

Assessment of Local Road Safety Funding, Training, and Technical Assistance

August 2013



U.S. Department of Transportation
Federal Highway Administration



Safe Roads for a Safer Future
Investment in roadway safety saves lives

<http://safety.fhwa.dot.gov>

Notice

This document is disseminated under the sponsorship of the Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

The U.S. Government is not endorsing any manufacturers, products, or services cited herein and any trade name that may appear in the work has been included only because it is essential to the contents of the work.

Quality Assurance Statement

The Federal Highway Administration (FHWA) provides high-quality information to serve Government, industry, and the public in a manner that promotes public understanding. Standards and policies are used to ensure and maximize the quality, objectivity, utility, and integrity of its information. FHWA periodically reviews quality issues and adjusts its programs and processes for continuous quality improvement.

Technical Report Documentation Page

1. Report No. FHWA-SA-13-029	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle Assessment of Local Road Safety Funding, Training, and Technical Assistance		5. Report Date August 2013	
		6. Performing Organization Code	
7. Author(s) Danena Gaines, Ph.D., Nicole Waldheim, Susan Herbel, Ph.D.		8. Performing Organization Report No.	
9. Performing Organization Name And Address Cambridge Systematics, Inc. 100 CambridgePark Drive, Suite 400 Cambridge, MA 02140		10. Work Unit No. (TRAIS)	
		11. Contract or Grant No. DTFH61-10-D-00020-T-10-002	
12. Sponsoring Agency Name and Address Federal Highway Administration (FHWA) Office of Safety 1200 New Jersey Avenue, SE Washington, DC 20590		13. Type of Report and Period Covered Technical Report 9-21-2010 through 7-30-13	
		14. Sponsoring Agency Code FHWA	
15. Supplementary Notes			
16. Abstract The purpose of this report is to summarize State DOT practices for delivering safety funding and resources to local entities for road safety improvement projects. These practices were identified in large part through a questionnaire administered to State DOTs during this assessment. This report identifies model local road safety practices that can be implemented by State DOTs, local practitioners (i.e., public works directors, transportation directors, county engineers, transportation planners, and elected officials), Local Technical Assistance Programs (LTAP), and Metropolitan Planning Organizations (MPO) in any State.			
17. Key Words Local road safety, off-system safety, local technical assistance program (LTAP)		18. Distribution Statement No Restrictions	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 80	22. Price N/A

Table of Contents

Executive Summary	vii
Resources and Information	viii
Training and Development	viii
Technical Assistance	viii
Project Implementation	viii
1.0 Introduction and Overview	1
1.1 Background	1
1.2 Purpose	1
1.3 Local Road Safety Challenges.....	2
1.4 The Role of State DOTs in Local Road Safety.....	3
2.0 Assessment Methodology	9
2.1 Questionnaire	9
2.2 Interviews	9
3.0 Local Road Safety Program Resources and Support	11
3.1 Resources and Information.....	11
3.2 Training and Development.....	18
3.3 Technical Assistance	19
3.4 Project Implementation	20
4.0 Agency Success Highlights	25
4.1 Benefit/Cost Tool and Local Road Safety Manual.....	26
4.2 Crash Data Analysis Tools.....	27
4.3 Ohio LTAP/DOT/County Engineers Association of Ohio Partnership	29
4.4 Louisiana - DOTD/LTAP Partnership and Coordination with SHSP and Regional Team Implementation Process.....	30
4.5 Florida DOT District 7 Local Safety Programs.....	33
4.6 Nebraska County Sign Installation Program	35
4.7 Ohio Township Sign Safety Program.....	36
4.8 Tennessee Local Roads Safety Initiative	37
4.9 Florida District 7 Design-Build Push-Button Contracts.....	39
5.0 Summary	41

A.	Appendix.....	A-1
	A.1 Assessment of Local Road Safety Funding, Training, and Technical Assistance Questionnaire Respondents	A-1
	A.2 Assessment and Delivery of Safety Funding at the Local Level Questionnaire.....	A-2
B.	Local Road Safety References and Resources.....	B-1
	B.1 Reports and Guidance	B-1
	B.2 Local Rural Road Owners Manuals.....	B-1
	B.3 Other Safety Resources	B-2
C.	Local Road Safety Checklists.....	C-1
	C.1 Organizational Checklist.....	C-1
	C.2 Data Checklist	C-2
	C.3 Training and Technical Assistance Checklist.....	C-3
	C.4 Funding Checklist	C-3
	C.5 Program Administration Checklist.....	C-4

List of Tables

Table 1.1	Characteristics of Support Levels	6
Table 3.1	Availability of Local Crash Data in State Traffic Records Databases	17
Table 3.2	Entities Providing Local Road Safety Training	18
Table 3.3	Entities Providing Local Road Safety Technical Assistance	19
Table 3.4	Entity or Unit Providing Local Safety Support	20
Table 3.5	Number of States Reporting Strategies to Streamline Process	22
Table 3.6	Agency Providing Local Road Safety Support Personnel	23

List of Figures

Figure 1.1	DOT Local Road Safety Program Organization	4
Figure 1.2	Levels of State DOT Local Road Safety Support	6
Figure 3.1	Number of States with Local Road Safety Set-Asides	12
Figure 3.2	Total Reported Local Road Safety Spending <i>FY 2009, 2010, 2011</i>	13
Figure 3.3	Criteria Used to Select Set-Asides for Safety Funding	14
Figure 3.4	Number of States Obligating Funds to Local Safety <i>FY 2009, 2010, 2011</i>	14
Figure 3.5	Number of States Providing Local Safety Project Funding Incentives	16
Figure 3.6	Methods for Local Safety Project Selection	21
Figure 4.1	TIMS B/C Calculator.....	27
Figure 4.2	GCAT Crash Data Map.....	28
Figure 4.3	LA LTAP Slide Developed for Regional Safety Coalition	32
Figure 4.4	LTAP Led RSA for the South Central Transportation Safety Coalition	33
Figure 4.5	Before and After Photos of Sign Installation.....	37

Preface

The Federal Highway Administration (FHWA) provides national leadership in identifying, developing, and delivering safety programs and products to local governments to improve highway safety on local roads. To better understand the safety resources administered to local agencies, FHWA performed an assessment of safety resources available to local agencies. This report compiles and documents State department of transportation (DOT) practices used to develop and deliver local road safety initiatives. The assessment consisted of a literature review and research, input from an expert practitioner panel, and analysis of questionnaire responses and case study interviews.

Literature Review and Research – The FHWA reviewed existing research reports to identify the noteworthy practices States use to distribute funds to local agencies for safety projects as well as the barriers and challenges related to implementation of safety projects on local roads. The following reports were particularly helpful during the assessment:

- Implementing the High-Risk Rural Roads Program, FHWA, March 2010;
- Strategic Highway Safety Plan Implementation Process Model Case Studies, FHWA, June 2010;
- Highway Safety Improvement Program Noteworthy Practice Series, FHWA, 2011;
- Noteworthy Practices: Addressing Safety on Locally Owned and Maintained Roads, FHWA, August 2010;
- NCHRP Research Results Digest 345 – Alternate Strategies for Safety Improvement Investments, April 2010; and
- Implementation Challenges with the Federal Safe Routes to School Program, April 2009.

These reports documented current funding, coordination, and technical assistance practices used by State DOTs and local agencies as well as typical challenges encountered. Analysis of these reports led to the development of a preliminary list of practices States use to deliver funding to local governments and a draft questionnaire to examine State DOT practices for providing resources to local agencies for road safety improvements.

Expert Practitioner Panel – An expert panel comprised of 10 practitioners was convened to provide insight into the most important research questions to be addressed and to finalize the questionnaire. The expert practitioner panel was made up of State DOT safety engineers (2), LTAP staff (1), local agency practitioners (2), and FHWA Office of Safety and Division staff (5). The expert panel gathered for a one-day meeting to review and discuss common challenges in local road safety and

specific topics to be included in the questionnaire. Feedback from the practitioner panel was incorporated into the final questionnaire design.

Questionnaire Deployment and Analysis - The final component of the assessment consisted of the deployment of the questionnaire to State DOTs combined with follow up interviews to capture more in depth information and details.

The input of the expert panel and States that responded to the questionnaire and participated in follow-up interviews was invaluable to this effort. As a result of their efforts, State DOTs and other safety partners now have the information needed to successfully deliver funding and resources to local road safety programs and projects.

Executive Summary

The U.S. Department of Transportation's Bureau of Transportation Statistics reports that local roads account for approximately 14 percent of the vehicle-miles traveled in the United States but 20 percent of fatalities in 2011. Many local roads are maintained by local agencies with limited resources and staff, making it particularly challenging to address safety issues. As such, many local agencies rely on State DOTs to provide funding, training, and technical assistance to advance local road safety initiatives. An assessment of local road safety funding, training, and technical assistance identified the current state of the practice and noteworthy practices based on the results of a questionnaire distributed to all 50 States, as well as follow-up interviews.

Local road safety programs are organized and administered differently from State to State. In many cases, they are identified, prioritized, and administered through a DOT Department or Division of Local Aid using a more centralized approach. At the other end of the spectrum, a decentralized approach organizes project development and administration at the DOT district level.

The level of responsibility and assistance to local agencies varies as much as the organization of local safety programs. The level of support provided by State DOTs can be categorized into four levels, as follows:

- At the first level, DOTs provide local agencies access to the resources and information necessary for project identification, development, and implementation;
- At the second level, in addition to information and resources, DOTs provide training and development opportunities for local agency engineers, planners, and public/elected officials;
- At the third level, many States provide technical assistance to local agencies in identifying and developing local safety projects; and
- At the fourth level, States take responsibility for project development, administration, and implementation on behalf of local agencies.

As the breadth of DOT involvement in local road safety issues increases, the depth of the DOTs relationship with local agencies increases as more support and services are provided.

The current state of practice and noteworthy practices by State DOTs are organized by these levels of support: resources and information, training and development, technical assistance, and project implementation. Key findings are highlighted below.

RESOURCES AND INFORMATION

A number of the State DOTs set aside funds for local safety, including Highway Safety Improvement Program (HSIP) funding, High-Risk Rural Road Program funding (HRRRP), State funds, or other Federal funds, such as Safe Routes to School, Section 154/164 transfer funds, and Railway-Highway Crossing Program (RHCP) funds for local safety. Fatality and serious injury data were one of the key determinants for setting aside funding. In other States, local road safety projects compete directly with projects on State roads. A number of challenges are inherent in data collection and analysis, particularly on local roads. Lack of exposure data, completeness and accuracy of crash data, and lack of proven data analysis techniques were among the challenges identified. Despite these issues, a variety of strategies were identified to mitigate some of the data concerns. State DOTs help locals by developing crash data analysis platforms or providing summary crash reports annually for local agencies.

TRAINING AND DEVELOPMENT

DOTs and LTAPs provide the most training and professional development for local safety practitioners. MPOs, universities, and professional organizations conduct or provide training sessions related to data analysis, problem identification, countermeasure identification, and application preparation. One of the major challenges identified with training is some local agencies have such limited staff that it can be more productive to provide technical assistance rather than trying to train staff to independently administer a local safety program. Some States have developed local road safety manuals which provide an easy-to-use, straightforward, comprehensive framework of the steps and analysis tools local jurisdictions would need to proactively identify locations with roadway safety issues and the appropriate countermeasures.

TECHNICAL ASSISTANCE

DOTs, LTAPs, and MPOs provide technical assistance to local agencies. Unlike training, technical assistance involves conducting an activity on behalf of the local agency. The most common technical assistance States provided to local agencies is data analysis, problem identification, and countermeasure identification. DOTs use a number of approaches to help local agencies identify road safety projects for funding; however, two of the most common strategies include conducting road safety audits (RSA) and conducting systemic safety analyses.

PROJECT IMPLEMENTATION

Many DOTs provide support personnel or other resources to local agencies to coordinate project implementation. Some strategies include guiding the local project selection criteria, reviewing project applications, providing stewardship

and oversight, and identifying opportunities to streamline the project development and implementation process. Of particular interest are the approaches to help streamline the Federal-aid process for local safety improvement projects. The assessment identified 20 strategies to reduce the administrative burden of safety projects for local agencies, some of which included using a push-button contract process, identifying systemic safety improvements on local roads eligible for funding, and allowing local agencies to use their own labor and resources to construct small-scale projects.

State DOTs are in a unique position to provide the support necessary for local agencies to develop and implement programs and projects to save lives on local roadways across the nation. The level of support needed will vary across States and depend on the extent of the local road safety problem, the expertise of local agencies within a State and resources available for a State DOT to provide this support.

1.0 Introduction and Overview

1.1 BACKGROUND

Crashes on local roads in the United States have a substantial impact on national and State programs and strategies to reduce motor vehicle fatalities. The U.S. Department of Transportation's Bureau of Transportation Statistics reports that local roads account for approximately 14 percent of the vehicle-miles traveled in the United States but 20 percent of fatalities in 2011.¹ According to the 2010 Census, 19 percent of the U.S. population lived in rural areas, however, rural fatalities accounted for 55 percent of all traffic fatalities. Many local and rural roads are maintained by local agencies with limited resources and staff, making it particularly challenging to address safety issues on the roads they maintain.

State Departments of Transportation (DOT) are challenged by the need to work with thousands of local jurisdictions, e.g., cities, counties, and Tribal communities, to effectively administer local road safety aid. Delivery of Federal and State safety improvement funds, as well as training and technical assistance opportunities to local governments is critical for making progress toward fatality and serious injury reduction goals.

