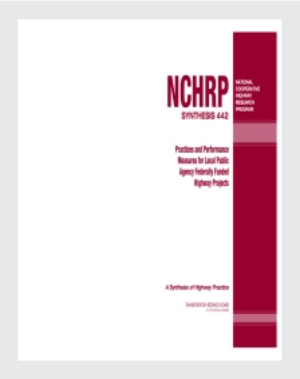

Practices and Performance Measures for Local Public Agency Federally Funded Highway Projects

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NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

NCHRP **SYNTHESIS 442**

Practices and Performance Measures for Local Public Agency Federally Funded Highway Projects

A Synthesis of Highway Practice

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NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

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FOREWORD

Highway administrators, engineers, and researchers often face problems for which information already exists, either in documented form or as undocumented experience and practice. This information may be fragmented, scattered, and unevaluated. As a consequence, full knowledge of what has been learned about a problem may not be brought to bear on its solution. Costly research findings may go unused, valuable experience may be overlooked, and due consideration may not be given to recommended practices for solving or alleviating the problem.

There is information on nearly every subject of concern to highway administrators and engineers. Much of it derives from research or from the work of practitioners faced with problems in their day-to-day work. To provide a systematic means for assembling and evaluating such useful information and to make it available to the entire highway community, the American Association of State Highway and Transportation Officials—through the mechanism of the National Cooperative Highway Research Program—authorized the Transportation Research Board to undertake a continuing study. This study, NCHRP Project 20-5, "Synthesis of Information Related to Highway Problems," searches out and synthesizes useful knowledge from all available sources and prepares concise, documented reports on specific topics. Reports from this endeavor constitute an NCHRP report series, *Synthesis of Highway Practice*.

This synthesis series reports on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Each report in the series provides a compendium of the best knowledge available on those measures found to be the most successful in resolving specific problems.

PREFACE

By Tanya Zwahlen
Consultant
Transportation
Research Board

This report compiles and documents public agency practices used in federal-aid project development and management. A primary objective of this study is to explore what performance measures, delivery practices, strategies, and tools are currently used in relation to federally-funded local public agency (LPA) highway project development and delivery, and how they are used to measure success in project administration. The report also provides information on the definition and elements of DOT-sponsored LPA certification processes.

Information used in this study was acquired through a review of the literature, a survey of DOT local program representatives in all states, and a survey of local program agency representatives identified by DOTs. Follow-up interviews with multiple state and local agency representatives provided additional information.

Leslie Ann McCarthy and Seri Park, Villanova University, and Anthony R. Giancola, Washington, D.C., collected and synthesized the information and wrote the report. The members of the topic panel are acknowledged on the preceding page. This synthesis is an immediately useful document that records the practices that were acceptable within the limitations of the knowledge available at the time of its preparation. As progress in research and practice continues, new knowledge will be added to that now at hand.

CONTENTS

Note: Many of the photographs, figures, and tables in this report have been converted from color to grayscale for printing. The electronic version of the report (posted on the web at www.trb.org) retains the color versions.

PRACTICES AND PERFORMANCE MEASURES FOR LOCAL PUBLIC AGENCY FEDERALLY FUNDED HIGHWAY PROJECTS

SUMMARY

Many federally funded transportation programs are developed and managed by local agencies and administered by state transportation agencies (DOTs). In 2006, an estimated $6 billion to $8 billion in federal-aid contracts was administered by local public agencies (LPAs) in at least 45 states, representing about 20% of the overall annual federal-aid program. Since 2006, there has been significant growth nationally in dollars allocated to LPA projects, particularly in light of American Recovery and Reinvestment Act (ARRA) funding. As of 2009, 13% of states' overall federal-aid highway program goes to LPA, representing $7.38 billion; and 18% of states' overall ARRA program goes to LPA, representing $6.07 billion. This represents an increase of $5 billion to $7 billion for LPA projects over the overall federal-aid program, demonstrating an even more critical need to study practices and performance measures for LPA federally funded transportation projects. In 2011, *NCHRP Synthesis Report 414* explored and discussed the challenges to delivering federal-aid projects (McCarthy et al. 2011). The Office of Inspector General (OIG) of the U.S. Department of Transportation (U.S. DOT) found that 88% of LPA projects that OIG reviewed in 2011 had at least one instance of noncompliance with federal requirements. The DOT Local Programs Officers are primarily responsible for distributing and managing federal-aid funds that could be made available for local agency use. For a number of reasons, federally funded projects that might be performed by LPAs, or those that are obligated to LPAs, never come to fruition. Some reasons include an LPA funding match not being available, projects not being construction-ready, one-size-fits-all federal requirements that leave little flexibility, and state-level restrictions and processes that may create challenges to the LPA program. In addition, there is an outstanding balance of unspent congressionally directed funds, many of which are allocated to LPAs. Even in states with LPA certification programs, some DOTs and LPAs note that these programs do not necessarily reduce overall project delivery time or administrative burden.

This synthesis of public agency practices used in federal-aid project development and management identifies efficient methods and performance measures used by DOTs and LPAs. One focus of the surveys conducted was to identify measures that are used to gauge how LPAs administer federal-aid projects successfully. The synthesis findings may be used to assist state and local public agencies, planning organizations, and other stakeholders in developing and managing federally funded projects at a higher level of accountability and efficiency. Of particular interest to this project were the definition and elements of DOT-sponsored LPA certification programs. The information was gathered in four phases through the following methods:

- Literature search and review of agency resources,
- Survey of DOT local program representatives in all states,
- Survey of local public agency representatives identified by DOTs, and
- Follow-up interviews with multiple state and local agency representatives.

The literature search of the LPA program was conducted by using traditional sources such as the TRB-sponsored Transportation Research International Documentation and reviewing public domains such as individual DOT websites and the FHWA website. Communications from national organizations that are LPA program stakeholders, such as the National Association of County Engineers and the American Public Works Association, were used as resources.

The majority of synthesis information was gathered through a DOT survey and subsequent phone interviews. A nested survey looked at the practices and impacts of the LPA certification program administered by several DOTs. All but four of the state invitees responded, a response rate of 92% (see Appendix A). As part of the main DOT survey, LPA administrators were asked to provide the contact information for at least two counterparts at small, medium, and large local agencies within their state. In total, contacts at 105 LPAs in 23 states were invited to respond to a separate survey aimed at identifying successful local practices for planning, receiving, developing, and managing federally funded projects. Forty-one LPAs (19 large, 11 medium, and 10 small) from 17 states responded to the LPA survey (see Appendix B). Due to the nature of the LPA sample selection and response rate, the LPA survey may not be representative of all LPAs. Follow-up telephone interviews were also held with 11 DOTs to obtain more in-depth information and samples of documents, such as programmatic agreements and categorical exclusions, which are used for minimizing delays and cost overruns in LPA projects.

The following observations were made based on the DOT and LPA survey data and interviews of states:

- The DOT survey data indicate that the projects that historically take longest to deliver and are most at risk for cost overruns involve transportation enhancement activities, bridge projects, and elements of the surface transportation program, some of which are congressional earmarks.
- More than half of the DOTs reported that more than 100 local agencies are participating in federal-aid projects in their state. The rationale for LPA eligibility was reported to be based mostly on the federal-aid program type, local match availability, certification status by the state DOT, appropriate and available LPA staff size, and size or complexity of the project scope.
- A majority (62%) of DOT respondents were not supportive of federal regulations requiring states to administer a certification program. Of the 41 LPAs surveyed, 26 were not supportive of federal regulations requiring states to administer a certification program.
- Ongoing training programs for LPAs, regardless of the existence of DOT-sponsored certification programs, are important for understanding the complexities of the federal-aid program and teaching the skills needed to improve the planning, programming, design, and procurement of federally funded projects. A majority of LPAs indicated that training on federal regulations and the entire federal-aid process was a key aspect of the training.
- According to the DOT survey, most DOTs do not have formal performance measures for determining eligibility for federal-aid funding or for evaluating the planning, programming, design, and construction of projects. For many DOTs, the results of both state and federal audits or project reviews are used informally as a tool to help LPAs improve their performance. The majority of the 15 DOTs that do have performance measures hold LPAs accountable primarily through loss of funding or decertification.
  - The majority of the DOTs reported that the certification process has helped both the DOTs and LPAs better comply with federal-aid requirements. Eleven DOTs indicated that the certification process had helped participating LPAs achieve more of the performance measures established for project delivery, especially in the acquisition of right-of-way, construction contracting and inspection, and procurement phases.

- A small number of DOTs listed details on what they considered as performance measures in determining the level of success of delivering federally funded LPA projects. Some examples of performance measures defined by DOTs included (1) no instances of LPA noncompliance with program requirements; (2) number of eligible reimbursement requests for work associated with each project phase; (3) tracking and reporting the condition of local bridges and city arterial pavement conditions as part of the LPA project delivery; and (4) a certain percentage of LPA projects successfully advertised within 30 days of their scheduled milestone dates.
- A majority (34 of 41) LPAs reported that the length of the environmental process, and meeting the related federal requirements, are the major hurdles to successfully delivering federally funded projects.
- More than half (22 of 41) LPAs have benefited from programmatic agreements because they provide an established, consistent process for consultation, review, and compliance with one or more federal laws. Similarly, 72% of DOTs reported that the use of programmatic agreements reduced the time required for completion of LPA projects and resulted in overall project cost savings.
- Seventy-two percent (72%) of DOT respondents stated that categorical exclusions have accelerated the environmental review period and simplified the environmental review process, primarily through the clear definition of the kinds of projects that incur minimal impacts and dedicated coordination among federal, state, and resource agencies.
- The feedback provided by the 23 LPAs certified by their state DOTs was that they have improved their ability to deliver federally funded projects more easily and quickly. LPAs indicated that being certified provides the opportunity to be responsible for federally funded projects, rather than to be managed by a state DOT or contracted to a consultant. The LPAs that are not certified are challenged in their capability to control scope creep and other financial aspects of federally funded projects.

CHAPTER ONE

INTRODUCTION

BACKGROUND

This chapter introduces background information on documented practices and corresponding performance measures included in published literature or other resources. The review was intended to identify the importance of the following items: time savings as a result of minimizing federal environmental review and/or total time to completion for LPA projects, qualitative and quantitative measures of success for all project phases, LPA certification programs, and total funding obligations and/or obligations to LPAs, as well as any identified reductions in financial burdens to the DOTs and LPAs as a result of LPA programs.

The most recent highway bill [Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)] expanded existing categories of funding, and LPAs have been able to apply for federal funds to use on local transportation projects. In addition, SAFETEA-LU assigned state transportation or resource agencies the responsibility for awarding and administering locally funded federal-aid projects.

