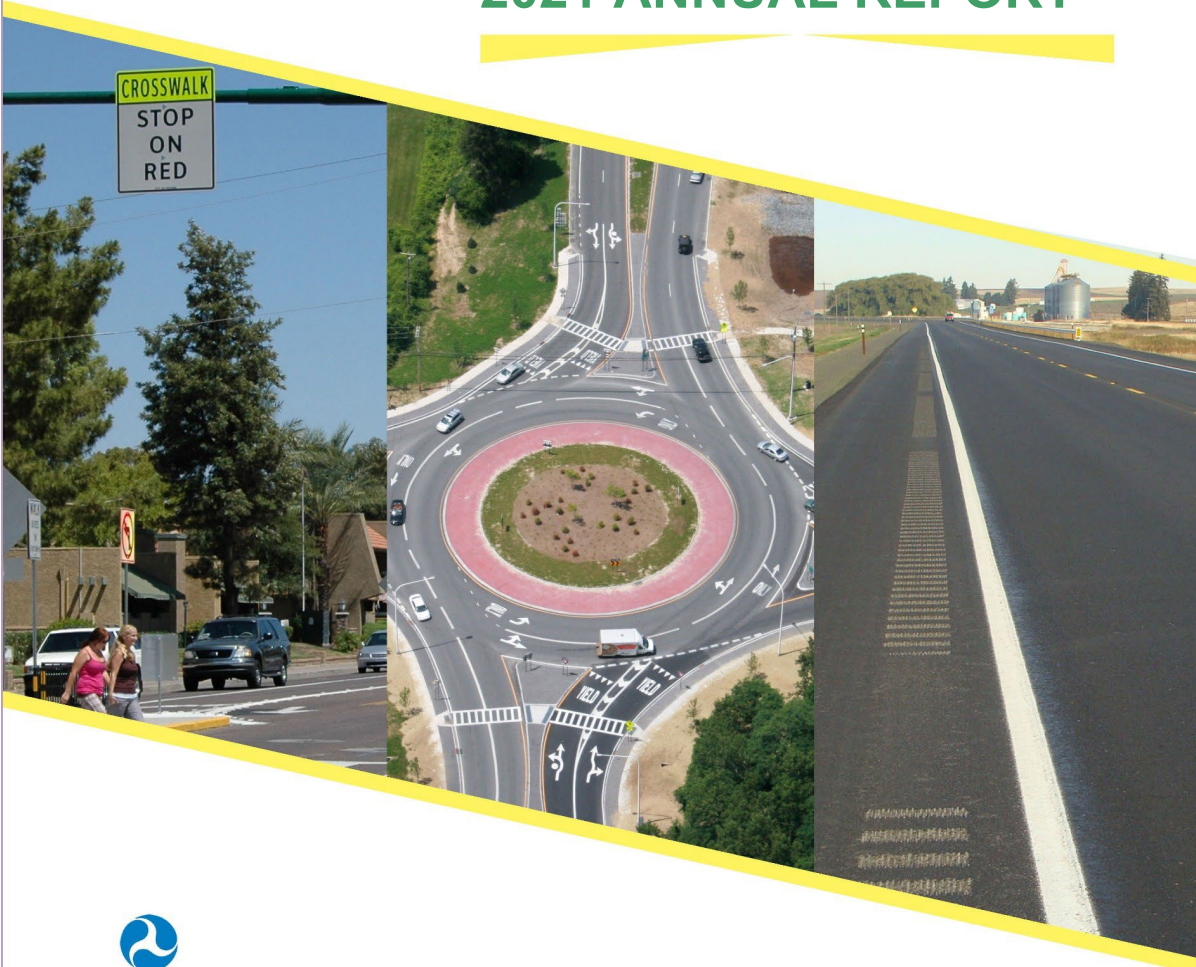




MISSISSIPPI

HIGHWAY SAFETY IMPROVEMENT PROGRAM 2021 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

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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. 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

The State of Mississippi's Highway Safety Improvement Program (HSIP), operating out of the Highway and Rail Safety Division (HRSD) within the Mississippi Department of Transportation (MDOT), has completed another year of prioritizing and programming projects that support the state's most recent Strategic Highway Safety Plan (SHSP). Over the last 12 months, the Mississippi HSIP has made great strides in supporting the goal of reducing 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:

Project Pairings

In an effort to stretch its HSIP dollars further, Mississippi has increased its focus in the last year of pairing with state-funded overlay projects to add on safety countermeasures with HSIP funds. Rather than paying for a full mill and overlay project, the HSIP dollars supplement a standard maintenance overlay by adding critical countermeasures such as widened shoulders, rumble strips/stripes, clear zone improvements, and other similar measures.

Continued Focus on FHWA's Proven Safety Countermeasures

Mississippi continues to put an emphasis on countermeasures listed in the Federal Highway Administration's list of Proven Safety Countermeasures, including several new roundabouts, additional restricted crossing u-turn (RCUT) locations, rumble strips/stripes, Local Road Safety Plans, etc.

Systemic Safety

MDOT has for years prioritized the use of systemic safety improvements such as Safety Edge and Rumble Strips/Stripe 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 installation of systemic measures such as cable barrier, edge line delineation enhancements (*rumble strip/stripe, audible thermoplastic stripe, etc.*), shoulder widening, and systemic access management. Over the past year, Mississippi has also increased its focus on prioritizing improvements on the shoulder and beyond into the clear zone. With lane departure crashes presenting an ongoing concern in the state, Mississippi is moving more of its project focus towards those routes with higher percentages of lane departure crashes. For those locations, MDOT reviews for the presence of edge line delineation (rumble stripe, audible thermoplastic stripe), shoulder width and slope, and obstructions in the clear zone. The focus has been to make improvements along the entire route where narrow shoulders or clear zone hazards exist and where crash history shows patterns of vehicles leaving their lane at a greater rate than anticipated for its homogenous class.

A Culture of Safety

While MDOT has worked to address safety through quantifiable efforts such as safety projects, it has also continued its work 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, 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 administrative support staff located in MDOT's Highway and Rail Safety Division. 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 regularly scheduled safety meetings to keep in contact with the Districts regarding safety matters and concerns.

One of the primary initiatives that the Mississippi HSIP staff takes on routinely throughout the year is holding regularly scheduled 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, emergency responders, community leaders, and elected officials. These meetings have proven to be invaluable in establishing a rapport between District staff and the HSIP staff, 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 is 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 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

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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?

Operations

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 Highway and Rail Safety Division 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, sign supports and appropriate hardware are provided free of charge to the county or municipality. During the 2021 State Fiscal Year (*July '20 - June '21*), MDOT spent \$110,741 of state funds on this program providing over 1,800 signs and reflective sign post delineators to locals.

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. If selected for funding, projects are designed and constructed through the state's Local Public Agency (LPA) Program. To date, Circuit Rider projects have mostly involved low cost mitigation strategies including re-signing and re-striping of routes, the installation of reflective sign post delineators, raised pavement marker installation, etc.; however, more robust treatments will be given consideration for funding through the program as crash data dictates. 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
- Local Aid Programs Office/Division
- Maintenance

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- Operations
- Planning
- Traffic Engineering/Safety
- Other-Environmental

Describe coordination with internal partners.

Under current internal guidelines, applicable MDOT Divisions (*District personnel, Roadway Design Division, Traffic Engineering 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 funding, any and all possible countermeasures are discussed with this group in a meeting format. Site visits are conducted 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 are fully vetted by the MDOT staff, and that MDOT utilizes its HSIP funds in the most prudent manner possible.

MDOT's HSIP staff also maintains a three year plan of active and future HSIP projects and the spending anticipated to occur with each. This plan, which is reviewed and approved by FHWA - Mississippi Division at the beginning of each federal fiscal year, outlines where MDOT intends to spend all of its HSIP dollars across the state. The plan lists project locations, project details, applicable approvals achieved or in process, anticipated funding - amounts and types (PE, Rights-of-Way, Construction, etc.) - and other details. As new projects arise or ongoing projects have unforeseen changes during the fiscal year, MDOT and FHWA work to review and revise the plan as necessary. This list is another effort between the state and federal partners in Mississippi that help us accurately and effectively track and spend safety dollars in the state.

Identify which external partners are involved with HSIP planning.

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

Describe coordination with external partners.

