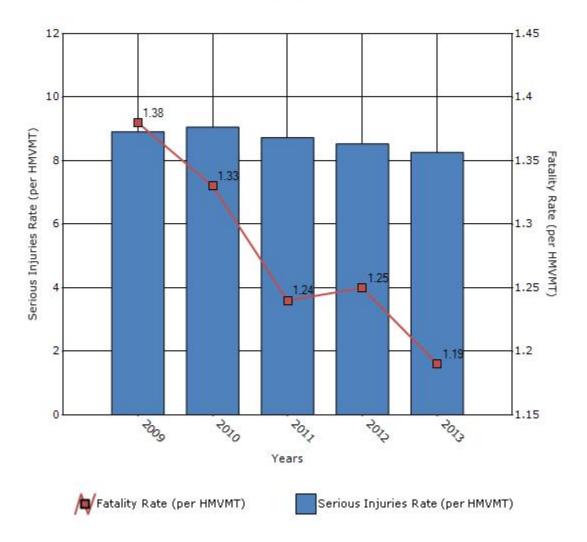
Performance Measures*	2009	2010	2011	2012	2013
Number of fatalities	128	122	113	112	108
Number of serious injuries	698	709	681	657	640
Fatality rate (per HMVMT)	1.38	1.33	1.24	1.25	1.19
Serious injury rate (per HMVMT)	8.91	9.06	8.73	8.53	8.26

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









At the time of reporting, annual vehicle miles traveled data is unavailable for calendar year 2013. As such, 2013 crash rates were calculated based on 2012 VMT values. If needed, please see attached spreadsheet for the crash data.

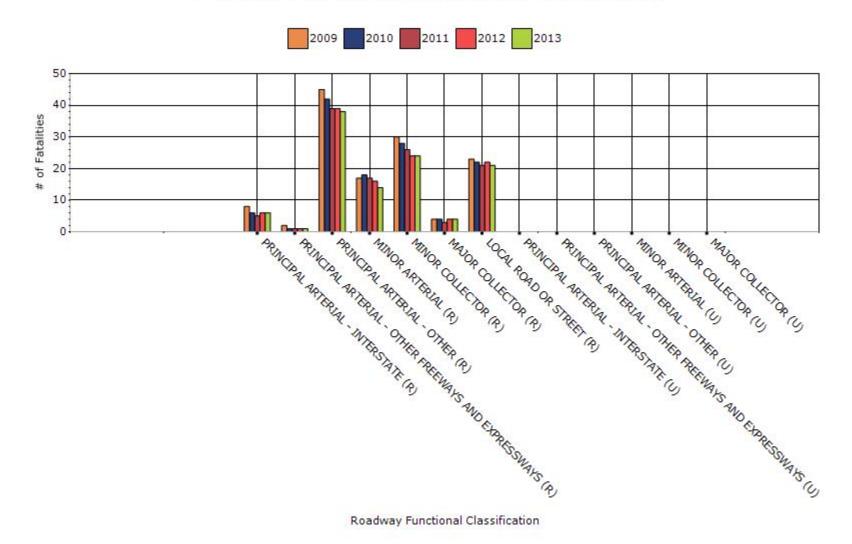
To the maximum extent possible, present performance measure* data by functional classification and ownership.

Year - 2013

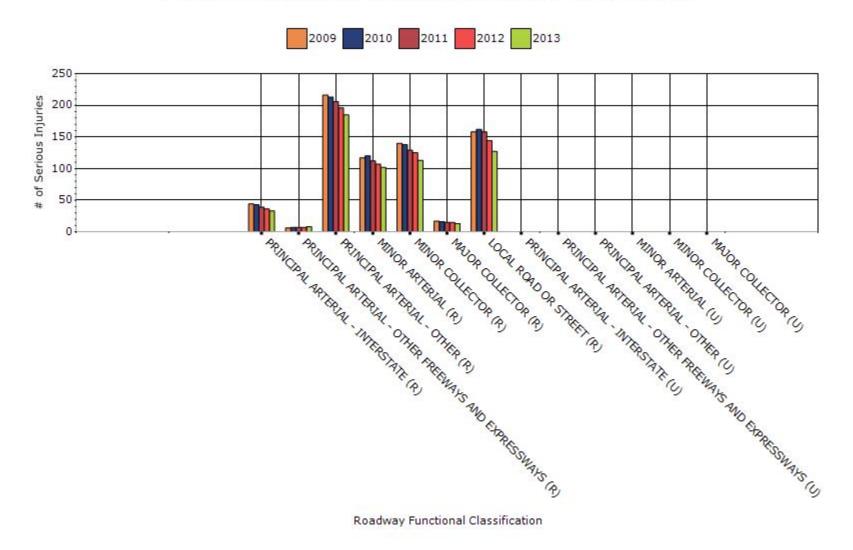
Function Classification	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
INTERSTATE	6	33	0.49	2.63
OTHER FREEWAYS AND EXPRESSWAYS	1	8	0.24	1.61
OTHER PRINCIPAL ARTERIALS	38	185	1.19	5.78
MINOR ARTERIALS	14	102	1.08	7.87
MAJOR COLLECTORS	24	113	1.79	8.41
MINOR COLLECTORS	4	13	3.26	12
LOCAL ROADS	21	127	1.55	9.16
URBAN PRINCIPAL ARTERIAL - INTERSTATE	0	0	0	0
URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS	0	0	0	0

