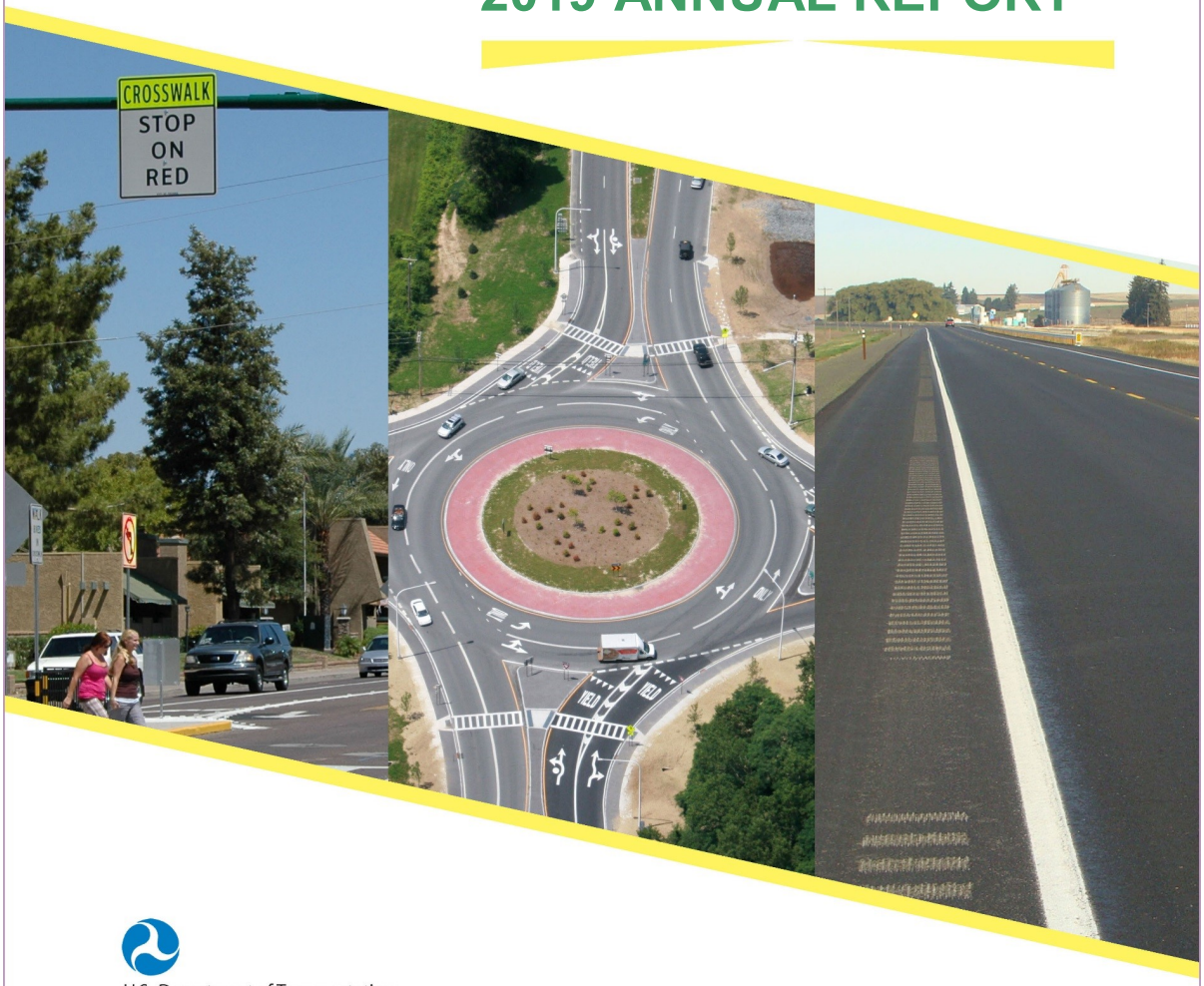
NORTH DAKOTA

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2019 ANNUAL REPORT



U.S. Department of Transportation
Federal Highway Administration

Photo source: Federal Highway Administration

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Protection of Data from Discovery Admission into Evidence

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

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

Executive Summary

The North Dakota Highway Safety Improvement Program (HSIP) is administered through the NDDOT's Programming Division. Safety investments are based on the state's current Strategic Highway Safety Plan (SHSP). The current SHSP document is called ND Vision Zero Plan and has six priority emphasis areas:

- Lane departure
- Intersections
- Alcohol and/or drug related
- Unbelted vehicle occupants
- Speeding/aggressive driving
- Young drivers.

Lane departure and intersections are typically emphasis areas for individual HSIP projects. The 2018 construction year included HSIP projects such as: low-cost signing/striping at rural high risk intersections, rumble strips, intersection geometry (add turn lanes), and signal modifications. In 2018, there were 105 crash fatalities in North Dakota, a decrease from the previous year and the lowest since 2010. This is an encouraging trend, but more can be done by striving for an ultimate goal of zero deaths. North Dakota has set a short-term goal to reduce annual motor vehicle crash fatalities to fewer than 75 by 2025.

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 NDDOT solicits state and local agencies to submit safety project applications each year. Potential projects are identified through the traditional "reactive" approach that address high crash locations, fatal crash locations or areas where road safety reviews took place. Projects are also developed using a "systemic" approach that apply low-cost treatments over a large area. The NDDOT central office reviews applications and selects/prioritizes. After projects are programmed, they get designed and implemented with the same process as regular federally funded transportation projects. Overall evaluation of the program is done though monitoring of the fatal and serious injury statistics as part of this annual report. NDDOT is currently working towards a methodology of evaluating individual safety projects.

Where is HSIP staff located within the State DOT?

The Office of Transportation Programs at NDDOT has HSIP staff within the "Programming" division.

How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process

50% of the funds are dedicated to local roads

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

The NDDOT addresses safety on local roads through the Local Road Safety Program (LRSP). Local public agencies can also submit applications for non-LRSP safety projects each year during the solicitation period. Selection of local and tribal road projects use the same methodology as State roads.

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

- Design
- Districts/Regions

- Governors Highway Safety Office
- Local Aid Programs Office/Division
- Planning
- Traffic Engineering/Safety
- Other-Safety Division, Local Government

Describe coordination with internal partners.

Design

The Design Division is included in the distribution of the high crash listings. All road safety reviews require at least one member of the Design Division. Their participation and review of at-risk locations helps in the development of potential project countermeasures.

Planning

The Planning Division provides data for the development of the HSIP. Roadway features are collected and maintained in the Planning Division include: traffic volume, truck volumes, traffic projections, roadway features, roadway viewer (for state highways) and mapping. The Planning Division is also included in the distribution of the high crash listings.