SYNTHESIS OBJECTIVE

Effective delivery of federally funded transportation projects by LPAs has been cited as a serious concern by Congress, FHWA, state DOTs, LPA program applicants, and transportation interest groups (*Oversight of Federal-aid and Recovery Act Projects Administered by Local Public Agencies Needs Strengthening* 2011). The recent *NCHRP Synthesis 414* focused on identifying the challenges to, as well as practices and tools for, effective delivery of smallscale federalaid projects in only a small number of states (McCarthy et al. 2011). Study findings indicated that several items, many of which were related to projects granted to LPAs, challenge the federalaid project development and delivery process. For this reason, the NCHRP Synthesis Topic 4304 built upon the scope of *NCHRP Synthesis 414* by including practices and performance measures used by all DOTs as they relate to the LPA program. This synthesis gathered information on the current practices and performance measures used to develop and deliver federally funded LPA projects. Special emphasis is placed on documenting the experiences of DOTs that have implemented an LPA certification program for federal-aid applicants. This synthesis will aid state LPA offices, LPAs, and other stakeholders in exploring the use of current practices and in developing performance measures to monitor effectiveness in the delivery of federal-aid programs.

STUDY APPROACH

Many federally funded transportation programs provide funds for projects that are administered by state agencies and local governments. The use of federal funds may result in the need for a disproportionate amount of resources to implement the projects. However, a review of the literature, survey of all state DOTs, survey of DOT-identified LPAs, and focus interviews revealed current practices and performance measures used to develop and effectively deliver federally funded LPA projects around the country. Additionally, the current practices and performance measures for DOT certification or qualification of LPAs were captured as part of the study approach.

A comprehensive literature review of federal, state, local, and national practice was conducted to establish background information on the range and impact of practices that have been used for federal-aid project delivery by local agencies. Information related to guidance materials and training available at all levels of government is presented, along with unique approaches to LPA projects reported by individual agencies.

In every state, the LPA program involves a vast number of staff from municipal, state, and federal governments, nonprofit organizations, and state resource agencies. As a result, a survey was developed and distributed to the local government coordinator in every DOT to establish a baseline of the program in each state. It explored the relationships between the DOT and FHWA, the local agencies and the DOT, the local agencies and state resource agencies, and the like, which facilitate the efficient delivery of federal-aid projects. A 92% response rate was achieved and helped establish the state of the practice regarding federally funded transportation projects awarded to LPAs. The survey consisted of 64 questions, 10 of which were nested in the main survey to concentrate specifically on states that execute an LPA certification or qualification program. The complete DOT survey is presented in Appendix A. Follow-up interviews were conducted with 10 DOTs to obtain more details on various

practices and performance measures reported as part of the survey responses.

One result of the DOT survey was the identification of LPAs that have exemplary practices. These LPAs were invited to participate in a separate survey that gathered information on project delivery practices, performance measures, and the LPA perspective regarding DOT certification programs. The survey consisted of 50 questions, 20 of which were nested in the main survey and applied only to local agencies in a state that administers an LPA certification program. Appendix B presents detailed LPA survey data and a list of respondents. Due to the nature of the LPA sample selection and response rate, the LPA survey may not be representative of all LPAs.

Organization of Report

This synthesis report is organized into five chapters. Chapter one introduces the synthesis objectives, background information including the current legislative status, and the study approach. The report structure is summarized with brief explanations of each chapter's content and includes key terms that are integrated throughout the report. In addition, a discussion of the applicability of various laws and regulations to specific federal-aid programs is presented. This is followed by a literature summary chronicling methods of state support for the LPA program found from the survey and results of federal and other agency reviews.

Chapter two provides an overview of the various practices, strategies, and tools that DOTs currently use to develop and deliver federally funded LPA projects. This information will help to define common practices or organizational approaches to ensuring that federally funded LPA projects are delivered efficiently. It is based on the literature review findings and insight provided through the DOT survey. Findings are organized by project management and organizational structure, project development, and performance measures.

Chapter three presents information specific to DOTs that have already implemented an LPA certification or qualification program. It reports practices used by DOTs that administer a certification program for LPAs that receive federal funding for transportation projects. The contents of this chapter resulted from the nested questions in the DOT survey.

Chapter four provides detailed findings on LPA practices used to improve delivery of federally funded projects through both performance metrics and organizational practices. It includes information from the LPA survey responses, interviews with some of the exemplary LPAs, and to a lesser extent, the literature review.

Chapter five presents conclusions and a summary of key findings, including the state of the practice for using performance measures to guide federally funded LPA projects, evaluation techniques for reviewing LPA program and LPA projects, and project management tools and practices for implementing performance measures and an LPA certification program.

These chapters are followed by a list of acronyms, references, a bibliography, and four appendices. Appendix A is the printed version of the DOT survey, including the nested questionnaire related to DOTs with an LPA certification program and the list of respondents. Appendix B presents the printed version of the LPA survey, sent to LPAs referred by responses in the DOT survey. Appendix C includes links to resources identified by states, LPAs, or other resources found in the literature review. Appendix D provides samples of documents that exhibit practices or performance measures for federally funded LPA transportation projects.

Definitions

Some key terms that pertain to the synthesis scope are defined. Additional terms may be defined within the context of their relevant sections. A list of acronyms is also included for terms used in the report.

Categorical Exclusion (*CE*)—A determination that an action (proposal or project) has no significant impacts and an Environmental Impact Statement (or Environmental Assessment for that matter) is not required.

Certification Program (*LPA certification*)—A process whereby a state transportation agency (STA) certifies an LPA's ability to administer and/or manage a portion(s) of the project development and implementation process. These portions include the planning, environment, design, right-of-way (ROW), and construction phases of a project. To be certified, the LPA must demonstrate its qualifications and abilities in the phase(s) in which it desires certification. The STA evaluates LPA qualifications through an audit or similar review process. Evaluation criteria often include knowledge of federal and state requirements, processes and procedures (i.e., consultant selection, environmental assessments, cost estimates, contract bidding and award, financial systems and controls, etc.), past performance, adequacy of staffing, and a demonstrated knowledge and capability to oversee and manage projects associated with the project phase in question. Typically, an agreement is executed between the STA and LPA once the LPA passes the evaluation process and demonstrates its ability to provide matching funds for project(s) in question.

Federal-aid projects—Any projects that use federal-aid highway program funds, both on and off the federal-aid system, on and off the National Highway System (NHS), and on and off highway right-of-way (ROW); includes all phases of project delivery (planning through project close-out and reimbursement).

Local public agency—Any organization or instrumentality that is directly or indirectly affiliated with a government body under federal, state, or local jurisdiction. Such entities will have administrative and/or functional responsibilities, including the authority to finance, build, operate, or maintain public infrastructure facilities. Such entities are most often associated with county, municipal, town, or township jurisdictions and their related public works authorities, but the term LPA covers a broader context, to include quasi-governmental entities such as port authorities, water districts, public utilities, and other agency representatives associated with all levels of government, including tribal sovereignties. In this report, LPAs are further defined by size as follows:

Small LPA—rural counties or municipalities with less than 5,000 population,

Medium LPA—medium cities and counties with less than 50,000 population, and

Large LPA—large cities and counties with more than 50,000 population.

Metropolitan planning organization (*MPO*)—Per federal transportation legislation [23 USC 134(b) and 49 USC 5303(c)], a metropolitan planning organization is the designated local decision-making body that is responsible for carrying out the metropolitan transportation planning process. An MPO must be designated for each urban area with a population of more than 50,000.

Performance measurement—The use of statistical evidence to determine progress toward specific defined organizational objectives. This includes both evidence of actual fact, such as measurement of pavement surface smoothness, and measurement of customer perception, such as would be accomplished through a customer satisfaction survey.

Procurement phase—The procurement of consultant services or the advertisement, bidding, or awarding of a transportation project.

Programmatic agreement—A document that spells out the terms of a formal, legally binding agreement between two agencies such as a state DOT and another state and/or federal agency. It also establishes a process for consultation, review, and compliance with one or more federal laws. Joint project agreements are also commonly used between local and state agencies.

Regional planning organization (*RPO*)—An organization that performs planning for multijurisdictional areas. MPOs, regional councils, economic development associations, and rural transportation associations are examples of RPOs. These organizations are also sometimes referred to as regional transportation planning agencies (RTPAs).

Responsible Charge—The Code of Federal Regulations (23 CFR 635.105—Supervising Agency) provides that the state DOT is responsible for construction of federal-aid projects, whether it or an LPA performs the work. The regulation states that the STA and LPA must provide a full-time employee to be in "responsible charge" of the project. The most common application of the responsible charge requirement in the LPA program deals with general engineering consultants (GECs). A local agency can use a GEC for engineering purposes, but cannot employ a GEC for responsible charge of project administration; project selection process, bid, or award; or signature authority on final project inspection or acceptance.

State transportation improvement program (*STIP*)—A staged, multiyear, statewide, intermodal program of transportation projects, consistent with the statewide transportation plan and planning processes as well as metropolitan plans, transportation improvement programs (TIPs), and processes.

Transportation improvement program (*TIP*): A document prepared by an MPO that lists projects to be funded with either FHWA or FTA funds for a 4-year period.

LITERATURE SUMMARY

The following section introduces approaches currently used by various state transportation agencies for assessing performance metrics or effective practices for local public agency delivery of federal-aid projects, as reported in published literature or online sources.

National Activities

Previous NCHRP Synthesis Topic 41-02

A number of findings resulting from the previous synthesis documented in *NCHRP Synthesis Report 414* (McCarthy et al. 2011) were related to the current synthesis. In *NCHRP Synthesis 414*, a survey of 10 focus states was conducted to identify public agency practices regarding small-scale federal-aid project delivery and to explore methods for meeting federal requirements in a more streamlined fashion. The findings were focused on techniques used to administer small-scale projects more efficiently and cost-effectively. Table 1 summarizes the main findings related to streamlining delivery of any small-scale federal-aid LPA project.

Federal Highway Administration

In March 2010, FHWA established a National LPA Peer Exchange. The purpose of the exchange is to increase

TABLE 1
SUMMARY OF STREAMLINING EXAMPLES REPORTED IN NCHRP SYNTHESIS 414

Category	Streamlining Examples Provided By Ten Focus State DOTs	
	Practice Reported	Impacts of Practices Reported
Certification	• Certification process for delegating more responsibilities to local level • Large certified agencies administer projects on behalf of smaller agencies	• Reduces recurrent administrative burden on DOT • Greater access of funds to smaller agencies
Fiscal Planning	• Stepwise approach for meeting federal approvals during project selection • Ensure local funding match available before project selection	• Increases chances for securing federal funding on smaller projects • Conformed funding match results in fewer project delays and lower cost
Interagency Agreements	• Programmatic agreements between federal, state, or local agencies • Programmatic categorical exclusions for small projects with minimal infrastructure or environmental impacts	• Reduces financial burden to local agencies • Minimizes federal environmental review • Reduces total time to completion for small projects
Administrative Programming	• Series of federal-aid projects tied together in any phase of project delivery • Projects combined as part of STIP during planning	• Reduces administrative burden on DOT • Accelerates delivery of projects • Reduces staff time and overall project costs
Training	• As-needed or recurring training sessions on federal regulations or federal-aid project implementation	• Addresses specific concerns during project implementation to keep projects on schedule and on budget
Specifications	• Local agency in-house materials specifications permitted off-system • DOT-developed specifications for local agencies	• Time savings and reduced project costs • Local agencies can use specifications directly without lengthy specification-approval status
Organizational Checklists	• Provisions of projects tracking checklists or checklists of federal requirements for any type of small-scale project	• Reduced project delivery delays • Increased local agency focus on schedule timing and federal requirements
Communication	• Early and frequent meetings with project sponsors • Periodic status meetings to keep project sponsor engaged throughout project development	• Projects sponsors more focused on developing projects more efficiently • Reduces time to complete of local agency projects

[*Source*: (McCarthy et al. 2011)]

interagency communication between FHWA Division LPA coordinators, improve quality, promote consistency, and reinforce regulatory requirements for an effective project delivery process for locally administered projects. Meetings are held every quarter online to present information on timely LPA issues and topics. The exchange is overseen by a steering committee that has subcommittees groups formed by volunteer leads and FHWA division LPA coordinators. Steering committees work on topics that are of collective interest to identify more specific information related to LPA projects.