URBAN PRINCIPAL ARTERIAL - OTHER	0	0	0	0
URBAN MINOR ARTERIAL	0	0	0	0
URBAN MINOR COLLECTOR	0	0	0	0
URBAN MAJOR COLLECTOR	0	0	0	0

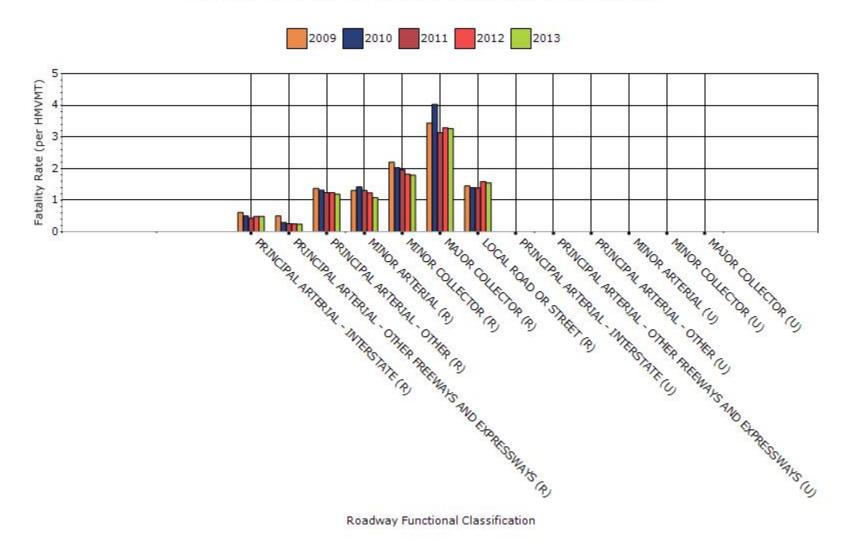
Fatalities by Roadway Functional Classification



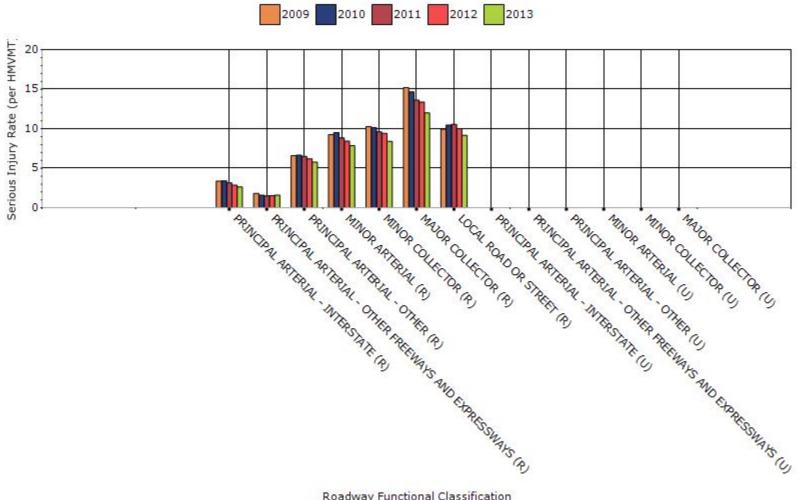
Serious Injuries by Roadway Functional Classification