Safety Highway Safety Office (SHSO)

The SHSO is the lead entity for the State's Strategic Highway Safety Plan (SHSP) and involves law enforcement and other partners in the process. In North Dakota, the behavioral strategies in the SHSP are largely funded through the National Highway Traffic Safety Administration (NHTSA) funds with funding going to various traffic safety partners including law enforcement agencies statewide for overtime enforcement of traffic safety laws. The SHSP process drives HSIP project priorities. Infrastructure strategies in the North Dakota SHSP are largely funded through HSIP and deployed through the State's Local Road Safety Program (LRSP) and State Road Safety Program (SRSP). These programs identify proven, low-cost road safety strategies and prioritize the road safety strategies for implementation at identified at-risk locations on the local and state road systems.

Local Government

Members of the Local Government Division provide project development through city, county and tribal agencies. The local government assists in the solicitation of safety projects. They also participate in road safety reviews.

Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Law Enforcement Agency
- Local Government Agency
- Local Technical Assistance Program
- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Tribal Agency
- Other-and other traffic safety advocates/partners

Describe coordination with external partners.

All the entities are involved at SHSP at some level (Executive Leadership Team, SHSP Steering Committee, SHSP Implementation Team or general SHSP stakeholder).

Regional Planning Organizations: North Dakota has 3 MPO's that must approve any HSIP applications that are submitted by their respective cities. The MPO's were also included in the team that developed the ND Local Road Safety Program (LRSP).

Local Government Agency, Tribal Agency: The cities, counties, and tribal agencies are solicited each year for potential safety projects. They are encouraged to submit projects directly from the LRSP or at high crash locations.

Law Enforcement Agency: Law enforcement and HSIP personnel are extensively involved in North Dakota's SHSP process. The Programming Division Director serves on the SHSP Steering Committee and as chairperson for two SHSP emphasis area teams (Lane Departure and Intersection implementation Teams). Law enforcement serve at all levels of the SHSP including the SHSP Executive Leadership Team, the SHSP Steering Committee and SHSP Implementation Teams.

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

Schedule for HSIP requests:

- Fall – send out HSIP solicitation letter and high crash location lists/maps, HSIP application forms (SFN 59959) are due by the end of the year
- Winter – NDDOT analysis of HSIP requests and Draft HSIP project listing
- Spring – verify the construction year for previously approved projects
- Summer – finalize HSIP project listing, send responses out on approvals (or non-approvals) for the HSIP applications
- August 31st – Final HSIP project list due to FHWA, HSIP online reporting due

Program Methodology

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

No

NDDOT is working towards a future HSIP manual.

Select the programs that are administered under the HSIP.

- HSIP (no subprograms)

Program: HSIP (no subprograms)

Date of Program Methodology:3/1/2017

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	Exposure	Roadway
All crashes	Traffic	Horizontal curvature

What project identification methodology was used for this program?

- Crash frequency
- Equivalent property damage only (EPDO Crash frequency)
- Other-Systemic

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?

- Competitive application process
- selection committee

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

Rank of Priority Consideration

Available funding:1

What percentage of HSIP funds address systemic improvements?

29

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

- Add/Upgrade/Modify/Remove Traffic Signal
- Horizontal curve signs
- Install/Improve Lighting
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Pavement/Shoulder Widening
- Rumble Strips
- Traffic Control Device Rehabilitation

What process is used to identify potential countermeasures?

- Crash data analysis
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Stakeholder input
- Other-National Cooperative Highway Research Program (NCHRP) and other evidence-based practices

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

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

The NDDOT has implemented the ITS technology of ICWS (Intersection Conflict Warning Systems).

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

No

NDDOT is currently working on integrating the HSM into its HSIP process.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

Federal Fiscal Year

2019 Federal Fiscal Year (Oct 1, 2018 through August 19, 2019)

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

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$16,908,000	$11,769,698	69.61%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
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	$16,908,000	$11,769,698	69.61%

(as of 8/19/19)

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

$4,130,000

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

$3,100,000

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

$0

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

$0

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.

None

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
US 281 and ND 46	Parking	Truck parking facilities	1	Locations	$142000	$157800	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Spot	Intersections	
Var State Highways in Minot District - SRSP	Intersection traffic control	Intersection signing - add basic advance warning	69	Intersections	$864000	$960000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Improve visibility of intersections by providing enhanced signing, delineation, or pavement markings/messages
Var State Highways in Valley City District - SRSP	Intersection traffic control	Intersection signing - add basic advance warning	58	Intersections	$928000	$1031000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Improve visibility of intersections by providing enhanced signing, delineation, or pavement markings/messages
Var State Highways in Fargo District - SRSP	Intersection traffic control	Intersection signing - add basic advance warning	58	Intersections	$775000	$861000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Improve visibility of intersections by providing enhanced signing, delineation, or pavement markings/messages
ND 1804 & Washington St Roundabout	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	$2313000	$2570000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Spot	Intersections	Construct roundabouts at appropriate locations
ND 1 & ND South of Oakes	Intersection geometry	Auxiliary lanes - add left-turn lane	1	Intersections	$469500	$521667	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	0		State Highway Agency	Spot	Intersections	Provide left turn lanes at intersections
Various BIA Roads in Spirit Lake Reservation	Shoulder treatments	Widen shoulder - paved or other	1	Locations	$430000	$430000	HSIP (23 U.S.C. 148)	Rural	Local Road or Street	0		State Park, Forest, or Reservation Agency	Spot	Roadway Departure	Apply shoulder treatments - Widen Shoulder
Various State Highways - Statewide	Roadway delineation	Longitudinal pavement markings - remarking	1	Statewide	$6332000	$7036000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systematic	Roadway Departure	
Bismarck Restriping	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	4	Locations	$1089900	$1211000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		City or Municipal Highway Agency	Spot	Intersections	Install center buffer between opposing lanes