Federal Highway Administration - Mississippi Division (MS Division) is an active and helpful partner in program planning for the HSIP here in the state. MDOT coordinates with the MS Division for development, review and approval of the three-year HSIP project planning and programming list on an annual basis. The MS Division's Area Transportation Engineers and Safety Engineer were also involved in all quarterly HSIP meetings with MDOT Districts, as well as project planning and development meetings.

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 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)

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

- All crashes

Exposure

- Traffic
- Volume

Roadway

- Median width
- Horizontal curvature
- Roadside features

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:1

Available funding:2

Cost Effectiveness:3

What percentage of HSIP funds address systemic improvements?

5

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

- Cable Median Barriers
- Clear Zone Improvements
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Pavement/Shoulder Widening
- Rumble Strips
- Safety Edge

Mississippi's HSIP pays for systemic pavement markings when it's either an improvement above existing conditions (*i.e. going from a 4" stripe to a 6", going from 6" stripe to 6" audible thermoplastic stripe*) or when it complements another countermeasure (*i.e. enhanced intersection warning signage, new rumble stripe installation, etc.*)

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 (HSM), 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.

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The state has also completed the process of calibrating multiple Safety Performance Functions (SPFs) for Mississippi crash data for inclusion in the new crash analysis system.

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) | \$29,497,582 | \$29,497,582 | 100% |
| HRRR Special Rule (23 U.S.C. 148(g)(1)) | \$0 | \$0 | 0% |
| Penalty Funds (23 U.S.C. 154) | \$5,794,794 | \$5,794,794 | 100% |
| Penalty Funds (23 U.S.C. 164) | \$0 | \$0 | 0% |
| RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2)) | \$0 | \$0 | 0% |
| Other Federal-aid Funds (i.e. STBG, NHPP) | \$0 | \$0 | 0% |
| State and Local Funds | \$3,921,375 | \$3,921,375 | 100% |
| Totals | \$39,213,751 | \$39,213,751 | 100% |

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

1%

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

1%

In FFY 2021, MDOT let to construction a county-wide local road safety project prioritizing low cost safety improvements (striping, signage, RPMs) on a significant number of routes in Lauderdale County. We anticipate letting another similar project to construction this upcoming FFY, with at least two more likely to begin PE design work, as well.

Despite these advances in local road project funding, a gap analysis conducted as a part of the 2022 Mississippi HSIP Implementation Plan noted a disparity between the funds programmed towards local roads and the percentage of K+A crashes on locally owned roadways. As stated in the Plan, MDOT is aware of this and has plans to address it in coming years.

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

4%

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

4%

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 |
|---------------------------------------------------|------------------------------|-------------------------------------------|---------|------------------------|-----------------------|------------------------|----------------------|--------------------|---------------------------|--------|-------|------------------------------------------|------------------------------------------|------------------------------------------------------|------------------------------------------------------|
| 102168 - MS 7 at MS 9W | Intersection traffic control | Modify control – Modern Roundabout | 1 | Intersections | \$1570482 | \$1744980 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 11,585 | 55 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 103926 - Safety Analysis Management System (SAMS) | Miscellaneous | Data analysis | 1 | Crash Analysis Program | \$600000 | \$666667 | HSIP (23 U.S.C. 148) | N/A | N/A | 0 | | Non-Infrastructure Data Analysis Program | Non-Infrastructure Data Analysis Program | This project supports other relevant SHSP strategies | This project supports other relevant SHSP strategies |
| 106235 - US 49 at Magnolia Dr | Intersection traffic control | Modify control – new traffic signal | 1 | Intersections | \$6295 | \$6994 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 16,000 | 55 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 106235 - US 49 at Hall St | Access management | Median crossover relocate/close crossover | 1 | Intersections | \$6295 | \$6994 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 0 | | State Highway Agency | Spot | Intersections | 4.1.6 |
| 108426 - MS 13 from Lumberton to Marion County | Roadway | Roadway widening - curve | 14.5 | Miles | \$621431 | \$690479 | HSIP (23 U.S.C. 148) | Rural | Minor Arterial | 1,550 | 55 | State Highway Agency | Spot | Lane Departure | 4.2.3 |
| 106626 - MS 27 at Lee Ave/Old Hwy No. 1 | Intersection traffic control | Modify control – Modern Roundabout | 1 | Intersections | \$149651 | \$166279 | HSIP (23 U.S.C. 148) | Urban | Minor Arterial | 4,780 | 55 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 106699 - US 84 at Auburn Rd | Intersection traffic control | Modify control – new traffic signal | 2 | Intersections | \$275435 | \$306039 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 9,840 | 65 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 106856 - SAMSv2 | Miscellaneous | Data analysis | 1 | Crash Analysis Program | \$471666 | \$524073 | HSIP (23 U.S.C. 148) | N/A | N/A | 0 | | Non-Infrastructure Data Analysis Program | Non-Infrastructure Data Analysis Program | This project supports other relevant SHSP strategies | This project supports other relevant SHSP strategies |
| 106857 - MS 25 Tishomingo County | Intersection geometry | Intersection geometry - other | 38.9 | Miles | \$6136167 | \$6817963 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 1,564 | 55 | State Highway Agency | Spot | Intersections | 4.1.1, 4.1.2, 4.1.3, 4.1.4, 4.1.5 |
| 106863 - MS 12 fr Station 17+47 to Russell St | Access management | Raised island - install new | 1.2 | Miles | \$8437 | \$9374 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other | 23,650 | 45 | State Highway Agency | Spot | Intersections | 4.1.6 |

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| 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 |
|--------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------|---------|---------------|-----------------------|------------------------|-----------------------|--------------------|-------------------------------------------------|--------|-------|-------------------------|---------------------------|----------------------------------|---------------|
| 106897 - US 45A at Tarlton Rd | Intersection geometry | Innovative Intersection (e.g. MUT, RCUT, QR) | 1 | Intersections | \$130383 | \$144870 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 6,160 | 65 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 106952 - Copiah County Safety Circuit Rider Project | Roadway delineation | Longitudinal pavement markings remarking | 28.5 | Miles | \$-2737 | \$-3041 | HSIP (23 U.S.C. 148) | Rural | Multiple/Varies | 0 | | County Highway Agency | Spot | Lane Departure | 4.2.3 |
| 106961 - Circuit Rider Sign Donation/Brite Stick Program | Roadway signs and traffic control | Roadway signs and traffic control - other | 1 | Statewide | \$0 | \$110741 | State and Local Funds | Multiple/Varies | Multiple/Varies | 0 | | County and Municipality | Spot | Roadway Departure, Intersections | 4.1.4, 4.2.3 |
| 106965 - MS 570 from I-55 to US 51 | Intersection traffic control | Systemic improvements – signal-controlled | 7 | Crossovers | \$-172445 | \$-191606 | HSIP (23 U.S.C. 148) | Urban | Minor Arterial | 11,000 | 35 | State Highway Agency | Spot | Intersections | 4.1.2 |
| 106989 - US 49W at MS 3 | Intersection geometry | Intersection geometry - other | 1 | Intersections | \$-68483 | \$-76092 | HSIP (23 U.S.C. 148) | Rural | Minor Arterial | 7,100 | 65 | State Highway Agency | Spot | Intersections | 4.1.3 |
| 106997 - I-55 fr 1 mi S of Martinsville [Exit 56] to 1 mi N of MS 27 [Exit 72] | Roadside | Barrier – cable | 8.1 | Miles | \$418879 | \$465421 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Interstate | 25,510 | 70 | State Highway Agency | Systemic | Lane Departure | 4.2.6 |
| 107037 - I-55 at MS 302 | Interchange design | Interchange improvements | 2 | Locations | \$-365772 | \$-406413 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Interstate | 45,750 | 45 | State Highway Agency | Spot | Intersections | 4.1.6 |
| 107109 - US 278/SR 6 and SR 7 Cable Median Barrier | Roadside | Barrier – cable | 8.1 | Miles | \$125732 | \$139702 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other Freeways & Expressways | 26,040 | 55 | State Highway Agency | Systemic | Lane Departure | 4.2.6 |
| 107127 - US 90 Signal Upgrades - Hancock County | Intersection traffic control | Systemic improvements – signal-controlled | 10 | Intersections | \$-1033 | \$-1148 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other | 20,450 | 45 | State Highway Agency | Spot | Intersections | 4.1.2 |
| 107181 - US 49 SB Fr Main St in Mt. Olive to Walter Lott Rd. in Seminary | Shoulder treatments | Widen shoulder – paved or other (includes add shoulder) | 24.2 | Miles | \$-2040096 | \$-2266773 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 11,050 | 65 | State Highway Agency | Spot | Lane Departure | 4.2.5 |
| 107249 - US 84 at Reservoir | Intersection traffic control | Intersection traffic control - other | 1 | Intersections | \$2062005 | \$2291116.66666667 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 7,311 | 65 | State Highway Agency | Spot | Intersections | 4.1.1 |