Fatality Rate by Roadway Functional Classification



Serious Injury Rate by Roadway Functional Classification

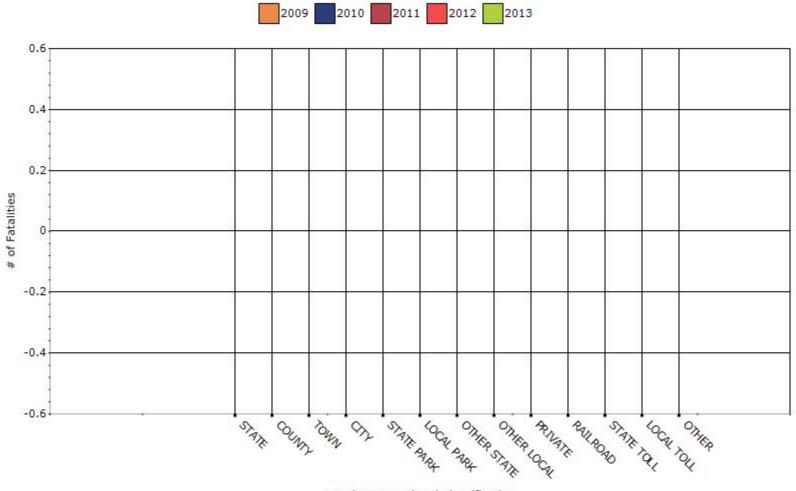


Roadway Functional Classification

Year - 2013

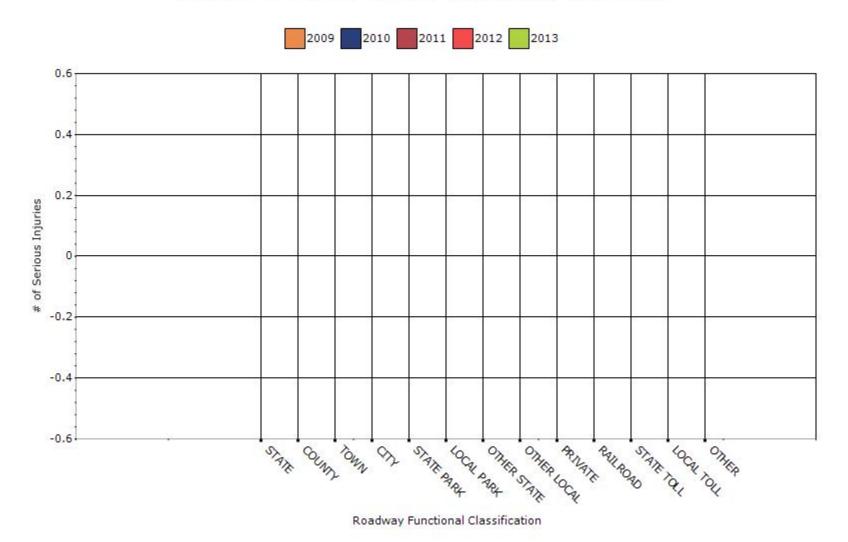
Roadway Ownership	Number of fatalities	Number of serious injuries	Fatality rate (per HMVMT)	Serious injury rate (per HMVMT)
STATE HIGHWAY AGENCY	0	0	0	0
COUNTY HIGHWAY AGENCY	0	0	0	0
TOWN OR TOWNSHIP HIGHWAY AGENCY	0	0	0	0
CITY OF MUNICIPAL HIGHWAY AGENCY	0	0	0	0
STATE PARK, FOREST, OR RESERVATION AGENCY	0	0	0	0
LOCAL PARK, FOREST OR RESERVATION AGENCY	0	0	0	0
OTHER STATE AGENCY	0	0	0	0
OTHER LOCAL AGENCY	0	0	0	0
PRIVATE (OTHER THAN RAILROAD)	0	0	0	0
RAILROAD	0	0	0	0
STATE TOLL AUTHORITY	0	0	0	0
LOCAL TOLL AUTHORITY	0	0	0	0
OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)	0	0	0	0