One of most recent subcommittee initiatives was to develop an overview of LPA certification/qualification-based programs throughout the country, resulting in a survey initiated in June 2011 that gathered information from 39 FHWA division offices. Approximately one-third of the FHWA divisions responded that their state DOT counterparts have certification programs for LPAs. FHWA found that of the 25 states that do not have the LPA certification/qualification program, only 10 had expressed an interest in developing such a program. In most cases, each state had DOT procedures in place to oversee the management of federal-aid projects. FHWA divisions responded that only 26% of states are developing or using program- and/or project-specific action plans as a management tool. Other information reported by FHWA included the following:

- In some states, innovative approaches regarding the management of consultants (Wisconsin), requirement of hiring municipal project managers to oversee the federal-aid projects (Vermont), requirement of certified technicians for materials testing (Maryland), requirement of "Request to Administer" forms submitted for federal-aid projects (Virginia), and a focus on LPA Plans, Specifications, and Estimate (PS&E) packages, final vouchers, and contract administration (California) are applied in lieu of an LPA certification/qualification program;
- The shift to tracking and managing the delivery of LPA projects using online resources was reported to save time and effort in overall project management; and,
- Some states used DOT project managers assigned in responsible charge of the LPA projects (Utah and Vermont) rather than deploying a full LPA certification/qualification program.

In July 2011, the U.S.DOT OIG published the *Federal Highway Administration's Oversight of Federal-aid and Recovery Act Projects Administered by Local Public Agen-*

cies Needs Strengthening (MH-2011-146) report, which summarized federal-aid project audit results from California, Louisiana, Tennessee, and Texas. A total of 59 LPA federally funded projects were reviewed, and approximately 88% were found to have at least one instance of noncompliance with federal requirements. Other items identified were a lack of resources to perform LPA state oversight, inadequate contract administration and quality assurance procedures executed by LPAs, and inappropriate processing of contract changes.

Although not specifically targeted for LPA federal-aid funded projects, the OIG audit report *Lessons Learned from ARRA: Improved FHWA Oversight Can Enhance State's Use of Federal-Aid Funds provided* some insight on improved evaluation in contract bidding. Suggested recommendations identified need to develop and implement effective performance measures and metrics to assess and trend DOT contract award practices, share best practices among state DOTs, and establish standard FHWA division office requirements for performing and documenting oversight of state contracting activities.

While recognizing the unique nature of each highway project, flexibilities in the highway design process and related design guidelines were introduced in "Flexibility in Highway Design" (2012). The document provides guidelines for flexible approaches to designing roadway elements such as horizontal and vertical curve alignments. The guidelines were established to support and sustain important community interests without compromising safety.

Local Government Association Activities

The National Association of County Engineers (NACE) and American Public Works Association (APWA) have been working with FHWA and AASHTO to promote the FHWA Every Day Counts (EDC) initiatives among their members and to promote improvements to the federal-aid process by organizing and participating in regional "Peer Exchange for Project Delivery" workshops ("Accelerating the Project Delivery Process APWA Recommendations" 2011; "Accelerating the Project Delivery Process: Eliminating Bureaucratic Red Tape and Making Every Dollar Count" 2011). These workshops were a follow-on to the EDC initiative and support the goal of expediting project delivery. Key barriers identified were (1) inconsistent interpretation of federal regulations; (2) inadequate communication among agencies, stakeholders, and staff; (3) lack of training and resources for local agencies; and (4) imbalance between level of project risk and level of oversight. Key findings included interagency partnerships, communication that is formed early and occurs often, and local and state agencies being more proactive in requesting federal and state assistance. Other findings included developing a common federal project tracking tool, conducting concurrent rather than sequential project review, providing outreach and education to locals, prescoping and early project development, and improving consistency across jurisdictions. Several next steps were identified:

- Develop local certification programs (NACE/AASHTO/APWA/FHWA joint working group);
- Assist states in conducting their own forums;
- Utilize the Local Technical Assistance Program (LTAP) centers and MPOs;
- Expand FHWA's efforts to help DOTs and LPAs; and
- Expand FHWA's EDC Initiative.

The document from NACE and APWA to Congress also references considerations for project streamlining, including (1) exempt from federal regulations projects with federal funding levels of less than 25% or $5 million, whichever is greater; (2) only project phases that receive federal funding should be subjected to federal regulations; (3) projects should become federalized upon notice of the award of federal funding and not apply federal regulations to all previous work phases; and (4) expand use of programmatic agreements for categorical exclusions to include projects constructed within existing ROW and the majority of maintenance projects.

In April 2012, the NACE and APWA executive directors, in a letter to the FHWA administrator, highlighted two recommendations for the next generation of EDC initiatives regarding project delivery [Brian C. Roberts (Executive Director, NACE) and Peter King (Executive Director, APWA), personal communication, addressed to FHWA, Apr. 25 2012]. One is to establish a formal process to ensure communications among local, state, and FHWA stakeholders. One suggestion was for a meeting to be held on a quarterly basis, followed by a report back to FHWA headquarters, to further enhance communications. The second recommendation refers to a list of studies or reports that provide best practices for project delivery of local federal-aid projects, which NACE and APWA recommend be included in future EDC initiatives.

State Activities

The websites for each state DOT office dealing with local roads were reviewed to capture what kinds and depth of information are easily accessible to potential local agency or nonprofit organization project sponsors. Table 2 presents the information posted on each of the state DOT websites related to the LPA program.

Literature Related to Local Public Agency Program

A comprehensive search was conducted of literature related to effective delivery of federally funded transportation projects by state DOTs and LPAs. Various practices used by DOTs and LPAs and performance measures used for over-

TABLE 2
INFORMATION AVAILABLE ON LPA PROGRAM, AS SUMMARIZED FROM EACH STATE TRANSPORTATION AGENCY (DOT) WEBSITE

State	Training		Manuals	Documents	
	Workshops	Web-based Training	Manuals Online	Forms	Project Applications
AL					
AK					
AZ	X	X	X	X	X
AR					
CA	X	X	X	X	X
CO	X		X	X	X
CT		X	X	X	X
DE			X	X	
DC					
FL	X	X	X	X	X
GA	X		X		X
HI					
ID	X		X	X	X
IL	X		X	X	X
IN	X		X	X	X
IA	X	X	X	X	X
KS	X		X	X	
KY			X	X	X
LA			X		
ME	X		X	X	X
MD					
MA	X		X	X	
MI				X	X
MN	X		X	X	
MS	X	X	X	X	X
MO	X	X	X	X	
MT	X	X	X	X	X
NE	X	X	X	X	X
NV	X		X		
NH	X		X	X	
NJ			X	X	X
NM	X	X	X		
NY			X	X	X
NC			X	X	
ND	X		X	X	X
OH	X	X	X	X	X
OK				X	
OR	X		X	X	X
PA	X	X	X		
RI					
SC	X		X	X	X
SD				X	
TN	X		X	X	X
TX	X		X	X	X
UT	X		X		
VT	X		X	X	
VA	X	X	X	X	
WA	X	X	X	X	X
WV					
WI	X			X	
WY					

sight were identified. The information from the literature review is organized in relation to the three major project delivery phases: project planning and programming; project development; and project management. The recurring items reported in the literature related to facilitating LPA project delivery included the following:

- Development and implementation of a web-based central database system, shared by the DOT and LPAs, for transparent and comprehensive project management;
- Recognition of the importance of providing training to LPAs;
- Clear assignment of roles and responsibilities of each LPA project team member;
- Flexibility with expediting the environmental clearance phase based on the scope and nature of the LPA project; and
- Flexibility in funding requirements (i.e., state aid in lieu of federal funding, fund swap, or related programs).

Project Planning and Programming

Key issues in this phase are to ensure proper funding allocation, project consistency with the STIP and/or TIP wherever applicable, and appropriate completion of necessary agreement documents. In many states, a web-based system is applied to address these issues and to enhance on-time and on-budget delivery for federal-aid projects. Pennsylvania DOT requires local projects to be entered into the web-based Engineering and Construction Management System (ECMS) to conduct business related to design and construction of transportation projects and to ensure that all state and federal procedures are followed to prevent any potential funding issues. The municipality or local agency must complete an online registration and execute a paper agreement to fully become an ECMS business partner ("Strike-Off Letter 434-11-0" 2011). Missouri DOT also recognized the importance of a web-based systematic program for project management during the LPA program meeting in November 2010 ("LPA Strategic Vision Team: Team Recommendations" 2011). The noted benefits of a web-based tool included a transparent project development process, enhanced communication between agencies, better document management, and more successful audits. Florida DOT has developed and implemented the Local Agency Program Information Tool (LAPIT), an Internet-based application system that established collaborative oversight and monitoring of LPA projects, in order to streamline the overall LPA project process ["Local Agency Information Program Tool (LAPIT)" 2012].

Many DOTs (72%) conduct regularly scheduled and/or demand-based LPA training programs, with topics ranging from funding allocation to required federal authorization. As an example, the Indiana DOT Surface Transportation Funding is characterized into four major groups per area population, ranging from Group I, including urbanized areas with populations higher than 200,000, to Group IV, which covers all cities, towns, and counties with populations under 5,000 ("LPA Certification Training" 2012). Project selection responsibilities are divided between Indiana DOT and the MPO, with Indiana DOT retaining responsible charge of bridges where there will be highway safety improvements. Both agencies are responsible for local Transportation Enhancement (TE) projects. The authorization of FHWA Financial Management Information System is also emphasized for proper project programming.

The Virginia DOT (VDOT) allocation of transportation funds between different highway systems and localities is based on the Code of Virginia Section 33.1-23.1, included in the Locally Administrated Projects Manual [*Locally Administered Projects* (*LAP*) *Manual* 2012]. The funding allocation is divided into five categories: (1) maintenance; (2) administrative and general expenses; (3) off-the-top allocation that includes unpaved roads; (4) interstate funding; and (5) system allocation that consists primarily of VDOT's nine construction districts, urban systems (cities and towns), and secondary systems (counties).

Project Development

This project phase includes activities related to preliminary engineering, environmental clearance, final design, ROW, grade crossing, utilities, and construction. There are two major aspects to review under this phase: technique in project delivery acceleration, and performance metrics used in LPA federal-aid projects.

Common practices to accelerate project delivery across various agencies include shortening the environmental review process; sharing project documents, schedules, and records through Internet-based database systems; improving project team communication by holding monthly meetings or conference calls; continuous training efforts; and early identification of any potential project delivery elements. For example, a strategic team formed by Missouri DOT to address LPA program issues recommended the importance of an LPA certification and training program in the project delivery phase ("LPA Strategic Vision Team: Team Recommendations" 2011). Moreover, Missouri DOT presented a draft version of a comprehensive and detailed PS&E checklist for enhanced LPA project delivery. This checklist is provided in Appendix D.

