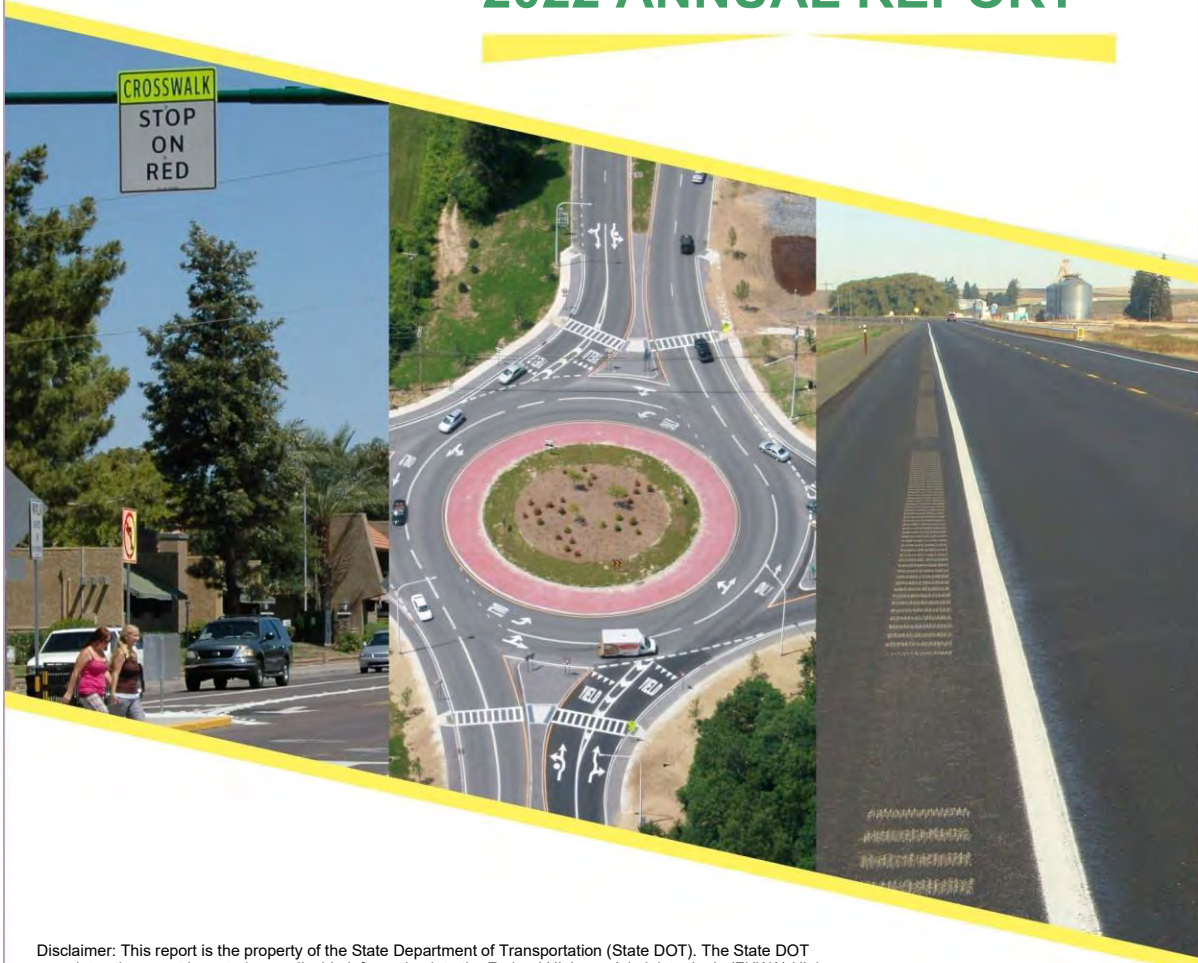


SOUTH DAKOTA

HIGHWAY SAFETY IMPROVEMENT PROGRAM 2022 ANNUAL REPORT



Disclaimer: This report is the property of the State Department of Transportation (State DOT). The State DOT completes the report by entering applicable information into the Federal Highway Administration's (FHWA) Highway Safety Improvement Program (HSIP) online reporting tool. Once the State DOT completes the report pertaining to its State, it coordinates with its respective FHWA Division Office to ensure the report meets all legislative and regulatory requirements. FHWA's Headquarters Office of Safety then downloads the State's finalized report and posts it to the website (<https://highways.dot.gov/safety/hsip/reporting>) as required by law (23 U.S.C. 148(h)(3)(A)).

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. 407 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

South Dakota's HSIP is used in support of the state's Strategic Highway Safety Plan.

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.

HSIP is managed by the Highway Safety Engineer within the Planning and Engineering Division. A portion of the funds are set aside for a countywide signing project, systemic improvements, and spot locations with improvements ranked by benefit/cost.

Where is HSIP staff located within the State DOT?

Other-Planning and Engineering

Division of Planning & Engineering in central office in Pierre.

How are HSIP funds allocated in a State?

- Other-Central Office using SHSP Emphasis Area Data

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

The SDDOT administers a County wide signing program which conducts approximately four County wide signing projects each year. Counties are prioritized by crash rate based on serious injury and fatal crashes per million vehicle miles traveled.

Routes are also identified for improvements by conducting both RSR and RSAR inspections and by an over representation of crash clusters and higher than average crash rates. Routes are also identified to deploy systemic improvements.

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
- Operations
- Planning

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- Traffic Engineering/Safety

Describe coordination with internal partners.

The SHSP is used along with crash record analysis and mapping to hold meetings with operation and maintenance personal to identify locations to apply safety improvements.

During the planning and design process of a project, the HSM and IHSDM software is used to compare options to increase safety.

Identify which external partners are involved with HSIP planning.

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

Describe coordination with external partners.

