



ALASKA

# HIGHWAY SAFETY IMPROVEMENT PROGRAM 2019 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. 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

Under the Alaska Highway Safety Improvement Program (HSIP), the Alaska Department of Transportation & Public Facilities (DOT&PF) identifies high risk intersections and roads, scopes and prioritizes corrective projects, funds the most cost-effective projects, and evaluates actual project and program effectiveness. HSIP dollars are distributed to the most effective projects from a single statewide fund. The purpose of the Alaska HSIP is to “maximize lives saved and major injuries eliminated per dollar spent.” We currently measure our post-construction program benefit-cost ratio at approximately 7:1, a successful ratio achieved through a program that blends spot and systemic projects throughout the State in urban as well as rural locations. Regional Traffic and Safety personnel identify, scope, estimate, and rank candidate projects according to benefit-cost ratio (ranked projects) and potential for crash reduction (non-ranked projects). HQ Traffic & Safety reviews proposed new projects, works with the regions to clarify project description and scope, and submits recommended projects to DOT&PF's Chief Engineer for approval. Following approval of new HSIP projects, HQ Traffic and Safety selects the most effective projects and proposes a statewide HSIP funding plan for the coming federal fiscal year for approval by the Chief Engineer and the Director of Program Development. The HSIP funding plan typically includes a blend of on-going projects and new projects. Regions design and construct funded projects and generate before-after studies when three years of post-improvement crash data becomes available. HQ Traffic & Safety manages funding for the statewide HSIP, annually updates the HSIP Handbook, maintains program effectiveness data, and produces the annual HSIP report.

Important Note on Performance Measures calculated by Online Reporting Tool: Alaska does not yet have serious injury data for 2017 or 2018. Our goal is to have 2017 and 2018 data entry complete by the end of calendar year 2019. We would appreciate accommodations by FHWA to allow a late submittal of the data before conclusions are drawn about whether Alaska made progress toward performance measure targets.

## 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 general structure of Alaska's HSIP is basically described in Sec. 1.3 of the Alaska HSIP Handbook:

Regional Traffic and Safety Engineers in Alaska's three regions (Northern, Central and Southcoast) screen crash data and consider other information to identify projects. Projects can be either ranked or non-ranked.

Ranked projects are implemented at locations with high crash history and are ranked by analyzing the benefit cost of specific safety-related improvements using estimated accident reduction factors and improvement costs. Non-ranked projects are implemented at locations with potential for severe crashes identified in SHSP strategies and may be spot or system-wide improvements. System wide, or systemic, improvement projects are implemented to reduce potential for fatal and serious injuries by mitigating road conditions or characteristics associated with specific crash types. Non-infrastructure projects are limited to those types specifically included in Appendix A (p. A-11) of this handbook, a reprinting of 23 U.S.C. Section 148 (a)(4)(B).

Alaska's three regional traffic & safety sections submit proposed projects to the State Traffic and Safety Engineer for review. HQ Traffic & Safety reviews the proposed new projects, works with regions to clarify project descriptions and scope, and submits recommended projects to the Chief Engineer for advancement as safety projects. Following Chief Engineer approval of new HSIP projects, the State Traffic and Safety Engineer proposes a list of new and on-going projects for funding and coordinates with HQ Project Development to prepare a funding plan for the coming federal fiscal year.

State Traffic and Safety personnel manage the federal funds for approved projects. Regional Traffic and Safety personnel work with preconstruction and construction personnel to ensure projects remain consistent with their HSIP scope throughout design and construction. The regions conduct follow-up studies to determine the effectiveness of completed projects. HQ Traffic & Safety summarizes the overall effectiveness of the statewide program in the annual HSIP Report.

#### **Where is HSIP staff located within the State DOT?**

Engineering

HSIP program manager is located with the DOT&PF Statewide Design and Engineering Services division (Chief Engineer's office). DOT&PF regional HSIP practitioners are located within the regional preconstruction divisions.

## **How are HSIP funds allocated in a State?**

- Central Office via Statewide Competitive Application Process

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

Safety projects on all public roads in Alaska are eligible to compete for HSIP funding. The same process is used to prioritize projects on both state and non-state (including local and tribal) 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
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

## **Describe coordination with internal partners.**

Design: Regional Traffic and Safety personnel identify, scope, estimate, and rank candidate projects according to benefit-cost ratio (ranked projects) and potential for crash reduction (non-ranked projects).

HQ Traffic & Safety reviews proposed new projects, works with the regions to clarify project description and scope, and submits recommended projects to the DOT&PF Chief Engineer for funding approval.

Planning: Funding plan developed in coordination with the Office of Program Development.

Maintenance and Operations: M&O staff consulted to determine alternative project nominations where safety problems may exist despite the lack of historic crash data.

Governors Highway Safety Office: Split penalty transfer funding to address engineering solutions to highway safety.

## **Identify which external partners are involved with HSIP planning.**

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

SHSP is the forum through which external partners participate in the HSIP planning process.

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**Describe coordination with external partners.**

Other than through SHSP implementation, there are no formal mechanisms in the program for coordination with local agencies. However, Regional Traffic & Safety Engineers continuously work with external partners to identify and develop HSIP project nominations. Their input is valued and considered in the development and delivery of HSIP projects.

Coordination with FHWA is described under the most recent Stewardship and Oversight Agreement.

***Program Methodology***

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

Yes

FileName:

The current edition of Alaska's HSIP Handbook is the 18th edition with one addendum.

**Select the programs that are administered under the HSIP.**

- HSIP (no subprograms)

**Program: HSIP (no subprograms)**

**Date of Program Methodology: 1/1/2017**

**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 | Volume   |         |

**What project identification methodology was used for this program?**

- Crash frequency
- Crash rate
- Critical 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?**

- Competitive application process

**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:90

Available funding:10

**What percentage of HSIP funds address systemic improvements?**

32

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

- Add/Upgrade/Modify/Remove Traffic Signal
- Horizontal curve signs
- Other-concrete barrier
- Other-passing lanes
- Upgrade Guard Rails
- Wrong way driving treatments

**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

**Does the State HSIP consider connected vehicles and ITS technologies?**

No

Not at this time.

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

No

Not at this time. HSIP funding was used to develop Alaska specific calibration factors for some SPFs in the HSM. DOT&PF had envisioned the calibration factors for use at planning level for HSIP nominations, but the calibration factors were much higher than expected and may not result in reliable predicted outcomes.



## 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)                           | \$80,254,851         | \$11,674,410         | 14.55%                 |
| HRRR Special Rule (23 U.S.C. 148(g)(1))        | \$900,000            | \$994,720            | 110.52%                |
| Penalty Funds (23 U.S.C. 154)                  | \$16,800,000         | \$13,714,678         | 81.63%                 |
| Penalty Funds (23 U.S.C. 164)                  | \$11,600,000         | \$16,162,588         | 139.33%                |
| RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2)) | \$1,390,410          | \$1,571,519          | 113.03%                |
| Other Federal-aid Funds (i.e. STBG, NHPP)      | \$0                  | \$60,539,444         | 0%                     |
| State and Local Funds                          | \$9,071,696          | \$7,639,276          | 84.21%                 |
| <b>Totals</b>                                  | <b>\$120,016,957</b> | <b>\$112,296,635</b> | <b>93.57%</b>          |

Department needs for surface transportation and NHPP were greater, so we chose to advance construct our HSIP projects to allow us to obligate a larger NHPP and STP program. In FFY 2020, we anticipate a larger than usual HSIP need, and we will be prepared to fund this program.

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

\$9,936,750

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

\$5,083,531

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

\$1,335,000

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

\$703,700

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

\$34,266,466

**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

CMAQ & NHPP funds transferred in. Department needs for surface transportation and NHPP were greater, so we chose to advance construct our HSIP projects to allow us to obligate a larger NHPP and STP program. In FFY 2020, we anticipate a larger than usual HSIP need, and we will be prepared to fund this program.

