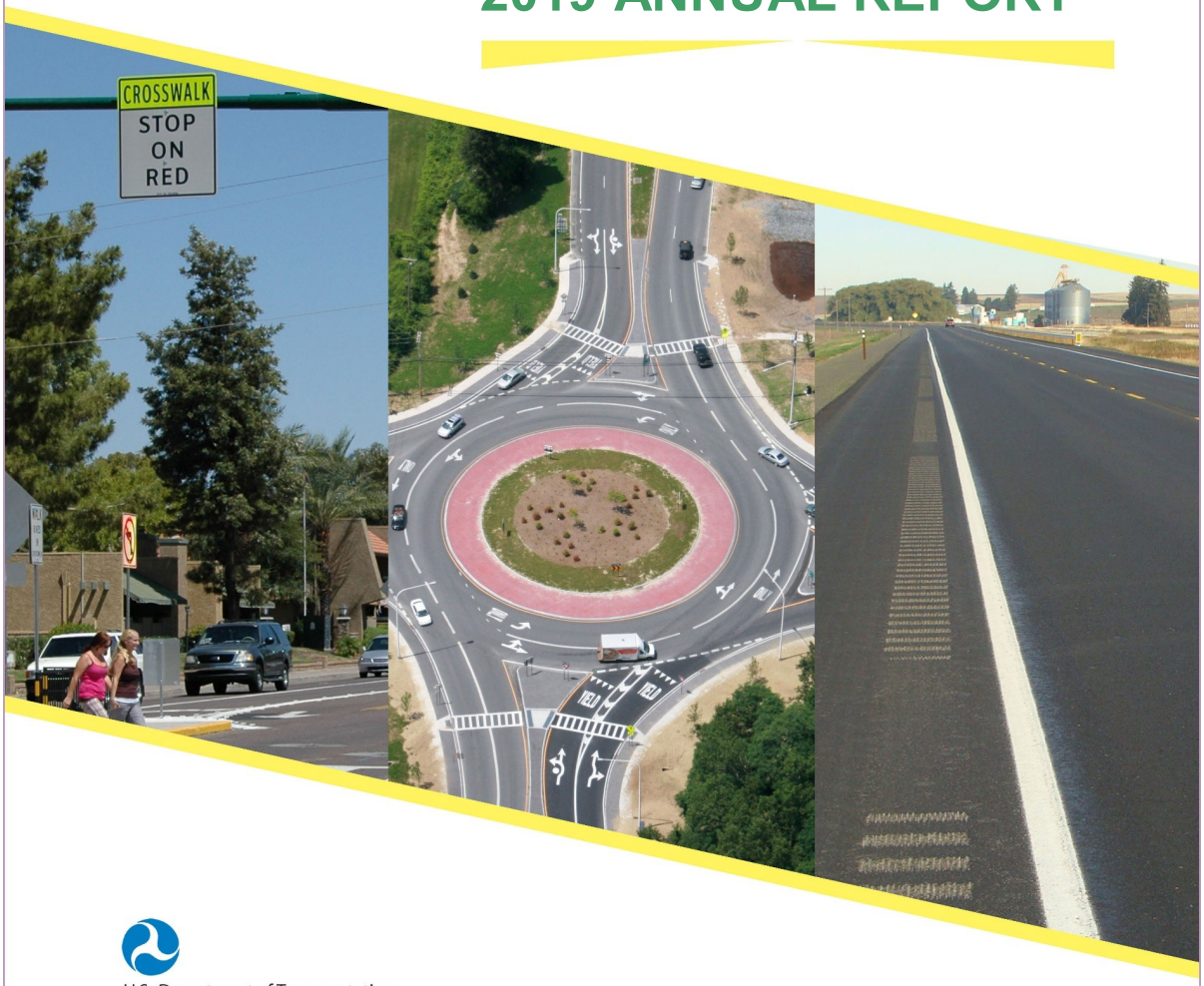
MISSISSIPPI

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2019 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

Table of Contents

Table of Contents....2
Disclaimer....3
Executive Summary....4
Introduction....6
Program Structure....6
  Program Administration....6
  Program Methodology....9
Project Implementation....12
  Funds Programmed....12
  General Listing of Projects....14
Safety Performance....18
  General Highway Safety Trends....18
  Safety Performance Targets....23
  Applicability of Special Rules....26
Evaluation....27
  Program Effectiveness....27
  Effectiveness of Groupings or Similar Types of Improvements....27
  Project Effectiveness....31
Compliance Assessment....37

Disclaimer

Protection of Data from Discovery Admission into Evidence

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

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

Executive Summary

Introduction

The State of Mississippi's HSIP, now operating out of the Highway and Rail Safety Division within the Mississippi Department of Transportation (MDOT), has completed another year of programming and prioritizing projects that support the state's Strategic Highway Safety Plan. Over the last 12 months, the Mississippi HSIP has made great strides in supporting the goal of reducing (and hopefully one day eliminating) fatal and serious injury crashes by programming safety projects that are both aggressive in reducing targeted crash types and innovative in their approach. These advancements of the last year include, but are not limited to, the following highlights:

A Division Solely for Safety

Thanks to the efforts and vision of MDOT's Executive Leadership, the MDOT now has a Division solely dedicated to the efforts of improving highway and railroad crossing safety in the state of Mississippi. The Highway and Rail Safety Division was formed in August 2019 and now gives MDOT and its HSIP staff the opportunity to work with fellow Divisions and District personnel to further spread safety throughout MDOT.

Data Enhancements

The MDOT continued its efforts this past year in working towards making significant updates to its crash data analysis system. Once in place, this new system will provide the Mississippi HSIP and its project managers with the ability to conduct better network screening statewide, the ability to better analyze and assess potential project locations with the use of state-calibrated SPFs, and conduct up-to-date crash data analyses using advanced mapping and GPS-located crashes. Currently, MDOT anticipates this new system to be in place in 2020.

Systemic Safety

MDOT has for years prioritized the use of systemic safety improvements such as Safety Edge and Rumble Stripe/Strips as a part of larger construction and mobility projects. More recently, the HSIP has worked to obligate more of its own funding towards supporting the installment of systemic measures, such as FYA installment along corridors, systemic resigning and striping of selected routes, and even systemic access management. Over the next year, MDOT intends to continue implementing safety more from a systemic approach in the hopes of preventing more crashes statewide, and treating more affected routes and intersections.

Innovative Countermeasures

The HSIP, with the support of MDOT's Administration and Districts, has continued its pursuit of implementing innovative countermeasures to address serious crash concerns. Over the past year, MDOT has programmed more funding towards countermeasures such as roundabouts and RCUTs where crash data and volumes have warranted, and it intends to continue this trend into next year.

SHSP Update

In January 2019, Mississippi officially put into effect its new Strategic Highway Safety Plan . This document, which incorporated statewide participation with numerous agencies and safety advocates, spells out a roadmap by which MDOT and its safety partners intend to target and treat crash concerns over the next five years. Through extensive data analysis, stakeholder involvement and discussion, the following five emphasis areas were selected for the plan:

- Unlicensed Drivers
- Impaired Driving
- Unbelted Vehicle Occupants
- Road Departure Crashes
- Intersection Crashes

A Culture of Safety

While MDOT has worked to address safety through quantifiable efforts such as safety projects, it has also worked over the past year to further institute a culture of safety across the entire department. The last year has seen MDOT Districts and its supporting Division personnel progress in how they give consideration to innovative countermeasures, as well as the mindset for safety in everyday maintenance and construction activities. More and more, the state is seeing MDOT employees looking to incorporate needed safety improvements as a part of all MDOT projects, whether they are safety funded or not. The following report for the state of Mississippi will show how MDOT has programmed its HSIP funds to continue improving safety across the state, as well as how the completed projects have been performing to support those efforts. We feel strongly that not all safety successes in the state will necessarily be captured in the report as the information was requested, but we know that in the last year, the MDOT has worked tirelessly department-wide to ensure that Mississippi's roadways become safer for our fellow drivers than they were the year before.

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.

The Highway Safety Improvement Program staff includes full-time engineers, as well as supporting data analysts and clerical staff, now located in MDOT's new Highway and Rail Safety Division (the HSIP Program was formerly a part of Traffic Engineering Division; this change took place in August 2019). On a day-to-day basis, the HSIP staff works hand-in-hand with other MDOT Divisions in aiding the MDOT Districts towards advancing safety on Mississippi Highways. These regular efforts include data analysis, countermeasure discussion and coordination, as well as the administration of regular safety meetings to keep in contact with the Districts regarding safety matters and concerns.

One of the initiatives that the Mississippi HSIP staff has taken on in the last few years is holding regular safety meetings with its Districts. These meetings are an informal time for HSIP staff to go out into the Districts and discuss locations of concern that are revealed through data analysis, as well as locations that the Districts are fielding calls about from the public, local law enforcement and emergency responders, community leaders, and elected officials. These meetings have proven invaluable in establishing a rapport between District staff and the HSIP, which has aided in the identification of locations of need that might not have been found as quickly by data analysis alone. The HSIP has also seen these relationships promote a level of trust in the selection of alternative intersection countermeasures, as well as more progressive and non-typical countermeasures that are being implemented across the United States.

