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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Maine has a data driven approach for HSIP project selection, assessing various aspects of crash performance. Before and After crash results comparison have consistently shown performance improvement over the years. HSIP selection process is re-evaluated each year to see if there opportunities for enhancement and for improved alignment for the state's SHSP.

Supplemental safety projects that are more systemic in nature, like centerline rumble strips and median cable barrier are also funded. Maine is looking to expand it's systemic approach to further impact lane departure crash reduction - Maine leading crash concern.
**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?

- [x] Central
- [ ] District
- [ ] Other

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

Local roads are included with the state-wide project candidates. Maine does capture crash and roadway data for Local roads and so is able to evaluate all locations within the state based on similar crash performance comparisons. Local requests are also received based on crash concerns and are reviewed as part of the candidate screening process.

In terms of local road systemic improvements, MaineDOT's funding and approach are being evaluated for future funding periods.
Identify which internal partners are involved with Highway Safety Improvement Program planning.

- Design
- Planning
- Maintenance
- Operations
- Governors Highway Safety Office
- Other: Other-MPO/RPO; Bike/Pedestrian are being better integrated

Briefly describe coordination with internal partners.

Executive, Planning (including local roads and bike/ped), Traffic Engineering, Project Development, all play a part in safety planning. MaineDOT continues to enhance its Work Plan approach to integrate safety into the planning process, looking to get safety in the planning thought process early on to consider not just stand-alone safety needs, but also opportunities that would complement upcoming paving and construction projects. Safety Office is able to review corridor project candidates in advance to identify safety needs that might align with other work.

A Highway Safety Group has recently been established that includes a wide operational representation and FHWA presence to look at overall safety needs, funding philosophy and systemic opportunities.

MaineDOT Regions have been very involved with Centerline Rumble Strip strategies, corridor reviews and project implementation.

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

- Metropolitan Planning Organizations
- Governors Highway Safety Office
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-Continuing adjustments to improve approach.

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

Looking to better balance funding of spot improvements where crash history has been clearly a problem (this has often been concentrated on intersections) with systemic opportunities related to Lane Departure mitigations.

Program Methodology
Select the programs that are administered under the HSIP.

- Median Barrier
- Horizontal Curve
- Skid Hazard
- Roadway Departure
- Local Safety
- Intersection
- Bicycle Safety
- Crash Data
- Low-Cost Spot Improvements
- Pedestrian Safety
- Safe Corridor
- Rural State Highways
- Red Light Running Prevention
- Sign Replacement And Improvement
- Right Angle Crash
2015 Maine Highway Safety Improvement Program

- Left Turn Crash
- Shoulder Improvement
- Segments
- Other: Other-Median Cable
  Barrier -install completed in 2014

Program: Median Barrier

Date of Program Methodology: 7/1/2010

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>Other</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 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

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

□ Yes
✓ No

How are highway safety improvement projects advanced for implementation?

□ Competitive application process
✓ Selection committee
□ Other

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
<table>
<thead>
<tr>
<th>Program:</th>
<th>Intersection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Program Methodology:</td>
<td>8/1/2014</td>
</tr>
</tbody>
</table>

What data types were used in the program methodology?

**Crashes**
- [ ] All crashes
- [x] Fatal crashes only
- [x] Fatal and serious injury crashes only
- [ ] Other

**Exposure**
- [x] Traffic
- [x] Volume
- [ ] Population
- [ ] Lane miles
- [ ] Other

**Roadway**
- [ ] Median width
- [ ] Horizontal curvature
- [ ] Functional classification
- [ ] Roadside features
- [x] Other-MaineDOT's Highway Corridor Priority classifications

What project identification methodology was used for this program?

- [x] Crash frequency
- [ ] Expected crash frequency with EB adjustment
- [ ] Equivalent property damage only (EPDO Crash frequency)
EPDO crash frequency with EB adjustment

Relative severity index

\( \square \) Crash rate

\( \square \) Critical rate

\( \square \) Level of service of safety (LOSS)

\( \square \) Excess expected crash frequency using SPF

\( \square \) Excess expected crash frequency with the EB adjustment

\( \square \) Excess expected crash frequency using method of moments

\( \square \) Probability of specific crash types

\( \square \) Excess proportions of specific crash types

\( \square \) Other

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

\( \square \) Yes

\( \square \) No

If yes, are local road projects identified using the same methodology as state roads?

\( \square \) Yes

\( \square \) No

How are highway safety improvement projects advanced for implementation?

\( \square \) Competitive application process

\( \square \) Selection committee

\( \square \) Other - Benefit to Cost

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
- Available funding
- Incremental B/C
- Ranking based on net benefit
- Other

Program: Horizontal Curve

Date of Program Methodology: 8/1/2014

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
  - 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

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

How are highway safety improvement projects advanced for implementation?

Competitive application process

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

- Relative Weight in Scoring
- Rank of Priority Consideration

- Ranking based on B/C 1
- Available funding 2
- Incremental B/C
- Ranking based on net benefit
- Other

Program: Bicycle Safety

Date of Program Methodology: 8/1/2014

What data types were used in the program methodology?

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

Exposure
- Traffic
- Volume
- Population

Roadway
- Median width
- Horizontal curvature
- Functional classification
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

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
How are highway safety improvement projects advanced for implementation?