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
Bottineau County Road Projects from LRSP	Roadway	Rumble strips - edge or shoulder			$477360	$530400	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	Install shoulder rumble strips
Steele County Road Projects from LRSP	Roadway	Rumble strips - edge or shoulder			$86490	$96100	HSIP (23 U.S.C. 148)	Rural	Major Collector	0		County Highway Agency	Systemic	Roadway Departure	Install shoulder rumble strips
ND 200 & ND 49 Roundabout	Intersection traffic control	Modify control - two-way stop to roundabout	1	Intersections	$650000	$585000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Spot	Intersections	Construct roundabouts at appropriate locations
4 Miles N of Wilton	Alignment	Horizontal curve realignment	1	Curves	$317000	$352000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Spot	Roadway Departure	Provide improved geometry for horizontal curves
US 83 & 128 Ave NW -- Ruthville #2	Lighting	Intersection lighting	1	Intersections	$135000	$150000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Spot	Intersections	Improve visibility of intersections by providing appropriate street lighting
Minot Crosswalks - RRFB's	Pedestrians and bicyclists	Modify existing crosswalk	2	Crosswalks	$76500	$85000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	0		City or Municipal Highway Agency	Spot	Intersections	Improve pedestrian and bicycle facilities to reduce conflicts between motorists and non-motorists
US 2 & US 52 Safety Corridor (Brooks Jct - Velva)	Roadway	Roadway - other	34	Miles	$2475000	$2750000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Location was selected by an internal DOT committee	Lane Departure	Designate as Safety Corridor
US 85 Safety Corridor (Watford City - Alexander)	Roadway	Roadway - other	14	Miles	$1507500	$1675000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Location was selected by an internal DOT committee	Lane Departure	Designate as Safety Corridor
ND 8,22,23 Passing/Climbing Lanes #1	Roadway	Install / remove / modify passing zone			$139500	$155000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Location was selected by an internal DOT committee	Lane Departure	
ND 8, 22, 23, 200, 1804 Passing/Climbing Lanes #1A	Roadway	Install / remove / modify passing zone			$378000	$420000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency		Lane Departure	
Center Pedestrian Crossing	Pedestrians and bicyclists	Pedestrian beacons	3	Crosswalks	$31500	$35000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	0		State Highway Agency	Spot	Pedestrians	Improve pedestrian and bicycle facilities to reduce conflicts

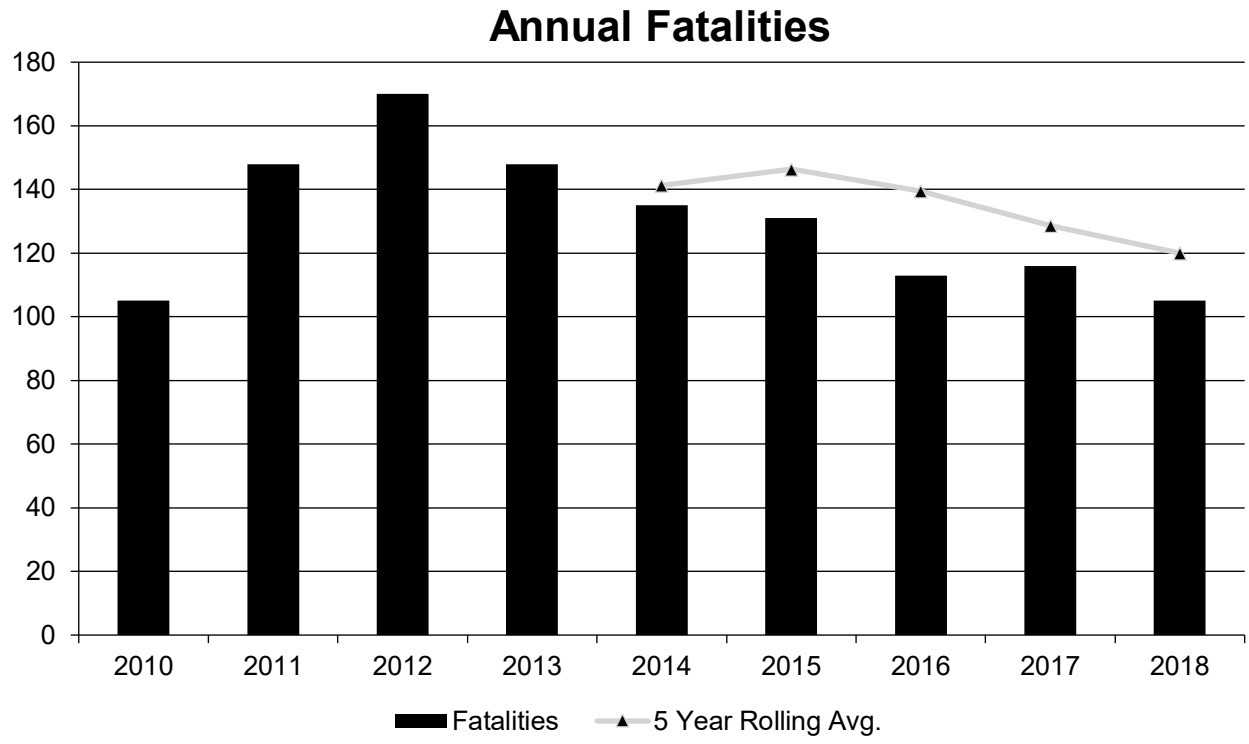
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
															between motorists and non-motorists
Var State Highways in Bismarck District - SRSP	Intersection traffic control	Intersection signing - add basic advance warning	70	Intersections	$1016820	$1129800	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Improve visibility of intersections by providing enhanced signing, delineation, or pavement markings/messages
Var State Highways in Dickinson District - SRSP	Intersection traffic control	Intersection signing - add basic advance warning	99	Intersections	$957375	$1063750	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Improve visibility of intersections by providing enhanced signing, delineation, or pavement markings/messages
Var State Highways in Williston District - SRSP	Intersection traffic control	Intersection signing - add basic advance warning	64	Intersections	$744300	$827000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Improve visibility of intersections by providing enhanced signing, delineation, or pavement markings/messages
US 83 Safety Corridor (Wilton - Washburn)	Roadway	Roadway - other	18	Miles	$1800000	$2000000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	0		State Highway Agency	Location was selected by an internal DOT committee	Lane Departure	Designate as Safety Corridor
Var Loc - Statewide - Individual	Non-infrastructure	Non-infrastructure - other			$1618600	$2000000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0		State Highway Agency	N/A	Intersections	
SHSP Planning and Implementation	Non-infrastructure	Transportation safety planning			$45000	$50000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0		State Highway Agency	N/A	Intersections	
Small Scale Improvements	Non-infrastructure	Non-infrastructure - other			$100000	$111000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0		State Highway Agency	N/A	Intersections	
Statewide crash report evaluation	Non-infrastructure	Data/traffic records			$225000	$250000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0		State Highway Agency	N/A	Data	
Highway Safety Improvements	Non-infrastructure	Non-infrastructure - other			$112500	$125000	HSIP (23 U.S.C. 148)	N/A	Multiple/Varies	0		State Highway Agency	N/A	Intersections	