The second initiative that directly impacts HSIP projects in Mississippi are the Safety Countermeasure Selection Team meetings. These meetings were established by internal policy in the last several years to ensure that applicable MDOT Divisions (Roadway Design Division, Right of Way Division, Traffic Engineering Division, Construction Division, Environmental Division, Planning Division, etc.) and District personnel are extensively involved in the countermeasure selection process for HSIP projects. Before any potential location or set of locations are pursued for HSIP funding, any and all possible countermeasures are discussed with this group in a formalized meeting format. Site visits are conducted as a part of the meeting, and the entire process - including supporting data, location information, countermeasure recommendations, and a benefit to cost analysis - is recorded and summarized in report format. This formal report is then submitted for review and approval by meeting attendees as well as senior MDOT Officials. This ensures that HSIP projects in the state of Mississippi are fully vetted by MDOT staff, and that MDOT utilizes its HSIP funds in the most prudent manner possible.

Once projects are selected, programmed, and constructed using HSIP funds, the MDOT ensures that their performance - in terms of realized crash reductions - is tracked and reported as a part of the HSIP Reporting

process. The Mississippi HSIP typically conducts a five year before and after data analysis of each project in order to provide a healthy set of data to determine the performance of the project's countermeasure(s). In many cases, the state also continues to track projects beyond the five year window to ensure the countermeasure still works and/or other changes are not needed beyond the initial project.

Where is HSIP staff located within the State DOT?

Design

In August 2019, the HSIP program and its staff moved under the new Highway and Rail Safety Division (HRSD) within MDOT. The group was formerly a part of the Traffic Engineering Division, which falls under the MDOT Assistant Chief Engineer for Field Operations. MDOT's new Highway and Rail Safety Division will be located under the Assistant Chief Engineer for Pre-Construction, who is responsible for all design and planning operations within the agency.

How are HSIP funds allocated in a State?

- Other-Central Office

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

As a part of Mississippi's statewide safety efforts, local roads are given consideration for Highway Safety Improvement Program funding during each federal fiscal year. Potential projects are scrutinized under the same set of criteria set forth for state highway safety projects. All HSIP local road safety projects conducted by the Mississippi Department of Transportation are administered through the Circuit Rider Program.

The Circuit Rider program, established in 2012, provides training as well as technical assistance to local road administrators and staff. As a part of the technical assistance portion of the program, Circuit Riders (along with MDOT Safety personnel) review crash data for local roads and conduct site visits with local government authorities to offer countermeasure identification assistance. Solutions offered by Circuit Riders on these site visits can either be resolved by the local road authority, or can be treated under several available Circuit Rider initiatives. Projects identified in need of additional assistance through the Circuit Rider program can be treated using one of the following:

1. Sign Project : At no cost to the local authority, MDOT provides warning and advisory signage to a local government agency where crash trends - systemic or "hot spot" in nature - have been identified, and where signs and/or low cost countermeasures are deemed an appropriate corrective measure. The local authority may be asked to provide an in-kind service as part of the agreement, such as tree trimming within the Right-of-Way; otherwise, the signs are free of charge to the county or municipality. During the 2019 State Fiscal Year (July '18 - June '19), MDOT spent $48,432 of state funds on this program, providing over 1,000 signs (1,099 total) and sign post delineators to local governments to help advance roadway safety.

2. Design Project : Should a location or set of locations within a county, municipality or other local governing body's jurisdiction be deemed eligible by MDOT for HSIP funding, those projects are pursued as a part of the statewide HSIP program. Currently, MDOT chooses to focus its local road safety efforts on low cost measures, including resigning and restriping of routes, the installation of reflective sign post delineators, raised pavement marker reinstallation, etc. There is no application deadline currently for local projects; projects are considered throughout the entire fiscal year. All local road safety projects are considered alongside state highway safety projects. MDOT continues to work with local roadway officials towards developing quality local road safety projects.

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

- Design
- Districts/Regions
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety
- Other-Environmental
- Other-Right of Way Division

Describe coordination with internal partners.

Under current internal policy, applicable MDOT Divisions (District personnel, Roadway Design Division, Construction Division, Environmental Division, Right of Way Division, Planning Division, etc .) are extensively involved in the countermeasure selection process. Before any potential location or set of locations are pursued for HSIP Program funding, any and all possible countermeasures are discussed with this group in a meeting format. Site visits are conducted with this group as a part of the meeting, and the entire process - including supporting data, location information, countermeasure recommendations, etc. - is recorded in report format and approved by meeting attendees as well as MDOT leadership. This ensures that all HSIP projects in the state of Mississippi that adhere to this process are fully vetted by the MDOT staff, and that MDOT utilizes its HSIP funds in the most prudent manner possible.

Identify which external partners are involved with HSIP planning.

- FHWA
- Law Enforcement Agency
- Local Government Agency
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)

The Mississippi HSIP staff works with its FHWA partners within the state on all safety matters ranging from more broad program planning and management down to specific projects and their potential countermeasures. On local road projects, and in some cases where state highway projects require coordination with local officials, MPOs and officers from local agencies are brought in to be a part of project discussions.

Describe coordination with external partners.

The Federal Highway Administration - Mississippi Division is an active participant in program planning for the HSIP. MDOT coordinates with the Division Office for review and approval of the three year funding program and its approval on an annual basis.

Other external partners involved in the HSIP project planning process are local government agencies, MPOs, and MDOT's Local Public Agency (LPA) Division, who is responsible for managing many federally funded projects on local roadways within the State of Mississippi. MDOT coordinates with these partners when the HSIP is developing a potential Safety Circuit Rider project within the local agency's jurisdiction.

Program Methodology

Select the programs that are administered under the HSIP.

- HSIP (no subprograms)

Mississippi chooses to operate its program with a more broad based approach, where all of the listed subprograms are addressed as crashes and circumstances dictate, but without the formalized structure of having multiple subprograms with dedicated funding pots, etc.

Program: HSIP (no subprograms)

Date of Program Methodology:8/3/2015

What is the justification for this program?

- Addresses SHSP priority or emphasis area
- FHWA focused approach to safety
- Other-Addresses state's priority of advancing safety

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
All crashes		

What project identification methodology was used for this program?

- Crash frequency
- Crash rate
- Excess proportions of specific crash types
- Relative severity index

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

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:3
Available funding:2
Cost Effectiveness:1

As MDOT continues to build its list of priority safety projects in the future, it will transition to the use of a ranked list based on benefit to cost.

What percentage of HSIP funds address systemic improvements?

17

HSIP funds are used to address which of the following systemic improvements?

- Add/Upgrade/Modify/Remove Traffic Signal
- Cable Median Barriers
- Clear Zone Improvements
- Horizontal curve signs
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Pavement/Shoulder Widening
- Rumble Strips
- Safety Edge

- Mississippi's largest systemic effort in 2019 was the beginning of two District-wide systemic intersection improvement projects that mimic the South Carolina project model listed as a proven countermeasure by FHWA. These projects will help to spread low cost, systemic improvements to 200+ intersections across two of MDOT's Districts.

- MDOT policy maintains that Safety Edge be installed on all MDOT mill and overlay projects, regardless of funding.

- MDOT's striping policy specifically requires the use of rumble strip/stripe where adequate shoulder is available.

- Over 1,500 miles of OGFC have been installed on MDOT highways to date

What process is used to identify potential countermeasures?

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Stakeholder input
- Other-Input from internal partners

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

Mississippi HSIP projects primarily consider ITS elements when they are a complimentary component of a larger project, such as traffic cameras at a new or improved signal, fiber interconnectivity between signals, or other measures to provide advanced warning to motorists.

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.

Currently, the Mississippi HSIP uses various principles that are cited in the Highway Safety Manual, though the manual is not used extensively in day to day analysis and decision-making. We are currently developing a crash data analysis system that will wholly incorporate the principles and practices outlined in the HSM, and will fully integrate them into how Mississippi evaluates locations across the state, and potential projects.

The state is also currently working through the process of calibrating multiple SPFs for Mississippi crash data in hopes that those can be used once the new crash data analysis system is online.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

Federal Fiscal Year

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$29,234,202	$29,234,202	100%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$165,174	$165,174	100%
Penalty Funds (23 U.S.C. 154)	$5,732,238	$5,732,238	100%
Penalty Funds (23 U.S.C. 164)	$0	$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$3,680,744	$3,680,744	100%
Other Federal-aid Funds (i.e. STBG, NHPP)	$0	$0	0%
State and Local Funds	$3,970,041	$3,970,041	100%
Totals	$42,782,399	$42,782,399	100%

HSIP (23 U.S.C. 148) Funding figures - Programmed and Obligated - include the 2018 HSIP funding apportionment for the state of Mississippi, as well as a portion of HSIP funds returned* from previous fiscal years.

HRRR (23 U.S.C. 148(g)(1)) Funding figures shown for this category are made up of HRRR funding returned* from previous fiscal years totaling $165,174.

State and Local Fund totals includes $51,567 of state funds spent to provide free warning and advisory signage to local governments through the Safety Circuit Rider Program.

*Returned funds are from previous years when HSIP projects came in under the programmed construction budget.

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

$300,000

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

$300,000

Mississippi is beginning design on two local road safety projects that will let to construction next federal fiscal year. The projects target lane departure crashes on multiple high priority routes across Lauderdale and Warren Counties. The state is also beginning work on a Local Road Safety Plan (LRSP) that will cover Mississippi's three coastal counties: Hancock, Harrison, and Jackson.

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

$200,000

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

$200,000

The state is beginning work on a Local Road Safety Plan (LRSP) that will cover Mississippi's three coastal counties: Hancock, Harrison, and Jackson.

