

***HIGHWAY SAFETY IMPROVEMENT PROGRAM***  
**REPORTING GUIDANCE**  
**May 15, 2009**

The Highway Safety Improvement Program (HSIP) Reporting Guidance is being revised to reflect the reporting requirements of Title 23 of the Code of Federal Regulations, Part 924 (23 CFR 924). This guidance supersedes the April 4, 2006 “Guidance for Highway Safety Improvement Program Reporting Requirements 23 U.S.C. 148(g).”

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## **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 (23 U.S.C. 148) and regulated under 23 CFR 924.

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, an annual report on the HSIP implementation and effectiveness is required by 23 U.S.C. §148(g) and 23 CFR 924. Furthermore, State Departments of Transportation (SDOT) 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) and 23 CFR 924. Pursuant to 23 CFR 924.15, the HSIP report shall also contain information regarding the High Risk Rural Roads Program (HRRRP), which is 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 transparency (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 dated May 5, 2006, and guidance for the "5% of most hazardous locations" dated April 5, 2006, for additional information on those reports.*)

## **2. Reporting Frequency and Schedule**

Pursuant to 23 CFR 924.15, States reports shall be submitted to the FHWA Division Administrator no later than August 31<sup>st</sup> of each year. The report should be no more than 10 pages in length, excluding general listing of projects.

Pursuant to 23 CFR 924.15, the report shall be for a defined one year reporting period. It is at the discretion of the SDOT, in consultation with the FHWA Division Office, to define the reporting period. The States have the flexibility to report based on calendar year, federal fiscal year or State fiscal year. However, the reporting period must be clearly indicated at the beginning of the report and be consistent from year to year.

The Division Offices will forward the reports electronically to the FHWA Office of Safety by September 30<sup>th</sup> 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).

### **3. Content and Structure of the HSIP Report**

The report should address ALL projects implemented with HSIP and HRRRP funds, including local projects and non-infrastructure projects (i.e. implemented with HSIP flex funds). In addition, States should also report on projects identified through the HSIP but implemented with other funding sources. States are encouraged to coordinate with their planning organizations and local government agencies to obtain all relevant information to ensure complete HSIP reporting.

The HSIP report should consist of four sections: program structure, progress in implementing HSIP projects, assessment of the effectiveness of the improvements, and the HRRRP. The content and structure of each section is described below.

#### **A. Program Structure**

The report should briefly describe the structure of the State's HSIP, including the HRRRP, and any significant program changes that have been implemented since the beginning of SAFETEA-LU. This should include, but not be limited to, the following:

- i. Program Administration
- ii. Program Methodology

##### i. Program Administration

Briefly describe how the HSIP funds are administered in the State (i.e. centrally or via districts). If the HSIP is administered at the district level, describe the funding allocation process (i.e. formula, crash data). Describe any innovative practices (i.e. road safety audits) used to implement the HSIP. Describe how local roads are addressed as part of the HSIP. For example, are local road (non-State owned and operated) projects identified using the same methodology as State roads? If not, describe how local road projects are identified under A.2) below. Describe how highway safety improvement projects are selected for implementation (i.e. competitive application process). Lastly, describe overall coordination and collaboration with internal (i.e. planning) and external (i.e. regional planning organizations) partners as it relates to the HSIP.

##### ii. Program Methodology

The program and project identification processes must be developed in consultation with the FHWA Division Administrator. Since these processes will not likely change on an annual basis, it is recommended that they be submitted to the Division Administrator under separate cover from the annual HSIP report. The Division Administrator should maintain a copy of current program and project identification processes. For the purposes of the annual HSIP report, States should indicate the date the program methodology was last updated and submit a brief summary of the following key elements:

- Data used
  - Crash (i.e. all crashes, fatal only, fatal plus serious injury, fatal plus all injuries)
  - Exposure (i.e. traffic volume, population)
  - Roadway (i.e. geometry, pavement condition)
- Project Identification Methodology (i.e. frequency, equivalent property damage only, critical rate, safety performance functions, empirical bayes)
- Summary of targeted programs being implemented under the HSIP (i.e. median crossover, intersection, safe corridor, horizontal curve)
- Extent to which systemwide improvements are implemented as part of the HSIP (i.e. proportion of spot location vs. systemwide improvements)
- Extent to which highway safety improvement projects align with the State's SHSP
- Project prioritization process (i.e. incremental benefit cost ratio, ranking based on net benefit, etc.)