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

Alaska DOT&PF believe the flexibility lost under the FAST Act by removing eligibility for non-infrastructure projects is an impediment not only to obligation of HSIP funds but to the purpose of the HSIP program listed in 23 USC 148(b)(2) to achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

**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   |
|--|------------------------------|---|---------|---------------|-----------------------|------------------------|---|--------------------|---------------------------|--------|-------|----------------------|---------------------------|--------------------|---|
| Fairbanks: Danby-Wembly Roundabout                                       | Intersection traffic control | Modify control - two-way stop to roundabout       | 1       | Intersections | \$242869.5            | \$269855               | HSIP (23 U.S.C. 148)                      | Urban              | Minor Arterial            | 16,560 | 0     | State Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes. |
| Fairbanks Area Signal Upgrades (combines 10NR01, 13NN05, 14NR01, 14NR02) | Intersection traffic control | Modify traffic signal - add flashing yellow arrow | 57      | Locations     | \$8220990             | \$8224490              | Penalty Funds (23 U.S.C. 164)             | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency | Systemic                  | Intersections      | Reduce the number of fatal and serious injury intersection crashes. |
| Steese Expressway/Chena Hot Springs Road Ramp Termini Roundabouts        | Intersection traffic control | Modify control - two-way stop to roundabout       | 2       | Intersections | \$26144               | \$26144                | Other Federal-aid Funds (i.e. STBG, NHPP) | Urban              | Principal Arterial-Other  | 8,155  | 0     | State Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes. |
| College Median Extension   | Access management            | Median crossover - close crossover                | 0.2     | Miles         | \$339248.7            | \$376943               | HSIP (23 U.S.C. 148)                      | Urban              | Principal Arterial-Other  | 15,036 | 35    | State Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes. |
| Badger Road Two Way Left Turn Lane                                       | Intersection geometry        | Auxiliary lanes - add two-way left-turn lane      | 10      | Miles         | \$15942397.5          | \$17713775             | Other Federal-aid Funds (i.e. STBG, NHPP) | Rural              | Minor Arterial            | 9,600  | 55    | State Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes. |
| Richardson Hwy MP 351 Interchange  | Interchange design           | Convert intersection at-grade to interchange      | 1       | Intersections | \$553500              | \$615000               | Other Federal-aid Funds (i.e. STBG, NHPP) | Rural              | Principal Arterial-Other  | 16,858 | 55    | State Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes. |
| Fairbanks Ramp Sight Distance Improvements                               | Alignment                    | Horizontal and vertical alignment                 | 3       | Locations     | \$935514.9            | \$1039461              | HSIP (23 U.S.C. 148)                      | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes. |

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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   |
|--|------------------------------|---|---------|---------------|-----------------------|------------------------|---|---------------------|---------------------------|--------|-------|----------------------------------|---------------------------|--------------------|---|
| HSIP: Airport Way / Steese Expwy Interchange                     | Interchange design           | Convert at-grade intersection to interchange                | 1       | Locations     | \$2000000             | \$2000000              | Other Federal-aid Funds (i.e. STBG, NHPP) | Multiple/Variations | Multiple/Varies           | 36,265 | 55    | State Highway Agency             | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.   |
| Fairbanks Area Concrete Barrier Upgrade (HSIP)                   | Roadside                     | Barrier - concrete  | 35      | Miles         | \$4944948.3           | \$5494387              | Other Federal-aid Funds (i.e. STBG, NHPP) | Multiple/Variations | Multiple/Varies           | 0      | 0     | State Highway Agency             | Systemic                  | Roadway Departure  | Reduce the number of fatal and serious injury lane departure crashes. |
| Lake Otis Parkway @ 68th Avenue Channelization Improvements      | Intersection geometry        | Auxiliary lanes - add left-turn lane                        | 1       | Intersections | \$23892.3             | \$26547                | HSIP (23 U.S.C. 148)                      | Urban               | Principal Arterial-Other  | 26,054 | 45    | City or Municipal Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.   |
| HSIP: Anchorage Area Safety Improvements                         | Intersection geometry        | Intersection geometrics - modify intersection corner radius | 18      | Locations     | \$331418.7            | \$368243               | HSIP (23 U.S.C. 148)                      | Multiple/Variations | Multiple/Varies           | 0      | 0     | City or Municipal Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.   |
| Palmer-Wasilla Highway HSIP: Center Left Turn Lane Widening      | Intersection geometry        | Auxiliary lanes - add two-way left-turn lane                | 10      | Miles         | \$20698554.051        | \$22998393.39          | Other Federal-aid Funds (i.e. STBG, NHPP) | Rural               | Principal Arterial-Other  | 0      | 0     | State Highway Agency             | Spot                      | Lane Departure     | Reduce the number of fatal and serious injury lane departure crashes. |
| Sterling Highway & Main Street (Homer) Intersection Improvements | Intersection traffic control | Intersection traffic control - other                        | 1       | Intersections | \$70077.98            | \$76139                | Other Federal-aid Funds (i.e. STBG, NHPP) | Rural               | Principal Arterial-Other  | 11,405 | 35    | City or Municipal Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.   |
| Parks Hwy Safety Corridor Median and Cont. Lighting              | Access management            | Grassed median - extend existing                            | 6       | Miles         | \$180000              | \$200000               | HSIP (23 U.S.C. 148)                      | Rural               | Principal Arterial-Other  | 0      | 55    | State Highway Agency             | Spot                      | Lane Departure     | Reduce the number of fatal and serious injury lane departure crashes. |
| Jewel Lake Road: 88th to Strawberry TWLTL                        | Intersection geometry        | Auxiliary lanes - add two-way left-turn lane                | 0.75    | Miles         | \$1980971.62          | \$1982348.62           | Other Federal-aid Funds (i.e. STBG, NHPP) | Urban               | Minor Arterial            | 14,734 | 40    | State Highway Agency             | Spot                      | Intersections      | Reduce the number of fatal and  |

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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  |
|--|-----------------------------------|---|---------|-------------|-----------------------|------------------------|---|--------------------|---------------------------|--------|-------|----------------------------------|---------------------------|--------------------|--|
|  |                                   |   |         |             |                       |                        | STBG, NHPP)                               |                    |                           |        |       |                                  |                           |                    | serious injury intersection crashes.                                   |
| George Parks Highway Systemic Passing Lanes Project                  | Roadway                           | Roadway widening - add lane(s) along segment        | 80.2    | Miles       | \$14501256.42         | \$14501256.42          | Penalty Funds (23 U.S.C. 164)             | Rural              | Principal Arterial-Other  | 0      | 65    | State Highway Agency             | Systemic                  | Lane Departure     | Reduce the number of fatal and serious injury lane departure crashes.  |
| CR Traffic Safety Corridor Left Turn Lanes                           | Intersection geometry             | Auxiliary lanes - add left-turn lane                | 3       | Locations   | \$2234492.5           | \$2482769.33           | Other Federal-aid Funds (i.e. STBG, NHPP) | Rural              | Principal Arterial-Other  | 0      | 55    | State Highway Agency             | Spot                      | Intersections      | Reduce the number of pedestrian fatalities and serious injury crashes. |
| HSIP: Pedestrian Safety Fencing                                      | Roadside                          | Fencing   | 2       | Locations   | \$51000               | \$51000                | Other Federal-aid Funds (i.e. STBG, NHPP) | Urban              | Principal Arterial-Other  | 0      | 65    | State Highway Agency             | Spot                      | Pedestrians        | Implement infrastructure to address pedestrian safety improvements     |
| Bethel Ridgecrest Drive School Zone Upgrades                         | Roadway signs and traffic control | Roadway signs (including post) - new or updated     | 1       | Locations   | \$85439.7             | \$94933                | HSIP (23 U.S.C. 148)                      | Rural              | Major Collector           | 4,982  | 20    | City or Municipal Highway Agency | Spot                      | Pedestrians        | Reduce the number of pedestrian fatalities and serious injury crashes. |
| Anchorage Pedestrian Improvements                                    | Lighting                          | Lighting - other                                    | 1.16    | Miles       | \$725000              | \$725000               | Penalty Funds (23 U.S.C. 164)             | Urban              | Principal Arterial-Other  | 0      | 0     | State Highway Agency             | Spot                      | Pedestrians        | Reduce the number of pedestrian fatalities and serious injury crashes. |
| Tudor Rd at C St and Dimond Blvd at C St - Right Turn Channelization | Intersection geometry             | Splitter island - install on one or more approaches | 2       | Locations   | \$793024.2            | \$881138               | HSIP (23 U.S.C. 148)                      | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency             | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.    |
| Minnesota Dr Weaving Lane  | Interchange design                | Acceleration / deceleration / merge lane            | 1       | Locations   | \$2425535.654         | \$2436893.6            | Penalty Funds (23 U.S.C. 164)             | Urban              | Principal Arterial-Other  | 48,285 | 60    | State Highway Agency             | Spot                      | Roadways           | Reduce the number of fatal and serious injury lane departure crashes.  |