APWA provides a concise summary of factors that delay project delivery and recommendations to address such issues in "Accelerating the Project Delivery Process: Eliminating Bureaucratic Red Tape and Making Every Dollar Count" (2011). The environmental review and permitting process is identified as the most significant factor in delaying transportation project implementation. It was recommended that simplification of the National Environmental Policy Act (NEPA)

legislative language and applicable federal regulations would provide clearer guidance for LPAs. In addition, the document recommended an increase in authority for states and U.S.DOT to use programmatic approaches for environmental compliance. Other items suggested include exemption from federal law and regulations based on the granted federal fund amount and project size, flexibility in responsible charge assignment, and setting permit review or permit issuing time limits for federal permitting agencies. It was also suggested that the mechanism for direct granting of federal funds to local agencies (e.g., U.S. Department of Housing and Urban Development's Community Development Block Grant program) be considered for accelerating LPA project delivery.

The 2011 Joint AASHTO Right of Way and Utilities and Design Subcommittee Meetings ("LPA Monitoring and Performance Measurement" 2011) emphasized the importance of training project staff for efficient project delivery. This recommendation came as part of FHWA's LPA ROW acquisition activity review, which reported that many LPAs lack the knowledge or skills that are critical for compliance with the Uniform Act and 49 CFR Part 24.

Project Management

In the literature, elements of the project management stage include clear assignment of party responsibilities, project invoicing, and project stewardship and oversight. Terms such as Responsible Charge Engineer, Employee of Responsible Charge, Local Project Sponsor (Pennsylvania DOT), and Local Project Manager (VDOT) are used to describe the LPA representative during the project processes. Typical responsibilities include project administration, project design and construction process management, and coordination between agencies. The DOT staffer is commonly referred to as Project Coordinator or Project Manager and plays an oversight role to ensure compliance with all state and federal regulations and requirements. As noted in Table 2, more than 76% of DOTs (39 states) have a formal LPA manual that details each party's roles and responsibilities.

Missouri DOT developed a draft comprehensive table that outlines responsibilities among LPAs, central office staff, and DOT district staff ("LPA Strategic Team Vision: Team Recommendations" 2011). The certification and oversight responsibilities have been summarized in the federal-aid project agreement in the most recent 2012 to 2016 STIP ("Certification and federal-Aid Project Oversight" 2011).

Like many other DOTs, Colorado DOT requires that a federal funding project team prepare a checklist with roles and responsibilities once an LPA project is approved (*Local Agency Manual* 2006). Figure 1 is an example of project team's roles and responsibilities published by Indiana DOT LTAP.

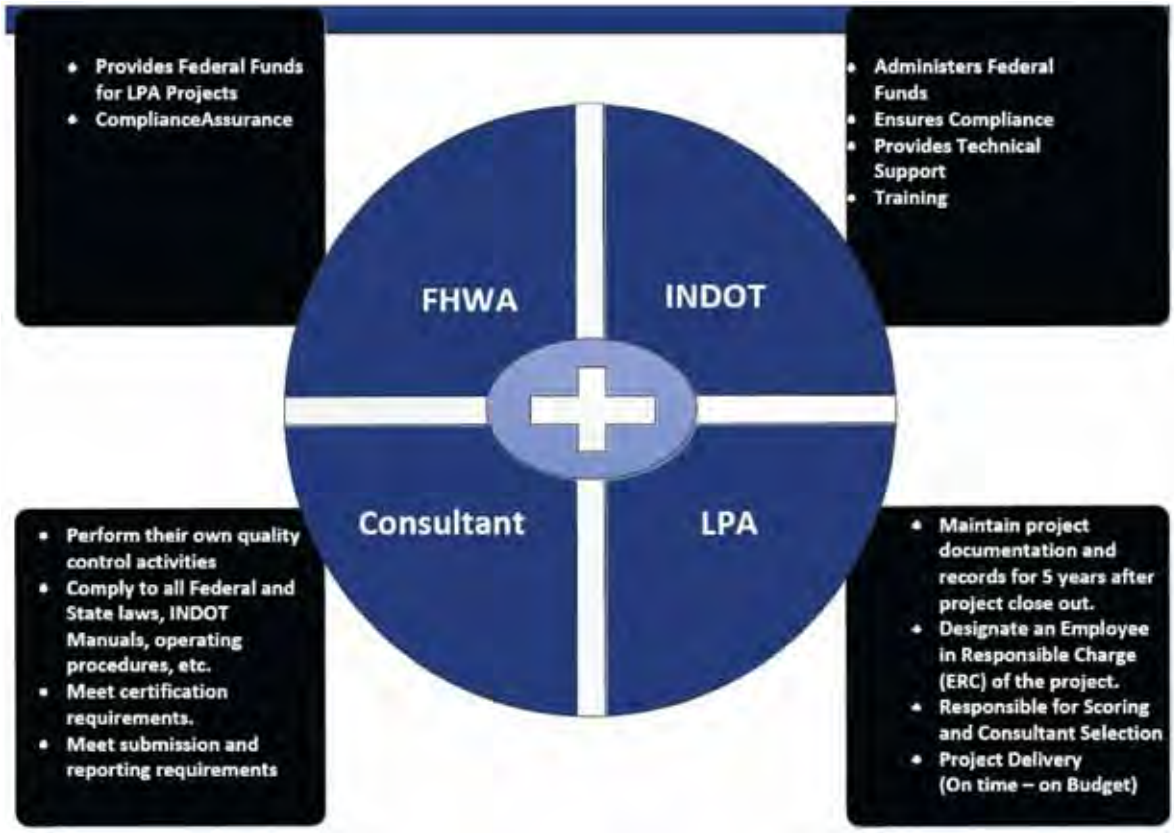

FIGURE 1 Roles and responsibilities of project team. [*Source*: ("LPA Certification Training" 2012).]

Oversight Level	Impact/Probability
High (H)	Significant impact on infrastructure due to non-compliance - Significant effects to quality of construction, cost, & schedule; High probability of non-compliance
Moderate (M)	Moderate impact on infrastructure due to non-compliance - Moderate effects to quality of construction, cost, & schedule; Moderate probability of non-compliance
Low (L)	Minimal impact on infrastructure due to non-compliance - Minimal effects to quality of construction, cost, & schedule; Low probability of non-compliance

Oversight Level	Oversight Activities
Low	• Kickoff (scoping) meeting attendance • Plan development coordination meeting • Final plan review • Pre-construction meeting attendance • Random site visits during construction • Final acceptance inspection
Moderate	• Kickoff (scoping) meeting attendance • Plan development coordination meeting • 30% plan review • Public hearing attendance • Final plan review • Pre-award bid review • Pre-construction meeting attendance • Monthly to quarterly site visits during construction • Final acceptance inspection
High	• Kickoff (scoping) meeting attendance • Monitor consultant acquisition process • Right-of Way coordination meeting • Environmental coordination meeting • Plan development coordination meeting • 30% plan review • Public hearing attendance • 60% plan review • 90% plan review • Bid document review • Final plan review • Pre-award bid review • Pre-construction meeting attendance • Weekly to monthly to quarterly site visits during construction • Final acceptance inspection

Element	Value (factor)	Check Elements That Apply	Total Factor per Element
Federal Oversight	20		
National Highway System	20		
Funding			
Federal Funded (non-Enhancement)	15		
State Funded	10		
Federal Enhancement (Impacts R/W)	7		
Federal Enhancement (Off R/W)	1		
Completed Project Maintenance			
State Maintained Project	10		
Locality Maintained Project	2		
Project Category *			
Category I	2		
Category II	5		
Category III, IV, V	10		
Locality Experience Administering Project			
Low Level	15		
Intermediate Level	10		
High Level	5		
Factor Total			

* See Appendix B for project category description

Level of Oversight	Range of Factor Total
High (H)	> 45
Moderate (M)	25-55
Low (L)	< 35

FIGURE 2 Virginia DOT LPA Risk Factor and Level of Oversight Assignment. [*Source*: (*Locally Administered Project* (*LAP*) *Manual* 2012)]

VDOT implemented a score-based risk and oversight method of project management. The method is designed to help VDOT project coordinators identify elements that could affect the level of risk to an LPA project, as well as to determine VDOT's expected level of oversight. Elements reported to affect project delivery included funding level, experience level of the LPA, VDOT project category, and project maintenance. In the method, each element is assigned relative weights of importance. A weighted sum of values for each project element is used to determine the risk factor. This risk factor will be used to identify whether VDOT should apply a low or high level of oversight on the particular LPA project [*LAP Manual* 2012]. Figure 2 presents an example of how the VDOT process works to determine the weighted risk factor and level of oversight. Full details on VDOT's approach to LPA project development are included in Appendix D.

Missouri DOT's LPA agency tiered certification system is based on the project participants' federal-aid project experience level at each project phase. Missouri DOT reported that this approach can help to increase the levels of certification of LPAs, intended to decrease in the amount of oversight provided by the DOT and FHWA ("LPA Strategic Vision Team: Team Recommendations" 2011).

CHAPTER TWO

PRACTICES AND PERFORMANCE MEASURES USED BY DEPARTMENTS OF TRANSPORTATION

INTRODUCTION

This chapter provides an overview of practices used by DOTs to enhance development and implementation of federally funded LPA projects. It discusses the federal regulations and federal-aid programs that pertain to the LPA program. In addition, a definition of performance measures in the context of transportation project is provided, along with a description of metrics used by the transportation community. This was accomplished through a review of the literature, DOT survey responses, and insights from interviews with a number of DOTs to present examples of the effective practices and performance measures being used by state transportation agencies and other agencies involved in the LPA program. The survey of state DOTs, including the District of Columbia and Puerto Rico, yielded a 92% response rate. Appendix A contains the DOT survey questions and the entire survey response set.

Summary of Federal Regulations/Guidance Related to Local Public Agency Program Administration

FHWA's guide to many of the particulars regarding a basic understanding of federal-aid programs, regulations, or other program characteristics is titled "A Guide to Federal-aid Programs and Projects" (2011). This guide is available at http://www.fhwa.dot.gov/federalaid/projects.cfm and can be downloaded in PDF format.

Another federal regulation concerns developing LPA projects in accordance with NEPA. Compliance with NEPA is a vital milestone in the determination and approval of project eligibility, development, and funding, and it can help guide LPA project planning, alternative selection, and design parameters. The guidance document commonly referred to as the "Environmental Review Toolkit" (FHWA 2012) provides information and resources pertaining to topics on the environment and transportation.

An additional common LPA inquiry pertains to local public agencies and others that receive federal-aid highway funds for projects involving the acquisition of real property. The primary law for acquisition and relocation activities on federal or federally assisted projects and programs is Public Law 91-646, The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (commonly called the Uniform Act). Guidance for ROW matters is contained in *Real Estate Acquisition Guide for Local Public Agencies* (FHWA 2011).

Matters pertaining to the complexity of federal-aid project contracts are an area of common inquiry. Understanding federal-aid contract provisions, administrative procedures, and applicable policies related to federal-aid design and construction contracts is vital to ensuring LPA project compliance. The *Contract Administration Core Curriculum Participant's Manual and Reference Guide* (FHWA 2006) is formatted like a training course student manual and also serves as a reference guide.

