HAWAII

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2024 ANNUAL REPORT

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

Photo source: Federal Highway Administration

Table of Contents

Disclaimer

Protection of Data from Discovery Admission into Evidence

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

23 U.S.C. 407 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

Executive Summary

State of Hawaii 2024 U.S.C. 148(g) Annual Highway Safety Improvement Program (HSIP) report.

The primary objective of Hawaii Department of Transportation HDOT's Highway Safety Improvement Program (HSIP) is to incorporate highway safety to reduce the number and severity of fatalities and injuries involving motor vehicle crashes. This goal is in line with Hawaii's Strategic Highway Safety Plan (SHSP).

The HSIP process for HDOT involves collecting all major traffic crash data, analyzing the data, proposing safety improvement projects, and evaluating the benefits from the projects. HDOT is moving away from addressing hot spot locations and toward systemic locations. This process allows better allocation of funds on a proactive approach.

With the implementation of the Highway Safety Manual and the Safety Management System, HDOT is working towards greater safety benefits from projects based on predictive methods and risk factors.

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.

HDOT uses the Number-Rate (N-R) Method, which establishes a minimum crash frequency and accounts for exposure. Listings for intersection locations on State roadways use a minimum criteria for a 3-year period and listings for non-intersection locations on State roadways use sliding 0.3-mile segments with a minimum criteria for a 3-year period. This method uses the best availability of required data and is manageable by our limited manpower.

Locations identified by the N-R method will be further analyzed in a Benefit-Cost (B/C) analysis procedure by incorporating crash costs established by FHWA and crash reduction factors (CRF). The crash costs will assign more weight to fatal and high severity crashes.

Project Prioritization and Selection uses the annual High-Crash Listings, which ranks the locations by crash rates, and injury severity to determine possible project locations. Project locations where existing, planned or recently completed projects are already addressing concerns are eliminated. Appropriate countermeasures for each location are determined, preliminary estimates for improvements are computed, CRFs are selected, and Benefit/Cost (B/C) ratios to prioritize individual listings are calculated.

“HSIP Field Investigation” of candidate projects are conducted using HSIP Field Investigation procedures and involving the following parties: Traffic Safety engineers, District engineers and maintenance workers, Traffic Design engineers, and law enforcement. Field investigations of existing conditions are conducted to better understand deficiencies. Proposed projects are selected based on revised scope of work and B/C. If funds are available, additional projects are selected according to overall priority. Note that projects may also be initiated if identified as priority according to the Hawaii Strategic Highway Safety Plan (SHSP).

Project Evaluation uses 3 years before and after crash history. Evaluation data is submitted to FHWA through the online HSIP reporting tool annually.

Where is HSIP staff located within the State DOT?

Engineering

HSIP staff is located in the Hawaii State Department of Transportation, Highways Division, Traffic Branch, Traffic Safety Section

How are HSIP funds allocated in a State?

- Other-Central Office

HSIP funds for State roadway projects are divided among the 4 different counties. HSIP projects are submitted through the Traffic Safety Section.

High crash listings and crash data for county roads are submitted to the county offices for internal design use to submit HSIP project proposals. In addition, High Risk Rural Roads Program (HRRRP) Funds are offered to the counties for project proposals and consideration.

Projects are included in the Statewide Transportation Improvement Program (STIP) and can be funded through HSIP funds if they are cost-effective and meet HSIP criteria.

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

High crash listings and crash data for county roads are submitted to the county offices for internal design use. Local agencies can submit project proposals to be considered on the Statewide Transportation Improvement Program (STIP) and the projects can be funded through HSIP funds if they are cost-effective and meet HSIP criteria. In addition, HRRRP Funds are offered to the counties.

Hawaii does not have any tribal roads.

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

- Design
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety
- Other-Highway Safety Office

Other-The Highway Safety Office is a partner in the HSIP process. They assist with setting the performance targets. They also assist with the planning of the HSIP through the collaboration of the development of the SHSP.

Describe coordination with internal partners.

The HSIP projects are initiated through the analysis of crash data and traffic volume counts obtained by the Planning Branch. The HSIP project locations are evaluated to determine if other projects submitted by internal partners (Design, Planning, Maintenance, or Operations) can be coordinated or project scope can be incorporated within existing projects.

Internal partners assist with project selection preparation of preliminary project scope through field investigations. Partners from the offices of design, maintenance and law enforcement (external) participate in the preliminary project scope.

Identify which external partners are involved with HSIP planning.

- Local Government Agency
- Other-Police departments

Police department representatives have participated in preliminary project scoping through field investigations. Their input on enforcement and knowledge of the area are instrumental to the overall traffic safety recommendations. Local government agencies would be involved when projects on local roads are proposed.

Describe coordination with external partners.

HSIP projects can be initiated through review of high crash listings and crash data for county roads submitted to the county offices. Local agencies can submit project proposals to be considered on the STIP.

Police department officers are requested to participate in field investigation of potential HSIP project locations. They provide personal knowledge of the area and can make safety recommendations that may be incorporated within HSIP projects.

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

Statewide projects are submitted to be considered on the STIP.

Focus is more on corridor low-cost safety improvements versus black spots.

Program Methodology

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

Yes

Select the programs that are administered under the HSIP.

- HRRR
- Other-Lane Departure

Adding Lane Departure as a subprogram. Lane departure would include roadway departures crashes and centerline/median crossover crashes.

Program: HRRR

Date of Program Methodology:9/9/2006

What is the justification for this program?

- FHWA focused approach to safety

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• Fatal and serious injury crashes only	• Lane miles	• Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

No

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

Methodology for local roads use the crash frequency because of the lack of traffic volume data. Methodology for State roads use the crash rate.

How are projects under this program advanced for implementation?

- Other-Submitted to be included in the STIP. Follow with collaboration with the Districts.

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:2
Available funding:1
Cost Effectiveness:3

Program: Other-Lane Departure

Date of Program Methodology:9/16/2019

What is the justification for this program?

- Addresses SHSP priority or emphasis area

- FHWA focused approach to safety

What is the funding approach for this program?

Competes with all projects

What data types were used in the program methodology?

Crashes	Exposure	Roadway
• All crashes	• Volume • Lane miles	

What project identification methodology was used for this program?