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%

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

There are no impediments.

General Listing of Projects

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

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Circuit Rider Sign Donation/Bright Stick Program	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Statewide	$0	$51567	State and Local Funds	Multiple/Varies	Multiple/Varies	0		County and Municipality	Systemic	Roadway Departure, Intersections	
Safety Circuit Rider Project - Lauderdale County	Roadway signs and traffic control	Curve-related warning signs and flashers	8	Locations	$-53545	$-53545		Multiple/Varies	Multiple/Varies	0		County Highway Agency	Systemic	Roadway Departure	
US 49 SB Fr Main St in Mt. Olive to Walter Lott Rd. in Seminary	Shoulder treatments	Widen shoulder - paved or other	24.2	Miles	$4847287	$5385874.44	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	11,050	65	State Highway Agency	Spot	Roadway Departure	
MS 25, Tishomingo County	Intersection traffic control	Systemic improvements - stop-controlled	38.9	Miles	$0	$0		Rural	Principal Arterial-Other	1,564	55	State Highway Agency	Spot	Intersections	
US 61 at Delta View Rd	Intersection traffic control	Intersection traffic control - other	1	Intersections	$-81104	$-81104	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	16,046	65	State Highway Agency	Spot	Intersections	
US 82 fr MS River Bridge to MS 454	Lighting	Intersection lighting	1	Intersections	$-20620	$-22911.11	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	7,600	45	State Highway Agency	Spot	Intersections	
I-20 West Brandon Interchange	Interchange design	Extend existing lane on ramp	1	Interchanges	$-56523	$-62803.33	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	24,300	70	State Highway Agency	Spot	Intersections	
US 45A at Tarlton Rd	Access management	Median crossover - directional crossover	1	Intersections	$-40752	$-45280	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	6,930	65	State Highway Agency	Spot	Intersections	
US 45 at Ripley Rd	Intersection traffic control	Intersection traffic control - other	1	Intersections	$-20333	$-22592	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	12,500	65	State Highway Agency	Spot	Intersections	
US 11 Intersection Safety Study	Non-infrastructure	Road safety audits	3	Intersections	$-46572	$-51746.67	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0	45	State Highway Agency	Spot	Intersections	
MS 25 at US 278 Amory	Intersection geometry	Intersection geometrics - miscellaneous/other/unspecified	1	Intersections	$-48275	$-53638.89	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0	45	State Highway Agency	Spot	Intersections	

2019 Mississippi Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
US 49 fr Old Hwy 49/Wilson Homes Rd to Witherspoon Rd	Shoulder treatments	Widen shoulder - paved or other	11	Miles	$-638681	$-709645.56	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	11,970	65	State Highway Agency	Spot	Roadway Departure	
US 49 fr Peps Point Rd to US 98	Intersection traffic control	Systemic improvements - signal-controlled	13	Intersections	$5473529	$6081698.89	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	24,160	45	State Highway Agency	Spot	Intersections	
US 90 Signal and Access Improvements in Pascagoula	Intersection traffic control	Systemic improvements - signal-controlled	4.5	Miles	$6454194.3	$7171327	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	28,960	45	State Highway Agency	Spot	Intersections	
US 84 at Auburn Rd	Intersection traffic control	Intersection traffic control - other	2	Intersections	$1429481	$1588312.22	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	8,338	65	State Highway Agency	Spot	Intersections	
MS 25 at River Bend Rd	Access management	Median crossover - directional crossover	1	Intersections	$145973	$162192.22	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	7,250	65	State Highway Agency	Spot	Intersections	
MS 12 from Hollandale (US 61) to the Sunflower River	Shoulder treatments	Widen shoulder - paved or other	9.5	Miles	$-53120	$-59022.22	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	1,800	55	State Highway Agency	Systemic	Roadway Departure	
US 278 at MS 345 and Rocky Ford Rd/CR 833	Access management	Median crossover - directional crossover	2	Intersections	$1800000	$2000000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	22,472	65	State Highway Agency	Spot	Intersections	
US 49 fr the Stone CL to South Gate Rd	Shoulder treatments	Widen shoulder - paved or other	19.9	Miles	$0	$0	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	11,950	65	State Highway Agency	Spot	Roadway Departure	
US 49 Covington County Intersection Improvements	Intersection geometry	Intersection geometry - other	3	Intersections	$877985	$975538.89	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0	65	State Highway Agency	Spot	Roadway Departure	
MS 613 Systemic Curves Project	Roadway signs and traffic control	Curve-related warning signs and flashers	32.2	Miles	$-23896	$-26551.11	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,840	55	State Highway Agency	Systemic	Roadway Departure	
District 6 Districtwide Intersection Improvement Project	Intersection traffic control	Systemic improvements - stop-controlled	164	Intersections	$135000	$150000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
US 84 at MS 184 (west of Waynesboro)	Access management	Change in access - close or restrict existing access	1	Intersections	$405000	$450000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	9,850	65	State Highway Agency	Spot	Intersections	
US 84 at Reservoir Rd/Magnolia Hill	Intersection traffic control	Intersection traffic control - other	1	Intersections	$405000	$450000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	7,311	65	State Highway Agency	Spot	Intersections	
MS 7 at MS 9W	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	$0	$0		Rural	Principal Arterial-Other	11,585	55	State Highway Agency	Spot	Intersections	
MS 363 fr MS 178 to the Lee CL	Roadway delineation	Longitudinal pavement markings - new	11.8	Miles	$74583	$82870	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,500	55	State Highway Agency	Systemic	Roadway Departure	
Safety Circuit Rider - Warren County Lane Departure Improvements	Roadway signs and traffic control	Curve-related warning signs and flashers	10	Locations	$45000	$50000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		County Highway Agency	Systemic	Roadway Departure	
Safety Circuit Rider - Lauderdale County Lane Departure Improvements	Roadway signs and traffic control	Curve-related warning signs and flashers	8	Locations	$45000	$50000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		County Highway Agency	Systemic	Roadway Departure	
I-55 fr 1 mi S of MS 14 to the Carroll CL	Roadside	Barrier - cable	21	Miles	$1800000	$2000000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	14,790	70	State Highway Agency	Systemic	Roadway Departure	
I-55 fr 1 mi S of Martinsville to 1 mi N of MS 27	Roadside	Barrier - cable	8.1	Miles	$1800000	$2000000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	25,510	70	State Highway Agency	Systemic	Roadway Departure	
I-55 fr Holmes CL to 1.5 mi N of MS 35	Roadside	Barrier - cable	19.6	Miles	$1800000	$2000000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	14,000	70	State Highway Agency	Systemic	Roadway Departure	
MS 53 fr South of Cuevas Gravel Pit Rd to I-59	Roadway	Rumble strips - center	7.4	Miles	$0	$0		Rural	Minor Arterial	3,000	55	State Highway Agency	Systemic	Roadway Departure	
MS 12, from Old Highway 12 to Sta 17+47	Access management	Raised island - install new	2.6	Miles	$45000	$50000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	23,650	45	State Highway Agency	Spot	Intersections	
MS 12, from Sta 17+47 to Russell Street	Access management	Raised island - install new	1.2	Miles	$135000	$150000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	23,650	45	State Highway Agency	Spot	Intersections	

2019 Mississippi Highway Safety Improvement Program

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Coastal County Local Road Safety Plan	Non-infrastructure	Transportation safety planning	1	Three Counties	$180000	$200000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		County Highway Agency	Systemic	Roadway Departure, Intersections	
Rail Signage Project	Roadway signs and traffic control	Roadway signs and traffic control - other	1	Statewide	$-28289	$-31432.22	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		County and Municipality	Systemic	Intersections	

- Funding values as shown above include both obligated expenditures so far this year for HSIP projects, as well as anticipated obligations for the remainder of this federal fiscal year (FFY). This information represents the best available data at this time for how Mississippi's HSIP funds are to be obligated this FFY.

