OHIO

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2018 ANNUAL REPORT

U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

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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.”

Executive Summary

Traffic deaths and crashes across Ohio have been rising as the statewide economy continues to improve. In 2017, Ohio had 1,180 traffic deaths and 8,763 serious injuries, representing a 4% increase in fatalities and a 5.0% decrease in serious injuries compared to 2016. While deaths rose across all crash categories, last year Ohio saw increases in deaths involving Older Drivers, Distracted Drivers, and Non-seatbelt usage.

Ohio's safest year in history was 2013 when the state dropped below 1,000 traffic deaths for the first time since it began collecting records in 1935. However, traffic deaths rose 2% in 2014, 10% in 2015 and 2% in 2016 and 4% last year. Although the top common factors in these crashes have long been roadway departure, speed, alcohol, seatbelts and young drivers, over the past four years the state has seen a rise in the number of deaths involving pedestrians, older and distracted drivers.

To respond to these trends, Ohio's Strategic Highway Safety Plan Steering Committee has moved from quarterly to bi-monthly meetings, and now communicates via email on a bi-weekly basis to share crash trend information and discuss strategies and investments. The committee includes members from 15 key safety organizations operating at the local, state and federal level including: Ohio County Engineers Association; Ohio Association of Regional Councils; Ohio Department of Public Safety; Federal Highway Administration; Ohio State Highway Patrol; Federal Motor Carrier Administration; and Ohio Department of Health. These organizations then feed the information to a network of hundreds of other stakeholders who are getting more actively involved in the SHSP.

Below is a summary of the state's enhanced and coordinated efforts to address the increase in crashes statewide.

Ohio Launches Action Teams to Address Emerging Crash Trends

Active Transportation Team
Ohio's Active Transportation Plan is in its fourth year of implementation. As a result, the department has increased its investments in data collection projects to quantify the amount of bicycle and pedestrian travel across the state. This data will help ODOT and its partners better pinpoint where travel is occurring so we can collectively target our pedestrian and bicycle infrastructure investments.

In 2017, ODOT and the Ohio Department of Health launched the state's first Active Transportation educational program. "Your Move Ohio" is a statewide campaign to educate the public on the rules of the road and encourage more Ohioans to walk, bike and bus safely. ODOT is continuing the campaign in 2018, but with a focus on pedestrian safety. The campaign is a mix of paid advertising, public relations and social media. The goal is to reach as many Ohio motorists as possible to reduce the number of pedestrian fatalities in the Buckeye State.

Older Road User Action Team
Ohio's Older Road User Action Team is in its third year of action plan development and implementation. The team is working on implementation of several critical strategies including: reviewing national licensing standards and best practices; strengthening the assessment process to evaluate a driver's ability to drive safely; and increasing the knowledge of medical providers, law enforcement and licensing personnel on the recognition, assessment, and reporting of older at-risk drivers.

So far in 2018, the team has successfully launched a statewide education campaign to raise awareness for how aging can affect our ability to drive. The goal is to educate older Ohioans, families, friends and caregivers about the signs of declining safe driving skills — either due to normal aging or a medical condition; resources available to evaluate safe driving skills; and how to plan for retirement from driving.

The BMV is revising its reporting forms to make it easier for law enforcement and medical professionals to report concerns once they are identified. And the team is developing an educational video for law enforcement officers.

Distracted Driver Task Force
Last year marked Ohio's fourth consecutive year of rising traffic deaths (1,180 in 2017). There is little doubt that distracted driving is playing a role.

To address this concern, ODOT and the Ohio Department of Public Safety launched a task force in June 2018 to analyze the problem and make recommendations. Recommendations will be completed by the end of this year and provided to the incoming gubernatorial administration.

Other states, including Oregon, Illinois, and Michigan have launched similar task force structures to bring together key stakeholders to examine this growing problem. The task force will meet three to four times in 2018 to exchange information, and develop policy and program recommendations. The task force includes law enforcement, advocates, research institutions and educators.

Driver Education SHSP Committee
In 2018, ODOT and its partners created a Strategic Highway Safety Plan Education Committee to review traffic safety education in the state, including driver education curriculum and public outreach. The committee will be asked to review the current state of practice and make recommendations on how we can modernize and improve driver and public education by the end of this year. The deadline coincides with a statewide review of driver education curriculum, which is underway at the Ohio Department of Public Safety.

The committee will meet three to four times in 2018 to identify which topics are the most critical to driver and public education, and how those topics should be communicated. The committee's input will be used to develop simple, user friendly materials that can be communicated across multiple platforms.

Increased Public and Stakeholder Engagement

Freeway and Portable Message Signs
Since 2015, Ohio has been using its Freeway and Portable Message Signs to post safety messages and the number of traffic deaths on Ohio roads. The state leverages the message boards with a bi-weekly email to SHSP stakeholders that encourages organizations to use and share the same coordinated message.

ODOT posts messages every other week, and the messages are synced to the communication calendar published by the National Highway Traffic Safety Administration. Messages are selected, and sometimes developed, by a committee from ODOT, the Ohio Department of Public Safety, Federal Highway Administration and Ohio State Highway Patrol.

In September 2017, Ohio launched a website to support this effort, which allows the public to develop and submit safety messages that support SHSP emphasis areas. The winners are selected by the statewide committee and publicized to further incentivize the effort and spread information.

Increased Local Government Engagement
ODOT has identified a full-time position to develop a Local Road Safety Program for Ohio. The program is intended to help facilitate and streamline the delivery of Highway Safety Program resources to local and regional planning organizations across the state.

The need for this locally focused effort has never been more important. More than half of all crashes in Ohio occur on locally maintained roads. Yet, it can be difficult to get resources and funding down to the local level because many entities lack the resources to analyze crash patterns, develop solutions and apply for safety improvement funds.

The program will focus on promoting priority safety lists and providing the technical assistance needed to help local governments apply for HSIP funds.

As shown in some of the examples above, there are many infrastructure treatments that are now resulting from the different task forces and committee ideas that have been shared. The Highway Safety Improvement Program (HSIP) funded infrastructure projects are continually advancing to support these efforts.

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 Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

Program Structure

Program Administration

Describe the general structure of the HSIP in the State.

ODOT has established the Highway Safety Improvement Program to create a process which emphasizes safety of the traveling public by analyzing the crash statistics on Ohio's state and local highway system. The Department utilizes AASHTOWare Safety Analyst to identify intersections and highway sections with the potential for safety improvement. Each of the 12 District Safety Review Teams (DSRT) reviews these prioritized locations as part of a Safety Annual Work Plan (SAWP) and accepts the plan. In addition, the Districts perform safety studies to determine the causes of crashes at locations. The DSRT strives to identify crash patterns and recommend countermeasures to reduce the severity and long-term average frequency of crashes.

Safety projects are not limited to the state highway system. Proposed local projects on public roads are also evaluated and prioritized to improve safety as outlined in the application and selection process. These projects are reviewed and approved by the DSRT.

Upon recommendation from the District Safety Review Teams, eligible projects are submitted to ODOT Central Office for funding consideration, and evaluated and prioritized based on uniform and objective criteria. Projects which contribute most to improving safety and reducing the severity and long-term average frequency of crashes are considered for funding and further development. Twice a year, a listing of all newly approved safety projects is produced.

The Highway Safety Improvement Program historically receives approximately $100 million annually of combined Federal and State funding. The actual level of funding designated for the program is determined by the Funds Management Committee and the Director, and is contingent on available state and federal revenues. The funding is used to implement countermeasures at identified crash locations on Ohio's roadways to ensure safety is the primary consideration in the design, development, and operation of this program.

Where is HSIP staff located within the State DOT?

Planning

Enter additional comments here to clarify your response for this question or add supporting information.

How are HSIP funds allocated in a State?

2018 Ohio Highway Safety Improvement Program

Central Office via Statewide Competitive Application Process
Other-Direct Sub-Allocation to CEAO

Enter additional comments here to clarify your response for this question or add supporting information.

Describe how local and tribal roads are addressed as part of HSIP.

Local governments can qualify for funding and technical assistance to address SHSP emphasis areas and prioritized safety locations through the HSIP programs administered by ODOT ($100M annually), the County Engineers Association ($12M annually) and Local Technical Assistance Program ($2M).

Local Road Safety Initiative
To encourage local governments to apply for these funds, ODOT recently launched a Local Road Safety Initiative to facilitate and streamline the delivery of HSIP resources to local and regional planning organizations across the state. It can be difficult to get resources and funding down to the local level because many entities lack the resources to analyze crash patterns, develop solutions and apply for safety improvement funds.

To jump-start this new program, ODOT created a position to manage this effort and set goals to increase the number of locally sponsored projects developed through the ODOT administered Highway Safety Improvement Program. ODOT is providing a pool of consultants to assist planning organizations and local governments with completing Road Safety Audits and safety studies needed to apply for HSIP funds. Additionally, we have hired two consultants to assist county engineers and other local officials in developing Local Road Safety Plans. The program is intended to identify a region's safety needs for the local road system and recommend safety improvements that could be funded through the Highway Safety Improvement Program. We have hired a consultant to assist ODOT in conducting systemic safety analyses and countermeasure identification for the local road network.

CEAO Safety Program
ODOT also works with the Ohio County Engineers Association to administer a separate safety program ($12 million of HSIP funds) dedicated to making improvements on county-maintained roads. This funding can be used to make spot and systemic improvements tied to the SHSP. Applications are accepted once a year by CEAO and scored using criteria developed in conjunction with ODOT.

CEAO subdivides the $12 million in to several smaller funding categories. Each county is permitted to program eligible construction projects up to $5 million overall for spot safety improvements. In addition to spot safety improvements, CEAO provides up to $300,000 per county for each guardrail project, $150,000 per county for each pavement marking project, $75,000 per county for each raised pavement marker project, and $15,000 per county for curve signage upgrade projects.

Township Sign Grants
ODOT also sets aside $2M annually to upgrade safety-related signs on township roads. The grants are administered by LTAP.

This program was developed to address intersection and curve systematic signage upgrades for townships with a high number of severe crashes. The top 100 townships (for severe crashes) are invited to apply each year. Funding is capped at $50,000 for any one township. Funding is provided at 100% so no local matching funds are required. Township or county forces install the signs at their own cost.

Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.

Design
Planning
Maintenance
Operations
Districts/Regions
Local Aid Programs Office/Division
Other-Local Technical Assistance Program (LTAP)

Enter additional comments here to clarify your response for this question or add supporting information.

Describe coordination with internal partners.

ODOT's Office of Program Management accepts applications – accompanied by safety studies – from ODOT District Offices and local governments twice a year. Applications must be submitted through the District Offices, which have a multi-disciplinary committee that reviews and approves them for Central Office consideration. Projects are then reviewed and selected for funding by the Safety Review Committee in Central Office, which includes expertise in safety, planning, geometric design, and traffic operations.

Priority is given to any project that improves safety at a roadway location with high frequency, severity and rate of crashes. Projects are scored based on:

- Expected Crash Frequency
- Ratio of Observed Fatal and Serious Injuries to Observed Total Crashes
- Relative Severity Index
- Equivalent Property Damage Only Index
- Volume to Capacity Ratio
- Benefit-Cost Ratio (anticipated savings in crash costs, property damage, injuries and fatalities relative to the cost of the improvement plus cost of maintenance for the life of the project).
- Highway Safety Improvement Program Funding Percentage

Funding awarded through the program is used to make traditional safety improvements at spot locations, such as intersections, and along sections or corridors throughout the state. Consideration is also given to lower-volume, lower-crash local roads with identified needs and cost-effective countermeasures.

Identify which external partners are involved with HSIP planning.

Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
Governors Highway Safety Office
Local Government Agency
Law Enforcement Agency
FHWA

Enter additional comments here to clarify your response for this question or add supporting information.

Describe coordination with external partners.

SHSP Steering Committee
Ohio's SHSP Steering Committee represents the state's largest coordination effort with external partners. The committee includes members from 15 key safety organizations operating at the local, state and federal level including: Ohio County Engineers Association; Local Transportation Assistance Program, Ohio Association of Regional Councils (MPOs and RTPOs); Ohio Department of Public Safety; Ohio State Highway Patrol; Federal Highway Administration; Ohio State Highway Patrol; Federal Motor Carrier Administration; and Ohio Department of Health. These organizations then feed the information to a network of hundreds of other stakeholders who are getting more actively involved in the SHSP and helping to guide ODOT's HSIP efforts.

MPO/RTPO Pilot Project
Ohio is piloting a program with the state's MPOs and RTPOs to get more local governments involved in the HSIP. In 2017, Ohio formed a working group tasked with developing a process to provide more safety analysis assistance to local governments. Many MPOs and RTPOs publish prioritize safety lists, however, too few local governments use this analysis to conduct reviews, make recommendations and apply for HSIP funding. This collaborative project seeks to close that gap. In August 2018, the working group started the process of assigning consultants to MPOs and RTPOs to assist in this process.

SHSP Task Forces and Committees
ODOT is currently managing four special task forces or committees that are reviewing, making recommendations and implementing strategies associated with preventing Pedestrian, Older Driver and Distracted Driving deaths. A fourth committee has been established to review driver education curriculum and make recommendations on how we can modernize and improve driver and public education by the end of 2018. More detail can be found in the executive summary.

Local Road Safety Program
ODOT has identified a full-time position to develop a Local Road Safety Program for Ohio. The program is intended to help facilitate and streamline the delivery of Highway Safety Program resources to local and regional planning organizations across the state.

The need for this locally focused effort has never been more important. More than half of all crashes in Ohio occur on locally maintained roads. Yet, it can be difficult to get resources and funding down to the local level because many entities lack the resources to analyze crash patterns, develop solutions and apply for safety improvement funds.

The program will focus on promoting priority safety lists and providing the technical assistance needed to help local governments apply for HSIP funds.

Have any program administration practices used to implement the HSIP changed since the last reporting period?

No

Are there any other aspects of HSIP Administration on which the State would like to elaborate?

Yes

Describe other aspects of HSIP Administration on which the State would like to elaborate.

Ohio uses a focused approach to safety that targets resources based on the greatest need and greatest opportunity for improvements. We also promote the use of proven, cost-effective, systemic and systematic safety solutions that target critical, severe-crash types such roadway departure and intersections crashes. These focus areas are embodied in both the HSIP and the state's Strategic Highway Safety Plan.

We advanced the HSIP through the balanced deployment and implementation of a host of traditional spot safety investments and a host of systemic and systematic safety investments.

