

**GUIDANCE**  
**HIGHWAY SAFETY IMPROVEMENT PROGRAM REPORT**  
**23 U.S.C. 148(g)**

**1. INTRODUCTION**

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) established the Highway Safety Improvement Program (HSIP) as an FHWA “core” program and provided a significant increase in the funding available for infrastructure-related highway safety improvement projects. This program is established as section 148 of Title 23, United States Code.

Given the emphasis on this program, it is important that FHWA be able to demonstrate that the program is being effectively carried out, and that the projects being implemented are achieving results. The ultimate measure of the success of this program is a significant nationwide decline, in real terms, in the number of fatalities and serious injuries. To ensure that the program is being implemented as intended and that it is achieving its purpose, a progress report on the HSIP implementation and effectiveness is required by 23 U.S.C. §148(g). Furthermore, State Transportation Departments that can clearly demonstrate the success of the safety program, through regular reporting, can use the report to communicate to others within their State about the importance of continuing to focus on improving highway safety.

The following guidance will assist the States in meeting the HSIP reporting requirements of 23 U.S.C. §148(g). Although the HSIP replaces the Hazard Elimination Program, the reporting requirements for the Hazard Elimination Program under 23 U.S.C. § 152(g) continue and should be combined with the information that is now required to be collected under 23 U.S.C. § 148(g). Therefore, the information in these reports is now collected pursuant to section 148, but some of the requirements are drawn from the previous Hazard Elimination Program (23 U.S.C. §152(g))

In addition to the above reporting requirements, information is being requested on the High Risk Rural Roads Program (HRRRP), a component of the HSIP.

While 23 U.S.C. §148(g) also includes a requirement to address railway-highway crossings, this information should be collected in a separate report required under 23 U.S.C. § 130(g). At the option of the State, the three reports required under Section 148 (the HSIP report, the railway-highway crossing report and the “5% Report” (Section 148 (C) (1) (D)) may be submitted separately, or combined into one report with three distinct sections. *(See guidance for the Railway-Highway Crossing Reporting requirements and guidance for the “5% of most hazardous locations” for additional information on those reports.)*

## **2. LEGISLATIVE REQUIREMENTS**

Section 1401 of SAFETEA-LU includes the following reporting requirements for the HSIP under 23 U.S.C. §148(g):

*A State shall submit to the Secretary a report that—*

- (A) describes progress being made to implement highway safety improvement projects under this section;*
- (B) assesses the effectiveness of those improvements; and*
- (C) describes the extent to which the improvements funded under this section contribute to the goals of—*
  - (i) reducing the number of fatalities on roadways;*
  - (ii) reducing the number of roadway-related injuries;*
  - (iii) reducing the occurrences of roadway-related crashes;*
  - (iv) mitigating the consequences of roadway-related crashes; and*
  - (v) reducing the occurrences of crashes at railway-highway crossings.*

*(2) CONTENTS: SCHEDULE.-- The Secretary shall establish the content and schedule for a report under paragraph (1).*

23 U.S.C. §148(g) includes the following regarding the High Risk Rural Roads Program:

*23 U.S.C. 148(a)*

*(1) High risk rural road.--The term 'high risk rural road' means any roadway functionally classified as a rural major or minor collector or a rural local road--*

- (A) on which the accident rate for fatalities and incapacitating injuries exceeds the statewide average for those functional classes of roadway; or*
- (B) that will likely have increases in traffic volume that are likely to create an accident rate for fatalities and incapacitating injuries that exceeds the statewide average for those functional classes of roadway.*

*23 U.S.C. 148(f)*

*High Risk Rural Roads.--*

- (1) In general.--After making an apportionment under section 104(b)(5) for a fiscal year beginning after September 30, 2005, the Secretary shall ensure, from amounts made available to carry out this section for such fiscal year, that a total of \$90,000,000 of such apportionment is set aside by the States, proportionally according to the share of each State of the total amount so apportioned, for use only for construction and operational improvements on high risk rural roads.*
- (2) Special rule.--A State may use funds apportioned to the State pursuant to this subsection for any project under this section if the State certifies to the Secretary that the State has met all of State needs for construction and operational improvements on high risk rural roads.*

## **3. REPORTING FREQUENCY AND SCHEDULE**

Sections 148 (g) and 152 (g) of Title 23 of the United States Code require each state to submit to the Secretary an HSIP report. As required in 23 CFR 924.15, the State should submit the HSIP report to the FHWA Division Offices on or before August 31. The HSIP report will now comply with the requirements of both sections 152 and 148 (g), as

applicable. The first report is due on or before August 31, 2006 and, as required in 23 CFR 924, will cover the period from July 1, 2005 to June 30, 2006.