- Crash frequency
- Crash rate

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

Yes

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

No

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

Methodology for local roads use the crash frequency because of the lack of traffic volume data. Methodology for State roads use the crash rate.

How are projects under this program advanced for implementation?

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:2
Available funding:1
Cost Effectiveness:3

What percentage of HSIP funds address systemic improvements?

60

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

- Rumble Strips

What process is used to identify potential countermeasures?

- Crash data analysis
- Engineering Study

Does the State HSIP consider connected vehicles and ITS technologies?

No

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

No

HDOT is working on implementing Highway Safety Manual (HSM) Predictive Methodology into our system. The implementation will include loading and massaging the roadway feature data, setting up the libraries, processing, and performing HSM processing to determine Crash Modification Factors (CMF)s, Expected Crashes, Safety Index scores based upon HSM predictive method, Safety Comparable Index, and Safety Rating.

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

During this period, run off roadway and median crossover type crashes were targeted. HDOT is currently focusing on reducing fatalities and serious injury type crashes by implementing cost-effective safety improvement projects along corridors with a history of these types of crashes. In Hawaii, these types of crashes have a greater potential of reducing fatalities and serious injury crashes cost-effectively, in comparison to "black spot" type projects.

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)	$10,820,491	$4,212,132	38.93%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
VRU Safety Special Rule (23 U.S.C. 148(g)(3))	$1,955,510	$1,955,510	100%
Penalty Funds (23 U.S.C. 154)	$3,244,985	$3,244,985	100%
Penalty Funds (23 U.S.C. 164)	$3,244,985	$3,244,985	100%
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	$19,265,971	$12,657,612	65.7%

We did not receive the latest FMIS status at the time of reporting. The obligated percentage is based on the latest project status report available.

The penalty transfer is impacting the HSIP core obligation rate. Our administration plans to introduce legislation to attain compliance.

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

0%

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

0%

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

$2,900,000

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

$2,900,000

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.

The penalty transfer is impacting the HSIP core obligation rate. We would like to have more projects initiated and assigned for design and construction. We plan on utilizing IDIQ type contracts to facilitate the implementation of cost-effective safety improvements.

Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

Progress of all HSIP projects is monitored very closely. HSIP program staff follow-up with project managers and fiscal staff on a regular basis to track project schedules and make adjustments and modifications to the program to minimize the potential for lapsing funds, as well as spend HSIP funds efficiently.

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 OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
Installation of Enhanced Pavement Marking and New Milled Rumble Strip at Various Locations, Hawaii	Roadway	Rumble strips –other		Miles	$996821	$2154186	Penalty Funds (23 U.S.C. 154)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Lane Departure	Improve roadway infrastructure by installing countermeasures to reduce lane departure crashes
Installation of Enhanced Pavement Marking and New Milled Rumble Strip at Various Locations, Oahu	Roadway	Rumble strips –other		Miles	$3672307	$10119867	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Lane Departure	Improve roadway infrastructure by installing countermeasures to reduce lane departure crashes
Speed Monitoring Study at Various Locations, Oahu	Speed management	Speed management - other			$59039	$185000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Speeding	Conduct studies to identify ways to address speeding
Traffic Signal Modernization at Various Locations, Oahu, Phase 3	Intersection traffic control	Modify traffic signal – modernization/replacement		Intersections	$5009	$633015	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0		State Highway Agency	Systemic	Intersections	Improve roadway infrastructure by installing countermeasures to reduce intersection crashes
Kuhio Highway Resurfacing and Safety Improvements, Princeville to Waikoko	Roadway	Rumble strips –other	4.2	Miles	$31263	$2316416	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	6,464	25-35	State Highway Agency	Systemic	Lane Departure	Improve roadway infrastructure by installing countermeasures to reduce lane departure crashes
Installation of Enhanced Pavement Marking and New Milled Rumble Strip	Roadway delineation	Wider Edge Lines (6 inch markings)		Miles	$764361	$2747427	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Lane Departure	Improve roadway infrastructure by installing countermeasures to reduce lane

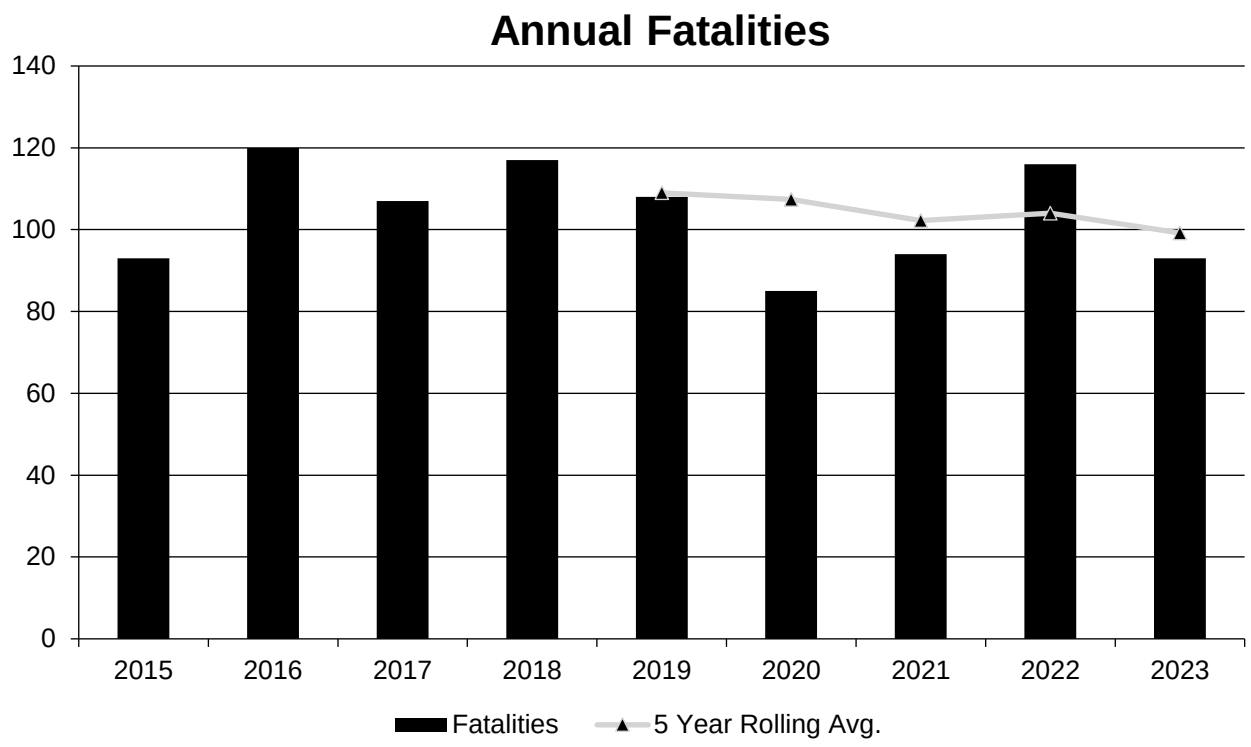
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED OR SPEED RANGE	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
at Various Locations, Kauai															departure crashes
Installation of Enhanced Pavement Marking and New Milled Rumble Strip at Various Locations, Islands of Maui, Molokai, and Lanai	Roadway delineation	Wider Edge Lines (6 inch markings)		Miles	$190182	$1180699	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Lane Departure	Improve roadway infrastructure by installing countermeasures to reduce lane departure crashes
Fort Barrette Road Railroad Crossing and Lighting Improvements, Roosevelt Avenue to Farrington Highway	Railroad grade crossings	Active grade crossing equipment installation/upgrade	1	Locations	$618841	$7430985	RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	Urban	Principal Arterial-Other	14,900	25	State Highway Agency	Spot	Intersections	Improve roadway infrastructure by installing countermeasures to reduce intersection crashes
STATE OF HAWAII ADVANCED CRASH ANALYSIS (SHACA)	Miscellaneous	Data analysis			$3019680	$4072679	Penalty Funds (23 U.S.C. 164)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Data	Improve linkage and integration of data
Strategic Highway Safety Plan (SHSP) Update CY2025 - CY2030	Miscellaneous	SHSP Development			$62107	$671710	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Data	Improve linkage and integration of data
Vulnerable Road User Safety Assessment Plan	Pedestrians and bicyclists				$575592	$700542	Penalty Funds (23 U.S.C. 164)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Pedestrians	Expand, improve, and maintain state and local pedestrian and bicycle facilities and networks.