ODOT's Highway Safety Improvement Program and Safety Analyst Implementation

Each year, ODOT staff reviews the top safety locations in Ohio. Ohio is one of the first states in the country to fully implement Safety Analyst and use it to prioritize safety locations across Ohio. Safety Analyst uses state-of-the-art statistical methodologies to identify roadway locations and safety improvements with the highest potential for reducing crashes. The software systems flags spot locations and road segments that have higher-than-predicted crash frequencies. It also flags locations for review based on crash severity. This methodology is more efficient and cost effective and will allow the department to study fewer locations yet address more crashes each year.

ODOT has developed six priority lists based on rural and urban roadway types. . The urban system covers all streets, roads, and highways located within urban boundaries designated by the U.S. Census Bureau. The Bureau defines two types of urban areas based on population. Small urban areas are urban places with a population or 5,000 or more and not located within any urbanized area. An urbanized area is an area with a population of 50,000 or more. As might be expected, the rural functional classification system covers all other streets, roads, and highways that are not located within the boundaries of small urban and urbanized areas. Approximately, $80 million is used to fund projects through this program.

The priority lists are:

1. Rural Intersection Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted crash frequency for each intersection. Approximately, the Top 50 locations will be studied.
2. Rural Non-Freeway Peak Searching Excess Segment Locations: These locations were selected because they have a higher-than-predicted crash frequency for this roadway type. Approximately, the Top 50 locations will be studied. Only crashes indicated on the OH-1 crash report form as being non-intersection crashes were included in this analysis.
3. Rural Freeway Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted crash frequency for this roadway type or interchange location. Approximately, the Top 50 locations will be studied.
4. Urban Intersection Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for each intersection. Approximately, the Top 50 locations will be studied.
5. Urban Non-Freeway Peak Searching Excess Segment Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for this roadway type. Approximately, the Top 50 locations will be studied. Only crashes indicated on the OH-1 crash report form as being non-intersection crashes were included in this analysis.

6. Urban Freeway Peak Searching Excess Locations: These locations were selected because they have a higher-than-predicted fatal and injury crash frequency for this roadway type or interchange location. Approximately, the Top 50 locations will be studied.

Highway Safety Improvement Program Abbreviated Application

In 2017, ODOT continued a process that was initialized in 2016 to implement low cost safety improvements faster. These requests are less than $500,000 that are either standalone projects or existing projects located on a priority location. This is part of an initiative to make safety improvements on all programmed projects. We anticipate spending approximately $5 million annually for these types of improvements.

Systemic and Systematic Safety Program
The Ohio Department of Transportation spends approximately $15 million annually of the $102 million program on systemic and systematic safety improvements. These are safety improvements that can be installed across hundreds of road miles for a relatively small public investment. Systematic safety improvements are low cost improvements that are complete at similar locations to address a specific type of crash pattern. Systemic safety improvements are those improvements that are constructed system-wide to reduce the likelihood of a crash of occurring based on roadway features, traffic volumes or other features such as speed limit or land use type.

Examples of systemic and systematic project types are Curve Signing Upgrade, Edge Line Rumble Stripes, Cable Barrier, Signal Upgrade, Intersection Signing Upgrade, Wider Pavement Markings, and Guardrail End Treatment Upgrade Projects.

Safe Routes to School Program
ODOT's use $4 million from the Transportation Alternatives Program to fund Ohio's Safe Routes to School Program. Again, this is separate and in addition to the $102 million ODOT HSIP program. Funds can be used on any public roadway as long as the school has completed a School Travel Plan. The School Travel Plan outlines where investments should be made for a specific school district.

Other Programs
Small portions of ODOT's state funding ($102 million) are used for work zone enforcement, OVI checkpoints, and other educational opportunities (Federal HSIP funding is no longer available for education or enforcement activities). Although money is not specifically set aside for the High Risk Rural Roads Program in Ohio at this time, we still encourage agencies to apply for funding through our traditional application process. Any projects that are prioritized based on the HRRR Program are funded through the ODOT's HSIP Program ($102 million).

ODOT also combines HSIP funding with other funding sources (such as MPO and ORDC) to make safety improvements.

Program Methodology

Does the State have an HSIP manual or similar that clearly describes HSIP planning, implementation and evaluation processes?

Yes

To upload a copy of the State processes, attach files below.

File Name:
Highway Safety Improvement Program Guidance.pdf
HSIP Procedures Manual.pdf

2018 Ohio Highway Safety Improvement Program
Safety Study Guidelines.pdf

Select the programs that are administered under the HSIP.

Other-State HSIP Program
Other-CEAO HSIP Program
Other-State High Risk Rural Road
Other-State Abbreviated HSIP Application

Enter additional comments here to clarify your response for this question or add supporting information.

Program:	Other-State HSIP Program
Date of Program Methodology:	3/1/2016

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area

What is the funding approach for this program? [Check one]

Competes with all projects

What data types were used in the program methodology? [Check all that apply]

Crashes	Exposure	Roadway
All crashes	Traffic	
Fatal and serious injury crashes only	Volume	

What project identification methodology was used for this program? [Check all that apply]

Expected crash frequency with EB adjustment
EPDO crash frequency with EB adjustment
Relative severity index
Excess expected crash frequency with the EB adjustment
Other-Volume to Capacity Ratio
Other-(Total Fatal and Serious Inuries) / Total Crashes

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

Yes

Are local road projects identified using the same methodology as state roads?

Yes

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program advanced for implementation?

Competitive application process
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 : 1
Available funding : 3
Cost Effectiveness : 2

Program: Other-CEAO HSIP Program

Date of Program Methodology: 7/1/2011

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area

What is the funding approach for this program? [Check one]

Funding set-aside

What data types were used in the program methodology? [Check all that apply]

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Traffic	Other-Rural County Highway System

What project identification methodology was used for this program? [Check all that apply]

Crash frequency
Equivalent property damage only (EPDO Crash frequency)
Relative severity index
Crash rate
Other-Amount of Funding Requested

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

Yes

Are local road projects identified using the same methodology as state roads?

Yes

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program advanced for implementation?

Competitive application process
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 : 1
Available funding : 3
Cost Effectiveness : 2

Program: Other-State High Risk Rural Road

Date of Program Methodology: 6/1/2008

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area

What is the funding approach for this program? [Check one]

Competes with all projects

What data types were used in the program methodology? [Check all that apply]

Crashes	Exposure	Roadway
Other-Fatal and All Injury Crashes Only	Volume	Functional classification

What project identification methodology was used for this program? [Check all that apply]

Expected crash frequency with EB adjustment
EPDO crash frequency with EB adjustment
Relative severity index
Excess expected crash frequency with the EB adjustment
Other-(Fatal and Serious Injuries) / Total Crashes

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

Yes

Are local road projects identified using the same methodology as state roads?

Yes

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program 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 : 1
Available funding : 3
Cost Effectiveness : 2

Program:	Other-State Abbreviated HSIP Application
Date of Program Methodology:	5/1/2016

What is the justification for this program? [Check all that apply]

Addresses SHSP priority or emphasis area

What is the funding approach for this program? [Check one]

Competes with all projects

What data types were used in the program methodology? [Check all that apply]

Crashes	Exposure	Roadway
All crashes Fatal and serious injury crashes only	Volume	

What project identification methodology was used for this program? [Check all that apply]

Crash frequency
Expected crash frequency with EB adjustment

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

Yes

Are local road projects identified using the same methodology as state roads?

Yes

Describe the methodology used to identify local road projects as part of this program.

How are projects under this program 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 : 1
Available funding : 3
Cost Effectiveness : 2

What percentage of HSIP funds address systemic improvements?

10.0

HSIP funds are used to address which of the following systemic improvements? Please check all that apply.

Cable Median Barriers
Upgrade Guard Rails

2018 Ohio Highway Safety Improvement Program
Add/Upgrade/Modify/Remove Traffic Signal
High friction surface treatment
Wrong way driving treatments

Enter additional comments here to clarify your response for this question or add supporting information.

What process is used to identify potential countermeasures? [Check all that apply]

Engineering Study
Road Safety Assessment
Crash data analysis
SHSP/Local road safety plan
Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)

Enter additional comments here to clarify your response for this question or add supporting information.

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

Describe how the State HSIP considers connected vehicles and ITS technologies.

ODOT safety staff participate in bi monthly meetings with the Autonomous Vehicle, Connected Vehicle and Transportation Systems Management & Operations (AV/CV TSMO) Group. Additionally, the Ohio HSIP Program has been supportive in ITS technologies historically. Example projects include the following: Freeway queue warning system with driver messages, freeway camera monitoring equipment, and ramp wrong way driver alert systems.

Does the State use the Highway Safety Manual to support HSIP efforts?

Yes

Please describe how the State uses the HSM to support HSIP efforts.

Ohio uses AASHTOWare Safety Analyst (Safety Analyst) to prioritize the roadway network within the state. Safety Analyst faithfully implements Part B of the Highway Safety Manual (HSM).

All projects submitting for State HSIP Program funds are required to complete a Part C analysis included in the HSM. Additionally, ODOT has developed policy guidance to implement HSM for all projects. The level of analysis varies depending on the complexity of the project. For smaller projects, basic crash analysis is required. This includes identifying if the location is a priority location and reviewing general observed crash

trends. For larger projects, Part C analysis is added as a requirement to understand the change in long term crash frequency. HSM analysis will be fully implemented in SFY 2019.

Have any program methodology practices used to implement the HSIP changed since the last reporting period?

No

Are there any other aspects of the HSIP methodology on which the State would like to elaborate?

No

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year

Enter additional comments here to clarify your response for this question or add supporting information.

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$124,919,479	$37,719,823	30.2%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$29,251,780	$29,251,780	100%
Penalty Funds (23 U.S.C. 164)	$40,688,476	$40,688,476	100%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$0	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$79,550,226	$19,814,501	24.91%
State and Local Funds	$59,044,948	$25,768,555	43.64%
Totals	$333,454,909	$153,243,135	45.96%

Enter additional comments here to clarify your response for this question or add supporting information.

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

27%

How much funding is obligated to local or tribal safety projects?

27%

Enter additional comments here to clarify your response for this question or add supporting information.

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

$2,340,836

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

$1,213,890

Enter additional comments here to clarify your response for this question or add supporting information.

Funding Programmed to Non-Infrastructure Safety Projects

$600,000 – Local Road Safety Plans
We have hired two consultants to assist county engineers and other local officials in developing Local Road Safety Plans. The program is intended to identify a region's safety needs for the local road system and recommend safety improvements that could be funded through the HIS Program.

$500,000 – Local Systemic Analysis
We have hired a consultant to assist ODOT in conducting systemic safety analyses and countermeasure identification for the local road network.

$26,946 - Statewide Pedestrian & Bicycle Design Guidance Best Practices Review
We hired a consultant to assist with this process.

Funding Obligated to Non-Infrastructure Safety Projects

$1,178,874 – LBRS Update
The purpose of this project is to collect missing road inventory data collected through our Location Based Response System for the State of Ohio. The project will finish the remaining counties that are missing from the system so we can have a reliable road inventory system on the state and local network. This non-infrastructure project involves collecting missing LBRS data, verify/update current LBRS datasets and incorporate LBRS data into the official ODOT Road Inventory (RIMS). The goal of this project is to complete the collection of MIRE Fundamental data elements for segments on the local system.

$35,016 – HSIP Project Evaluation
Consultant contract to develop a methodology for evaluating projects completed with Highway Safety Improvement Program funds. It will also apply the methodology to three years' worth of projects completed under the program.

How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

0%

How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?

0%

Enter additional comments here to clarify your response for this question or add supporting information.

Discuss impediments to obligating HSIP funds and plans to overcome this challenge in the future.

In FFY 2016, Ohio obligated 96.7% of its HSIP funds. For FFY 2017, Ohio has obligated approximately 30%. This decrease is due to making sure the penalty funds are first obligated before the HSIP Fast Act funds. The penalty funds are due to open container policies that have been instituted and repeat offender laws not being

in conformance with the Federal laws. We have taken note of this decrease and are working to make sure more projects are obligated using the HSIP funds.

Additionally, the obligation rate is also low in part due to Ohio's use of the Advance Construction (AC) financing method, as this type of authorization is not counted as an obligation of Federal funds until the AC funds are converted.

Does the State want to elaborate on any other aspects of it's progress in implementing HSIP projects?

Yes

Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

Ohio has had several instances over the past year where we had to use state funds to support enforcement and education programs that are no longer eligible for HSIP funding. All the projects are tied to the state's SHSP and emphasis areas that FHWA has encouraged us to address holistically using engaging engineering, enforcement, education, and emergency response (4 E's). Yet, we can't use federal funds to supplement the associated costs.

List the projects obligated using HSIP funds for the reporting period.