Coordination with the FHWA Division Office takes place throughout the year. HSIP staff take part in an annual Tribal Transportation Safety Summit which brings together several tribal agencies, engineering consultants, universities, city, county, township representatives. Coordination with the Highway Safety Office also takes place throughout the year.

Program Methodology

Select the programs that are administered under the HSIP.

- Horizontal Curve
- Intersection
- Local Safety
- Low-Cost Spot Improvements
- Median Barrier
- Roadway Departure
- Shoulder Improvement
- Sign Replacement And Improvement
- Skid Hazard

Program: Horizontal Curve

Date of Program Methodology:3/1/2013

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

2022 South Dakota Highway Safety Improvement Program

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Volume

Roadway

- Horizontal curvature

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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?

- Other-B/C ratio

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:4

Ranking based on net benefit:2

Cost Effectiveness:2

Program: Intersection

Date of Program Methodology:3/1/2013

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Volume

Roadway

- Other-Intersection Type

What project identification methodology was used for this program?

- Crash frequency
- Crash rate
- Excess expected crash frequency using SPFs

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?

No

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

When ADT is available and intersects with State road.

How are projects under this program advanced for implementation?

- Other-B/C ratio

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

Incremental B/C:4

Ranking based on net benefit:2

Cost Effectiveness:2

Program: Local Safety

Date of Program Methodology:3/1/2015

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

2022 South Dakota Highway Safety Improvement Program

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Volume

Roadway

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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?

No

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

Crash rates and crash clusters

How are projects under this program advanced for implementation?

- Other-SDDOT Project Development Personnel

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:4

Ranking based on net benefit:2

Cost Effectiveness:2

Program: Low-Cost Spot Improvements

Date of Program Methodology:5/1/2014

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
<ul style="list-style-type: none">All crashes	<ul style="list-style-type: none">TrafficVolume	

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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?

- Other-B/C ratio

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:4

Ranking based on net benefit:2

Cost Effectiveness:2

Program: Median Barrier

Date of Program Methodology:11/9/2021

What is the justification for this program?

- FHWA focused approach to safety

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Volume

Roadway

- Median width

What project identification methodology was used for this program?

- Crash frequency
- Crash rate
- Expected crash frequency with EB adjustment

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

No

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

How are projects under this program advanced for implementation?

- Other-Other BC

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).

Program: Roadway Departure

Date of Program Methodology: 2/2/2014

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Volume

Roadway

- Horizontal curvature
- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Crash frequency
- Crash rate
- Equivalent property damage only (EPDO Crash frequency)
- Excess expected crash frequency using SPFs

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

No

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

How are projects under this program advanced for implementation?

- Other-B/C ratio

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:4

Ranking based on net benefit:2

Cost Effectiveness:2

Program: Shoulder Improvement

Date of Program Methodology:5/1/2014

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Volume

Roadway

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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?

- Other-B/C ratio

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:4

Available funding:1

Ranking based on net benefit:2

Cost Effectiveness:2

Program: Sign Replacement And Improvement

Date of Program Methodology:5/1/2017

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Volume

Roadway

What project identification methodology was used for this program?

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- Crash rate

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?

- Other-B/C ratio

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:4

Available funding:1

Ranking based on net benefit:2

Cost Effectiveness:2

Program: Skid Hazard

Date of Program Methodology:2/1/2016

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Traffic
- Volume

Roadway

What project identification methodology was used for this program?

- Crash frequency

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?

- Other-B/C ratio

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:4

Ranking based on net benefit:2

Cost Effectiveness:2

What percentage of HSIP funds address systemic improvements?

50

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

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

What process is used to identify potential countermeasures?

- Crash data analysis
- Engineering Study
- SHSP/Local road safety plan
- Stakeholder input

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

ITS technologies such as variable speed limits, radar speed feedback signs, adaptive signal controls, and intersection conflict warning systems are installed within the HSIP program.

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.

The HSM was used in the development of in-house software which is used to identify locations and improvement types for rural 2 lane segments and intersections. The HSM is also used during corridor planning studies to compare different design alternatives.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State 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)	\$21,707,000	\$21,395,902	98.57%
HRRR Special Rule (23 U.S.C. 148(g)(1))	\$769,000	\$597,181	77.66%
Penalty Funds (23 U.S.C. 154)	\$0	\$0	0%
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	\$0	\$0	0%
Totals	\$22,476,000	\$21,993,083	97.85%

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

\$1,880,000

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

\$2,607,161

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

\$130,000

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

\$121,500

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

\$25,000,000

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.

The way projects are reported is based on the amount obligated when the first 292 is submitted for the project. In a lot of cases that amount is not the total project cost so that funding amount is tough to compare to the programmed amount. Although a project is only programmed within one study period it could be obligated over multiple study periods. A multi-million dollar project could be let within this study period but only a couple hundred thousand dollars is obligated during the same study period.

Typical project obstacles such as estimating project costs to be programmed, projects time line slipping due to environmental impacts, right-of-way impacts, can all be expected on any type of project.

Ways to overcome these obstacles is to do a better job of estimating projects and when scheduling projects allow for the proper time to accomplish environmental and ROW activities.