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| 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 |
|-------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------|---------|---------------|-----------------------|------------------------|----------------------|--------------------|---------------------------|--------|-------|----------------------|---------------------------|--------------------|---------------|
| Road/Magnolia Hill Road | | | | | | | | | | | | | | | |
| 107249 - US 84 at MS 184 (west of Waynesboro) | Access management | Change in access - close or restrict existing access | 1 | Intersections | \$2062005 | \$2291116.66666667 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 9,850 | 65 | State Highway Agency | Spot | Intersections | 4.1.3 |
| 107251 - MS 613 Systemic Curve Improvement Project | Roadway signs and traffic control | Curve-related warning signs and flashers | 32.2 | Miles | \$62866 | \$69851 | HSIP (23 U.S.C. 148) | Rural | Major Collector | 3,840 | 55 | State Highway Agency | Spot | Lane Departure | 4.2.3 |
| 107253 - US 49 btw Cato Rd and N Pine St | Access management | Median crossover - relocate/close crossover | 1 | Crossovers | \$121058 | \$134509 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 22,000 | 65 | State Highway Agency | Spot | Intersections | 4.1.3 |
| 107253 - US 61 at MS 553 | Access management | Median crossover - directional crossover | 1 | Intersections | \$305 | \$339 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 14,700 | 65 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 107464 - US 49 fr the Stone CL to South Gate Rd | Shoulder treatments | Widen shoulder - paved or other (includes add shoulder) | 19.9 | Miles | \$6466982 | \$7185535.55555556 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 12,300 | 65 | State Highway Agency | Spot | Lane Departure | 4.2.5 |
| 107526 - MS 13 fr the Jefferson Davis CL to Bowen Rd | Roadside | Removal of fixed objects (trees, poles, etc.) | 12.7 | Miles | \$1266880 | \$1407644 | HSIP (23 U.S.C. 148) | Rural | Minor Arterial | 2,400 | 55 | State Highway Agency | Spot | Lane Departure | 4.2.5 |
| 107684 - MS 1 at Friars Point Rd | Advanced technology and ITS | Intersection Conflict Warning System (ICWS) | 1 | Intersections | \$36000 | \$40000 | HSIP (23 U.S.C. 148) | Rural | Minor Arterial | 955 | 55 | State Highway Agency | Spot | Intersections | 4.1.4 |
| 107731 - US 49 Collins (Magnolia Ave, Shonna St, Cold Springs Rd) | Access management | Median crossover - directional crossover | 3 | Intersections | \$307210 | \$3540327 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 34,500 | 55 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 107793 - District 3 Districtwide Intersection Improvement Project | Intersection traffic control | Systemic improvements - stop-controlled | 73 | Intersections | \$36000 | \$40000 | HSIP (23 U.S.C. 148) | Rural | Multiple/Varies | 0 | | State Highway Agency | Spot | Intersections | 4.1.4 |

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| 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 |
|-----------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------|---------|---------------|-----------------------|------------------------|----------------------|--------------------|-------------------------------|--------|-------|-----------------------|---------------------------|--------------------|------------------------------------------------------|
| 107901 - MS 53 fr S of Cuevas Gravel Pit Rd to I-59 | Roadway | Rumble strips – center | 7.5 | Miles | \$-61441 | \$-68268 | HSIP (23 U.S.C. 148) | Rural | Minor Arterial | 2,950 | 55 | State Highway Agency | Spot | Lane Departure | 4.2.2, 4.2.5 |
| 108014 - District 6 Districtwide Intersection Improvement Project | Intersection traffic control | Systemic improvements – stop-controlled | 164 | Intersections | \$4861163 | \$5401292 | HSIP (23 U.S.C. 148) | Rural | Multiple/Varies | 0 | | State Highway Agency | Spot | Intersections | 4.1.4 |
| 108069 - MS 7 at Eddie L Smith Dr | Intersection traffic control | Modify control – Modern Roundabout | 1 | Intersections | \$2258942 | \$2509936 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other | 8,790 | 40 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 108174 - US 61 at Stoneville Rd/Elizabeth Rd/Old US 61 | Advanced technology and ITS | Intersection Conflict Warning System (ICWS) | 1 | Intersections | \$504424 | \$560471 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 6,500 | 65 | State Highway Agency | Spot | Intersections | 4.1.4 |
| 108247 - US 49 at MS 35 | Intersection traffic control | Intersection traffic control - other | 1 | Intersections | \$45000 | \$50000 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 18,980 | 65 | State Highway Agency | Spot | Intersections | 4.1.2 |
| 108425 - US 61 at MS 553 | Intersection geometry | Innovative Intersection (e.g. MUT, RCUT, QR) | 1 | Intersections | \$2639236 | \$2932484 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 14,700 | 65 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 108459 - MS 12 fr MS 50 to the AL State Line | Shoulder treatments | Widen shoulder – paved or other (includes add shoulder) | 15.5 | Miles | \$90000 | \$100000 | HSIP (23 U.S.C. 148) | Rural | Minor Arterial | 3,900 | 55 | State Highway Agency | Spot | Lane Departure | 4.2.1, 4.2.2, 4.2.5 |
| 108488 - I-110 SB at US 90 WB | Roadway | Pavement surface – high friction surface | 1 | Curves | \$720000 | \$800000 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Interstate | 4,800 | 35 | State Highway Agency | Spot | Lane Departure | 4.2.8 |
| 108599 - I-59 Slope Corrections in Pearl River County | Roadway | Superelevation / cross slope | 3 | Locations | \$504315 | \$560350 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Interstate | 23,125 | 70 | State Highway Agency | Spot | Lane Departure | 4.2.4 |
| 108619 - Local Road Horizontal Curve Data Collection - Copiah and Warren Counties | Miscellaneous | Data collection | 1812 | Miles | \$193500 | \$215000 | HSIP (23 U.S.C. 148) | Multiple/Varies | Multiple/Varies | 0 | | County Highway Agency | Spot | Lane Departure | This project supports other relevant SHSP strategies |

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| 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 |
|-------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------|---------|---------------|-----------------------|------------------------|----------------------|--------------------|-------------------------------------------------|--------|-------|-----------------------|---------------------------|--------------------|---------------|
| 108633 - MS 15 from Audubon Dr to I-59 | Access management | Raised island - install new | 3.9 | Miles | \$270000 | \$300000 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other | 27,000 | 45 | State Highway Agency | Spot | Intersections | 4.1.6 |
| 108634 - MS 67 from US 49 to Licksillet Rd | Access management | Median crossover - directional crossover | 19.4 | Miles | \$270000 | \$300000 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 10,550 | 65 | State Highway Agency | Spot | Intersections | 4.1.6 |
| 108641 - MS 302 at Braybourne Main | Intersection traffic control | Modify control - new traffic signal | 3 | Intersections | \$157500 | \$175000 | HSIP (23 U.S.C. 148) | Urban | Principal Arterial-Other Freeways & Expressways | 32,950 | 65 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 108642 - MS 3 at MS 315 | Advanced technology and ITS | Intersection Conflict Warning System (ICWS) | 1 | Intersections | \$36000 | \$40000 | HSIP (23 U.S.C. 148) | Rural | Minor Arterial | 2,290 | 55 | State Highway Agency | Spot | Intersections | 4.1.4 |
| 108667 - MS 583 fr Topisaw Dr to US 84 | Shoulder treatments | Widen shoulder - paved or other (includes add shoulder) | 5.6 | Miles | \$618436 | \$1686613 | HSIP (23 U.S.C. 148) | Rural | Major Collector | 2,600 | 55 | State Highway Agency | Spot | Lane Departure | 4.2.1 |
| 108800 - MS 9 fr MS 12 to the Webster CL | Roadway | Rumble strips - edge or shoulder | 15.2 | Miles | \$10293 | \$3848507 | HSIP (23 U.S.C. 148) | Rural | Minor Arterial | 2,200 | 55 | State Highway Agency | Systemic | Lane Departure | 4.2.1 |
| 108806 - District 5 Districtwide Intersection Improvement Project | Intersection traffic control | Systemic improvements - stop-controlled | 84 | Intersections | \$135000 | \$150000 | HSIP (23 U.S.C. 148) | Rural | Multiple/Varies | 0 | | State Highway Agency | Spot | Intersections | 4.1.4 |
| 108823 - US 61 at Hambrick Rd | Intersection geometry | Innovative Intersection (e.g. MUT, RCUT, QR) | 1 | Intersections | \$225000 | \$250000 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 10,700 | 65 | State Highway Agency | Spot | Intersections | 4.1.1 |
| 108839 - US 49W fr Belzoni to Isola - WB lanes | Shoulder treatments | Widen shoulder - paved or other (includes add shoulder) | 7.6 | Miles | \$1163410 | \$1292678 | HSIP (23 U.S.C. 148) | Rural | Principal Arterial-Other | 5,800 | 65 | State Highway Agency | Systemic | Lane Departure | 4.2.1 |
| 108122 - Lauderdale County Safety Circuit Rider Project | Roadway signs and traffic control | Curve-related warning signs and flashers | 8 | Locations | \$360000 | \$400000 | HSIP (23 U.S.C. 148) | Rural | Multiple/Varies | 0 | | County Highway Agency | Spot | Lane Departure | 4.2.3 |

- 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.