FHWA is considering proposing an amendment to section 924.15 that would provide States with the flexibility to report based on calendar year, state fiscal year or federal fiscal year. In this case, the “year” being used should be identified in the report. States electing to use the most current federal fiscal year may include projects that they intend to initiate by September 30 of that year.

The Division Offices will forward the reports electronically to the FHWA Office of Safety by September 30 each year. These dates coincide with the other HSIP-related reports required under SAFETEA-LU (e.g., the report describing at least 5% of the locations exhibiting the most severe safety needs and the railway-highway crossing report).

#### **4. CONTENT AND STRUCTURE OF THE HSIP REPORT**

The HSIP report should consist of four sections, following the three specific legislative requirements described above [Section 148(g) (A), (B) and (C)], as well as a separate section on the High Risk Rural Roads Program. The content and structure of each section is described below.

##### **A. Progress in implementing the HSIP projects**

This section should briefly describe the progress that has been made in implementing HSIP projects, including identifying funds made available and the number and broad types of projects initiated.

Based on the most recently completed year, States should describe:

1. the HSIP funds available
2. the number and general listing of the type of HSIP projects initiated

The general listing of the HSIP projects initiated should be structured to identify how the projects relate to the State Strategic Highway Safety Plan (SHSP) or the State’s safety goals and objectives.

States should also provide a clear description of how projects are chosen for the HSIP, including relevant references to the SHSP or other State goals and objectives, and what kinds of data are used for project selection.

If a State has met the necessary criteria, it may take advantage of the flexibility of funds provision [Section 148(e)(1)] to spend up to 10 percent of HSIP funding to implement safety projects under any other section of 23 USC that are included in the State SHSP. If this is the case, States should identify what percentage and dollar amount of HSIP funds were “flexed” and toward what activities in the SHSP they were applied.

##### **B. Assessment of the Effectiveness of the Improvements (Program Effectiveness)**

This section should provide a demonstration of the effectiveness of the HSIP in three parts: an overview of general highway safety trends, a description of the *overall* effectiveness of the HSIP and a *summary* of the High Risk Rural Roads Program effectiveness.

States should present and describe:

1. figures showing the general highway safety trends (for the past five years) in the State (crashes, serious injuries<sup>1</sup> and fatalities and any other information the State deems useful) by number and by rate;
2. narrative describing the overall HSIP effectiveness
  - a. The summary of program effectiveness should briefly summarize general information from the more detailed analysis from part C (below). For recent projects, this information can be output based (e.g., miles of rumble strips installed, length of pedestrian facilities upgraded, type of crash data improvements made, etc.). When available, outcome measures (e.g., reductions in serious injuries, lowered fatality rates on treated roads, etc.) should be included.
3. narrative summarizing the overall High Risk Rural Roads Program (HRRRP) effectiveness
  - a. The summary of the HRRRP should briefly summarize general information from the more detailed analysis from Part D (below). This can also be output based for more recent projects, but when available, outcome measures should be included.

### **C. Extent to which improvements contributed to specific goals (Project Evaluation)**

This section should present and describe evaluation data for specific safety improvement projects that have been implemented using HSIP funds. For the purpose of these evaluations, the term “HSIP funds” includes but is not limited to, projects implemented using new HSIP funds (Section 148), Hazard Elimination funds (Section 152), Optional Safety funds, penalty transfer funds (from Sections 154, 157, 163 and 164) and safety belt performance grant funds (Section 406) that were used to implement eligible highway safety improvement projects.