													RELATIONSHIP TO SHSP	
PROJECT NAME	**IMPROVEMENT CATEGORY**	**SUBCATEGORY**	**OUTPUTS**	**OUTPUT TYPE**	**HSIP PROJECT COST($)**	**TOTAL PROJECT COST($)**	**FUNDING CATEGORY**	**FUNCTIONAL CLASSIFICATION**	**AADT**	**SPEED**	**OWNERSHIP**	**METHOD FOR SITE SELECTION**	**EMPHASIS AREA**	**STRATEGY**
76938 - FAI US 33 05.60(Carroll Area)	Interchange design	Convert at-grade intersection to interchange	1	Interchanges	$6395969.28	$40375043.94	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural Principal Arterial (RPA) - Other Freeways and Expressways	40,140	60	State Highway Agency	Spot	Intersections	Constructing new interchange to reduce the number of intersection crashes
92747 - WOO US 20 4.63 Resurf/Bridge	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Approaches	$270000	$3733265.25	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	14,362	55	State Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end and left turn crashes
92895 - RIC SR 0097 06.01	Roadway	Roadway widening - travel lanes	0.68	Miles	$727487.38	$4116506.5	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Major Collector	8,308	45	State Highway Agency	Spot	Intersections	Constructing through traveled lanes to reduce congestion and queue related crashes
94749 - D08 Signals with ROW	Intersection traffic control	Modify traffic signal - modernization/replacement	10	Intersections	$1970910.88	$1970910.88	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	25,676	40	State Highway Agency	Systemic	Intersections	Improving signal operation and visibility to reduce intersection related crashes
96227 - MED IR 0071 24.02 (SR303 RmpClr)	Interchange design	Extend existing lane on ramp	0.2	Miles	$165240	$3010004.2	State and Local Funds	Urban Principal Arterial (UPA) - Interstate	53,331	65	State Highway Agency	Spot	Intersections	Extending ramp lengths to reduce the number of rear end crashes
97177 - BRO SR 125 9.47 Safety	Intersection geometry	Intersection geometrics - realignment to align offset cross streets	1	Intersections	$762699.48	$871563.85	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other	8,504	35	State Highway Agency	Spot	Intersections	Realign intersections to reduce angle and rear end crashes
98464 - D11-GR-FY2017	Roadside	Barrier- metal	12.15	Miles	$60082.12	$1576338.39	State and Local Funds	Rural Principal Arterial (RPA) - Other	0	55	State Highway Agency	Systemic	Roadway Departure	Installing guardrail to address issue of roadway departure crashes
100742 - POR SR 0044 14.86	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Approaches	$370679.19	$589456.31	HSIP (23 U.S.C. 148)	Urban Minor Arterial	7,844	45	State Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end and left turn crashes
101144 - D02 TSG FY2017	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	$189458.66	$314650.38	HSIP (23 U.S.C. 148)	Urban Minor Arterial	21,910	40	State Highway Agency	Spot	Intersections	Improving signal operation and visibility to reduce intersection related crashes
101844 - D06 Regional Pedestrian Signals	Pedestrians and bicyclists	Pedestrian beacons	390	Signal heads	$590822.64	$590822.64	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	0	35	State Highway Agency	Systemic	Pedestrians	Installation of pedestrian signal equipment
103814 - D10 FY2017 Type A GR Anchors	Roadside	Barrier end treatments (crash cushions, terminals)	8	Locations	$452583.13	$452583.13	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	14,698	55	State Highway Agency	Systemic	Roadway Departure	Installing guardrail end treatments to address issue of

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														roadway departure crashes
105000 - FRA IR 270 0.00/49.63 Cable	Roadside	Barrier - cable	6.15	Miles	$372414.06	$372414.06	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	73,463	65	State Highway Agency	Spot	Roadway Departure	Installing cable median barrier to reduce the likelihood of cross median crashes
83793 - LOR SR 0254 00.01	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0.42	Miles	$813472.26	$5932822.96	State and Local Funds	Urban Minor Arterial	12,310	35	City of Municipal Highway Agency	Spot	Intersections	Constructing a Two Way Left Turn Lane to reduce the number multiple vehicle crashes
85078 - SUM SR 0091 21.11	Intersection traffic control	Modify control - traffic signal to roundabout	1	Intersections	$639083.7	$5744729.58	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	10,688	35	State Highway Agency	Spot	Intersections	Constructing a roundabout to reduce angle and rear end crashes
88516 - FUL 20A/64 23.94/0.25 Resurf	Intersection traffic control	Modify traffic signal - modernization/replacement	2	Intersections	$1272006.03	$3378126.56	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural Minor Arterial	8,076	55	State Highway Agency	Spot	Intersections	Improving signal operation and visibility to reduce intersection related crashes
96167 - WOO Rossford SRTS Sdwlk/Sign	Pedestrians and bicyclists	Install sidewalk	0.22	Miles	$136657.05	$136657.05	HSIP (23 U.S.C. 148)	Urban Major Collector	0	45	Town or Township Highway Agency	Spot	Pedestrians	Installation of sidewalks
102271 - BRO 41-3.42_ROS 35 RampA_SCI 140	Roadway	Pavement surface - miscellaneous	5.32	Miles	$60516.67	$248511.35	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural Major Collector	1,628	45	State Highway Agency	Spot	Roadway Departure	Install pavement treatments to reduce roadway departure crashes
103678 - D04 GR FY2018A	Roadside	Barrier end treatments (crash cushions, terminals)	44	Locations	$314632.2	$314632.2	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	6,942	55	State Highway Agency	Systemic	Roadway Departure	Installing guardrail end treatments to address issue of roadway departure crashes
76266 - HOL US 62 26.06	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	0.45	Miles	$5547356.85	$6294001.02	HSIP (23 U.S.C. 148)	Rural Minor Arterial	9,034	25	State Highway Agency	Spot	Intersections	Constructing a Two Way Left Turn Lane to reduce the number multiple vehicle crashes
84620 - FRA IR 270 31.70 Part 1&2	Interchange design	Installation of new lane on ramp	1	Ramps	$4217264.96	$12593693.07	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Interstate	183,662	65	State Highway Agency	Spot	Intersections	Constructing through traveled lanes to reduce congestion and queue related crashes
85076 - SUM Cleve-Mass Road Phase 1	Roadway	Roadway widening - travel lanes	0.4	Miles	$284595.75	$2270534.62	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Minor Arterial	15,417	25	County Highway Agency	Spot	Intersections	Constructing through traveled lanes to reduce congestion and queue related crashes

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92528 - CUY IR 077/SR 082 02.82/11.59	Intersection traffic control	Modify traffic signal - modernization/replacement	2	Intersections	$1250000	$4385141	State and Local Funds	Urban Principal Arterial (UPA) - Interstate	72,808	60	City of Municipal Highway Agency	Spot	Intersections	Improving signal operation and visibility to reduce intersection related crashes
93794 - SCI SR 140 7.20 Safety	Shoulder treatments	Widen shoulder - paved or other	2	Curves	$867444.84	$1082822.85	HSIP (23 U.S.C. 148)	Rural Major Collector	4,066	45	State Highway Agency	Spot	Roadway Departure	Widening shoulder to address issue of roadway departure crashes
95706 - DEL Gemini Parkway Ext	Roadway	Roadway widening - add lane(s) along segment	0.06	Miles	$3000000	$12340039.36	State and Local Funds	Urban Minor Arterial	16,973	35	City of Municipal Highway Agency	Spot	Intersections	Constructing through traveled lanes to reduce congestion and queue related crashes
96355 - WOO SR 199 27.97 Roundabout	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	$1448311.03	$1864344.44	HSIP (23 U.S.C. 148)	Urban Minor Arterial	3,572	45	State Highway Agency	Spot	Intersections	Constructing a roundabout to reduce angle and rear end crashes
96496 - D10 General System GR FY2018	Roadside	Barrier end treatments (crash cushions, terminals)	10	Locations	$297214.11	$1026611.24	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural Principal Arterial (RPA) - Other	5,318	55	State Highway Agency	Systemic	Roadway Departure	Installing guardrail end treatments to address issue of roadway departure crashes
97167 - FRA SR 3 21.17	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Approaches	$833292.51	$1129596.19	HSIP (23 U.S.C. 148)	Urban Minor Arterial	17,442	45	City of Municipal Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end crashes
99435 - CUY SR 082 03.54 Safety	Intersection geometry	Intersection geometrics - re-assign existing lane use	1	Ramps	$1041917.48	$1173596.1	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	30,908	35	City of Municipal Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end crashes
99474 - SCI SR 104 11.96	Intersection geometry	Auxiliary lanes - add left-turn lane	2	Approaches	$1442389.15	$1463897.3	HSIP (23 U.S.C. 148)	Rural Major Collector	4,148	55	State Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end and left turn crashes
101003 - WOO SR 199 29.10 Carronade Rdabt	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	$790775.47	$1020493.94	HSIP (23 U.S.C. 148)	Urban Minor Arterial	10,522	45	State Highway Agency	Spot	Intersections	Constructing a roundabout to reduce angle and rear end crashes
101064 - ROS US 23 & 35 Various	Access management	Change in access - close or restrict existing access	1	Intersections	$41648.81	$115319.98	State and Local Funds	Rural Principal Arterial (RPA) - Other	24,500	55	State Highway Agency	Spot	Intersections	Reduce the number of conflict points with driveways to reduce driveway related crashes
102060 - GRE US 35 6.24	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Approaches	$105332.53	$117036.15	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	37,990	55	State Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end crashes
76747 - ATB IR 0090 07.56	Roadway	Pavement surface - miscellaneous	6.79	Miles	$2028000	$67097364.64	State and Local Funds	Rural Principal Arterial (RPA) - Interstate	25,849	55	State Highway Agency	Spot	Roadway Departure	Install pavement treatments to reduce roadway departure crashes

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83067 - SUM SR 0018 00.00	Roadway	Roadway widening - travel lanes	0.7	Miles	$3725347.31	$8828250.61	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	32,579	55	State Highway Agency	Spot	Intersections	Constructing through traveled lanes to reduce congestion and queue related crashes
88896 - STA SR 44/62/619 VAR	Roadway	Pavement surface - miscellaneous	5.17	Miles	$37162.87	$1605443.25	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	8,545	45	State Highway Agency	Spot	Roadway Departure	Install pavement treatments to reduce roadway departure crashes
89905 - HAM SR 264 8.49	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Approaches	$2070302.44	$2457726.24	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	25,320	35	City of Municipal Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end crashes
92691 - MED SR 0057 17.67	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	$2511893.72	$2750654.82	HSIP (23 U.S.C. 148)	Urban Major Collector	5,216	45	State Highway Agency	Spot	Intersections	Constructing a roundabout to reduce angle and rear end crashes
95313 - MEG SR 7 5.240	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Approaches	$400000	$1695191.72	Other Federal-aid Funds (i.e. STBG, NHPP)	Rural Principal Arterial (RPA) - Other	7,181	55	State Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end and left turn crashes
97185 - CAR SR 43 22.37	Intersection traffic control	Modify traffic signal - add backplates with retroreflective borders	1	Intersections	$634172.76	$735346.41	HSIP (23 U.S.C. 148)	Rural Minor Arterial	7,002	50	State Highway Agency	Spot	Intersections	Improving signal operation and visibility to reduce intersection related crashes
99042 - BEL SR 149 23.790	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	$523001.36	$653844.63	HSIP (23 U.S.C. 148)	Urban Major Collector	10,282	45	State Highway Agency	Spot	Intersections	Improving signal operation and visibility to reduce intersection related crashes
98661 - D12 TSG FY2017	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	$84202.04	$708717.54	State and Local Funds	Urban Principal Arterial (UPA) - Other	17,768	35	State Highway Agency	Systemic	Intersections	Improving signal operation and visibility to reduce intersection related crashes
87032 - D08 TSG FY2015	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	$281883.16	$1486340.29	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	22,363	55	State Highway Agency	Systemic	Intersections	Improving signal operation and visibility to reduce intersection related crashes
91871 - HAM US 27 11.49	Roadway	Pavement surface - miscellaneous	5	Miles	$111276.91	$2892864.26	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	32,851	35	City of Municipal Highway Agency	Spot	Roadway Departure	Install pavement treatments to reduce roadway departure crashes
92035 - MOT SR 741 0.76	Intersection geometry	Auxiliary lanes - add right-turn lane (free-flow)	1	Approaches	$840917.24	$1075074.36	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	20,790	50	State Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end crashes
101558 - MOT Third Street Safety	Speed management	Traffic calming feature	2	Intersections	$229502.15	$229502.15	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	9,500	45	City of Municipal Highway Agency	Spot	Pedestrians	Construct traffic calming countermeasures to reduce

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														pedestrian related crashes
104408 - HAM IR 75 16.67	Interchange design	Interchange design - other	2	Ramps	$1993339.26	$2214821.39	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Interstate	148,610	65	State Highway Agency	Spot	Intersections	Constructing through traveled lanes to reduce congestion and queue related crashes
86661 - FRA US 23 10.83 Part 1&2	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	1.3	Miles	$1000000.01	$7038546.21	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	20,258	35	City of Municipal Highway Agency	Spot	Bicyclists	Constructing a road diet to decrease travel lanes and reduce rear end and sideswipe crashes
98452 - HAM US 50 0.00	Intersection geometry	Auxiliary lanes - add two-way left-turn lane	1.18	Miles	$473352	$1106908.03	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Minor Arterial	12,612	55	State Highway Agency	Spot	Intersections	Constructing a Two Way Left Turn Lane to reduce the number multiple vehicle crashes
99622 - ATB SR 0534 19.82	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Approaches	$499175	$576828.91	HSIP (23 U.S.C. 148)	Urban Major Collector	11,774	40	State Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end and left turn crashes
99779 - CLA US 40 10.11	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	$1594341.07	$2348049.54	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	35,448	50	State Highway Agency	Spot	Intersections	Improving signal operation and visibility to reduce intersection related crashes
102057 - HAN US 68 13.08 Cable Rail	Roadside	Barrier - cable	1.64	Miles	$300412.41	$333791.57	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	18,616	65	State Highway Agency	Spot	Roadway Departure	Installing cable median barrier to reduce the likelihood of cross median crashes
102099 - MER US 33 10.41	Intersection traffic control	Modify traffic signal - add backplates with retroreflective borders	1	Intersections	$195022.09	$195022.09	HSIP (23 U.S.C. 148)	Urban Principal Arterial (UPA) - Other	5,031	55	State Highway Agency	Spot	Intersections	Improving signal operation and visibility to reduce intersection related crashes
100553 - WAR US 22/SR 48 2.80/5.22	Roadway	Pavement surface - miscellaneous	14	Miles	$34393.78	$2964617.44	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	11,107	45	City of Municipal Highway Agency	Spot	Roadway Departure	Install pavement treatments to reduce roadway departure crashes
104582 - SUM CR-17 / Wooster Road	Intersection traffic control	Modify traffic signal - modernization/replacement	1	Intersections	$22342.5	$167411.77	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Major Collector	0	35	County Highway Agency	Spot	Intersections	Improving signal operation and visibility to reduce intersection related crashes
88043 - BEL SR 7 (20.84)(21.85)	Intersection geometry	Auxiliary lanes - add right-turn lane	1	Approaches	$693919.13	$1860171.78	Other Federal-aid Funds (i.e. STBG, NHPP)	Urban Principal Arterial (UPA) - Other	27,798	50	State Highway Agency	Spot	Intersections	Constructing turn lanes to reduce rear end crashes

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90469 - STA Beeson/Freshley Roundabout	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	$527705.73	$980816.07	HSIP (23 U.S.C. 148)	Rural Minor Collector	3,360	45	County Highway Agency	Spot	Intersections	Constructing a roundabout to reduce angle and rear end crashes
102453 - SUM SR 0008 04.41	Interchange design	Extend existing lane on ramp	0.3	Miles	$549253.6	$610281.78	HSIP (23 U.S.C. 148)	Rural Principal Arterial (RPA) - Other Freeways and Expressways	97,230	55	State Highway Agency	Spot	Intersections	Extending ramp lengths to reduce the number of rear end crashes