- Any negative values provided for funding represent the return of funds to the program for one of the following reasons:

> A decreased project cost based on received bids

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> Funds released at the project's close

> Funds released due to the project not moving forward within the HSIP

- Any "AADT" or "Speed" fields either with a 0 or that appear blank above are to be considered N/A - Not Applicable due to multiple routes or locations, or being non-infrastructure projects.

- 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)

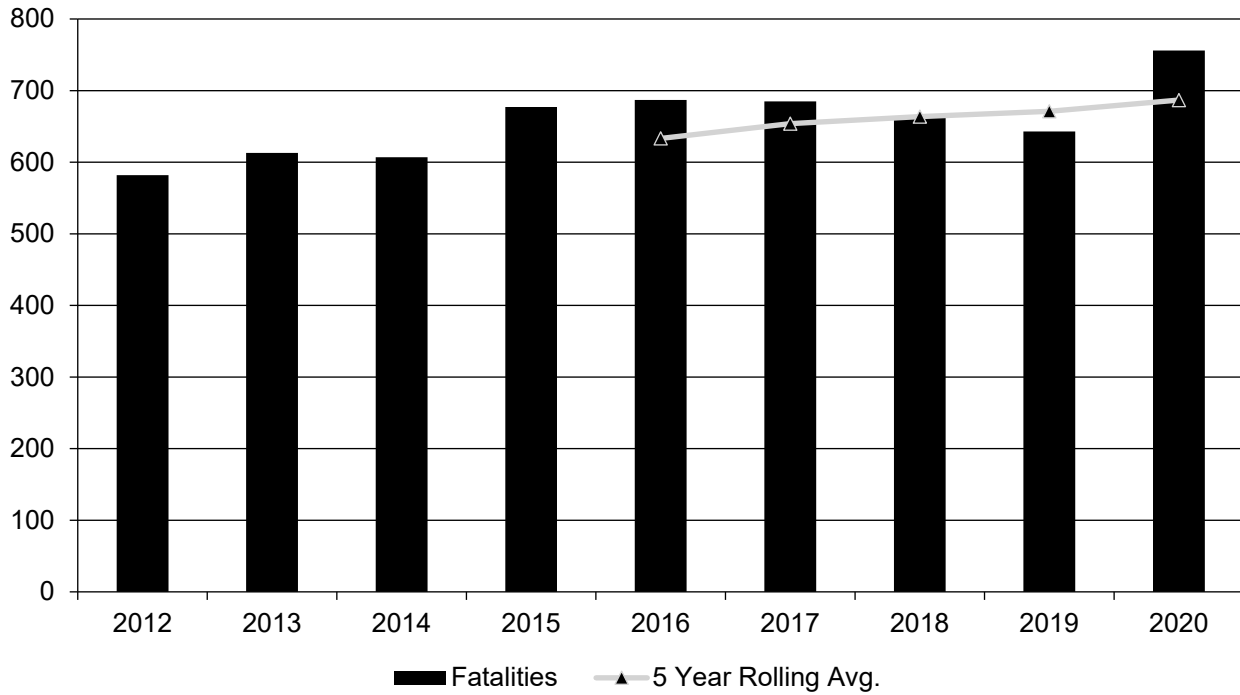
Safety Performance

General Highway Safety Trends

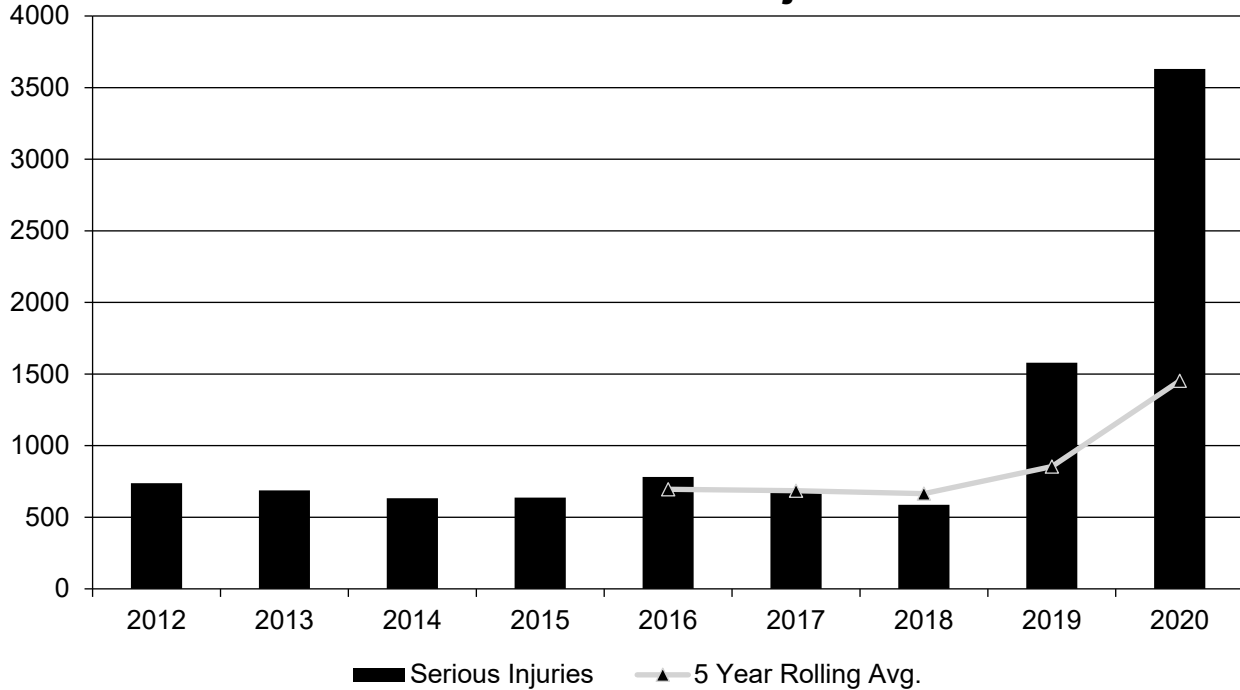
Present data showing the general highway safety trends in the State for the past five years.

| PERFORMANCE MEASURES | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fatalities | 582 | 613 | 607 | 677 | 687 | 685 | 663 | 643 | 756 |
| Serious Injuries | 738 | 688 | 633 | 637 | 781 | 686 | 587 | 1,579 | 3,630 |
| Fatality rate (per HMVMT) | 1.510 | 1.580 | 1.540 | 1.700 | 1.690 | 1.680 | 1.630 | 1.560 | 1.910 |
| Serious injury rate (per HMVMT) | 1.910 | 1.780 | 1.600 | 1.600 | 1.920 | 1.680 | 1.440 | 3.840 | 9.180 |
| Number non-motorized fatalities | 58 | 60 | 68 | 75 | 72 | 80 | 96 | 78 | 117 |
| Number of non-motorized serious injuries | 49 | 46 | 44 | 41 | 58 | 59 | 50 | 109 | 208 |