1.2 PURPOSE

The purpose of this report is to summarize State DOT practices for delivering safety funding and resources to local entities for road safety improvement projects. These practices were identified in large part through a questionnaire administered to State DOTs during this assessment. This report identifies model local road safety practices that can be implemented by State DOTs, local practitioners (i.e., public works directors, transportation directors, county engineers, transportation planners, and elected officials), Local Technical Assistance Programs (LTAP), and Metropolitan Planning Organizations (MPOs) in any State.

The objectives are to:

1. Identify the extent to which Federal and State funds, training and technical assistance are being delivered to local entities for road safety improvement projects and the challenges States encounter in distributing these resources to local agencies; and
2. Document model practices/processes in delivering safety resources to local entities.

¹ Bureau of Transportation Statistics Table 1-36 Roadway Vehicle Miles Traveled (VMT) and Fatality Reporting System (FARS).

1.3 LOCAL ROAD SAFETY CHALLENGES

In spite of the importance of improving safety on local roads, States face several challenges in distributing Federal funding to local agencies. FHWA addresses these challenges by providing on-line and face-to-face training, technical assistance, tools, and guidance to local governments. However, more work is needed to fully define the problem and identify solutions. Typical challenges include:

- **Funding Constraints** – Many local agencies lack funds to implement safety improvements on their road systems and look to the State HSIP or other funding sources for assistance. FHWA does not provide funds directly to local entities, but rather reimburses States for costs incurred. States usually require local agencies to provide the necessary up front funds for Federal-aid projects. Many local governments, especially those in rural areas, cannot provide the necessary up front resources. Furthermore, many local agencies do not have adequate resources to support the administration of Federal-aid projects.
- **Limited State Funds and Resources** – States may not have staff readily available to provide training, technical assistance, and administrative support to local governments.
- **Competing Interests** – State governments sometimes reserve obligation authority for programs focused on State-maintained roadways and therefore limit sharing with local governments. Local agencies also struggle with competing priorities and issues.
- **Lack of Data/Data Analysis Skills** – Local governments often lack the safety (e.g., crash, roadway, and travel) data and/or the analytical skills necessary to meet HSIP crash data analysis requirements.
- **Low Crash Rates** – Rural crashes are typically distributed over vast roadway networks resulting in low crash rates. Even though many rural roadways are high-risk due to geometric design features and/or lack of proven effective safety features, they compete for safety funds against State roads with higher traffic volumes and larger numbers of crashes and fatalities.
- **Difficulty Securing Local Funding Matches** – Some small local agencies may not be willing to participate in Federal-aid programs simply because they cannot afford even a meager match for a project. Securing matching funds requires support from local elected officials and gaining consensus among decision-makers can be difficult if other priorities are on the table.
- **Lack of staff or expertise** – Some small local agencies lack the staff needed to apply for the safety funds. Since participation in the Federal-aid process is optional for local agencies, they do not receive funds if they fail to submit an application. Many States provide training or assistance with the application process to offset this challenge. States with robust local programs usually do not have this issue. However, the ongoing demand to train local agency staff in needed areas/skills is often difficult to sustain over the long time periods required. This is exacerbated by high staff turnover rates at local agencies and creates continuing challenges for DOTs and LTAPs providing training.

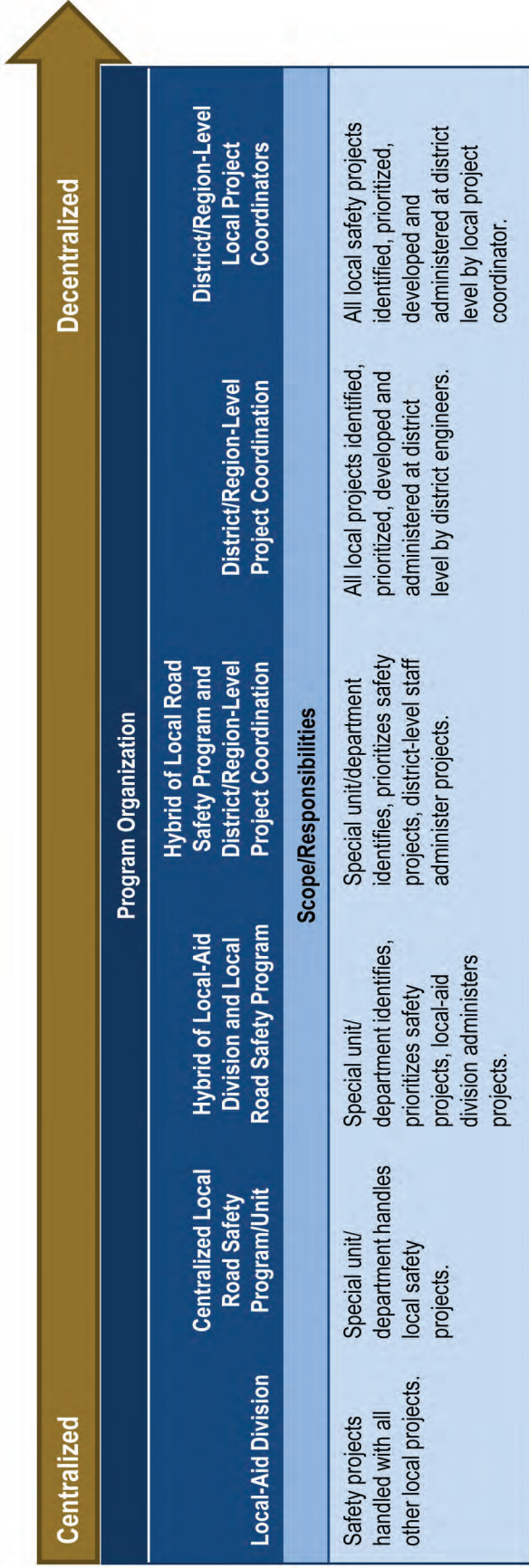
1.4 THE ROLE OF STATE DOTs IN LOCAL ROAD SAFETY

Local road safety program support is not limited to the administration of projects. Many States provide training, technical assistance, personnel support, outreach, and/or funding incentives to local agencies to improve safety.

Local road safety programs are organized and administered differently from State to State. Figure 1.1 shows various organizational arrangements DOTs use to manage local road safety projects. In many cases, local road safety projects are identified, prioritized, and administered through a DOT Department or Division of Local Aid. In other cases, State DOTs create separate entities responsible for local road safety programs that are housed in the LTAP or an MPO. In this capacity, the local safety program is centralized. A number of States use a hybrid approach where a centralized local safety program manages project identification and prioritization but the local-aid division handles project administration. Another hybrid approach uses a centralized local safety program to identify and prioritize safety projects and a district- or region-level office handles project administration. The decentralized approach organizes project development and administration at the DOT district level.

An important aspect of local road safety is assistance and support from the LTAP centers. Many States have LTAP centers that provide technical assistance to local counties, parishes, townships, cities, and towns. LTAPs provide training programs, information dissemination, technology updates, personalized technical assistance, and newsletters. LTAPs are typically housed in the DOT, within a university, or at another public agency. They vary widely in funding, resources, staff, and level of engagement in local safety issues.

Figure 1.1 DOT Local Road Safety Program Organization



Source: Cambridge Systematics, Inc. analysis of Local Road Safety Assessment Questionnaire responses.

The level of responsibility and assistance to local agencies varies as much as the organization of local safety programs. Figure 1.2 illustrates the levels of DOT local road safety program support. As the breadth of DOT support in local road safety issues increases, the depth of the DOTs relationship with local agencies increases.

At the first level, DOTs provide local agencies access to the resources and information necessary for project identification, development, and implementation. The resources provided are primarily in the form of funding incentives and information is typically disseminated via web sites, local safety manuals, etc. Information may be provided in the form of a web site or local road safety manual. The Caltrans Local Road Safety Manual case study in Section 4.1 and Ohio Department of Transportation (ODOT) Crash Analysis Tool in Section 4.2 are two examples of Level 1 support.

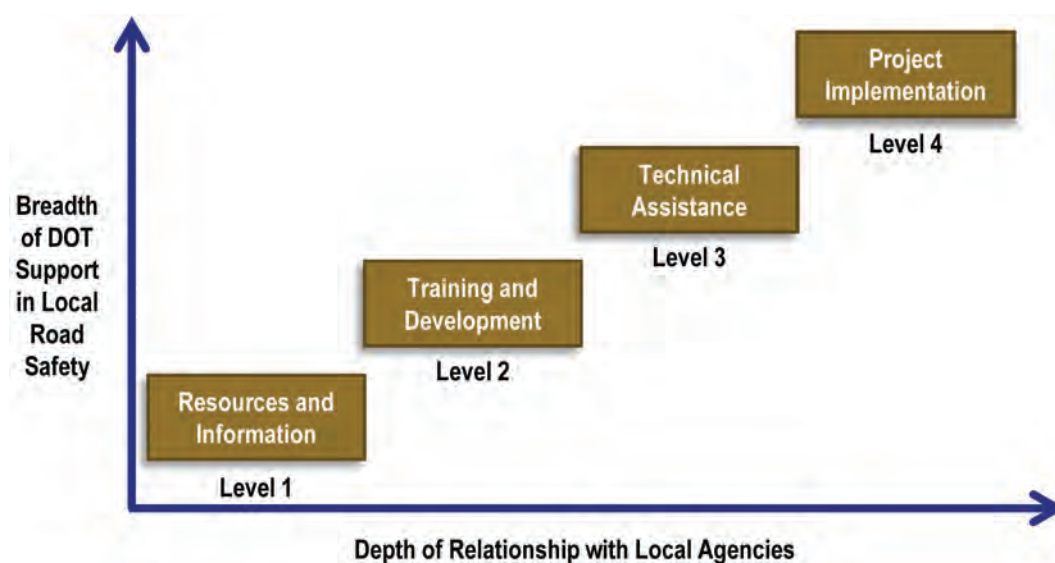
At the second level, in addition to information and resources, DOTs provide training and development opportunities for local agency engineers, planners, and public/elected officials. Training opportunities are provided in conjunction with or exclusively by the State LTAP. The Ohio DOT/County Engineers Association of Ohio/LTAP partnership case study in Section 4.3 is one example of the training support LTAPs can provide to local agencies.

At the third level, many States provide technical assistance to local agencies in identifying and developing local safety projects. Technical assistance often includes data acquisition and analysis, problem identification, countermeasure identification, project development, and project prioritization. States in this category often designate a local safety project coordinator at the district or regional level who is responsible for assisting local agencies directly. At this level, local agencies are assisted through the project development phase but they remain responsible for final project implementation. The Louisiana Department of Transportation (DOTD) and LTAP Local Road Safety Initiative case study in Section 4.4 and the Florida DOT District 7 local safety program case study in Section 4.5 are two examples of such support. The Ohio and Nebraska Sign Installation programs presented in Sections 4.6 and 4.7 are additional illustrations of technical assistance support.

At the fourth level, States take responsibility for project development, administration, and implementation on behalf of local agencies. The Tennessee Local Road Safety Initiative is one example of this approach (see case study in Section 4.8). The Florida District 7 Design-Build Push-Button Contract case study in Section 4.9 is another example of an approach used to implement safety improvement projects on behalf of a local agency.

While this approach has proven successful in some cases, full project implementation is not always feasible nor is it the most efficient approach for many DOTs because of the vast number of local agencies. In fact, some DOTs are prohibited by State law from performing work on roadways owned and maintained by local agencies.

Figure 1.2 Levels of State DOT Local Road Safety Support



Source: Cambridge Systematics, Inc. analysis of Local Road Safety Assessment Questionnaire responses.

The breadth of DOT support in local road safety is correlated with the size and staff capability of local agencies. Local agencies with engineering, planning, and/or public works staff are able to benefit from Level 1, 2, and 3 support. Smaller local agencies with little or no staff, typically need Level 3 and 4 assistance. In some cases DOTs are tailoring their support with local agencies based on needs; therefore, providing various levels of support across the State as opposed to a single targeted approach.

Table 1.1 summarizes the characteristics of the support levels shown in Figure 1.2.

Table 1.1 Characteristics of Support Levels

Level of Support	Focus	Activities	What Local Agencies Receive
Level 1 – Resources and Information	Existing available resources	Direct to resources	Information
Level 2 – Training and Development	Skills and tools	Provide insight, teaching	Ideas, solutions, tool kits
Level 3 – Technical Assistance	Problem-solving	Identify specific problems, countermeasures	Potential projects to implement
Level 4 – Project Implementation	Mitigation solutions	Low-cost safety improvements	Specific safety improvements

The aim of this report is to provide examples of agency successes in funding local road safety programs and providing support to local agencies in the form of information, training and technical assistance. While the case studies offer a spectrum of strategies, a “one-size-fits-all” methodology to deliver safety funding at the local level does not exist.

2.0 Assessment Methodology

The assessment team conducted an initial literature review and research to identify documented noteworthy practices in local road safety. Based on the information collected during the initial research phase, a questionnaire was developed with input from an expert panel to collect information from all 50 States. The questionnaire was distributed and responses were received from 38 States. Follow-up interviews were conducted as needed to develop case studies. The results of the questionnaire and interviews are summarized in this report.

2.1 QUESTIONNAIRE

The key baseline of the assessment was established through the use of a questionnaire. It was delivered to all 50 States in November 2012. A copy of the questionnaire and a list of the participating States are available in Appendix A. The electronic questionnaire was distributed to State safety engineers, State LTAP contacts, and HSIP coordinators. Responses were received from 38 States (76 percent response rate). The aggregated results of the questionnaire are summarized in Section 3.0 of this report.

While the survey was primarily directed at State DOTs, respondents were encouraged to reach out to local agency contacts to assist with answering the questions. Seven of the respondents worked with their State's LTAP to answer the questions. Three States coordinated responses with other departments and/or divisions such as the DOT finance department, planning, or transit bureaus. A single respondent worked with a university traffic operations and safety laboratory to coordinate responses.