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
04KE	Roadway delineation	Longitudinal pavement markings remarking	14.3	Miles	\$452699	\$457699	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	6,709	80	State Highway Agency			
04RX	Roadside	Barrier- metal	0.6	Miles	\$547997	\$555383	HRRR Special Rule (23 U.S.C. 148(g)(1))	Rural	Principal Arterial-Other	2,337	55	State Highway Agency			
04RW			0		\$121500	\$135000	HSIP (23 U.S.C. 148)			0	0	State Highway Agency			
04UA			0.9	Miles	\$307923	\$460086	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0	0	State Highway Agency			
05M6	Roadway signs and traffic control	Roadway signs and traffic control - other	0		\$5174139	\$5637272	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	200	65	County Highway Agency			
05D9	Alignment	Horizontal and vertical alignment	5.8	Miles	\$3267338	\$13383270	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	1,961	65	State Highway Agency			
06C0	Roadside		0		\$9000	\$10000	HRRR Special Rule (23 U.S.C. 148(g)(1))			0	0	State Highway Agency			
06C7	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	20.3	Miles	\$10918680	\$12704274	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	2,672	65	State Highway Agency			
06TV	Roadway	Rumble strips – edge or shoulder	40	Miles	\$309288	\$320288	HSIP (23 U.S.C. 148)	Rural	Major Collector	0	0	State Highway Agency			
07WY			34	Miles	\$40184	\$40684	HRRR Special Rule (23 U.S.C. 148(g)(1))			200	65	County Highway Agency			
07N8			0		\$680434	\$782038	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other Freeways & Expressways	9,138	65	State Highway Agency			

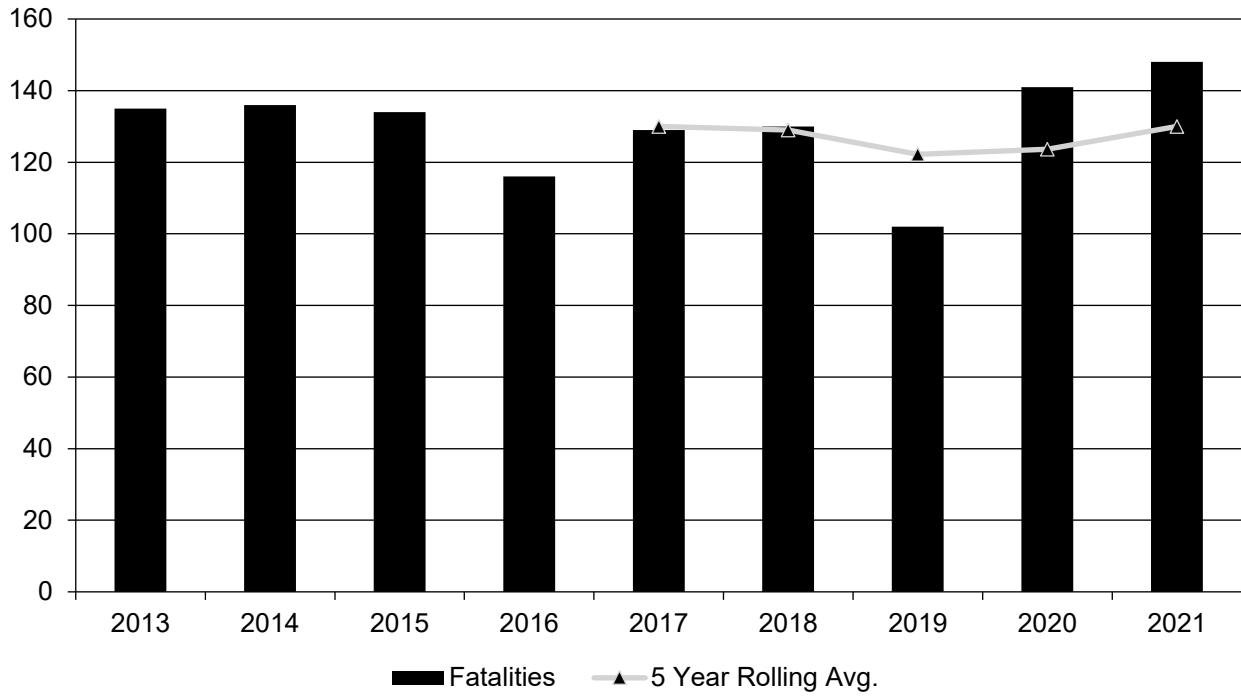
Safety Performance

General Highway Safety Trends

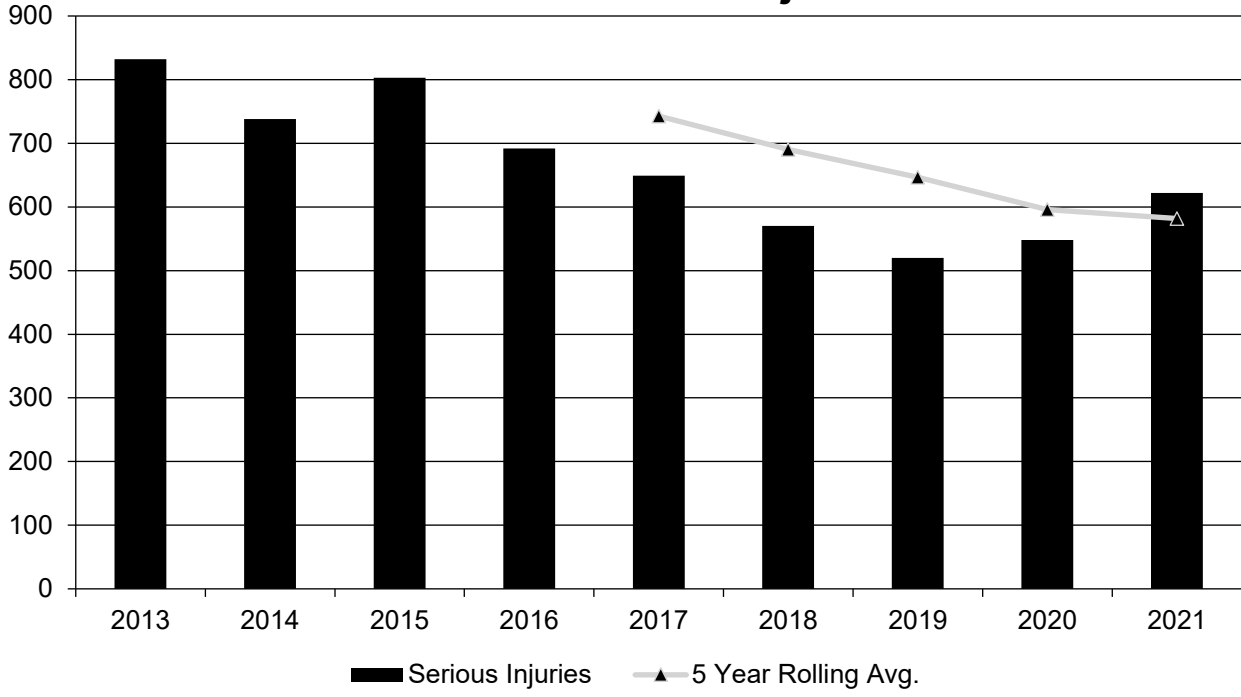
Present data showing the general highway safety trends in the State for the past five years.