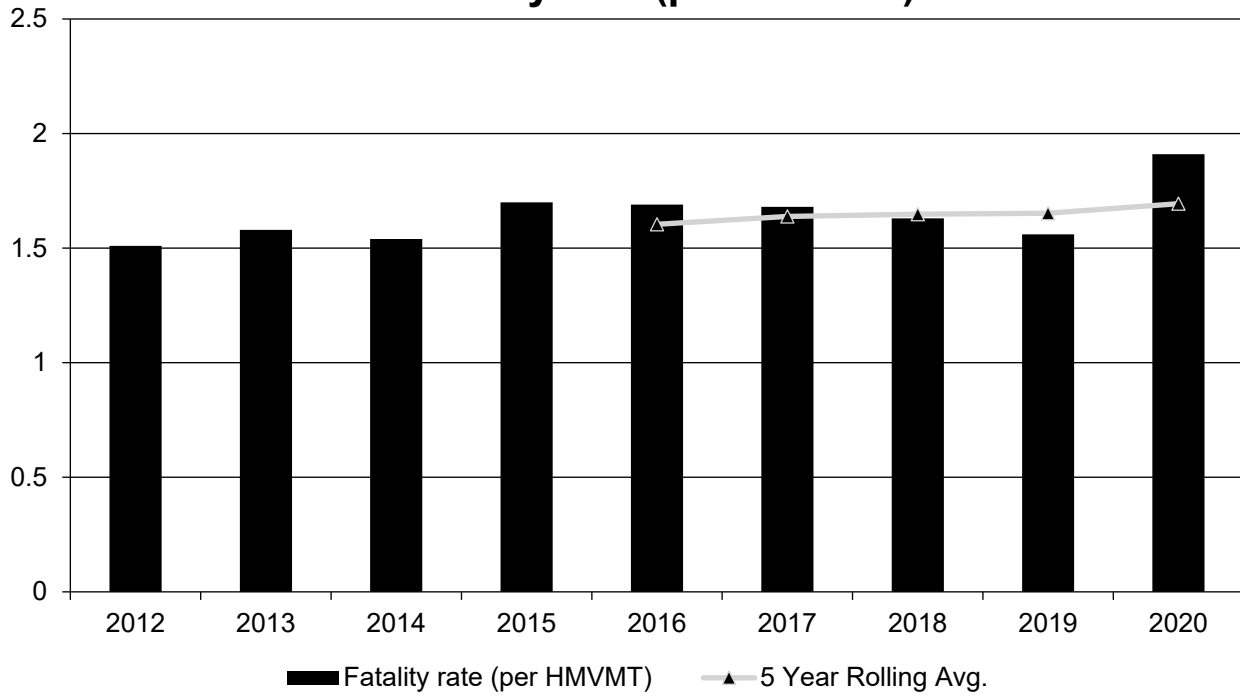
Annual Fatalities



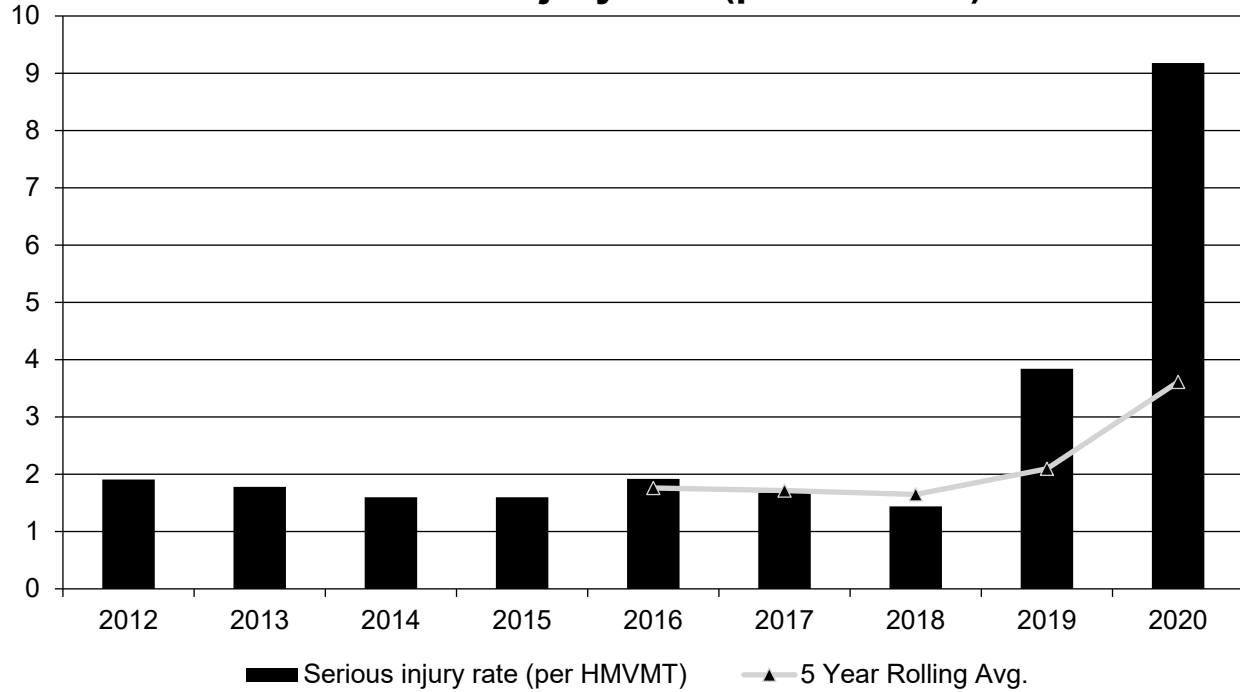
Annual Serious Injuries



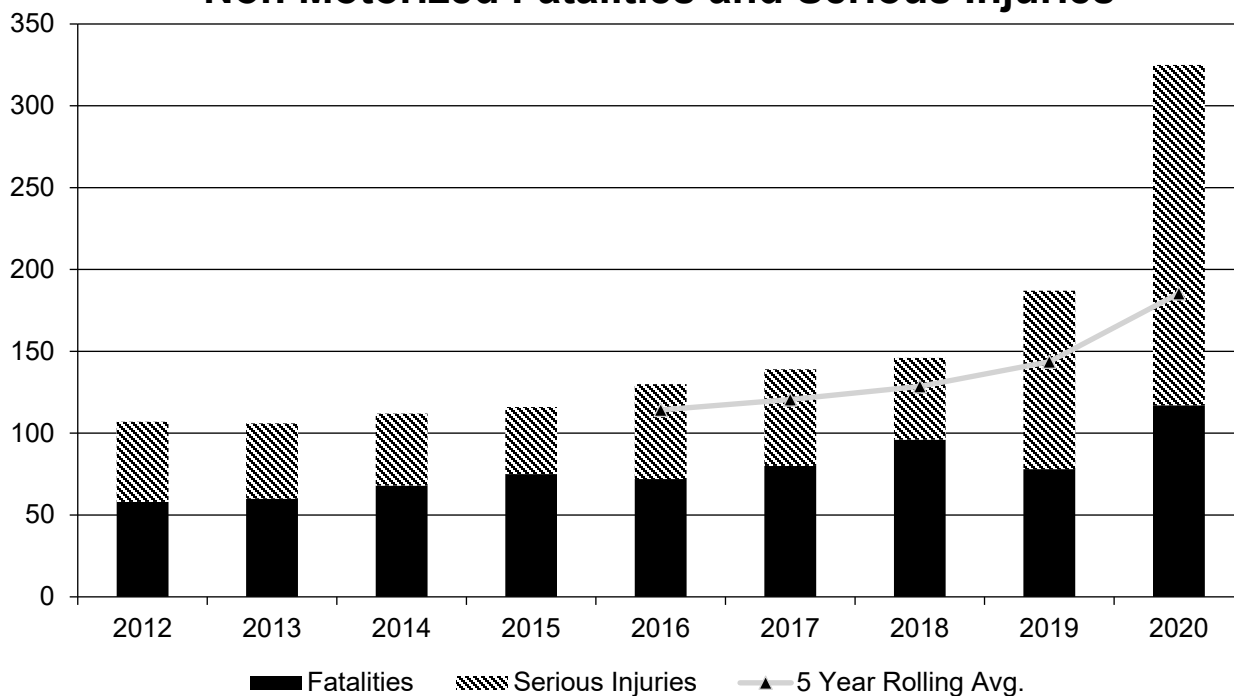
Fatality rate (per HMVMT)



Serious injury rate (per HMVMT)