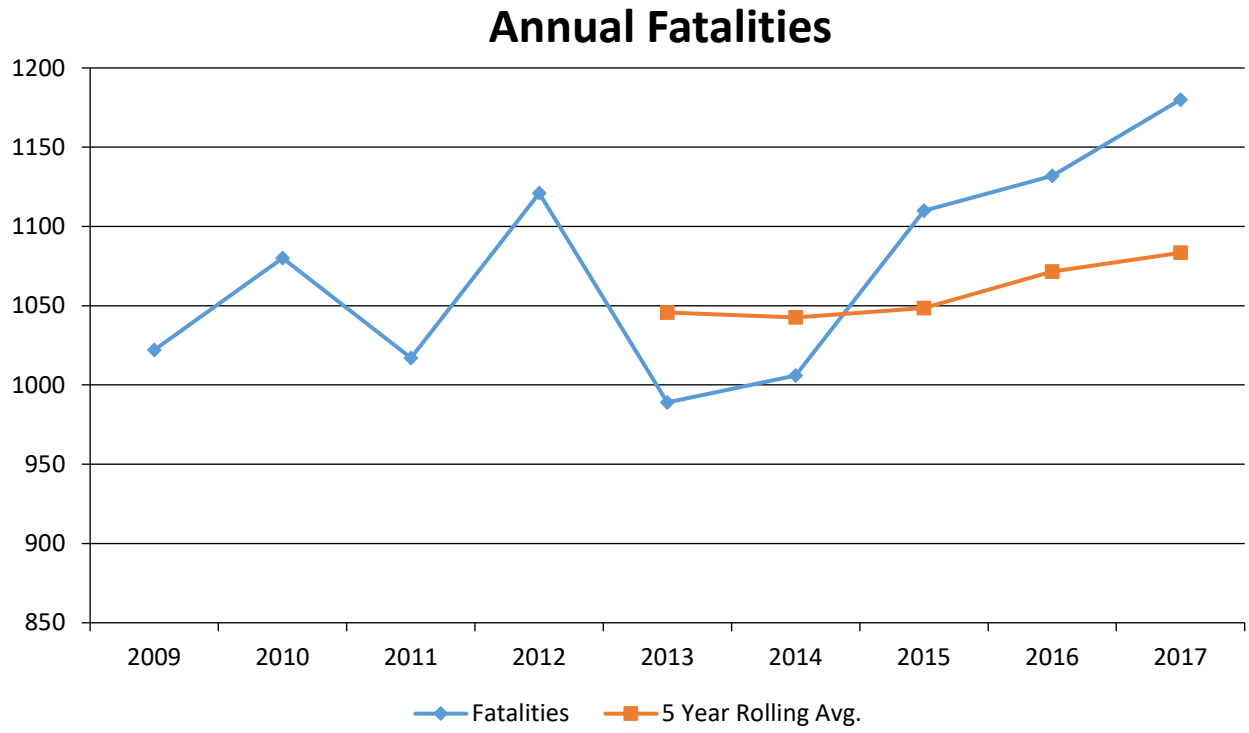
Enter additional comments here to clarify your response for this question or add supporting information.

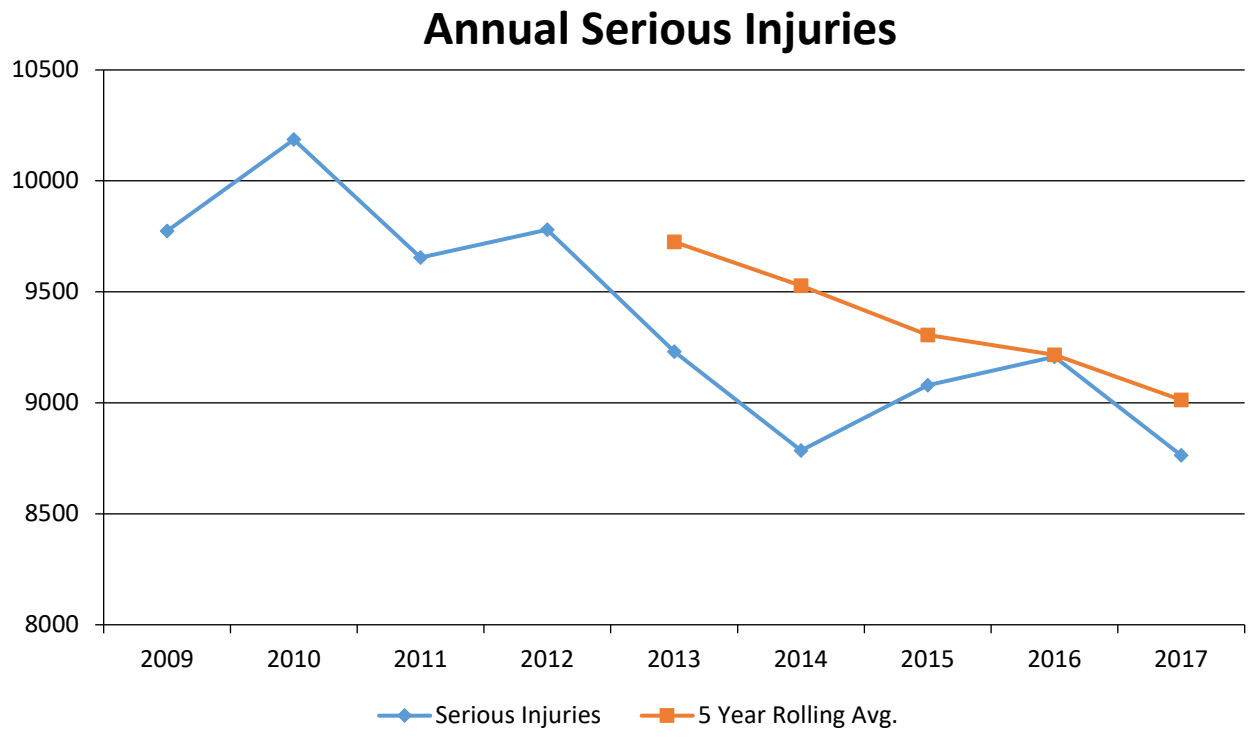
Safety Performance

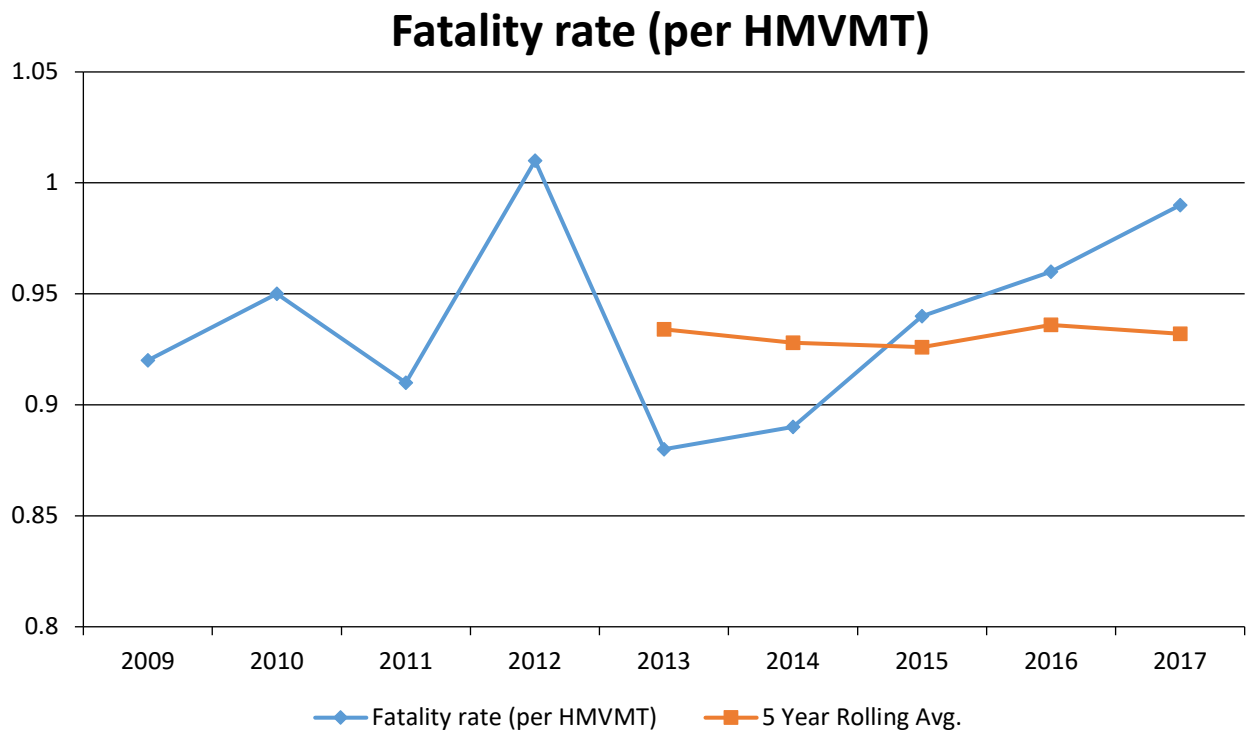
General Highway Safety Trends

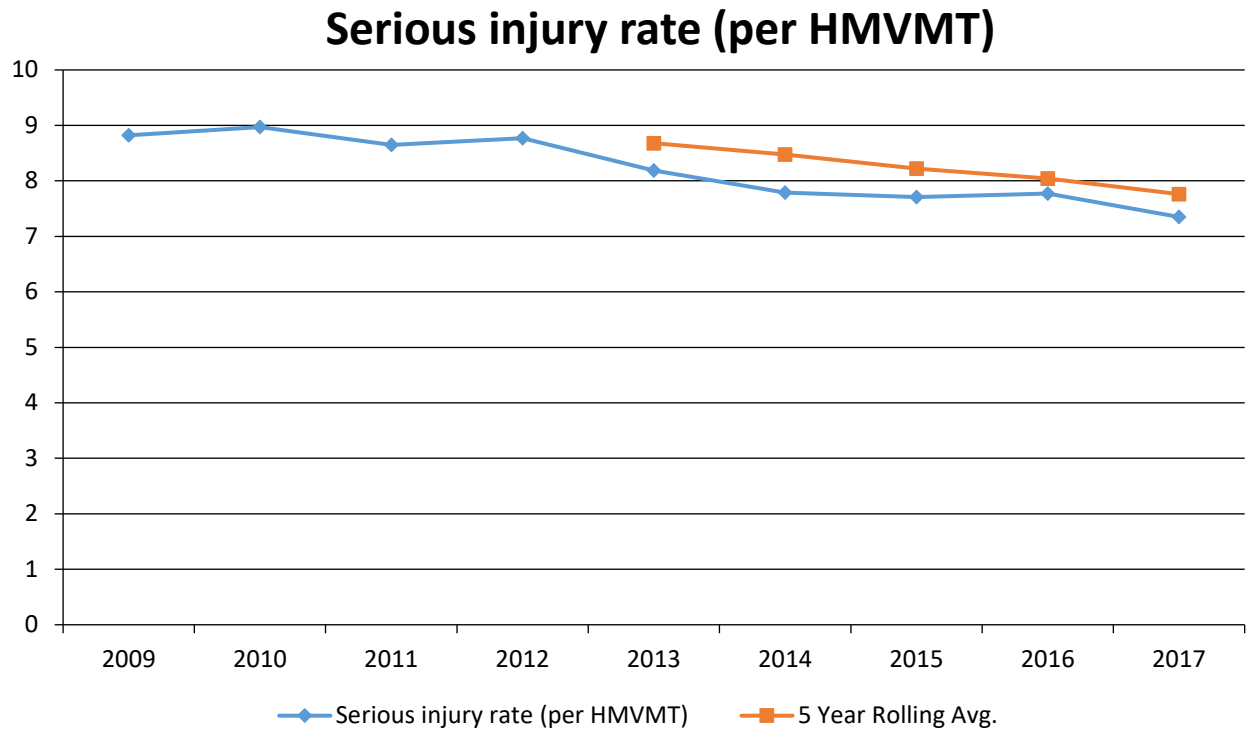
Present data showing the general highway safety trends in the State for the past five years.

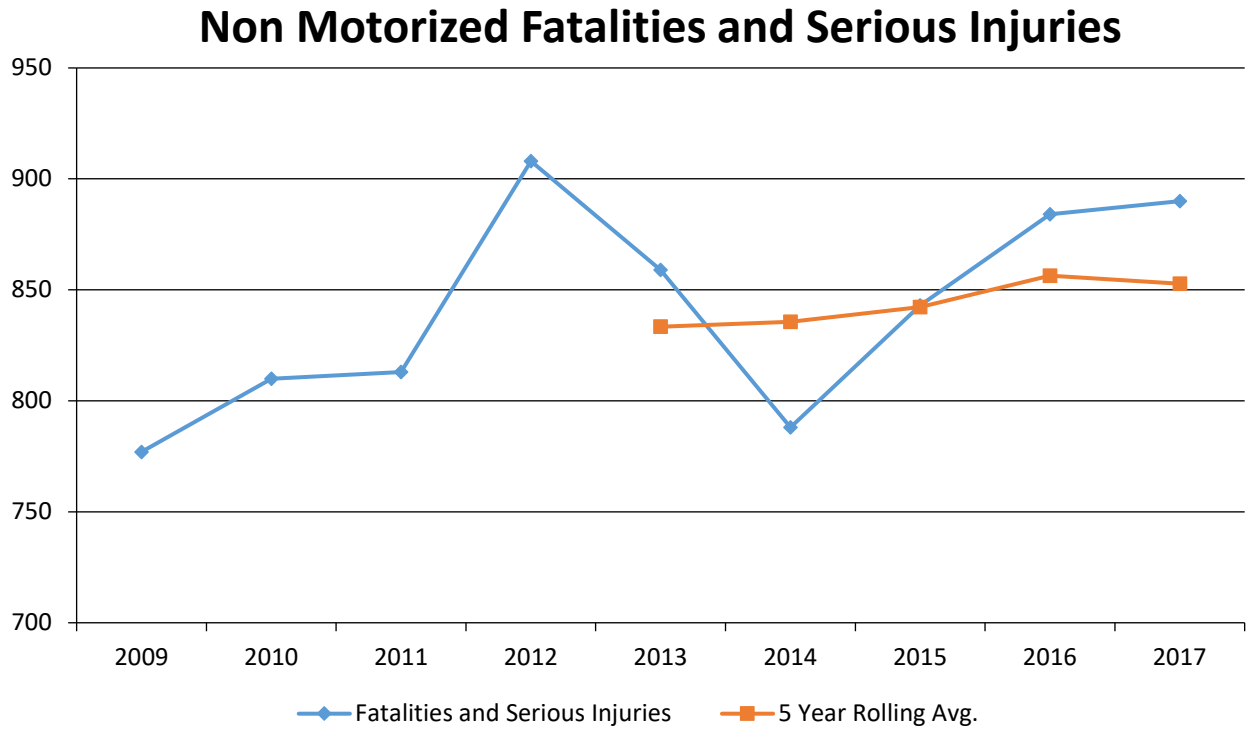
PERFORMANCE MEASURES	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fatalities	1,022	1,080	1,017	1,121	989	1,006	1,110	1,132	1,180
Serious Injuries	9,774	10,186	9,654	9,780	9,231	8,785	9,079	9,207	8,763
Fatality rate (per HMVMT)	0.920	0.950	0.910	1.010	0.880	0.890	0.940	0.960	0.990
Serious injury rate (per HMVMT)	8.820	8.970	8.650	8.770	8.190	7.790	7.710	7.770	7.350
Number non-motorized fatalities	101	106	116	135	108	106	143	158	164
Number of non-motorized serious injuries	676	704	697	773	751	682	700	726	726


Annual Fatalities
1200
1150
1100
1050
1000
950
900
850
2009
2010
2011
2012
2013
2014
2015
2016
2017
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
10500
10000
9500
9000
8500
8000
2009
2010
2011
2012
2013
2014
2015
2016
2017
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.05
1
0.95
0.9
0.85
0.8
2009
2010
2011
2012
2013
2014
2015
2016
2017
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
10
9
8
7
6
5
4
3
2
1
0
2009
2010
2011
2012
2013
2014
2015
2016
2017
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



Enter additional comments here to clarify your response for this question or add supporting information.