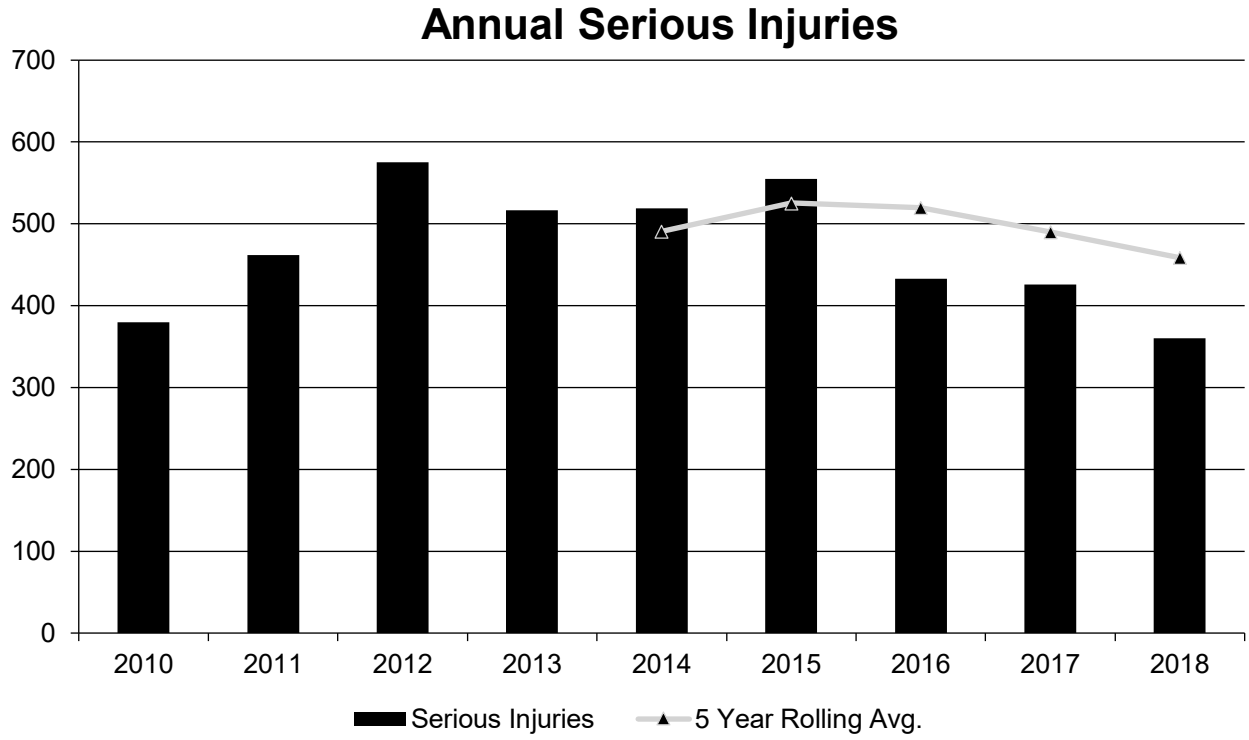
Safety Performance

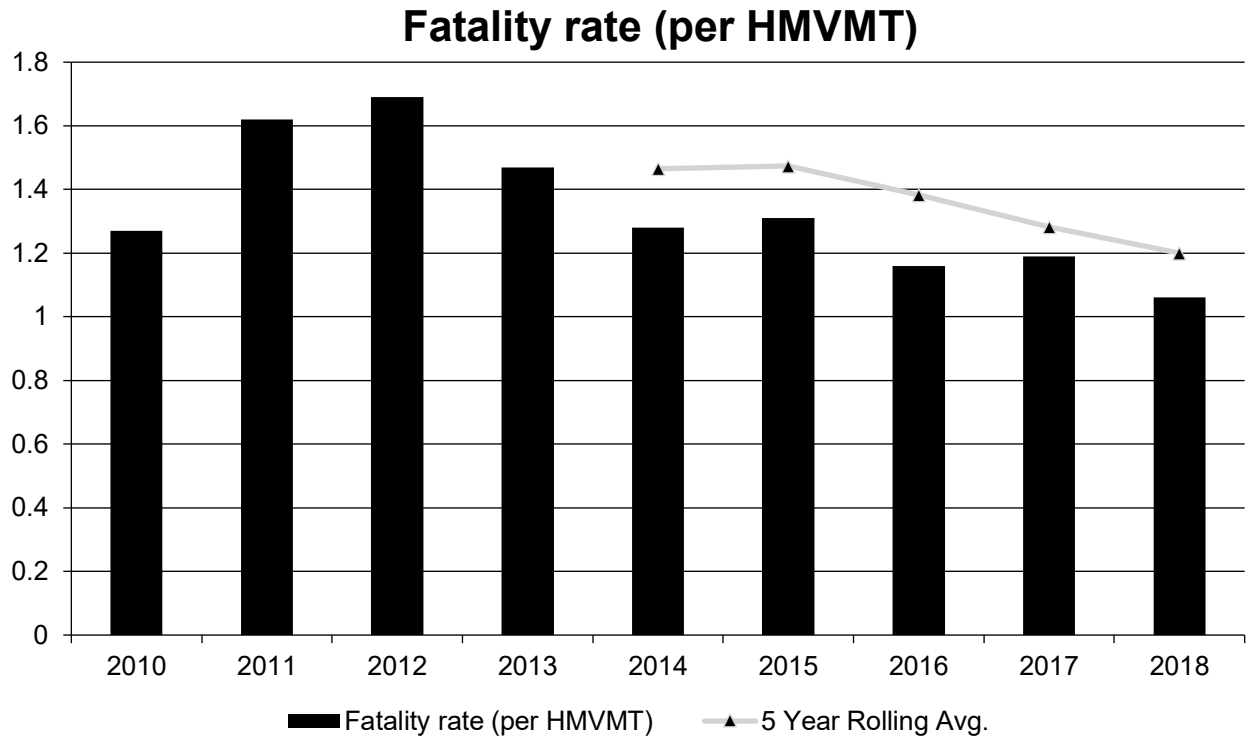
General Highway Safety Trends

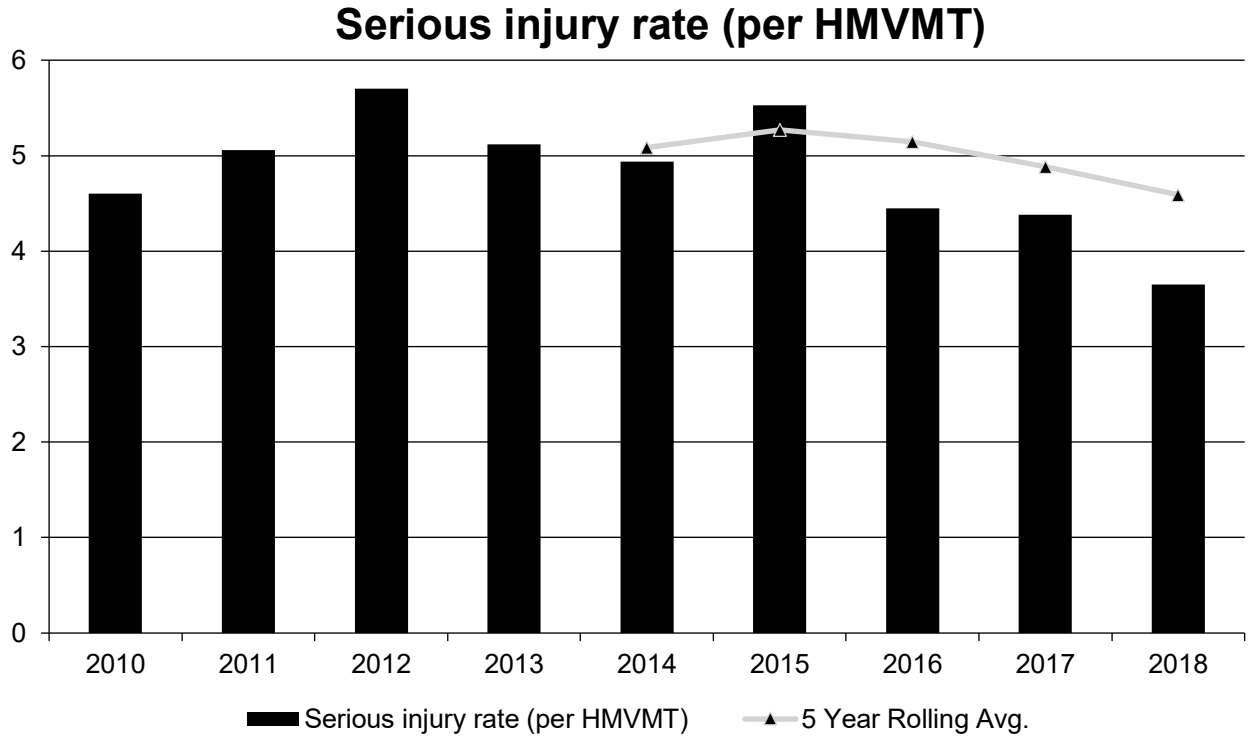
Present data showing the general highway safety trends in the State for the past five years.

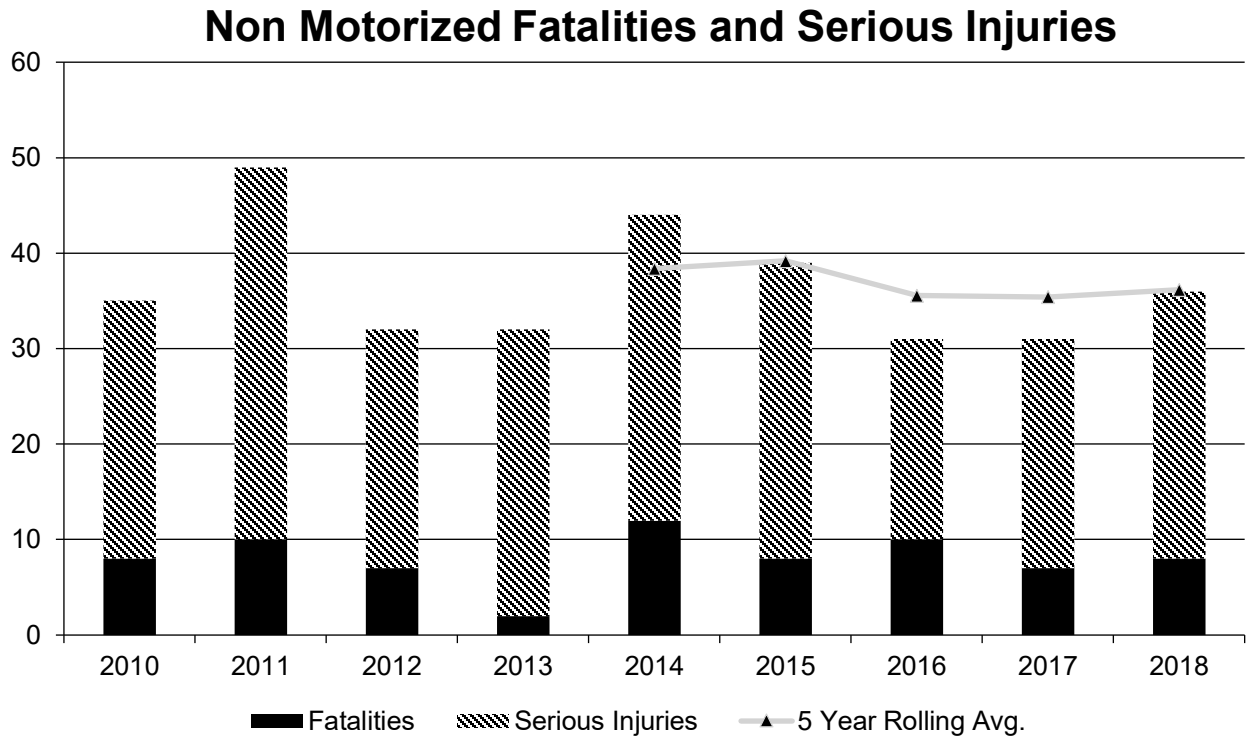
PERFORMANCE MEASURES	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fatalities	105	148	170	148	135	131	113	116	105
Serious Injuries	380	462	575	517	519	555	433	426	360
Fatality rate (per HMVMT)	1.270	1.620	1.690	1.470	1.280	1.310	1.160	1.190	1.060
Serious injury rate (per HMVMT)	4.600	5.060	5.700	5.120	4.940	5.530	4.450	4.380	3.650
Number non-motorized fatalities	8	10	7	2	12	8	10	7	8
Number of non-motorized serious injuries	27	39	25	30	32	31	21	24	28


Annual Fatalities
180
160
140
120
100
80
60
40
20
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Fatalities
5 Year Rolling Avg.


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


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


Serious injury rate (per HMVMT)
6
5
4
3
2
1
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



Describe fatality data source.

State Motor Vehicle Crash Database

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

Year 2018

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	9.8	28.2	0.6	1.75
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other	36	90.4	1.48	3.69
Rural Minor Arterial	15.4	42.6	1.79	4.93
Rural Minor Collector				
Rural Major Collector	20.8	76.4	4.37	16.32
Rural Local Road or Street	19.8	56.6	1.45	3.85

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)
Urban Principal Arterial (UPA) - Interstate	2	6.4	0.42	1.32
Urban Principal Arterial (UPA) - Other Freeways and Expressways				
Urban Principal Arterial (UPA) - Other	6.6	53.6	0.8	6.48
Urban Minor Arterial	4	36.2	0.65	5.81
Urban Minor Collector				
Urban Major Collector	1	16.6	0.37	6.06
Urban Local Road or Street	3.4	28	0.66	5.56

Year 2018

Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	74.8	236.4		
County Highway Agency	31.4	113		
Town or Township Highway Agency				
City or Municipal Highway Agency	8.8	83.6		
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				

Safety Performance Targets

Safety Performance Targets

Calendar Year 2020 Targets *

Number of Fatalities:108.3

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

Review of historical data and expert group input.

Number of Serious Injuries:413.9

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

Review of historical data and expert group input.

Fatality Rate:1.106

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

Review of historical data and expert group input.