Number of Fatalities by Roadway Ownership

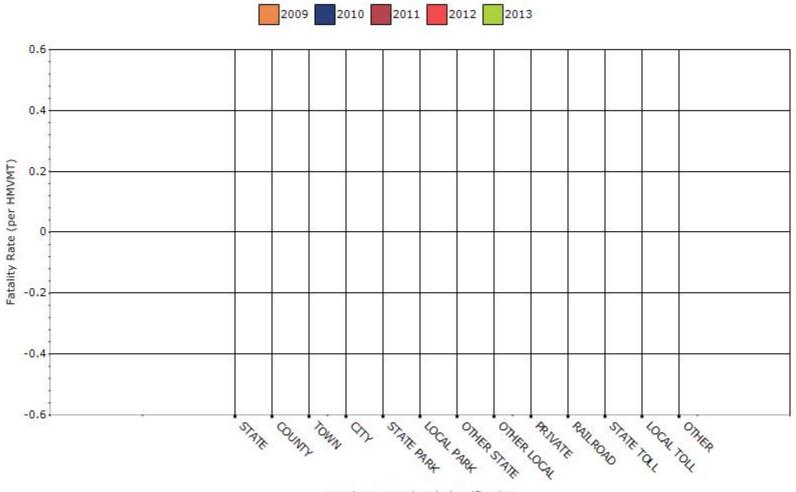


Roadway Functional Classification

Number of Serious Injuries by Roadway Ownership

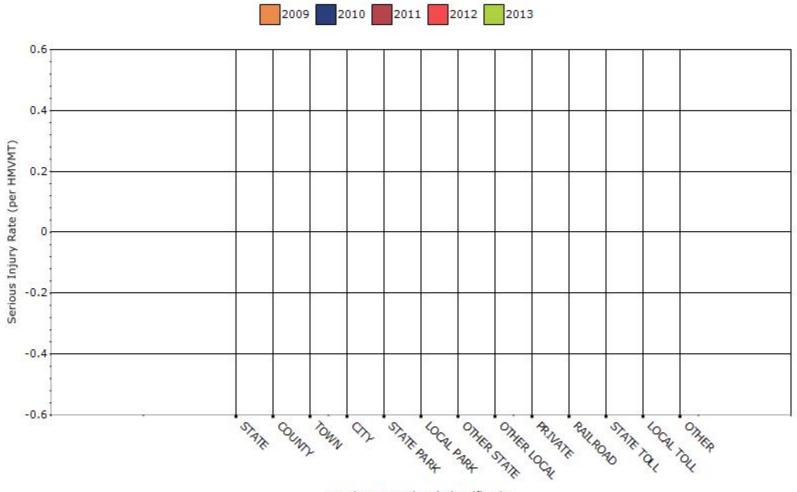


Fatality Rate by Roadway Ownership



Roadway Functional Classification

Serious Injury Rate by Roadway Ownership



Roadway Functional Classification

2014 Delaware

Urban vs. rural crash data by functional classification is not readily available at this time; therefore, functional classifications that combine urban and rural are shown. Additionally, crash data by roadway ownership is not readily available for this reporting period and is not provided. At the time of reporting, annual vehicle miles traveled data is unavailable for calendar year 2013. As such, 2013 crash rates were calculated based on 2012 VMT values. If needed, please see attached spreadsheet for the crash data.

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

As shown, the number of fatalities and serious injuries (based on 5-year rolling averages) per year have declined each year since 2009, with the exception of serious injuries in 2010, which increased slightly from the serious injuries reported for 2009. Statewide vehicle miles traveled (VMT; based on 5-year rolling averages) gradually decreased from 2008 to 2012; however, remained relatively the same in 2011 and 2012 (2013 VMT data is unavailable at the time of reporting). Fatality and serious injuries per VMT followed similar trends as described above. Similar to statewide trends, fatality and serious injury rates by functional classification generally declined or remained relatively the same from 2009 to 2013. The raw number of fatalities and serious injuries per year for the State of Delaware are relatively low; therefore, there is greater potential for larger fluctuations in fatality rates and serious injury rates as compared to other states and national rates, even though the raw number of fatalities and serious injuries may only differ by a few on a year-to-year basis.

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)	0.11	0.1	0.09	0.09	0
Serious injury rate (per capita)	0.5	0.35	0.33	0.3	0
Fatality and serious injury rate (per capita)	0.46	0.45	0.42	0.39	0

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

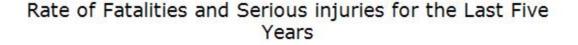
Sample calculation methodology is provided below for fatality and serious injury rates (per capita). Similar calculations were used for individual fatality and serious injury rates. The number of fatalities reported are according to *NHTSA's Fatality Analysis Reporting System* (FARS) and the number of serious injuries reported are according to Delaware's Crash Analysis Reporting System (CARS). At the time of reporting, 2013 data has not been published by FARS. As such, 2013 values are omitted.

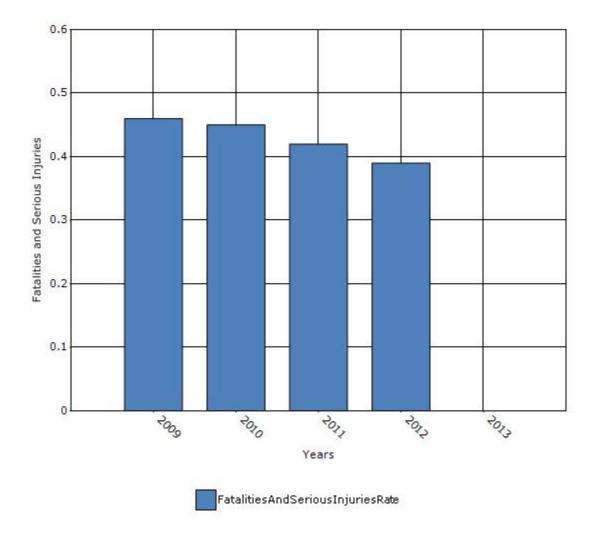
2009 Rate: [(# 2009 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2009 Population Figure*) + (# 2008 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2008 Population Figure*) + (# 2007 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2007 Population Figure*) + (# 2006 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2007 Population Figure*) + (# 2006 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2006 Population Figure*)]/4

Please note that FHWA's Online Reporting Tool (ORT) automatically calculates the 5-year rolling average based upon yearly inputs; however, 2005 data for serious injuries involving older drivers and pedestrians is not currently available in Delaware's crash database. As such, the reported 5-year rolling average for 2009 (fatality and serious injury rate) is inaccurately being reported as 0.34 compared to the correct value of 0.46.

2010 Rate (similar calculations used for 2011 and 2012 rates): [(# 2010 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2010 Population Figure*) + (# 2009 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2009 Population Figure*) + (# 2008 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2008 Population Figure*) + (# 2007 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2007 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2007 Population Figure*) + (# 2006 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2007 Population Figure*) + (# 2006 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2007 Population Figure*) + (# 2006 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2007 Population Figure*) + (# 2006 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2007 Population Figure*) + (# 2006 Fatalities and Serious Injuries of Drivers and Pedestrians 65 years of age and older/2006 Population Figure*)]/5

* Number of People 65 Years of Age and Older (per 1,000 Total Population) per Attachment 2 from *FHWA's Older Drivers and Pedestrians Special Rule Interim Guidance (2/13/13)* accessed July 2014.