☐ Competitive application process
☒ Selection committee
☐ Other

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
☐ Available funding  2
☐ Incremental B/C
☒ Ranking based on net benefit  1
☐ Other

Program: Rural State Highways
Date of Program Methodology: 8/1/2014

What data types were used in the program methodology?

Crashes Exposure Roadway
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All crashes</td>
<td>Traffic</td>
</tr>
<tr>
<td></td>
<td>Fatal crashes only</td>
<td>Volume</td>
</tr>
<tr>
<td></td>
<td>Fatal and serious injury crashes only</td>
<td>Population</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>Lane miles</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
- Other

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

- Yes
If yes, are local road projects identified using the same methodology as state roads?

☐ Yes
☐ No

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process
☐ Selection committee
☐ Other - Benefit to Cost ranking

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 1
☐ Available funding 2
☐ Incremental B/C
☐ Ranking based on net benefit
☐ Other

Program: Skid Hazard
Date of Program Methodology:  8/1/2014

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 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
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

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process
☒ Selection committee
☐ Other

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
☒ Available funding 2
☐ Incremental B/C
☒ Ranking based on net benefit 1
☐ Other
## Program: Crash Data

### Date of Program Methodology: 8/1/2014

### 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</td>
<td>☐ Population</td>
<td>☐ Functional classification</td>
</tr>
<tr>
<td>crashes only</td>
<td></td>
<td>☐ Roadside features</td>
</tr>
<tr>
<td>☐ Other</td>
<td>☐ Lane miles</td>
<td>☐ Other</td>
</tr>
<tr>
<td>☐ Other</td>
<td></td>
<td></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 SPFs
- ☐ Excess expected crash frequency with the EB adjustment
Excess expected crash frequency using method of moments
Choice: [ ]
Probability of specific crash types
Choice: [ ]
Excess proportions of specific crash types
Choice: [ ]
Other
Choice: [ ]

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

Choice: [ ] Yes
Choice: [ ] No

If yes, are local road projects identified using the same methodology as state roads?

Choice: [ ] Yes
Choice: [ ] No

How are highway safety improvement projects advanced for implementation?

Choice: [ ] Competitive application process
Choice: [x] selection committee
Choice: [ ] Other

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).

Choice: [ ] Relative Weight in Scoring
Choice: [x] Rank of Priority Consideration

Choice: [ ] Ranking based on B/C
Choice: [x] Available funding 2
Maine
Highway Safety Improvement Program

- Incremental B/C
- Ranking based on net benefit
- Other

Program:
Roadway Departure

Date of Program Methodology: 8/1/2014

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

**Roadway**
- Median width
- Horizontal curvature
- Functional classification
- Lane miles
- Roadside features
- Other
- 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 SPF's

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

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

How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other

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
- Available funding 2
- Incremental B/C
- Ranking based on net benefit 1
- Other

Program: Low-Cost Spot Improvements

Date of Program Methodology: 8/1/2014

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

**Roadway**
- Median width
- Horizontal curvature
- Functional classification
- Lane miles
- 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

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

How are highway safety improvement projects advanced for implementation?
Competitive application process
selection committee
Other
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
- Available funding 2
- Incremental B/C
- Ranking based on net benefit
- Cost Effectiveness 1

Program: Sign Replacement And Improvement

Date of Program Methodology: 8/1/2014

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

**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

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

How are highway safety improvement projects advanced for implementation?

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

☐ Relative Weight in Scoring
☒ Rank of Priority Consideration

☐ Ranking based on B/C
☒ Available funding 2
☐ Incremental B/C
☒ Ranking based on net benefit 1
☐ Other

Program: Local Safety
Date of Program Methodology: 8/1/2014

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</td>
<td>☐ Population</td>
<td>☐ Functional classification</td>
</tr>
</tbody>
</table>
What project identification methodology was used for this program?

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

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

- [x] Yes
- [ ] No

If yes, are local road projects identified using the same methodology as state roads?

- [x] Yes
No

How are highway safety improvement projects advanced for implementation?

- Competitive application process
- Selection committee
- Other - Usually work with MaineDOT's Local Roads unit

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
- Available funding 2
- Incremental B/C
- Ranking based on net benefit 1
- Other

Program: Pedestrian Safety

Date of Program Methodology: 8/1/2014

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 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
- ☐ Other

---

**Are local roads (non-state owned and operated) included or addressed in this program?**
If yes, are local road projects identified using the same methodology as state roads?

☑ Yes
☐ No

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process
☑ Selection committee
☑ Other-These projects are normally coordinated through MaineDOT's Bike/Ped coordinator

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
☑ Available funding  2
☐ Incremental B/C
☑ Ranking based on net benefit  1
☐ Other
Program: Right Angle Crash

Date of Program Methodology: 8/1/2014

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</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></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

☐ Other

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

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process

☐ Selection committee

☒ Other—Benefit to Cost ranking

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 1

☒ Available funding 2

☐ Incremental B/C

☐ Ranking based on net benefit
Program: Left Turn Crash

Date of Program Methodology: 8/1/2014

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

How are highway safety improvement projects advanced for implementation?