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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   |
|--|-----------------------------------|---|---------|-------------|-----------------------|------------------------|--|--------------------|---------------------------|--------|-------|----------------------------------|---------------------------|--------------------|---|
| Seward Highway Passing Lanes, MP 37-52                                 | Roadway                           | Install / remove / modify passing zone            | 3.7     | Miles       | \$12412858            | \$15123550             | Other Federal-aid Funds (i.e. STBG, NHPP)      | Rural              | Principal Arterial-Other  | 4,429  | 60    | State Highway Agency             | Spot                      | Lane Departure     | Reduce the number of fatal and serious injury lane departure crashes. |
| Minnesota Dr Sign Upgrades   | Roadway signs and traffic control | Roadway signs (including post) - new or updated   | 3       | Signs       | \$326805.687          | \$363117.43            | Other Federal-aid Funds (i.e. STBG, NHPP)      | Urban              | Principal Arterial-Other  | 37,700 | 60    | State Highway Agency             | Spot                      | Lane Departure     | Reduce the number of fatal and serious injury lane departure crashes. |
| HSIP: Central Region Curve Warning Signs Evaluation/Upgrade (Systemic) | Roadway signs and traffic control | Roadway signs and traffic control - other         | 413     | Miles       | \$4329784.26          | \$4329784.26           | Other Federal-aid Funds (i.e. STBG, NHPP)      | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency             | Systemic                  | Roadway Departure  | Reduce the number of fatal and serious injury lane departure crashes. |
| HSIP: RR Crossing Surface Upgrades 2018                                | Railroad grade crossings          | Surface treatment                                 | 2       | Locations   | \$1078020             | \$1197800              | RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2)) | Rural              | Minor Collector           | 0      | 0     | City or Municipal Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.   |
| HSIP: Denali National Park Road RR Signal Upgrade                      | Railroad grade crossings          | Upgrade railroad crossing signal                  | 1       | Locations   | \$350145.234          | \$389050.26            | RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2)) | Rural              | Major Collector           | 1,592  | 35    | National Park Service            | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.   |
| HSIP: Traffic Signal Preemption Upgrades for RR Crossings              | Railroad grade crossings          | Upgrade railroad crossing signal                  | 1       | Numbers     | \$180270              | \$200300               | RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2)) | Multiple/Varies    | Multiple/Varies           | 0      | 0     | Multiple/Varies                  | Systemic                  | Intersections      | Reduce the number of fatal and serious injury intersection crashes.   |
| HSIP: Arctic Blvd RR Signal Relocation                                 | Railroad grade crossings          | Upgrade railroad crossing signal                  | 1       | Locations   | \$531090              | \$590100               | Other Federal-aid Funds (i.e. STBG, NHPP)      | Urban              | Minor Arterial            | 8,490  | 40    | City or Municipal Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.   |
| HSIP Anchorage 10:   | Intersection traffic control      | Modify traffic signal - add flashing yellow arrow | 11      | Locations   | \$23822               | \$23822                | Penalty Funds (23 U.S.C. 154)                  | Multiple/Varies    | Multiple/Varies           | 0      | 0     | City or Municipal                | Systemic                  | Intersections      | Reduce the number of fatal and  |

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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   |
|---|-----------------------------------|---|---------|-------------|-----------------------|------------------------|---|--------------------|---------------------------|--------|-------|----------------------|---------------------------|----------------------------------|---|
| Flashing Yellow Arrow Project   |                                   |   |         |             |                       |                        |   |                    |                           |        |       | Highway Agency       |                           |                                  | serious injury intersection crashes.                                  |
| Kodiak Island: Pillar Mountain Rock Fall Hazard Remediation             | Roadside                          | Barrier - other                                     | 1       | Numbers     | \$6081.03             | \$6756.7               | Other Federal-aid Funds (i.e. STBG, NHPP) | Urban              | Minor Arterial            | 5,430  | 45    | State Highway Agency | Spot                      | Hazard correction and prevention | Implement HSIP qualified projects.                                    |
| UPS Load Center Battery Backup for Traffic Signals                      | Intersection traffic control      | Intersection traffic control - other                | 7       | Locations   | \$144537.3            | \$160597               | HSIP (23 U.S.C. 148)                      | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency | Systemic                  | Intersections                    | Reduce the number of fatal and serious injury intersection crashes.   |
| Jewel Lake Road @ Raspberry Road East-West Dual Left Turn Lanes Project | Intersection geometry             | Auxiliary lanes - add left-turn lane                | 1       | Locations   | \$4500                | \$5000                 | HSIP (23 U.S.C. 148)                      | Urban              | Principal Arterial-Other  | 26,585 | 45    | State Highway Agency | Spot                      | Intersections                    | Reduce the number of fatal and serious injury intersection crashes.   |
| Gambell St Utility Pole Removal & Increased Lighting                    | Roadside                          | Removal of roadside objects (trees, poles, etc.)    | 1       | Miles       | \$497700              | \$553000               | HSIP (23 U.S.C. 148)                      | Urban              | Principal Arterial-Other  | 15,500 | 35    | State Highway Agency | Spot                      | Roadway Departure                | Reduce the number of fatal and serious injury lane departure crashes. |
| Gambell & Ingra Streets Overhead Signal Indications                     | Intersection traffic control      | Modify traffic signal - add additional signal heads | 10      | Locations   | \$450000              | \$500000               | HSIP (23 U.S.C. 148)                      | Urban              | Principal Arterial-Other  | 19,000 | 35    | State Highway Agency | Spot                      | Intersections                    | Reduce the number of fatal and serious injury intersection crashes.   |
| Systemic CR One-Way Signing Compliance                                  | Roadway signs and traffic control | Roadway signs and traffic control - other           | 163     | Locations   | \$52000               | \$52000                | Other Federal-aid Funds (i.e. STBG, NHPP) | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency | Systemic                  | Intersections                    | Reduce the number of fatal and serious injury intersection crashes.   |
| Railroad Crossing Signal Hut Upgrades                                   | Roadside                          | Removal of roadside objects (trees, poles, etc.)    | 14      | Locations   | \$886050              | \$984500               | Other Federal-aid Funds (i.e. STBG, NHPP) | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency | Spot                      | Roadway Departure                | Reduce the number of fatal and serious injury lane departure crashes. |

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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  |
|---|-----------------------------------|---|---------|-------------|-----------------------|------------------------|---|--------------------|---------------------------|--------|-------|----------------------|---------------------------|--------------------|--|
| CR Guardrail Inventory & Upgrade                                    | Roadside                          | Barrier - other                                   | 654     | Miles       | \$900000              | \$1000000              | Other Federal-aid Funds (i.e. STBG, NHPP) | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency | Systemic                  | Roadway Departure  | Reduce the number of fatal and serious injury lane departure crashes.  |
| HSIP: HFST Removal in Select Locations                              | Roadway                           | Pavement surface - miscellaneous                  | 5       | Locations   | \$135000              | \$150000               | Other Federal-aid Funds (i.e. STBG, NHPP) | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency | Systemic                  | Intersections      | Reduce the number of fatal and serious injury intersection crashes.    |
| SR Regionwide Traffic Signal System Upgrades                        | Intersection traffic control      | Modify traffic signal - modernization/replacement | 22      | Locations   | \$1262081.745         | \$1402313.05           | HSIP (23 U.S.C. 148)                      | Multiple/Varies    | Multiple/Varies           | 0      | 0     | State Highway Agency | Systemic                  | Intersections      | Reduce the number of fatal and serious injury intersection crashes.    |
| YAK School Zone Crossing Improvements HSIP                          | Roadway signs and traffic control | Roadway signs and traffic control - other         | 1       | Locations   | \$15000               | \$15000                | Other Federal-aid Funds (i.e. STBG, NHPP) | Rural              | Minor Collector           | 1,013  | 35    | State Highway Agency | Spot                      | Pedestrians        | Reduce the number of pedestrian fatalities and serious injury crashes. |
| Stedman and Deermont Street Intersection Safety Improvements - HSIP | Intersection geometry             | Intersection geometry - other                     | 1       | Locations   | \$30899.7             | \$34333                | HSIP (23 U.S.C. 148)                      | Urban              | Minor Arterial            | 16,286 | 25    | State Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.    |
| Back Loop-Mendenhall Loop Intersection Safety Improvements - HSIP   | Intersection traffic control      | Intersection flashers - add stop sign-mounted     | 1       | Locations   | \$75179.7             | \$83533                | Other Federal-aid Funds (i.e. STBG, NHPP) | Urban              | Minor Arterial            | 11,328 | 45    | State Highway Agency | Spot                      | Intersections      | Reduce the number of fatal and serious injury intersection crashes.    |
| FFY19-23 STRATEGIC HIGHWAY SAFETY PLAN                              | Non-infrastructure                | Non-infrastructure - other                        | 1       | Numbers     | \$93330               | \$103700               | HSIP (23 U.S.C. 148)                      | N/A                | N/A                       | 0      | 0     | N/A                  | planning                  | Roadways           | N/A  |
| SR FFY 20-21 HSIP/SMS   | Non-infrastructure                | Non-infrastructure - other                        | 1       | Numbers     | \$540000              | \$600000               | Other Federal-aid Funds (i.e. STBG, NHPP) | N/A                | N/A                       | 0      | 0     | N/A                  | planning                  | Roadways           | N/A  |