Describe fatality data source.

FARS

Enter additional comments here to clarify your response for this question or add supporting information.

FARS was used for the number of fatalities and State data was used for the fatality rate and number of non-motorized fatalities.

To the maximum extent possible, present this data by functional classification and ownership.

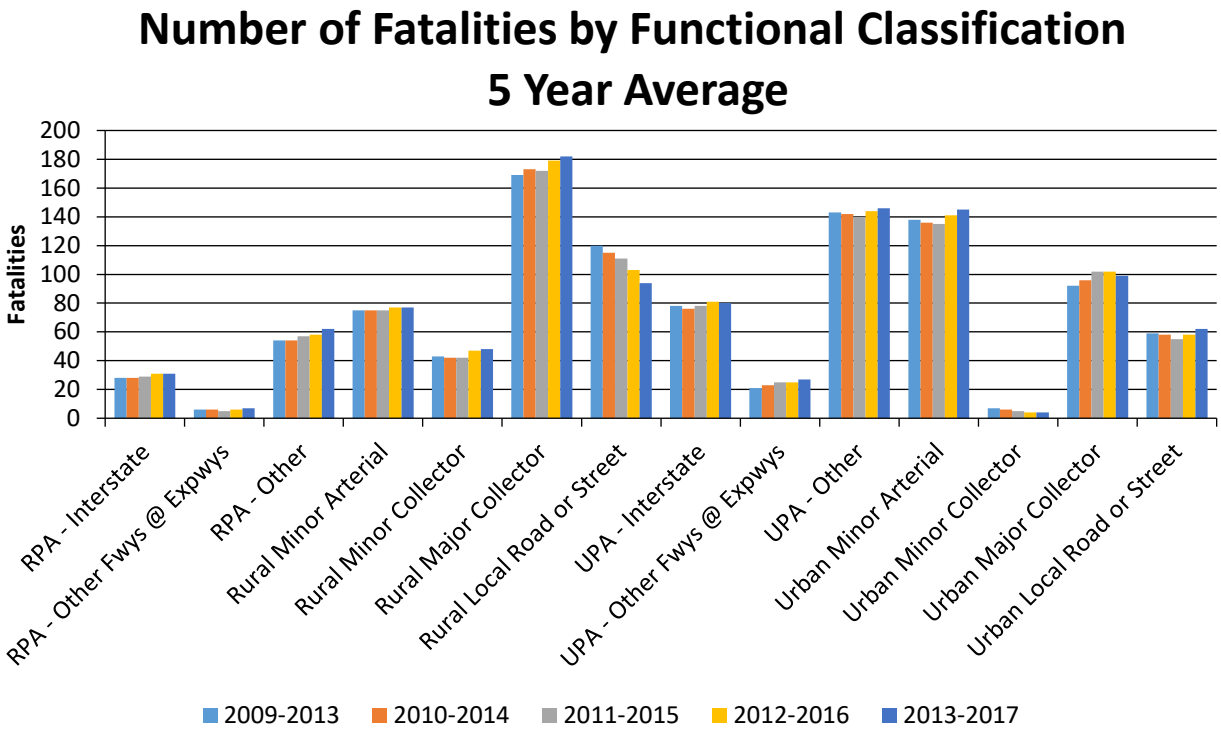
Year 2017

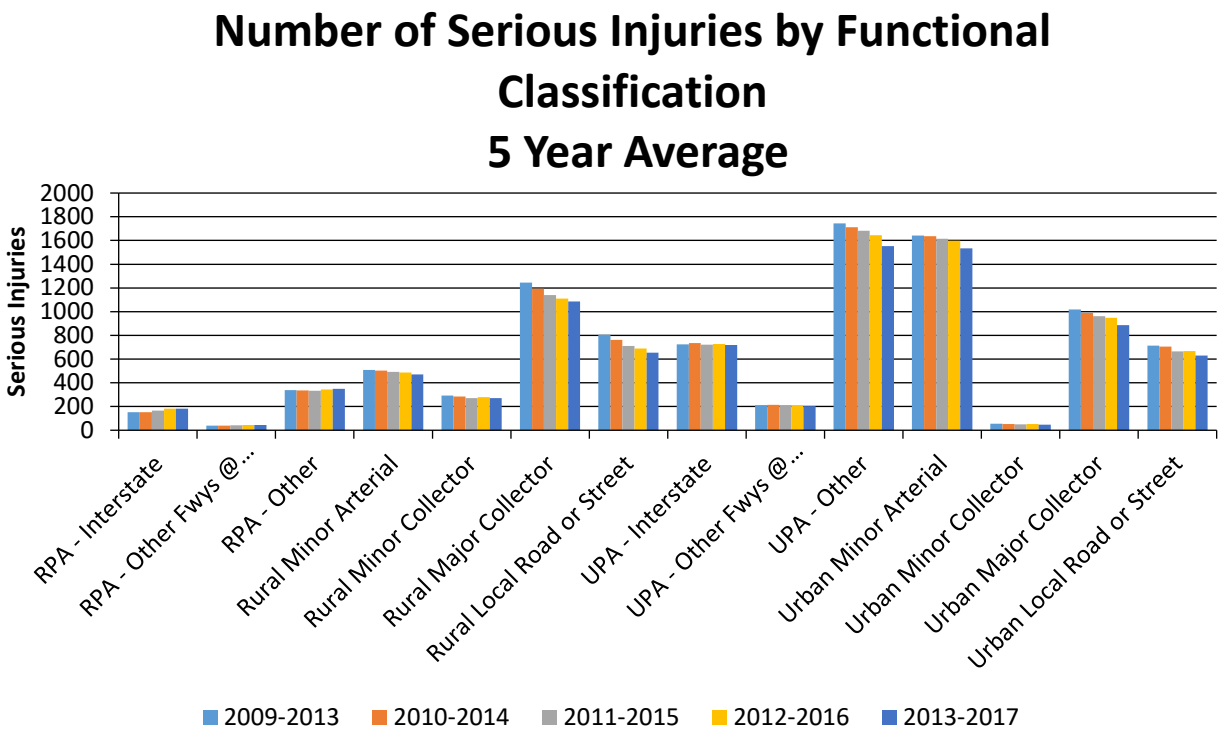
Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	31	183	0.35	2.05
Rural Principal Arterial (RPA) - Other Freeways and Expressways	7	44	0.34	2.21
Rural Principal Arterial (RPA) - Other	62	350	1.35	7.68
Rural Minor Arterial	77	471	1.78	10.88

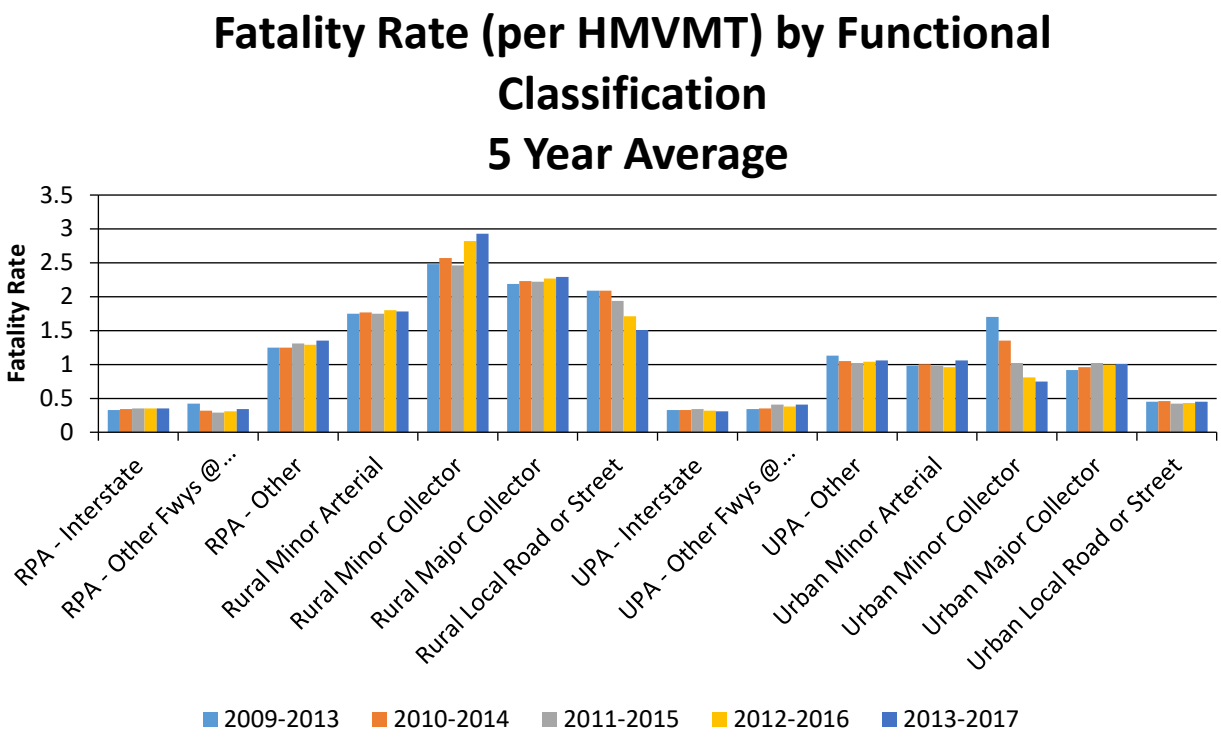
Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Minor Collector	48	270	2.93	16.68
Rural Major Collector	182	1,086	2.29	13.73
Rural Local Road or Street	94	653	1.51	10.58
Urban Principal Arterial (UPA) - Interstate	80	720	0.31	2.82
Urban Principal Arterial (UPA) - Other Freeways and Expressways	27	203	0.41	3.12
Urban Principal Arterial (UPA) - Other	146	1,553	1.06	11.27
Urban Minor Arterial	145	1,534	1.06	11.26
Urban Minor Collector	4	46	0.75	8.98
Urban Major Collector	99	887	1.01	9.04
Urban Local Road or Street	62	631	0.45	4.58