PERFORMANCE MEASURES	2013	2014	2015	2016	2017	2018	2019	2020	2021
Fatalities	135	136	134	116	129	130	102	141	148
Serious Injuries	832	738	803	692	649	570	520	548	622
Fatality rate (per HMVMT)	1.480	1.480	1.440	1.230	1.340	1.340	1.029	1.427	1.310
Serious injury rate (per HMVMT)	9.130	8.010	8.620	7.310	6.744	5.870	5.248	5.535	6.200
Number non-motorized fatalities	9	11	6	6	10	12	8	14	14
Number of non-serious motorized injuries	49	39	35	30	40	36	24	28	34

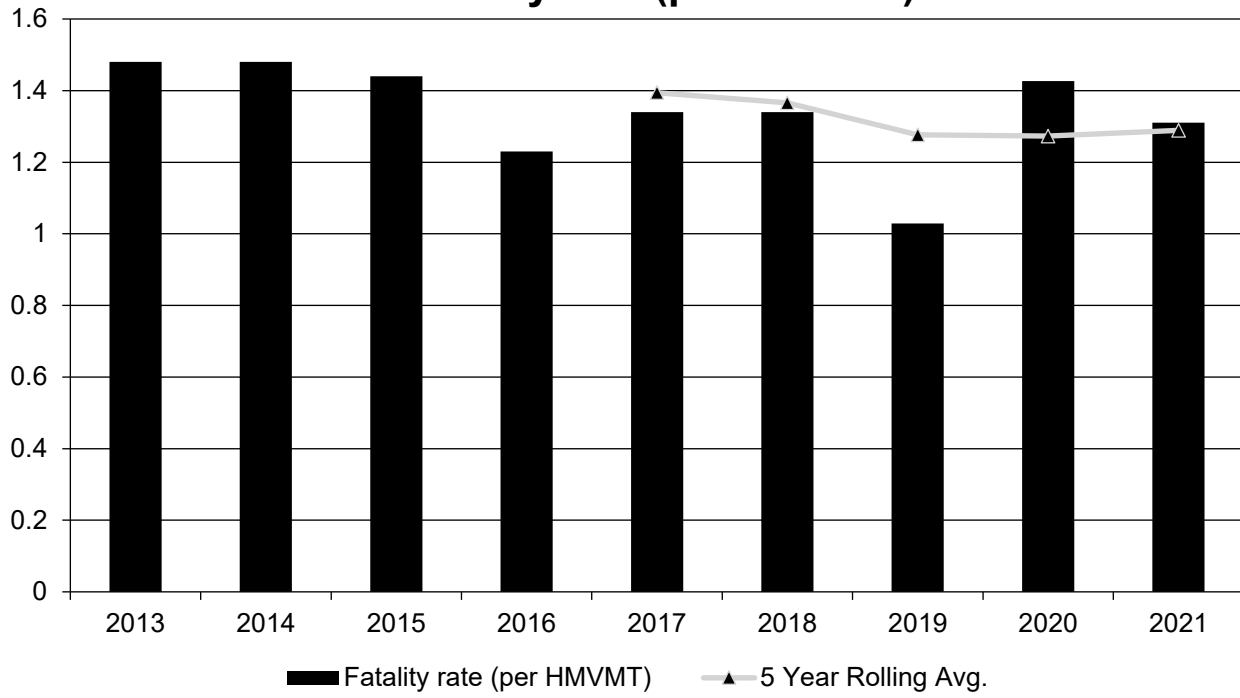
Annual Fatalities



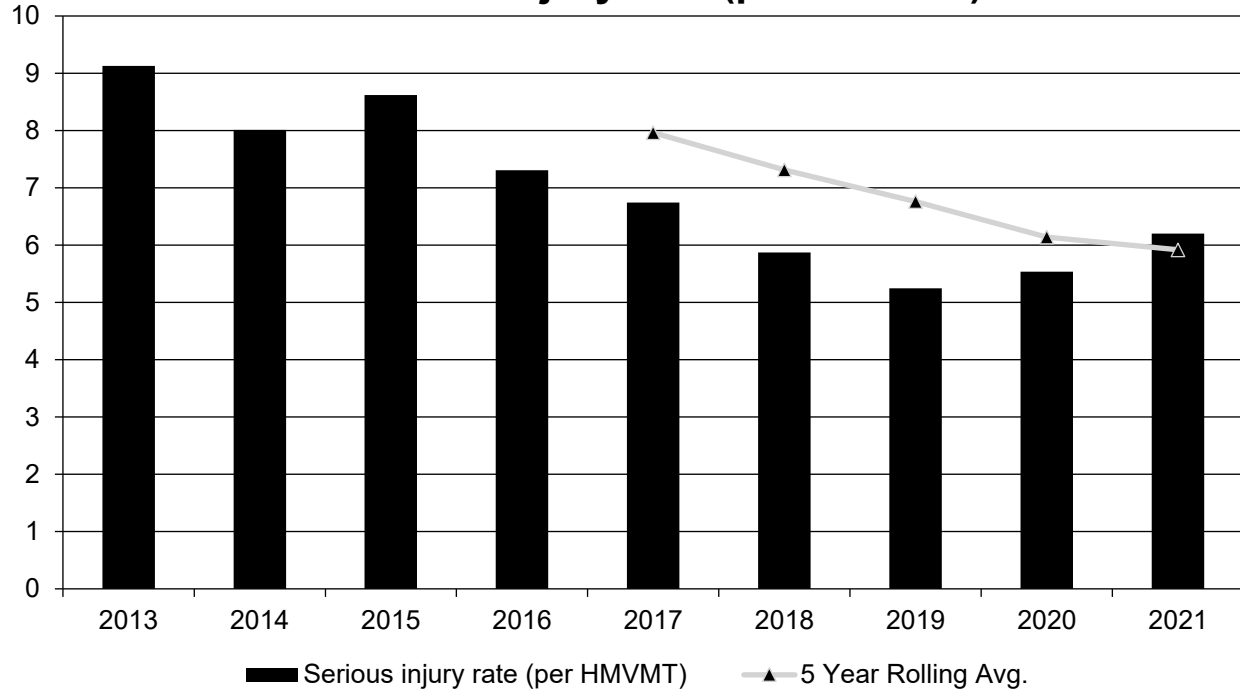
Annual Serious Injuries



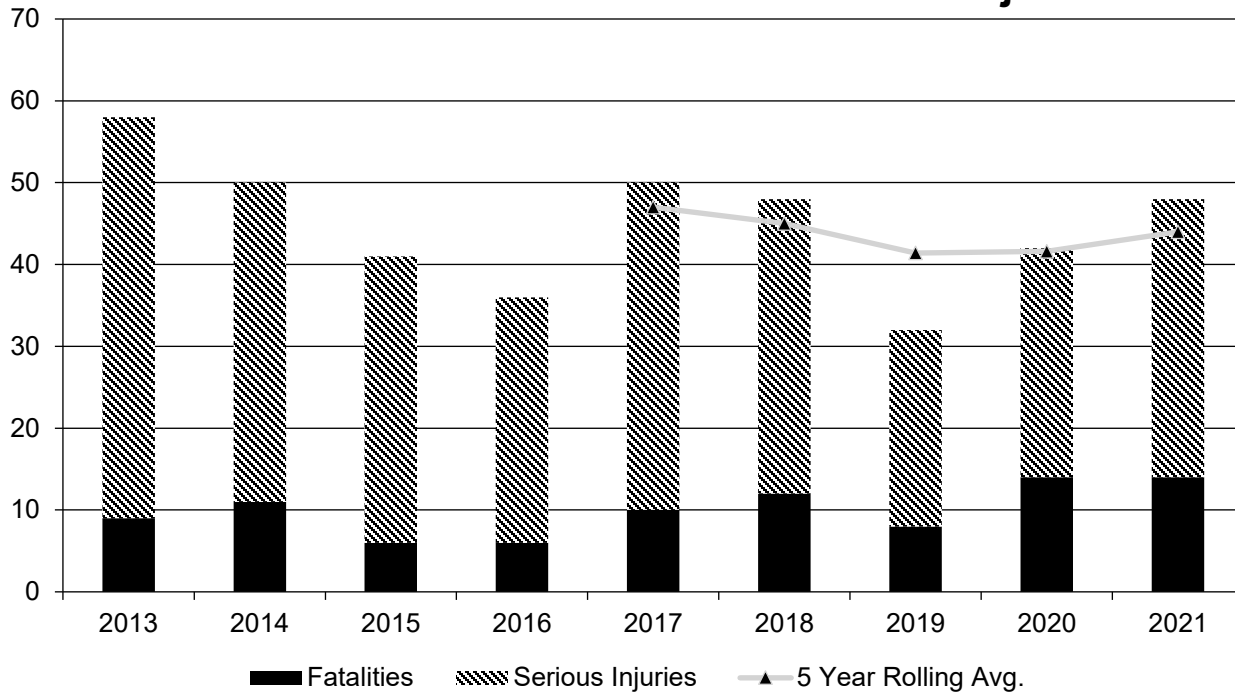
Fatality rate (per HMVMT)



Serious injury rate (per HMVMT)



Non Motorized Fatalities and Serious Injuries



Describe fatality data source.

Other

If Other Please describe

FARS & South Dakota Accident Records System

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

Year 2021

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	12.2	62.2	0.56	2.88
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other	35.8	113.6	1.82	5.77
Rural Minor Arterial	20.4	62.8	1.97	6.07
Rural Minor Collector	3.4	13.6	2.26	9.08

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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 Major Collector	23.2	86	2.12	7.86
Rural Local Road or Street	11.4	61.4	2.5	13.45
Urban Principal Arterial (UPA) - Interstate	5.2	24.2	0.65	3.02
Urban Principal Arterial (UPA) - Other Freeways and Expressways				
Urban Principal Arterial (UPA) - Other	6.4	46	1.34	9.43
Urban Minor Arterial	6.8	59.4	0.69	6.04
Urban Minor Collector				
Urban Major Collector	2.2	19.4	0.8	7.01
Urban Local Road or Street	3	32.8	1.09	11.85

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Year 2021

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				
County Highway Agency				
Town or Township Highway Agency				
City or Municipal Highway Agency				
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	0	0	0	0
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

Safety Performance Targets

Safety Performance Targets

Calendar Year 2023 Targets *

Number of Fatalities:122.7

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

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A trend line analysis was performed using FARS data and South Dakota Accident Records System data. External factors such as VMT, laws, and investments along with stakeholder feedback were also considered when establishing this target. The identified target supports the goals of the SHSP by annually measuring the effectiveness of the program which then lends the opportunity to shift resources between emphasis areas.

