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.”
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Executive Summary

State of Hawaii 2015 U.S.C. 148(g)

Annual Highway Safety Improvement Program Report
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 MAP-21 Reporting Guidance dated February 13, 2013 and consists of four sections: program structure, progress in implementing HSIP projects, progress in achieving safety performance targets, and assessment of the effectiveness of the improvements.

Program Structure

Program Administration

How are Highway Safety Improvement Program funds allocated in a State?

- Central
- District
- Other

Describe how local roads are addressed as part of Highway Safety Improvement Program.

High accident listings and accident 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. In addition, HRRRP Funds are offered to the counties.

Identify which internal partners are involved with Highway Safety Improvement Program planning.
**Briefly 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 participate in the preliminary project scope.

The Highway Safety Office proposes non-infrastructure projects to be funded through HSIP flex funding.

**Identify which external partners are involved with Highway Safety Improvement Program planning.**

- Metropolitan Planning Organizations
- Governors Highway Safety Office
- Local Government Association
- Other: Other-Police departments
Identify any program administration practices used to implement the HSIP that have changed since the last reporting period.

☐ Multi-disciplinary HSIP steering committee
☒ Other: Other-Police involvement in preliminary project scoping.

Describe any other aspects of Highway Safety Improvement Program Administration on which you 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
Select the programs that are administered under the HSIP.

☐ Median Barrier ☐ Intersection ☐ Safe Corridor
☐ Horizontal Curve ☐ Bicycle Safety ☐ Rural State Highways
☐ Skid Hazard ☒ Crash Data ☐ Red Light Running Prevention
☐ Roadway Departure ☐ Low-Cost Spot Improvements ☐ Sign Replacement And Improvement
☐ Local Safety ☐ Pedestrian Safety ☐ Right Angle Crash
☐ Left Turn Crash ☐ Shoulder Improvement ☐ Segments
☐ Other:
What data types were used in the program methodology?

**Crashes**
- All crashes
- Fatal crashes only
- Fatal and serious injury crashes only
- Other

**Exposure**
- Traffic
- Volume
- Population
- Lane miles
- Other

**Roadway**
- Median width
- Horizontal curvature
- Functional classification
- Roadside features
- Other

What project identification methodology was used for this program?

- Crash frequency
- Expected crash frequency with EB adjustment
- Equivalent property damage only (EPDO Crash frequency)
- EPDO crash frequency with EB adjustment
- Relative severity index
- Crash rate
- Critical rate
- Level of service of safety (LOSS)
Excess expected crash frequency using SPFs
Excess expected crash frequency with the EB adjustment
Excess expected crash frequency using method of moments
Probability of specific crash types
Excess proportions of specific crash types
☑ Other-Crash severity

Are local roads (non-state owned and operated) included or addressed in this program?
☑ Yes
☐ No

If yes, are local road projects identified using the same methodology as state roads?
☐ Yes
☑ No

If no, describe the methodology used to identify local road projects as part of this program.
The listings for county roads are ranked according to the accident frequency instead of the rates because of the lack of traffic volume data.

How are highway safety improvement projects advanced for implementation?
☐ Competitive application process
☐ selection committee
☑ Other-Submitted to be included in the STIP. Follow with collaboration with 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).

☐ Relative Weight in Scoring
Rank of Priority Consideration

- Ranking based on B/C 2
- Available funding 3
- Incremental B/C
- Ranking based on net benefit
- Cost Effectiveness 1

What proportion of highway safety improvement program funds address systemic improvements?

0

Highway safety improvement program funds are used to address which of the following systemic improvements?

- Cable Median Barriers
- Rumble Strips
- Traffic Control Device Rehabilitation
- Pavement/Shoulder Widening
- Install/Improve Signing
- Install/Improve Pavement Marking and/or Delineation
- Upgrade Guard Rails
- Clear Zone Improvements
- Safety Edge
- Install/Improve Lighting
- Add/Upgrade/Modify/Remove Traffic Signal
- Other
What process is used to identify potential countermeasures?

- Engineering Study
- Road Safety Assessment
- Other:

Identify any program methodology practices used to implement the HSIP that have changed since the last reporting period.

- Highway Safety Manual
- Road Safety audits
- Systemic Approach
- Other: Other - None

Describe any other aspects of the Highway Safety Improvement Program methodology on which you would like to elaborate.