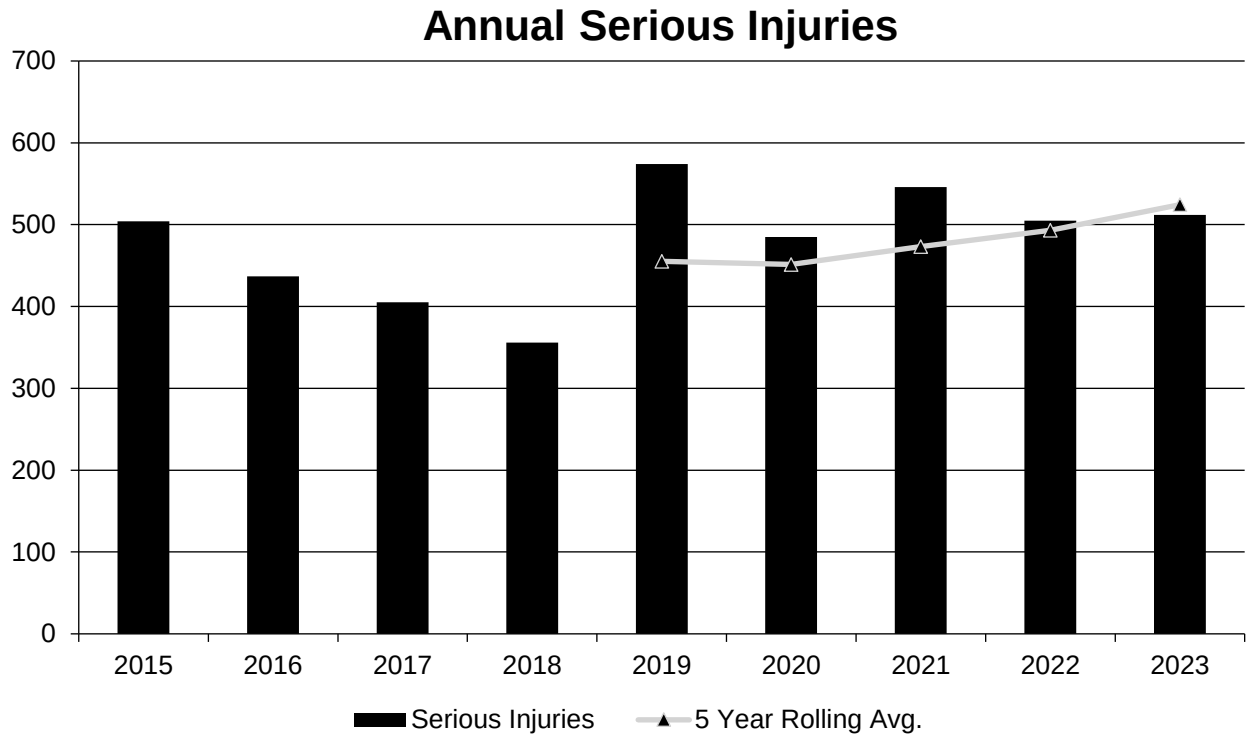
Safety Performance

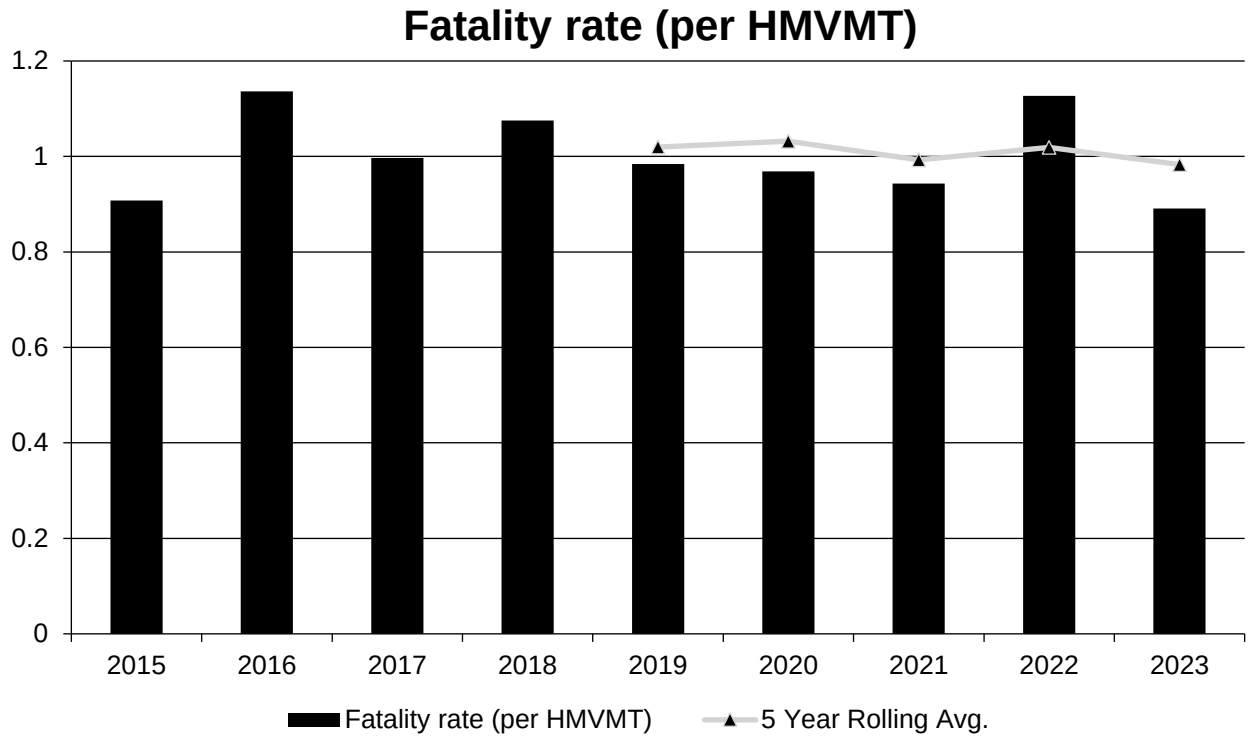
General Highway Safety Trends