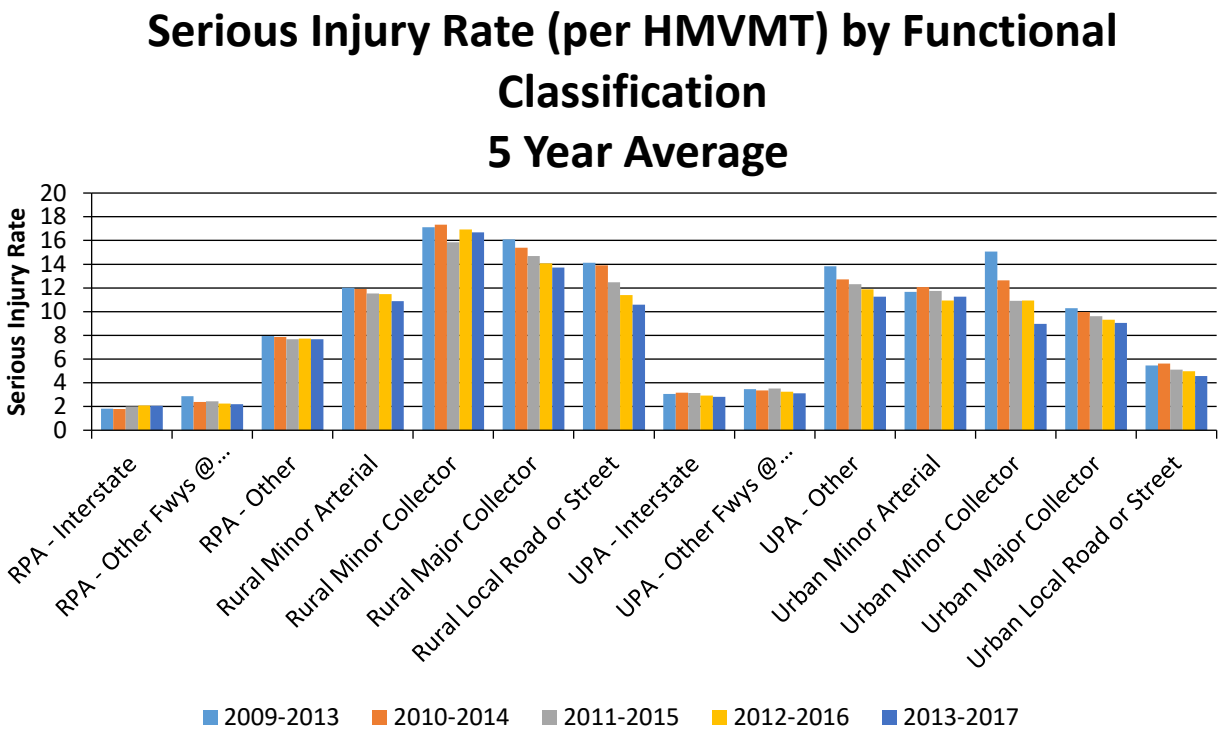
Year 2017

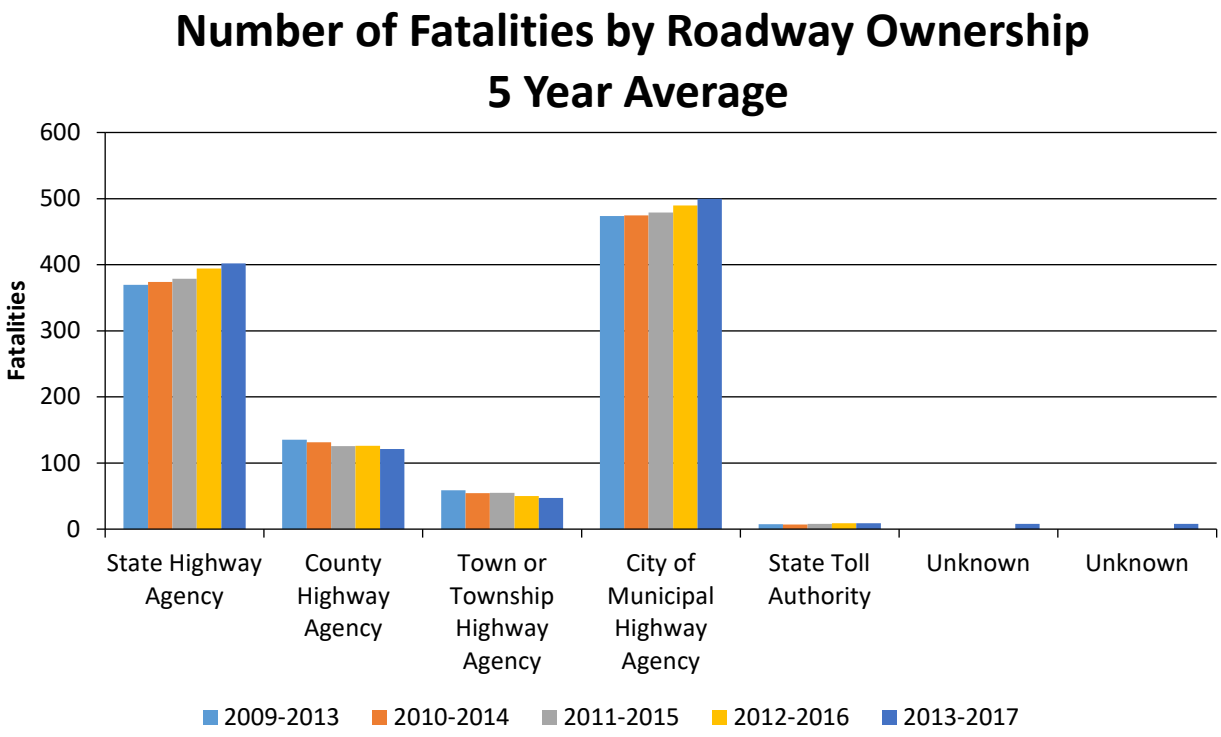
Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	402	2,634	0	0
County Highway Agency	121	841	0	0
Town or Township Highway Agency	47	312	0	0
City of Municipal Highway Agency	500	5,014	0	0
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	9	56	0	0
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				
Unknown	8	158	0	0
Unknown	8	158		

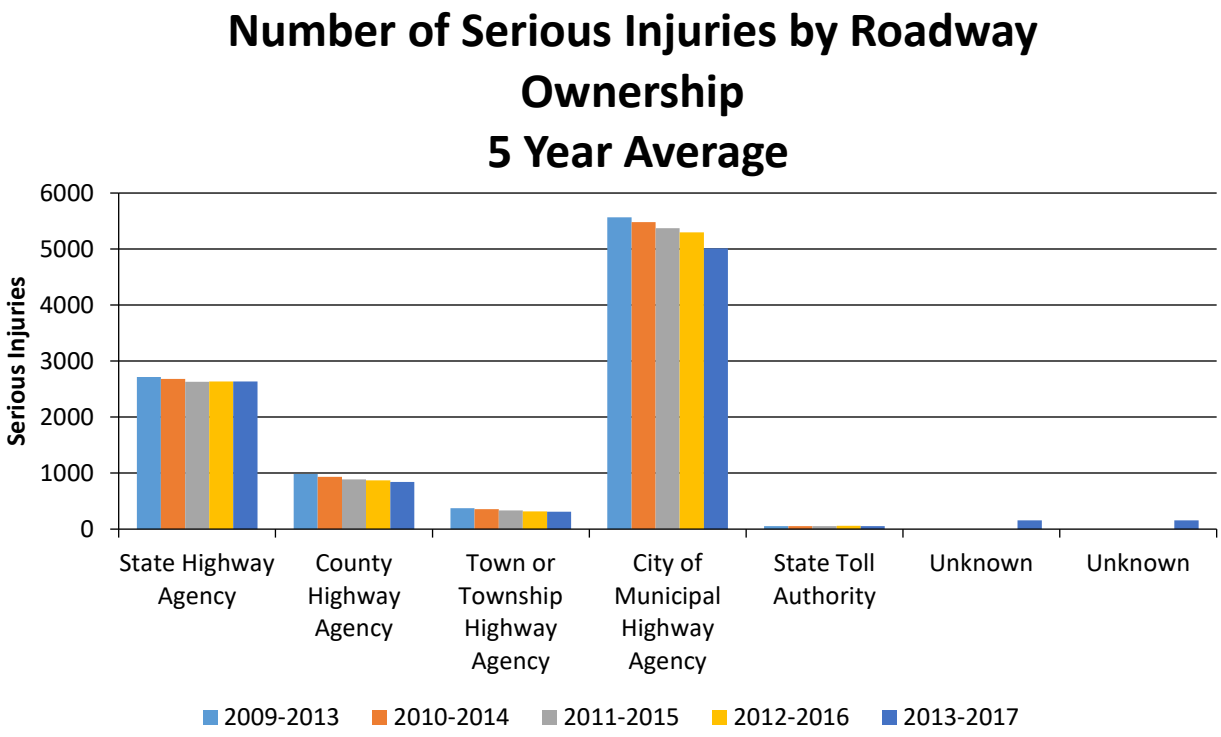

Number of Fatalities by Functional Classification
5 Year Average
Fatalities
200
180
160
140
120
100
80
60
40
20
0
RPA - Interstate
RPA - Other Fwys @ Expwys
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @ Expwys
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017

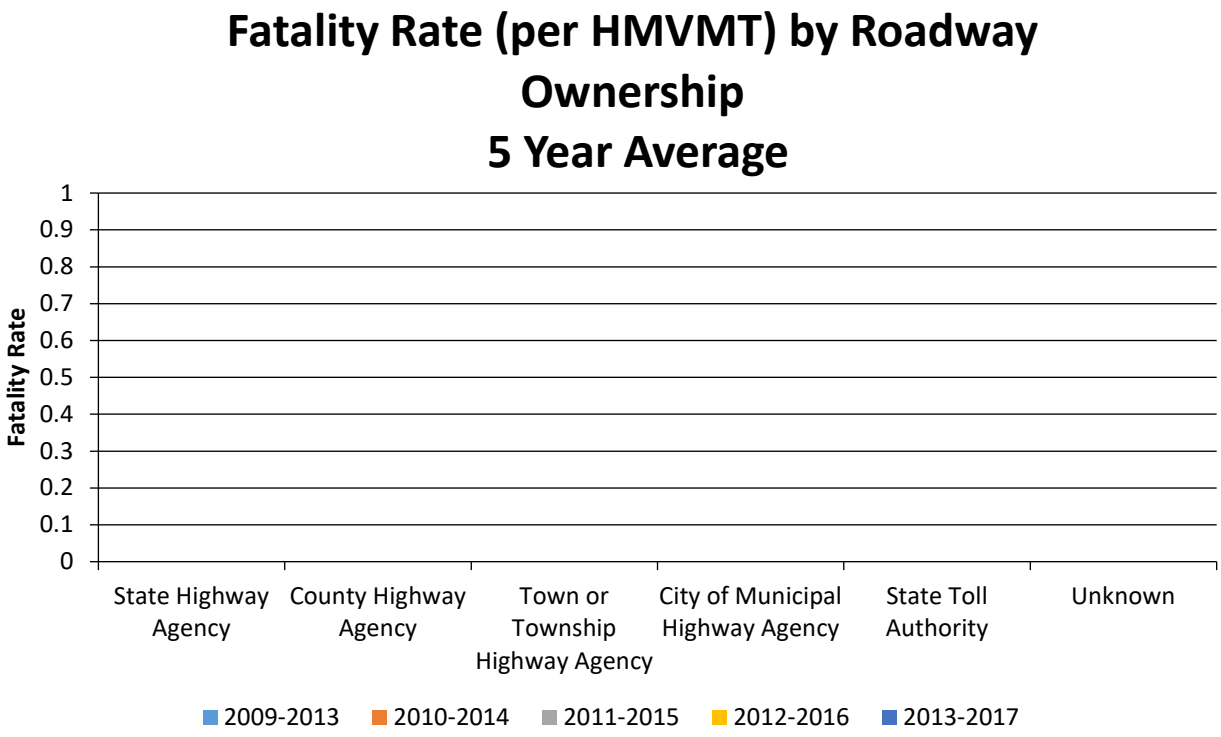

Number of Serious Injuries by Functional Classification
5 Year Average
Serious Injuries
2000
1800
1600
1400
1200
1000
800
600
400
200
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017

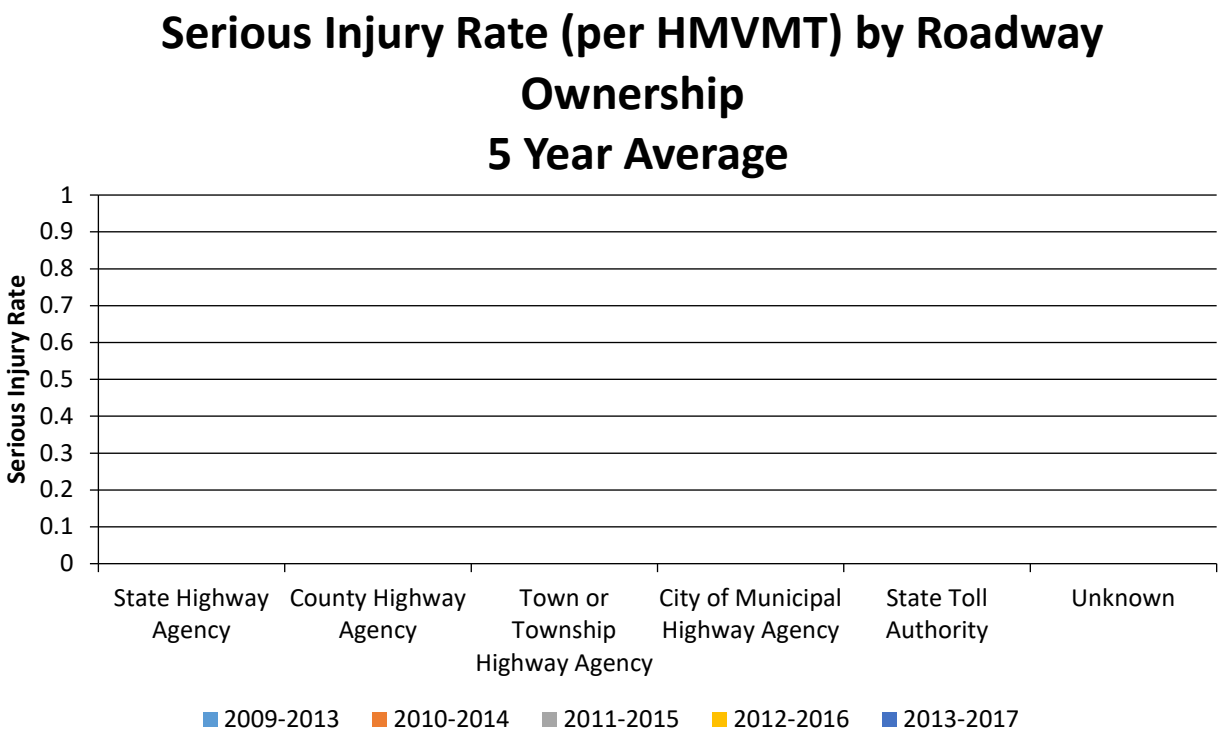

Fatality Rate (per HMVMT) by Functional Classification
5 Year Average
Fatality Rate
3.5
3
2.5
2
1.5
1
0.5
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Serious Injury Rate (per HMVMT) by Functional Classification
5 Year Average
Serious Injury Rate
20
18
16
14
12
10
8
6
4
2
0
RPA - Interstate
RPA - Other Fwys @...
RPA - Other
Rural Minor Arterial
Rural Minor Collector
Rural Major Collector
Rural Local Road or Street
UPA - Interstate
UPA - Other Fwys @...
UPA - Other
Urban Minor Arterial
Urban Minor Collector
Urban Major Collector
Urban Local Road or Street
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Number of Fatalities by Roadway Ownership
5 Year Average
Fatalities
600
500
400
300
200
100
0
State Highway Agency
County Highway Agency
Town or Township Highway Agency
City of Municipal Highway Agency
State Toll Authority
Unknown
Unknown
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Number of Serious Injuries by Roadway Ownership
5 Year Average
Serious Injuries
6000
5000
4000
3000
2000
1000
0
State Highway Agency
County Highway Agency
Town or Township Highway Agency
City of Municipal Highway Agency
State Toll Authority
Unknown
Unknown
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Fatality Rate (per HMVMT) by Roadway Ownership
5 Year Average
Fatality Rate
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
State Highway Agency
County Highway Agency
Town or Township Highway Agency
City of Municipal Highway Agency
State Toll Authority
Unknown
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017



Enter additional comments here to clarify your response for this question or add supporting information.

Note: In 2013, the functional class system was updated to new codes (1-7) from the legacy codes (1-19). Additionally, the functional class designation was updated based on the 2010 census. Prior to 2013, rural functional class codes 2 (other freeways or expressways) and 3 (other principal arterial roads) were combined as one. Additionally, urban functional class codes 5 (major collector roads) and 6 (minor collector roads) were combined. Traffic volumes were not regenerated for the older years. This makes it difficult to calculate a 5 year rolling average crash rates with data prior to 2013. Crashes were located to the new network, and therefore, can be compared.

The Functional Class conversion should have little to no impacted on the Special Rule for High Risk Rural Roads. However, when looking at the Special Rule for High Risk Rural Road, crash rates were impacted as well due to changing of the urban and rural boundary limits.