States may provide this information in the format shown in Attachment 2. In general, for each HSIP project implemented, the evaluation should include:

- Location/identifier for project—Basic information on the roadway where the project occurred
- Type of improvement(s)—See Attachment 1
- Cost of improvement
- “Before” and “After” crash results—At least 3 years of “before” and 3 years of “after” data should be used. (Projects initiated under the old Hazard Elimination Program (23 USC 152(g)) should be included in this report.)
- Evaluation Results—Show whether the project achieved its purpose using benefit-cost or other methodology developed by the State.

Some types of improvements will not easily lend themselves to straightforward information described above. States are encouraged to clearly and accurately identify

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<sup>1</sup> Serious injuries are those defined as “incapacitating” in the Model Minimum Uniform Crash Criteria as “any injury, other than a fatal injury, which prevents an injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred (often described as ‘needing help from the scene’).”

benefits and costs of such projects. For example, highway corridor improvements that have been justified for safety funding and implemented to reduce crashes or crash severity should be evaluated based on before and after crashes/crash severity for the entire corridor, including an indication of the predominant types of improvements implemented in the corridor. Activities to reduce crash potential should be described in terms of the activity undertaken and estimated crashes reduced. Improvements to data systems should provide outcome measures such as amount of time saved from time of crash to entry into the system, or percentage increase in roadways covered.

#### **D. High Risk Rural Roads Program**

This section should provide information on the HRRRP portion of the HSIP reporting requirement in three parts: basic program implementation information, methods used to identify HRRR, and information assessing the HRRRP projects. HRRRP funds are set aside for construction and/or operational improvements on roadways functionally classified as rural major or minor collectors, or rural local roads. As part of the HSIP projects should improve highway safety.

States should present the following information:

##### **1. Program Implementation**

Based on the most recent completed State fiscal year

- The HRRRP funds available
- The number and type of HRRRP projects initiated

The report should indicate the start and end dates of the State fiscal year being described.

##### **2. Methodology used to identify HRRR locations**

States should describe methods and data used to identify HRRR locations, including, but not limited to, a description of the crash and volume data used to calculate the statewide and location specific crash rates (fatalities and incapacitating injuries) for each applicable roadway classification.

- If the State does not currently have the capability of locating crashes (or determining volumes) on all public roadways, this section should clearly describe:
  - the data-based methods that were used to select projects for HRRRP and
  - the steps underway to improve the data systems to permit the required analysis.

If applicable, States should also clearly describe the methods and data used to determine projected increases in fatalities and incapacitating injuries based on projected traffic volumes.

##### **3. Assessment of HRRRP project effectiveness**

States should present and describe evaluation data for specific construction and operational safety improvements projects that have been implemented using HRRRP funds. States may provide this information in the format shown in Attachment 3, which includes instructions for each column. In general, for each HRRRP project implemented, the evaluation should include:

- Location/identifier for project—Basic information on the roadway where the project occurred
- Type of improvement(s)—See Attachment 1
- Cost of improvement
- “Before” and “After” crash results—At least 3 years of “before” and 3 years of “after” data should be used.
- Evaluation Results—Show whether the project achieved its purpose using benefit-cost or other methodology developed by the State.

## **5. PROTECTION OF DATA FROM DISCOVERY & ADMISSION INTO EVIDENCE**

Section 148(g)(4) stipulates that data compiled or collected for the preparation of the HSIP Report “...shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in an action for damages arising from any occurrence at a location identified or addressed in such reports...” This information is also protected by 23 USC 409 (discovery and admission as evidence of certain reports and surveys).

## **Attachment 1: HSIP Project Categories**

### **1. Intersection Improvements**

- a. Add/upgrade/modify/remove traffic signal and/or signal phasing
- b. Construct/improve channelization, turn lanes, speed-change lanes, etc.
- c. Install/improve signing and marking
- d. Install flashing beacon
- e. Install a skid-resistant surface
- f. Install/improve lighting
- g. Install priority control system for emergency vehicles at signalized intersections
- h. Improve sight distance
- i. Other (describe)

### **2. Roadway and Structure Improvements**

- a. Widen pavement and/or shoulder (including adding a passing lane to remedy an unsafe condition)
- b. Install rumble strips or another warning device
- c. Install a skid-resistant surface
- d. Install/improve signing, pavement marking and/or delineation
- e. Install/improve roadway lighting
- f. Construct/modify median
- g. Realign roadway
- h. Construct access management (driveways, median openings, etc.) modifications
- i. Install a traffic control or other warning device at a location with high crash potential (or high potential for severe crashes)
- j. Add or retrofit structures or other measures to eliminate or reduce vehicle-wildlife collisions
- k. Plan integrated interoperable emergency communications equipment, operational activities, or traffic enforcement activities (including police assistance) relating to work zone safety
- l. Other (describe)