Competitive application process

Selection committee

Other-Benefit to Cost prioritization

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  1  
Available funding  2  
Incremental B/C  
Ranking based on net benefit  
Other  

Program: Shoulder Improvement  
Date of Program Methodology: 8/1/2014  

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

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

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process
☐ selection committee
☑ Other-Benefit to Cost ranking

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 1
- Available funding 2
- Incremental B/C
- Ranking based on net benefit
- Other

Program: Segments

Date of Program Methodology: 8/1/2014

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
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

How are highway safety improvement projects advanced for implementation?

☐ Competitive application process
☐ selection committee
☑ Other-Benefit to Cost ranking
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 1
☒ Available funding 2
☐ Incremental B/C
☐ Ranking based on net benefit
☐ Other

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

10

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
☒ Upgrade Guard Rails
☒ Safety Edge

☒ Rumble Strips
☐ Pavement/Shoulder Widening
☒ Install/Improve Pavement Marking and/or Delineation
☐ Clear Zone Improvements
☐ Install/Improve Lighting
2015 Maine Highway Safety Improvement Program

- Add/Upgrade/Modify/Remove Traffic Signal
- Other Other-Wrong Way Driver interstate ramp improvements, rapid flashing beacons for ped crossings,

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: Systemic approach continues to develop/mature.
Describe any other aspects of the Highway Safety Improvement Program methodology on which you would like to elaborate.

Coordination between MaineDOT safety and other MaineDOT operating units continue to deepen, as we look to jointly define safety needs and issues coordinate best mitigation techniques, and then integrate in Work Plan - coordinating with construction and paving projects when appropriate.
**Progress in Implementing Projects**

**Funds Programmed**

Reporting period for Highway Safety Improvement Program funding.

- ☑ Calendar Year
- ☐ State Fiscal Year
- ☐ 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>HSIP (Section 148)</td>
<td>12012200</td>
<td>11089850.56</td>
</tr>
<tr>
<td></td>
<td>100 %</td>
<td>98 %</td>
</tr>
<tr>
<td>HRRRP (SAFETEA-LU)</td>
<td>0</td>
<td>198269.56</td>
</tr>
<tr>
<td></td>
<td>0 %</td>
<td>2 %</td>
</tr>
<tr>
<td>HRRR Special Rule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penalty Transfer - Section 154</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penalty Transfer – Section 164</td>
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<td></td>
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<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>
</tbody>
</table>
2015 Maine Highway Safety Improvement Program

| Totals | 12012200 | 100% | 11288120.12 | 100% |

How much funding is programmed to local (non-state owned and maintained) safety projects?
0%

How much funding is obligated to local safety projects?
0%

How much funding is programmed to non-infrastructure safety projects?
5%

How much funding is obligated to non-infrastructure safety projects?
5%

How much funding was transferred in to the HSIP from other core program areas during the reporting period?
0%
How much funding was transferred out of the HSIP to other core program areas during the reporting period?

0%

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

No impediments seen. Safety Office continues to work with MaineDOT Exec., various MaineDOT operational areas and Regions to improve safety planning coordination/integration.

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

Maine's leading crash exposure continues to be Lane Departure, experiencing 70% of statewide fatalities in this category. Head-on fatalities were up 50% in 2014 compared to recent prior years. Systemic opportunities are being evaluated to achieve a better funding balance that is reflective of SHSP priorities - 2015 is seeing an increase in installations on centerline rumble strips - 90 miles planned for this year, compared to the 60 miles currently existing on non-interstate road installations completed since 2006. Additional opportunities are anticipated for future planning years.