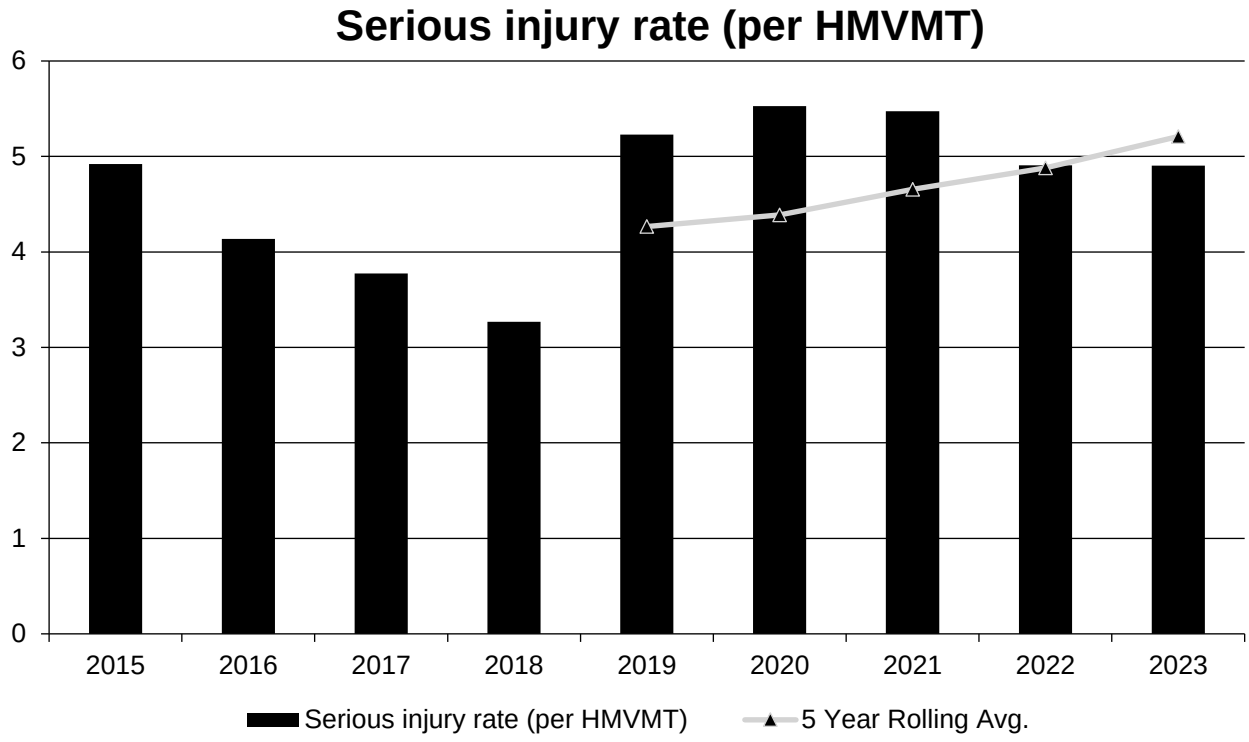
Present data showing the general highway safety trends in the State for the past five years.