Serious Injury Rate:4.230

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

Review of historical data and expert group input.

Total Number of Non-Motorized Fatalities and Serious Injuries:33.4

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

The long-term goal of the North Dakota SHSP is to move toward zero deaths. Targets were established with consideration of this long term goal but also considering SMART objectives. The targets were considered specific, measurable, achievable, relevant and time-oriented.

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

The State Highway Safety Office (SHSO) resides in the NDDOT. The SHSO (i.e., the NDDOT Safety Division) and other NDDOT Divisions including Local Government, Programming and planning/Asset Management review performance measure data and define the method to set the targets. Proposed targets are then shared by the NDDOT at a regular meeting between NDDOT and the MPOs.

Does the State want to report additional optional targets?

No

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

Number of Traffic Fatalities

North Dakota's target for traffic fatalities in the 2019 HSP was based on five-year averages, with the goal of reducing the number of traffic fatalities from a 5-year (2012-2016) average of 139.4 to a 5-year (2015-2019) average of 127.3 by December 31, 2019. North Dakota's current 5-year traffic fatality average (2014-2018) is 120.0, indicating North Dakota will likely meet the 2019 target.

A review of recent crash data shows there were 105 motor vehicle crash fatalities in 2018, a 9.5 percent decrease from the previous year when there were 116 fatalities. As a result of fewer fatalities in the last three years, North Dakota has experienced a decreasing trend across the 5-year traffic fatality averages since 2015. This translates to annual decreases in the 5-year fatality averages ranging from 4.8 percent to 7.8 percent.

North Dakota would have to experience a large increase in the number of traffic fatalities in 2019 to raise the 5-year average (2015-2019) above the target. As of the time of this progress note, there have been 35 traffic fatalities to date in 2019 which is comparable to the fatality counts at this same point in time in both 2017 and 2018.

Number of Serious Injuries

North Dakota's target for serious traffic injuries in the 2019 HSP was based on five-year averages, with the goal of reducing the number of serious traffic injuries from a 5-year (2012-2016) average of 515.8 to a 5-year (2015-2019) average of 486.2 by December 31, 2019. North Dakota's current 5-year serious traffic injury average (2014-2018) is 458.6, indicating North Dakota will likely meet the 2019 target.

A review of recent crash data shows there were 360 serious injuries resulting from motor vehicle crashes in 2018, a 15.5 percent decrease from the previous year when there were 426 serious injuries. As a result of fewer serious injuries in the last three years, North Dakota has experienced a decreasing trend across the 5-year serious injury averages since 2015. This translates to annual decreases in the 5-year serious injury averages ranging from 1.1 percent to 6.4 percent.

North Dakota would have to experience a large increase in the number of serious traffic injuries in 2019 to raise the 5-year average (2015-2019) above the target. There would need to be more than 657 serious traffic injuries in 2019 for the state not to meet the 2019 target, and as of the time of this progress note there has only been 88 serious injuries to date in 2019.

Fatality Rate

North Dakota's target for the traffic fatality rate in the 2019 HSP was based on five-year averages, with the goal of reducing the rate of traffic fatalities from a 5-year (2012-2016) average of 1.382 to a 5-year (2015-2019) average of 1.271 by December 31, 2019. North Dakota's current 5-year fatality rate average (2014-2018) is 1.200, indicating North Dakota will likely meet the 2019 target.

North Dakota experienced a 0.7 percent decrease in the number of licensed drivers in 2018 but saw small increases in population (0.6 percent), the number of registered vehicles (2.2 percent) and the number of vehicle miles traveled (1.5 percent). A review of recent traffic fatality rates shows annual variance over the last five years, but an overall decreasing trend across the 5-year fatality rate averages. This translates to annual decreases in the 5-year fatality rate averages ranging from 6.2 percent to 7.2 percent. The current 5-year average traffic fatality rate (2014-2018) is 1.200.

It is unlikely that North Dakota will experience a large enough increase in the number traffic fatalities in 2019 to raise the 5-year average rate (2015-2019) above the target given the fact that the annual vehicle miles traveled (VMTs) in the state is on the rise due to an upswing in oil activity in the state. In 2018, the number of VMTs increased 1.7 percent from the previous year. Yet the number of traffic fatalities to date is comparable to the fatality counts at this same point in time in both 2017 and 2018. As of the time of this progress note, there have been 35 traffic fatalities to date in 2019.

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	2012	2013	2014	2015	2016	2017	2018
Number of Older Driver and Pedestrian Fatalities	15	8	10	10	9	14	19
Number of Older Driver and Pedestrian Serious Injuries	22	21	36	37	35	27	29

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.

An annual program level evaluation has not been completed at this time. However there are some positive signs: the number of fatalities has decreased for the 6th year in a row, the 2018 fatality rate is at is lowest level of the past 10 years and the serious injury numbers are following similar trends.