During this period, run off roadway and median crossover type accidents were targeted. HDOT is currently focusing on reducing fatalities and serious injury type accidents by implementing low-cost safety improvement projects along corridors with a history of these types of accidents. In Hawaii, these types of accidents have a greater potential of reducing fatalities and serious injury accidents cost-effectively, in comparison to "black spot" type projects. HDOT is collaborating with the University of Hawaii to develop a Systemic Roadway Departure Plan. With the development of this plan, HDOT hopes to address more systemic safety improvements with proven low-cost safety countermeasures.
**Progress in Implementing Projects**

**Funds Programmed**
Reporting period for Highway Safety Improvement Program funding.

- [ ] Calendar Year
- [ ] State Fiscal Year
- [x] Federal Fiscal Year

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

<table>
<thead>
<tr>
<th>Funding Category</th>
<th>Programmed*</th>
<th>Obligated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HSIP (Section 148)</strong></td>
<td>3032384</td>
<td>3032284</td>
</tr>
<tr>
<td><strong>HRRRP (SAFETEA-LU)</strong></td>
<td>569881</td>
<td>569881</td>
</tr>
<tr>
<td><strong>HRRR Special Rule</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Penalty Transfer - Section 154</strong></td>
<td>3515406</td>
<td>2280000</td>
</tr>
<tr>
<td><strong>Penalty Transfer – Section 164</strong></td>
<td>3515406</td>
<td>1999613</td>
</tr>
<tr>
<td><strong>Incentive Grants - Section 163</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Incentive Grants (Section 406)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Federal-aid Funds (i.e. STP, NHPP)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>State and Local Funds</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How much funding is programmed to local (non-state owned and maintained) safety projects?
$1,505,485.00

How much funding is obligated to local safety projects?
$509,887.00

How much funding is programmed to non-infrastructure safety projects?
$3,116,663.00

How much funding is obligated to non-infrastructure safety projects?
$1,830,000.00

How much funding was transferred in to the HSIP from other core program areas during the reporting period?
$7,030,812.00

How much funding was transferred out of the HSIP to other core program areas during the reporting period?

$5,000,000.00

Discuss impediments to obligating Highway Safety Improvement Program funds and plans to overcome this in the future.

The penalty transfer is impacting the HSIP core obligation rate. Our administration plans to introduce legislation to attain compliance. We would like to have more projects initiated and assigned for design and construction. There is an inability of design staff to handle the workload. Areas such as: 106, right-of-way, and environmental requirements delay projects.

Describe any other aspects of the general Highway Safety Improvement Program implementation progress on which you 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 each highway safety improvement project obligated during the reporting period.

<table>
<thead>
<tr>
<th>Project</th>
<th>Improvement Category</th>
<th>Output</th>
<th>HSIP Cost</th>
<th>Total Cost</th>
<th>Funding Category</th>
<th>Functional Classification</th>
<th>AADT</th>
<th>Speed</th>
<th>Roadway Ownership</th>
<th>Relationship to SHSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamehameha Hwy Resurf, Dairy Rd to Laiewai Br</td>
<td>Roadway Rumble strips - edge or shoulder</td>
<td>8 Miles</td>
<td>1749613</td>
<td>1749613</td>
<td>Penalty Transfer – Section 164</td>
<td>Urban Principal Arterial - Other</td>
<td>9364</td>
<td>45</td>
<td>State Highway Agency</td>
<td>Lane Departure Install rumble strips</td>
</tr>
<tr>
<td>Koloa Rd Safety Imp, Mana Hema Pl to Omao Rd</td>
<td>Roadway Rumble strips - center</td>
<td>1.7 Miles</td>
<td>509887</td>
<td>509887</td>
<td>HRRRP (SAFETEA-LU)</td>
<td>Urban Major Collector</td>
<td>9248</td>
<td>35</td>
<td>County Highway Agency</td>
<td>Roadway Departure Install rumble strips</td>
</tr>
</tbody>
</table>
## Progress in Achieving Safety Performance Targets

### Overview of General Safety Trends

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

<table>
<thead>
<tr>
<th>Performance Measures*</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fatalities</td>
<td>136</td>
<td>129</td>
<td>124</td>
<td>113</td>
<td>0</td>
</tr>
<tr>
<td>Number of serious injuries</td>
<td>407</td>
<td>379</td>
<td>357</td>
<td>346</td>
<td>0</td>
</tr>
<tr>
<td>Fatality rate (per HMVMT)</td>
<td>1.36</td>
<td>1.27</td>
<td>1.22</td>
<td>1.12</td>
<td>0</td>
</tr>
<tr>
<td>Serious injury rate (per HMVMT)</td>
<td>4.08</td>
<td>3.74</td>
<td>3.53</td>
<td>3.45</td>
<td>0</td>
</tr>
</tbody>
</table>