Although not directly translating to HSIP funding, there is increased dialogue with MPO's/RPO's and the bike/ped community.
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></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Strategy</td>
</tr>
<tr>
<td>18522. 14</td>
<td>Pedestrians and bicyclists Miscellaneous pedestrians and bicyclists</td>
<td>0</td>
<td>147972.4</td>
<td>164413.77</td>
<td>HSIP (Section 148)</td>
<td>0</td>
<td>0</td>
<td>Bicyclists</td>
<td>Education/Outreach</td>
<td></td>
</tr>
<tr>
<td>20541. 16</td>
<td>Non-infrastructure Outreach</td>
<td>0</td>
<td>31500</td>
<td>45000</td>
<td>HSIP (Section 148)</td>
<td>0</td>
<td>0</td>
<td></td>
<td>Speed/Distracted Driving (in Work Zones)</td>
<td></td>
</tr>
<tr>
<td>22506</td>
<td>Intersection geometry Intersection geometrics - modify skew angle</td>
<td>1 Numbers</td>
<td>562500</td>
<td>625000</td>
<td>HSIP (Section 148)</td>
<td>Rural Principal Arterial - Other</td>
<td>130</td>
<td>40</td>
<td>State Highway Agency</td>
<td>Intersection Improvement design</td>
</tr>
<tr>
<td>22672</td>
<td>Intersection traffic control Intersection traffic control - other</td>
<td>1 Numbers</td>
<td>576000</td>
<td>640000</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Interstate</td>
<td>120</td>
<td>55</td>
<td>State Highway Agency</td>
<td>Intersection Signals and turn lanes</td>
</tr>
<tr>
<td>22673</td>
<td>Intersection geometry Intersection geometrics</td>
<td>1 Numb</td>
<td>148500</td>
<td>165000</td>
<td>HSIP (Section 173</td>
<td>Rural Minor</td>
<td>40</td>
<td>State Highway Agency</td>
<td>Intersection Improve intersection</td>
<td></td>
</tr>
<tr>
<td>22674</td>
<td>Interchange design Acceleration / deceleration / merge lane</td>
<td>1 Numbers</td>
<td>661500</td>
<td>735000</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Other Freeways and Expressways</td>
<td>165 57</td>
<td>35</td>
<td>State Highway Agency</td>
<td>Intersection design</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------------------------------</td>
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</tr>
<tr>
<td>22675</td>
<td>Roadway delineation Roadway delineation - other</td>
<td>1 Numbers</td>
<td>301500</td>
<td>335000</td>
<td>HSIP (Section 148)</td>
<td>Rural Principal Arterial - Other</td>
<td>840 0</td>
<td>55</td>
<td>State Highway Agency</td>
<td>Intersection design</td>
</tr>
<tr>
<td>22677</td>
<td>Intersection geometry Splitter island - remove from one or more approaches</td>
<td>1 Numbers</td>
<td>73350</td>
<td>81500</td>
<td>HSIP (Section 148)</td>
<td>Rural Minor Arterial</td>
<td>427 8</td>
<td>50</td>
<td>State Highway Agency</td>
<td>Intersection design</td>
</tr>
<tr>
<td>22679</td>
<td>Interchange design Acceleration / deceleration / merge lane</td>
<td>1 Numbers</td>
<td>58500</td>
<td>65000</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Other Freeways and Expressways</td>
<td>149 35</td>
<td>45</td>
<td>State Highway Agency</td>
<td>Intersection design</td>
</tr>
<tr>
<td>Project Code</td>
<td>Description</td>
<td>Numbers</td>
<td>Description</td>
<td>Agency</td>
<td>Location</td>
<td>Notes</td>
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<tr>
<td>--------------</td>
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<tr>
<td>22681</td>
<td>Intersection traffic control Intersection flashers - add miscellaneous/other/un specified</td>
<td>1 Numbers</td>
<td>54000</td>
<td>60000</td>
<td>HSIP (Section 148)</td>
<td>Urban Major Collector</td>
<td>496</td>
<td>35</td>
<td>Town or Township Highway Agency</td>
<td>Intersection solutions for reviewed locations</td>
</tr>
<tr>
<td>22682</td>
<td>Intersection traffic control Modify traffic signal - modernization/replace ment</td>
<td>1 Numbers</td>
<td>184500</td>
<td>205000</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Other</td>
<td>265</td>
<td>32</td>
<td>State Highway Agency</td>
<td>Intersection solutions for reviewed locations</td>
</tr>
<tr>
<td>22683</td>
<td>Interchange design Acceleration / deceleration / merge lane</td>
<td>1 Numbers</td>
<td>634500</td>
<td>705000</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Other</td>
<td>790</td>
<td>45</td>
<td>State Highway Agency</td>
<td>Intersection solutions for reviewed locations</td>
</tr>
<tr>
<td>12745</td>
<td>Intersection geometry Intersection geometry - other</td>
<td>1 Numbers</td>
<td>266437.43</td>
<td>296222.88</td>
<td>HSIP (Section 148)</td>
<td>Rural Principal Arterial - Other</td>
<td>365</td>
<td>45</td>
<td>State Highway Agency</td>
<td>Intersection solutions for reviewed locations</td>
</tr>
<tr>
<td>12747</td>
<td>Advanced technology and ITS Congestion detection / traffic monitoring system</td>
<td>1 Numbers</td>
<td>93107.43</td>
<td>103452.68</td>
<td>HSIP (Section 148)</td>
<td>Rural Principal Arterial - Other</td>
<td>128</td>
<td>55</td>
<td>State Highway Agency</td>
<td>Improve intersection design</td>
</tr>
<tr>
<td>12757</td>
<td>Intersection geometry Intersection geometry -</td>
<td>1 Numbers</td>
<td>611709.76</td>
<td>691359.38</td>
<td>HSIP (Section</td>
<td>Rural Major</td>
<td>107</td>
<td>50</td>
<td>State Aid</td>
<td>Intersection solutions for reviewed locations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Code</th>
<th>Description</th>
<th>Numbers</th>
<th>Description</th>
<th>Agency</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12757</td>
<td>Intersection geometry Intersection geometry -</td>
<td>1 Numbers</td>
<td>611709.76</td>
<td>691359.38</td>
<td>HSIP (Section</td>
<td>Rural Major</td>
</tr>
</tbody>
</table>