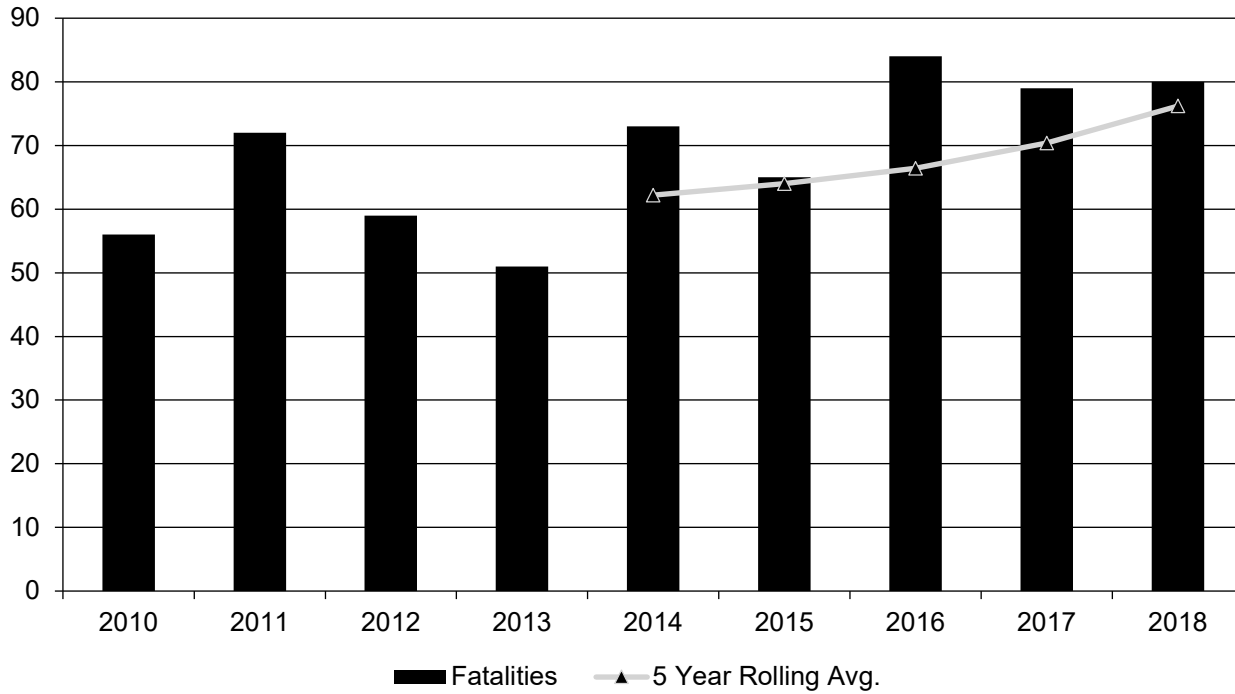
## Safety Performance

### *General Highway Safety Trends*

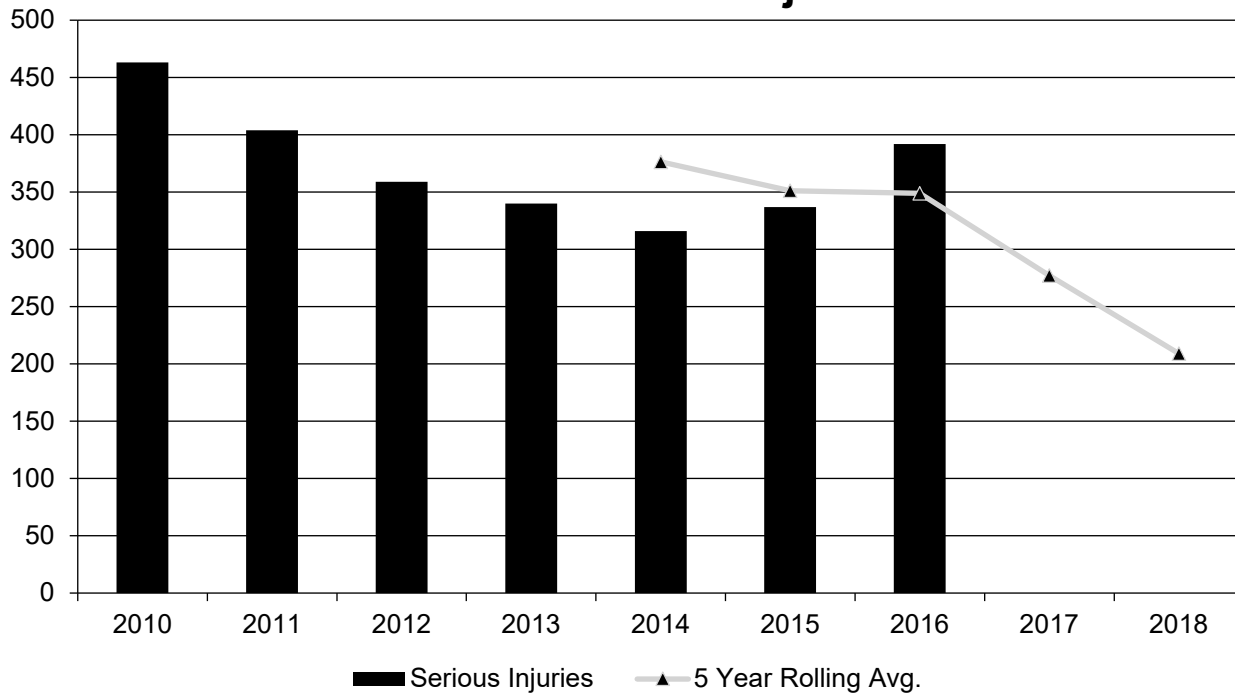
Present data showing the general highway safety trends in the State for the past five years.

| <b>PERFORMANCE MEASURES</b>              | <b>2010</b> | <b>2011</b> | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fatalities                               | 56          | 72          | 59          | 51          | 73          | 65          | 84          | 79          | 80          |
| Serious Injuries                         | 463         | 404         | 359         | 340         | 316         | 337         | 392         | 0           | 0           |
| Fatality rate (per HMVMT)                | 1.167       | 1.568       | 1.235       | 1.052       | 1.503       | 1.288       | 1.602       | 1.431       | 1.458       |
| Serious injury rate (per HMVMT)          | 9.650       | 8.796       | 7.512       | 7.013       | 6.507       | 6.680       | 7.475       | 0.000       | 0.000       |
| Number non-motorized fatalities          | 6           | 11          | 10          | 7           | 17          | 12          | 13          | 17          | 15          |
| Number of non-motorized serious injuries | 31          | 19          | 11          | 45          | 37          | 56          | 55          | 0           | 0           |