*Performance measure data is presented using a five-year rolling average.*
Number of Fatalities and Serious Injuries for the Last Five Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatalities</th>
<th>Serious Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>136</td>
<td>400</td>
</tr>
<tr>
<td>2007</td>
<td>125</td>
<td>350</td>
</tr>
<tr>
<td>2008</td>
<td>124</td>
<td>300</td>
</tr>
<tr>
<td>2009</td>
<td>113</td>
<td>250</td>
</tr>
<tr>
<td>2010</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2013</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Years
Rate of Fatalities and Serious Injuries for the Last Five Years

![Graph showing the rate of fatalities and serious injuries per HMVMT from 2008 to 2014. The graph indicates a decrease in both fatality and serious injury rates over the years.]
To the maximum extent possible, present performance measure* data by functional classification and ownership.

**Year - 2010**

<table>
<thead>
<tr>
<th>Function Classification</th>
<th>Number of fatalities</th>
<th>Number of serious injuries</th>
<th>Fatality rate (per HMVMT)</th>
<th>Serious injury rate (per HMVMT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL PRINCIPAL ARTERIAL - INTERSTATE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL PRINCIPAL ARTERIAL - OTHER</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL MINOR ARTERIAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL MINOR COLLECTOR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL MAJOR COLLECTOR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL LOCAL ROAD OR STREET</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>URBAN PRINCIPAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>ARTERIAL - INTERSTATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>URBAN PRINCIPAL ARTERIAL - OTHER FREeways AND EXPRESSWAYS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>URBAN PRINCIPAL ARTERIAL - OTHER</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>URBAN MINOR ARTERIAL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>URBAN MINOR COLLECTOR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>URBAN MAJOR COLLECTOR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER - UNABLE TO PROVIDE INFORMATION AT THIS TIME.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DATA FOR THIS CATEGORY NOT AVAILABLE AT THIS TIME. FUTURE DATA WILL INCLUDE FUNCTIONAL CLASSIFICATIONS.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
# Fatalities by Roadway Functional Classification

![Graph showing fatalities by roadway functional classification from 2010 to 2014.](image)
# Serious Injuries by Roadway Functional Classification

Roadway Functional Classification

- Major Collector (U)
- Minor Collector (R)
- Local Road or Street (R)
- Principal Arterial - Other (R)
- Principal Arterial - Interstate (R)
- Principal Arterial - Other Freeways and Expressways (U)
- Minor Arterial - Other (U)
- Major Collector (U)
- 2010
- 2011
- 2012
- 2013
- 2014
Fatality Rate by Roadway Functional Classification

Roadway Functional Classification

- Major Collector (U)
- Principal Arterial (U)
- Principal Arterial - Interstate (U)
- Principal Arterial - Other Freeways and Expressways (U)
- Principal Arterial - Other Freeways and Expressways (R)
- Principal Arterial - Other Freeways and Expressways (U)
- Local Road or Street (R)
- Minor Collector (R)
- Minor Collector - Other (U)
- Minor Collector - Other (R)

2015 Hawaii Highway Safety Improvement Program
Serious Injury Rate by Roadway Functional Classification

Roadway Functional Classification

2015 Hawaii Highway Safety Improvement Program
### Year - 2010

<table>
<thead>
<tr>
<th>Roadway Ownership</th>
<th>Number of fatalities</th>
<th>Number of serious injuries</th>
<th>Fatality rate (per HMVMT)</th>
<th>Serious injury rate (per HMVMT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>STATE HIGHWAY AGENCY</td>
<td>78</td>
<td>200</td>
<td>0.78</td>
<td>2</td>
</tr>
<tr>
<td>COUNTY HIGHWAY AGENCY</td>
<td>46</td>
<td>157</td>
<td>0.46</td>
<td>1.57</td>
</tr>
<tr>
<td>TOWN OR TOWNSHIP HIGHWAY AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CITY OF MUNICIPAL HIGHWAY AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>STATE PARK, FOREST, OR RESERVATION AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LOCAL PARK, FOREST OR RESERVATION AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER STATE AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER LOCAL AGENCY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>PRIVATE (OTHER THAN RAILROAD)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RAILROAD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>STATE TOLL AUTHORITY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LOCAL TOLL AUTHORITY</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Number of Fatalities by Roadway Ownership