## **B. Progress in Implementing the HSIP projects**

States should describe the progress in implementing HSIP projects during the specified reporting period. This description should include the following:

- i. HSIP funds available (programmed)
- ii. Number and general listing of the types of projects initiated
  - Identify how the projects relate to the State SHSP and the State's safety goals and objectives

### **i. HSIP Funds Available (Programmed):**

For the purpose of this report, the term "HSIP funds" includes those funds that are available (programmed) to implement highway safety improvement projects that have been identified as part of the State's HSIP. At a minimum, this would include projects obligated using HSIP funds (Section 148), Hazard Elimination funds (Section 152), Optional Safety funds, penalty transfer funds (from Sections 154 and 164), safety belt performance grant funds (Section 406), and incentive grant funds (from sections 157 and 163). In addition, the report should include other non-safety funds (i.e. STP, ARRA, State, local) that were available (programmed) to implement highway safety improvement projects. HRRRP funds are addressed in Part D below and Railway-Highway Crossing Program funds are addressed under separate reporting requirements.

**"Available" (Programmed) funds** are those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) for the reporting period and can be expended on highway safety improvement projects. States should not only report available (programmed) funds, but also the amount of available (programmed) funds that were obligated for the specified reporting period.

This information could be presented in a format similar to that illustrated below. If this format is used, it should be supplemented with a narrative briefly describing the information presented. The report should also discuss any impediments to obligating HSIP funds and plans to overcome this challenge in the future.

<b>HSIP Project Funding</b>		
<b>Reporting Period: MM/DD/YYYY to MM/DD/YYYY</b>		
<b>Funding Category</b>	<b>Programmed*</b>	<b>Obligated</b>
HSIP (Section 148)		
Hazard Elimination (Section 152)		
Optional Safety		
Penalty Transfer (154 and 164)		
Safety Belt Performance Grants (Section 406)		
Incentive Grants (i.e. Sections 157, 163)		
Other Federal-aid funds (i.e. STP, ARRA)		
State and Local Funds		
<b>Total</b>		

\* "Available" (Programmed) funds refer to those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) and can be expended on highway safety improvement projects.

Lastly, briefly describe the amount of HSIP funds, either dollar amounts or percentage basis that were available (programmed) and obligated to local safety projects for the specified reporting period. Local safety projects are those projects implemented on non-State owned and operated roadways.

ii. General Listing of Projects:

Pursuant to 23 CFR 924.15, States shall provide the number and general listing of the types of projects obligated using HSIP funds for the reporting period. The general listing of the projects obligated shall be structured to identify how the projects relate to the State Strategic Highway Safety Plan (SHSP) and the State's safety goals and objectives. For each project obligated with HSIP funds, the following information should be provided:

- Improvement Category
- Project output (i.e. miles of rumbles strips)
- Project cost
- Relationship to the State's SHSP

Attachment 1 illustrates how this information can be presented in a tabular format. This table should be supplemented with a narrative briefly describing the information presented.

The improvement category should align with the list of highway safety improvement projects in 23 CFR 924, as shown in Attachment 2. While a single project may consist of multiple project types, each project should be assigned to only one category. The category chosen should align with the primary purpose of the project. For example, the State recently completed a pavement overlay at intersection A to improve the skid resistance on the approaches to the intersection. This project could be categorized as (1) intersection safety improvement, (4) installation of skid resistant surface and (11) improvement of highway signage and pavement markings. The State

chose improvement category (4) installation of skid resistant surface since that was the primary purpose of the project.

The project output will vary depending on the type of projects implemented. For example, if the State recently completed a rumble strip project, the project output would be the miles of rumble strips installed for that project. On the other hand, if the county had a project to improve pedestrian accommodations at ten intersections in their region, the project output would be 10 intersections.

The cost should reflect the total cost of each project.

For each HSIP project, the State must demonstrate the relationship to the SHSP. States should not only link each project to the appropriate SHSP emphasis area (i.e. intersection, roadway departure), but also the strategy that most closely aligns with the primary purpose of the project.