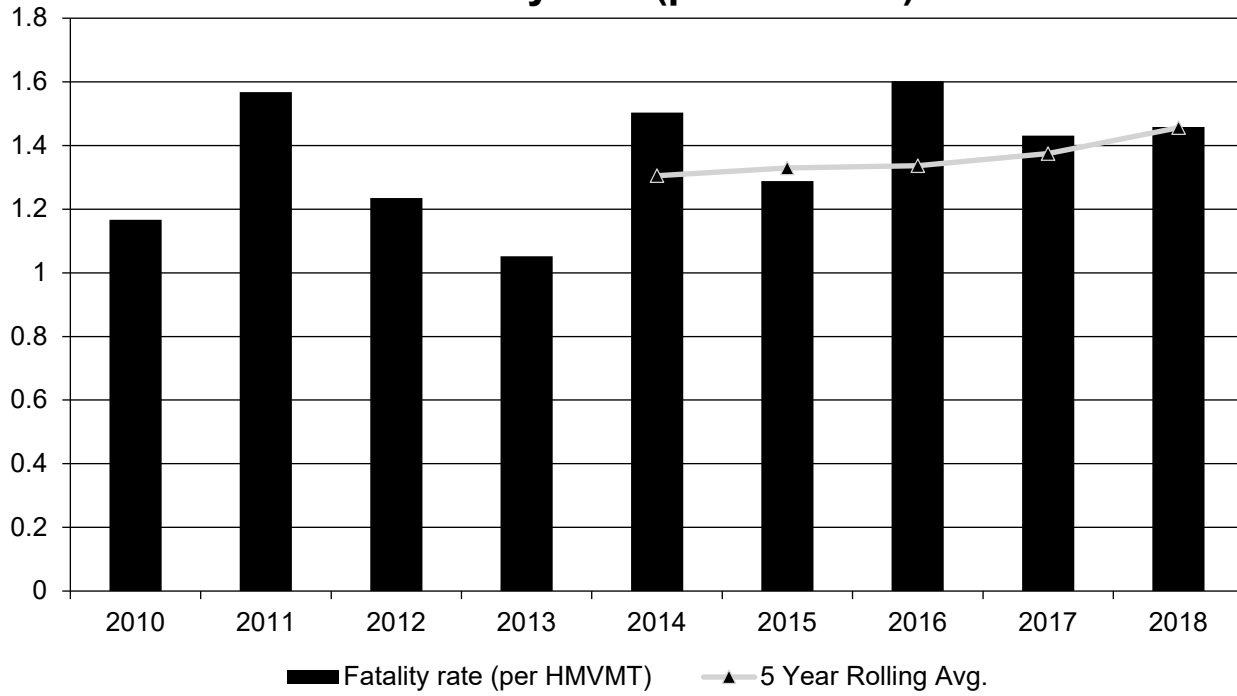
### Annual Fatalities



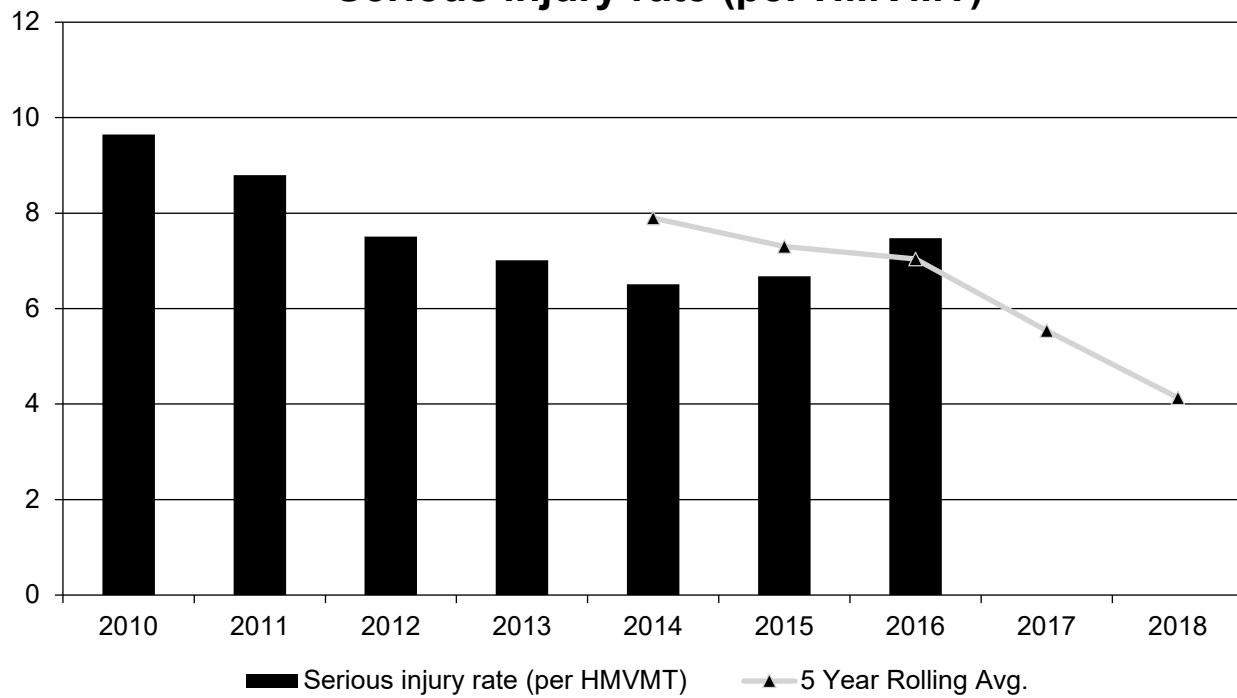
### Annual Serious Injuries



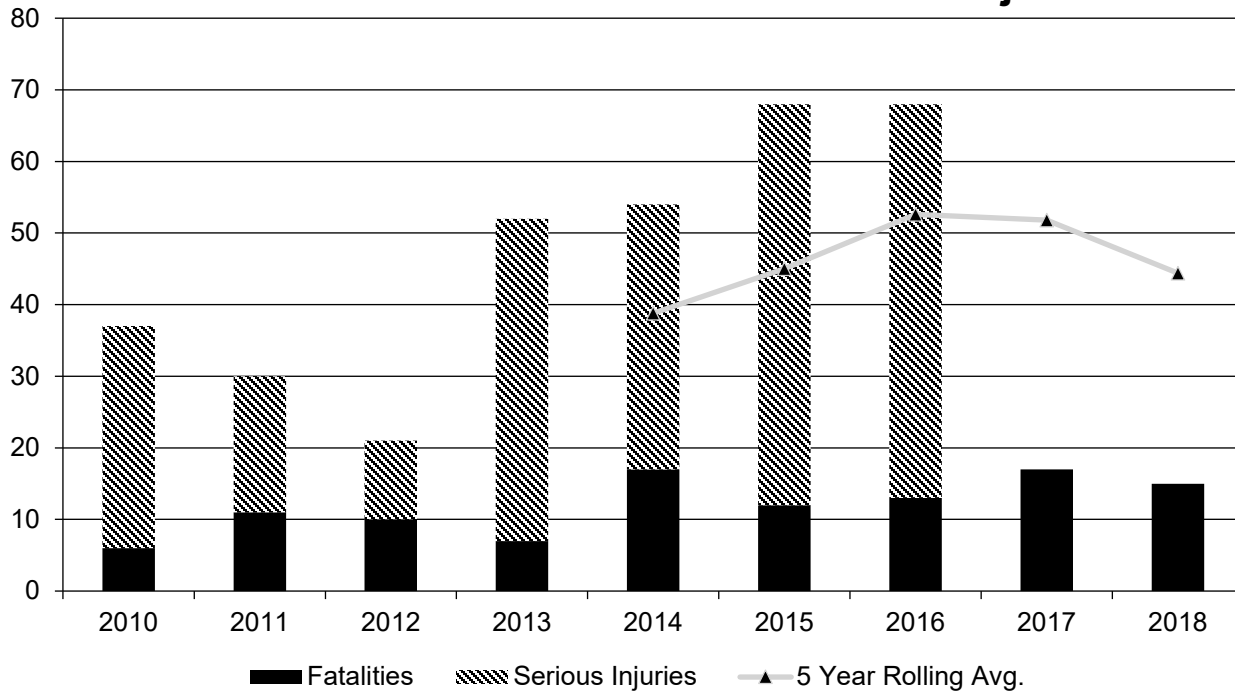
### Fatality rate (per HMVMT)



### Serious injury rate (per HMVMT)



## Non Motorized Fatalities and Serious Injuries



Technology and back-up failures in Spring 2019 prevented the completion of 2017 data entry and delayed the start of 2018 data entry. Alaska was not able to complete reconstruction of 2017 data before the deadline for this report. Our goal is to have 2017 and 2018 data entry complete by the end of calendar year 2019. We would appreciate accommodations by FHWA to allow a late submittal of the data before conclusions are drawn about whether Alaska made progress toward performance measure targets.

### Describe fatality data source.

FARS

### 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                     |                                 |                                       |                                      |  |
| Rural Principal Arterial (RPA) - Other Freeways and Expressways |                                 |                                       |                                      |  |
| Rural Principal Arterial (RPA) - Other                          | 4.4                             |                                       | 1.08                                 |  |
| Rural Minor Arterial  | 3.6                             |                                       | 2.91                                 |  |

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| <b>Functional Classification</b>                                | <b>Number of Fatalities (5-yr avg)</b> | <b>Number of Serious Injuries (5-yr avg)</b> | <b>Fatality Rate (per HMVMT) (5-yr avg)</b> | <b>Serious Injury Rate (per HMVMT) (5-yr avg)</b> |
|---|--|--|---|---|
| Rural Minor Collector   | 6                                      |  | 3.76  |   |
| Rural Major Collector   | 6.4                                    |  | 2.12  |   |
| Rural Local Road or Street                                      | 5                                      |  | 1.12  |   |
| Urban Principal Arterial (UPA) - Interstate                     | 9.4                                    |  | 1.25  |   |
| Urban Principal Arterial (UPA) - Other Freeways and Expressways |  |  |   |   |
| Urban Principal Arterial (UPA) - Other                          | 10.8                                   |  | 1.09  |   |
| Urban Minor Arterial  | 7.2                                    |  | 1.35  |   |
| Urban Minor Collector   | 2.4                                    |  | 1.97  |   |
| Urban Major Collector   |  |  |   |   |
| Urban Local Road or Street                                      | 2                                      |  | 0.54  |   |

2019 Alaska Highway Safety Improvement Program

**Year 2018**

| <b>Roadways</b>   | <b>Number of Fatalities<br/>(5-yr avg)</b> | <b>Number of Serious<br/>Injuries<br/>(5-yr avg)</b> | <b>Fatality Rate<br/>(per HMVMT)<br/>(5-yr avg)</b> | <b>Serious Injury Rate<br/>(per HMVMT)<br/>(5-yr avg)</b> |
|---|--|--|---|---|
| State Highway Agency  | 60.4                                       |  |   |   |
| County Highway Agency   |  |  |   |   |
| Town or Township Highway Agency                                 |  |  |   |   |
| City or Municipal Highway Agency                                | 5.4  |  |   |   |
| 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   |  |  |   |   |

Technology and back-up failures in Spring 2019 prevented the completion of 2017 data entry and delayed the start of 2018 data entry. Alaska was not able to complete reconstruction of 2017 data before the deadline for this report. Our goal is to have 2017 and 2018 data entry complete by late fall 2019. We would appreciate accommodations by FHWA to allow a late submittal of the data before conclusions are drawn about whether Alaska made progress toward performance measure targets.