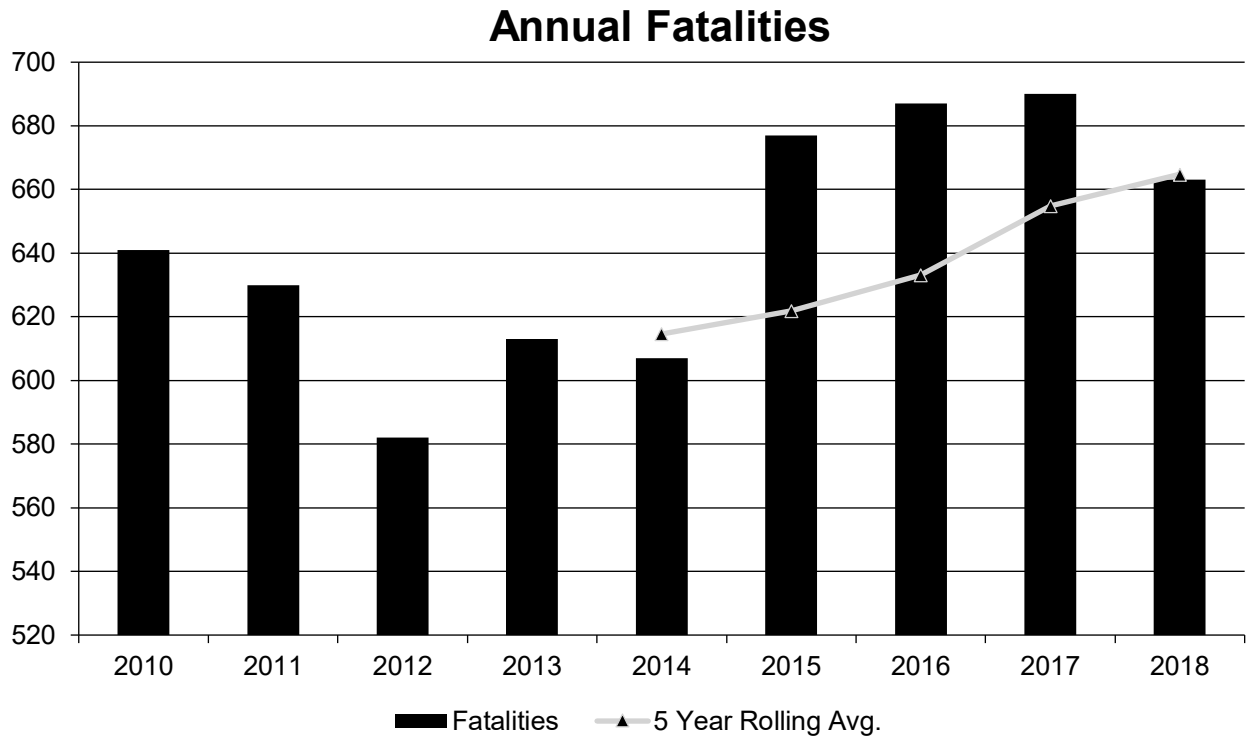
- Some projects listed above as being HSIP (23 U.S.C 148) funded may also be partially funded with Penalty Funds (23 U.S.C. 154).

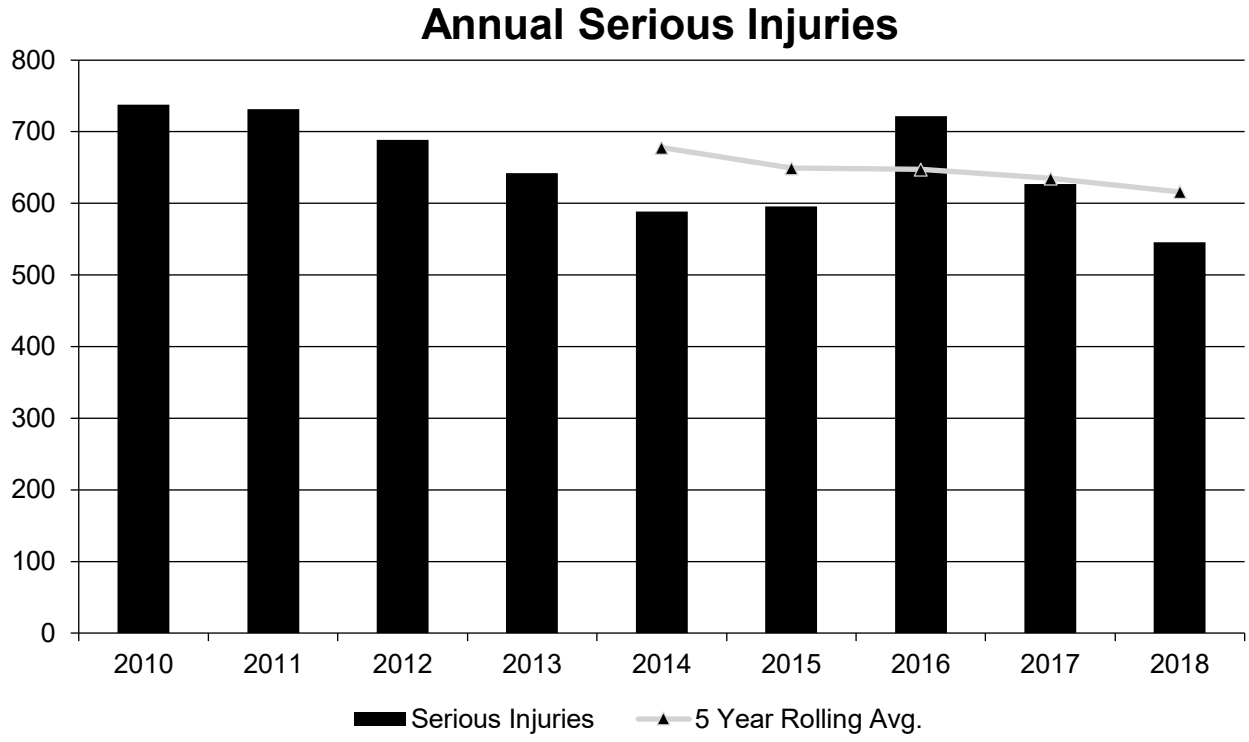
Safety Performance

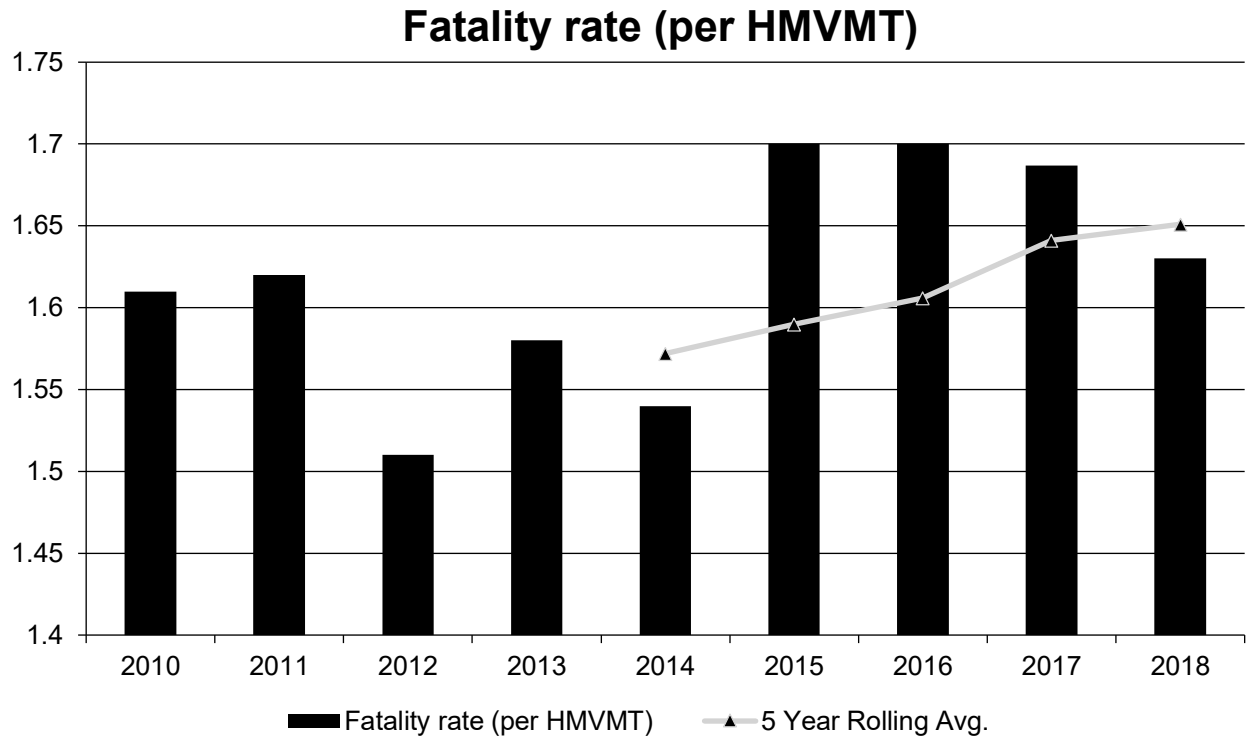
General Highway Safety Trends

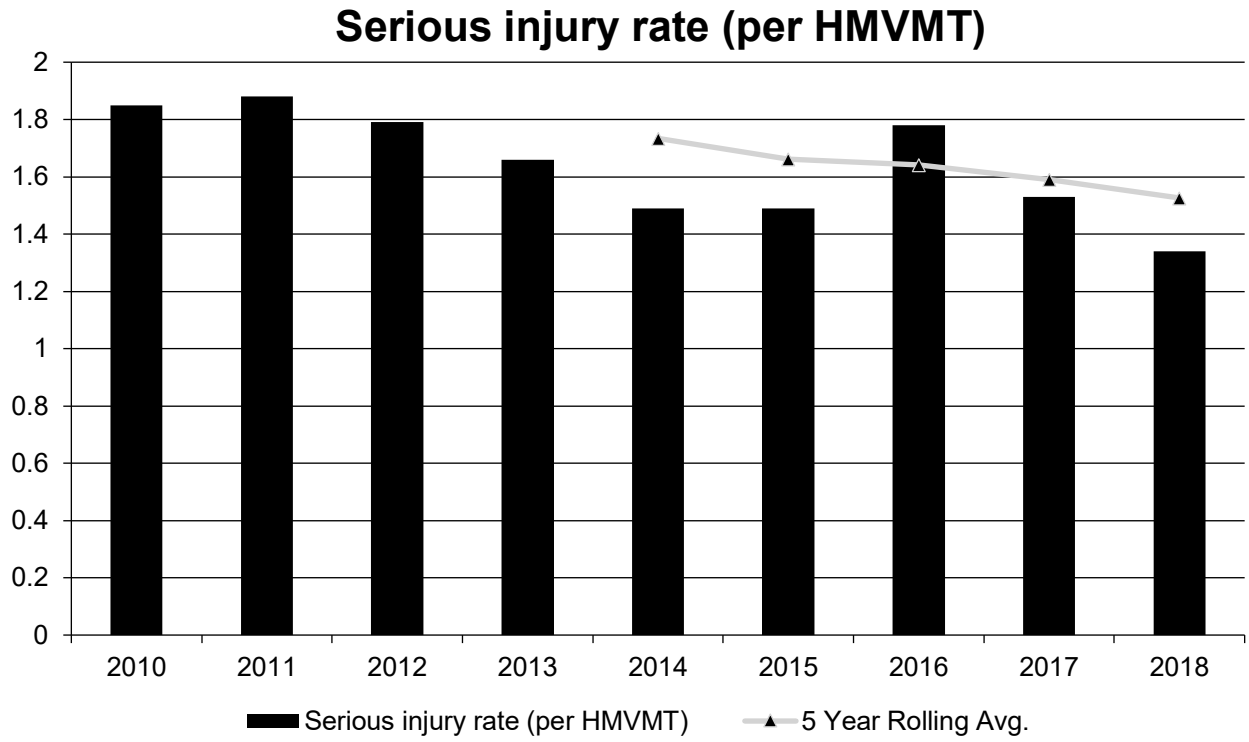
Present data showing the general highway safety trends in the State for the past five years.