The results of the questionnaire are summarized in Section 3.0 of this report.

2.2 INTERVIEWS

While the questionnaire provided a baseline assessment of the funding and technical assistance efforts of State DOTs to improve local road safety, case study interviews were conducted with a limited number of States to collect additional information. The following criteria were used to identify States with potential noteworthy practices:

- States that obligate HSIP, HRRRP, State, or other Federal funds to local road safety projects. While this is not the only measure of a successful local road safety aid program, it does show a commitment and ability to actually obligate funds for local road safety projects.

- States that offer funding incentives to encourage local agencies to develop and implement local road safety projects. The provision of these incentives is a strong commitment to local road safety. One of the most common barriers to improving local road safety is the lack of funding available to some local agencies.
- States that provide training, technical assistance, and personnel support to local agencies. Lack of local staff and resources was identified as a major challenge by previous research reports and this assessment.
- States reporting the use of unique noteworthy practices not commonly reported in the assessment.
- States reporting the use of noteworthy practices common to a number of States.

A number of States met the above criteria. Geographic location and the size of the State were used to select a representative sample of States for interviews. Additional consideration was given to States that were not highlighted in previous studies.² Florida, Nebraska, California, Ohio, Louisiana, and Tennessee were selected based on questionnaire responses. This report does not include every noteworthy practice identified in recent research. Section 4.0 highlights some of the local road safety successes each of these States has accomplished.

² Such as the *FHWA Noteworthy Practices: Addressing Safety on Locally Owned and Maintained Roads* (2010).

3.0 Local Road Safety Program Resources and Support

This section summarizes the results of the assessment organized by the four levels of local road safety support: resources and information, training and development, technical assistance, and project implementation. These levels of roads safety support encompass all of the local road safety program functions of State DOTs. This section summarizes the data provided by the 38 States that responded to the questionnaire (see Appendix A for a list of the participating States).

3.1 RESOURCES AND INFORMATION

Funding Resources

Local agencies typically do not have dedicated transportation safety funds and must compete with other local agencies for Federal or State funds. Many States have developed funding distribution guidelines and use incentives to promote the implementation of local safety projects. However, some States do not make Federal-aid funds available to local agencies for safety improvement projects.

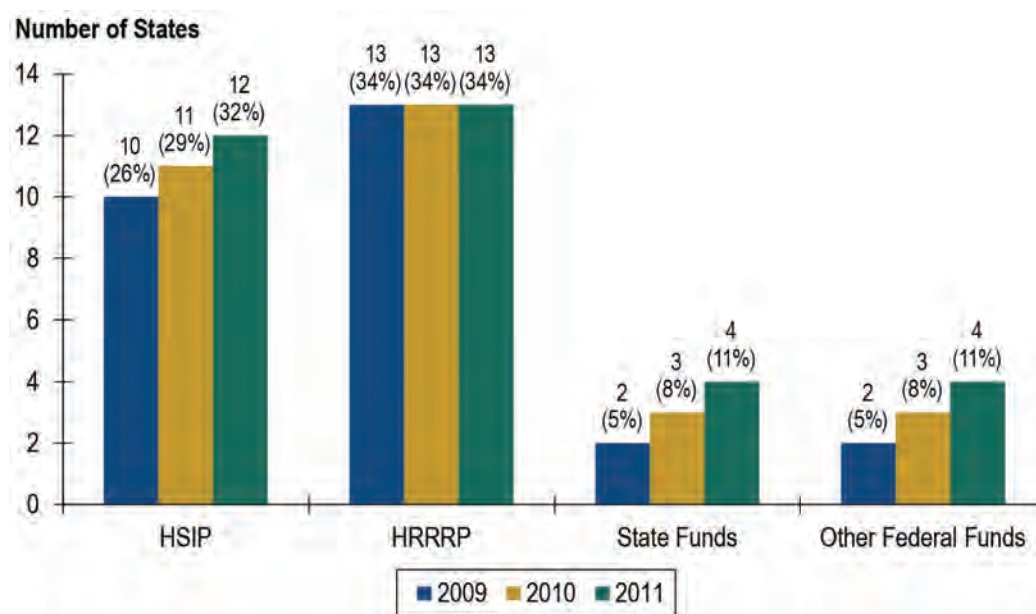
The questionnaire collected information on current funding resources and incentives DOTs use to promote local road safety improvements. States were asked to identify the HSIP, HRRRP, State funds, and other Federal funds spent on local road safety improvement projects in fiscal years 2009, 2010, and 2011. It is possible States participating in the questionnaire did not provide complete information on local road safety improvements paid for by HSIP, other Federal funds and State funds.

Figure 3.1 shows the number of States that set aside a portion of HSIP, HRRRP, State funds, or other Federal funds for local road safety projects in fiscal years 2009, 2010, or 2011. In 2011, 12 States set aside HSIP funds and 13 States set aside HRRRP funds for local road safety projects.³ Other Federal funding sources commonly set aside for local road safety projects include Safe Routes to School, Section 154/164 transfer,⁴ and the Railway-Highway Crossing Program (RHCP).

³ Seven of the 13 States that provided HRRRP funds for local road projects allocated all HRRRP funds to them.

⁴ MAP-21 continues two penalty transfer programs to encourage States to enact Open Container laws (Section 154) and Repeat Intoxicated Driver laws (Section 164). Any State that does not enact and enforce a conforming open container and repeat intoxicated driver law will be subject to a penalty. Additional information is available at <http://www.fhwa.dot.gov/map21/guidance/guidepentransprov.cfm>.

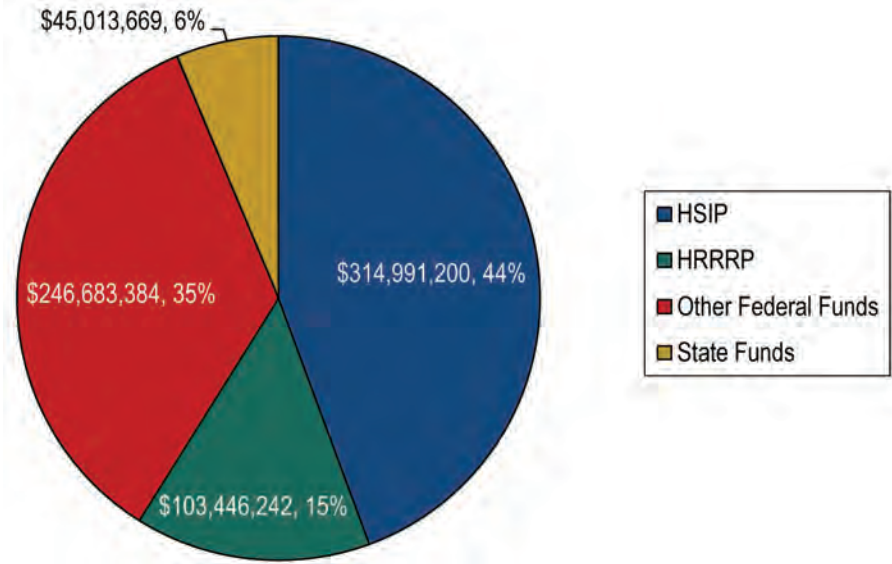
Figure 3.1 Number of States with Local Road Safety Set-Asides



Source: Cambridge Systematics, Inc. analysis of Local Road Safety Assessment Questionnaire responses.

Figure 3.2 shows the percentage of total funds reported for each funding type. Setting aside funds for local road safety improvements is a step in the right direction, but it was important for the assessment to determine if the funds are actually obligated or spent on local roads. Questionnaire participants reported spending \$710.1 million of HSIP, HRRRP, other Federal funds, and State funds on local road safety improvements in fiscal years 2009, 2010, and 2011. The HSIP-funded 44 percent (\$315.0 million) of the safety improvement costs on local roadways while 35 percent (\$246.7 million) were supported by other Federal programs such as Safe Routes to School (SRTS), Section 154/164 Safety Transfer, and RHCP. The HRRRP supported \$103.4 million (15 percent) of improvements, and States participating in the assessment reported using \$45 million (6 percent) of their own funds on local safety improvements.

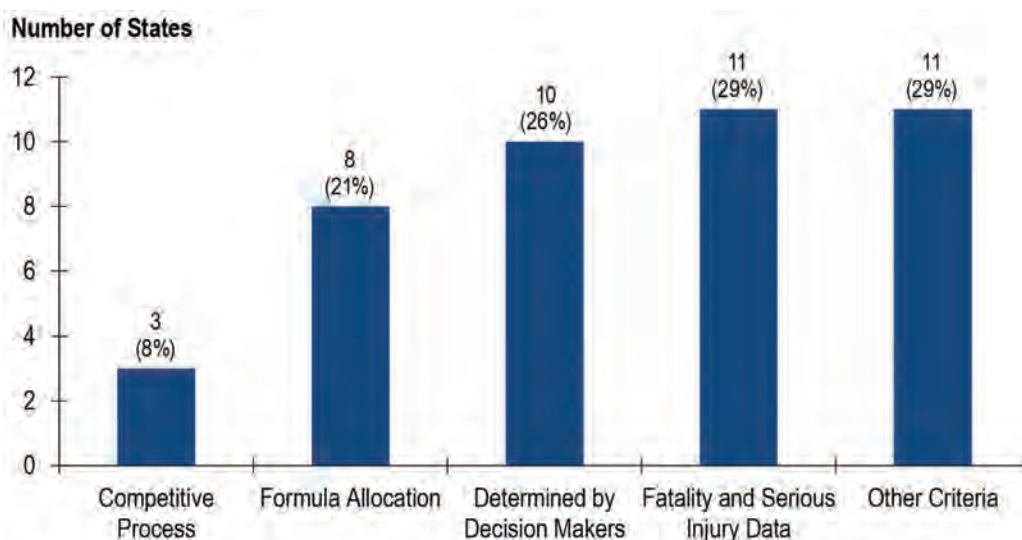
Figure 3.2 Total Reported Local Road Safety Spending
FY 2009, 2010, 2011



Source: Cambridge Systematics, Inc. analysis of Local Road Safety Assessment Questionnaire responses.

Figure 3.3 shows the criteria used by States to determine funding set-asides. Fatality and serious injury data are used to determine the funding set aside in 11 States (29 percent). In 10 States (26 percent), decision-makers determine the set asides, and a formula allocation is used by 8 States (21 percent). Three States (8 percent) reported varying the proportion set aside for locals year-to-year based on the criteria used in the project selection process. Other criteria reported by participants included alignment with SHSP emphasis areas or percentages based on past practices. More than half of the States reporting set-asides used a combination of one or more of criteria to determine the set-aside.

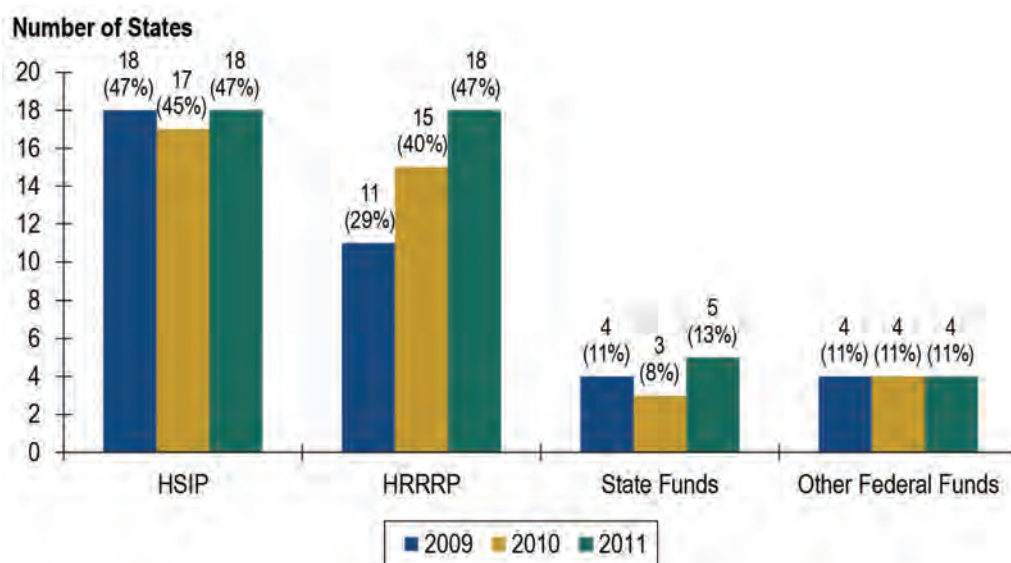
Figure 3.3 Criteria Used to Select Set-Asides for Safety Funding



Source: Cambridge Systematics, Inc. analysis of Local Road Safety Assessment Questionnaire responses.

Figure 3.4 shows the number of States that spent HSIP, HRRRP, other Federal funds, or State funds on local road safety improvements in fiscal years 2009, 2010, and 2011. Some States do not set aside funds specifically for local road safety improvements, but they do spend funds on local projects. In such cases, local road safety improvement projects compete directly with projects on State-maintained roadways.

Figure 3.4 Number of States Obligating Funds to Local Safety
FY 2009, 2010, 2011



Source: Cambridge Systematics, Inc. analysis of Local Road Safety Assessment Questionnaire responses.

Analysis of the returned questionnaires show that the HSIP provided the largest portion of funds spent on local road safety projects.⁵ Nineteen States spent HSIP funds on local road safety improvement projects in at least one year. The HSIP funds spent on local safety improvements totaled \$315 million. The 38 States responding to the questionnaire spent on average \$8.3 million of HSIP funds on local road safety improvements. On average, questionnaire participants spent 9.5 percent of their obligated HSIP funds on local safety improvement projects. The largest percentage of HSIP funds spent on local safety projects was 42.3 percent. These statistical averages include 19 States (50 percent of participants) that reported no HSIP expenditures for local safety improvements.