This is the first year Alaska has VMT by ownership categories to enable rate calculation by ownership.

## **Safety Performance Targets**

### **Safety Performance Targets**

#### **Calendar Year 2020 Targets \***

##### ***Number of Fatalities:80.0***

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

Alaska followed the process described in FHWA-SA-16-101 to establish targets based on trend analysis, the influence of external factors, and the consideration of select scenarios. This target is representative of an optimistic view of annual fatality numbers leveling off even considering the external upward pressures for this performance measure in light of the most likely scenarios. Alaska's SHSP was updated in 2018 and continues to reflect the State's vision of Toward Zero Deaths. Reporting on this target annually will keep the TZD vision firmly planted in Alaska's traffic safety efforts and will assist Alaska in consideration of program improvements to reinforce the SHSP TZD vision.

##### ***Number of Serious Injuries:400.0***

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

Alaska followed the process described in FHWA-SA-16-101 to establish targets based on trend analysis, the influence of external factors, and the consideration of select scenarios. This target is representative of an optimistic view of annual serious injury numbers continuing to decline even considering the external upward pressures for this performance measure in light of the most likely scenarios. Alaska's SHSP was updated in 2018 and continues to reflect the State's vision of Toward Zero Deaths. Reporting on this target annually will keep the TZD vision firmly planted in Alaska's traffic safety efforts and will assist Alaska in consideration of program improvements to reinforce the SHSP TZD vision.

##### ***Fatality Rate:1.500***

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

Alaska followed the process described in FHWA-SA-16-101 to establish targets based on trend analysis, the influence of external factors, and the consideration of select scenarios. This target is representative of an optimistic view of annual fatality numbers leveling off even considering the external upward pressures for this performance measure in light of the most likely scenarios. Alaska's SHSP was updated in 2018 and continues to reflect the State's vision of Toward Zero Deaths. Reporting on this target annually will keep the TZD vision firmly planted in Alaska's traffic safety efforts and will assist Alaska in consideration of program improvements to reinforce the SHSP TZD vision.

##### ***Serious Injury Rate:7.500***

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

## 2019 Alaska Highway Safety Improvement Program

Alaska followed the process described in FHWA-SA-16-101 to establish targets based on trend analysis, the influence of external factors, and the consideration of select scenarios. This target is representative of an optimistic view of annual serious injury numbers continuing to decline even considering the external upward pressures for this performance measure in light of the most likely scenarios. Alaska's SHSP was updated in 2018 and continues to reflect the State's vision of Toward Zero Deaths. Reporting on this target annually will keep the TZD vision firmly planted in Alaska's traffic safety efforts and will assist Alaska in consideration of program improvements to reinforce the SHSP TZD vision.

### ***Total Number of Non-Motorized Fatalities and Serious Injuries:70.0***

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

Alaska followed the process described in FHWA-SA-16-101 to establish targets based on trend analysis, the influence of external factors, and the consideration of select scenarios. This target is representative of an upward trend combined with external upward pressures for this performance measure in light of the most likely scenarios. Alaska's SHSP was updated in 2018 and continues to reflect the State's vision of Toward Zero Deaths. Reporting on this target annually will keep the TZD vision firmly planted in Alaska's traffic safety efforts and will assist Alaska in consideration of program improvements to reinforce the SHSP TZD vision.

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

Both the Fairbanks Metropolitan Area Transportation System (FMATS) Executive Director and Anchorage Metropolitan Area Transportation Solutions (AMATS) Coordinator were included in meetings during the development of initial target recommendations that were delivered to DOT&PF management for review and edits.

The Alaska Highway Safety Office (AHSO) was involved in establishing targets throughout the entire process. An AHSO data analyst attended every meeting and was instrumental in the analysis of data trends and external factors. The Governor's highway safety representative was a signatory to the memo signed by the Governor establishing the State's targets.

#### **Does the State want to report additional optional targets?**

No

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

Technology and data back-up failures in Spring 2019 prevented the completion of 2017 data entry and delayed the start of 2018 data entry. Alaska was not able to complete reconstruction of 2017 data before the deadline for this report. Our goal is to have 2017 and 2018 data entry complete by the end of calendar year 2019. We would appreciate accommodations by FHWA to allow a late submittal of the data before conclusions are drawn about whether Alaska made progress toward performance measure targets.

Fatalities: The 5 yr average is higher than the target. A possible reason for this is lack of law enforcement presence on highways.



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Fatality Rate: The 5 yr average is lower than the target.

Serious Injuries: Serious injury data is not available for 2017 and 2018. See explanation above.

Serious Injury Rate: Serious injury data is not available for 2017 and 2018. See explanation above.

Non-motorized Fatalities and Serious Injuries: Serious injury data is not available for 2017 and 2018. See explanation above.

**Applicability of Special Rules**

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

**Yes**

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

| <b>PERFORMANCE MEASURES</b>                            | <b>2012</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Number of Older Driver and Pedestrian Fatalities       | 5           | 5           | 3           | 11          | 11          | 9           | 10          |
| Number of Older Driver and Pedestrian Serious Injuries | 22          | 18          | 18          | 22          | 26          | 0           | 0           |

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## Evaluation

### *Program Effectiveness*

#### How does the State measure effectiveness of the HSIP?

- Benefit/Cost Ratio

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

The overall benefit / cost ratio of Alaska's HSIP program is 7.5:1 over the last 5 years of completed projects with at least 3 years of post construction crash data available. The B/C ratio includes seven projects which may be considered outliers due to their high B/C ratios and excluding them would result in a 5 yr program B/C of 2.5:1.

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

- HSIP Obligations

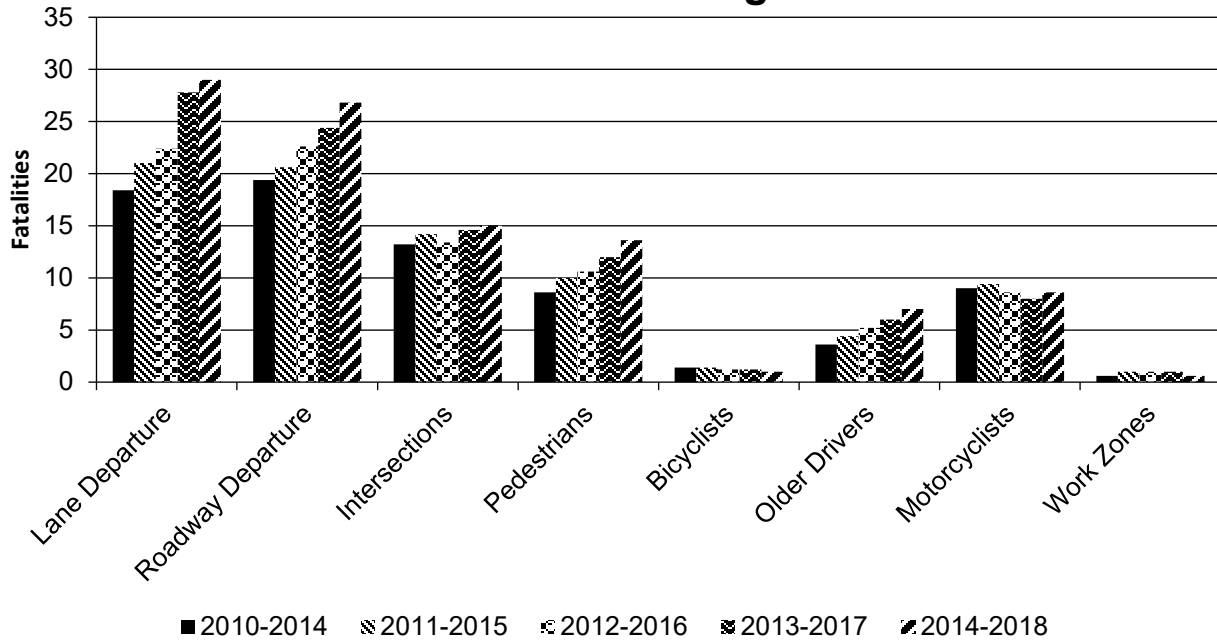
### *Effectiveness of Groupings or Similar Types of Improvements*