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

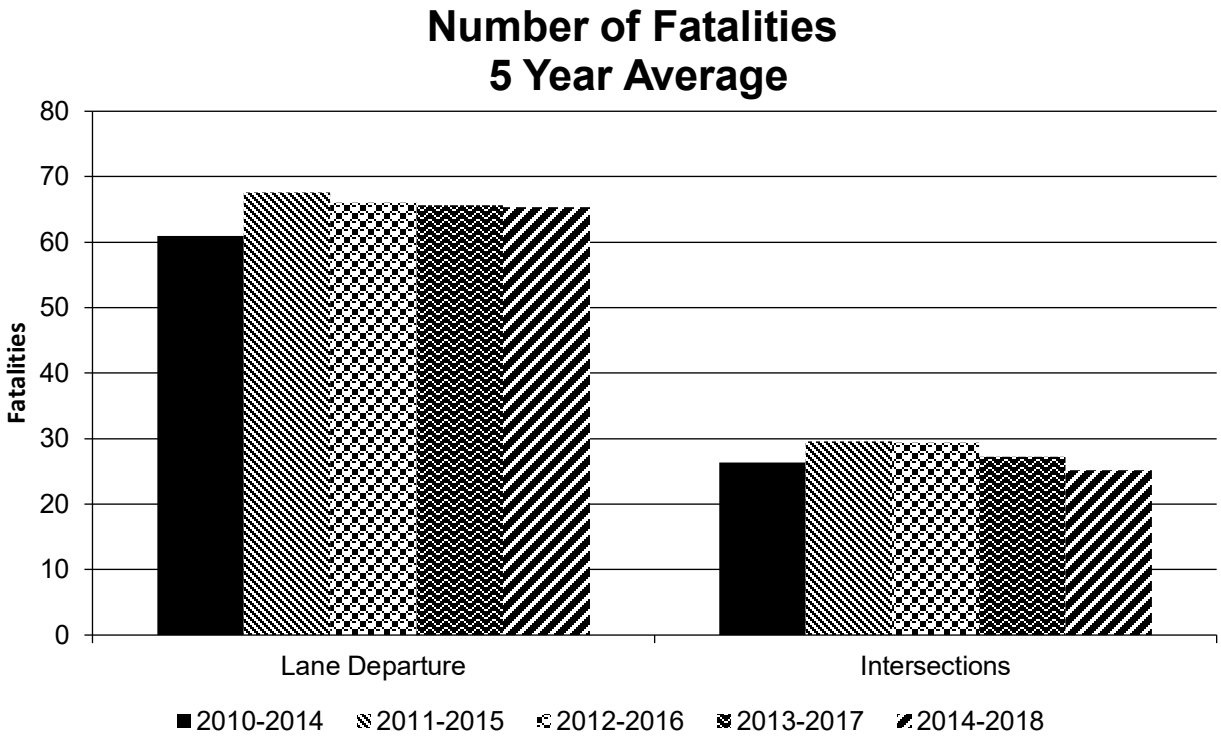
- More systemic programs

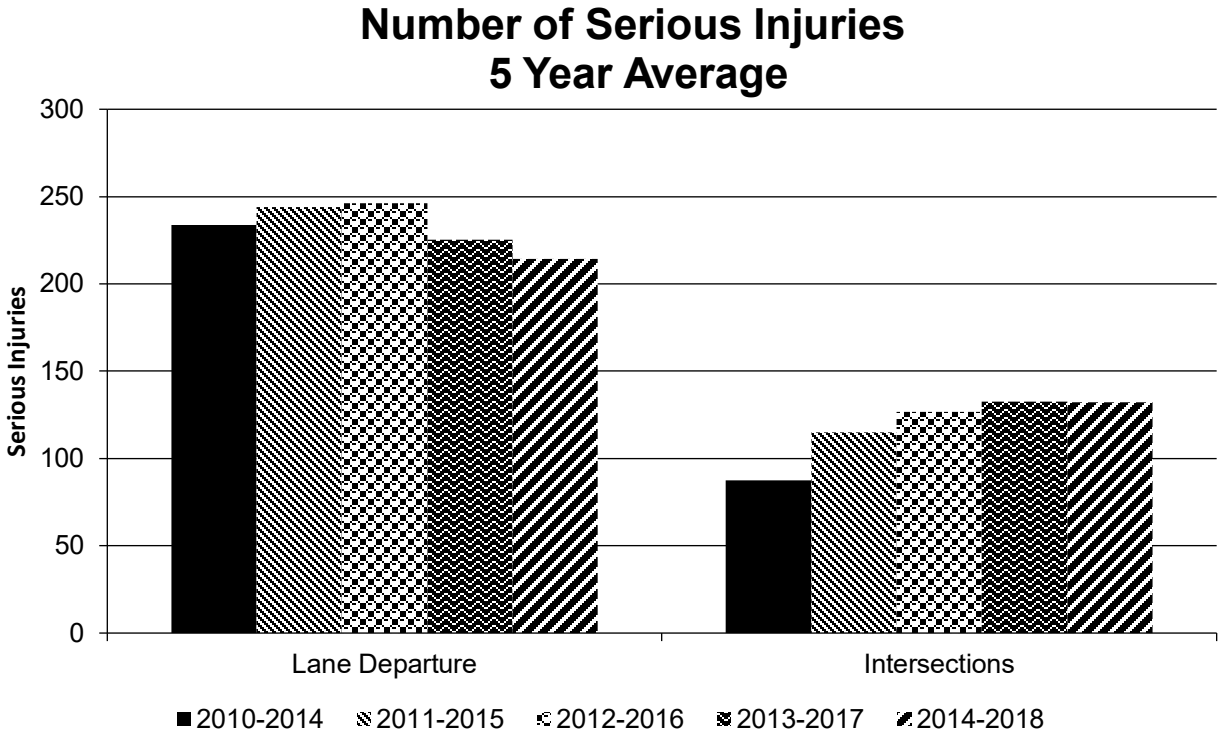
Effectiveness of Groupings or Similar Types of Improvements

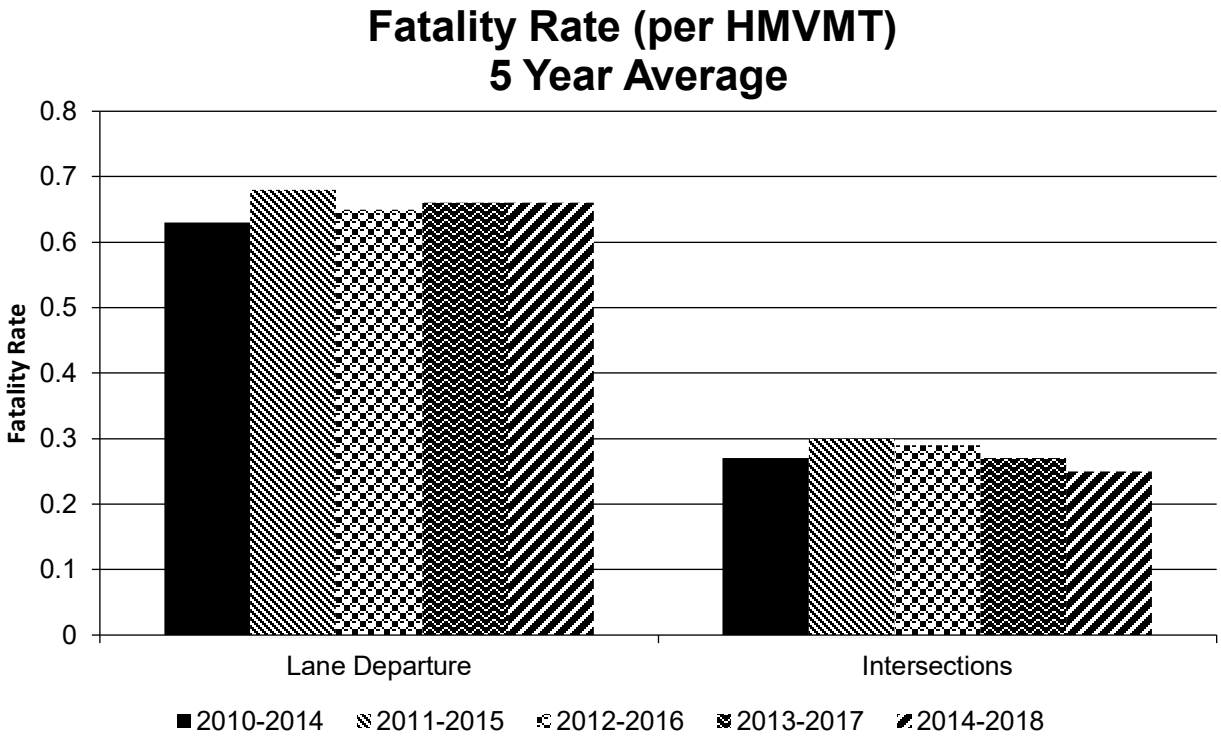
Present and describe trends in SHSP emphasis area performance measures.