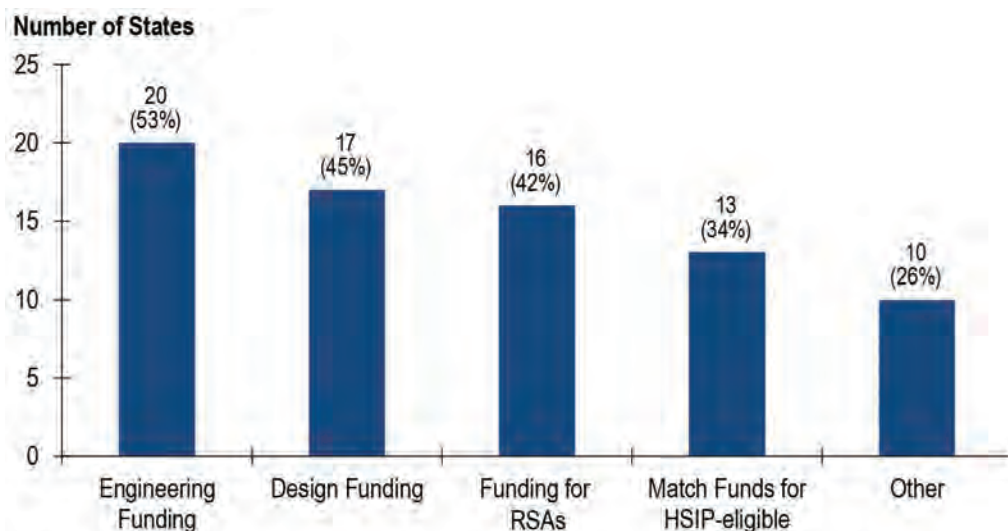
The average HSIP obligation for the 19 States (50 percent of participants) reporting spending funds on local road safety is 18.9 percent. These States reported spending an average of \$16.6 million of HSIP funds on local safety improvements during the three-year period.

Funding Incentives

State DOTs provide financial incentives to encourage local agencies to develop and implement local road safety projects. Funding incentives cover preliminary engineering, final design, matching funds (for HSIP-eligible projects), road safety audits (RSA), or other local safety support. Many of the other funding incentives identified in the questionnaire relate to training and technical assistance, which is discussed in Sections 3.5 and 3.6. Figure 3.5 shows the number of States providing safety project funding incentives to local agencies.

⁵ All funding referenced in this paragraph refer to States that returned questionnaires. Funding amounts are for the three fiscal years identified in Figure 3.4.

Figure 3.5 Number of States Providing Local Safety Project Funding Incentives



Source: Cambridge Systematics, Inc. analysis of Local Road Safety Assessment Questionnaire responses.

The questionnaire results tell an interesting story about how DOTs are providing financial support to local safety improvement projects. Forty-seven percent (18 States) of States responding to the questionnaire spent HSIP funds on local roads. Forty-seven percent of States also spent HRRRP funds on local roadways during at least one of the years analyzed. Far fewer States used other Federal funds or State funds on local road safety improvements. When other Federal funds were used, in most cases the funds were provided by Safe Routes to School, Section 154/164 Safety Transfer, and RHCP. Very few States reported using State funds on local road safety improvements.

Data Collection and Analysis

Crash data are essential for identifying locations with potential for safety improvement or crash types to address with systemic improvements. Often the collection and analysis of the appropriate data is a daunting task for local agencies, many of which lack the necessary data, analytical skills, and/or resources to compete for safety project funding at the statewide level. The questionnaire asked participants to identify the top three challenges limiting the ability to identify, select, and prioritize safety projects on local roads. Lack of exposure data was identified as a top challenge by 27 (71 percent) of the participants. Twenty-nine percent (11 States) cited completeness and accuracy of crash data as a challenge and 15 percent are challenged by a lack of proven data analysis techniques. A small percentage (5 percent) reported data timeliness as an issue or a lack of available data because local crash data are not collected by the State.

Local crash data are so important to the problem identification process that a question was included in the questionnaire to collect more details on the type of local

crash data available in most States. Participants were asked to rate the availability of data in their State’s traffic records database as one of the following: available for most local roadways, available for some local roadways, available for very few local roadways, or not available.

Table 3.1 summarizes the responses received from 35 of the 38 questionnaires. Fatal crash data are available for most local roads in 35 of the States (100 percent) and serious injury data are available in 32 States (91 percent). Location data are available for most local roadways in 15 States (43 percent), for some local roadways in 8 States (23 percent) and for very few local roadways in 8 States (23 percent). Exposure data were the least available data in 15 States (43 percent). Only 3 States (9 percent) have exposure data for most local roads.

Table 3.1 Availability of Local Crash Data in State Traffic Records Databases

Data Type	Available for Most ^a	Available for Some ^a	Available for Very Few ^a	Not Available ^a
Fatal Crash Data	100% (35)	0% (0)	0% (0)	0% (0)
Serious Injury Crash Data	91% (32)	9% (3)	0% (0)	0% (0)
Location Data (GIS or Linear Reference)	43% (15)	23% (8)	23% (8)	11% (4)
Exposure Data	9% (3)	43% (15)	43% (15)	3% (1)

^a Thirty-five of the 38 States participating in the survey answered this question; therefore, percentages were based on a sample of 35 instead of 38.

State DOTs reported using a variety of strategies to mitigate the issues local agencies face in the data collection and analysis process, including the following:

- Develop software or web-based tools to give local agencies the capability to access and analyze crash data (see Ohio DOT Crash Data Analysis Tool case study in Section 4.1);
- Provide GIS coverage on non-State roads or provide a referencing system for local roads; and
- Develop annual summary crash reports for local agencies.

Beyond providing improved State traffic records database systems, many DOTs provide crash data analysis training and/or technical assistance. Sections 3.5 and 3.6 discuss the training and technical assistance offered in more detail. Once local agencies have a means to collect and analyze crash data they are better able to identify projects most needed to improve safety.

States also provide financial incentives to reduce preliminary engineering and final design costs for local agencies. States also provide matching funds to reduce the local agencies' financial burden. Paying for the construction of projects is a large hurdle, but many other steps in the process require time, resources, and attention of local agency staff.

3.2 TRAINING AND DEVELOPMENT

Staff training and development promotes sustainable safety programs in local agencies. Training and development programs give practitioners the skills to conduct safety studies, identify projects and countermeasures, develop projects, evaluate projects, and apply for Federal aid.

State DOTs, LTAPs, MPOs, and universities or professional organizations provide training for local practitioners and decision-makers. Table 3.2 summarizes the number of entities providing training to local agencies on a variety of local road safety topics, including: conducting safety studies (i.e., data analysis and problem identification); project development (i.e., countermeasure identification, benefit/cost analysis and application preparation); and postproject evaluation, Federal regulations, and other topics. DOTs and LTAPs provide the most training and professional development for local safety practitioners. MPOs, universities, and professional organizations conduct or provide training sessions related to data analysis, problem identification, countermeasure identification, and application preparation.

Table 3.2 Entities Providing Local Road Safety Training

	State	LTAP	MPO	Other (i.e., University, POs)
Data Analysis	55% (21)	29% (11)	18% (7)	18% (7)
Problem Identification	58% (22)	40% (15)	16% (6)	13% (5)
Countermeasure Identification	58% (22)	37% (14)	13% (5)	13% (5)
Benefit/Cost Analysis	40% (15)	8% (3)	8% (3)	5% (2)
Application Preparation	50% (19)	11% (4)	13% (5)	5% (2)
Project Development	45% (17)	16% (6)	5% (2)	5% (2)
Postproject Evaluation	32% (12)	8% (3)	5% (2)	5% (2)
Federal Regulations/Federal Aid	55% (21)	18% (7)	8% (3)	5% (2)
Other	11% (4)	5% (2)	0% (0)	3% (1)

Many DOTs and LTAPs have found success with training local practitioners and providing them the tools to improve road safety. This approach is most practical with local agencies with the resources to hire staff to conduct the activities as one of their primary job responsibilities. However several questionnaire participants found the high staff turnover rates at local agencies a major challenge in training local practitioners. Due to high turnover rates and limited staff it is more productive for the some DOTs to provide technical assistance than it is to train them to independently administer their safety program.

3.3 TECHNICAL ASSISTANCE

For the purposes of this study, technical assistance involves conducting an activity on behalf of a local agency, while training teaches the practitioner the process of conducting the work. Table 3.3 summarizes the number of entities providing technical assistance to local agencies on a variety of topics, including: conducting safety studies (i.e., data analysis and problem identification), project development (i.e., countermeasure identification, benefit/cost analysis, and application preparation), postproject evaluation, Federal regulations, and other topics. Questionnaire participants also were asked to report if any local agencies conduct these activities in house or provide support to other smaller local agencies. The most common technical assistance States provided to local agencies is data analysis (76 percent), problem identification (71 percent), and countermeasure identification (71 percent).

Table 3.3 Entities Providing Local Road Safety Technical Assistance

	State	LTAP	MPO	Locals
Data Analysis	76% (29)	24% (9)	26% (10)	37% (14)
Problem Identification	71% (27)	21% (8)	21% (8)	37% (14)
Countermeasure Identification	71% (27)	21% (8)	18% (7)	37% (14)
Cost/Benefit Analysis	61% (23)	13% (5)	8% (3)	24% (9)
Application Preparation	55% (21)	13% (5)	13% (5)	34% (13)
Project Development	61% (23)	16% (6)	16% (6)	32% (12)
Postproject Evaluation	58% (22)	13% (5)	5% (2)	24% (9)
Other	11% (4)	3% (1)	0% (0)	0% (0)

Identifying systemic safety improvements for local implementation is a commonly reported State DOT practice. The Nebraska and Ohio Sign and Curve Program case studies in Section 4.3 illustrate systemic safety improvement programs some States use to identify and improve local roadway safety.

DOTs also provide Road Safety Audit (RSA) programs to help local agencies identify projects. Of the 38 States responding to the questionnaire, 16 States (42 percent) provide RSAs to assist local agencies in the project identification process.

Local agencies relying on DOTs, LTAPs, or MPOs for technical assistance get the most out of technical assistance if it is sustained over long periods of time. This means DOT resources are needed to sustain a technical assistance program over the long haul.

3.4 PROJECT IMPLEMENTATION

The size and expertise of local agency staff varies among agencies. Smaller agencies may not have the resources or expertise necessary to apply for safety funding and administer the process to completion. The questionnaire responses below discuss the support DOTs provide local agencies in the project administration and delivery process.

Local Project Administration

Table 3.4 summarizes the entity or unit responsible for developing local safety project selection criteria, reviewing project applications, and providing stewardship and oversight on local safety projects. DOT Divisions of Local Aid provide overall administrative support to all local road projects, including safety projects. In many States, the DOT Traffic and Safety office or unit develops local project selection criteria, reviews project applications, and provides stewardship and oversight. However, it appears in as many cases, stewardship and oversight are provided at the DOT district level. Other entities, such as LTAPs housed in State DOTs provide these services in a few cases (three States).

Table 3.4 Entity or Unit Providing Local Safety Support

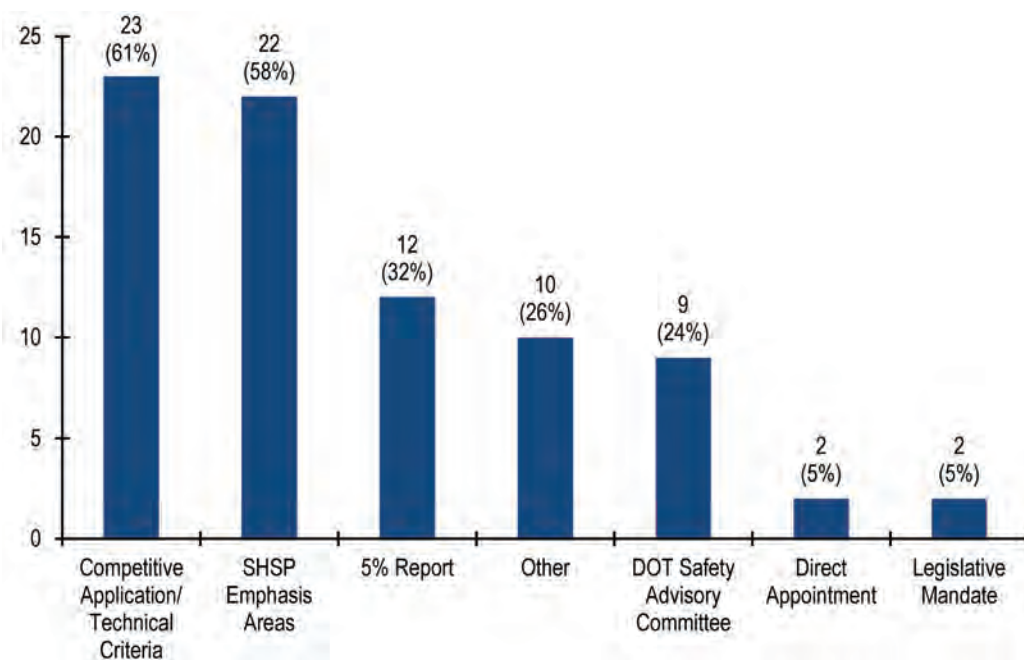
	Division of Local Aid	DOT Traffic and Safety	DOT District Offices	Other (i.e., LTAP in the DOT)
Develop Local Project Selection Criteria	18% (7)	55% (21)	11% (4)	8% (3)
Review Project Application	21% (8)	61% (23)	24% (9)	8% (3)
Provide Stewardship and Oversight	21% (8)	50% (19)	45% (17)	8% (3)

Local safety project selection is handled a number of ways depending on the organization of the DOT local safety program. Figure 3.6 summarizes some of the methods for project selection identified in the questionnaire responses.⁶ A competitive application process with technical criteria is used by 23 States. Twenty-two

⁶ States were allowed to report multiple methods.