### **C. Assessment of the Effectiveness of the Improvements (Program Evaluation)**

This section should provide a demonstration of the effectiveness of the HSIP in two parts:

- i. Overview of general highway safety trends
- ii. Description of the *overall* effectiveness of the HSIP

#### **i. Overview of general highway safety trends**

Present and describe figures showing the general highway safety trends (for the past five years) in the State (crashes, serious injuries and fatalities and any other information the State deems useful) by number and by rate.

#### **ii. Description of overall HSIP effectiveness**

As appropriate, the summary of program effectiveness should consist of three components, as noted below. Provide any other information that demonstrates the effectiveness and success of the HSIP. For example, in some instances, successful implementation of programs, strategies and/or treatments may lead to policy level changes, whereas safety treatments are being applied across all projects and not just safety specific projects. Such changes should be noted in the annual report as they represent a shift in safety culture.

Also, briefly describe significant program changes that have occurred since the beginning of SAFETEA-LU. For example, some States have begun targeting fatal and serious injury crashes in their HSIP, rather than all crashes. Other States have taken steps to address local roads as part of the HSIP. This information will help FHWA qualitatively assess the effects SAFETEA-LU has had on the HSIP.

#### ***SHSP Emphasis Areas***

Present information regarding SHSP emphasis areas that relate to the HSIP. Present and describe trends in emphasis area performance measures (i.e. fatalities and serious injuries, all crashes).

### *Subprogram Types*

Many States have subprograms that are administered under the HSIP. These subprograms may target subsets of the SHSP emphasis areas or specific strategies (i.e. median barrier program). States should report on the overall effectiveness of these subprograms. Continuing with the example, if a State has been implementing a median barrier program for the past several years, trends in cross median crashes could be presented.

### *Systemwide Treatments*

Many States are beginning to implement treatments on a systemwide basis. States should also report on the effectiveness of these treatments in reducing the target crash type. For example, the State has been targeting horizontal curve crashes by implementing chevron warning signs on a systemwide basis for the past several years. The State should report on the effectiveness (i.e. percent reduction of targeted crash type) of this treatment.

## **D. High Risk Rural Roads Program (HRRRP)**

This section of the HSIP report should provide information on the progress of HRRRP implementation. The content of the HRRRP portion of the report should mirror that of the HSIP, as outlined in sections B and C above, except that it is specific to the HRRRP. HRRRP funds are set aside for construction and/or operational improvements to improve safety on roadways functionally classified as rural major or minor collectors, or rural local roads.

The HRRRP portion of the HSIP report should consist of three parts:

- i. Basic program implementation information
- ii. Methods used to identify HRRR
- iii. Overall HRRRP effectiveness

### **i. Program Implementation**

Based on the specified reporting period, the following should be addressed:

- HRRRP funds available (programmed)
- Number and type of HRRRP projects initiated

### **HRRRP Funds Available (Programmed)**

This section of the report should only address the funds set aside for the HRRRP. Other funds (i.e. STP, ARRA, Rural Safety Innovation Program, State, local) used to obligate projects identified through the HRRRP should also be identified in the report. If additional HSIP funds are used to support the HRRRP, that information should be captured in the HSIP portion of the report. “**Available**” (Programmed) refers to the HRRRP funds that have been programmed in the Statewide Transportation Improvement Program (STIP) for the reporting period and can be expended on HRRR projects. In addition to the amount of HRRRP funds available

(programmed), States should also report the amount of HRRRP funds obligated for the specified reporting period.

This information could be presented in a format similar to that illustrated below. If this format is used, it should be supplemented with narrative briefly describing the information presented. The report should also discuss any impediments to obligating HRRR funds and plans to overcome this challenge in the future.

<b>HRRRP Project Funding</b>		
<b>Reporting Period: MM/DD/YYYY to MM/DD/YYYY</b>		
<b>Funding Category</b>	<b>Programmed*</b>	<b>Obligated</b>
HRRRP		
Other Federal-aid funds (i.e. STP, ARRA, Rural Safety Innovation Program)		
State and Local funds		
<b>Total</b>		

\* *“Available” (Programmed) refers to the HRRRP funds that have been programmed in the Statewide Transportation Improvement Program (STIP) and can be expended on HRRR projects.*

#### HRRRP Projects Initiated

States should provide the number and general listing of the types of projects obligated using HRRRP funds for the reporting period. The general listing of the projects obligated should be structured to identify how the projects relate to the State Strategic Highway Safety Plan (SHSP) and the State’s safety goals and objectives. For each project obligated with HRRR funds, the following information should be provided:

- Improvement Category
- Project output (i.e. miles of rumbles strips)
- Project cost
- Relationship to the State’s SHSP

Attachment 1 illustrates how this information can be presented in a tabular format. This table should be supplemented with narrative briefly describing the information presented.