- 2010
- 2011
- 2012
- 2013
- 2014

# of Fatalities

Roadway Functional Classification

- State
- County
- Town
- City
- State Park
- Other State
- Other Local
- Private
- Railroad
- State Toll
- Local Toll
- Other
Number of Serious Injuries by Roadway Ownership

2010 | 2011 | 2012 | 2013 | 2014

# of Serious Injuries

0 | 50 | 100 | 150 | 200 | 250

Roadway Functional Classification

STATE | COUNTY | TOWN | CITY | STATE PARK | OTHER STATE | PRIVATE | RAILROAD | STATE TOLL | LOCAL TOLL | OTHER
Serious Injury Rate by Roadway Ownership

Roadway Functional Classification

- 2010
- 2011
- 2012
- 2013
- 2014

Serious Injury Rate (per HMVT)
Describe any other aspects of the general highway safety trends on which you would like to elaborate.

We are currently addressing the timeliness of our data. Due to manpower shortage, it was difficult to keep up with the workflow. We have recently reshifted our priorities to increase the timeliness of the database. Data for next year's report should reflect more current data years. There will be no changes to the accident numbers provided in last year's report.

**Application of Special Rules**

Present the rate of traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65.

<table>
<thead>
<tr>
<th>Older Driver Performance Measures</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatality rate (per capita)</td>
<td>0.12</td>
<td>0.11</td>
<td>0.11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Serious injury rate (per capita)</td>
<td>0.12</td>
<td>0.13</td>
<td>0.15</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fatality and serious injury rate (per capita)</td>
<td>0.24</td>
<td>0.24</td>
<td>0.26</td>
<td>0.26</td>
<td>0</td>
</tr>
</tbody>
</table>

*Performance measure data is presented using a five-year rolling average.

Calculation Rate for 2007-2011 Fatality and Serious Injury Rate -

\[
\frac{(F+SI \hspace{1mm} 2007 \hspace{1mm} Drivers \hspace{1mm} and \hspace{1mm} Pedestrians \hspace{1mm} 65 \hspace{1mm} years \hspace{1mm} of \hspace{1mm} age \hspace{1mm} and \hspace{1mm} older/2007 \hspace{1mm} population \hspace{1mm} figure) + (F+SI \hspace{1mm} 2008 \hspace{1mm} Drivers \hspace{1mm} and \hspace{1mm} Pedestrians \hspace{1mm} 65 \hspace{1mm} years \hspace{1mm} of \hspace{1mm} age \hspace{1mm} and \hspace{1mm} older/2008 \hspace{1mm} population \hspace{1mm} figure) + (F+SI \hspace{1mm} 2009 \hspace{1mm} Drivers \hspace{1mm} and \hspace{1mm} Pedestrians \hspace{1mm} 65 \hspace{1mm} years \hspace{1mm} of \hspace{1mm} age \hspace{1mm} and \hspace{1mm} older/2009 \hspace{1mm} population \hspace{1mm} figure) + (F+SI \hspace{1mm} 2010 \hspace{1mm} Drivers \hspace{1mm} and \hspace{1mm} Pedestrians \hspace{1mm} 65 \hspace{1mm} years \hspace{1mm} of \hspace{1mm} age \hspace{1mm} and \hspace{1mm} older/2010 \hspace{1mm} population \hspace{1mm} figure) + (F+SI \hspace{1mm} 2011 \hspace{1mm} Drivers \hspace{1mm} and \hspace{1mm} Pedestrians \hspace{1mm} 65 \hspace{1mm} years \hspace{1mm} of \hspace{1mm} age \hspace{1mm} and \hspace{1mm} older/2011 \hspace{1mm} population \hspace{1mm} figure)}{5}
\]

* Please note that more current data is unavailable at this time. We are addressing the timeliness of our data and plan to have more to report next year.
Does the older driver special rule apply to your state?

Yes

If yes, describe the approach to include respective strategies to address the increase in those rates in the State SHSP.

The calculation of older driver special rule recently notified us that it applies to Hawaii. With the updated SHSP plan completed, we will look into introducing this concern as a new potential emphasis area in the future. Unable to conclude if older driver special rule still applies to
Hawaii since previous data was used.
Assessment of the Effectiveness of the Improvements (Program Evaluation)

What indicators of success can you use to demonstrate effectiveness and success in the Highway Safety Improvement Program?