States select projects based on their relevance to the State’s SHSP. With the passage of the MAP-21 legislation, States are no longer required to produce an annual Five Percent Report. However, 12 States reported using the report as a selection method for local road safety projects. Nine States have a DOT Safety Advisory Committee to select local safety projects and two States select projects based on direct apportionment of funds or a legislative mandate. Ten States reported the use of other methods, including: hazard index rating formula for railroad crossings; needs identified through RSAs; and other multidisciplinary committees responsible for project selection.

Figure 3.6 Methods for Local Safety Project Selection



Source: Cambridge Systematics, Inc. analysis of Local Road Safety Assessment Questionnaire responses.

The most common challenge mentioned in recent literature, the questionnaire responses, and interviews was the burdensome process required to receive Federal-aid funds. Respondents suggested DOTs develop solutions to streamline the Federal-aid process for local agencies. All parties involved benefit from the most efficient project administration process. State DOTs use valuable resources to assist with the administrative process and local agency personnel expend time and resources preparing project documentation and support. State DOTs are using a range of strategies to shorten the time to implement local safety projects by reducing paperwork, coordinating the administration of multiple projects in a single process, and streamlining the application process for HSIP funds. One of the purposes of the questionnaire was to determine how many States are using these strategies. Table 3.5 shows the number of States using various strategies to streamline the Federal-aid process.

Table 3.5 Number of States Reporting Strategies to Streamline Process

Strategy to Streamline Process	Number of States	Percentage of Responses
Identify systemic safety improvements on local roads eligible for funding.	23	61%
Group multiple projects to reduce administrative burden.	19	50%
Ensure source for local match before projects are selected for implementation.	17	45%
Allow agencies to use their own labor and resources to construct small-scale projects.	15	39%
Allow programmatic categorical exclusions.	12	32%
Complete or contract for safety improvements on local roads.	11	29%
Encourage use of programmatic agreements between State and local agencies.	11	29%
Allow local agencies to use their own material specifications and design standards for roadways off the national highway system.	9	24%
Provide State funds for local safety projects in lieu of Federal-aid highway funds.	6	16%
Provide a single application for multiple funding sources.	6	16%
Distribute funds to MPOs or local entities to distribute to local agencies.	5	13%
Certify a larger local agency to administer projects on behalf of smaller local agencies.	5	13%
Establish a blanket contract to perform safety improvements on local roads.	4	11%
Pay local contractors directly instead of reimbursing local agencies.	4	11%
Use a push-button process to expedite certain projects.	1	3%
Other.	1	3%

It is not clear why some strategies are more commonly used than others. It is possible some States do not use certain strategies because the strategies are not feasible due to organizational constraints or resource issues. Many opportunities to streamline the Federal-aid process require the State to hire additional personnel to assist local agencies with the process.

Project Delivery

To assist in completing safety projects, DOTs provide support personnel to local agencies to coordinate project implementation. The extent of this support varies depending on available resources and the State’s local road safety program organization. Project administration support may be provided by the DOT, LTAP, or MPO. Table 3.6 shows the types of local road safety personnel support identified in the questionnaire and the number of State DOTs, LTAPs, or MPOs providing project implementation support to local agency staff. Additional forms of administrative personnel support included an RSA Manager and a County Engineer Program representative.

Table 3.6 Agency Providing Local Road Safety Support Personnel

	State DOT	LTAP	MPO
Support Personnel	53% (20)	21% (8)	18% (7)
Local/Off-System Safety Coordinator	34% (13)	5% (2)	8% (3)
DOT District/Region Coordinators Responsible for Local Projects	63% (24)	0% (0)	8% (3)
Consultant Services for Local Projects	34% (13)	5% (2)	11% (4)
Other	11% (4)	3% (1)	0% (0)

The assessment identified the resources and support mechanisms DOTs provide to address local road safety problems. The results suggest DOTs focus their support on resources and information, training and development, technical assistance, and project implementation depending on resources available and the technical capabilities of their local agencies. Section 4.0 documents noteworthy practices identified through the assessment and follow-up interviews.

4.0 Agency Success Highlights

This section highlights the noteworthy practices identified during this assessment and documents them in the form of case studies. The case studies address challenges identified by the questionnaire, including limited access to local road data, limited agency resources, and lack of understanding of the Federal-aid process. The intent of sharing these practices is to provide various strategies and scenarios used to raise awareness of solutions to local road safety issues. The case studies describe how State DOTs and local agencies identify, develop, and implement local road safety improvement projects. They provide a cross section of local road safety practices used by States in various geographic regions, with different organizational approaches to road safety programs. The following case studies are included:

- The **Caltrans Benefit/Costs Tool and Local Road Safety Manual** offer local agencies a framework of the steps and analysis tools needed to identify locations with roadway safety issues;
- **Ohio's Crash Data Analysis Tools** provide easy access to crash data on local roads and a tool to analyze the data and identify problem areas;
- The **Ohio LTAP/DOT/County Engineers Association of Ohio Partnership** provides funding for local road safety improvements, training, and technical assistance to locals and assistance with project administration;
- The **Louisiana DOTD and LTAP Local Roads Program** provides technical assistance, training, and coordination with the SHSP and regional safety coalitions;
- The **Florida DOT District 7 Local Safety Program** offers local road safety support at the district level and illustrates another decentralized model for assisting locals with project identification, administration, and development;
- **Nebraska's County Sign Program** is one example of a systemic approach to local safety improvement project identification;
- **Ohio's Township Sign Program** is another example of project identification and technical assistance to local agencies;
- The **Tennessee Local Roads Safety Initiative** is one example of a DOT program that assumes responsibility for project implementation on behalf of local agencies; and
- The **Florida DOT District 7 Design-Build Push-Button Contract** process allows locals to save time by requesting the use of a contractor to implement local road safety improvements.

Additional local road safety noteworthy practices can be found in the documents referenced in Appendix B.

4.1 BENEFIT/COST TOOL AND LOCAL ROAD SAFETY MANUAL

Fifty percent of California's HSIP funds are dedicated to local roads. The approximately \$100 million-per-year program is managed by the Caltrans Division of Local Assistance (DLA), which is responsible for programming the funds to local road safety projects. As a part of the process, DLA sets criteria for HSIP project applications, reviews applications for accuracy, and selects projects. The division does not identify the projects for the local jurisdictions or administer the projects once selected, but instead provides guidance, tools, and training so the local jurisdictions are empowered to make informed decisions on effective safety improvements.

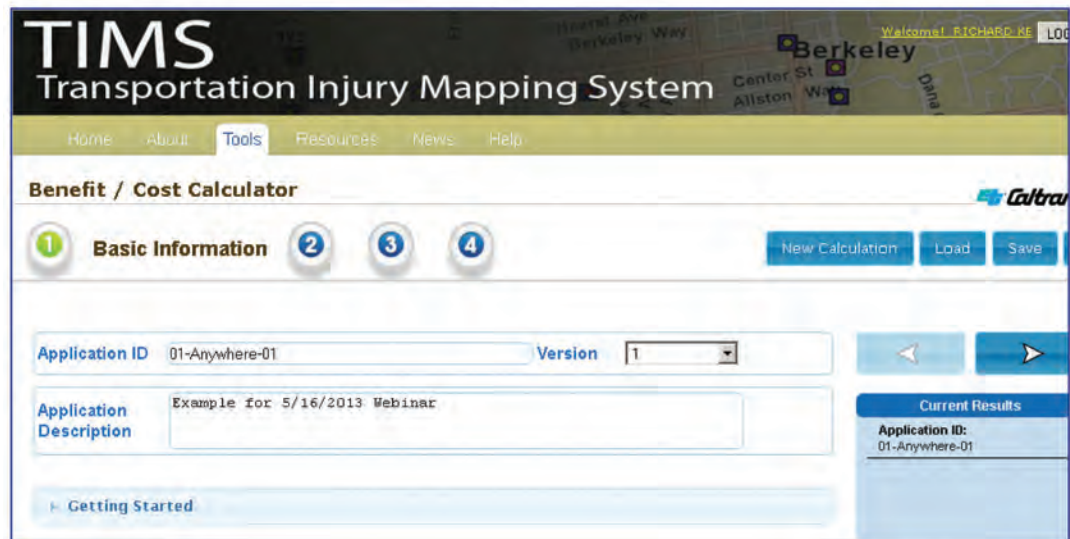
When the HSIP program first started, the application process was very basic, but has evolved into a data-driven process. To improve Caltrans's overall data-driven approach to statewide safety project selection and to maximize the long-term safety improvements across California, DLA developed *Local Roadway Safety: A Manual for California's Local Road Owners*.⁷ The manual provides an easy-to-use, straightforward, comprehensive framework of the steps and analysis tools local jurisdictions would need to proactively identify locations with roadway safety issues and the appropriate countermeasures. The manual is not intended to be a comprehensive guide for roadway design or the only guide local agencies utilize for safety analysis. The intended audience is both novice and experienced practitioners hoping to position their local agencies to better compete in future Caltrans calls-for-safety projects.

The Local Road Safety Manual benefits Caltrans and its local agencies in a number of ways. The local agencies better understand the safety program application process, the project identification and analysis steps, and the evaluation criteria Caltrans uses to rank and prioritize projects.

One of the most beneficial aspects of DLA's new data-driven process and the Local Roadway Safety Manual is the benefit/cost (B/C) ratio. The Caltrans' HSIP project application requires applicants to calculate a benefit/cost ratio for proposed improvements. This ratio is the foundation of the statewide project selection process. The manual outlines the methodology for calculating a benefit/cost ratio for a potential project, including sources for estimating projected costs and benefits and the specific values/formulas Caltrans uses for its statewide evaluations of HSIP projects. The manual also discusses the potential value in reevaluating projects' overall cost-effectiveness at this point in the safety analysis, including refining the project's costs and/or changing the mix of countermeasures and locations. For benefit/cost analysis of HSIP projects, local agencies are required to use the Transportation Injury Mapping System (TIMS) B/C Calculator and web tools made available by Caltrans through a contract with the Safe Transportation Research and Education Center (SafeTREC) at the University of California, Berkeley (UCB). Figure 4.1 is a screen shot of the TIMS B/C Calculator.

⁷ http://www.dot.ca.gov/hq/LocalPrograms/HSIP/Documents/hsip/CA_SM4LROv11.pdf.

Figure 4.1 TIMS B/C Calculator



Source: Caltrans Division of Local Assistance.

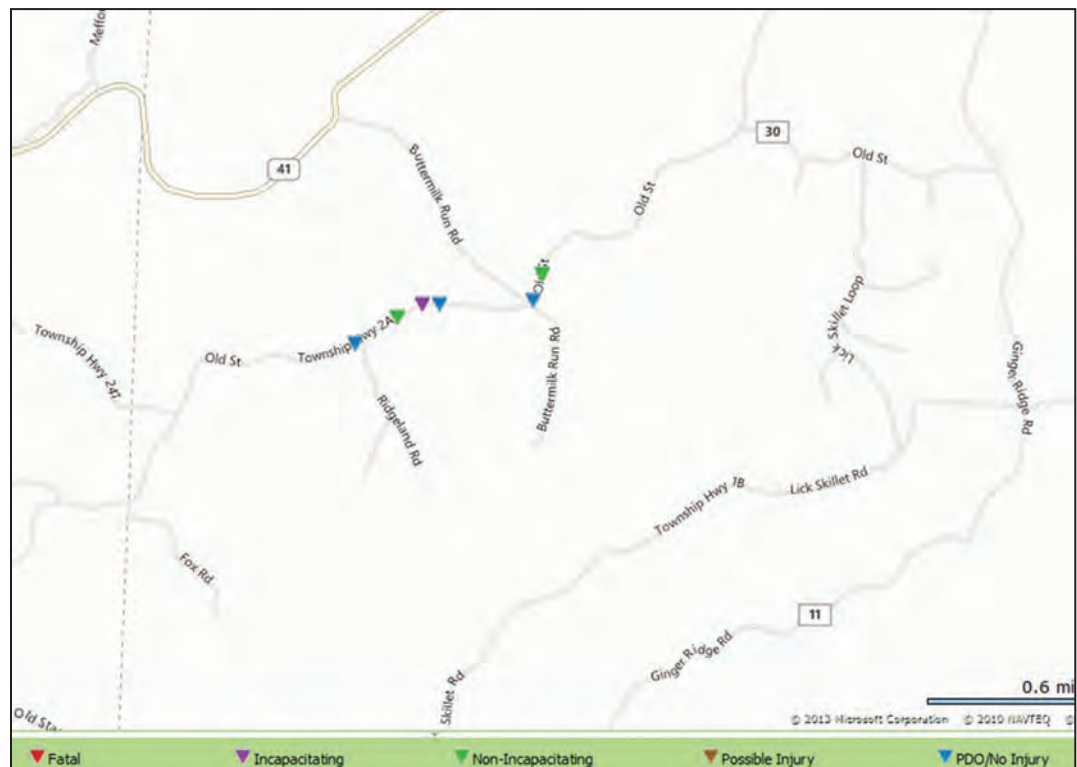
DLA works in coordination with FHWA to deliver webinars to the locals on the project application process, proven countermeasures, the latest research and trends, Federal initiatives, and local case studies. On a recent webinar, approximately 200 local jurisdictions participated. The webinars also are recorded and available on-line for future reference.