47
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Numb er(s)</th>
<th>Work Zone Numbers</th>
<th>Collector</th>
<th>State Highway Agency</th>
<th>Intersection</th>
<th>design</th>
</tr>
</thead>
<tbody>
<tr>
<td>12766</td>
<td>Intersection geometry - other</td>
<td>1 Numbers</td>
<td>194452.73</td>
<td>939105</td>
<td>HSIP (Section 148)</td>
<td>Rural Minor Arterial</td>
<td>Improve intersection design</td>
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<td>13856.04</td>
<td>Work Zone</td>
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<td>384.69</td>
<td>384.69</td>
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<td>Work Zones</td>
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<tr>
<td>15668</td>
<td>Intersection traffic control - other</td>
<td>1 Numbers</td>
<td>657627.87</td>
<td>734897.44</td>
<td>HSIP (Section 148)</td>
<td>Urban Minor Arterial</td>
<td>Improve intersection design</td>
</tr>
<tr>
<td>15679</td>
<td>Intersection traffic control - add overhead (continuous)</td>
<td>1 Numbers</td>
<td>30448.15</td>
<td>33831.27</td>
<td>HSIP (Section 148)</td>
<td>Urban Major Collector</td>
<td>Improve intersection traffic control</td>
</tr>
<tr>
<td>15989</td>
<td>Intersection traffic control - Modify traffic signal - signal coordination</td>
<td>1 Numbers</td>
<td>857947.1</td>
<td>107243.3</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Other</td>
<td>Improve intersection traffic control</td>
</tr>
<tr>
<td>15990</td>
<td>Roadway delineation - Longitudinal pavement markings - remarking</td>
<td>1 Numbers</td>
<td>5017463.33</td>
<td>944127.8</td>
<td>HSIP (Section 148)</td>
<td>Rural Principal Arterial - Other</td>
<td>Lane Departure</td>
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<tr>
<td>17000.6</td>
<td>Miscellaneous</td>
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<td>309071</td>
<td>35375000</td>
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Blowing snow control

Lane Departure - Improve clear zones - Ledge Removal

Pedestrian Crossings

Provide advanced warning signs
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</table>

Intersection numbers: Develop solutions for reviewed locations
Lane Departure: Cross-median head on crash mitigation
Upgrade Traffic signals: Interchange design

<table>
<thead>
<tr>
<th>Line</th>
<th>Project Type</th>
<th>Description</th>
<th>Numbers</th>
<th>HSIP Section</th>
<th>Agency</th>
<th>State Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>19435</td>
<td>Intersection traffic control</td>
<td>Modify traffic signal - modernization/replacement</td>
<td>1, 31173.88, 216992.51</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Transfer</td>
<td>16625</td>
</tr>
</tbody>
</table>

Upgrade Traffic signals: Interchange design

Intersection numbers: Develop solutions for reviewed locations
Lane Departure: Cross-median head on crash mitigation
Upgrade Traffic signals: Interchange design

<table>
<thead>
<tr>
<th>Line</th>
<th>Project Type</th>
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<th>Numbers</th>
<th>HSIP Section</th>
<th>Agency</th>
<th>State Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>19435</td>
<td>Intersection traffic control</td>
<td>Modify traffic signal - modernization/replacement</td>
<td>1, 31173.88, 216992.51</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Transfer</td>
<td>16625</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Section 154</td>
<td>Other Agency</td>
<td>Agency</td>
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</tr>
<tr>
<td>19436</td>
<td>Pedestrians and bicyclists Pedestrian signal - modify existing</td>
<td>1 Numbers</td>
<td>7813.29</td>
<td>62176.82</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Other</td>
</tr>
<tr>
<td>19438</td>
<td>Pedestrians and bicyclists Pedestrian signal - modify existing</td>
<td>1 Numbers</td>
<td>12761.89</td>
<td>119004.19</td>
<td>Penalty Transfer - Section 154</td>
<td>Urban Principal Arterial - Other</td>
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<tr>
<td>19515</td>
<td>Roadside Barrier- metal</td>
<td>1 Numbers</td>
<td>82658.85</td>
<td>91843.15</td>
<td>HSIP (Section 148)</td>
<td>Rural Principal Arterial - Other</td>
</tr>
<tr>
<td>20200</td>
<td>Intersection traffic control Modify traffic signal - modernization/replacement</td>
<td>1 Numbers</td>
<td>280562.38</td>
<td>480388.3</td>
<td>HSIP (Section 148)</td>
<td>Urban Minor Arterial</td>
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<tr>
<td>20202</td>
<td>Roadway Roadway narrowing (road diet, roadway reconfiguration)</td>
<td>1 Numbers</td>
<td>170668.05</td>
<td>189631.17</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Other</td>
</tr>
<tr>
<td>Year</td>
<td>Description</td>
<td>Numbers</td>
<td>Designation</td>
<td>Location</td>
<td>Forward</td>
<td>Rate</td>
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<tr>
<td>------</td>
<td>-------------</td>
<td>---------</td>
<td>-------------</td>
<td>----------</td>
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<tr>
<td>20203</td>
<td>Intersection traffic control Modify traffic signal - modernization/replace ment</td>
<td>227070</td>
<td>252300</td>
<td>HSIP (Section 148)</td>
<td>Urban Minor Arterial</td>
<td>152 24</td>
</tr>
<tr>
<td>20204</td>
<td>Intersection traffic control Modify control - two-way stop to roundabout</td>
<td>1098000</td>
<td>1220000</td>
<td>HSIP (Section 148)</td>
<td>Urban Major Collector</td>
<td>965 9</td>
</tr>
<tr>
<td>20205</td>
<td>Intersection traffic control Modify control - two-way stop to roundabout</td>
<td>2272500</td>
<td>2525000</td>
<td>HSIP (Section 148)</td>
<td>Rural Major Collector</td>
<td>501 4</td>
</tr>
<tr>
<td>20207</td>
<td>Intersection geometry Intersection geometrics - realignment to align offset cross streets</td>
<td>1764900</td>
<td>1961000</td>
<td>HSIP (Section 148)</td>
<td>Rural Minor Arterial</td>
<td>306 0</td>
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<tr>
<td>20208</td>
<td>Intersection geometry Auxiliary lanes - add left-turn lane</td>
<td>385200</td>
<td>518190.5</td>
<td>HSIP (Section 148)</td>
<td>Urban Minor Arterial</td>
<td>125 99</td>
</tr>
<tr>
<td>20211</td>
<td>Intersection geometry Auxiliary lanes - add left-turn lane</td>
<td>477000</td>
<td>530000</td>
<td>HSIP (Section 148)</td>
<td>Rural Minor Arterial</td>
<td>132 53</td>
</tr>
<tr>
<td>20442.1</td>
<td>Pedestrians and bicyclists Install sidewalk</td>
<td>1 Numbers</td>
<td>74999</td>
<td>149999 .99</td>
<td>HSIP (Section 148)</td>
<td>Urban Principal Arterial - Other</td>
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<tr>
<td>20568</td>
<td>Access management Change in access - miscellaneous/unspecifi ed</td>
<td>1 Numbers</td>
<td>876400</td>
<td>976000</td>
<td>HSIP (Section 148)</td>
<td>Urban Minor Arterial</td>
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<tr>
<td>20570</td>
<td>Intersection traffic control Intersection flashers - add overhead (continuous)</td>
<td>1 Numbers</td>
<td>24404.21</td>
<td>27115.59</td>
<td>HSIP (Section 148)</td>
<td>Rural Principal Arterial - Other</td>
</tr>
<tr>
<td>20581.14</td>
<td>Roadway delineation Longitudinal pavement markings - remarking</td>
<td>1 Numbers</td>
<td>6072591.42</td>
<td>6121370</td>
<td>HSIP (Section 148)</td>
<td>Various</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>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fatalities</td>
<td>169</td>
<td>159</td>
<td>155</td>
<td>153</td>
<td>147.4</td>
</tr>
<tr>
<td>Number of serious injuries</td>
<td>875.6</td>
<td>852</td>
<td>852.8</td>
<td>851.2</td>
<td>867.8</td>
</tr>
<tr>
<td>Fatality rate (per HMVMT)</td>
<td>1.15</td>
<td>1.09</td>
<td>1.07</td>
<td>1.06</td>
<td>1.02</td>
</tr>
<tr>
<td>Serious injury rate (per HMVMT)</td>
<td>5.95</td>
<td>5.85</td>
<td>5.9</td>
<td>5.9</td>
<td>6.01</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>Years</th>
<th># Fatalities</th>
<th># Serious Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>163</td>
<td>850</td>
</tr>
<tr>
<td>2011</td>
<td>159</td>
<td>800</td>
</tr>
<tr>
<td>2012</td>
<td>155</td>
<td>750</td>
</tr>
<tr>
<td>2013</td>
<td>153</td>
<td>700</td>
</tr>
<tr>
<td>2014</td>
<td>147</td>
<td>650</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Serious Injuries Rate (per HMVMT)</th>
<th>Fatality Rate (per HMVMT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>1.15</td>
<td>0.95</td>
</tr>
<tr>
<td>2011</td>
<td>1.09</td>
<td>0.96</td>
</tr>
<tr>
<td>2012</td>
<td>1.07</td>
<td>0.97</td>
</tr>
<tr>
<td>2013</td>
<td>1.06</td>
<td>0.98</td>
</tr>
<tr>
<td>2014</td>
<td>1.02</td>
<td>1.05</td>
</tr>
</tbody>
</table>

