Hawaii
Highway Safety Improvement Program
2013 Annual Report

Prepared by: HI
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

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 were offered to the counties in January 2008.

Identify which internal partners are involved with Highway Safety Improvement Program planning.
Briefly describe coordination with internal partners.

The HSIP project locations are evaluated to determine if other projects submitted by internal partners 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.

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-None

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

A listing of projects representing all four counties is submitted to be considered on the STIP, when possible. 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
- Horizontal Curve
- Skid Hazard
- Roadway Departure
- Local Safety
- Left Turn Crash
- Other:

  - Intersection
  - Bicycle Safety
  - Crash Data
  - Low-Cost Spot Improvements
  - Pedestrian Safety
  - Shoulder Improvement
  - Right Angle Crash
  - Sign Replacement And Improvement
  - Segments

Program: Crash Data
Date of Program Methodology:  9/9/2006

What data types were used in the program methodology?

<table>
<thead>
<tr>
<th>Crashes</th>
<th>Exposure</th>
<th>Roadway</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ All crashes</td>
<td>☑ Traffic</td>
<td>☑ Median width</td>
</tr>
<tr>
<td>☐ Fatal crashes only</td>
<td>☑ Volume</td>
<td>☑ Horizontal curvature</td>
</tr>
<tr>
<td>☐ Fatal and serious injury crashes only</td>
<td>☑ Population</td>
<td>☑ Functional classification</td>
</tr>
<tr>
<td>☐ Other</td>
<td>☑ Lane miles</td>
<td>☑ Roadside features</td>
</tr>
<tr>
<td></td>
<td>☑ Other</td>
<td>☑ Other</td>
</tr>
</tbody>
</table>

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 SPF
☐ 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
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
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
- Traffic Control Device Rehabilitation
- Install/Improve Signing
- Install/Improve Pavement Marking and/or Delineation
- Upgrade Guard Rails
- Safety Edge
- Add/Upgrade/Modify/Remove Traffic Signal

What process is used to identify potential countermeasures?

- Engineering Study
- Road Safety Assessment
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.
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>HSIP (Section 148)</td>
<td>2112910</td>
<td>2593296</td>
</tr>
<tr>
<td>HRRRP (SAFETEA-LU)</td>
<td>787090</td>
<td>787090</td>
</tr>
<tr>
<td>HRRR Special Rule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penalty Transfer - Section 154</td>
<td>3512499</td>
<td>1014195</td>
</tr>
<tr>
<td>Penalty Transfer – Section 164</td>
<td>3512499</td>
<td>2962230</td>
</tr>
<tr>
<td>Incentive Grants - Section 163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentive Grants (Section 406)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Federal-aid Funds (i.e. STP, NHPP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State and Local Funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other RHCP</td>
<td>1571813</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>11496811</td>
<td>7356811</td>
</tr>
</tbody>
</table>

Enter the programmed and obligated funding for each applicable funding category.
How much funding is programmed to local (non-state owned and maintained) safety projects?

$412,743.00

How much funding is obligated to local safety projects?

$412,743.00

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

$670,000.00

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

$670,000.00

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

$7,024,998.00

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

$0.00
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. Systemic Roadway Departure Program may improve the obligation of funds when developed and implemented. 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 Ownershi</th>
<th>Relationship to SHSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate Route H-3 Safety Improvements, vicinity from Kamehameha Highway to Kaneohe Marine Base</td>
<td>Roadway Rumble strips - edge or shoulder</td>
<td>5 Miles</td>
<td>29622 30</td>
<td>29622 30</td>
<td>Penalty Transfer - Section 164</td>
<td>Urban Principal Arterial - Interstate</td>
<td>194 53</td>
<td>55</td>
<td>State Highway Agency</td>
<td>Keeping vehicles in the roadway</td>
</tr>
<tr>
<td>Honoapiilani Highway Safety Improvements at Kaanapali &amp; Halelo</td>
<td>Intersection traffic control - miscellaneous/other/unspecified</td>
<td>1 Numbers</td>
<td>10141 95</td>
<td>10141 95</td>
<td>Penalty Transfer - Section 154</td>
<td>Urban Minor Arterial</td>
<td>343 50</td>
<td>40</td>
<td>State Highway Agency</td>
<td>Improving the design and operation of highway intersection</td>
</tr>
</tbody>
</table>