Developing this resource has improved local agencies' ability to perform benefit/cost calculations for project applications. Two-and-a-half years ago, the average benefit/cost ratio on a project was approximately 8, but currently it is approximately 13.5. Local agencies are submitting applications for projects with greater life saving benefits. Local agencies understand the necessity of the data-driven process. The division also has seen an increase in positive communication with local agencies.

4.2 CRASH DATA ANALYSIS TOOLS

Local roadway agencies need a method for obtaining the data necessary to justify funding requests for road safety improvement projects. The Ohio Department of Transportation (ODOT) developed a crash-mapping tool called GCAT (GIS Crash Analysis Tool), which is used to map the crashes occurring on the State's roadways (Figure 4.2). GCAT uses Geographic Information Systems (GIS) to produce spatially located (latitude/longitude) data. Crash data for all local roadways is available.

Figure 4.2 GCAT Crash Data Map



Source: Ohio Department of Transportation.

The tool is a web application and can be accessed from any computer on-line through the ODOT web site.⁸ Access to GCAT is free and easy to obtain for employees of the city, county, village, township, metropolitan planning organizations, law enforcement, and prequalified safety study consultants. Local agencies can submit a basic account request on-line and begin using the GCAT program once they are notified via email.

Users can then view various attributes such as crash type, crash severity (i.e., fatality, incapacitating injury, property damage only), etc. GCAT includes the Crash Analysis Module (CAM) Tool, which is an Excel spreadsheet tool that allows users to import the crash data. The CAM Tool analyzes the data and develops standard crash trend charts and graphs. This analysis tool was created within ODOT and allows even the casual data user to analyze crash trends quickly and easily.

Ohio LTAP offers half-day GCAT and CAM Tool training sessions to local agencies at no cost. Training sessions are held in a computer training room to allow hands-on use of the GCAT and CAM Tool software.

The GCAT and CAM Tools remove the common barrier to local roadway safety data. The tools also help local agencies identify safety problems and develop potential safety improvement project applications.

⁸ <https://gcat.dot.state.oh.us/SSL/Login.aspx>.

ODOT has seen an increase in project applications from local agencies as tools and training opportunities provide the means to justify safety problems and identify potential countermeasures.

4.3 OHIO LTAP/DOT/COUNTY ENGINEERS ASSOCIATION OF OHIO PARTNERSHIP

The Ohio Local Road Safety Program is a three-part collaboration among Ohio DOT, the Ohio LTAP center, and the County Engineers Association of Ohio (CEAO). The collaboration provides funding for local road safety improvements, offers training and technical assistance to local agencies, and assists with the administration of local safety projects.

Ohio DOT dedicates \$12 million of HSIP funds annually to qualifying safety projects on county roads. The funds are administered by CEAO. ODOT also funds a position at CEAO to administer the county safety projects and provide technical assistance to counties as they develop and implement local safety projects. Once projects are approved for safety funding, they are administered by ODOT through the district offices or by local governments through the Office of Local Programs. The funding set aside specifically for county roads has enabled county engineers to take the lead in determining the improvement projects to fund. Providing funding for a CEAO position enables counties to administer projects with the assistance of the CEAO Program Manager.

Local agencies also are eligible to apply for HSIP funds through the statewide program managed by ODOT. Multidisciplinary committees review applications each year and award funds based on scored criteria and other factors, such as cost, compatibility between countermeasures and crash patterns, and relevance to the SHSP. ODOT provides crash data and user-friendly tools to help local governments analyze safety challenges and justify public investments. Section 4.2 provides additional details on the crash data analysis tools provided by ODOT.

Ohio LTAP has developed educational, outreach, and RSA programs designed to build safety knowledge at the local level. Participation in RSA programs and training has increased now that an incentive is tied to local agency RSA participation. Typically ODOT will fund low-cost safety improvements on corridors or at spot locations where RSAs are conducted; however, if an RSA identifies the need for larger, more costly improvements, ODOT sends task order consultants to assess the problem and the costs.

Ohio LTAP has used a variety of methods to educate local agencies on the Federal-aid process. LTAP is developing a series of on-line training modules based on the Locally Administered Transportation Projects (LATP) manual in order to certify local governments on their knowledge of the Federal-aid process. LTAP also has worked to provide critical but costly transportation resources to the local community as they are developed, at no cost. An example is the provision of a copy of the Highway Safety Manual (HSM) to each County Engineer's Office in Ohio and a segment of the largest City Engineer's Offices (funded through a grant to LTAP

from Ohio's Office of Criminal Justice Services, formally the Ohio Governor's Highway Safety Office).

LTAP also has developed a Safety Distinction Recognition for its Roads Scholar Program. The Roads Scholar Program recognizes local practitioners that complete approved LTAP workshops/courses relating to core subjects in transportation and public works. Graduates of the Roads Scholar Program have the option of achieving a Safety Distinction by attending safety-related courses. This additional distinction aims to emphasize the tremendous importance of safety as a primary consideration when managing and maintaining roadways and transportation infrastructure. LTAP also provides HSM and roadway departure countermeasure training courses.

The Circuit Rider Training Program provides free on-site training to local agencies upon request on various safety topics. Circuit Rider instructors travel to local agency facilities to teach introductory classes (two to three hours) that provide an overview of basic concepts such as Road Safety for Everyone, Work Zone Safety, or Snow and Ice Control.

Ohio's First Annual Local Road Safety Conference was held May 8, 2013 and sponsored by the Ohio LTAP Center and an Accelerating Safety Activities Program (ASAP) Grant from FHWA. The conference provided local agencies information on improving the safety of their local roads, including low-cost safety improvements, the new nine proven safety countermeasures, and how to make systematic safety improvements to roadways.

ODOT's partnerships with LTAP and CEAO have successfully made safety a local priority. With over 2,300 local agencies in Ohio, about 75 percent of these governments have taken advantage of the training, technical assistance, and tools provided by ODOT, Ohio LTAP, and CEAO.

4.4 LOUISIANA – DOTD/LTAP PARTNERSHIP AND COORDINATION WITH SHSP AND REGIONAL TEAM IMPLEMENTATION PROCESS

Louisiana DOTD established a Local Roads Safety Program in 2006 and despite early barriers and challenges, it has become a viable program aimed at improving highway safety on Louisiana's local road network. Today, the Louisiana LTAP Center administers the Local Road Safety Program and DOTD sets aside \$3 to \$5 million from its Section 154/164 Safety Transfer funds,⁹ HSIP funds, and HRRRP funds for local safety projects. Thanks to the successful partnership between LTAP and DOTD, technical assistance and funding is available to help local agencies implement infrastructure projects.

⁹ MAP-21 continues two penalty transfer programs to encourage States to enact Open Container laws (Section 154) and Repeat Intoxicated Driver laws (Section 164). Any State that does not enact and enforce a conforming open container and repeat intoxicated driver law will be subject to a penalty transfer of funds. Additional information is available at <http://www.fhwa.dot.gov/map21/guidance/guidepentransprov.cfm>.

Within DOTD, no unit or department is responsible for administering local road safety projects, which is one of the main reasons for the partnership with LTAP. The LADOTD Office of Safety provides funding to LA LTAP for a full-time traffic safety engineer/program manager, a part-time project engineer and two part-time traffic safety engineers. The full-time engineer/program manager is an LTAP employee while the part-time engineers are on contract. The LADOTD Office of Safety also pays a portion of the LTAP director's salary and a portion of administrative costs. LTAP has been working with the Louisiana Highway Safety Research Group (LHSRG) which is a separate entity at LSU to access more crash data assistance. The LHSRG has been working on crash data locations on the local roads as well as developing analytical tools for use by LTAP and the locals in the future. LTAP administers the safety improvement project funds through an annual solicitation process as well as a statewide analysis to identify locations for improvement as part of the State's SHSP Intersection and Roadway Departure Action Plans. LTAP utilizes a standing committee to assist in selecting projects for funding. DOTD safety staff, FHWA, and local representatives are active participants.

The main component of the Louisiana LTAP program is to help local agencies develop the capability to solve local road safety problems using local resources or by accessing funds through the SHSP process. LTAP assists local agencies to identify, apply for, and administer local road infrastructure safety projects. Most recently, they have begun to assist the regional transportation safety coalitions with the identification and implementation of infrastructure improvements.

In 2011, DOTD divided the State into 10 regions and charged each with developing a regional safety coalition and a safety plan (a regional SHSP) to help with the implementation of the Louisiana SHSP. Each coalition reviews regional crash data to identify strategies and projects to reduce fatalities and serious injuries for impaired drivers, unbelted drivers, young drivers, and infrastructure-related crashes. LTAP works with the coalitions to identify and implement local infrastructure improvements for the plans in coordination with activities on the State system. To assist, LTAP analyzes the available crash data on the local system and presents the information to coalition members in an easy-to-understand presentation so they can discuss safety concerns and opportunities on a regional basis. Figure 4.3 is a slide developed by LTAP for a regional safety coalition meeting for the discussion. The purpose of the discussion is to help participants begin the process to identify and prioritize road segments and intersections for further analysis. Once participants agree on their priorities, RSAs are conducted at the selected sites so solutions can be developed.

Figure 4.3 LA LTAP Slide Developed for Regional Safety Coalition



Source: Louisiana LTAP.

The regional coalitions can then apply for funding from LTAP for the improvements identified during the RSAs. Typical project types include sign improvements, geometric improvements, and other low-cost safety improvements.

To date, LTAP has provided local data, data analysis, and technical assistance to four regional coalitions. The most advanced coalition, the South Central Regional Transportation Safety Partnership, has conducted five RSAs, and with the help of LTAP is preparing to apply for funding. Figure 4.4 shows an LTAP representative leading an RSA for the South Central Regional Safety Coalition. LTAP also currently is working with coalition members (as well as individual parishes) to implement a systemwide/systemic approach to improving safety on horizontal curves. LTAP has located all horizontal curves on the local road system. LTAP is working with the local agencies and DOTD to develop a process to characterize and prioritize these curves based on certain criteria and to develop a manageable process to implement projects systemically.

Figure 4.4 LTAP Led RSA for the South Central Transportation Safety Coalition



Source: South Central Planning and Development Commission.

In terms of next steps, LTAP, LSU, and DOTD are partnering on a three-year program to assemble roadway and traffic data on the local road system. This program will collect roadway characteristic and traffic data on all arterials, collectors and roads of significance for the local road system. This will continue to enhance LTAP's capability to work with the local agencies, share data, and collaborate on infrastructure improvements. LTAP is facilitating the development of a research project to develop better estimates of local road AADT which is necessary for many of the analytical tools currently being used to analyze for safety.

4.5 FLORIDA DOT DISTRICT 7 LOCAL SAFETY PROGRAMS

The Florida DOT District 7 Local Safety Program is a comprehensive district-level local road safety program. Florida DOT District 7 covers Hillsborough, Pasco, Pinellas, Citrus, and Hernando counties. Major cities in the district include Tampa, Clearwater, and St. Petersburg.

The District 7 Local Safety Program began in 2011 when the district safety engineer was asked to identify strategies to improve traffic safety in the district. At the time, a disproportionate number of fatalities occurred on locally owned roadways. While a number of safety initiatives had been implemented on State-maintained roadways, safety continued to be a concern for the district. The safety engineer began exploring methods for reducing fatalities on local roadways. At

the same time, many local jurisdictions were dealing with reduced budgets and did not have additional resources to address the growing problem. The district safety engineer sought the DOT district management's support to allocate a greater portion of the District's HSIP funds to local safety improvements.

The local agencies needed guidance and assistance navigating the Federal-aid process. District 7 held the first annual local agency safety summit in 2011. The purpose of the annual summit is to provide the department and local agency management-level staff with key information on the traffic safety issues specific to the Tampa Bay region. The summit also briefs local agency partners on current efforts and strategies to reduce crashes throughout the region, with a primary focus on Florida's commitment to dedicate State and Federal safety funds to local agency projects as a part of the HSIP. A timeline to submit applications for the district program is provided to local agencies, including the application deadline and a summary of the three phases of the process. The project timeline is available at the District 7 Safety Timeline web page.¹⁰

At the end of the summit, the intent is to reach a consensus relative to enhancing the transportation safety partnership between FDOT and local agencies. For more information go to the District 7 Safety Summit web page.¹¹

After the first summit in 2011, the district safety engineer and staff were overwhelmed with requests for information and guidance as local agencies navigated the process. To better accommodate the local agencies' inquiries, Safety Ambassadors were hired through consultant support to help local agencies through the process. The safety ambassadors provided engineering-related support and guidance and helped the locals understand how they could apply for Federal safety funds to improve local road safety. In addition, consultant support developed the *Local Agency Safety Funding Guide for Off-System Roadways*¹² to assist the District 7 local agencies in applying for HSIP funds for safety projects.

Local agencies must be Local Agency Program (LAP) certified to contract with FDOT and be reimbursed for projects using Federal-aid funds. LAP experts assist local agencies with navigating the certification process. District 7 employed a LAP expert to support local agencies applying for HSIP funds through the local safety program. Providing LAP support allows the safety ambassadors to focus on engineering and technical support to local agencies. The District 7 Safety Program provides technical assistance, training, and support to local agencies in a variety of ways. The program provides district-wide manpower support to local agencies for RSAs, in-house support for engineering issues, and design support for approved off-system safety projects. The program also provides signs and other items needed to improve safety to local agencies for installation by local labor forces. This option allows local agencies to avoid the administrative work of applying for funds to pay for the materials if their local forces can

¹⁰ <http://www.d7safetysummit.org/timeline.html>.

¹¹ <http://www.d7safetysummit.org>.

¹² <http://www.d7safetysummit.org/resources.html>.

install the materials. The materials program requires local agencies to sign an agreement to install and maintain the materials provided.