#### Present and describe trends in SHSP emphasis area performance measures.

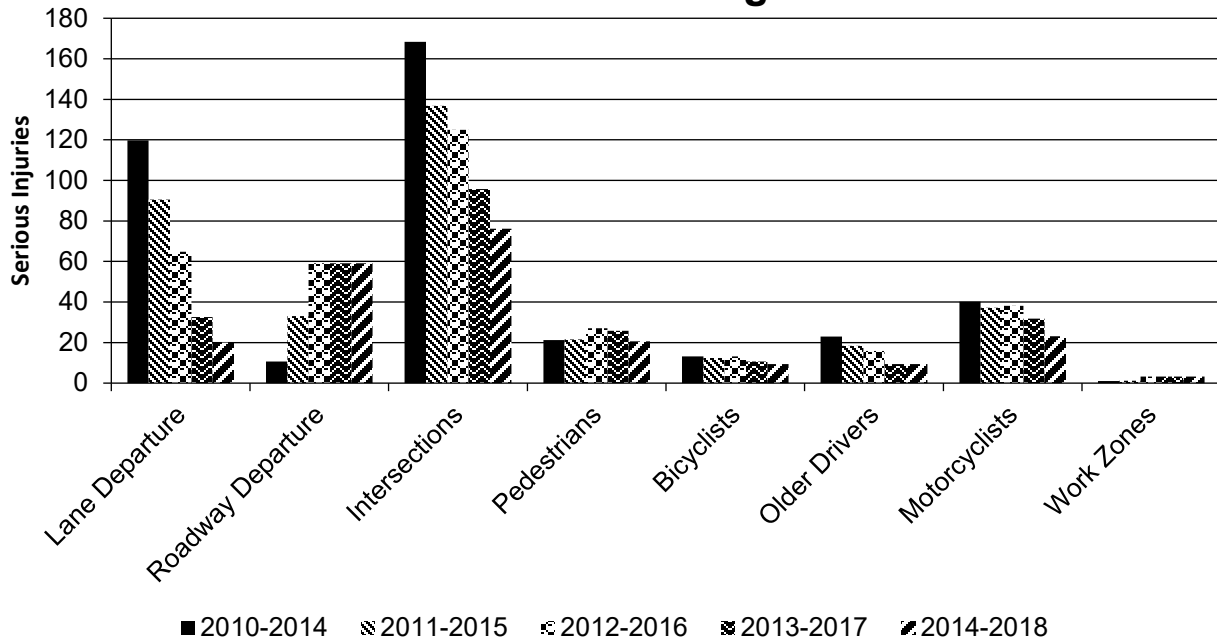
Year 2018

| 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     |                     | 29                              | 20                                    | 0.55                                 | 0.39                                       |
| Roadway Departure  |                     | 26.8                            | 59.2                                  | 0.51                                 | 1.18                                       |
| Intersections      |                     | 15                              | 76.2                                  | 0.29                                 | 1.5  |
| Pedestrians        |                     | 13.6                            | 20.6                                  | 0.26                                 | 0.41                                       |
| Bicyclists         |                     | 1                               | 9.4                                   | 0.02                                 | 0.19                                       |
| Older Drivers      |                     | 7                               | 9.4                                   | 0.13                                 | 0.19                                       |
| Motorcyclists      |                     | 8.6                             | 23.2                                  | 0.16                                 | 0.46                                       |
| Work Zones         |                     | 0.6                             | 3.2                                   | 0.01                                 | 0.06                                       |

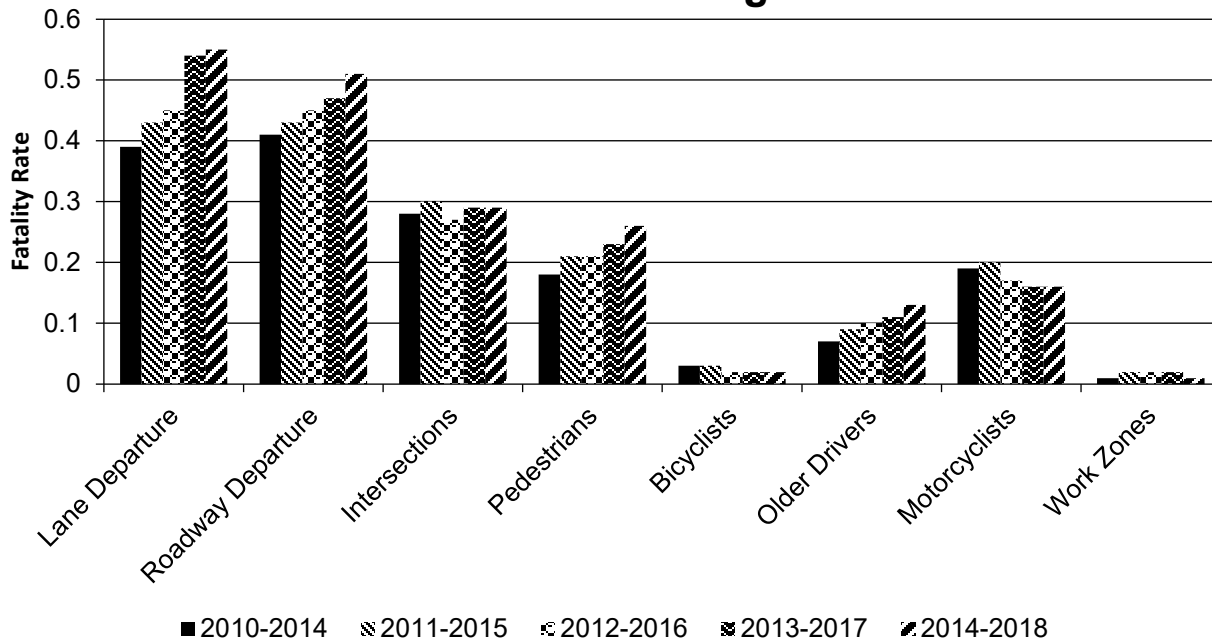
### Number of Fatalities 5 Year Average



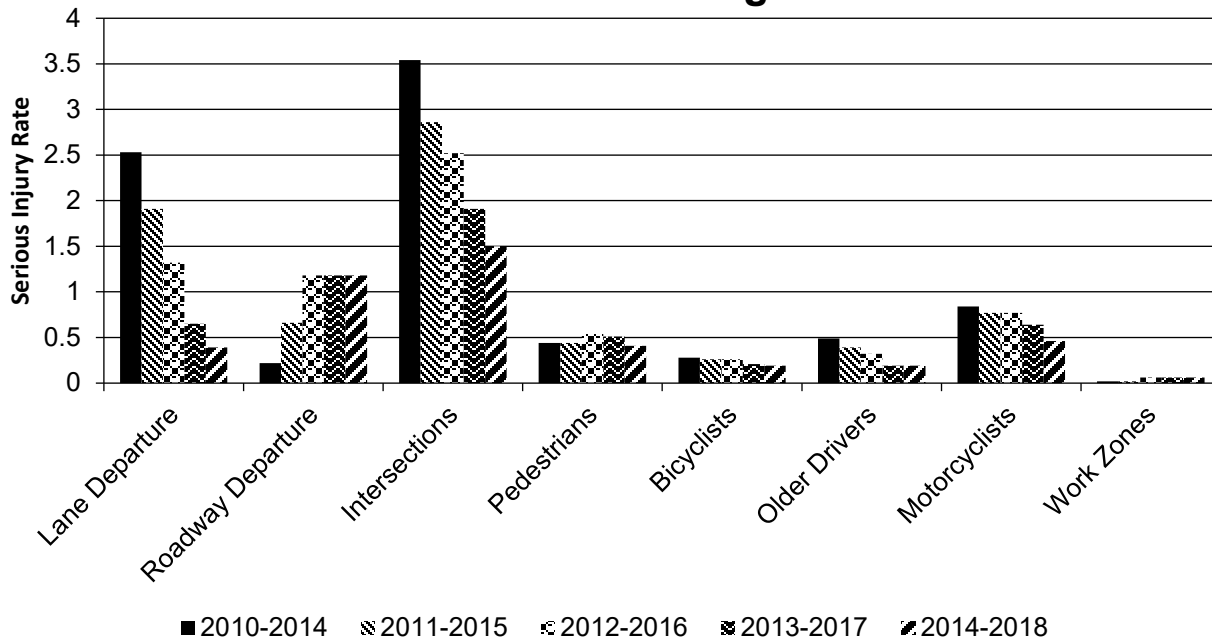
### Number of Serious Injuries 5 Year Average



### Fatality Rate (per HMVMT) 5 Year Average



### Serious Injury Rate (per HMVMT) 5 Year Average



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2019 Alaska Highway Safety Improvement Program