### **3. Roadside Improvements**

- a. Eliminate/mitigate roadside obstacle(s)
- b. Install/upgrade guardrails, barriers (including temporary barriers between construction work zones and traffic lanes for the safety of motorists and workers), and crash attenuators
- c. Other (describe)

### **4. Pedestrian and Bicycle Improvements**

- a. Construct improvements that enhance pedestrian or bicyclist safety or safety of the disabled
- b. Construct a traffic calming feature
- c. Install and maintain signs (including fluorescent, yellow-green signs) at pedestrian-bicycle crossings and in school zones
- d. Other (describe)

### **5. Other Improvements**

- a. Improve safety-conscious planning
- b. Improve the collection and analysis of crash data
- c. Other (describe)

**Attachment 2: Sample HSIP Project reporting form**

Location <sup>1</sup>	Functional Class <sup>2</sup>	Improvement type <sup>3</sup>	Cost <sup>4</sup>	Number of Accidents										Evaluation Results (Benefit/Cost Ratio) <sup>5</sup>	
				Before					After						
				Fatal	Serious Injury	Other Injury	PDO	Total	Fatal	Serious Injury	Other Injury	PDO	Total		

For each project in the HSIP, States should provide the following information:

- 1. Location/identifier for project:** basic information on where the project occurred
- 2. Federal functional class of roadway:** principal arterials, minor arterial roads, collector roads and local streets (see FHWA Functional Classification Guidelines [http://www.fhwa.dot.gov/planning/fcsec2\\_1.htm](http://www.fhwa.dot.gov/planning/fcsec2_1.htm))
- 3. Type of improvement:** coded based on the information in Attachment 1. *NOTE that four items from the SAFETEA-LU “included project list” for HSIP (Section 148 (a) (2)) are NOT included here (three related to highway rail crossings and one related to high-risk rural roads) as these activities will be reported separately.* If multiple improvements were encompassed in the same project, use as many categories as necessary.
- 4. Cost of improvement:** cost to implement the improvement
- 5. Evaluation results:** show whether the project achieved its purpose using benefit-cost or other methodology developed by the State. When before and after type studies are used, at least 3 years of “before” and 3 years of “after” data should be considered in the analysis. These analyses may include all crashes, or targeted crash types, depending on the nature of the improvement that was implemented

**Attachment 3: Sample HRRRP Project reporting form**

Location <sup>1</sup>	Functional Class <sup>2</sup>	Improvement type <sup>3</sup>	Cost <sup>4</sup>	Number of Accidents				Evaluation Results (Benefit/Cost Ratio) <sup>5</sup>
				Before		After		
				Fatal	Incapacitating Injury	Fatal	Incapacitating Injury	

For each HRRR project, States should provide the following information:

1. Location/identifier for project: basic information on where the project occurred
2. Federal functional class of roadway: rural major collector, rural minor collector, rural local road (see FHWA Functional Classification Guidelines [http://www.fhwa.dot.gov/planning/fcsec2\\_1.htm](http://www.fhwa.dot.gov/planning/fcsec2_1.htm))
3. Type of improvement: coded based on the information in Attachment 1. *NOTE that four items from the SAFETEA-LU “included project list” for HSIP (Section 148 (a) (2)) are NOT included here (three related to highway rail crossings and one related to high-risk rural roads) as these activities will be reported separately.* If multiple improvements were encompassed in the same project, use as many categories as necessary. ONLY CATEGORIES 1 – 4 in attachment 1 are considered constructional and operational improvements – category 5 improvements are not eligible for the HRRRP
4. Cost of improvement: cost to implement the improvement
5. Evaluation results: show whether the project achieved its purpose using benefit-cost or other methodology developed by the State. When before and after type studies are used, at least 3 years of “before” and 3 years of “after” data should be considered in the analysis. These analyses may include all crashes, or targeted crash types, depending on the nature of the improvement that was implemented.