The District 7 Safety Program also developed a design-build push-button (DBPB) contracting vehicle to streamline the process for specific local safety improvements. The DBPB process uses Federal safety funds to issue multiple safety projects during a contract period shortening the contract execution process. The DBPB is summarized as a separate case study in Section 4.6. The District 7 Local Agency Safety Funding Guide is a comprehensive resource guide for the District's safety programs.

The District 7 Local Safety Program has been the catalyst for an increased emphasis on safety in the district. The program has supported the following traffic safety initiatives:

- Over \$500,000 annually in local roadway project design support (including LAP project design);
- Over \$1 million annually in local roadway safety engineering and education support (including CTST education, Safety Ambassadors, and LAP support); and
- Over \$2 million annually in local roadway safety project funding to address intersection safety, pedestrian safety, and rural lane departures.

Bringing greater awareness to the District's traffic safety issues has been a catalyst for local elected officials to support traffic safety improvements. In addition to the safety improvements made through the District's program, several local agencies have obligated funds from their own budgets to support safety improvements. Hillsborough County and the City of Tampa have spent nearly \$10 million on bicycle and pedestrian safety improvements. Due to the program's success, Florida DOT is looking at strategies to replicate the District 7 program in other districts around the State.

4.6 NEBRASKA COUNTY SIGN INSTALLATION PROGRAM

The Nebraska Department of Roads (NDOR) Local Projects Division and Nebraska LTAP Center provide a systemic county sign installation program. Many of Nebraska's 93 counties do not have a county engineer. The program started because the State was receiving few HRRRP project applications. To encourage participation from local agencies, NDOR conducts a systemic safety analysis to identify potential sites (e.g., horizontal curves) for safety improvements based on risk. To market the program, the NDOR takes advantage of the Nebraska LTAP Center's contacts at local agencies throughout the State. The LTAP Center meets with the county superintendents and city supervisors and provides crash data and information about the project application process. Project site locations are selected by the counties. Counties agree to install signs according to the requirements of the Nebraska MUTCD. The Nebraska LTAP Center conducts spot checks to ensure proper installations.

The program has helped Nebraska successfully obligate safety funds, especially the HRRRP. The program has received participation from 78 of Nebraska's 93 counties.

4.7 OHIO TOWNSHIP SIGN SAFETY PROGRAM

The Ohio DOT's Office of Local Programs, with the assistance of the Ohio LTAP Center, administers a systemic signage intersection and curve upgrade program for targeted Ohio Townships. The program provides two opportunities for townships to apply for free safety and advanced warning signs.

- The Township-wide Systematic Signage Upgrade Program is for Townships with a high number of severe crashes. The Top 50 Townships with a high number of serious crashes for a five-year period are invited to apply for funding to implement systematic signage upgrades.
- The Township Corridor Systematic Signage Upgrade Program provides intersection signage and curve upgrades for Townships with a corridor among the Top 50 Township High-Risk Rural Roads in Ohio based on a five-year period of crash data. Townships can apply for funding on designated corridors.
- Townships participating in the programs are responsible for installation and maintenance of the signage and are limited to a list of preapproved signs.

As a part of the program, the Ohio LTAP Center provides crash data and information on the types of sign packages available for specific situations. Townships can choose from the signage packages or build their own sign orders. The signage packages help insure the townships install the signs according to the requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD). The ODOT Office of Local Programs also provides guidance and assistance to Townships on sign installation if necessary. Program details are available on the ODOT Local Programs¹³ web page. Figure 4.5 shows before and after photos for a sign installation completed as a part of the program.

¹³ http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/Pages/Township_Sign_Safety_Program.aspx.

Figure 4.5 Before and After Photos of Sign Installation



Source: Ohio Department of Transportation/LTAP.

4.8 TENNESSEE LOCAL ROADS SAFETY INITIATIVE

The Tennessee DOT Local Roads Safety Initiative (LRSI) was created in 2010 to assist with improving safety on local roads. TDOT created the initiative to assist its counties with road safety improvements. The initiative provides basic signing, striping upgrades, signage for curves, guardrail, and approaches to guard rails. Most counties have limited support staff and very few counties have staff with the needed engineering expertise. Only 6 of 95 county chief administrative officers are licensed engineers. The LRSI was developed by a partnership between the SHSP and safety projects coordinator, State traffic engineer, assistant chief of operations, incident management division director, and the Tennessee FHWA Division. TDOT developed a consultant contract and hired two consultants to conduct local road safety analysis in Tennessee's 95 counties.

A list was generated by the Tennessee Department of Safety (TDOS) ranking counties not wholly located in an MPO based on serious injuries and fatalities per mile of county roads. This ranked list is used to select counties to implement improvements. The consultant requests crash data for local roads from the TDOS for the selected county. A meeting is scheduled with county officials (i.e., County Mayor, Sheriff, Road Supervisor, and emergency medical services) to explain the program and obtain their buy-in and cooperation. County officials are asked to provide their input on spot locations and corridors where they perceive the greatest need for safety improvements and provide crash reports and any other data to support their selections.

The information collected from county officials is added to the TDOS crash database for the county and the consultant develops a priority list of spots and/or corridors. The list is provided to the county for comment and concurrence. Once the list is approved a Road Safety Audit Review (RSAR) prebrief meeting is held in the county with available stakeholders to gather information on perceived problems to be reviewed by the consultant team during the field review. The final RSAR sites are reviewed and approved by the TDOT Project Manager and State Traffic Engineer.

The Tennessee LTAP and FHWA Resource Center provide RSA training for Tennessee's local agencies and counties. Field reviews consist of a minimum of three people that have completed RSAR training. The FHWA Safety Engineer and TDOT Region Traffic Engineer also are invited to attend the field review but their presence is not required. The RSAR is conducted and draft guidance and an audit package called the "no-plans audit" is produced by the consultant team. The estimated recommendations to be incorporated into a no-plans contract should not exceed \$250,000. The draft audit package is submitted to the TDOT Project Manager for review by the State Traffic Engineer and Assistant Chief Engineer (Operations). The document also is available for FHWA review. After the audit package is approved, it is submitted to the Environmental Office to obtain required permits and the revised report is submitted to the county officials for comment. The use of "no-plans audits" during the RSAR documentation process allows projects with no right-of-way acquisition or utilities relocation to be expedited more quickly because the RSAR report goes directly to the environmental permits process, skips the design process, and goes to construction.

The final report is completed after the consultant conducts a post-RSAR briefing with the county stakeholders to resolve any issues with the guidance and obtain their concurrence. Once the environmental documents are received, the consultant produces no plans contract documents based on the priority sites list and estimated cost up to \$250,000. The county is required to sign a maintenance agreement with TDOT agreeing to maintain the roadway upon completion of the project.

The TDOT Local Road Safety Initiative has successfully conducted RSARs through the draft stage for 45 counties and 21 projects have been let to bid and awarded since the program's inception.

4.9 FLORIDA DISTRICT 7 DESIGN-BUILD PUSH-BUTTON CONTRACTS

The Florida DOT District 7 Safety Program developed an expedited DBPB contract process which allows local agencies to request the use of a District 7 contractor to install a variety of safety countermeasures from a preapproved list. DBPB contracts must not require the acquisition of additional or new right-of-way. Projects also must have minimal impact to utilities and drainage. Examples include:

- Add paved shoulder to existing roadway;
- High-emphasis crosswalk;
- Special emphasis pavement markings;
- Safety edge;
- Enhanced signing, marking, and delineation;
- Guardrail;
- Traffic signals;
- Pedestrian islands;
- Channelization;
- Skid-resistance pavement;
- Signs; and
- Delineators.

FDOT Central Office agreed to allow District 7 to pilot test this unique contracting concept in September 2007. District 7 began working with FHWA Florida Division to gain approval to include Federal safety money under this combined contract in June 2008. After receiving FHWA's approval, the District began developing the request for proposals (RFP) and conducted an informational meeting with the consultant community and contractor industry to gain input. The RFP was released in March 2009. The contract was executed in December 2009. The first contract task, which included 11 projects, was executed in January 2010.

DBPB contracts can issue numerous tasks, covering various project types through the life of the contract (two years in this case). Tasks are issued through the DBPB contract by a predetermined process which includes a feasibility and justification study, task scopes with maximum task time and costs, task scopes review, FHWA review, and approval, and allocation of approved funds for each DBPB task. At this point, the district construction office sends the notice to proceed (NTP) to the DBPB firm and work begins. SharePoint technology is used to coordinate weekly progress meetings and share DBPB plans and tasks information.

The DBPB process saves lives, time, and money. The streamlined process enables FDOT District 7 to complete operational or safety improvements up to \$1 million on a faster timeline and better meet public expectations that safety improvements are made quickly. Project timelines are reduced by at least 25 months.

An evaluation of the DBPB process estimated a 30 percent savings in design and construction engineering inspection costs. The total estimated crash reduction for the 11 projects in the first task is 138 crashes.

More information on the FDOT District 7 Local Safety Program and DBPB can be found at FDOT District 7 Safety Summit web page.¹⁴

¹⁴ <http://www.d7safetysummit.org>.

5.0 Summary

Local roads provide critical connections that allow people and goods to move about communities, neighborhoods, and towns. Local road safety programs save lives by reducing fatalities and serious injuries on local roads. States are focused on improving safety on a systemwide level and consider local roadways another opportunity to achieve the goals and objectives identified in SHSPs.

Addressing local road safety issues requires knowledge of various funding mechanisms, access to essential traffic safety data, traffic engineering and safety expertise, and partnerships among and between a wide array of local elected officials, planners, engineers, and other decision-makers. Realizing the complexities of local road safety, many State DOTs offer support in the form of information, training, technical assistance, and project implementation to agencies to assist with the local road safety projects. The assessment revealed a variety of efforts State DOTs have implemented to improve local road safety.

The noteworthy practices documented in this report serve as a menu of options for DOTs and local agencies to consider when enhancing local road safety. The Local Road Safety Checklist included in Appendix C is designed to provide DOTs and LTAP centers with lists of questions to use to identify opportunities to enhance or initiate a local road safety program. While the list is not designed for local agencies, it may provide some considerations for local agencies when faced with questions regarding the resources and opportunities provided by DOTs and LTAPs to assist with local road safety initiatives.

DOTs are in a unique position to partner with LTAPs, MPOs, and other entities to provide the support necessary for local agencies to develop and implement programs and projects to save lives on local roadways across the nation. The level of support needed will vary across States and depend on the extent of the local road safety problem, the expertise of local agencies within the State, and resources available for a DOT to provide this support.

A. Appendix

A.1 ASSESSMENT OF LOCAL ROAD SAFETY FUNDING, TRAINING, AND TECHNICAL ASSISTANCE QUESTIONNAIRE RESPONDENTS

Alabama	Kentucky	North Dakota
Alaska	Louisiana	Ohio
Arizona	Maryland	Pennsylvania
Arkansas	Massachusetts	Rhode Island
California	Michigan	South Carolina
Colorado	Minnesota	South Dakota
Connecticut	Missouri	Tennessee
Delaware	Montana	Texas
Florida	Nebraska	Utah
Hawaii	Nevada	Virginia
Illinois	New Hampshire	Washington
Iowa	New Mexico	Wisconsin
Kansas	North Carolina	

A.2 ASSESSMENT AND DELIVERY OF SAFETY FUNDING AT THE LOCAL LEVEL QUESTIONNAIRE

OMB approval #201207-2125-001.

Instructions

The Federal Highway Administration (FHWA) is examining State department of transportation (DOT) practices for providing resources to local agencies (including Tribal Governments) for road safety improvement projects. The purpose of this effort is to identify noteworthy practices that can be implemented in other States. While this survey is primarily directed at State departments of transportation, respondents are encouraged to reach out to local agency contacts to assist with answering the questions. These might include regional planning organizations, Local Technical Assistance Programs (LTAP), and/or local public agencies. Please answer the following questions related to the identification, prioritization, selection, development, implementation, and administration of safety projects on local roads. It might be helpful to first identify the information you will need to gather, including funding amounts for State or Federal Fiscal Years 2009, 2010, and 2011.

Background Information

1. Please provide name and contact information for the primary individual providing information for the questionnaire.

State: _____

Name: _____

Department/Agency: _____

Division/Unit: _____

Title/Position: _____

Telephone Number: _____

Email Address: _____

2. Did any other agencies provide information for this survey?
(Select all that apply)

- None
- Local Agency(s)
- LTAP
- Regional Planning Organization(s)
- Other: _____

State of Practice

The following questions will be used to collect information on current policies, procedures, and practices to improve local road safety.

3. Funding: Please specify whether the funding amounts reported are based on the Federal or State fiscal year.

- Federal fiscal year (October to September)
- State fiscal year (specify starting month): _____

4. Does the State set aside (in advance, typically annually) a specific funding amount for local road safety projects? If yes, please specify whether the amount entered is the percent or dollar amount and enter the amount set aside for fiscal years 2009, 2010, and 2011 for the various funding sources. If there is no set-aside, enter zero.

	Reporting Value (Select one)	FY 2009 Set-Aside Amount	FY 2010 Set-Aside Amount	FY 2011 Set-Aside Amount
HSIP Net	Percent/ Dollar Amount			
HRRRP	Percent/ Dollar Amount			
State Funds	Percent/ Dollar Amount			
Other Federal Highway Funds ^a	Percent/ Dollar Amount			
Other Funds: _____	Percent/ Dollar Amount			
Other Funds: _____	Percent/ Dollar Amount			

^a Federal-aid highway funds such as Surface Transportation Program (STP), Safe Routes to School (SRTS), Congestion Mitigation and Air Quality Improvement Program (CMAQ), or American Recovery and Reinvestment Act of 2009 (ARRA). Does not include §402 and similar funds provided to State highway safety offices for behavioral-related programs and projects.