The improvement category should align with the list of highway safety improvement projects in 23 CFR 924, as shown in Attachment 2. However, those items designated with a caret (^) are not eligible for HRRRP funds and should not be used to categorize HRRRP projects. In addition, while all HRRRP projects would be considered “construction and operational improvements on high risk rural roads,” this project category should not be used to define the project type for HRRRP reporting purposes. Also, while a single project may consist of multiple project types, each project should be assigned to only one category. The category chosen should align with the primary purpose of the project.

The project output will vary depending on the type of projects implemented.



The cost should reflect the total cost of each project.

For each HRRR project, the State should demonstrate the relationship to the SHSP. States should not only link each project to the appropriate SHSP emphasis area (i.e. intersection, roadway departure), but also the strategy that most closely aligns with the primary purpose of the project.

ii. Methodology used to identify HRRR locations

States should briefly describe methods and data used to identify HRRR locations, if it is different than the program methodology described under the HSIP Program Structure (A). This description should include, but not be limited to, a description of the crash and volume data used to calculate the statewide and location specific fatality and incapacitating injury crash rates 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*. The report should briefly describe the extent to which projects identified using this methodology are implemented under the HRRRP.

iii. Narrative summarizing the overall HRRRP effectiveness

States should present and describe figures showing the general highway safety trends related to the HRRRP. For example, this could include the number of fatalities and serious injuries occurring on roadways functionally classified as a rural major, minor collector and rural local roads in the State for the past five years.

#### **4. 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: General Listing of Projects

[illegible]

Attachment 2: Highway Safety Improvement Categories

**Highway Safety Improvement Project Categories**

*(Source: 23 CFR 924)*

While a single project may consist of multiple project types, each project should be assigned to only one category. The category chosen should align with the primary purpose of the project.

- (1) An intersection safety improvement project
- (2) Pavement and shoulder widening
- (3) Installation of rumble strips or other warning devices
- (4) Installation of skid resistant surface at an intersection or other location with a high frequency of crashes
- (5) An improvement for pedestrian or bicyclist safety or for the safety of persons with disabilities
- \*(6) Construction of any project for the elimination of hazards at a railway-highway crossing that is eligible for funding under 23 U.S.C. 130, including the separation or protection of grades at railway-highway crossings.
- \*(7) Construction of railway-highway crossing safety feature, including installation of highway-railway grade crossing protective devices
- \*(8) The conduct of an effective traffic enforcement activity at a railway-highway crossing
- (9) Construction of a traffic calming feature
- (10) Elimination of a roadside obstacle or roadside hazard
- (11) Improvement of highway signage and pavement markings
- (12) Installation of a priority control system for emergency vehicles at signalized intersections
- (13) Installation of a traffic control or other warning device at a location with high crash potential
- ^(14) Transportation safety planning
- ^(15) Improvement in the collection and analysis of data
- (16) Planning integrated interoperable emergency communications equipment, operational activities or traffic enforcement activities (including law enforcement assistance) relating to work zone safety.
- (17) Installation of guardrails, barriers (including barriers between construction work zones and traffic lanes for the safety of road users and workers), and crash attenuators.
- (18) The addition or retrofitting of structures or other measures to eliminate or reduce crashes involving vehicles and wildlife
- (19) Installation and maintenance of signs (including fluorescent yellow-green signs) at pedestrian-bicycle crossings and in school zones.
- \*(21) Construction and operational improvements on high risk rural roads. [Do not use for the HRRRP portion of the report.]
- ^(22) Conducting road safety audits.

\* Include only if railway-highway or high risk rural roads projects are funded with HSIP-type funds, NOT the set-aside funds for these programs. Projects implemented using the set-aside funds for these programs have separate reporting requirements.

^ These project categories should not be included in the HRRRP portion of the report. They are not considered construction or operational improvements and therefore are not eligible for HRRR funds.

+ Describe in narrative