Number of Serious Injuries:635.9

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

A trend line analysis was performed using FARS data and South Dakota Accident Records System data. External factors such as VMT, laws, and investments along with stakeholder feedback were also considered when establishing this target. The identified target supports the goals of the SHSP by annually measuring the effectiveness of the program which then lends the opportunity to shift resources between emphasis areas.

Fatality Rate:1.200

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

A trend line analysis was performed using FARS data and South Dakota Accident Records System data. External factors such as VMT, laws, and investments along with stakeholder feedback were also considered when establishing this target. The identified target supports the goals of the SHSP by annually measuring the effectiveness of the program which then lends the opportunity to shift resources between emphasis areas.

Serious Injury Rate:6.220

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

A trend line analysis was performed using FARS data and South Dakota Accident Records System data. External factors such as VMT, laws, and investments along with stakeholder feedback were also considered when establishing this target. The identified target supports the goals of the SHSP by annually measuring the effectiveness of the program which then lends the opportunity to shift resources between emphasis areas.

Total Number of Non-Motorized Fatalities and Serious Injuries:40.0

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

A trend line analysis was performed using FARS data and South Dakota Accident Records System data. External factors such as VMT, laws, and investments along with stakeholder feedback were also considered when establishing this target. The identified target supports the goals of the SHSP by annually measuring the effectiveness of the program which then lends the opportunity to shift resources between emphasis areas.

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

A one day work shop was conducted on April 4th, 2017 with SDDOT, SD Office of Highway Safety, FHWA SD Division Office, Rapid City MPO, Sioux City MPO, and Sioux Falls MPO representatives in attendance. The work shop went through the 5 performance measures in detail and the reporting requirements. There was a lot of discussion on current crash trends and external factors such as VMT, laws, and investments. Everyone involved agreed that the targets shall be data driven, realistic and attainable.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State’s 2022 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	125.2	130.0
Number of Serious Injuries	656.7	581.8
Fatality Rate	1.240	1.289
Serious Injury Rate	6.630	5.919
Non-Motorized Fatalities and Serious Injuries	40.0	44.0

Based on the numbers inputted at reporting time the safety targets for Number of Serious Injuries and Serious Injury Rate were met. The Number of Fatalities, Fatality Rate, and Non-Motorized Fatalities and Serious Injuries were not met. There was a significant increase in impaired and speed related crashes in 2020 and 2021. There was a 67.9% increase in alcohol related Fatality Crashes in 2020 compared to 2019 and a 57.7% increase in speed related Fatality Crashes. 2021 had similar numbers to 2020. These increases were the primary reason the Number of Fatalities and Fatality Rate targets were not met.

Applicability of Special Rules

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

No

Based on the data reported in section 32, the 2015-2019 rate is 2.45 and the 2017-2021 rate is 2.23 so the HRRR special rule does not apply.

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	2015	2016	2017	2018	2019	2020	2021
Number of Older Driver and Pedestrian Fatalities	14	16	20	23	11	25	21
Number of Older Driver and Pedestrian Serious Injuries	90	62	53	55	44	54	67

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Change in fatalities and serious injuries

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

The goal of the 2019 SHSP is to reduce traffic fatalities to 100 and serious injuries to 400 by 2024. There were 148 traffic fatalities and 621 serious injuries in 2021. Although based on the 2020 and 2021 numbers they are trending the in the wrong direction, the 2019 numbers set a record low for fatalities and serious injuries. The measures taken with the HSIP program are showing positive results when looking at a 5 year average trend. The nationwide increase in speed and impairment related fatalities has been very significant in the increases in South Dakota as well.

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

- HSIP Obligations

Effectiveness of Groupings or Similar Types of Improvements

Present and describe trends in SHSP emphasis area performance measures.