Are there any other aspects of the general highway safety trends on which the State would like to elaborate?

No

Safety Performance Targets

Safety Performance Targets

Calendar Year 2019 Targets *

Number of Fatalities	1062.0

Describe the basis for established target, including how it supports SHSP goals.

See additional comments.

Number of Serious Injuries	8834.0

Describe the basis for established target, including how it supports SHSP goals.

See additional comments.

Fatality Rate	0.910

Describe the basis for established target, including how it supports SHSP goals.

See additional comments.

Serious Injury Rate	7.600

Describe the basis for established target, including how it supports SHSP goals.

See additional comments.

Total Number of Non-Motorized Fatalities and Serious Injuries	836.0

Describe the basis for established target, including how it supports SHSP goals.

See additional comments.

Enter additional comments here to clarify your response for this question or add supporting information.

For the 4th consecutive year, Ohio has seen an increase in traffic fatalities. As a result, the five year rolling average for most of the state's targets will likely grow over the next few years as 2014, 2015, 2016 and 2017 are added to the five-year rolling average and as earlier years drop out of the calculation. 2009-2013 displayed some of the lowest fatality years Ohio has seen in its history.

After reviewing historical crash trends, external factors, and through consultation with ODOT’s partners, the Strategic Highway Safety Plan Steering Committee recommended that Ohio retain its 1 percent annual reduction target across all five categories .

Although the 1% annual target will be difficult to achieve across all five categories, the SHSP Steering Committee feels an aspirational, but achievable target is better than adopting targets that accept the status quo. Therefore, the target that Ohio has set forth for each of the 5 performance measures is a 1% annual reduction from the 2013-2017 baseline.

Describe efforts to coordinate with other stakeholders (e.g. MPOs, SHSO) to establish safety performance targets.

ODOT has established a replicable annual process to review the previous year's targets and establish new targets. This process is outlined in an annual letter to our partners, which includes the SHSP Steering Committee, The Ohio Department of Public Safety (HSP), MPOs and RTPOs. We also conduct meetings and discussions with various partners to set both state and regional targets for the year. ODOT has developed an automated spreadsheet tool that allows MPO's and RTPO's to analyze regional crash data and explore their own performance targets.

Does the State want to report additional optional targets?

No

Enter additional comments here to clarify your response for this question or add supporting information.

Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?

No

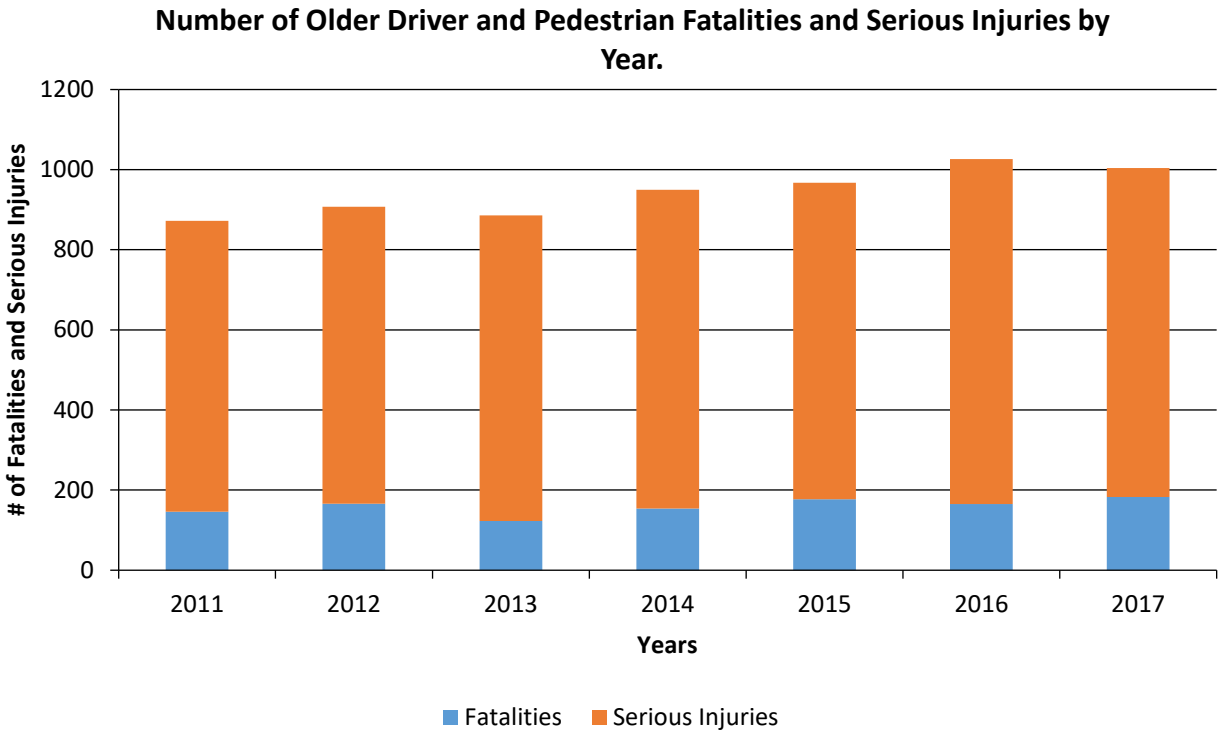
Enter additional comments here to clarify your response for this question or add supporting information.

Ohio's fatality rate on the three functional classifications of rural roads decreased from 2.5 to 2.2, therefore the Special Rule does not apply. This information was released in the December 20, 2017 memo from FHWA.

2010-2014 five year average fatality rate = 2.5
2012-2016 five year average fatality rate = 2.2

Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.

PERFORMANCE MEASURES	2011	2012	2013	2014	2015	2016	2017
Number of Older Driver and Pedestrian Fatalities	146	166	123	154	177	165	183
Number of Older Driver and Pedestrian Serious Injuries	726	741	763	796	790	861	821



Enter additional comments here to clarify your response for this question or add supporting information.

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

Change in fatalities and serious injuries
Benefit/Cost Ratio

Enter additional comments here to clarify your response for this question or add supporting information.

Based on the measures of effectiveness selected previously, describe the results of the State's program level evaluations.

Ohio routinely evaluates crash trends, quarterly and annually, to determine the effectiveness of its Highway Safety Improvement Program. In 2017, Ohio had 1,179 traffic deaths, representing a 4% increase and 8,763 serious injuries, representing a 5% decrease respectively compared to 2016. While deaths rose across all crash categories, Ohio saw significant increases in deaths involving Rear Ends, Pedestrians, Commercial Motor Vehicles and Distracted Drivers. 2017 displayed another year of rising pedestrian deaths, the fourth consecutive year.

Despite these numbers, Ohio has made significant improvements in highway safety over the past several years. Since 2008, Ohio fatalities have decreased 1%; serious injuries decreased 13%; all injuries decreased 2%; and all crashes decreased 5.7%.

The safety benefits are calculated by using the total number of crashes by year and severity in order to determine a 5-year average. Crash cost where calculated for 2017 based on the Highway Safety Manual methodologies. For each year, the crash severity was multiplied by its associated cost and then summed for all severity levels. A five-year rolling average was calculated for 2016 (2012-2016) and 2017 (2013-2017). The difference between these two values equates to the safety benefits between the two years and is equal to an increase $179 million. ODOT receives a total of $82 million in Federal HSIP dollars annually on safety projects. The ratio of the safety benefits and program cost equates to a benefit-cost ratio of 0.46.

We also track our statewide progress in implementing systematic safety treatments that target serious crash types and roadway features that can potentially increase the likelihood of crashes. This program element has been successful in reducing crashes based on the naïve before-and-after results for the different systematic treatments. In addition, we have increased our efforts to complete systematic projects on locally maintained roads by working with MPOs, County Engineers and LTAP to provide technical assistance and funding for local road safety improvements.

What other indicators of success does the State use to demonstrate effectiveness and success of the Highway Safety Improvement Program?

RSAs completed
Increased awareness of safety and data-driven process
Increased focus on local road safety

Enter additional comments here to clarify your response for this question or add supporting information.

Are there any significant programmatic changes that have occurred since the last reporting period?

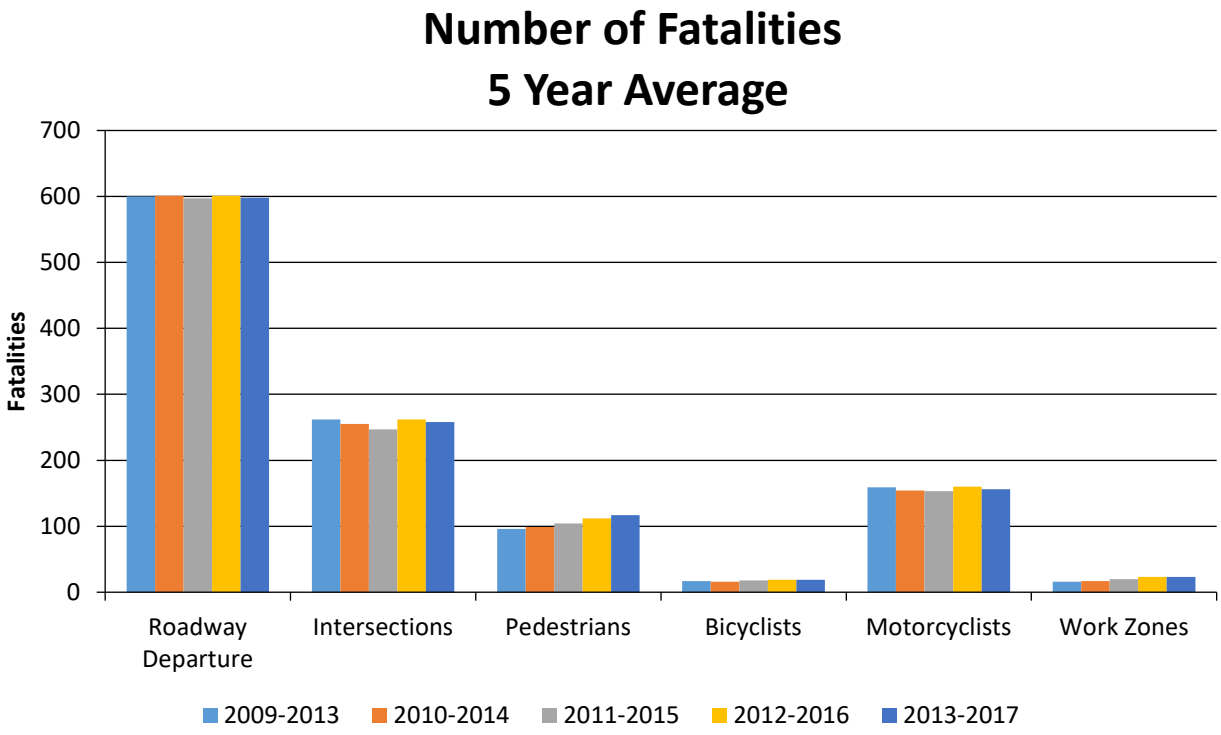
No

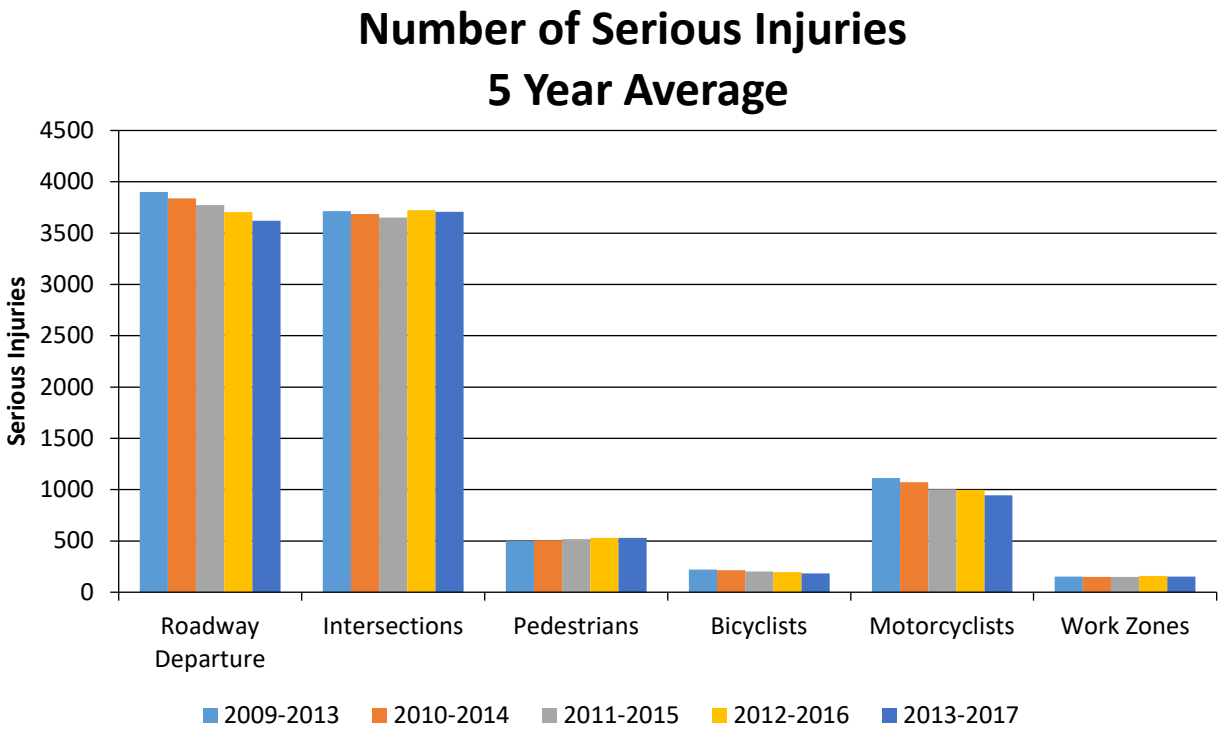
Effectiveness of Groupings or Similar Types of Improvements