At the time of reporting, annual vehicle miles traveled data is unavailable for calendar year 2013. As such, 2013 crash rates were calculated based on 2012 VMT values. Please note that FHWA's Online Reporting Tool (ORT) automatically calculates the 5-year rolling average based upon yearly inputs; however, 2005 data for serious injuries is not currently available in Delaware's crash database for the reported emphasis areas. As such, the reported 5-year rolling averages for 2009 were manually edited to reflect a 4-year rolling average. Additionally, population data for 2013 is not published; therefore, 5-year rolling averages for 2013 are omitted. If needed, please see attached spreadsheet for the crash data.

Does the older driver special rule apply to your state?

No

Assessment of the Effectiveness of the Improvements (Program

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

None

Benefit/cost

Policy change

Other: Other-Fatality rates have declined over the years

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.

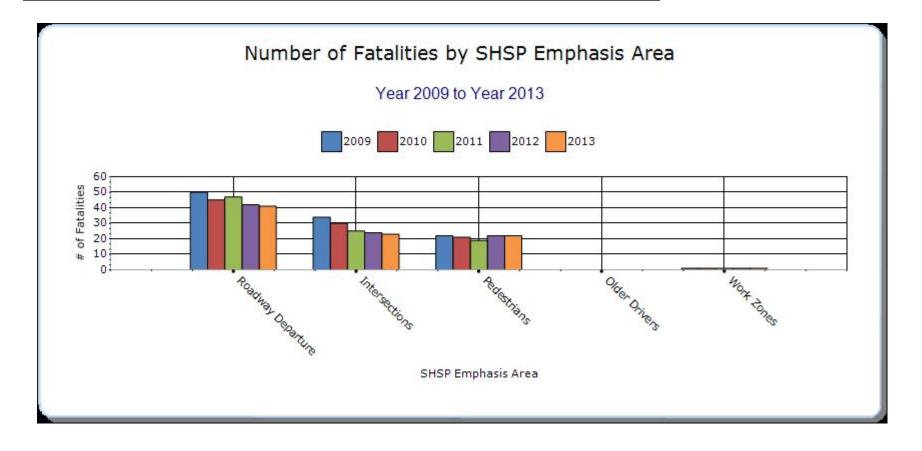
None for this reporting period.

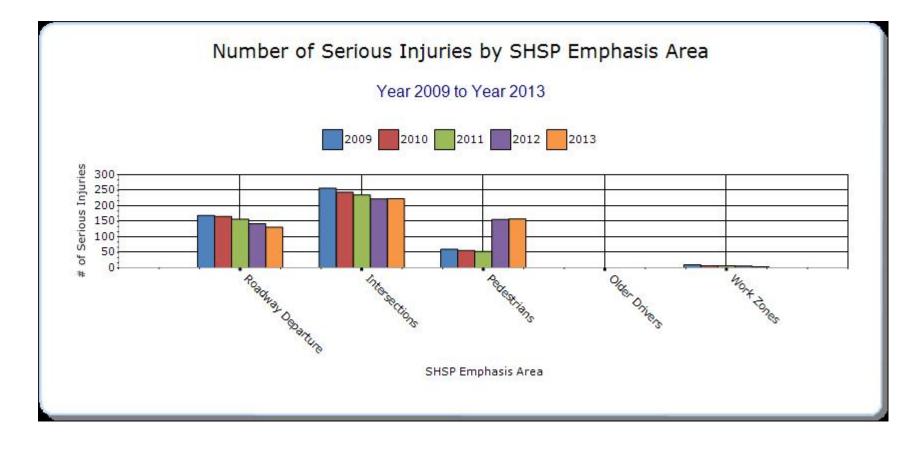
SHSP Emphasis Areas

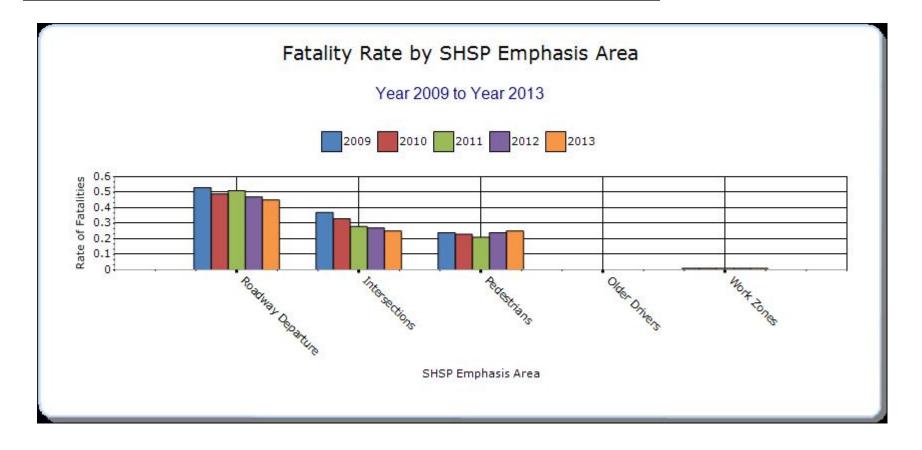
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