Penalty Transfer - Section 164
Urban Principal Arterial - Interstate
Keeping vehicles in the roadway
Install rumble strips
Improving the design and operation of highway intersection
Improve traffic control system
<table>
<thead>
<tr>
<th>Highway</th>
<th>Description</th>
<th>Length</th>
<th>Project Number</th>
<th>Agency</th>
<th>Project Number</th>
<th>Improvements</th>
<th>Agency</th>
<th>Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maunaloa Highway Resurfacing, Maunaloa Village to Mahana</td>
<td>Roadway Rumble strips - edge or shoulder</td>
<td>6 Miles</td>
<td>69690 0 0</td>
<td>HSIP (Section 148)</td>
<td>Rural Major Collector</td>
<td>802 45</td>
<td>State Highway Agency</td>
<td>Keeping vehicles in the roadway</td>
</tr>
<tr>
<td>Kaumualii Highway Safety Improvements, Kahili Mountain Park Road to Eleele Road</td>
<td>Roadway signs and traffic control Curve-related warning signs and flashers</td>
<td>7 Miles</td>
<td>12263 96 96</td>
<td>HSIP (Section 148)</td>
<td>Rural Minor Arterial</td>
<td>143 49</td>
<td>State Highway Agency</td>
<td>Improving motorcycle safety and increasing motorcycle awareness</td>
</tr>
<tr>
<td>Haliimaile Road Resurfacing and Safety Improvements, Phase 2, MP 1.3 to Baldwin Avenue</td>
<td>Roadway Rumble strips - edge or shoulder</td>
<td>1 Miles</td>
<td>81053 81053</td>
<td>HRRRP (SAFETE A-LU)</td>
<td>Urban Minor Collector</td>
<td>443 5</td>
<td>County Highway Agency</td>
<td>Keeping vehicles in the roadway</td>
</tr>
<tr>
<td>Kuhio Highway</td>
<td>Roadway Rumble strips - edge or shoulder</td>
<td>3 Miles</td>
<td>70603 70603</td>
<td>HRRRP (SAFETE)</td>
<td>Rural Major</td>
<td>486 35</td>
<td>State Highway Agency</td>
<td>Keeping vehicles</td>
</tr>
<tr>
<td>Safety Improvements, Hanalei Bridge to Waikoko Bridge</td>
<td>edge or shoulder</td>
<td>7</td>
<td>7</td>
<td>A-LU)</td>
<td>Collector</td>
<td>3</td>
<td>Agency</td>
<td>in the roadway</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-----------------</td>
<td>---</td>
<td>---</td>
<td>-------</td>
<td>----------</td>
<td>---</td>
<td>--------</td>
<td>---------------</td>
</tr>
<tr>
<td>Non-infrastructure Flex</td>
<td>Non-infrastructure</td>
<td>670000</td>
<td>670000</td>
<td>HSIP (Section 148)</td>
<td>Education and enforcement</td>
<td></td>
<td></td>
<td></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>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fatalities</td>
<td>157</td>
<td>134</td>
<td>107</td>
<td>109</td>
<td>112</td>
</tr>
<tr>
<td>Number of serious injuries</td>
<td>433</td>
<td>347</td>
<td>330</td>
<td>321</td>
<td>354</td>
</tr>
<tr>
<td>Fatality rate (per HMVMT)</td>
<td>1.54</td>
<td>1.29</td>
<td>1.05</td>
<td>1.13</td>
<td>1.12</td>
</tr>
<tr>
<td>Serious injury rate (per HMVMT)</td>
<td>4.23</td>
<td>3.34</td>
<td>3.23</td>
<td>3.32</td>
<td>3.54</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
Rate of Fatalities and Serious injuries for the Last Five Years

![Graph showing rates of fatalities and serious injuries from 2006 to 2010.](image)
To the maximum extent possible, present performance measure* data by functional classification and ownership.

**Year - 2012**

<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</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>FREEWAYS AND EXPRESSWAYS</td>
<td></td>
<td></td>
<td></td>
<td></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>
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<td>0</td>
</tr>
<tr>
<td>RURAL MAJOR COLLECTOR</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RURAL LOCAL ROAD OR STREET</td>
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<td>2016</td>
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<td>----------------------------------------------</td>
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<td>------</td>
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<tr>
<td>ARTERIAL - INTERSTATE</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXPRESSWAYS</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>URBAN PRINCIPAL ARTERIAL - OTHER</td>
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<td>0</td>
<td>0</td>
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<td>URBAN MINOR ARTERIAL</td>
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<td>URBAN MAJOR COLLECTOR</td>
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<tr>
<td>URBAN LOCAL ROAD OR STREET</td>
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<tr>
<td>OTHER - UNABLE TO PROVIDE INFORMATION AT THIS TIME.</td>
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<tr>
<td>OTHER - UNABLE TO PROVIDE INFORMATION AT THIS TIME.</td>
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</tr>
</tbody>
</table>
# Fatalities by Roadway Functional Classification

![Diagram showing fatalities by roadway functional classification for years 2008 to 2012.](image-url)
# Serious Injuries by Roadway Functional Classification