Non Motorized Fatalities and Serious Injuries



- The 2020 reported fatalities for the state of Mississippi are 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 2020.
- 2018 and 2019's listed fatality figures were revised due to an amendment made in the certified FARS data for Mississippi.
- Serious Injuries are reported using a combination of Mississippi's Safety Analysis Management System (SAMS) and direct queries against the Mississippi Department of Public Safety's (DPS) eCrash database.
- Serious Injuries recorded in 2020 have, as anticipated, experienced a significant increase from annual recorded Serious Injuries as shown in the previous years from 2018 prior. This is due to the state uniform crash reporting form being changed in September of 2019, which included the state adopting a MMUCC 4th edition-compliant definition of suspected serious injury. The previous Injury A was defined as:

"Life Threatening - Injuries where there is a high probability of the loss of life". Compare that with the new definition, which is:

"Suspected serious injury: A suspected serious injury is any injury other than fatal which results in one or more of the following: • Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood • Broken or distorted extremity (arm or leg) • Crush injuries • Suspected skull, chest or abdominal injury other than bruises or minor lacerations • Significant burns (second and third degree burns over 10% or more of the body) • Unconsciousness when taken from the crash scene • Paralysis"

These definitions are vastly different, with the updated definition substantially increasing the type and total number of injuries that were not captured in previous Injury A crashes. Because specific information on injury types is not collected on the crash form, the state is also unable to extrapolate the data to do a true comparison of serious injury crashes: old definition versus new.

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Describe fatality data source.

FARS

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

Year 2020

| 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 | 53.8 | 73.2 | 1.17 | 1.57 |
| Rural Principal Arterial (RPA) - Other Freeways and Expressways | | | 0 | 0 |
| Rural Principal Arterial (RPA) - Other | 103.6 | 188.6 | 1.99 | 3.61 |
| Rural Minor Arterial | 109.6 | 189.8 | 3.09 | 5.36 |
| Rural Minor Collector | 12.6 | 34.2 | 3.09 | 8.44 |
| Rural Major Collector | 121.2 | 241 | 3.02 | 6.07 |
| Rural Local Road or Street | 53.6 | 141 | 0.93 | 2.48 |
| Urban Principal Arterial (UPA) - Interstate | 39.2 | 58.4 | 0.93 | 1.39 |
| Urban Principal Arterial (UPA) - Other Freeways and Expressways | 5.6 | 11.2 | 1.11 | 2.2 |
| Urban Principal Arterial (UPA) - Other | 81.2 | 208.4 | 1.59 | 4.12 |
| Urban Minor Arterial | 34 | 102 | 1.32 | 3.98 |
| Urban Minor Collector | 28.4 | 70.8 | 1.63 | 4.11 |
| Urban Major Collector | | | | |
| Urban Local Road or Street | 21 | 80 | 0.76 | 3.11 |

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Year 2020

| 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 | 477.4 | 904 | 1.9 | 3.62 |
| County Highway Agency | 137.6 | 329.2 | 1.55 | 3.77 |
| Town or Township Highway Agency | | | | |
| City or Municipal Highway Agency | 73.2 | 239.8 | 1.15 | 3.87 |
| State Park, Forest, or Reservation Agency | | | | |
| Local Park, Forest or Reservation Agency | | | | |
| Other State Agency | | | | |
| Other Local Agency | | | | |
| Private (Other than Railroad) | | | | |
| Railroad | | | | |
| State Toll Authority | | | | |
| Local Toll Authority | | | | |
| Other Public Instrumentality (e.g. Airport, School, University) | | | | |
| Indian Tribe Nation | | | | |

- The Natchez Trace Parkway, a federally-maintained park that contains a roadway that runs the full length of the state from southwest to northeast, has a number of fatalities and serious injuries that were not reported above as there is no "Federal Park, Forest, or Reservation Agency" category.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2022 Targets *

Number of Fatalities:723.0

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 12 years' (2009-2020) worth of historical crash data. Prediction models are developed using 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 as the "target" for the state.

Number of Serious Injuries:2905.0

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 1.3 years' (September 2019-2020) worth of historical crash data. Prediction models are developed using Excel's FORECAST.ETS exponential triple smoothing formula. Mississippi's performance target submitted for 2022 is substantially higher than it has been in previous years, continuing a trend that began with 2021 performance targets. These substantially increased figures are due to a change in 2019 to how the state defines serious injury. An update was made in order to meet national standards and requirements for MMUCC 4th edition, and this was incorporated into the DPS' new eCrash reporting form used by Law Enforcement Officials (LEOs). With the change in place, Mississippi speculated in last year's report that it anticipated 2020 suspected serious injuries to show a sharp increase over 2019 numbers. That premonition came true with the state reporting 3,630 suspected serious injuries for this past year. Though we maintain a true target of lowering suspected serious injuries to zero, the state must set its target in line with historical trends - including accounting for the recent rise due to the definition change.

Fatality Rate:1.810

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 12 years' (2009-2020) worth of historical crash data. The volumes used to calculate the rates are provided by MDOT's Planning Division.

Serious Injury Rate:7.300

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 1.3 years' (September 2019-2020) 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:349.6

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

MDOT's performance target for number of non-motorized fatalities and suspected serious injuries is based on a five year rolling average developed using 1.3 years' (September 2019-2020) worth of historical crash data. Prediction models are developed using Excel's FORECAST.ETS exponential triple smoothing formula. While

2021 Mississippi Highway Safety Improvement Program

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 virtually 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 mutually agreed upon performance targets regarding fatalities, fatality rate, and serious injuries that are included in both the HSP as well as the HSIP Report.

The remaining two targets - serious injury rate and non-motorized fatalities and serious injuries - were set using the same analysis tools and procedures as the three shared goals with MOHS.

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

MDOT worked hand-in-hand alongside the Mississippi Office of Highway Safety (MOHS) in reviewing the data necessary to develop the three shared safety performance targets: Fatalities, Fatality Rate, and Serious Injuries. MDOT - more specifically the staff responsible for management of the state's HSIP - worked from there to review data available and develop the two remaining performance targets: Serious Injury Rate and Non-Motorized Fatalities and Serious Injuries.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2020 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.

| PERFORMANCE MEASURES | TARGETS | ACTUALS |
|-----------------------------------------------|---------|---------|
| Number of Fatalities | 682.0 | 686.8 |
| Number of Serious Injuries | 661.0 | 1452.6 |
| Fatality Rate | 1.690 | 1.694 |
| Serious Injury Rate | 1.570 | 3.612 |
| Non-Motorized Fatalities and Serious Injuries | 145.5 | 185.4 |

For the first time since performance target reporting began, Mississippi missed its target for fatality-related measures (*fatalities, fatality rate, and non-motorized fatalities and serious injuries*). This is largely due to an unanticipated 100-plus fatality jump from 2019 to 2020. This significant increase caused the state to miss these marks.

As far as serious injury-related measures, the 2020 Safety Performance Measures were developed, discussed and submitted in the late summer of 2019. In September 2019, the Mississippi Department of Public Safety (DPS) updated its statewide crash report. As a part of that effort, the Mississippi DPS also updated its definition for "serious injury" in order to meet NHTSA's MMUCC 4th edition and be in compliance. As mentioned in detail in Question 30, the previous injury A definition was defined as "Life Threatening" and did not include injuries that are now include under the national "Serious Injury" definition (i.e. broken bone, non-life threatening lacerations, etc.) As a result of this, the reported serious injuries increase by 5 to 7 times previous year values in the last 4 months of 2019, and that trend continued in 2020 as the state reported 3,630 suspected serious injuries. Again, because the targets were set in a time when the state was without any

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sense of what the impact of this definition change would be, we were unable to accurately project and develop targets for these categories.

Despite the objections to the circumstances surrounding the affected performance measures, Mississippi is fully committed to developing another HSIP Implementation Plan for FFY 2023 based on the fact that we do not anticipate passing our performance targets for FFY 2020.

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 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Number of Older Driver and Pedestrian Fatalities | 66 | 68 | 97 | 90 | 92 | 107 | 77 |
| Number of Older Driver and Pedestrian Serious Injuries | 25 | 33 | 47 | 57 | 41 | 130 | 257 |

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.

Mississippi tracks crash data - before construction begins as well as after construction is completed - for all projects in the state which utilize HSIP funds in any way (*excludes planning projects as well as PE-only expenditures*). The state tracks project area crash data for a five year time period for before and after construction is completed. While it does begin post-construction tracking immediately, Mississippi does not begin reporting project performance in the report until at least three years of post-construction data is available.