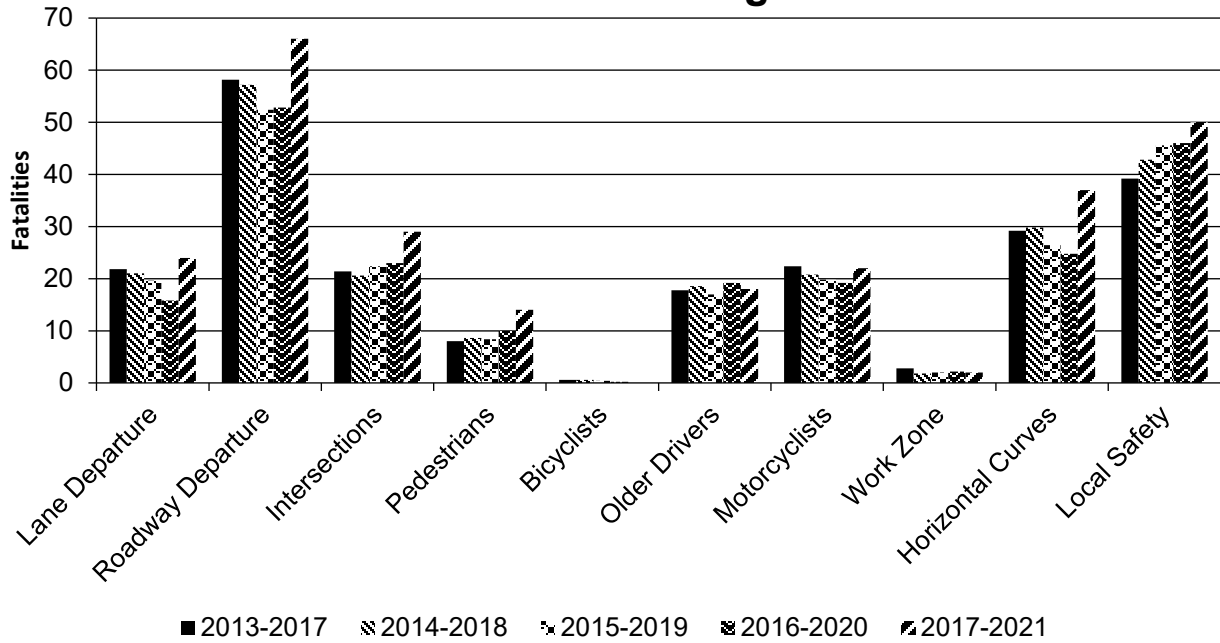
Year 2021

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		24	46	0.23	0.37
Roadway Departure		66	241	0.78	2.4
Intersections		29	187	0.45	1.68
Pedestrians		14	31	0.13	0.28
Bicyclists		0	4	0.01	0.06
Older Drivers		18	64	0.23	0.58
Motorcyclists		22	159	0.36	1.4
Work Zone		2	23	0.04	0.17
Horizontal Curves		37	109	0.37	1.1

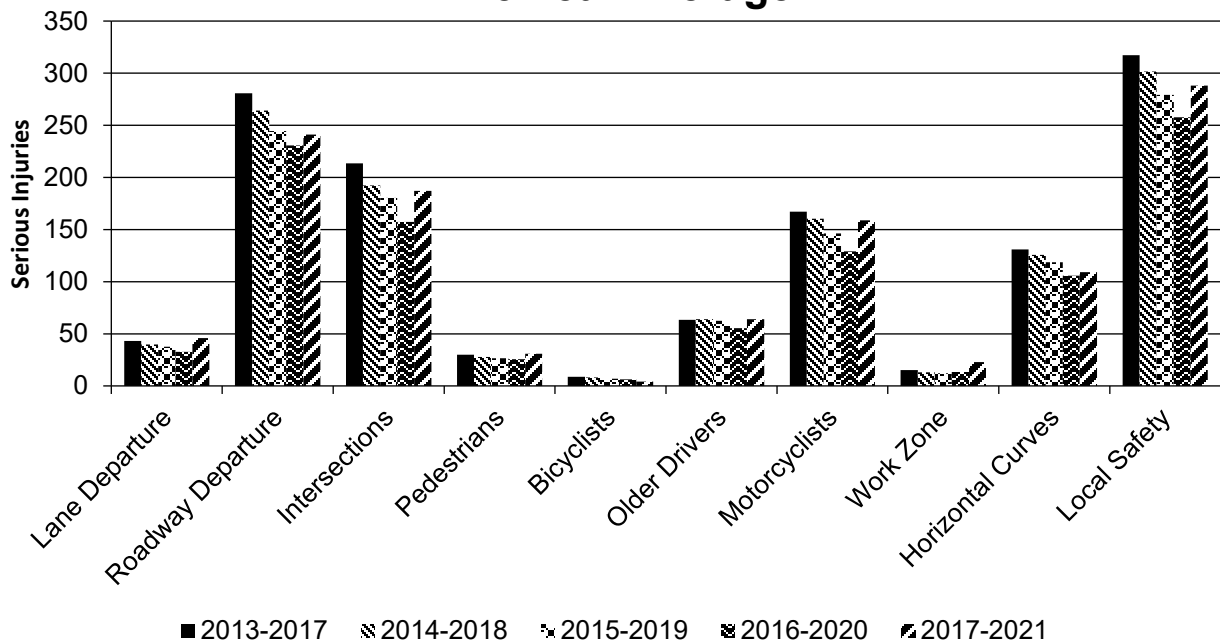
2022 South Dakota Highway Safety Improvement Program

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)
Local Safety		50	288	0.74	2.75