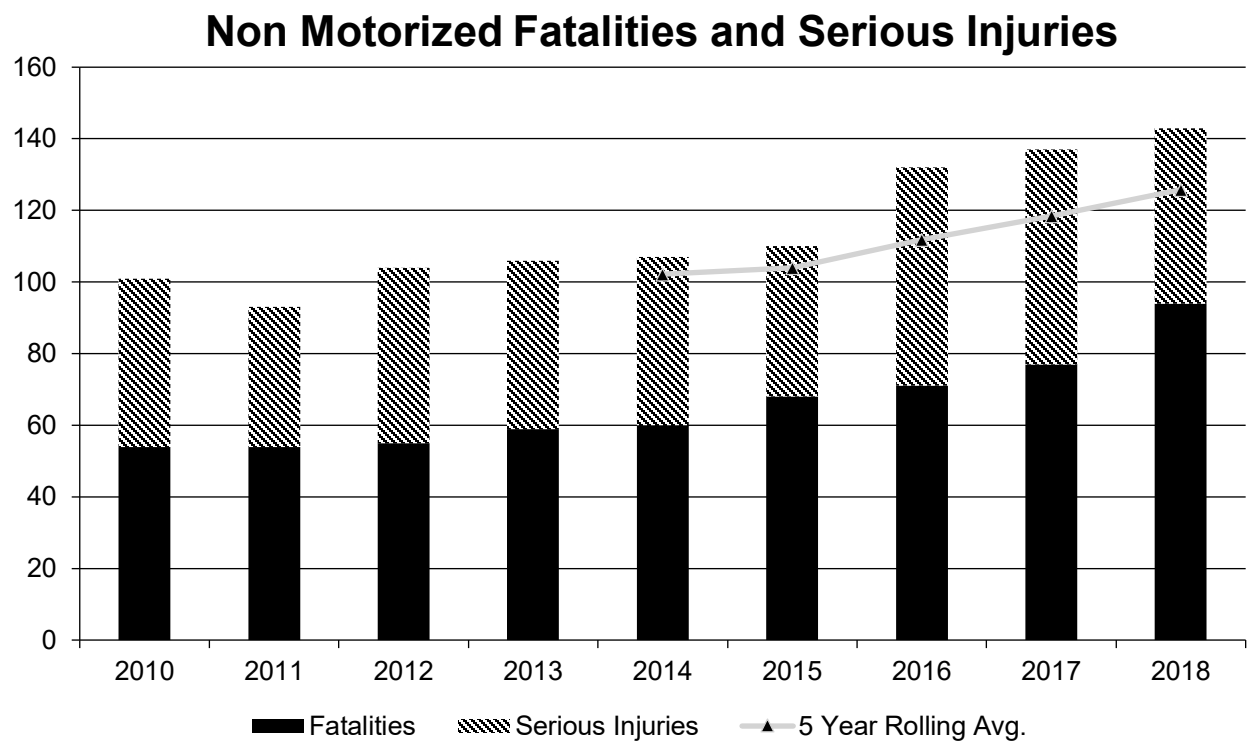
PERFORMANCE MEASURES	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fatalities	641	630	582	613	607	677	687	690	663
Serious Injuries	738	732	689	642	589	596	722	627	546
Fatality rate (per HMVMT)	1.610	1.620	1.510	1.580	1.540	1.700	1.700	1.687	1.630
Serious injury rate (per HMVMT)	1.850	1.880	1.790	1.660	1.490	1.490	1.780	1.530	1.340
Number non-motorized fatalities	54	54	55	59	60	68	71	77	94
Number of non-motorized serious injuries	47	39	49	47	47	42	61	60	49


Annual Fatalities
700
680
660
640
620
600
580
560
540
520
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
800
700
600
500
400
300
200
100
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.75
1.7
1.65
1.6
1.55
1.5
1.45
1.4
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



- The 2018 reported traffic fatalities for the state of Mississippi is an accurate representation of what we in the Mississippi HSIP anticipate the number to be, based upon our own analyses, as well as conversations with the state's FARS Analyst, the Department of Public Safety, and other applicable officials within the state. That number is not yet certified, though, and therefore may be subject to change before final admission into the FARS Public Database. This same note applies to the reported number of non-motorized fatalities for 2018.

- Serious Injuries are reported using Mississippi's Safety Analysis Management System (SAMS).

- All reported Serious Injuries in the chart for 2010-2017 have been modified from previous reports. This was due to an error discovered during the development of this year's report where Mississippi previously reported too few serious injuries. The state had not been counting serious injuries that happened in fatal crashes. Once the issue was identified, the counts were updated for this year and previous years, and the new totals as shown above more accurately represent the realized values. As will be discussed later in the report, this previously-unknown error has also caused issues with performance target setting, and the state's ability to meet targets set for this year.

Describe fatality data source.

FARS

- Mississippi relies wholly on FARS data for fatal crashes when available; however, we do use data from our Safety Analysis Management System (SAMS) as an interim measure when FARS data is not available and/or finalized when needed for analysis.

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

Year 2018

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	51.4	28.6	1.23	0.68
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0	0	0	0
Rural Principal Arterial (RPA) - Other	155	83	2.89	1.59
Rural Minor Arterial	89	78.6	2.53	2.26
Rural Minor Collector	10.8	20.4	2.6	4.83
Rural Major Collector	104	120.2	2.58	2.99
Rural Local Road or Street	68.4	54.2	1.23	0.97
Urban Principal Arterial (UPA) - Interstate	29.8	27.6	0.72	0.67
Urban Principal Arterial (UPA) - Other Freeways and Expressways	4	4.2	0.84	0.86
Urban Principal Arterial (UPA) - Other	62	74.4	1.2	1.44
Urban Minor Arterial	26	32.4	1	1.25
Urban Minor Collector	19.4	23	0.98	1.16
Urban Major Collector	0			
Urban Local Road or Street	24.2	17.4	0.76	0.56

Year 2018

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	447.6	382.2	1.83	1.56
County Highway Agency	137.6	168.4	1.55	1.89
Town or Township Highway Agency				
City or Municipal Highway Agency	55.8	68.4	0.83	1.02
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)		8.4		
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

Safety Performance Targets

Safety Performance Targets

Calendar Year 2020 Targets *

Number of Fatalities:682.0

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

MDOT's performance target for number of fatalities is based on a five year rolling average developed using 10 years' (2009-2018) worth of historical crash data. Prediction models are based on Excel's

FORECAST.ETS exponential triple smoothing formula. While we always maintain a target of zero fatalities, historical trends in the state are more in line with what is presented.

Number of Serious Injuries:661.0

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

MDOT's performance target for number of serious injuries is based on a five year rolling average developed using 9 years' (2009-2017) worth of historical crash data. Prediction models are based on Excel's FORECAST.ETS exponential triple smoothing formula. 2018 values have been estimated at this time as the current value in our system is unreliable and does not fit with current historical trends.

Fatality Rate:1.690

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

MDOT's performance target for number of fatalities is based on a five year rolling average developed using 10 years' (2009-2018) worth of historical crash data. The volumes used to calculate the rates are provided by MDOT's Planning Division.

Serious Injury Rate:1.570

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

MDOT's performance target for number of serious injuries is based on a five year rolling average developed using 9 years' (2009-2017) worth of historical crash data. The volumes used to calculate the rates are provided by MDOT's Planning Division.

Total Number of Non-Motorized Fatalities and Serious Injuries:145.5

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

MDOT's performance target for number of non-motorized fatalities and serious injuries is based on a five year rolling average developed using 10 years' (2009-2018) worth of historical crash data. Prediction models are based on Excel's FORECAST.ETS exponential triple smoothing formula. While we always maintain a target of zero fatalities, historical trends in the state are more in line with what is presented.

While developing performance targets, MDOT's HSIP personnel met numerous times with the Mississippi Office of Highway Safety (MOHS), who is responsible for the state's NHTSA Highway Safety Plan (HSP). Our offices worked hand in hand to determine the appropriate performance targets regarding fatalities, fatality rate, and serious injuries that are included both in the HSP as well as the HSIP Report. Our offices agreed to the three targets, and MOHS reported the joint targets as a part of their June 2019 reporting processes for the HSP.