In 2012, FHWA introduced an online library of informational videos and related materials specifically designed for LPAs. This new resource, which highlights key components of the FHWA program, is called "Federal-aid Essentials for Local Public Agencies."

Summary of Federal-aid Programs Applied to Local Agency Sponsors

Local governments and other transportation or community organizations have a number of available federal-aid programs. Potential project sponsors apply through an MPO, Regional Planning Agency, or the state DOT for federal funds to implement a project. Projects are funded through the DOT, which administers the funds on behalf of the federal government. Many states have also issued their own supplemental guidance. Table 3 lists the federal-aid programs identified as part of this synthesis as being most widely used as sponsors for LPA projects. Table 3 also summarizes and describes each federal-aid program and pertinent information collected from the DOT survey.

Figure 3 provides a graphical display of all DOT responses on the types of projects that take the longest to complete. The DOTs rated transportation enhancement (54%) and highway bridge (38%) projects as taking the longest to complete. Bike path projects were also identified as challenging to complete on schedule. For example, in California, bridge projects were reported to present the most risk and take longer to complete owing to the complicated environmental issues. Additionally, there are often archaeological sites on the riverbanks, hazardous materials in the water from the bridge, and bio-

TABLE 3
SUMMARY OF FEDERAL-AID PROGRAMS AND PROJECT TYPES AND RELATED DOT SURVEY RESPONSES

Federal-aid Program	Program Description and Details	Percentage of Local Match Required[1]	Percentage of DOTs That Distribute Funds to LPAs Through This Program[2]	Rated as Being the Longest to Complete[2]	Rated as Most Risk of Not Being Completed Within Budget[2]
Surface Transportation Program (STP)	Flexible funding for use by states, cities, and municipalities on any federal-aid highway	20%	95%	27%	38%
STP Transportation Enhancements Activities	Projects that relate to surface transportation and aim to improve the transportation experience for users of various types of transportation (pedestrian and bicycle infrastructure and safety, scenic and historic highways, landscaping, historic preservation, and environmental mitigation)	20%	51%	3%	5%
Road Improvement Projects (STP)	Road projects for widening and overlays Typically fall under the STP category. These projects are not funding categories but project types	20%	84%	24%	8%
Recreational Trails (RTP)	Funds to develop and maintain recreational trails for both motorized and nonmotorized trail uses	20%	97%	54%	49%
National Scenic Byways Program	Funds projects on specific roads identified as scenic byways	20%	89%	14%	27%
Safety (HSIP, HRRR, SRTS)	Projects that reduce the occurrence and potential for fatalities and serious injuries from crashes on all public roads	10%[3]	8%	3%	5%
Nonmotorized Transportation Pilot Project (NTPP)	Provided $25 million to four communities and endeavors to demonstrate that the number of people who walk and bike will increase if walking and bicycling networks are improved	0%	89%	27%	19%
Congestion Mitigation and Air Quality Improvement (CMAQ)	Federal funding for transportation projects to improve air quality and reduce traffic congestion in counties classified as air quality nonattainment and maintenance areas for the federal criteria pollutant ozone	20%	73%	16%	22%
Highway Bridge Projects (HBP)	Replacement or rehabilitation of structurally deficient or functionally obsolete bridges on public roads	20%	87%	38%	38%
Accessibility	Projects for sidewalks, curbs, ADA ramps. May fall under the STP or Safety category.	Varies	70%	3%	14%
Other	Projects specifically designated by Congress, High Priority, TCSP, ARC, TIGER, etc.	Various	41%	16%	22%

[1] Consult state DOT for specific local match requirements.
[2] Survey data in these columns requested respondents to "check all that apply"; thus, percentages exceed 100%.
[3] Certain Safety Improvement projects are eligible for 100% federal funding under 23 U. S. C. 120(c) (e.g., SRTS).

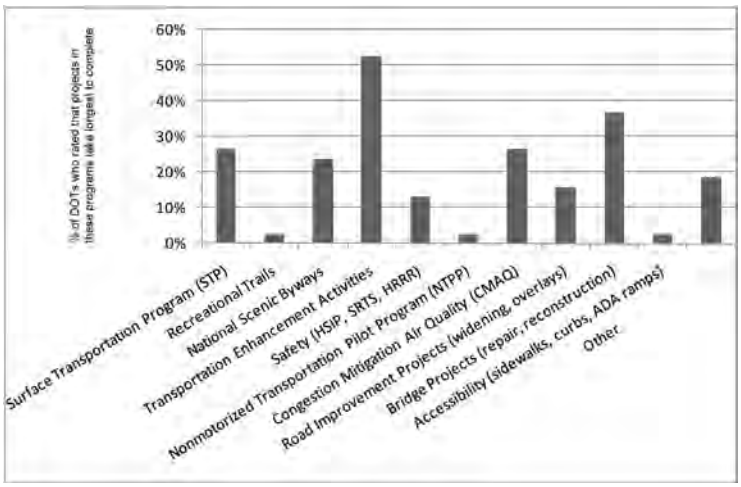

FIGURE 3 Percentage of DOTs that rated that projects in these programs take longest to complete.

logical environs. Further complicating these projects are the extended consultation with regulatory agencies, development of mitigation strategies, and limited time available for construction.

A similar trend was observed in terms of the types of projects that present the most risk of not being completed within the planned budget: specifically, highway bridge projects, transportation enhancement activities, and some project types as part of the surface transportation program. Some other attributes of projects for which DOTs reported budget overruns include projects specifically designated by Congress with low estimates, and projects that require railroad coordination or environmental permits.

All of the DOTs have executed some form of stewardship and oversight agreement with their FHWA Division Office to govern and provide guidance on executing federal-aid projects. These agreements can be viewed on FHWA's website: https://www.fhwa.dot.gov/federalaid/stewardship/.

PROJECT PLANNING AND PROGRAMMING

The following sections highlight various approaches used by states and planning organizations to administer federal funds to local agency project sponsors. Legislation related to the LPA program is discussed, as well as federal-aid programs in which local agencies most frequently participate.

Of the 46 DOTs that responded to the survey, 36 have a formalized LPA program. In the context of the survey, a formalized LPA program consists of a documented system of policies, procedures, and criteria. The majority of DOTs have more than 100 local agencies that are engaging in the LPA program activities. For example, Iowa has 99 counties and 947 cities; however, between 200 and 500 agencies may have active federal-aid projects at any given time. In some states, other entities such as tribes, ports, schools, natural resources districts, and nonprofit organizations are also participating in federally funded projects. Approximately 74% of DOTs indicated that large local agencies have had the most success in developing and executing federal-aid projects, while only 10% of DOTs responded that small local agencies were successful. There is some variability in what DOTs have established as the basis for eligibility in the LPA programs (see Figure 4). The most common eligibility requirements are based on the federal-aid funding type, local match availability, and certification of the LPA by the state DOT. Other specific examples include mandatory LPA training completed by prospective project sponsors, past experience with federal-aid projects, and existence and quality of documented policies or processes at the local level that relate to project development and oversight. One DOT requires LPAs to submit a formal request to administer a project, and the DOT District Office then independently evaluates the LPA's ability to administer federally funded projects. A number of DOTs evaluate the LPA staff levels and qualifications, and access to prequalified consultants.

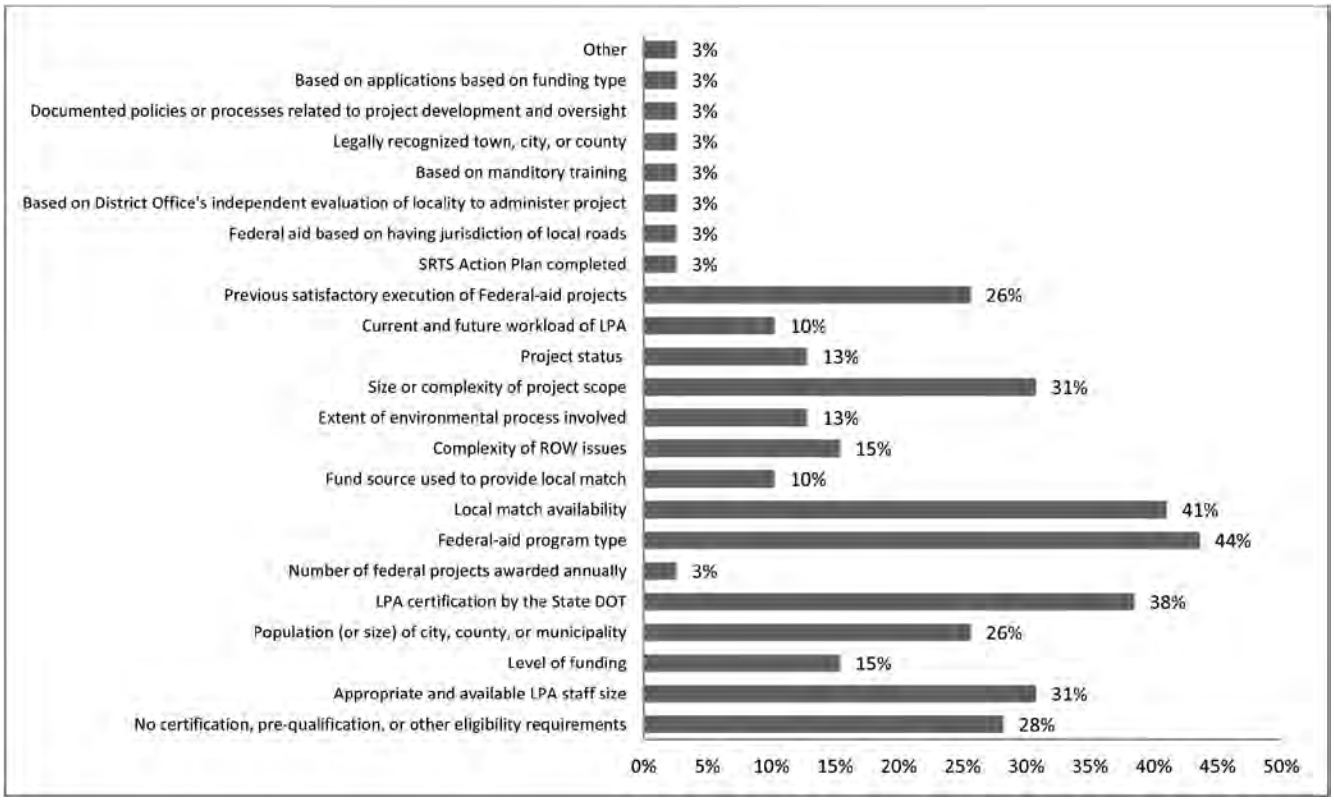

FIGURE 4 Examples of the basis for LPA eligibility in DOT-sponsored LPA programs.

More than 89% of DOTs have a written LPA manual that is used to guide local agencies through the various facets of the LPA program. Many DOTs have made their LPA manuals available online; web links to each manual are provided in Appendix C. In 50% of the DOTs, the LPA manual is routinely updated every 1 to 3 years.