Beginning in 2020, Mississippi began to more closely track the effectiveness of these projects at **reducing targeted crash types** as well as the more severe (*fatal and serious injury*) crashes present at the location. This moves away from an older practice of tracking project effectiveness by comparing all crashes in the project area in the before and after periods. Mississippi believes that this will give a better sense of the true effectiveness of our projects, as well as aid in the state's long-term goal of developing state-specific Crash Reduction Factors based on Mississippi projects.

In reviewing the project tracking matrix provided as an attachment to the report and the data included therein, Mississippi noted several points of interest as they relate to the overall data trends. For the projects that met the minimum three year before and after period criteria, **Mississippi noted a 20% cumulative reduction in targeted crashes on a per-year basis**. This is a good indicator that overall, the projects selected are producing the kind of crash reductions that the state hopes to achieve. On the other side of things, some projects have seen an increase in the targeted crash type. A large portion of the projects producing an increase in targeted crash type involve installation of a new traffic signal or modification of an existing traffic signal. Though disappointing, this information is incredibly useful as it can help Mississippi better assess a countermeasure's effectiveness at certain locations involving certain road characteristics and potentially remove or de-prioritize those that aren't as well-performing as a part of its overall program.

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

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

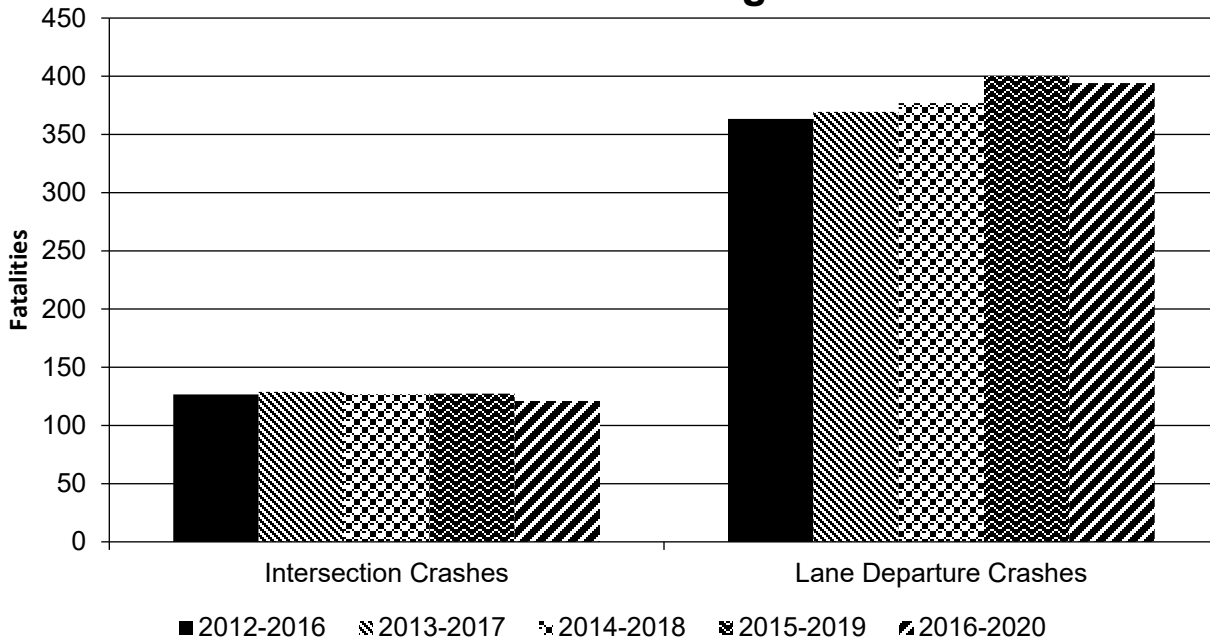
Effectiveness of Groupings or Similar Types of Improvements

Present and describe trends in SHSP emphasis area performance measures.

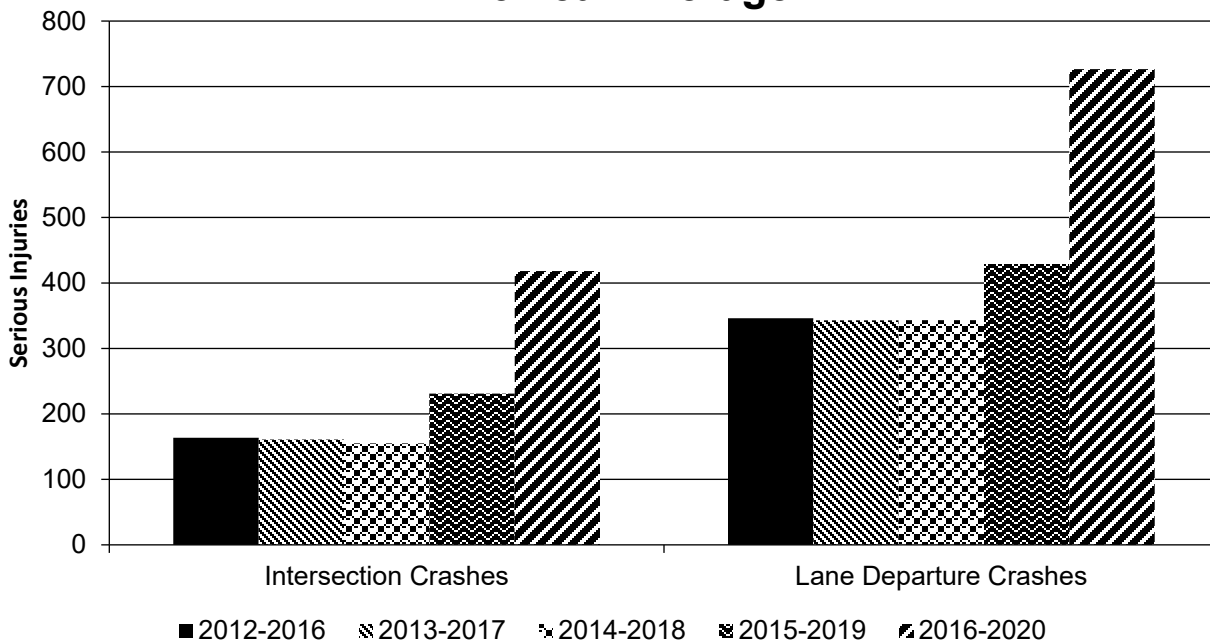
Year 2020

| 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) |
|------------------------|--------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------|--------------------------------------|--------------------------------------------|
| Intersection Crashes | Intersections | 121 | 418.2 | | |
| Lane Departure Crashes | Run off Road (Right, Left, and Straight), Opposite Direction Sideswipe, Sideswipe, Head On | 394.2 | 726.6 | 0.97 | 1.8 |