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

- The Mississippi DOT worked hand-in-hand alongside the Mississippi Office of Highway Safety (OHS) in

reviewing the data necessary to develop the three shared safety performance targets: Fatalities, Fatality Rate, and Serious Injuries. Personnel responsible for the development of the Highway Safety Plan (HSP) participated in all meetings to establish final targets.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2018 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

Fatalities: 677.8

The five year rolling average for fatalities in Mississippi, including a tentative 663 fatalities in 2018, was 664.8. This value is 13 fatalities below the performance target of 677.8. While Mississippi is pleased to have met the target, the state is not satisfied. Those who work day in and day out with the HSIP efforts in the state will continue to work until the true target of zero is met.

Serious Injuries: 574.4

The five year rolling average for serious injuries in Mississippi, including a tentative 546 serious injuries in 2018, was 616. This value is nearly 42 serious injuries above the performance target of 574.4. As was discussed on Question 30, a major contributing factor to missing this performance target was the previous issues with reported serious injuries. Mississippi was not properly counting serious injuries that occurred in fatal crashes, and thus the realized values reported statewide were too low. Using these erroneous values, Mississippi ultimately set targets that were likely never attainable given the data error. The issue has since been corrected, and targets set going forward will be measured more accurately against historical trends and what we expect in the years to come.

Fatality Rate: 1.668

The five year rolling average for fatality rate in Mississippi, including a tentative rate of 1.630 in 2018, was 1.651. This value would put the state below the performance target of 1.668. While Mississippi is pleased to have met the target, the state is not satisfied. Those who work day in and day out with the HSIP efforts in the state will continue to work until the true target of zero is met.

Serious Injury Rate: 1.425

The five year rolling average for serious injury rate in Mississippi, including a tentative rate of 1.340 in 2018, was 1.526. This value would mean that Mississippi did not meet its performance target of 1.425 for this particular category. As was discussed on above for serious injuries, this is primarily due to the serious injury reporting error. The issue has since been corrected, and targets set going forward will be measured more accurately against historical trends and what we expect in the years to come.

Non-Motorized Fatalities and Serious Injuries: 119.8

The five year rolling average for non-motorized fatalities and serious injuries in Mississippi, including a tentative value of 143 in 2018, was 125.8. This value would mean that the state did not meet its performance target of 119.8 for 2018. As was the case with serious injuries and serious injury rate, incorrectly counting serious injury values too low contributed to setting a target that was too low. Additionally, Mississippi has experienced a dramatic rise in pedestrian fatalities and serious injuries, and is working to identify what is

contributing to these troubling trends, and hopefully begin to correct them. Those who work day in and day out with the HSIP efforts in the state will continue to work until the true target of zero is met.

Applicability of Special Rules

Does the HRRR special rule apply to the State for this reporting period?
No

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	62	84	60	66	68	98	90
Number of Older Driver and Pedestrian Serious Injuries	27	44	41	22	31	48	58

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Other-Before and After Crash Analysis

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

As a part of the HSIP reporting process, the state of Mississippi has kept track of the performance of its HSIP projects. Since this first began, the preferred method of evaluating projects has been to measure the crashes occurring after the project was constructed and in place against crashes at the location before improvements were installed. Using this measuring tool, the state of Mississippi's HSIP has realized an appreciable success in terms of its project effectiveness. Through the Federal Fiscal Year 2019, Mississippi HSIP projects with a minimum of three years of before and after crash data have achieved a 36% reduction of the severity of crashes at its project locations, as well as a 17.6% reduction in the number of overall crashes at these same locations. While recognizing that these reductions are a positive litmus test for the projects that Mississippi has selected for the HSIP to date, it is the intention of our program to aggressively pursue projects to make Mississippi's roads safer for our fellow road users.

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

- # miles improved by HSIP
- # RSAs completed
- HSIP Obligations
- Increased awareness of safety and data-driven process
- Increased focus on local road safety
- More systemic programs
- Organizational change
- Policy change

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

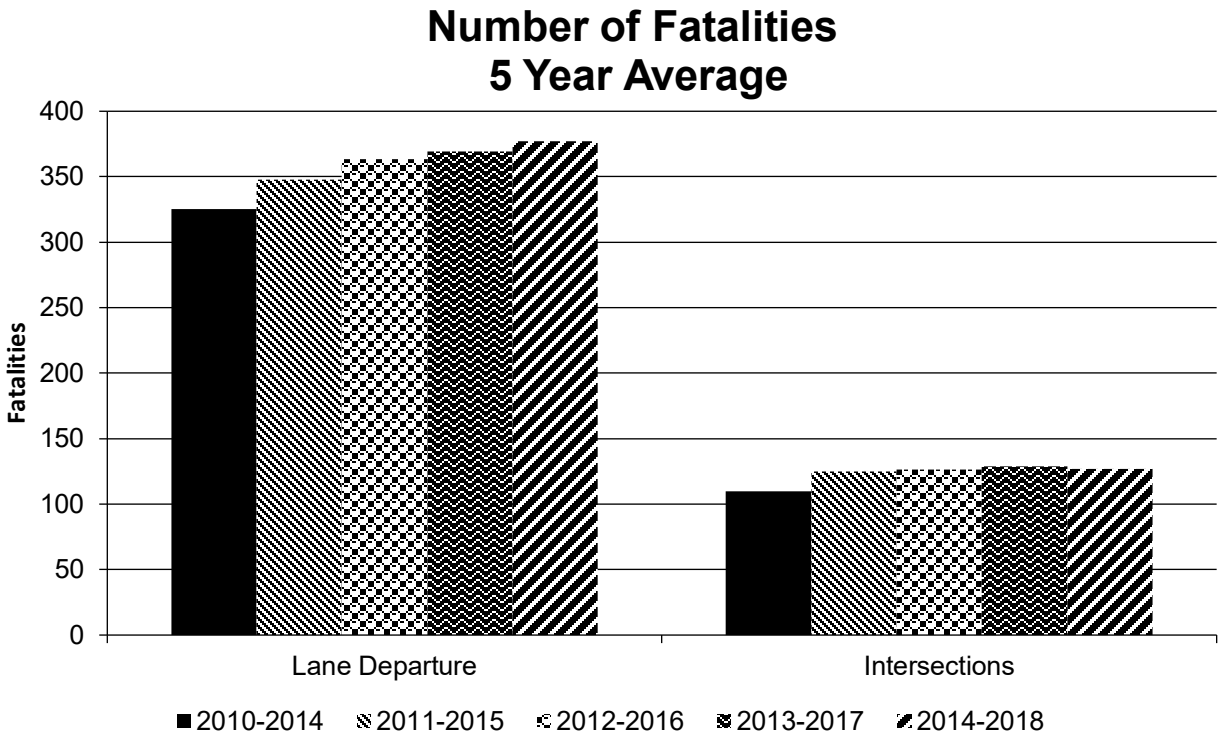
A State's commitment to safety can be measured in many different ways, and in the past federal fiscal year, MDOT has undertaken a major change that the state is quite proud of. Thanks to the determination of the MDOT's Executive Leadership, MDOT now has a division solely dedicated to HSIP efforts in the state: the Highway and Rail Safety Division (HRSD). MDOT's decision to form a Division solely dedicated to safety will help in the pursuit of the ultimate goal: zero deaths on our roadways.

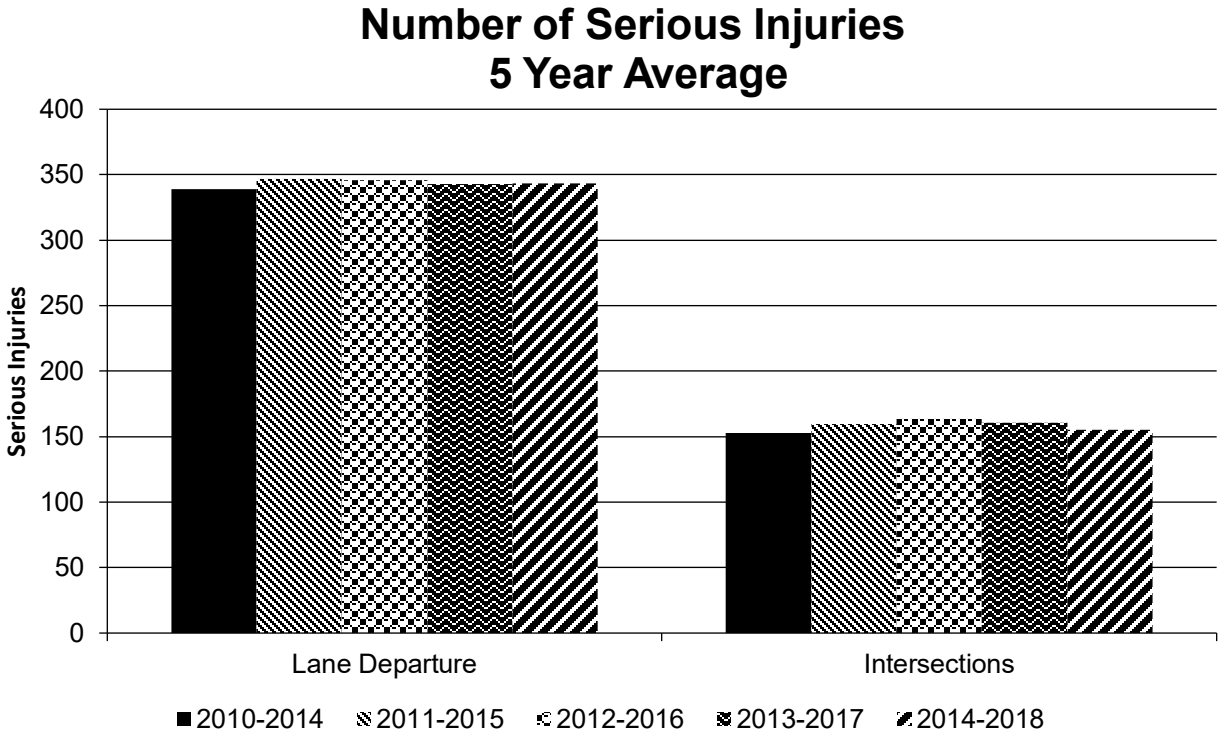
Effectiveness of Groupings or Similar Types of Improvements