Training is included as part of more than 55% of the DOT LPA programs, either available upon request or routinely held. Figure 5 presents the types of information included as part of DOT training courses related to the LPA process. The majority of DOTs include training related to program (both state and federal-aid) and eligibility requirements, the reimbursement process, and quality assurance. Other examples of DOT training include peer-to-peer lessons-learned meetings among LPAs, bridge inspection certification, pavement condition rating, ROW acquisition, civil rights, and construction oversight. Nebraska Department of Roads (DOR) has online videotaped training sessions on topics related to the LPA program. Michigan DOT has posted a "How to Develop a Federal-aid Project" guideline on its website that includes a detailed step-by-step process for project development to ensure federal-aid eligibility. Details on these examples can be found in Appendix D.

Funding Techniques

DOTs were asked to provide information on the types of innovative alternative funding techniques that have been implemented in the LPA program. In most cases, for the states that addressed funding allocation techniques, their choice of technique depended on the type of project. For example, Maine Department of Transportation (Maine DOT) will exert the maximum flexibility if an LPA project is able to tie into safety improvements, which streamlines delivery by enabling two or more projects to move concurrently as one project (e.g., connecting a new trail connects into existing infrastructure such as a pedestrian crossing on a main street, or tying pedestrian mobility into an existing trail).

Figure 6 presents the details of all the DOT responses. The innovative funding allocation is done primarily at the state DOT level; however, four DOTs indicated that this function was carried out by either the MPO or RPO.

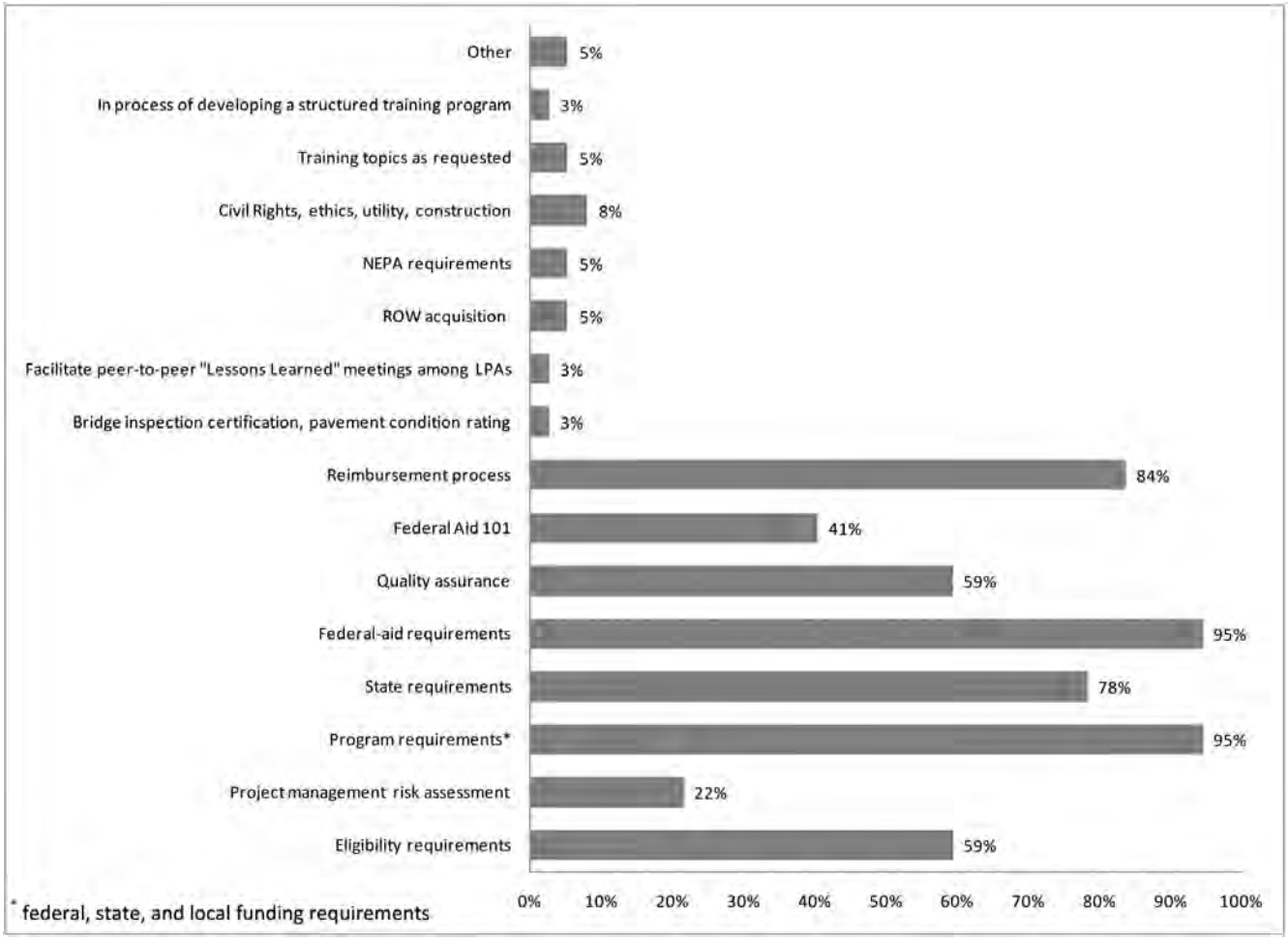

FIGURE 5 Examples of topics related to the LPA process included in DOT training courses.

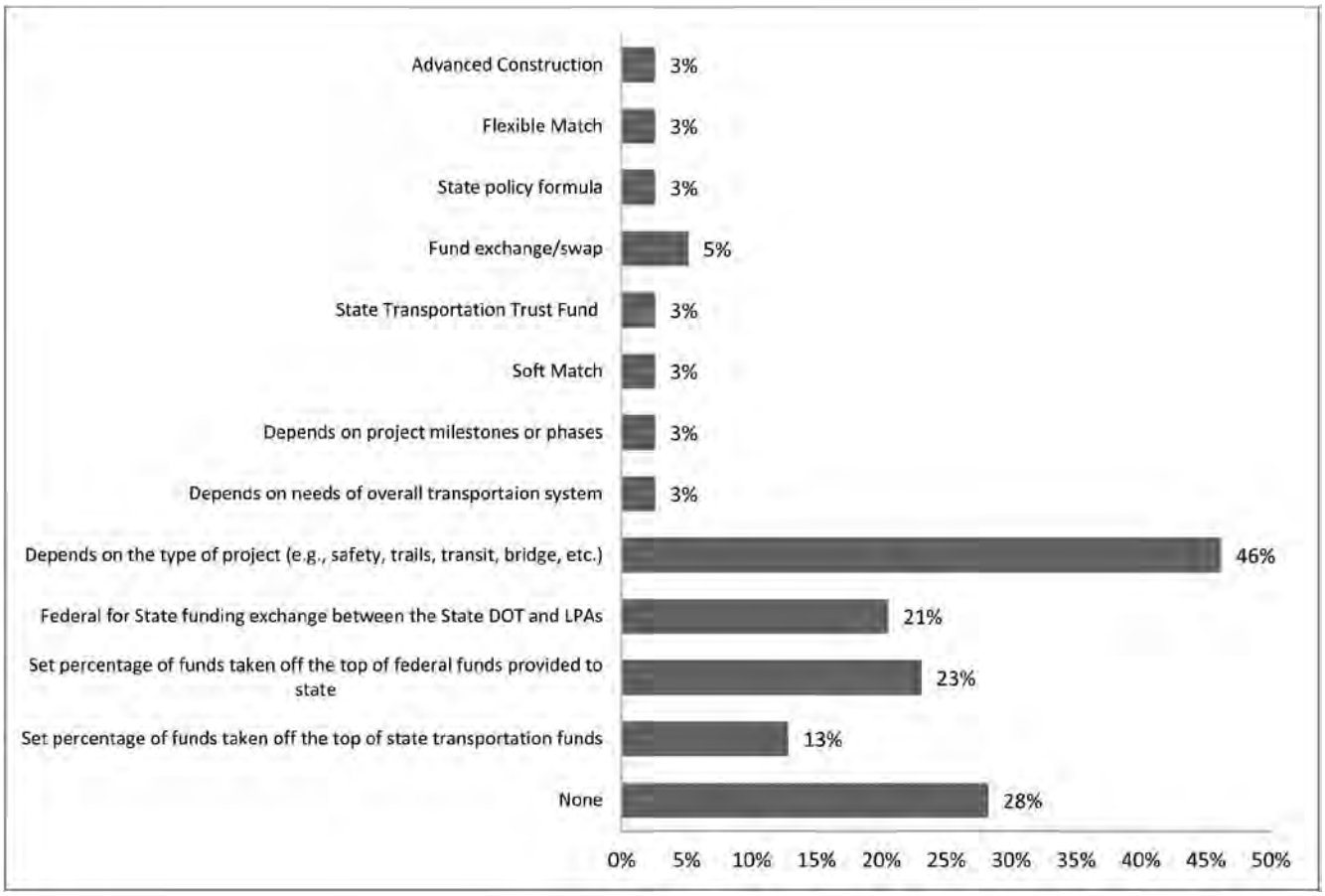

FIGURE 6 Summary of the funding allocation techniques implemented for LPA programs.

Some DOTs shared some specific examples of innovative funding techniques, captured in Table 4. Many of the examples had an aspect of state-level legislation, which allowed for fund matching or swapping.

TABLE 4
EXAMPLES OF EFFECTIVE DOT PRACTICES FOR FUND ALLOCATION

Effective Practice	Details	States
State Aid Funding	Funded through the New Jersey Transportation Trust Fund Act	New Jersey
Project Milestones	Funds obligated based on project milestones or phase	Tennessee
Funding Match	Soft match, flexible match, overmatch	New Mexico, Utah
Fund Swapping/ Exchange	State for federal dollars; federal funds exchange between LPAs with funded projects; small federal for state funding swap	California, Illinois, Kansas, Michigan, Minnesota, Oregon
Needs Assessment	Funds allocated based on needs of entire federal-aid transportation system conditions, usage, and extent	New York
Funding Formula	State has developed separate funding formulas for STP and HBP programs for jurisdictions with less than 50,000 population	Nebraska

Colorado

The Colorado DOT website offers detailed meeting minutes from its Local Agency Reevaluation Task Force Meeting. The 2010 meeting minutes provided more information on the fund-swapping program and findings on how the same type of program is used in other states, such as California, Oregon, and Utah. The task force discussed potential efficiency of fund swaps used on smaller projects. Discussions emphasized the importance of basing the fund swap decisions on risk levels rather than a project dollar amount ("Local Agency Reevaluation Task Force Meeting Minutes" September and October 2010). Colorado DOT Region 2 was mentioned as considering the launch of an off-system (not on the state highway or national highway system) project as a pilot study for the fund swap practice.

DOTs were asked to rate whether federal regulation should require a formalized certification program for LPAs, based on their experience. Thirty-eight percent of states supported requiring the establishment of a state-sponsored LPA certification program.