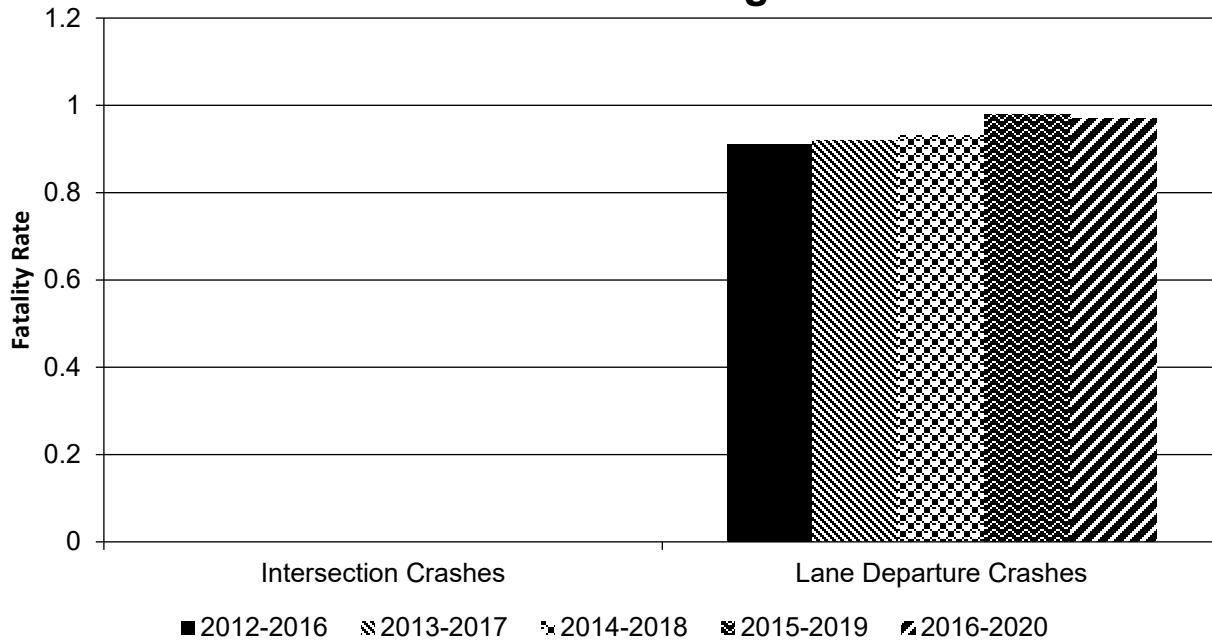
Number of Fatalities 5 Year Average



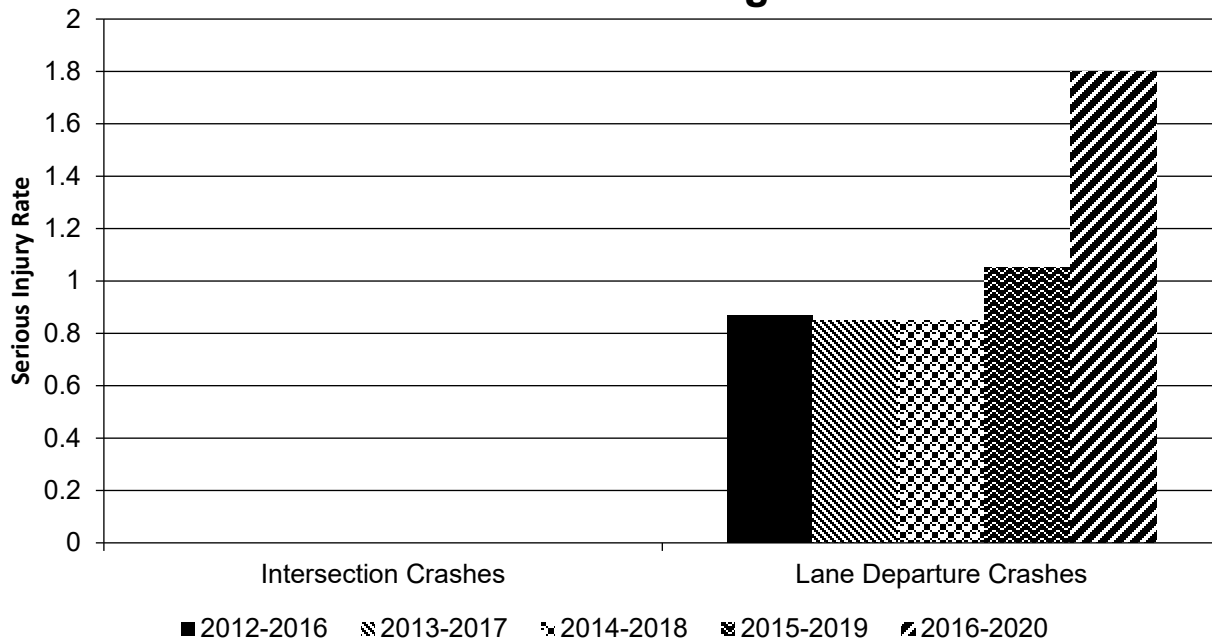
Number of Serious Injuries 5 Year Average



Fatality Rate (per HMVMT) 5 Year Average



Serious Injury Rate (per HMVMT) 5 Year Average



Project Effectiveness

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

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: 2024

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

2024

Mississippi will begin work on its next SHSP in time to have a new plan in place by January 2024.

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

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

| 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 | |
|----------------------------|------------------------------------------|---------------------------------|-----------|--------------------------------------|-----------|-------------------------------|-----------|-------------------|-----------|---------------|-----------|
| | | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE |
| ROADWAY SEGMENT | Segment Identifier (12) [12] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| | Route Number (8) [8] | 100 | 100 | | | | | | | | |
| | Route/Street Name (9) [9] | 100 | 100 | | | | | | | | |
| | Federal Aid/Route Type (21) [21] | 100 | 100 | | | | | | | | |
| | Rural/Urban Designation (20) [20] | 100 | 100 | | | | | 100 | 100 | | |
| | Surface Type (23) [24] | 100 | 100 | | | | | 100 | 100 | | |
| | Begin Point Segment Descriptor (10) [10] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| | End Point Segment Descriptor (11) [11] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| | Segment Length (13) [13] | 100 | 100 | | | | | | | | |
| | Direction of Inventory (18) [18] | 100 | 100 | | | | | | | | |
| Functional Class (19) [19] | 100 | 100 | | | | | 100 | 100 | 100 | 100 | |

2021 Mississippi Highway Safety Improvement Program

| 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 | |
|-------------------------|-----------------------------------------------------------|----------------------------------------|-----------|--------------------------------------|-----------|-------------------------------|-----------|-------------------|-----------|---------------|-----------|
| | | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE |
| | Median Type (54) [55] | 100 | 100 | | | | | | | | |
| | Access Control (22) [23] | 100 | 100 | | | | | | | | |
| | One/Two Way Operations (91) [93] | 100 | 100 | | | | | | | | |
| | Number of Through Lanes (31) [32] | 100 | 100 | | | | | 100 | 100 | | |
| | Average Annual Daily Traffic (79) [81] | 100 | 100 | | | | | 100 | 100 | | |
| | AADT Year (80) [82] | 100 | 100 | | | | | | | | |
| | Type of Governmental Ownership (4) [4] | 100 | 100 | | | | | 100 | 100 | 100 | 100 |
| | INTERSECTION | Unique Junction Identifier (120) [110] | | | 100 | 100 | | | | | |
| | Location Identifier for Road 1 Crossing Point (122) [112] | | | 100 | 100 | | | | | | |
| | Location Identifier for Road 2 Crossing Point (123) [113] | | | 100 | 100 | | | | | | |
| | Intersection/Junction Geometry (126) [116] | | | 100 | 100 | | | | | | |
| | Intersection/Junction Traffic Control (131) [131] | | | 98 | 98 | | | | | | |
| | AADT for Each Intersecting Road (79) [81] | | | 100 | 100 | | | | | | |
| | AADT Year (80) [82] | | | 100 | 100 | | | | | | |
| | Unique Approach Identifier (139) [129] | | | 100 | 100 | | | | | | |
| INTERCHANGE/RAMP | Unique Interchange Identifier (178) [168] | | | | | 100 | 100 | | | | |
| | Location Identifier for Roadway at | | | | | 100 | 100 | | | | |

2021 Mississippi Highway Safety Improvement Program

| 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 | |
|-------------------------------------------|---------------------------------------------------------------------|---------------------------------|---------------|--------------------------------------|--------------|-------------------------------|---------------|-------------------|---------------|---------------|---------------|
| | | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE | STATE | NON-STATE |
| | Beginning of Ramp Terminal (197) [187] | | | | | | | | | | |
| | Location Identifier for Roadway at Ending Ramp Terminal (201) [191] | | | | | 100 | 100 | | | | |
| | Ramp Length (187) [177] | | | | | 100 | 100 | | | | |
| | Roadway Type at Beginning of Ramp Terminal (195) [185] | | | | | 100 | 100 | | | | |
| | Roadway Type at End Ramp Terminal (199) [189] | | | | | 100 | 100 | | | | |
| | Interchange Type (182) [172] | | | | | 100 | 100 | | | | |
| | Ramp AADT (191) [181] | | | | | 100 | 100 | | | | |
| | Year of Ramp AADT (192) [182] | | | | | 100 | 100 | | | | |
| | Functional Class (19) [19] | | | | | 100 | 100 | | | | |
| | Type of Governmental Ownership (4) [4] | | | | | 100 | 100 | | | | |
| Totals (Average Percent Complete): | | 100.00 | 100.00 | 99.75 | 99.75 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

While MDOT has reviewed traffic control for 100% of the state, traffic control for several locations remains indeterminate. The state will continue working towards 100% completion of this effort as available data allows.

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 is in the final stages of completing this assessment with only intersection traffic control remaining. As critical data becomes accessible to aid in this effort, the state intends to finish these remaining items in time to meet the 2026 deadline

Optional Attachments

Program Structure:

Project Implementation:

Safety Performance:

Evaluation:

Q46 - Before and After Tracking.pdf

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.