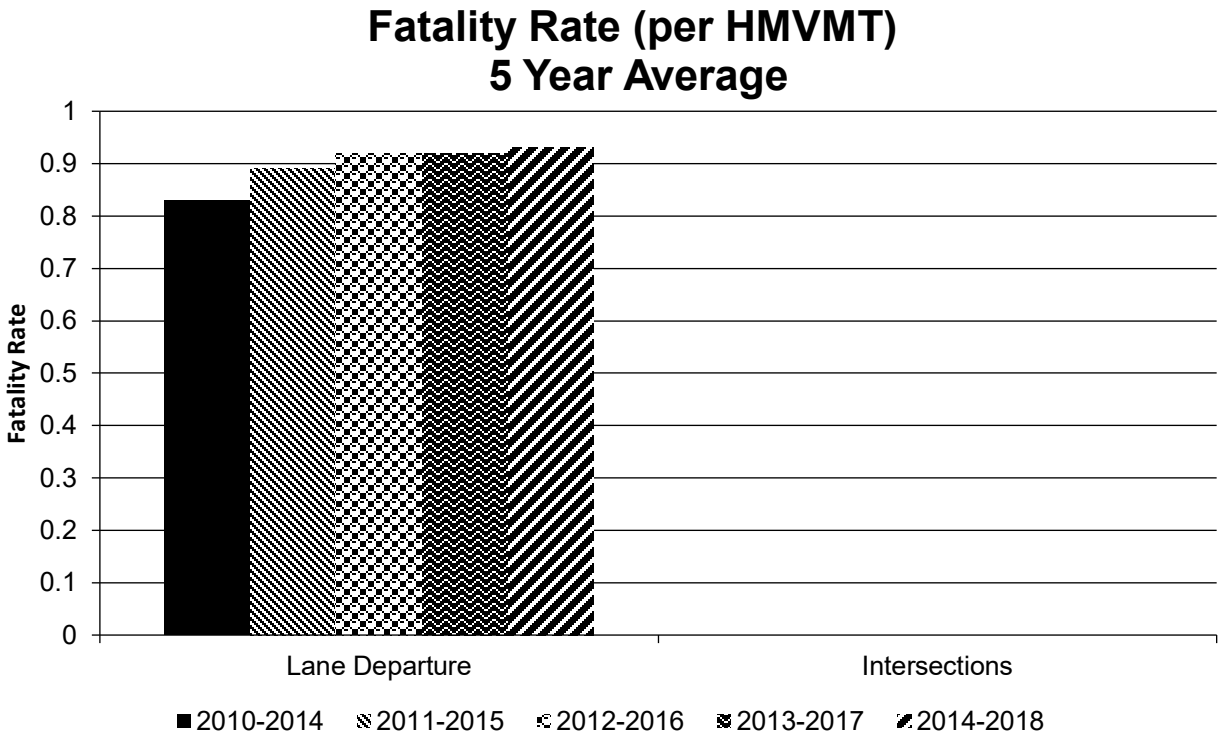
Present and describe trends in SHSP emphasis area performance measures.

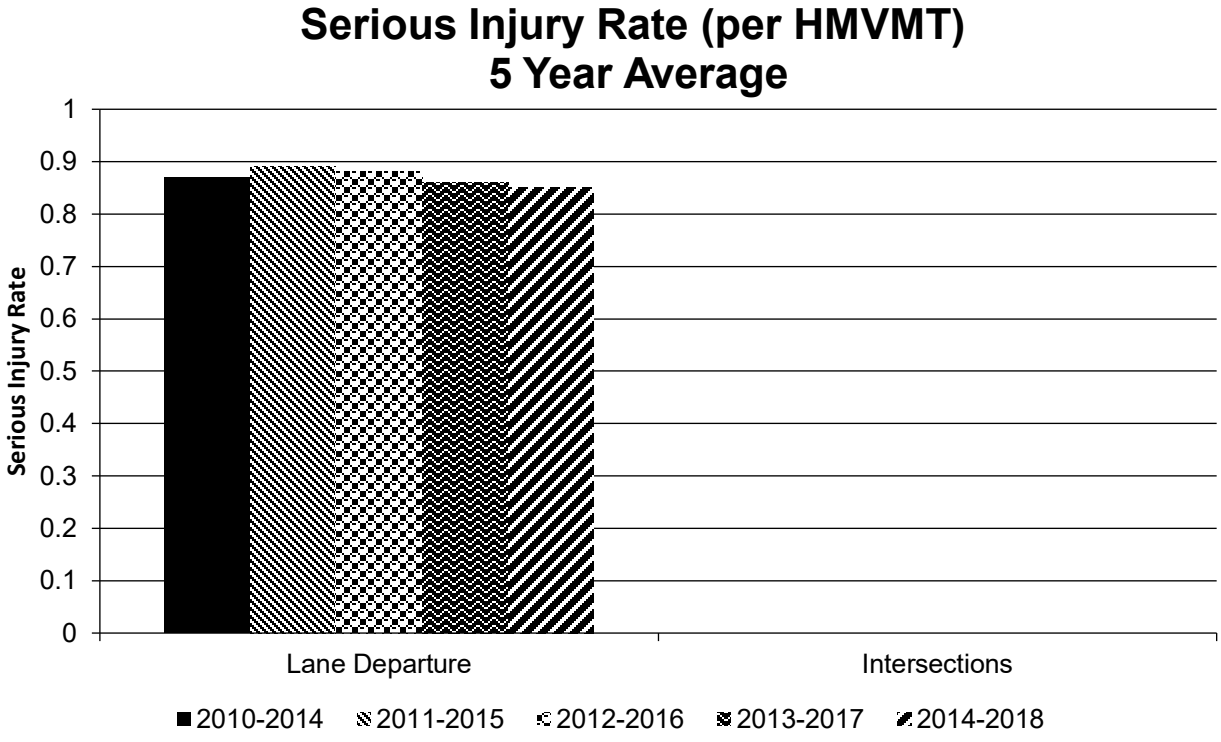
Year 2018

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)
Lane Departure		377	343.2	0.93	0.85
Intersections		126.8	155		


Number of Fatalities
5 Year Average
Fatalities
400
350
300
250
200
150
100
50
0
Lane Departure
Intersections
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018


Number of Serious Injuries
5 Year Average
Serious Injuries
400
350
300
250
200
150
100
50
0
Lane Departure
Intersections
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018





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

No

Project Effectiveness

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)
Kiln-Delisle at Vidalia Curb and Gutter	Rural Major Collector	Intersection geometry	Auxiliary lanes - add left-turn lane	3.00	1.00					1.00	1.00	4.00	2.00	
US 49 Fr Campbell Loop to N 31st	Urban Principal Arterial (UPA) - Other	Access management	Raised island - install new	94.00	141.00	4.00		1.00	1.00	51.00	50.00	150.00	192.00	
US 90 at Franklin Creek Rd	Rural Principal Arterial (RPA) - Other	Intersection geometry	Intersection geometrics - modify skew angle	15.00	18.00	3.00			1.00	18.00	14.00	36.00	33.00	
US 84 at Ferguson Mill Rd.	Rural Principal Arterial (RPA) - Other	Access management	Median crossover - directional crossover	6.00		2.00				7.00	1.00	15.00	1.00	
US 61 at Delta View Rd.	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Intersection traffic control - other	5.00	9.00	1.00				7.00	9.00	13.00	18.00	
I-59 @ 16th Ave	Urban Principal Arterial (UPA) - Interstate	Interchange design	Ramp closure	57.00	55.00					10.00	15.00	67.00	70.00	
MS 35 at I-20 EB Ramps	Urban Minor Arterial	Intersection traffic control	Intersection traffic control - other	13.00	17.00	1.00				12.00	3.00	26.00	20.00	
US 84 at Magnolia Rd.	Rural Principal Arterial (RPA) - Other	Access management	Median crossover - directional crossover	9.00	28.00	1.00				10.00	8.00	20.00	36.00	
US 45 at CR 212	Rural Principal Arterial (RPA) - Other	Access management	Median crossover - directional crossover	5.00		1.00		1.00		6.00	1.00	13.00	1.00	
RWIS Installations, I-69 over Hurricane Creek	Rural Principal Arterial (RPA) - Interstate	Advanced technology and ITS	Advanced technology and ITS - other	9.00								9.00		
RWIS Installations, I-55 over Coldwater River	Rural Principal Arterial (RPA) - Interstate	Advanced technology and ITS	Advanced technology and ITS - other	5.00	1.00					2.00	1.00	7.00	2.00	
US 72 at MS 7	Rural Principal Arterial (RPA) - Other	Roadway signs and traffic control	Roadway signs and traffic control - other	17.00	30.00	4.00	1.00	2.00	1.00	23.00	20.00	46.00	52.00	
MS 463 at Sunny Orchard	Urban Principal	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	26.00	39.00					9.00	13.00	35.00	52.00	