Kansas

Kansas DOT presented information on a federal funds exchange program for fiscal management of LPA projects

at the NACE annual conference meeting in April 2012. The program is based on the enabling federal legislation in the Transportation Equity Act for the 21st Century (1998) and involves a voluntary program in which LPAs can trade their federal obligation authority with Kansas DOT or another local agency in exchange for state (or local) funds. The state funds are compensated on a reimbursement basis as the LPAs incur costs. Kansas DOT reported that some of the benefits observed from the federal funds exchange program include reduced project costs, minimized time for meeting federal-aid project requirements, and increased flexibility in the selection of projects. The federal funds available for exchange include STP and Highway Bridge Program (HBP) funds allocated to counties and small urban local agencies. A general list of the types of projects that are acceptable for receiving a fund exchange includes safety improvements; pavement preservation; trails; accessibility upgrades; drainage and stormwater control measures; roadway resurfacing, restoration, and rehabilitation projects (3R); materials purchase for roads; and bridge-related projects. Additional details on the Kansas DOT program are included in Appendix D.

Minnesota

Minnesota DOT has a comprehensive website entitled "State Aid for Local Transportation," http://www.dot.state.mn.us/stateaid/, and an online LPA manual that outlines in detail the specific requirements for local agencies participating in the program.

Oregon

Oregon DOT allocates more than $100 million annually to local agency programs. This amount accounts for a third of the projects and a quarter of the STIP funding. The STIP is maintained on a 4-year cycle and lists all of the federal projects scheduled in the state. The STIP coordinates with the MPO TIPs and Regional Transportation Improvement plans to get a complete vision that matches with the Oregon Transportation Plan. The Oregon Transportation Plan establishes the goals and vision for the Oregon transportation system for the next 25 years.

PROJECT DEVELOPMENT

The following sections present aspects of the survey that dealt with practices delineated through the various phases of project development. This section includes information on issues that arise during the design and construction phases, and the use of categorical exclusions.

Design Phase

The survey requested information on how conflicts between the DOT design requirements and local community's needs are resolved. Generally, conflicts occur during the design phase, when highway design manual standards conflict with community needs. Often, conflicts result when a project adds capacity, such as through additional ROW, nonstandard lane widths, use of raised medians, and elements related to access control (e.g., signals, crosswalks, bulb-outs, loss of on-street parking). Signal warrants must be met, safety standards must be met or mitigated, ROW must be obtained, stormwater treatment facilities such a detention ponds are not common, utilities must be moved (which can increase costs for the local governments), and construction staging always affects businesses. Any of these concerns can mean delay, redesign, and even political elevation. The decision rests with the state DOT for granting exceptions to design standards (AASHTO 2004). For projects within the ROW of an NHS route, FHWA requires that all exceptions from accepted guidelines and policies be justified and documented, with formal approval for 13 specific controlling criteria. The justification and documentation process, although not required, can be followed by state DOTs with exemption from FHWA oversight on non-NHS projects. DOTs do not need FHWA approval for a design exception on projects that are on non-NHS routes. Under the Intermodal Surface Transportation and Efficiency Act of 1991, a DOT may request an exemption from FHWA oversight on non-NHS projects.

Although 10% of DOTs reported that they do not have any formal alternatives to resolve conflicts, a number of states use various techniques to address this recurring design phase issue. The majority of DOTs (78%) use design exceptions to help resolve conflicts between the DOT design standards and LPA project needs. Seven DOTs use an abbreviated DOT design standard on LPA projects, and 15 DOTs allow the use of LPA design standards on some LPA projects. Another form of conflict resolution used by nearly 50% of DOTs is to develop context-sensitive solutions by a team of DOT and LPA representatives.

In Oregon, conflicts over design guidelines or standards are resolved through the use of design exceptions, LPA design standards on some LPA projects, and context-sensitive solutions developed through a team of DOT and LPA representatives. Illinois DOT conducts joint policy meetings with LPA associations such as the Illinois Association of County Engineers and Illinois Municipal League. New Mexico DOT will allow supplemental and special provisions within LPA construction contracts to control work and materials standards. Missouri DOT will allow special provisions to overwrite DOT standards where necessary to accommodate an LPA project. In Tennessee, the LPAs will sometimes pay for upgrades to their design standards as nonparticipating items.

Of the states that rated conflicts over design guidelines or standards as affecting LPA project delivery, 45% indicated that delays occur in the completion of LPA project

reviews. Other impacts included additional funding commitments required (42%) and postponement of LPA project milestones (37%). To a lesser extent, design phase conflicts also affect LPA project delivery by expanding the initial project scope (30%) and by requiring the revisiting of NEPA provisions (16%). DOTs reported that some other impacts to project delivery resulting from conflicts during the design phase include project elimination if minimum design guidelines are not met, increased ROW acquisition, reduced LPA project scope, and PS&E not being approved until all federal requirements have been satisfied. In Washington, conflicts during the design phase are usually limited to bicycle or pedestrian projects or to city street projects that are owned by Washington State DOT (WSDOT) and classified as state highways.

Another impact identified in the survey was the increase in scope of LPA projects. DOTs have various techniques for limiting scope increases in LPA projects, as shown in Figure 7. The most frequently used technique was requiring a firm funding commitment from the LPA before project award. Another technique often used was frequent coordination with project stakeholders to finalize the project scope early. Some DOTs reported that they do not allow an increase in project scope after final PS&E is completed and approved.

DOTs also use a number of project delivery tools to improve communications and involvement in LPA projects. The examples provided by DOTs are shown in Figure 8 and were reported to streamline processes or lead to overall efficiencies in LPA project development.

The majority of DOTs reported that categorical exclusions and programmatic agreements are efficient project delivery tools. In addition, a number of DOTs improved project oversight during construction of LPA projects, tracking of LPA project funding obligations, and continuous monitoring and reporting on LPA project progress. Eleven DOTs reported that the implementation of a statewide LPA certification program was a streamlining practice; details on this item are provided in chapter three.

Florida

The Florida DOT Specifications and Estimates office, in conjunction with the Local Agency Program coordinator, has generated a number of specification and standard guidelines for use by local agencies. The original intent for these LPA-specific guidelines was to simplify the requirements and streamline the design process for LPA projects that were on neither the NHS nor the state highway system (designated as "off-system" projects). The guidance has grown from four Florida DOT-generated LPA material specifications in 2006 to a larger set of guidelines. Four examples of these specification guidelines are presented in Appendix D.

One Florida DOT material specification deals with the construction of a hot mix asphalt (HMA) pavement based

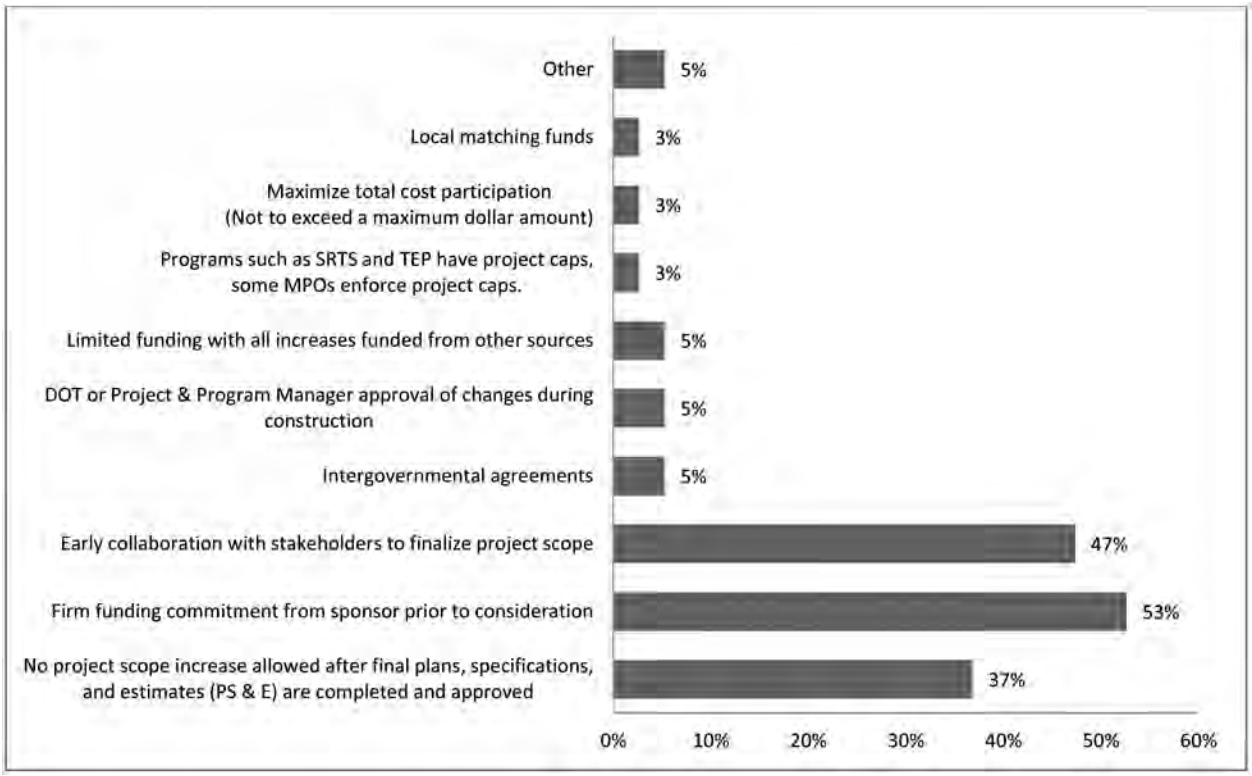

FIGURE 7 Summary of DOT approaches used to minimize LPA project scope increase.