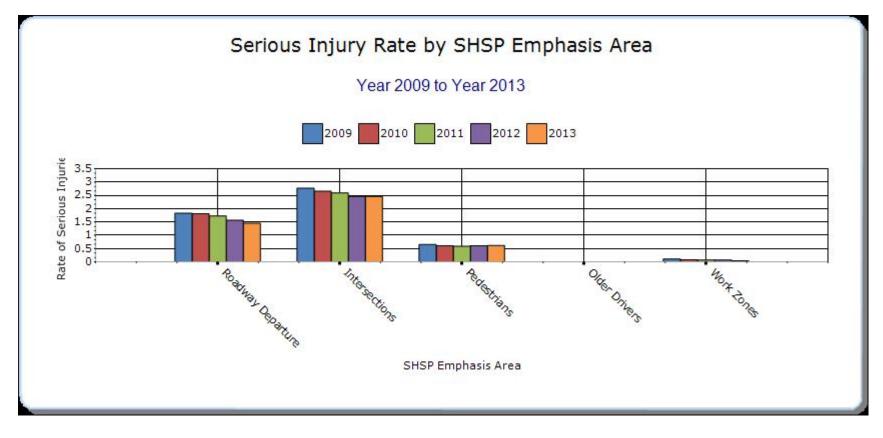
Year - 2013

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		41	131	0.45	1.45	0	0	0
Intersections		23	223	0.25	2.46	0	0	0
Pedestrians		22	158	0.25	0.62	0	0	0
Work Zones		1	4	0.01	0.04	0	0	0









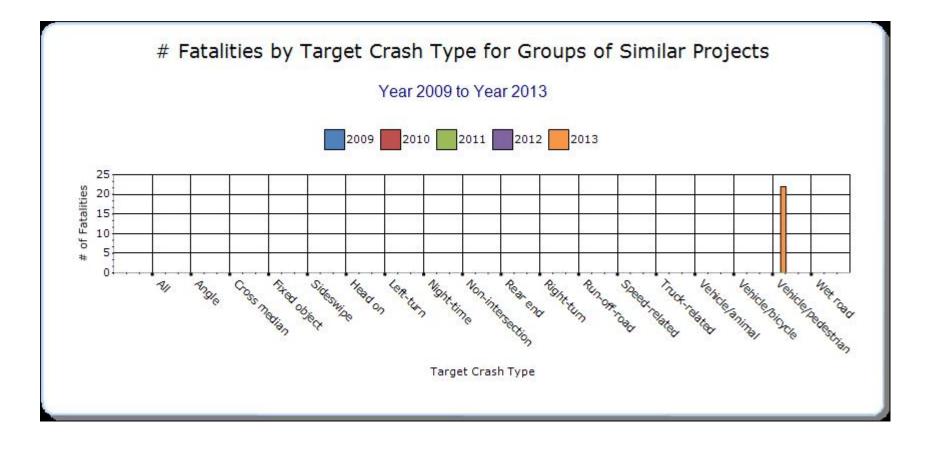
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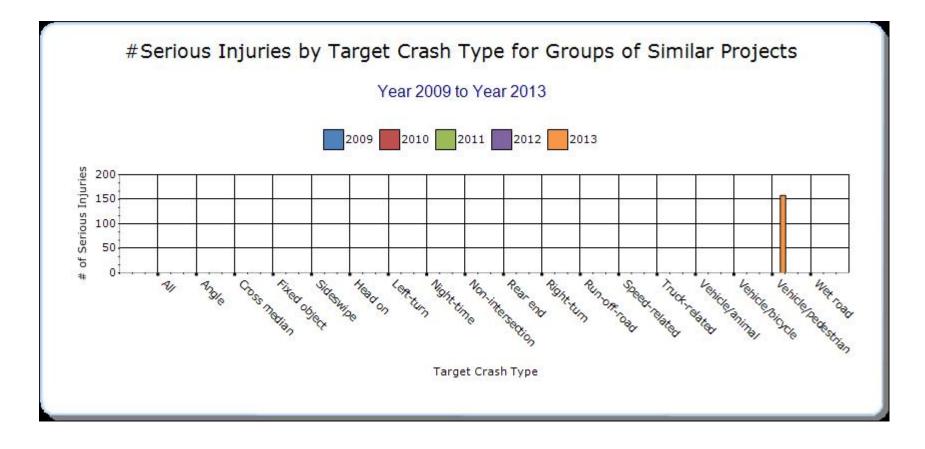
Groups of similar project types