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

No

**Project Effectiveness**

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

| LOCATION  | FUNCTIONAL CLASS      | IMPROVEMENT CATEGORY              | IMPROVEMENT TYPE                                | PDO BEFORE | PDO AFTER | FATALITY BEFORE | FATALITY AFTER | SERIOUS INJURY BEFORE | SERIOUS INJURY AFTER | ALL OTHER INJURY BEFORE | ALL OTHER INJURY AFTER | TOTAL BEFORE | TOTAL AFTER | EVALUATION RESULTS (BENEFIT/COST RATIO) |
|---|-----------------------|-----------------------------------|---|------------|-----------|-----------------|----------------|-----------------------|----------------------|-------------------------|------------------------|--------------|-------------|---|
| 07CR15 (09) - Bogard Road @ Peck Street Intersection Improvements | Rural Major Collector | Intersection traffic control      | Intersection traffic control - other            | 38.00      | 3.00      |                 |                | 6.00                  |                      | 25.00                   | 2.00                   | 69.00        | 5.00        | 3.4:1                                   |
| 12SN4 Juneau - Walmart HAWK (100% CRF)                            | Urban Major Collector | Pedestrians and bicyclists        | Pedestrian signal - Pedestrian Hybrid Beacon    |            | 2.00      |                 |                | 2.00                  |                      | 1.00                    | 1.00                   | 3.00         | 3.00        | 94.3:1                                  |
| 12SN6 Juneau - SEA Areawide HOAT Signage (100% CRF)               | Multiple/Varies       | Roadway signs and traffic control | Roadway signs (including post) - new or updated | 7.00       | 2.00      |                 |                | 3.00                  |                      | 6.00                    |                        | 16.00        | 2.00        | 232.1:1                                 |
| 13SN4, JNU Montana Creek Road Intersection Illumination- 100% CRF | Urban Minor Collector | Lighting                          | Intersection lighting                           |            |           |                 |                |                       |                      | 3.00                    |                        | 3.00         |             | 9.2:1                                   |
| 14SR1, KTN NTH Safety Improvements - 45% CRF                      | Urban Minor Arterial  | Roadside                          | Barrier- metal                                  | 1.00       | 1.00      | 1.00            |                |                       |                      | 2.00                    |                        | 4.00         | 1.00        | 103.3:1                                 |

## Compliance Assessment

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

01/21/2019

**What are the years being covered by the current SHSP?**

From: 2018 To: 2022

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

2022

**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     | STATE |
| ROADWAY SEGMENT     | Segment Identifier (12)             | 100                             | 100   |                                      |       |                               |       | 100               | 100   | 100           | 100   |
|                     | Route Number (8)                    | 100                             | 100   |                                      |       |                               |       |                   |       |               |       |
|                     | Route/Street Name (9)               | 100                             | 100   |                                      |       |                               |       |                   |       |               |       |
|                     | Federal Aid/Route Type (21)         | 100                             | 100   |                                      |       |                               |       |                   |       |               |       |
|                     | Rural/Urban Designation (20)        | 100                             | 100   |                                      |       |                               |       | 100               | 100   |               |       |
|                     | Surface Type (23)                   | 100                             | 100   |                                      |       |                               |       | 100               | 75    |               |       |
|                     | 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)                    | 60                              | 60    |                                      |       |                               |       |                   |       |               |       |
| Access Control (22) | 100                                 | 100                             |       |                                      |       |                               |       |                   |       |               |       |

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| ROAD TYPE               | MIRE NAME (MIRE NO.)  | NON LOCAL PAVED ROADS - SEGMENT |       | NON LOCAL PAVED ROADS - INTERSECTION |       | NON LOCAL PAVED ROADS - RAMPS |       | LOCAL PAVED ROADS |       | UNPAVED ROADS |     |
|-------------------------|---|---------------------------------|-------|--------------------------------------|-------|-------------------------------|-------|-------------------|-------|---------------|-----|
|                         |   | NON-STATE                       | STATE | NON-STATE                            | STATE | NON-STATE                     | STATE | NON-STATE         | STATE | NON-STATE     |     |
|                         | One/Two Way Operations (91)   | 100                             | 100   |                                      |       |                               |       |                   |       |               |     |
|                         | Number of Through Lanes (31)  | 100                             | 100   |                                      |       |                               |       | 100               | 80    |               |     |
|                         | Average Annual Daily Traffic (79)                                   | 100                             | 100   |                                      |       |                               |       | 100               | 100   |               |     |
|                         | AA DT Year (80)   | 100                             | 100   |                                      |       |                               |       |                   |       |               |     |
|                         | Type of Governmental Ownership (4)                                  | 100                             | 100   |                                      |       |                               |       | 100               | 100   | 100           | 100 |
| <b>INTERSECTION</b>     | Unique Junction Identifier (120)                                    |                                 |       |                                      |       |                               |       |                   |       |               |     |
|                         | Location Identifier for Road 1 Crossing Point (122)                 |                                 |       |                                      |       |                               |       |                   |       |               |     |
|                         | Location Identifier for Road 2 Crossing Point (123)                 |                                 |       |                                      |       |                               |       |                   |       |               |     |
|                         | Intersection/Junction Geometry (126)                                |                                 |       | 30                                   | 30    |                               |       |                   |       |               |     |
|                         | Intersection/Junction Traffic Control (131)                         |                                 |       |                                      |       |                               |       |                   |       |               |     |
|                         | AA DT for Each Intersecting Road (79)                               |                                 |       | 100                                  | 100   |                               |       |                   |       |               |     |
|                         | AA DT Year (80)   |                                 |       | 100                                  | 100   |                               |       |                   |       |               |     |
|                         | Unique Approach Identifier (139)                                    |                                 |       |                                      |       |                               |       |                   |       |               |     |
| <b>INTERCHANGE/RAMP</b> | Unique Interchange Identifier (178)                                 |                                 |       |                                      |       |                               |       |                   |       |               |     |
|                         | Location Identifier for Roadway at Beginning of Ramp Terminal (197) |                                 |       |                                      |       | 100                           | 100   |                   |       |               |     |
|                         | Location Identifier for Roadway at Ending Ramp Terminal (201)       |                                 |       |                                      |       | 100                           | 100   |                   |       |               |     |
|                         | Ramp Length (187)   |                                 |       |                                      |       | 100                           | 100   |                   |       |               |     |



2019 Alaska 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 |               |
|---|--|---------------------------------|--------------|--------------------------------------|--------------|-------------------------------|--------------|-------------------|--------------|---------------|---------------|
|   |  | 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                           | 100          |                   |              |               |               |
|   | Year of Ramp AADT (192)                          |                                 |              |                                      |              | 100                           | 100          |                   |              |               |               |
|   | Functional Class (19)                            |                                 |              |                                      |              | 100                           | 100          |                   |              |               |               |
|   | Type of Governmental Ownership (4)               |                                 |              |                                      |              | 100                           | 100          |                   |              |               |               |
| <b>Totals (Average Percent Complete):</b> |  | <b>92.22</b>                    | <b>92.22</b> | <b>28.75</b>                         | <b>28.75</b> | <b>63.64</b>                  | <b>63.64</b> | <b>100.00</b>     | <b>95.00</b> | <b>100.00</b> | <b>100.00</b> |

\*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.**

Alaska DOT&PF's Statewide Design and Engineering Services (D&ES) division continues to use R&H to maintain the state's road centerline/linear reference system network as well as the related roadway features and attributes required for the annual submittal to the Highway Performance Monitoring System. It's expected R&H will also be the system of record for the MIRE FDEs.

D&ES is in the process of developing a plan to meet the MIRE FDE requirements and deadline by reviewing each FDE and grouping them into the following categories:

- Elements that already exist as feature classes or those that could be derived from existing feature classes in the department's R&H geodatabase,
- Elements that could be produced from feature classes in the department's R&H geodatabase but would require modifications to the existing data set,
- Elements that will need to be added to the departments R&H geodatabase, and
- Elements which the department needs clarification to fully understand and develop a solution.

Potential data owners and data sources for each FDE were also identified and technical questions for some of the elements were documented.

During the coming performance period the FDE plan and timeline will be finalized. Anticipated tasks in the formalization process include:

- Seek clarification from FHWA on some of the FDEs
- Model the modifications to the existing R&H feature classes as well as the new feature classes required to address the FDE requirements
- Designate data owners and data stewards
- Verify data sources and secure funding (if needed)
- Develop a strategy to prioritize element deployment
- Deploy the initial subset of prioritized elements (likely to be those that already exist or could be derived from the current geodatabase)

2019 Alaska Highway Safety Improvement Program

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

No

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

2022

## 2019 Alaska Highway Safety Improvement Program

### **Optional Attachments**

Program Structure:

AI Fletcher HSIP Annual Report Cover Letter.pdf

Addendum-enclosure.pdf

HSIP Hdbk 18th Ed FINAL\_180221.pdf

Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

## Glossary

**5 year rolling average:** means the average of five individuals, consecutive annual points of data (e.g. annual fatality rate).

**Emphasis area:** means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

**Highway safety improvement project:** means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

**HMVMT:** means hundred million vehicle miles traveled.

**Non-infrastructure projects:** are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

**Older driver special rule:** applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

**Performance measure:** means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

**Programmed funds:** mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

**Roadway Functional Classification:** means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

**Strategic Highway Safety Plan (SHSP):** means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

**Systematic:** refers to an approach where an agency deploys countermeasures at all locations across a system.

**Systemic safety improvement:** means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

**Transfer:** means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.