- 2008
- 2009
- 2010
- 2011
- 2012

Roadway Functional Classification
Serious Injury Rate by Roadway Functional Classification

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

Serious Injury Rate (per HMVT):
- 2008
- 2009
- 2010
- 2011
- 2012
### Year - 2012

<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>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>COUNTY HIGHWAY AGENCY</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOWN OR TOWNSHIP HIGHWAY AGENCY</td>
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<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>CITY OF MUNICIPAL HIGHWAY AGENCY</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>STATE PARK, FOREST, OR RESERVATION AGENCY</td>
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<tr>
<td>PRIVATE (OTHER THAN RAILROAD)</td>
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<td>RAILROAD</td>
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<td>STATE TOLL AUTHORITY</td>
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<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>
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<tr>
<td>INDIAN TRIBE NATION</td>
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</tr>
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<tr>
<td>OTHER</td>
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</tbody>
</table>
Number of Fatalities by Roadway Ownership

![Graph showing number of fatalities by roadway ownership for 2008, 2009, 2010, 2011, and 2012. The graph is organized by roadway functional classification including State, County, City, State Park, Other State, Private, Railroad, Local Toll, Other Public, and Other. The highest number of fatalities occurs in the State category for 2010.]
Number of Serious Injuries by Roadway Ownership

Roadway Functional Classification

- State
- County
- Town
- City
- Local Park
- Other Local
- Other State
- Private
- Railroad
- State Toll
- Local Toll
- Other Public
- Tribe
- Other
Serious Injury Rate by Roadway Ownership

2013 Hawaii Highway Safety Improvement Program
Describe any other aspects of the general highway safety trends on which you would like to elaborate.

An uptrend in the statistics should not imply a decrease in safety of the infrastructure. The economy is not accounted for in these figures, yet it has a significant impact on driver behavior and safety on the roadways.

Please note that the numbers provided for the performance measures are not for rolling averages.

We are unable to provide information at this time for function classification.

**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>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatality rate (per capita)</td>
<td>0.13</td>
<td>0.06</td>
<td>0.11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Serious injury rate (per capita)</td>
<td>2.24</td>
<td>2.2</td>
<td>2.44</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fatality and serious injury rate (per capita)</td>
<td>0</td>
<td>0.28</td>
<td>0</td>
<td>0.24</td>
<td>0</td>
</tr>
</tbody>
</table>

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

** Please note that 2011 data is unavailable at this time. ORT requires a value to be entered for fatality and serious injury rate (per capita) for 2009 and 2011. 2008 and 2010 values were calculated and entered into the 2009 and 2011 cells to satisfy program.

Calculation Rate for 2007-2010 (Year = X)

Fatality Rate = \( \frac{F(X) \text{ Drivers and Pedestrians 65 years of age and older}}{X \text{ Population figure}} \)

Serious Injury Rate = \( \frac{SI(X) \text{ Drivers and Pedestrians 65 years of age and older}}{X \text{ Population figure}} \)

Calculation Rate for 2008 Fatality and Serious Injury Rate =

\[
\left[ \left( \frac{F+SI \text{ 2004 Drivers and Pedestrians 65 years of age and older}}{2004 \text{ population figure}} \right) + \left( \frac{F+SI \text{ 2005 Drivers and Pedestrians 65 years of age and older}}{2005 \text{ population figure}} \right) \right]
\]
Calculation Rate for 2010 Fatality and Serious Injury Rate =

\[
\frac{(F+SI \ 2006 \ Drivers \ and \ Pedestrians \ 65 \ years \ of \ age \ and \ older/2006 \ population \ figure) +
(F+SI \ 2007 \ Drivers \ and \ Pedestrians \ 65 \ years \ of \ age \ and \ older/2007 \ population \ figure) +
(F+SI \ 2008 \ Drivers \ and \ Pedestrians \ 65 \ years \ of \ age \ and \ older/2008 \ population \ figure) +
(F+SI \ 2009 \ Drivers \ and \ Pedestrians \ 65 \ years \ of \ age \ and \ older/2009 \ population \ figure) +
(F+SI \ 2010 \ Drivers \ and \ Pedestrians \ 65 \ years \ of \ age \ and \ older/2010 \ population \ figure)}{5}
\]
Does the older driver special rule apply to your state?

No
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
- [x] 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.