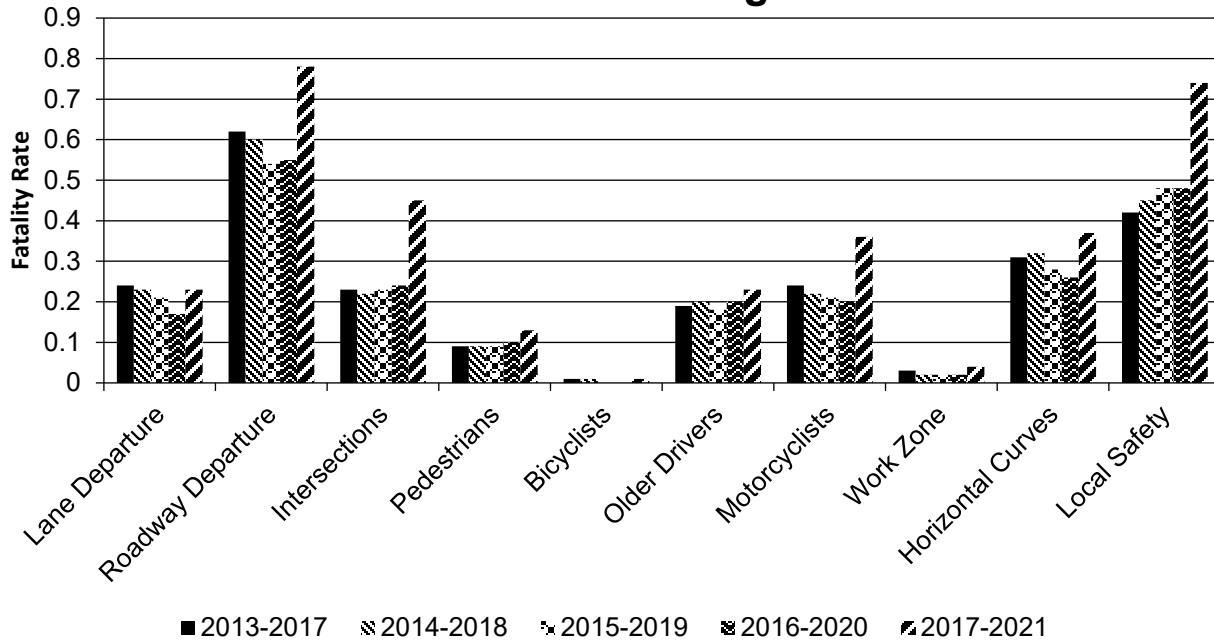
Number of Fatalities 5 Year Average



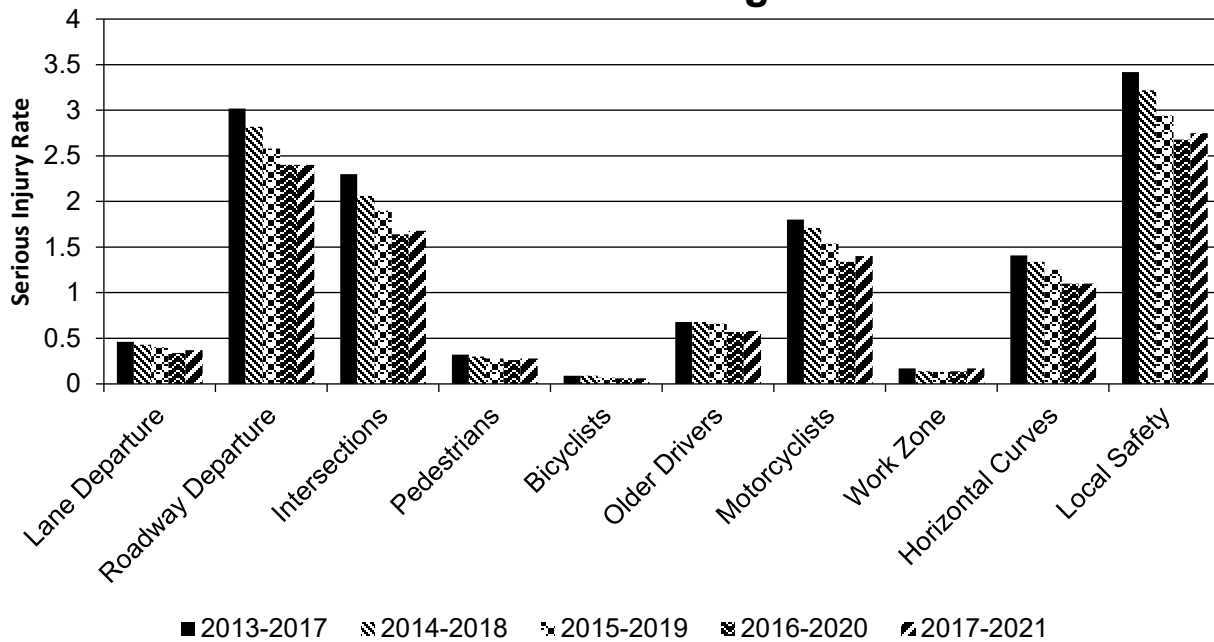
Number of Serious Injuries 5 Year Average



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.

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)
US12 through Ipswich	Rural Principal Arterial (RPA) - Other	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	13.00	11.00			2.00		5.00	2.00	20.00	13.00	

Compliance Assessment

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

08/19/2019

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

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]	1	1					1	1	1	1
	Route Number (8) [8]	1	1								
	Route/Street Name (9) [9]	1	1								
	Federal Aid/Route Type (21) [21]	1	1								
	Rural/Urban Designation (20) [20]	1	1					1	1		
	Surface Type (23) [24]	1	1					1	1		
	Begin Point Segment Descriptor (10) [10]	1	1					1	1	1	1
	End Point Segment Descriptor (11) [11]	1	1					1	1	1	1
	Segment Length (13) [13]	1	1								
	Direction of Inventory (18) [18]	1	1								
Functional Class (19) [19]	1	1					1	1	1	1	

2022 South Dakota 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]	1	1								
	Access Control (22) [23]	1	1								
	One/Two Way Operations (91) [93]	1	0.95								
	Number of Through Lanes (31) [32]	1	1					1	1		
	Average Annual Daily Traffic (79) [81]	1	1					1	1		
	AADT Year (80) [82]	1	1								
	Type of Governmental Ownership (4) [4]	1	1					1	1	1	1
	INTERSECTION	Unique Junction Identifier (120) [110]			1	1					
	Location Identifier for Road 1 Crossing Point (122) [112]			1	1						
	Location Identifier for Road 2 Crossing Point (123) [113]			1	1						
	Intersection/Junction Geometry (126) [116]			1	1						
	Intersection/Junction Traffic Control (131) [131]			1	1						
	AADT for Each Intersecting Road (79) [81]			1	1						
	AADT Year (80) [82]			1	1						
	Unique Approach Identifier (139) [129]			1	1						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					1					
	Location Identifier for Roadway at					1					

2022 South Dakota 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]					1					
	Ramp Length (187) [177]					1					
	Roadway Type at Beginning of Ramp Terminal (195) [185]					1					
	Roadway Type at End Ramp Terminal (199) [189]					1					
	Interchange Type (182) [172]					1					
	Ramp AADT (191) [181]					1					
	Year of Ramp AADT (192) [182]					1					
	Functional Class (19) [19]					1					
	Type of Governmental Ownership (4) [4]					1					
Totals (Average Percent Complete):		1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00

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

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.

South Dakota is aggressively collecting the needed data for the MIRE fundamental data elements. South Dakota will continue on this path as only a few data elements remain incomplete on the list.

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.