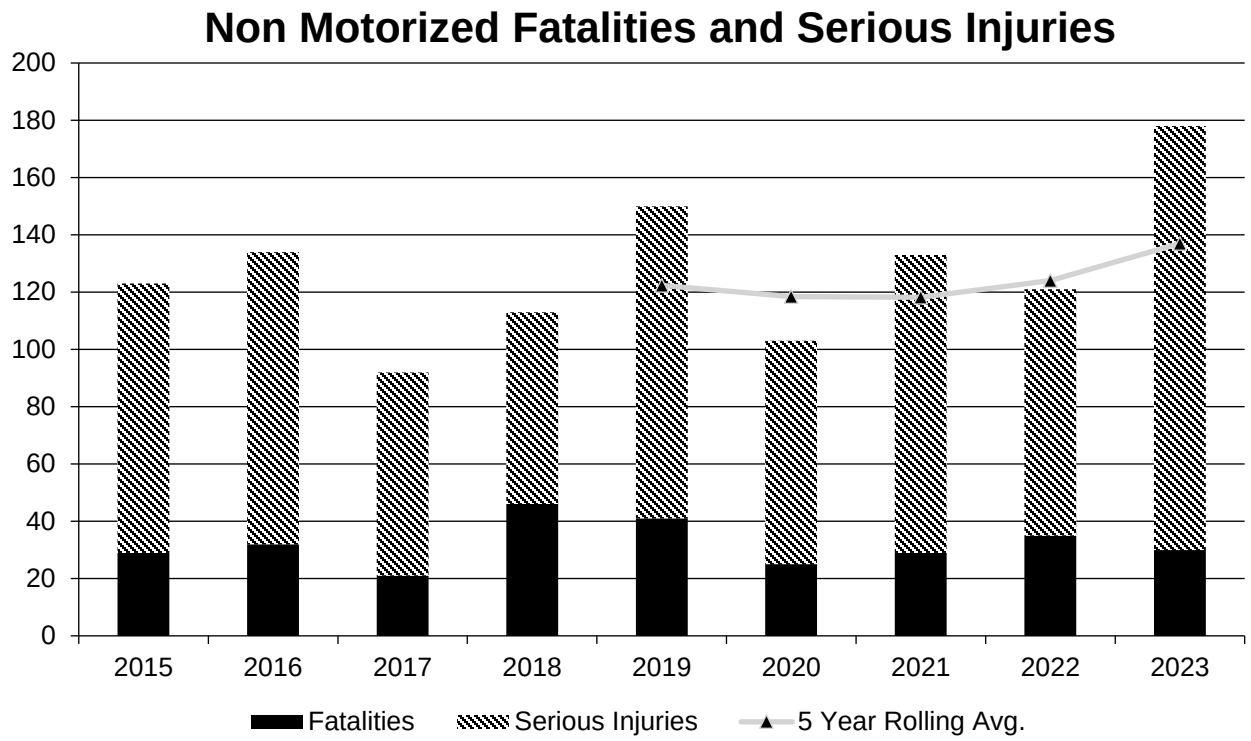
PERFORMANCE MEASURES	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fatalities	93	120	107	117	108	85	94	116	93
Serious Injuries	504	437	405	356	574	485	546	505	512
Fatality rate (per HMVMT)	0.908	1.136	0.997	1.075	0.984	0.969	0.943	1.127	0.891
Serious injury rate (per HMVMT)	4.921	4.137	3.774	3.270	5.230	5.528	5.475	4.908	4.904
Number non-motorized fatalities	29	32	21	46	41	25	29	35	30
Number of non-motorized serious injuries	94	102	71	67	109	78	104	86	148


Annual Fatalities
140
120
100
80
60
40
20
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
700
600
500
400
300
200
100
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.2
1
0.8
0.6
0.4
0.2
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
6
5
4
3
2
1
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
Serious injury rate (per HMVMT)
5 Year Rolling Avg.



Describe fatality data source.

FARS

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

Year 2023

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	0	0	0	0
Rural Principal Arterial (RPA) - Other Freeways and Expressways	0	0	0	0
Rural Principal Arterial (RPA) - Other	3.8	16	0.04	0.16
Rural Minor Arterial	7	26.2	0.07	0.26
Rural Minor Collector	1.6	0.2	0.02	0
Rural Major Collector	1.2	5.4	0.01	0.06

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 Local Road or Street	2.8	3.2	0.03	0.03
Urban Principal Arterial (UPA) - Interstate	8.2	53.2	0.08	0.53
Urban Principal Arterial (UPA) - Other Freeways and Expressways	4.6	20	0.05	0.2
Urban Principal Arterial (UPA) - Other	31.8	140.6	0.31	1.39
Urban Minor Arterial	13	46.2	0.13	0.45
Urban Minor Collector	3.4	5.2	0.04	0.05
Urban Major Collector	10.2	22.8	0.1	0.22
Urban Local Road or Street	10.4	32.4	0.1	0.31

Year 2023

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	60.8	256.2	0.6	2.52
County Highway Agency	37.8	266.2	0.37	2.64
Town or Township Highway Agency				
City or Municipal Highway Agency				
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)				
Indian Tribe Nation				

Provide additional discussion related to general highway safety trends.

We are consistently addressing the accuracy of our data. We are working with our vendor to address quality control of the new data coming in. Data for next year's report should reflect more accurate data as we continue to work with the law enforcement agencies to provide more accurate data and track any missing reports.

Safety Performance Targets

Safety Performance Targets

Calendar Year 2025 Targets *

Number of Fatalities:104.3

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

This performance target was determined by using a linear trend line based on the 2018-2023 five-year moving average data and an analysis of external factors, including the updated Hawaii SHSP; Vision Zero Plans developed and implemented in each county; planned roadway infrastructure safety improvement projects; and safety impacts of proposed grants.
This performance target is the result of collaborative efforts.

Number of Serious Injuries:533.2

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

This performance target was determined by using a linear trend line based on the 2018-2023 five-year moving average data and an analysis of external factors, including the updated Hawaii SHSP; Vision Zero Plans developed and implemented in each county; planned roadway infrastructure safety improvement projects; and safety impacts of proposed grants. Implementation of the revised Motor Vehicle Accident Report (MVAR) has shown an impact in the number of serious traffic injuries because of the change in terminology from "incapacitating injury" to "suspected serious injury" and an increase in crash reporting. This performance target is the result of collaborative efforts.

Fatality Rate:1.006

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

This performance target was determined by using a linear trend line based on the 2018-2023 five-year moving average data and an analysis of external factors, including impacts from COVID-19 and shelter-in-place orders; the updated Hawaii SHSP; Vision Zero Plans developed and implemented in each county; planned roadway infrastructure safety improvement projects; and safety impacts of proposed grants. This performance target is the result of collaborative efforts.

Serious Injury Rate:5.224

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

This performance target was determined by using a linear trend line based on the 2018-2023 five-year moving average data and an analysis of external factors, including impacts from COVID-19 and shelter-in-place orders; the updated Hawaii SHSP; Vision Zero Plans developed and implemented in each county; planned roadway infrastructure safety improvement projects; and safety impacts of proposed grants. Implementation of the revised Motor Vehicle Accident Report (MVAR) has shown an impact in the number of serious traffic injuries because of the change in terminology from "incapacitating injury" to "suspected serious injury" and an increase in crash reporting.