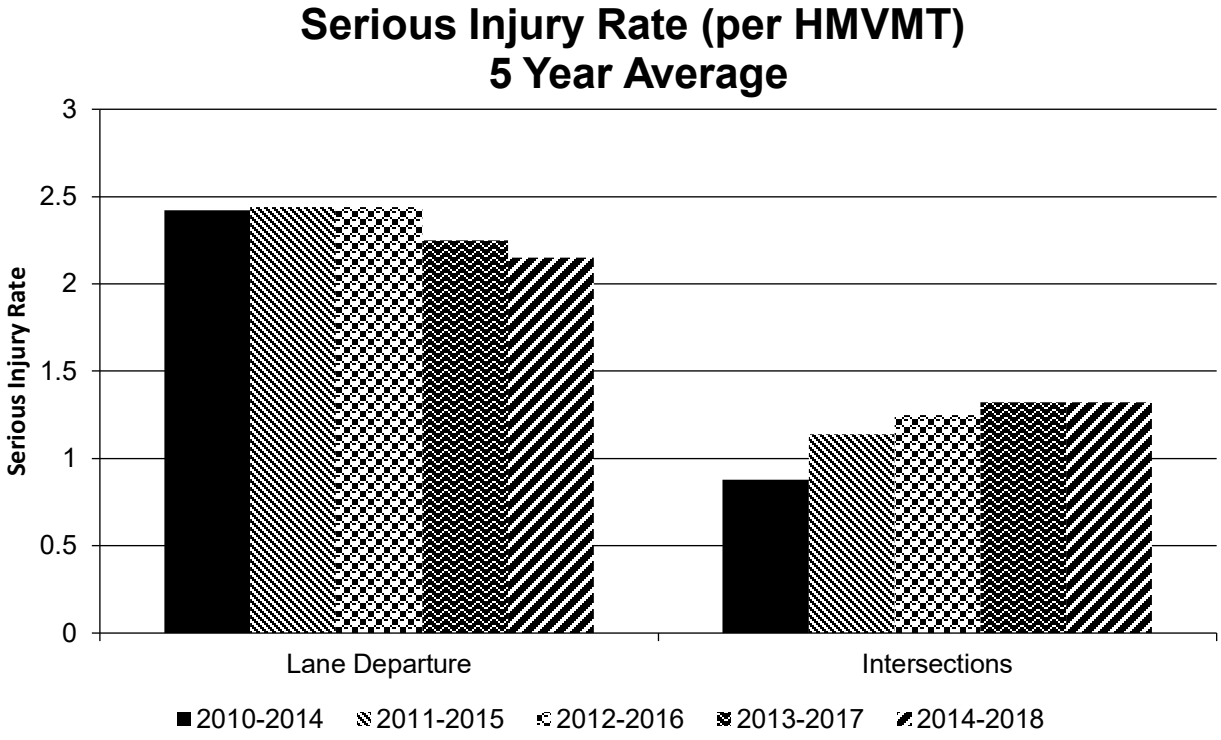
Year 2018

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Lane Departure		65.4	214.2	0.66	2.15
Intersections		25.2	132	0.25	1.32


Number of Fatalities
5 Year Average
Fatalities
80
70
60
50
40
30
20
10
0
Lane Departure
Intersections
2010-2014
2011-2015
2012-2016
2013-2017
2014-2018


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





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

No

Project Effectiveness

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

Compliance Assessment

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

09/18/2018

What are the years being covered by the current SHSP?

From: 2018 To: 2023

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

2023

NDDOT Vision Zero

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

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
ROADWAY SEGMENT	Segment Identifier (12)	100	100					100	100	100	100
	Route Number (8)	100	100								
	Route/Street Name (9)	100	100								
	Federal Aid/Route Type (21)										
	Rural/Urban Designation (20)										
	Surface Type (23)	33	1								
	Begin Point Segment Descriptor (10)	100	100					100	100	100	100
	End Point Segment Descriptor (11)	100	100					100	100	100	100
	Segment Length (13)	100	100								
	Direction of Inventory (18)										
	Functional Class (19)	100	100					100	100	100	100
	Median Type (54)										
	Access Control (22)	33	1								

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	One/Two Way Operations (91)										
	Number of Through Lanes (31)	33						100			
	Average Annual Daily Traffic (79)	100									
	AADT Year (80)										
	Type of Governmental Ownership (4)	100	100					100	100	100	100
INTERSECTION	Unique Junction Identifier (120)										
	Location Identifier for Road 1 Crossing Point (122)										
	Location Identifier for Road 2 Crossing Point (123)										
	Intersection/Junction Geometry (126)										
	Intersection/Junction Traffic Control (131)										
	AADT for Each Intersecting Road (79)			100							
	AADT Year (80)										
	Unique Approach Identifier (139)										
INTERCHANGE/RAMP	Unique Interchange Identifier (178)										
	Location Identifier for Roadway at Beginning of Ramp Terminal (197)										
	Location Identifier for Roadway at Ending Ramp Terminal (201)										
	Ramp Length (187)					100	100				

ROAD TYPE	MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	
	Roadway Type at Beginning of Ramp Terminal (195)										
	Roadway Type at End Ramp Terminal (199)										
	Interchange Type (182)										
	Ramp AADT (191)					100					
	Year of Ramp AADT (192)										
	Functional Class (19)					100	100				
	Type of Governmental Ownership (4)					100	100				
Totals (Average Percent Complete):		**55.50**	**44.56**	**12.50**	**0.00**	**36.36**	**27.27**	**66.67**	**55.56**	**100.00**	**100.00**

*Based on Functional Classification

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

The Department will continue to collect required MIRE FDE elements already required by HPMS. In addition, the accessibility of HPMS Data for safety analysis will be investigated. The Department will continue its efforts implementing Data Governance, and will develop a comprehensive plan for closing the gap between available data and required MIRE data elements by 2026. In 2019, NDDOT hired a Data Scientist to co-lead development and implementation of formal data governance/data management for the Office of Transportation Programs. Their first assignment is to coordinate updating and implementing the MIRE FDE improvement plan.

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

The purpose of the assessment was to review the current HSIP program and identify potential approaches to improve program effectiveness. The assessment identified four strategies:

- Increase the number of outreach efforts to work with NDDOT districts and local agencies to improve the number and quality of HSIP applications.
- Provide additional technical assistance to local agencies to overcome barriers to their participation
- Improve the process for screening and prioritizing candidate locations for investment, with a focus on systemic risk assessments
- Consider expanding the data elements available to support improved/expanded system screening and prioritization

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.