Years
To the maximum extent possible, present performance measure* data by functional classification and ownership.

**Year - 2014**

<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>4.8</td>
<td>50.2</td>
<td>0.21</td>
<td>2.24</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>25</td>
<td>114.4</td>
<td>1.37</td>
<td>6.27</td>
</tr>
<tr>
<td>RURAL MINOR ARTERIAL</td>
<td>23</td>
<td>111.2</td>
<td>1.33</td>
<td>6.45</td>
</tr>
<tr>
<td>RURAL MINOR COLLECTOR</td>
<td>11.8</td>
<td>61.2</td>
<td>1.46</td>
<td>7.59</td>
</tr>
<tr>
<td>RURAL MAJOR COLLECTOR</td>
<td>30.6</td>
<td>163.8</td>
<td>1.41</td>
<td>7.55</td>
</tr>
<tr>
<td>RURAL LOCAL ROAD OR STREET</td>
<td>25.4</td>
<td>120.6</td>
<td>1.77</td>
<td>8.43</td>
</tr>
<tr>
<td>URBAN PRINCIPAL</td>
<td>1.8</td>
<td>19</td>
<td>0.2</td>
<td>2.12</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>0.4</td>
<td>7.6</td>
<td>0.25</td>
<td>4.82</td>
</tr>
<tr>
<td>URBAN PRINCIPAL ARTERIAL - OTHER</td>
<td>5.2</td>
<td>53</td>
<td>0.75</td>
<td>7.67</td>
</tr>
<tr>
<td>URBAN MINOR ARTERIAL</td>
<td>6</td>
<td>79.6</td>
<td>0.64</td>
<td>8.51</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>6.2</td>
<td>56.6</td>
<td>0.67</td>
<td>6.11</td>
</tr>
<tr>
<td>URBAN LOCAL ROAD OR STREET</td>
<td>3.6</td>
<td>29.6</td>
<td>0.84</td>
<td>6.91</td>
</tr>
</tbody>
</table>
# Fatalities by Roadway Functional Classification