Total Number of Non-Motorized Fatalities and Serious Injuries:137.0

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

This performance target was determined by using a linear trend line based on the 2017-2023 five-year moving average data and an analysis of external factors, including impacts from COVID-19 and shelter-in-place orders; the updated Hawaii SHSP; Vision Zero Plans developed and implemented in each county; planned roadway infrastructure safety improvement projects; and safety impacts of proposed grants. Implementation of the revised Motor Vehicle Accident Report (MVAR) has shown an impact in the number of serious traffic injuries because of the change in terminology from "incapacitating injury" to "suspected serious injury" and an increase in crash reporting.

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

The numbers in the HSIP report may not match the numbers in the HSP since the HSP has moved to triannual reporting. At the beginning of their triannual reporting, our numbers matched. Numbers that are in the HSIP have been updated using more recent data. We will be sharing the safety performance targets with Oahu Metropolitan Planning Organization (OMPO) and Maui MPO to assist them in reporting their performance targets. The performance targets are the result of collaborative efforts.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2023 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

PERFORMANCE MEASURES	TARGETS	ACTUALS
Number of Fatalities	103.0	99.2
Number of Serious Injuries	506.0	524.4
Fatality Rate	1.057	0.983
Serious Injury Rate	5.032	5.209
Non-Motorized Fatalities and Serious Injuries	142.4	137.0

Fatalities and serious injuries increased over the years to pre pandemic numbers. Therefore, we were unable to meet our optimistic goals. Since Hawaii DOT has not met our targets last year, an HSIP Implementation Plan was developed for the fourth time.
Revision of the Motor Vehicle Accident Report (MVAR) has shown an increased impact on the number of serious traffic injuries because of the change in terminology from "incapacitating injury" to "suspected serious injury". Honolulu Police Department, which is the largest law enforcement agency in Hawaii, implemented the form at the beginning of 2019. This can be seen in the large increase in serious injuries for 2019.

Applicability of Special Rules

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

No

Does the VRU Safety Special Rule apply to the State for this reporting period?

Yes

The number of fatalities involving vulnerable road users in the State of Hawaii was more than 15% of the total annual crash fatalities for 2022.

In 2022, there were 116 total fatal crashes of which 35 fatal crashes involved vulnerable road users.

The percentage was 30.17%, which is larger than 15%

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	2017	2018	2019	2020	2021	2022	2023
Number of Older Driver and Pedestrian Fatalities	17	24	18	20	27	45	25
Number of Older Driver and Pedestrian Serious Injuries	34	44	48	44	44	47	51

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.

Program effectiveness can be measured by the change in the number of fatalities and serious injuries. Completed projects are desired to have a decrease in the number and severity of crashes, usually 3 years before compared to 3 years after completion. Two examples of this measure of effectiveness are the Keaau Pahoa roundabout at Pahoa Village and the addition of left turn auxiliary lanes on Farrington Highway at Nanakuli Avenue and Haleakala Avenue.

Keaau-Pahoa Rd at Pahoa Village - Fatalities and serious injuries compared 3 years before and 3 years after reduced from 7 to zero. 7 years before and 7 years after reduced from 9 to zero. Total major traffic crashes also decreased from 39 crashes for 3 years before to 5 crashes 3 years after.

Farrington Highway at Nanakuli Avenue and Haleakala Avenue - Fatalities and serious injuries 3 years before and 2 years after reduced from 2 to 1. The 2 representing the before data were both fatalities and the 1 representing the after data was a serious injury. Total major traffic crashes also decreased from 21 crashes for 3 years before to 7 crashes 2 years after. Additional years of after completion data will be analyzed when it becomes available.

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

- HSIP Obligations

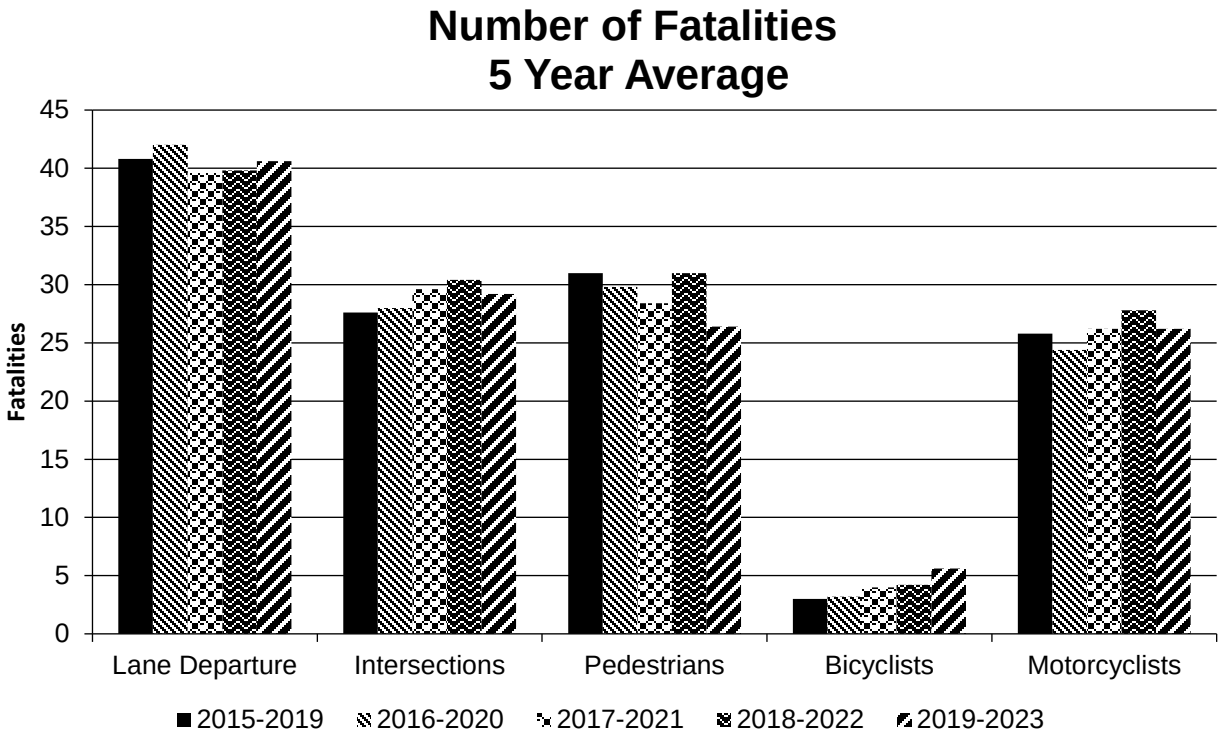
We need to continuously track the completion of HSIP projects to make sure there are no lapsing funds.