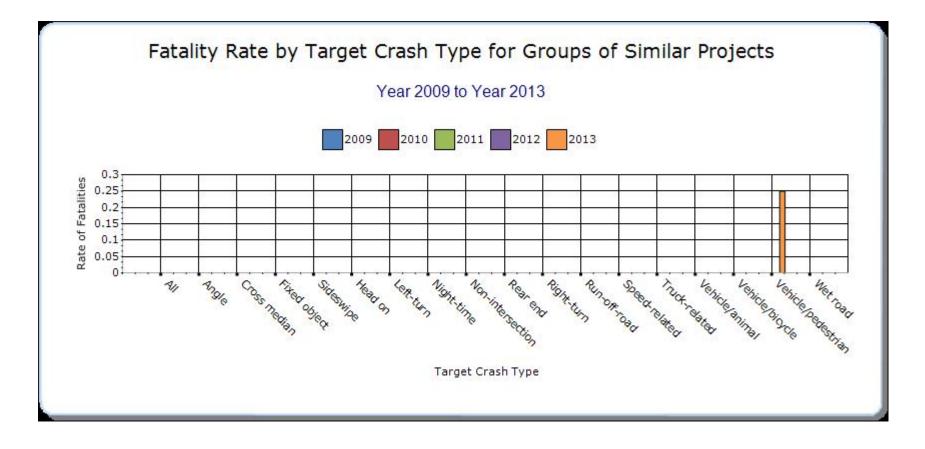
Present the overall effectiveness of groups of similar types of projects.

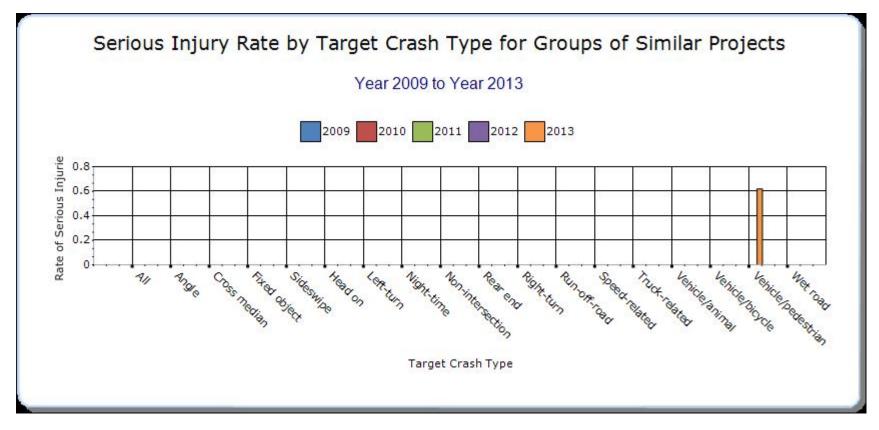
Year - 2013

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
Pedestrian Safety	Vehicle/pedestrian	22	158	0.25	0.62	0	0	0









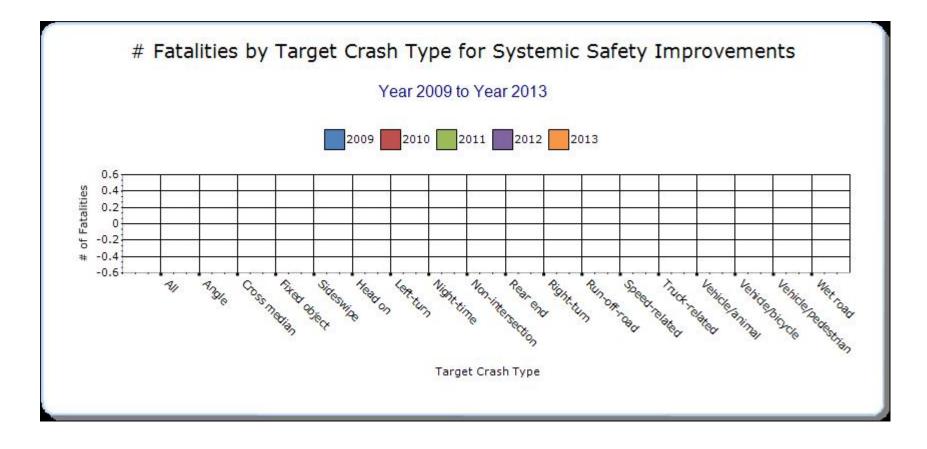
Refer to Question #24 for general safety performance measures for the segment (i.e., Hazard Elimination Program) subprogram. Refer to Question #32 for performance measures for Pedestrian Safety.