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)
	Arterial (UPA) - Other													
MS 463 at Welch Farms	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	13.00	29.00					5.00	7.00	18.00	36.00	
MS 463 (Old)/Main at Post Oak	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	14.00	4.00					1.00		15.00	4.00	
MS 463 at Colony Crossing/Key	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	44.00	46.00					11.00	6.00	55.00	52.00	
MS 463 at Woodgreen	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	24.00	28.00					4.00	11.00	28.00	39.00	
MS 463 at Annandale/Reunion	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	11.00	15.00					1.00		12.00	15.00	
MS 463 at Mannsdale Park	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	22.00	44.00					4.00	8.00	26.00	52.00	
MS 463 at St. Joe	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	6.00	8.00					6.00	1.00	12.00	9.00	
MS 463 at Madison Middle School	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	10.00	24.00					3.00	1.00	13.00	25.00	
MS 463 at Highland Colony Parkway	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	93.00	139.00					14.00	16.00	107.00	155.00	
US 51 at Hoy Rd.	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	63.00	78.00	1.00			1.00	13.00	15.00	77.00	94.00	
US 51 at Main/Old MS 463	Urban Principal	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	76.00	46.00					16.00	6.00	92.00	52.00	

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)
	Arterial (UPA) - Other													
US 51 at Lake Harbor	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	41.00	64.00					9.00	14.00	50.00	78.00	
US 51 at Ridgewood	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	27.00	33.00					8.00	6.00	35.00	39.00	
US 51 at McLellan	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	11.00	11.00				1.00	9.00	4.00	20.00	16.00	
US 51 at Ridgeland/Sunnycrest	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	32.00	50.00					8.00	8.00	40.00	58.00	
US 51 at Jackson St/MS 886	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	126.00	122.00					24.00	26.00	150.00	148.00	
US 51 at Rice Rd	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	130.00	138.00	1.00				24.00	19.00	155.00	157.00	
US 51 at School St.	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	54.00	50.00					9.00	10.00	63.00	60.00	
US 51 at Olympic Way	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	8.00	12.00					5.00	4.00	13.00	16.00	
US 51 at Madison Ave	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	50.00	49.00					9.00	12.00	59.00	61.00	
US 51 at St. Augustine	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	12.00	21.00					6.00	3.00	18.00	24.00	
US 51 at Cobblestone	Urban Principal	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	12.00	11.00					3.00	4.00	15.00	15.00	

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)
	Arterial (UPA) - Other													
MS 2 Fr Tippah/Alcorn Co Ln to Kossuth	Rural Minor Arterial	Roadway	Rumble strips - edge or shoulder	47.00	28.00		1.00	2.00	2.00	26.00	13.00	75.00	44.00	
I-20 WB On Ramp at Lost Gap	Rural Principal Arterial (RPA) - Interstate	Interchange design	Extend existing lane on ramp	3.00						2.00		5.00		
US 61 at Oak Ridge/Bowie	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	17.00	13.00	2.00		1.00	2.00	9.00	3.00	29.00	18.00	
US 49 at Hall St.	Rural Principal Arterial (RPA) - Other	Access management	Median crossover - close crossover	15.00	1.00			4.00		12.00	2.00	31.00	3.00	
US 49 at S. Magnolia	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	20.00	34.00			1.00		9.00	5.00	30.00	39.00	
US 49 at Walmart	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - add additional signal heads	18.00	14.00					8.00	6.00	26.00	20.00	
US 49 at 4th St.	Rural Principal Arterial (RPA) - Other	Access management	Median crossover - directional crossover	8.00	1.00	1.00		1.00		22.00	1.00	32.00	2.00	
US 49 at Ora Swamp/Sunset	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	12.00	6.00			1.00		8.00	8.00	21.00	14.00	
US 49 at Pinecrest/Westview/Frontage	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	1.00	7.00				1.00	1.00	11.00	2.00	19.00	
US 49 at Selma/Rebecca	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - add flashing yellow arrow	8.00	9.00		1.00			9.00	6.00	17.00	16.00	
US 98 at Beaver Dam Rd	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	11.00	9.00			3.00		9.00	5.00	23.00	14.00	
US 98 at MS 198/Rocky Creek Rd	Rural Principal Arterial (RPA) - Other	Intersection traffic control	Modify traffic signal - miscellaneous/other/unspecified	11.00	5.00	1.00		1.00		20.00	4.00	33.00	9.00	
MS 25 at Cool Papa Bell Rd	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - modify signal mounting (spanwire to mast arm)	80.00	40.00					18.00	13.00	98.00	53.00	

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)
MS 25 at Ridgewood	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - modify signal mounting (spanwire to mast arm)	158.00	114.00					39.00	28.00	197.00	142.00	
MS 25 at Tree Tops	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - modify signal mounting (spanwire to mast arm)	91.00	73.00					20.00	15.00	111.00	88.00	
MS 25 at River Oaks/Jackson Prep	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - modify signal mounting (spanwire to mast arm)	111.00	55.00					25.00	10.00	136.00	65.00	
MS 25 at MS 475/Airport Rd	Urban Principal Arterial (UPA) - Other	Intersection traffic control	Modify traffic signal - modify signal mounting (spanwire to mast arm)	249.00	138.00	1.00				56.00	28.00	306.00	166.00	
US 49 at Muse Rd.	Urban Principal Arterial (UPA) - Other	Advanced technology and ITS	Dynamic message signs	11.00	9.00	1.00				12.00	5.00	24.00	14.00	
US 49 at RT Braddy Rd	Urban Principal Arterial (UPA) - Other	Advanced technology and ITS	Dynamic message signs	9.00	13.00					4.00	9.00	13.00	22.00	
US 51 at N. Pat Harrison	Rural Major Collector	Advanced technology and ITS	Dynamic message signs							1.00		1.00		
MS 43 FM Crossroads to I-20	Rural Major Collector	Alignment	Horizontal curve realignment	50.00	8.00	1.00		2.00		31.00	5.00	84.00	13.00	
I-55SB to I-20EB Flyover, Ice/Snow/Slush	Urban Principal Arterial (UPA) - Interstate	Advanced technology and ITS	Dynamic message signs	5.00						1.00		6.00		
I-59/US 49 Loop Ramps	Urban Principal Arterial (UPA) - Interstate	Roadway	Pavement surface - high friction surface	62.00	19.00					22.00	1.00	84.00	20.00	
US 78 Fr Craft Rd to Hacks Cross Rd	Rural Principal Arterial (RPA) - Other Freeways and Expressways	Roadway	Pavement surface - miscellaneous	250.00	151.00	3.00	1.00	3.00	1.00	60.00	46.00	316.00	199.00	

2019 Mississippi Highway Safety Improvement Program

- Mississippi's project listing includes all projects that involved HSIP funding that have at least three years of "before" construction and "after" construction crash data available.

- It should be noted that the duration of the “before” and “after” evaluations are not equal. The “after” totals will include as much post construction crash data as possible, therefore a straight “before and after” comparison could be skewed. Crashes per year would be a better comparison for all crash data categories included in the tables and would illustrate better performance.

- Multiple projects include "before" crash data analysis periods that predate January 1, 2010. This is important to note as this precedes MDOT's ongoing crash data cleansing and review efforts; therefore, this older data has not been verified for accuracy and completeness.

- Multiple query methods (spatial vs. attribute) were required for analyses included in the report. This has likely resulted in variances in crash totals reported for multiple projects, again providing an unbalanced before and after comparison for many projects that included crash data prior to 2010 in the above list.

- All crash data provided was analyzed using Mississippi's Safety Analysis Management System (SAMS).

Compliance Assessment

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

01/03/2019

What are the years being covered by the current SHSP?

From: 2019 To: 2023

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

2024

Mississippi completed its most recent SHSP in January of this year. A copy of the SHSP can be found online at the following web link: http://mdot.ms.gov/documents/traffic%20engineering/plan/shsp.pdf

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

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

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	One/Two Way Operations (91)	100	100								
	Number of Through Lanes (31)	100	100					100	100		
	Average Annual Daily Traffic (79)	100	100					100	100		
	AADT Year (80)	100	100								
	Type of Governmental Ownership (4)	100	100					100	100	100	100
INTERSECTION	Unique Junction Identifier (120)			100	100						
	Location Identifier for Road 1 Crossing Point (122)			100	100						
	Location Identifier for Road 2 Crossing Point (123)			100	100						
	Intersection/Junction Geometry (126)			100	100						
	Intersection/Junction Traffic Control (131)			100	100						
	AADT for Each Intersecting Road (79)			100	100						
	AADT Year (80)			100	100						
	Unique Approach Identifier (139)			100	100						
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				

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	Roadway Type at Beginning of Ramp Terminal (195)					100	100				
	Roadway Type at End Ramp Terminal (199)					100	100				
	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**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

*Based on Functional Classification

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 state has completed all MIRE data element collection that it is able to collect.

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

No

When does the State plan to complete its next HSIP program assessment.

2022

Optional Attachments

Program Structure:

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.