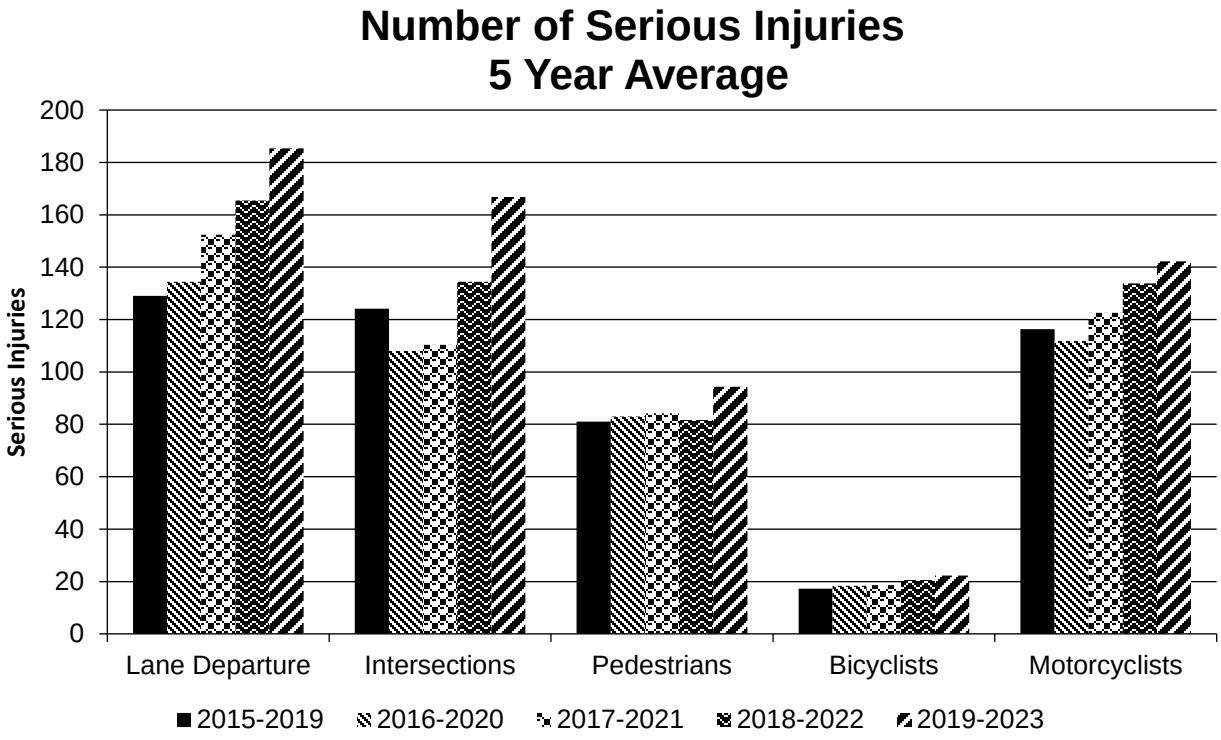
Effectiveness of Groupings or Similar Types of Improvements

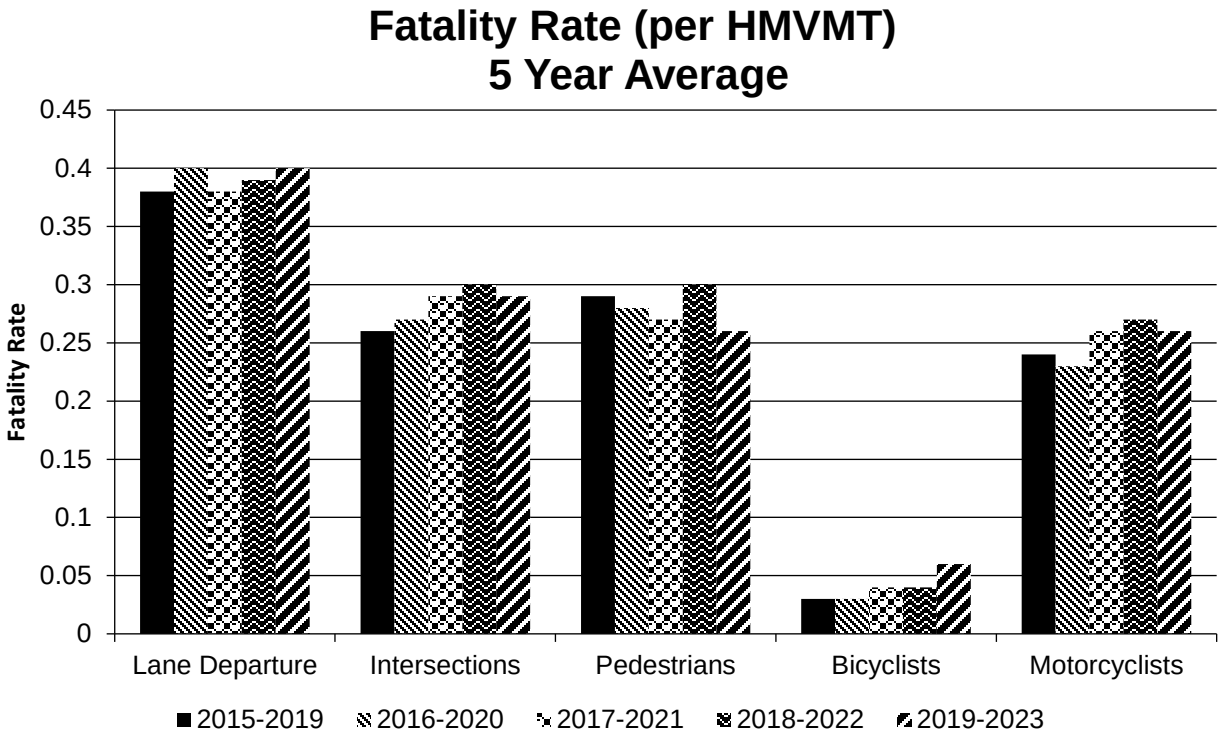
Present and describe trends in SHSP emphasis area performance measures.