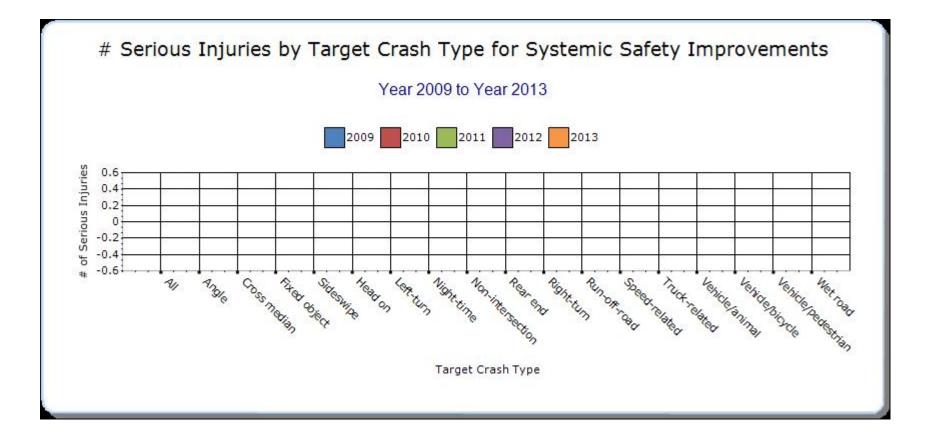
Systemic Treatments

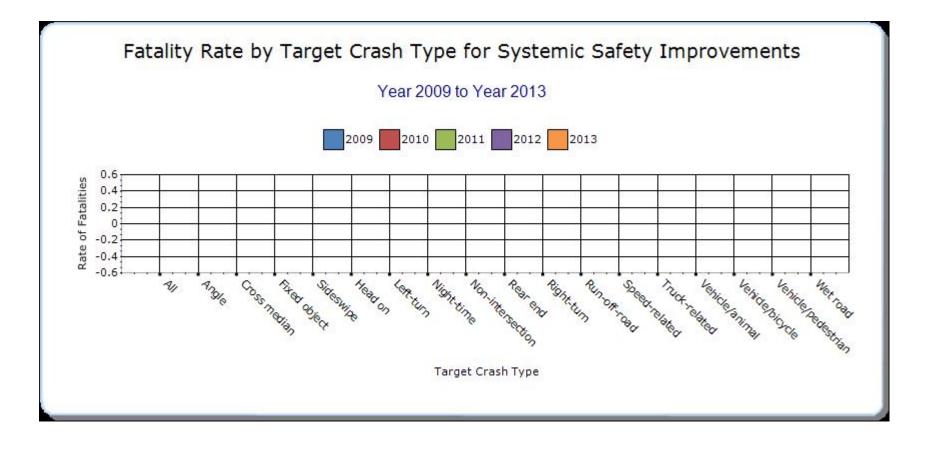
Present the overall effectiveness of systemic treatments.

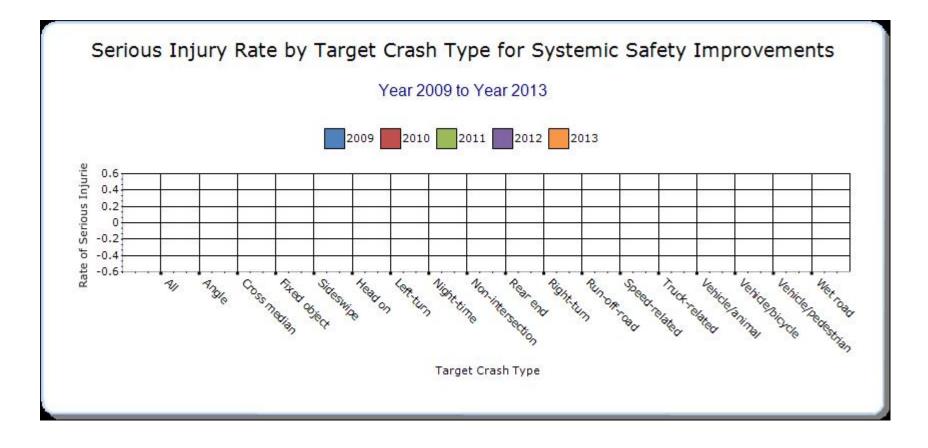
Year - 2013

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
Other-Systemic Programs are in development.	Systemic Programs in Development	0	0	0	0	0	0	0









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

No elaboration at this time.

2014 Delaware

Provide project evaluation data for completed projects (optional).

Location	Functional	Improvement	Improvement	Bef-	Bef-	Bef-	Bef-	Bef-	Aft-	Aft-	Aft-	Aft-	Aft-	Evaluation
	Class	Category	Туре	Fatal	Serious	Other	PDO	Total	Fatal	Serious	Other	PDO	Total	Results
					Injury	Injury				Injury	Injury			(Benefit/
														Cost Ratio)
N/A														

Optional Attachments

Sections	Files Attached
Program Structure: Program Methodology	2014 HSIP Annual Report HEP Site Selection.pdf
Progress in Implementing Projects: General Listing of Projects	HSIP_Q23 DE.xlsx
Progress in Achieving Safety Performance Targets: Overview of General Safety Trends	HSIP_Q24 DE.xlsx
Progress in Achieving Safety Performance Targets: Overview of General Safety Trends	HSIP_Q25 DE.xlsx
Progress in Achieving Safety Performance Targets: Application of Special Rules	HSIP_Q27_DE (Older Driver Special Rule).xlsx
Assessment of the Effectiveness of the Improvements (Program Evaluation): SHSP Emphasis Areas	HSIP_Q32_DE (SHSP Emphasis Areas).xlsx

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 noninfrastructure 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.