![Bar chart showing fatalities by roadway functional classification for years 2010 to 2014. The chart includes categories such as Major Collector (U), Minor Collector (R), Principal Arterial (R), Minor Arterial - Other (R), Local Road or Street (R), Principal Arterial - Other Freeways and Expressways (R), and Principal Arterial - Interstate (R).]
# Serious Injuries by Roadway Functional Classification

![Graph showing the number of serious injuries by roadway functional classification for different years (2010 to 2014). The x-axis represents the Roadway Functional Classification categories, and the y-axis represents the number of serious injuries.](image)
Fatality Rate by Roadway Functional Classification

Roadway Functional Classification

2010 2011 2012 2013 2014
Serious Injury Rate by Roadway Functional Classification

Roadway Functional Classification

- MAJOR COLLECTOR (U)
- MAJOR COLLECTOR (R)
- MINOR COLLECTOR (U)
- MINOR COLLECTOR (R)
- LOCAL ROAD OR STREET (R)
- PRINCIPAL ARTERIAL - OTHER, FREEWAYS AND EXPRESSWAYS (R)
- PRINCIPAL ARTERIAL - INTERSTATE (R)
- PRINCIPAL ARTERIAL - OTHER (R)
- PRINCIPAL ARTERIAL - OTHER, FREEWAYS AND EXPRESSWAYS (U)
- MINOR COLLECTOR - OTHER (U)
- MAJOR COLLECTOR - OTHER (U)
- LOCAL ROAD OR STREET - OTHER (U)
- PRINCIPAL ARTERIAL - OTHER, FREEWAYS AND EXPRESSWAYS - OTHER (U)

2010
2011
2012
2013
2014
## Year - 2014

<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>80.4</td>
<td>504</td>
<td>0.96</td>
<td>6.03</td>
</tr>
<tr>
<td>COUNTY HIGHWAY AGENCY</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOWN OR TOWNSHIP HIGHWAY AGENCY</td>
<td>29</td>
<td>147</td>
<td>1.62</td>
<td>8.21</td>
</tr>
<tr>
<td>CITY OF MUNICIPAL HIGHWAY AGENCY</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>STATE PARK, FOREST, OR RESERVATION AGENCY</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LOCAL PARK, FOREST OR RESERVATION AGENCY</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER STATE AGENCY</td>
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<tr>
<td>OTHER LOCAL AGENCY</td>
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<tr>
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<td>0</td>
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<tr>
<td>RAILROAD</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>STATE TOLL AUTHORITY</td>
<td>1.8</td>
<td>19</td>
<td>0.14</td>
<td>1.46</td>
</tr>
<tr>
<td>LOCAL TOLL AUTHORITY</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>OTHER PUBLIC INSTRUMENTALITY (E.G. AIRPORT, SCHOOL, UNIVERSITY)</td>
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<td>0</td>
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<td>0</td>
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<tr>
<td>INDIAN TRIBE NATION</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>STATE AID</td>
<td>32.6</td>
<td>194</td>
<td>1.2</td>
<td>7.12</td>
</tr>
</tbody>
</table>
Number of Fatalities by Roadway Ownership

- 2010
- 2011
- 2012
- 2013
- 2014

Roadway Functional Classification

# of Fatalities

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

Roadway Functional Classification

- State
- County
- Town
- City
- Local Park
- Other State
- Other Local
- Railroad
- State Toll
- Local Toll
- Other

# of Serious Injuries

- 2010
- 2011
- 2012
- 2013
- 2014
Fatality Rate by Roadway Ownership

Roadway Functional Classification

- STATE
- COUNTY
- CITY
- STATE PARK
- OTHER STATE
- PRIVATE
- RAILROAD
- STATE TOLL
- LOCAL TOLL
- OTHER

Fatality Rate (per HMVMT)

- 2010
- 2011
- 2012
- 2013
- 2014

[Graph showing fatality rates by roadway ownership for different years.]
Serious Injury Rate by Roadway Ownership

Roadway Functional Classification

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

Maine's fatality trends have been generally positive and continue to improve, with 2014 fatalities being the lowest in the past 70 years. Maine continues to aggressively work with Police agencies to make sure there has been complete reporting submissions. We have identified limited departments that have had issues with successful electronic report exporting. Incapacitating injuries are not improving as much but have stabilized after hitting a recent high in 2012, and have been improving in the last two years.

Maine's lead crash concern continues to be lane departure. While overall numbers are trending down, Lane Departure still represents 70% of the state's fatalities. Head On fatalities were about about 50% as compared to recent prior years.

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>0.17</td>
<td>0.18</td>
<td>0.16</td>
<td>0.15</td>
<td>0.16</td>
</tr>
<tr>
<td>Serious injury rate (per capita)</td>
<td>0.5</td>
<td>0.468</td>
<td>0.476</td>
<td>0.498</td>
<td>0.514</td>
</tr>
<tr>
<td>Fatality and serious injury rate (per capita)</td>
<td>0.674</td>
<td>0.644</td>
<td>0.636</td>
<td>0.65</td>
<td>0.67</td>
</tr>
</tbody>
</table>

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

Queried in Maine's Crash Reporting database all crashes resulting in fatality or serious injury when fatality or injury occurred to Crash Report Person Type: Driver, Driver Owner or Pedestrian over 65 years old.