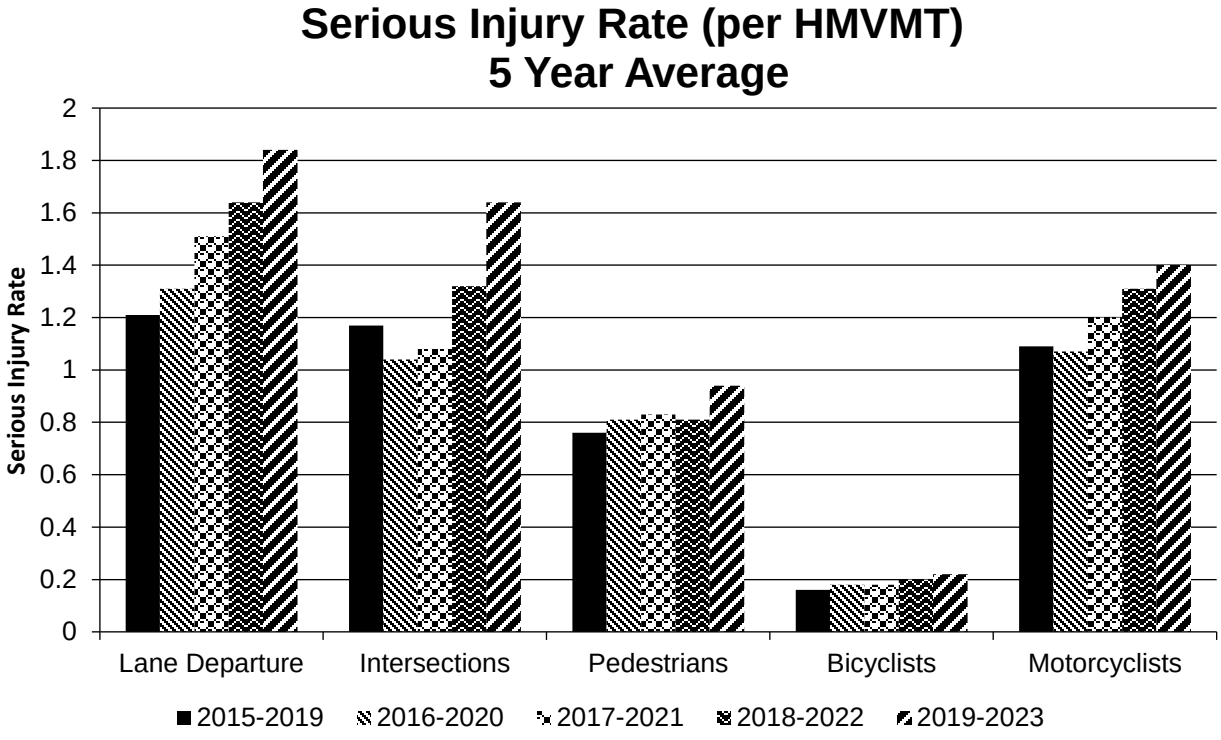
Year 2023

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		40.6	185.4	0.4	1.84
Intersections		29.2	166.8	0.29	1.64
Pedestrians		26.4	94.4	0.26	0.94
Bicyclists		5.6	22.2	0.06	0.22
Motorcyclists		26.2	142.2	0.26	1.4


Number of Fatalities
5 Year Average
Fatalities
45
40
35
30
25
20
15
10
5
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Motorcyclists
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Number of Serious Injuries
5 Year Average
Serious Injuries
200
180
160
140
120
100
80
60
40
20
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Motorcyclists
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Fatality Rate (per HMVMT)
5 Year Average
Fatality Rate
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Motorcyclists
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Serious Injury Rate (per HMVMT)
5 Year Average
Serious Injury Rate
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Motorcyclists
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023

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)
None at this time														

Since this item is optional, we choose not to report at this time due to time constraints.

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

The State of Hawaii considers fatal and serious injury crashes for all analyses along with the total number of major traffic crashes. We will be working towards providing more of the requested data with next year's submittal as our database becomes more complete and accurate.

Compliance Assessment

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

11/20/2019

What are the years being covered by the current SHSP?

From: 2019 To: 2024

When does the State anticipate completing its next SHSP update?

2025

SHSP Update will be completed in 2024. Dropdown for that question only allows selection of 2025 and beyond. I tried to manually type in 2024 and it defaults back to 2025.

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

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

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT	Segment Identifier (12) [12]	100	100					100	100		
	Route Number (8) [8]	100	100								
	Route/Street Name (9) [9]	100	100								
	Federal Aid/Route Type (21) [21]	100	100								
	Rural/Urban Designation (20) [20]	100	100					100	100		
	Surface Type (23) [24]	100	100					100	100		
	Begin Point Segment Descriptor (10) [10]	100	100					100	100		
	End Point Segment Descriptor (11) [11]	100	100					100	100		
	Segment Length (13) [13]	100	100								
	Direction of Inventory (18) [18]	100	100								
	Functional Class (19) [19]	100	100					100	100		

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	100	100								
	Access Control (22) [23]	100	100								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	100					100	100		
	Average Annual Daily Traffic (79) [81]	100	100								
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	100					100	100		
INTERSECTION	Unique Junction Identifier (120) [110]			100	100						
	Location Identifier for Road 1 Crossing Point (122) [112]			100	100						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	100						
	Intersection/Junction Geometry (126) [116]			100	100						
	Intersection/Junction Traffic Control (131) [131]			100	100						
	AADT for Each Intersecting Road (79) [81]			100	100						
	AADT Year (80) [82]			100	100						
	Unique Approach Identifier (139) [129]			100	100						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					100	100				
	Location Identifier for Roadway at					100	100				

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100	100				
	Ramp Length (187) [177]					100	100				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100	100				
	Roadway Type at End Ramp Terminal (199) [189]					100	100				
	Interchange Type (182) [172]						100				
	Ramp AADT (191) [181]					100	100				
	Year of Ramp AADT (192) [182]					100	100				
	Functional Class (19) [19]					100	100				
	Type of Governmental Ownership (4) [4]					100	100				
Totals (Average Percent Complete):		**100.00**	**100.00**	**100.00**	**100.00**	**90.91**	**100.00**	**88.89**	**88.89**	**0.00**	**0.00**

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

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

We are working with the Planning Branch to address more MIRE elements.

Optional Attachments

Program Structure:

HSIP report2015.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.