- None
- Benefit/cost
- Policy change
- Other:

What significant programmatic changes have occurred since the last reporting period?

- Shift Focus to Fatalities and Serious Injuries
- Include Local Roads in Highway Safety Improvement Program
- Organizational Changes
- None
- Other:

Briefly describe significant program changes that have occurred since the last reporting period.

We are currently addressing the timeliness of our data. Due to manpower shortage, it was difficult to keep up with the workflow. We have recently reshifted our priorities to increase the timeliness of the
database. Data for next year's report should reflect more current data years. There will be no changes to
the accident numbers provided in last year's report.
### SHSP Emphasis Areas
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

#### Year - 2011

<table>
<thead>
<tr>
<th>HSIP-related SHSP Emphasis Areas</th>
<th>Target Crash Type</th>
<th>Number of Fatalities</th>
<th>Number of Serious Injuries</th>
<th>Fatality Rate (per HMVMT)</th>
<th>Serious Injury Rate (per HMVMT)</th>
<th>Other-1</th>
<th>Other-2</th>
<th>Other-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Departure</td>
<td>Run off road and cross centerline</td>
<td>47</td>
<td>113</td>
<td>0.47</td>
<td>1.13</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Intersections</td>
<td>All</td>
<td>34</td>
<td>128</td>
<td>0.34</td>
<td>1.27</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pedestrians</td>
<td>Vehicle/pedestrian</td>
<td>23</td>
<td>55</td>
<td>0.22</td>
<td>0.55</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bicyclists</td>
<td>Vehicle/bicycle</td>
<td>3</td>
<td>13</td>
<td>0.03</td>
<td>0.13</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Motorcyclists</td>
<td>All</td>
<td>29</td>
<td>88</td>
<td>0.29</td>
<td>0.87</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Number of Fatalities by SHSP Emphasis Area

Year 2010 to Year 2014

- Lane Departure
- Intersections
- Pedestrians
- Bicyclists
- Motorcyclists

SHSP Emphasis Area

# of Fatalities
Number of Serious Injuries by SHSP Emphasis Area

Year 2010 to Year 2014

- **Lane Departure**
- **Intersections**
- **Pedestrians**
- **Bicyclists**
- **Motorcyclists**

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Departure</td>
<td>100</td>
<td>120</td>
<td>110</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>Intersections</td>
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<td>160</td>
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<td>120</td>
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<tr>
<td>Pedestrians</td>
<td>50</td>
<td>60</td>
<td>40</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>Bicyclists</td>
<td>10</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>6</td>
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<tr>
<td>Motorcyclists</td>
<td>20</td>
<td>22</td>
<td>18</td>
<td>16</td>
<td>14</td>
</tr>
</tbody>
</table>

SHSP Emphasis Area
Fatality Rate by SHSP Emphasis Area

Year 2010 to Year 2014

SHSP Emphasis Area

Rate of Fatalities

Lane Departure, Intersections, Pedestrians, Bicyclists, Motorcyclists
Serious Injury Rate by SHSP Emphasis Area

Year 2010 to Year 2014

- Lane Departure
- Intersections
- Pedestrians
- Bicycles
- Motorcyclists

SHSP Emphasis Area

Rate of Serious Injuries

- 2010
- 2011
- 2012
- 2013
- 2014
Groups of similar project types
Present the overall effectiveness of groups of similar types of projects.

Year - 2011

<table>
<thead>
<tr>
<th>HSIP Sub-program Types</th>
<th>Target Crash Type</th>
<th>Number of fatalities</th>
<th>Number of serious injuries</th>
<th>Fatality rate (per HMVMT)</th>
<th>Serious injury rate (per HMVMT)</th>
<th>Other-1</th>
<th>Other-2</th>
<th>Other-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backplates with retroreflective borders</td>
<td>Disregard traffic signal</td>
<td>2</td>
<td>12</td>
<td>0.02</td>
<td>0.12</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Milled rumble strips</td>
<td>Run off road and cross centerline</td>
<td>47</td>
<td>113</td>
<td>0.47</td>
<td>1.13</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
# Fatalities by Target Crash Type for Groups of Similar Projects

**Year 2010 to Year 2014**

![Graph showing fatalities by target crash type for different years. The graph includes data for all crash types from 2010 to 2014.](image-url)
#Serious Injuries by Target Crash Type for Groups of Similar Projects