No significant program changes since last reporting period.
SHSP Emphasis Areas
For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

### Year - 2012

<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>Instituting graduated licensing for younger drivers</td>
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<tr>
<td>Ensuring drivers are licensed and fully competent</td>
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<tr>
<td>Sustaining proficiency in older drivers</td>
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<tr>
<td>Curbing aggressive driving</td>
<td>Speed-related</td>
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<tr>
<td>Keeping drivers alert</td>
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<tr>
<td>Increasing driver safety awareness</td>
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<td>Improving motorcycle safety and increasing motorcycle awareness</td>
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<td>Making truck travel safer</td>
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<td>Increasing safety enhancements in vehicles</td>
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<td>Reducing vehicle-train crashes</td>
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<td>Keeping vehicles in the roadway</td>
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<td>2013 Hawaii Highway Safety Improvement Program</td>
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<th>Highways Intersections</th>
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<td>Reducing head-on and across-median crashes</td>
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<td>Enhancing emergency medical capabilities to increase survivability</td>
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<tr>
<td>Improving information and decision support systems</td>
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</table>
Number of Fatalities by SHSP Emphasis Area

Year 2008 to Year 2012

SHSP Emphasis Area
Number of Serious Injuries by SHSP Emphasis Area

Year 2008 to Year 2012

SHSP Emphasis Area
Serious Injury Rate by SHSP Emphasis Area

Year 2008 to Year 2012

Rate of Serious Injury

2008 2009 2010 2011 2012

SHSP Emphasis Area
Groups of similar project types
Present the overall effectiveness of groups of similar types of projects.

**Year - 2012**

<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>
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<tr>
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</tbody>
</table>
# Fatalities by Target Crash Type for Groups of Similar Projects

Year 2008 to Year 2012

Target Crash Type

- Air
- Angle
- Cross-median
- Fixed object
- Sideswipe
- Head-on
- Left-turn
- Night-time
- Non-intersection
- Rear end
- Right-turn
- Run-off-road
- Speed-related
- Truck-related
- Vehicle/animal
- Vehicle/bicycle
- Wet-road

### 2008

### 2009

### 2010

### 2011

### 2012
# Serious Injuries by Target Crash Type for Groups of Similar Projects

Year 2008 to Year 2012

Target Crash Type

- Air
- Angle
- Cross median
- Fixed object
- Sideswipe
- Head-on
- Left turn
- Night-time
- Non-intersection
- Rear-end
- Right turn
- Run-off-road
- Speed-related
- Truck-related
- Vehicle/animal
- Vehicle/bicycle
- Wet road

# of Serious Injuries
- 0.6
- 0.4
- 0.2
- 0
- -0.2
- -0.4
- -0.6
Fatality Rate by Target Crash Type for Groups of Similar Projects

Year 2008 to Year 2012

Rate of Fatalities

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

Year 2008 to Year 2012

Target Crash Type

Rate of Serious Injury

-0.6 -0.4 -0.2 0 0.2 0.4 0.6

Air Angle Cross median Fixed object Sideswipe Head-on Left-turn Night-time Non-intersection Rear-end Right-turn Run-off-road Speed-related Truck-related Vehicle/animal Vehicle/bicycle Vehicle/wet road
Systemic Treatments
Present the overall effectiveness of systemic treatments.

### Year - 2012

<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>Safety Edge</td>
<td>Run-off-road</td>
<td>13</td>
<td>28</td>
<td>0.13</td>
<td>0.27</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>
# Fatalities by Target Crash Type for Systemic Safety Improvements

Year 2008 to Year 2012

# of Fatalities

Target Crash Type
Fatality Rate by Target Crash Type for Systemic Safety Improvements

Year 2008 to Year 2012

Rate of Fatalities

Target Crash Type

- Air
- Angle
- Cross median
- Fixed object
- Sideswipe
- Head on
- Left-turn
- Night-time
- Non-intersection
- Rear end
- Right-turn
- Run-off-road
- Speed-related
- Truck-related
- Vehicle/animal
- Vehicle/bicycle
- Wet road
Serious Injury Rate by Target Crash Type for Systemic Safety Improvements

Year 2008 to Year 2012

Target Crash Type

Rate of Serious Injury

2008  2009  2010  2011  2012
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. It would be beneficial to have a consistent definition of a serious injury among all National Transportation offices. Please note that the SHSP Emphasis Areas and HSIP Sub-program Types data reflect fatal accidents not fatalities. We will be working towards providing more of the requested data with next year’s submittal.
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-Other Injury</th>
<th>Bef-PDO</th>
<th>Bef-Total</th>
<th>Aft-Fatal</th>
<th>Aft-Serious Injury</th>
<th>Aft-Other Injury</th>
<th>Aft-PDO</th>
<th>Aft-Total</th>
<th>Evaluation Results (Benefit/Cost Ratio)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamehameha Highway Intersection Improvements at Leilehua Golf Course Road</td>
<td>Urban Principal Arterial - Other Freeways and Expressways</td>
<td>Intersection traffic control</td>
<td>Install traffic signal system</td>
<td>3</td>
<td>1</td>
<td>11</td>
<td>6</td>
<td>21</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>7.17</td>
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</table>
**Optional Attachments**

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

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.