5. Which of the following are used to determine how the funding set-asides identified in the previous question are determined? Select all that apply.

- Based on a formula allocation.
- Based on the fatality and/or serious injury numbers or rates.
- Determined by decision-makers each year.
- Based on a competitive process where projects are selected on potential for safety improvement (proportion to locals varies year by year).
- Other, please explain below:

- Other, please explain below:

6. How much was actually spent (obligated) on local road safety projects, by each funding source, in Fiscal Years 2009, 2010, and 2011?

	FY 2009	FY 2010	FY 2011
HSIP Net			
HRRRP			
Other Federal-Aid Highway Funds			
State Funds			
Other: _____			
Other: _____			

7. Does the State use any of the following incentives to encourage local agencies to develop and implement local road safety projects? Select all that apply.

- Provide preliminary engineering funding for Federally funded projects on local roads.
- Provide final design funding for Federally funded projects on local roads.
- Provide matching funds for HSIP-eligible projects on local roads.
- Provide funding for RSAs on Federally funded projects on local roads.
- Other, please explain: _____
- Other, please explain: _____

8. Would you like to clarify or elaborate on any local safety funding issues?
(Optional)

Training and Technical Support

9. Which entities provide training to local agencies in the following topic areas for local road safety projects? Select all that apply.

	State ^a	LTAP	MPO	Other (i.e., University, Professional Organization)
Data Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problem Identification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Countermeasure Identification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost/Benefit Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Application Preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project Development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Postproject Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal Regulations/Federal Aid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

^a Includes State-funded consultants (but not LTAP).

10. Which entities provide the following assistance on safety projects for, or on behalf of, local agencies? Select all that apply.

	State ^a	LTAP	MPO	Locals ^b
Data Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problem Identification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Countermeasure Identification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cost/Benefit Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Application Preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project Development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Postproject Evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

^a Includes State-funded consultants.

^b City, county, or other local jurisdiction performs the function or contracts directly with a consultant.

11. Which entities provide the following support personnel to local agencies for safety projects? Select all that apply.

	State DOT	LTAP	MPO
Support Personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local/off-system safety coordinator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DOT district/region coordinators responsible for local projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Consultant services for local project development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Does the State DOT have an entity or unit responsible for conducting the following duties for local road safety projects? Select all that apply.

	Division of Local	DOT Traffic and Safety	DOT District Offices	Other (i.e., LTAP in the DOT)
Develop local project selection criteria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Review project application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide stewardship and oversight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Would you like to clarify or elaborate on any local safety training and technical assistance issues? (Optional)

14. How are local road safety projects selected for funding? Select all that apply.

- DOT Safety Advisory Committee.
- SHSP emphasis areas.
- Competitive application/technical criteria.
- Direct apportionment.
- Legislative mandate.
- Five Percent Report.
- Other, please explain below:

- Other, please explain below:

15. Do local safety projects directly compete with State projects for safety improvement funding?

- Yes.
- No.
- I don't know.

16. Would you like to clarify or elaborate on any local safety training and technical assistance issues? (Optional)

Noteworthy Practices

A number of States have implemented practices to improve roadway safety by providing funding and support for safety projects on local roadways. FHWA is interested in learning more about these practices so they can be shared with other States.

17. Does the State use any of the following practices to streamline the Federal-aid process for local agencies? Select all that apply.

- Ensure there is a source for local match before projects are selected for implementation.
- Provide State funds for local safety projects in lieu of Federal-aid highway funds.
- Distribute funds to MPOs or other local entities to distribute to local agencies.
- Certify a larger local agency administers projects on behalf of smaller local agencies.
- Allow local agencies to use their own materials specifications and design standards for roadways off the national highway system (preapproved).
- Encourage the use of programmatic agreements between State and local agencies.
- Allow programmatic categorical exclusions.
- Use a push-button project process to expedite certain project types.
- Allow agencies to use their own labor and resources to construct small-scale projects, eliminating the competitive bidding process.
- Pay local contractors directly instead of reimbursing local agencies (direct-pay).
- Group multiple projects together to reduce administrative burden.
- Establish a blanket contract to perform safety improvements on local roads.
- Provide a single application for multiple funding sources.
- Complete or contract for safety improvements on local roads.
- Identify systemic safety improvements eligible for safety funding on local roads.
- Other, please specify: _____
- Other, please specify: _____

18. Would you like to clarify or elaborate on any noteworthy practices? (Optional)

Challenges and Barriers

FHWA realizes States face challenges and barriers when attempting to provide funding and other resources for safety projects on local roadways. Answers to the following questions will document those challenges and help identify ways to overcome them.

19. Select the top three challenges or barriers limiting your agency's ability to identify, select, and prioritize safety projects on local roads.

- Availability of crash data – State does not collect local roadway crash data.
- Availability of crash data – Local law enforcement do not report crashes in a timely manner.
- Accuracy of crash data.
- Completeness of crash data.
- Access to crash data.
- Lack of exposure data (traffic volumes, lane miles, etc.).
- Lack of proven data analysis techniques.
- Other, please specify: _____
- Other, please specify: _____

20. Rate the availability of data in your statewide traffic records database. (Select one for each)

	Available for most local roadways	Available for some local roadways	Available for very few local roadways	Not available for local roadways
Fatal crash data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serious injury crash data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local data (GIS or linear reference)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposure data ^a	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

^a Exposure data (traffic volume, lane miles, etc.) for local roads.

21. Select the top three challenges or barriers limiting efforts in your State to develop and implement safety projects on local roads.

- Locals lack of understanding of the Federal-aid process.
- Lack of available funds.
- Policy-related scope creep (i.e., addition of new project/infrastructure elements requiring additional funding and/or approval).
- Political issues.
- State laws limiting the distribution of Federal funds to local agencies.
- State DOT contracting procedures and processes.
- Other, please specify: _____
- Other, please specify: _____

22. Would you like to clarify or elaborate on any local safety challenges and barriers? (Optional)

B. Local Road Safety References and Resources

The following references and resources provide additional information and guidance on local road noteworthy practices, tools, and technical resources.

B.1 REPORTS AND GUIDANCE

- **Noteworthy Practices: Addressing Safety on Locally Owned and Maintained Roads – A Domestic Scan** – http://safety.fhwa.dot.gov/local_rural/training/fhwasa10027/.

B.2 LOCAL RURAL ROAD OWNERS MANUALS

- **Intersection Safety** – http://safety.fhwa.dot.gov/local_rural/training/fhwasa1108/.
- **Roadway Departure Safety** – http://safety.fhwa.dot.gov/local_rural/training/fhwasa1109/.
- **Safety Information Analysis** – http://safety.fhwa.dot.gov/local_rural/training/fhwasa1210/.
- **Developing Safety Plans** – http://safety.fhwa.dot.gov/local_rural/training/fhwasa12017/.
- **Speed Management** – http://safety.fhwa.dot.gov/local_rural/training/fhwasa010413spmgmt/.
- **Nonmotorized User Safety** – http://safety.fhwa.dot.gov/local_rural/training/fhwasa010413/.
- **FHWA Proven Safety Countermeasures** – <http://safety.fhwa.dot.gov/provencountermeasures/>.
- **Local Road Safety Resource CD** – http://safety.fhwa.dot.gov/local_rural/training/resourcecd/.
- **Road Safety Tools for Local Agencies** – http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_syn_321.pdf.
- **Local and Rural Roads Safety Peer-to-Peer Assistance** – http://safety.fhwa.dot.gov/local_rural/training/p2p/.

B.3 OTHER SAFETY RESOURCES

- **Federal-Aid Essentials for Local Public Agencies** - <http://www.fhwa.dot.gov/federal-aidessentials/>.
- **Highway Safety Improvement Program** - <http://safety.fhwa.dot.gov/hsip/>.
- **Strategic Highway Safety Plan** - <http://safety.fhwa.dot.gov/hsip/shsp/>.
- **Transportation Safety Planning** - <http://safety.fhwa.dot.gov/hsip/tsp/>.

C. Local Road Safety Checklists

The following local road safety checklist is designed to provide State DOTs and LTAP centers with a list of questions to use to identify opportunities to enhance or initiate a local road safety program. While the list is not designed for local agencies, it may provide some questions local agencies may consider when faced with questions regarding the resources and opportunities provided by State DOTs and LTAPs to assist with local road safety initiatives. The lists of questions and action steps have been developed based on the noteworthy practices and lessons learned by State DOTs. If the answer to any of the identified questions is “no,” a list of potential action steps is provided to assist the State DOT or LTAP with building a stronger local road safety program.

C.1 ORGANIZATIONAL CHECKLIST

1. Is local road safety identified as a priority in the SHSP?

- Review available local crash data to determine the magnitude of problem.
- Develop a local road safety emphasis area in the SHSP or incorporate local road safety into established emphasis areas.
- Develop strategies in the SHSP to address local road safety.
- Invite local agency representatives to be involved in SHSP development and implementation efforts.
- Form an SHSP committee or task force to help promote local road safety.

2. Does your agency have a local road safety champion?

- Establish the roles and responsibilities of the local road safety champion(s).
- Identify a list of potential champions, which could include DOT executive management, planning and engineering division chiefs, or LTAP directors.
- Assess organizational structure related to local road safety efforts.
- Compare the benefits of a single local road safety champion or local road safety committee.

3. Is there a formally established local road safety program?

- Review the organizational structure of the local roads program to determine strengths and weaknesses in the identification, prioritization, and administration of local roads projects.
- Determine what level or combination of support (i.e., information, training, technical assistance, and implementation) is needed to improve or develop the local road safety program.
- Identify staff or resources for each level of support.
- Explore partnerships with LTAPs, MPOs, and/or universities to assist in delivering the local roads program.

C.2 DATA CHECKLIST

1. Is pertinent local road crash data available to your DOT for analysis?

- Assess availability of local road crash data and opportunities to improve local road data collection.
- Coordinate data improvement efforts with your State traffic records coordinating committee.

2. Is your statewide crash database available to local agencies in an easily accessible format?

- Coordinate with local agencies to determine the best methods for sharing local crash data, providing data analysis, and assisting with project identification.
- If necessary, develop a protocol for providing access to data for local agency practitioners.
- Develop crash data analysis tools to streamline data analysis process for locals.

3. Are local agencies aware of local road crash data limitations?

- Incorporate local safety data training into other DOT/LTAP training programs.

4. Are local agencies aware of the data analysis tools available to them through your local safety program?

- Develop strategies to market tools and training related to local road safety data (i.e., web site information, newsletters, etc.).
- Promote the benefits of using data-driven process and related analysis tools.

C.3 TRAINING AND TECHNICAL ASSISTANCE CHECKLIST

1. Is safety-related technical assistance and/or training provided to local agencies?

- Conduct an assessment of local practitioner needs related to training and technical assistance opportunities (see full list of potential training and technical assistance opportunities on page 18 and 19 of the report).
 - Data Analysis;
 - Problem Identification;
 - Countermeasure Identification; and
 - Project Development.
- Develop a formal process to address training and technical assistance requests from local agencies.
- Discuss local agency needs and capabilities with other entities in the State that can provide training and technical assistance, such as the local LTAP/MPO staff/universities.
- Identify needed resources, including staff time, funding, and partnerships to address technical assistance requests.

C.4 FUNDING CHECKLIST

2. Are funds provided to local agencies for road safety improvement projects?

- Determine the availability of funding (i.e., HSIP, HRRRP, State funds, etc.) to spend on local roads.
- Develop a methodology to deliver funding to local roads projects.
 - Competitive Process;
 - Formula Allocation; and
 - Data-Driven.

3. Is the amount of funding provided for local road safety projects commensurate with need?

- Conduct an assessment of the funds set aside by your agency and the amount and percent spent on local road safety projects.
- Based on the assessment, determine if funding allocations should be adjusted.

4. Are local agencies aware of available funds for safety improvements?

- Interview local agencies to determine if they are aware of opportunities to apply for funds and how the funding process works.
- Provide funding guidelines to local agencies, explaining the application and funding process.
- Work with FHWA to identify HSIP training opportunities for State and local practitioners.
- Provide presentations or workshops on potential funding sources for local roads safety improvements, the application process, and funding priorities at county engineers association conferences, statewide engineering conferences, and other conferences.

C.5 PROGRAM ADMINISTRATION CHECKLIST

1. Does your DOT implement practices to streamline the Federal-aid process for local agencies?

- Identify streamlining practices that could be used in your State (see page 22 of report for a complete list).
 - Systemic safety improvements;
 - Grouping multiple projects;
 - Identify local match early in the process;
 - Allow local agencies to use their own labor and resources; and
 - Allow programmatic categorical exclusions.
- Meet with your contracts office to identify which opportunities can be used in your State to streamline the Federal-aid process.
- If an expedited contracting process is to be used, identify staff support needed to administer contracts under the expedited process.

2. Do administrative issues restrict local agencies from applying for Federal-aid funding?

- Identify any local agency certifications/requirements needed to administer Federal-aid funding.
- Determine if the DOT local-aid division provides administrative support to local agencies related to local agency certification.
- Assess the feasibility of a local road safety program coordinator in each district.
- Identify resources that provide guidance on the local-aid certification process (i.e., web sites, manuals, etc.).

3. Have your local safety programs been evaluated for effectiveness?

- Develop an evaluation plan for your local road safety program.
- Identify performance outcome and output measures to evaluate local safety programs.
- Conduct an assessment of program capabilities.

Federal Highway Administration
Office of Safety
1200 New Jersey Avenue, SE
Washington, DC 20590
www.safety.fhwa.dot.gov

FHWA-SA-13-029

August 2013