Year 2010 to Year 2014

<table>
<thead>
<tr>
<th>Target Crash Type</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross median</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed object</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left-turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night-time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intersections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-intersection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear-end</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Run-off-road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed-related</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck-related</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle/animal</td>
<td></td>
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<tr>
<td>Vehicle/bicycle</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle/pedestrian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fatality Rate by Target Crash Type for Groups of Similar Projects

Year 2010 to Year 2014

Target Crash Type
Serious Injury Rate by Target Crash Type for Groups of Similar Projects

Year 2010 to Year 2014

Target Crash Type

- All
- Angle
- Cross median
- Fixed object
- Sideswipe
- Head on
- Left-turn
- Night-time
- Intersections
- Rear-end
- Right-turn
- Run-off-road
- Speed-related
- Truck-related
- Vehicle/animal
- Vehicle/bicycle
- Vehicle/pedestrian

Rate of Serious Injuries

-0.6
-0.4
-0.2
0
0.2
0.4
0.6

2010
2011
2012
2013
2014
### Systemic Treatments

Present the overall effectiveness of systemic treatments.

#### Year - 2011

<table>
<thead>
<tr>
<th>Systemic Improvement</th>
<th>Target Crash Type</th>
<th>Number of Fatalities</th>
<th>Number of Serious Injuries</th>
<th>Fatality Rate (per HMVMT)</th>
<th>Serious Injury Rate (per HMVMT)</th>
<th>Other-1</th>
<th>Other-2</th>
<th>Other-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upgrade Guard Rails</td>
<td>Collision with guardrail</td>
<td>9</td>
<td>18</td>
<td>0.09</td>
<td>0.18</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Install/Improve Lighting</td>
<td>Night-time</td>
<td>27</td>
<td>55</td>
<td>0.27</td>
<td>0.55</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rumble Strips</td>
<td>Ran off road and cross centerline</td>
<td>47</td>
<td>113</td>
<td>0.47</td>
<td>1.13</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
# Fatalities by Target Crash Type for Systemic Safety Improvements

Year 2010 to Year 2014

<table>
<thead>
<tr>
<th>Target Crash Type</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross median</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed object</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sideswipe</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Head on</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Left-turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night-time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intersections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-intersection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rear end</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right-turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Run-off-road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed-related</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck-related</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle/animal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle/bicycle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wet road</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

# of Fatalities
# Serious Injuries by Target Crash Type for Systemic Safety Improvements

Year 2010 to Year 2014

Target Crash Type

Occurrences: 0, 10, 20, 30, 40, 50, 60, 70

Crash Types:
- All
- Angle
- Cross median
- Fixed object
- Head on
- Left-turn
- Night-time
- Intersection
- Non-intersection
- Rear end
- Right-turn
- Run-off-road
- Speed-related
- Truck-related
- Vehicle/animal
- Vehicle/bicycle
- Vehicle/pedestrian

Colors:
- 2010
- 2011
- 2012
- 2013
- 2014
Fatality Rate by Target Crash Type for Systemic Safety Improvements

Year 2010 to Year 2014

Target Crash Type

Rate of Fatalities
Serious Injury Rate by Target Crash Type for Systemic Safety Improvements

Year 2010 to Year 2014

Target Crash Type

Rate of Serious Injuries

2010 2011 2012 2013 2014
Describe any other aspects of the overall Highway Safety Improvement Program effectiveness on which you would like to elaborate.

The State of Hawaii considers fatal and serious injury accidents for all analyses along with the total number of major traffic accidents. We will be working towards providing more of the requested data with next year's submittal.
# Project Evaluation

Provide project evaluation data for completed projects (optional).

<table>
<thead>
<tr>
<th>Location</th>
<th>Functional Class</th>
<th>Improvement Category</th>
<th>Improvement Type</th>
<th>Bef-Fatal</th>
<th>Bef-Serious Injury</th>
<th>Bef-All Injuries</th>
<th>Bef-PDO</th>
<th>Aft-Fatal</th>
<th>Aft-Serious Injury</th>
<th>Aft-All Injuries</th>
<th>Aft-PDO</th>
<th>Aft-Total</th>
<th>Evaluation Results (Benefit/Cost Ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose option not to report at this time</td>
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<td></td>
</tr>
</tbody>
</table>

Choose option not to report at this time
### Optional Attachments

<table>
<thead>
<tr>
<th>Sections</th>
<th>Files Attached</th>
</tr>
</thead>
</table>


**5 year rolling average** means the average of five individual, 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.

**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.