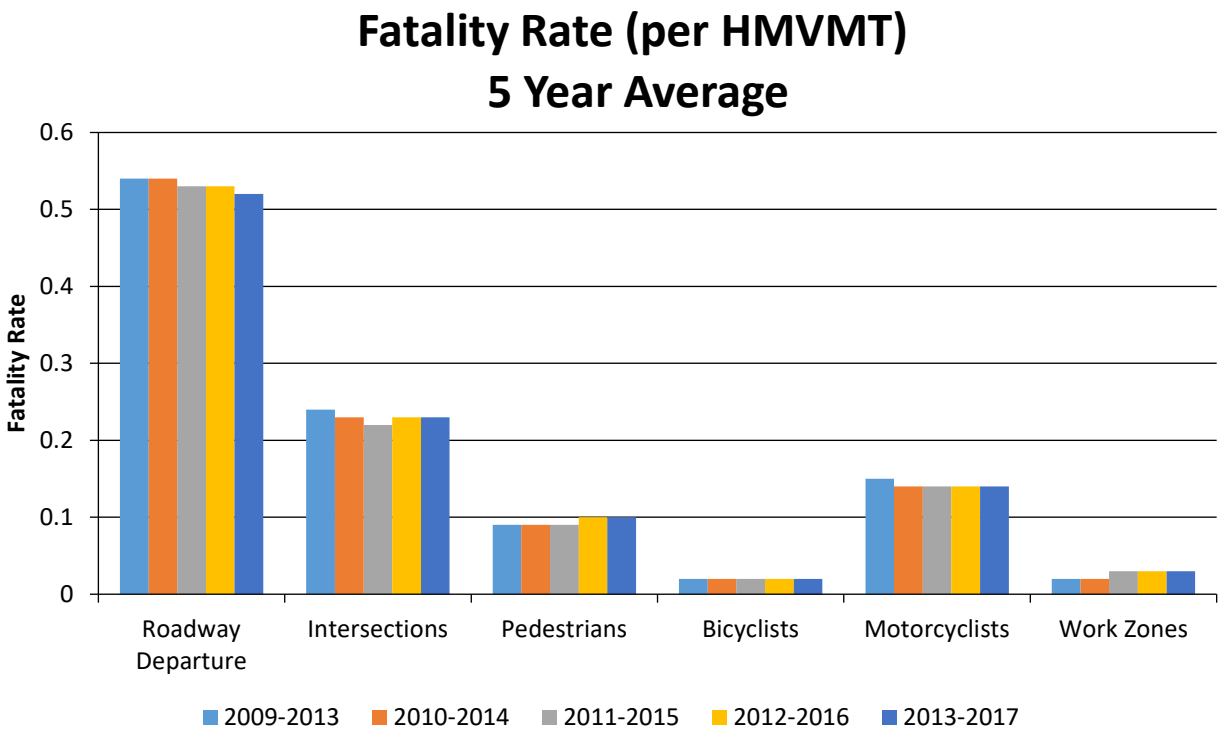
Present and describe trends in SHSP emphasis area performance measures.

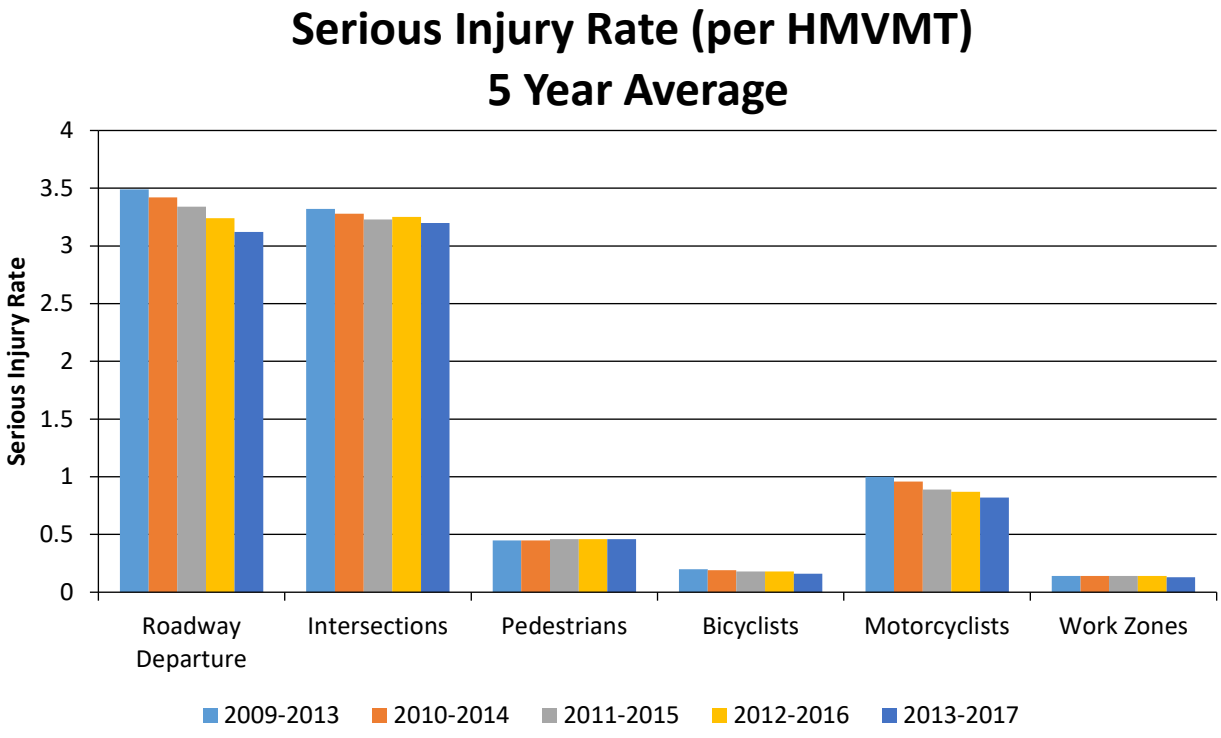
Year 2017

SHSP Emphasis Area	Targeted 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)
Roadway Departure	Roadway Departure	598	3,619	0.52	3.12
Intersections	Intersections	258	3,709	0.23	3.2
Pedestrians	Vehicle/pedestrian	117	531	0.1	0.46
Bicyclists	Vehicle/bicycle	19	183	0.02	0.16
Motorcyclists	Motorcycle Involved	156	945	0.14	0.82
Work Zones	Work Zone Related	23	152	0.03	0.13


Number of Fatalities
5 Year Average
Fatalities
700
600
500
400
300
200
100
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Motorcyclists
Work Zones
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017


Number of Serious Injuries
5 Year Average
Serious Injuries
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Roadway Departure
Intersections
Pedestrians
Bicyclists
Motorcyclists
Work Zones
2009-2013
2010-2014
2011-2015
2012-2016
2013-2017





Enter additional comments here to clarify your response for this question or add supporting information.

Has the State completed any countermeasure effectiveness evaluations during the reporting period?

No

Enter additional comments here to clarify your response for this question or add supporting information.

In 2018, ODOT selected a contractor to identify, develop, and implement an appropriate approach to before-after safety project evaluation that can be applied to ODOT's Highway Safety Improvement Program (HSIP) projects or any other completed project(s) of interest to ODOT. The evaluation approach will quantify project effectiveness in terms of crash frequency reduction and percentage crash frequency reduction overall, by crash severity level, and by crash type. The recommended project evaluation approach will be:

- Scientifically sound
- Applicable to evaluation of individual projects and to crash modification factor (CMF) development
- Consistent with HSM guidance, FHWA HSIP requirements, and ODOT needs and preferences

The project has completed a literature review and surveyed other states for best practices. Results have been posted here:
http://www.dot.state.oh.us/Divisions/Planning/ProgramManagement/HighwaySafety/HSIP/Pages/HSIPEval.aspx

The next step for the project is to take a set of projects and test the following methods to determine project safety performance:

- Simple Before-and-After Method
- Before-and-After Study with Traffic Volume Correction
- Empirical Bayes Method
    - AASHTOWare Safety Analyst
    - Ohio's Economic Crash Analysis Tool (ECAT)
    - IHSDM

Provide the following information for previously implemented projects that the State evaluated this reporting period.

LOCATION	FUNCTIONAL CLASS	IMPROVEMENT CATEGORY	IMPROVEMENT TYPE	PDO BEFORE	PDO AFTER	FATALITY BEFORE	FATALITY AFTER	SERIOUS INJURY BEFORE	SERIOUS INJURY AFTER	ALL OTHER INJURY BEFORE	ALL OTHER INJURY AFTER	TOTAL BEFORE	TOTAL AFTER	EVALUATION RESULTS (BENEFIT/COST RATIO)
None														

Enter additional comments here to clarify your response for this question or add supporting information.

Are there any other aspects of the overall HSIP effectiveness on which the State would like to elaborate?

No

Compliance Assessment

What date was the State's current SHSP approved by the Governor or designated State representative?

11/04/2015

What are the years being covered by the current SHSP?

From: 2014 To: 2019

When does the State anticipate completing it's next SHSP update?

2020

Enter additional comments here to clarify your response for this question or add supporting information.

Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.

MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT										
Segment Identifier (12)	100	95					100	95	100	95
Route Number (8)	100	95								
Route/Street Name (9)	100	95								
Federal Aid/Route Type (21)	100	95								
Rural/Urban Designation (20)	100	95					100	95		
Surface Type (23)	100	95					100	95		
Begin Point Segment Descriptor (10)	100	95					100	95	100	95
End Point Segment Descriptor (11)	100	95					100	95	100	95
Segment Length (13)	100	95								
Direction of Inventory (18)	100	95								
Functional Class (19)	100	95					100	95	100	95
Median Type (54)	100	95								
Access Control (22)	100	95								

MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
One/Two Way Operations (91)	100	95								
Number of Through Lanes (31)	100	95					100	95		
Average Annual Daily Traffic (79)	100	95					100	95		
AADT Year (80)	100	95								
Type of Governmental Ownership (4)	100	95					100	95	100	95
INTERSECTION										
Unique Junction Identifier (120)			100	95						
Location Identifier for Road 1 Crossing Point (122)			100	95						
Location Identifier for Road 2 Crossing Point (123)			100	95						
Intersection/Junction Geometry (126)			100	95						
Intersection/Junction Traffic Control (131)			100	95						
AADT for Each Intersecting Road (79)			100	95						
AADT Year (80)			100	95						
Unique Approach Identifier (139)			100	95						
INTERCHANGE/RAMP										
Unique Interchange Identifier (178)					100	100				
Location Identifier for Roadway at Beginning of Ramp Terminal (197)					100	100				
Location Identifier for Roadway at Ending Ramp Terminal (201)					100	100				
Ramp Length (187)					100	100				
Roadway Type at Beginning of Ramp Terminal (195)					100	100				
Roadway Type at End Ramp Terminal (199)					100	100				

MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
Interchange Type (182)					100	100				
Ramp AADT (191)					100	100				
Year of Ramp AADT (192)					100	100				
Functional Class (19)					100	100				
Type of Governmental Ownership (4)					100	100				
Totals (Average Percent Complete):	**100.00**	**95.00**	**100.00**	**95.00**	**100.00**	**100.00**	**100.00**	**95.00**	**100.00**	**95.00**

*Based on Functional Classification

Enter additional comments here to clarify your response for this question or add supporting information.

Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.

The Location Based Response System (LBRS) is an initiative of the Geographically Referenced Information Program (OGRIP). The LBRS establishes partnerships between State and County government for the creation of spatially accurate street centerlines with address ranges and field verified site specific address locations.

A project is underway to collect missing LBRS data, verify/update current LBRS datasets and incorporate LBRS data into the official ODOT Road Inventory (RIMS).

With the ultimate goal of reducing fatalities, injuries and traffic crashes statewide, the LBRS projects' accurate, timely, reliable road inventory data as well as seamless integration among all highway safety stakeholders will make traffic crash analysis and emergency response more effective and efficient.

The project is currently in the collection phase and there will be more to report on during the next CY.

Provide the suspected serious injury identifier, definition and attributes used by the State for both the crash report form and the crash database using the table below. Please also indicate whether or not these elements are compliant with the MMUCC 4th edition criteria for data element P5. Injury Status, suspected serious injury.

CRITERIA	SUSPECTED SERIOUS INJURY IDENTIFIER(NAME)	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY DEFINITION	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY ATTRIBUTES(DESCRIPTORS)	MMUCC 4TH EDITION COMPLIANT *
Crash Report Form	Incapacitating	No	N/A	No	N/A	No
Crash Report Form Instruction Manual	Incapacitating	No	Any injury, other than a fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities the person was capable of performing before the injury occurred. Often defined as "needing help from the scene."	No	N/A	No
Crash Database	Incapacitating	No	N/A	No	N/A	No
Crash Database Data Dictionary	Incapacitating	No	Any injury, other than a fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities	No	N/A	No

CRITERIA	SUSPECTED SERIOUS INJURY IDENTIFIER(NAME)	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY DEFINITION	MMUCC 4TH EDITION COMPLIANT *	SUSPECTED SERIOUS INJURY ATTRIBUTES(DESCRIPTORS)	MMUCC 4TH EDITION COMPLIANT *
			the person was capable of performing before the injury occurred. Often defined as "needing help from the scene."			

Please describe the actions the State is taking to become compliant by April 15, 2019.
Ohio is set to release a new crash report form for use beginning in 2019. This new crash report form will be able to classify a crash by the five severity levels, one of which is labeled as "Serious Injury Suspected." (1-Fatal, 2-Serious Injury Suspected, 3-Minor Injury Suspected, 4-Injury Possible, 5-Property Damage Only)

The current crash report form only has three levels for crash severity. (1-Fatal, 2-Injury, 3-PDO), however, we are still able to calculate the five level injury severity based on individuals involved in the crash.

Enter additional comments here to clarify your response for this question or add supporting information.

Did the State conduct an HSIP program assessment during the reporting period?

Yes

Describe the purpose and outcomes of the State's HSIP program assessment.

A process review of the procedures for the County Highway Safety Improvement Program (HSIP) was completed in April 2018. ODOT allocates approximately $12 million of HSIP funds annually to the County Engineers Association of Ohio (CEAO) for their administration of safety improvement projects and studies on the County road system. The review was conducted to determine whether the County HSIP has documented procedures, that they contain the appropriate HSIP provisions and that the procedures are being followed.

The review found that the County HSIP procedures are well documented and are being followed. Several minor recommendations were made to strengthen the procedures, including clarifying project scope changes and evaluating the benefits realized with the County HSIP. Successful practices were also identified, including delivering nearly 100% of the projects on-time, exhibiting flexibility with the allocated funding and using an effective project and program tracking system.

Optional Attachments

Program Structure:

Highway Safety Improvement Program Guidance.pdf
HSIP Procedures Manual.pdf
Safety Study Guidelines.pdf

Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

Glossary

5 year rolling average	means the average of five individuals, 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.