Using those crash ID's, summed all resulting crash serious injuries by year. Obtained fatal numbers through Maine's FARS analyst.

Developed rates based on Section 148: Older Drivers and Pedestrians Special Rule Interim Guidance; Attachment 2: Number of People 65 Years of Age and Older (Per 1,000 Total Population) for Maine population #s.
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.

Main continuing activity is driven by the Maine's Mature Driver Safety working group that is looking to enhance public outreach to mature drivers, family members, clinicians and other support services to emphasize importance of driver assessments and provide guidance on appropriate driver interventions when demonstrated skills are diminishing. Mature Drivers is a focus area in Maine's current SHSP and
has been updated in the new 2014 SHSP edition. The Mature Driver Safety Group has met together with a media consultant to identify best strategies to meet the above objectives.
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.
Maine's SHSP had a major update in 2014 that meshed with strategies within HSP. It also added performance results and targets for both Fatalities and Incapacitating Injuries for each focus area in line with anticipated MAP-21 guidance.

As noted elsewhere in this report, Maine is expanding installation of centerline rumble strips - with 90 miles of new centerline RS being installed within the next couple of months.

Coordination with Planning (Paving and construction work), Regions, Traffic Engineering and other MaineDOT operational areas for safety planning continues to see process improvement. There is a renewed look at crash data to try to evaluate systemic funding opportunities.
## SHSP Emphasis Areas

For each SHSP emphasis area that relates to the HSIP, present trends in emphasis area performance measures.

### Year - 2014

<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>All</td>
<td>105</td>
<td>453</td>
<td>0.73</td>
<td>3.14</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Intersections</td>
<td></td>
<td>17.6</td>
<td>213.4</td>
<td>0.12</td>
<td>1.48</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Pedestrians</td>
<td></td>
<td>11.2</td>
<td>55.2</td>
<td>0.08</td>
<td>0.38</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>Bicyclists</td>
<td></td>
<td>2.2</td>
<td>28</td>
<td>0.02</td>
<td>0.19</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Older Drivers</td>
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<td>38.4</td>
<td>180.8</td>
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<td>1.25</td>
<td>0</td>
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</tr>
<tr>
<td>Motorcyclists</td>
<td></td>
<td>17.2</td>
<td>131.2</td>
<td>0.12</td>
<td>0.91</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Serious Injury Rate by SHSP Emphasis Area

Year 2010 to Year 2014

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

Year - 2014

<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>Crash Data</td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</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

## Target Crash Type

- All
- Angle
- Cross median
- Fixed object
- Sideswipe
- 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

### # of Fatalities

- 0.6
- 0.4
- 0.2
- 0.0
- -0.2
- -0.4
- -0.6
#Serious Injuries by Target Crash Type for Groups of Similar Projects

Year 2010 to Year 2014

Target Crash Type

![Graph showing the number of serious injuries by target crash type for different years (2010 to 2014)](image-url)
Fatality Rate by Target Crash Type for Groups of Similar Projects

Year 2010 to Year 2014

Rate of Fatalities

Target Crash Type
**Systemic Treatments**

Present the overall effectiveness of systemic treatments.

### Year - 2014

<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>Rumble Strips</td>
<td>Head on</td>
<td>0.8</td>
<td>2.4</td>
<td>0</td>
<td>0.02</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

![Bar chart showing fatalities by year and crash type for 2010 to 2014.](chart.png)

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

Legend:
- 2010
- 2011
- 2012
- 2013
- 2014

# of Fatalities vs. Crash Type for Each Year
# Serious Injuries by Target Crash Type for Systemic Safety Improvements

Year 2010 to Year 2014

Target Crash Type

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

Year 2010 to Year 2014

Rate of Fatalities

Target Crash Type

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

Rate of Fatalities (2010-2014)

2010: Blue
2012: Red
2013: Green
2014: Orange
Serious Injury Rate by Target Crash Type for Systemic Safety Improvements

Year 2010 to Year 2014

Target Crash Type

Rate of Serious Injuries
Describe any other aspects of the overall Highway Safety Improvement Program effectiveness on which you would like to elaborate.

A new SHSP was developed and released in late 2014, along with a crash data book. The SHSP aligns with Maine Bureau of Highway Safety's Highway Safety Plan and establishes performance targets matching what's being featured in MAP-21.

Maine has provided median cable barrier installations on all narrow (<50-60' wide) interstate medians. MaineDOT does plan to automate that feature in its road inventory to enable easier monitoring of performance in the future. No fatalities have occurred on sections where median cable barrier has been installed, but incidental barrier/guardrail hits have increased. Maine experienced 4 interstate median crossover fatalities from 2005 to 2009, none since.

Centerline Rumble strips were added to three selected corridors in late 2013, two more are planned for later 2014 (which will bring Maine's total to 10 sections of non-interstate Centerline Rumble Strip installations). Ninety miles of rumble strips were installed in 2015, with more planned for 2016-17. One 2014 head-on fatality has occurred on corridors where installed, but overall performance has significantly improved. A systemic approach to determine the next wave of rumble strip installations is underway.

MaineDOT is employing more of a proactive systemic safety approach for future planning. With head on crash mitigation (rumble strips) well underway, the next area of attention will be Went Off Road crashes and then other areas will be added, like intersections.
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>Bef-Total</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>See attached project sheet.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>
## 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.