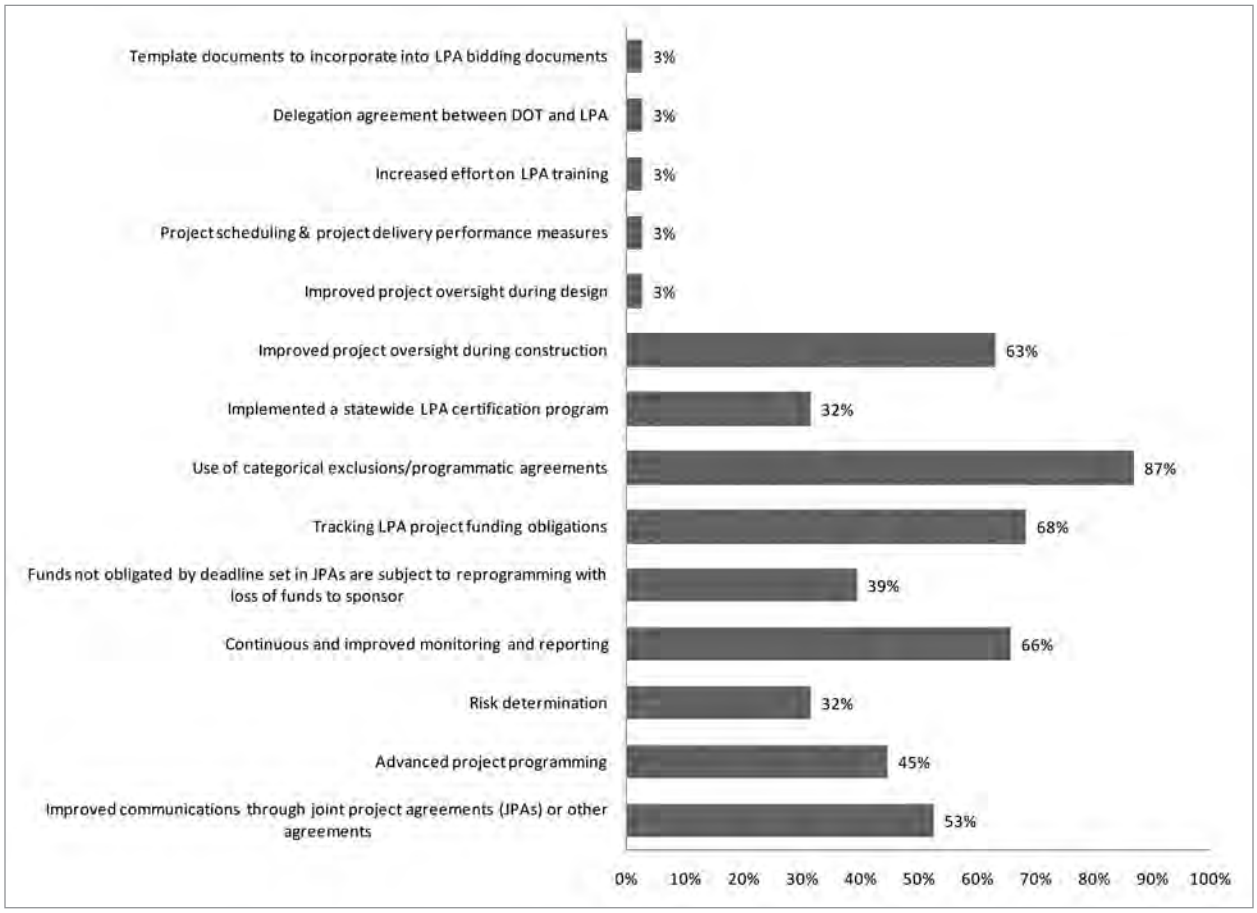

FIGURE 8 Summary of efficient project delivery tools reported by DOTs.

on the type of work specified in the cited construction categories: (1) bike paths and miscellaneous asphalt; (2) new HMA turn lanes, paved shoulders, and other nonmainline pavement locations; and (3) new mainline HMA pavement lanes, milling, and resurfacing. The specification applies to off-system projects and outlines HMA plant, equipment, and construction requirements. There is a similar specification for construction of concrete, based on the type of work in three categories: (1) the construction of sidewalks, curb and gutter, ditch and slope pavement, or other nonreinforced cast-in-place elements; (2) the construction of precast concrete, including concrete barriers, traffic railing barriers, parapets, sound barriers, inlets, manholes, junction boxes, pipe culverts, storm sewers, box culverts, prestressed concrete poles, concrete bases for light poles, highway sign foundations, retaining wall systems, traffic separators, or other structural precast elements; and (3) the work associated with the placement and/or construction of structural cast-in-place concrete meeting the requirements of this section. Two other materials-related LPA specifications for off-system projects are the landscaping guidelines and earthwork and related operations. More recently, specification guidelines were created to deal with LPA conduct of design-build projects on the state highway system (designated as "on-system" projects). LPAs receive directions on which sections of the Florida DOT Standard Specifications for Road and Bridge Construction apply for any Local Agency Program design-build on-system projects. For project sponsors, the guidelines clearly state the language that is required to be included directly into the contracting LPA agency specifications for all design-build on-system LPA projects.

Iowa

In Iowa, conflicts between DOT design requirements and local needs are primarily resolved through the use of design exceptions. Changes to the scope after PS&E approval are not allowed unless additional review is conducted. Changes would be allowed if the original NEPA clearance is still valid, the changes still fit within the project description in the STIP, and the changes would not affect the competitive bidding requirements. Iowa DOT does combine projects in the planning, environment/permitting, and procurement phases, and has witnessed time and dollar savings. Overall efficiencies have been achieved through the use of CE and programmatic agreements, reprogrammed funds that were not obligated by the deadline set in the joint programmatic agreement, and improved project oversight during construction.

Louisiana

During the April 2012 NACE annual conference meeting ("Streamlining LSRP Project Delivery in Louisiana" 2012), a technical session by the Louisiana LTAP center provided a review of a streamlining method being used for local street and road project (LSRP) delivery. Various reasons were reported for local project delivery delays, including consultant contract services and the consultant selection process. The small purchase provision per 23 CFR 172.5(a)(2) was suggested as a possible solution to accelerate project delivery. On March 17, 2012, FHWA–Louisiana Division tentatively approved to implement a 2-year pilot program for applying the "small purchase" approach on LSRP projects, defined as less than $250,000 available under 23 CFR172.5 (a)(2). Thus far, the Louisiana Department of Transportation and Development has reported reduced time to execute design contracts by reducing the advertisement period through the use of the "small purchase" provision ("Streamlining LSRP Project Delivery in Louisiana" 2012).

Construction Phase

The survey asked DOTs how they would improve oversight of LPAs during the construction phase. Figure 9 shows many options for DOTs to do so, primarily through the use of construction checklists and better contract administration or quality assurance training for oversight staff.

In South Carolina, many of the elements listed in Figure 9 are currently in practice. A large number of LPA projects are funded through the TE activities and are not typical of the types of transportation projects with which South Carolina DOT construction staff is familiar. Therefore, South Carolina DOT also included staff training to address various construction issues and current topics that are effective in oversight improvement.

Oregon DOT reported the use of in-depth federal audits or process reviews during the LPA certification start-up phase. In addition, Oregon DOT suggested requiring LPAs to implement their own quality assurance throughout every aspect of project development.

In New York, the DOT does not hire consultants to management LPA projects during construction; however, project sponsors routinely hire consultants to design, inspect, and manage the majority of locally administered projects.

Colorado

Colorado DOT provided information on how it plans to address project delivery issues and to improve its own LPA manual ("Local Agency Reevaluation Task Force Meeting Minutes" September 2010, October 2010, and January 2011). Colorado DOT determined a strategy to improve the overall project development process, which includes establishing a

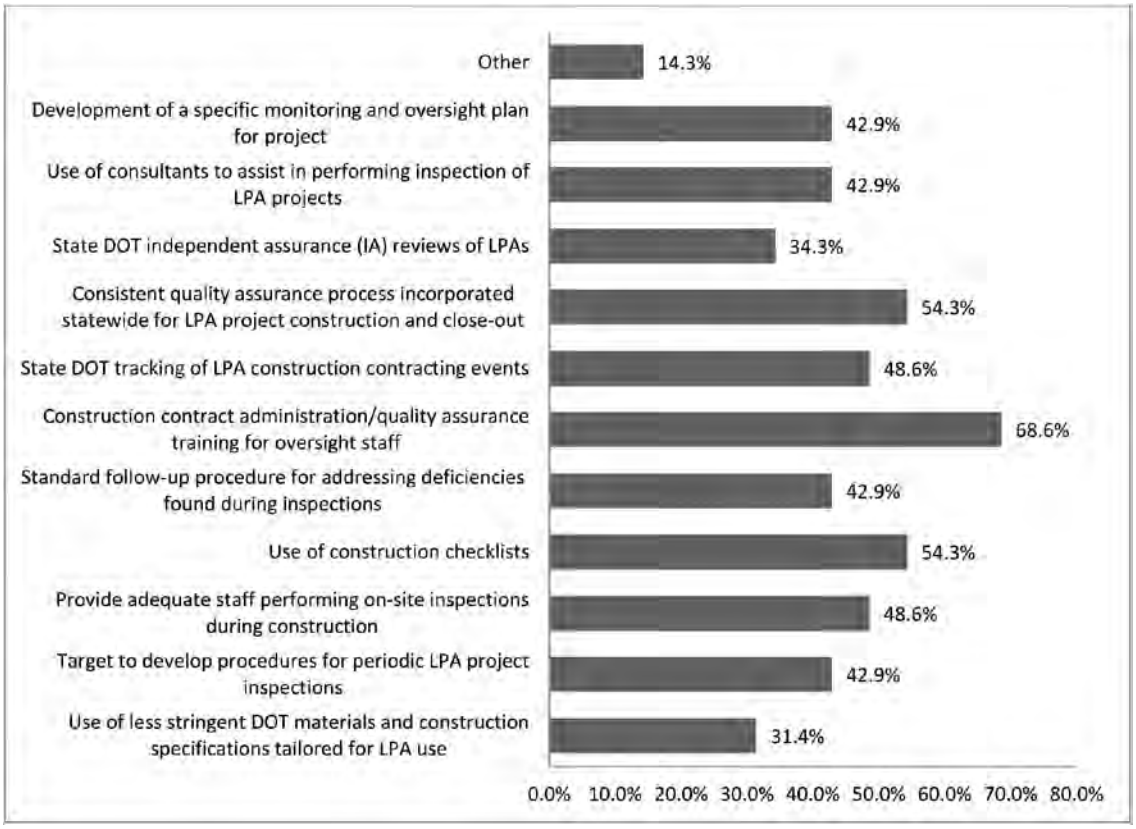

FIGURE 9 Summary of techniques for improved construction oversight of LPA projects.

project schedule that encompasses funding and construction schedules, local government decision-making phases, and turnaround and evaluation times; simplifying and clarifying existing Colorado DOT forms used in the LPA program; enhancing the Local Agency Manual for user-friendliness; providing better LPA access to training requirements; and reviewing the effectiveness of online resources.

Iowa

Iowa DOT applies tools in LPA oversight during the construction phase, including less stringent DOT-level materials specifications. Tiered levels of materials specifications are used on some projects, allowing a less stringent state specification to be used in the project requirements. Other Iowa DOT techniques include construction checklists and field reviews that result in corrective item lists to LPAs; construction contract administration or quality assurance training for staff; and independent assurance reviews of LPAs during construction, along with a final review after construction is complete.

Categorical Exclusions

Several DOTs have applied CEs for certain LPA projects, primarily for projects with no change in construction footprint or with no ROW acquisition required. Eight DOTs apply CEs for safety projects under a certain dollar value. Table 5 includes a number of CE examples provided by DOTs in the survey responses.

Iowa

In Iowa, projects with no change in construction footprint include nonconstruction projects such as planning, feasibility and corridor studies, research activities, publication development, technology transfer programs, and on-the-job training

TABLE 5
EXAMPLES OF CATEGORICAL EXCLUSIONS USED BY VARIOUS DOTS

State	Category	Details
Colorado, Connecticut, Delaware, Florida, Nevada, New Mexico, New York, Wyoming	Safety projects under certain dollar value	• Intersection improvements • Existing signal hardware, lighting hardware upgrades • Automatic CE • Cases when dirt is not being moved, such as signing and stripping • Left lane installation
Colorado, Delaware, Florida, Illinois, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Missouri, New Mexico, New York, Ohio, Oregon, South Carolina, Tennessee, Washington, Wyoming	Projects with no change in construction footprint	• Intersection improvements • Nonconstruction projects such as planning, feasibility, and corridor studies, research activities, development of publications, technology transfer programs, and on-the-job training programs • CE-A, CE-B, and CE-C: Based on past experience with similar actions, these type of projects do not involve significant environmental impacts • Routine highway resurfacing projects, signal projects, and preventative maintenance projects all qualify for this exemption • Under ARRA, several projects were constructed that were essentially pavement replacement. Because of the limited scope and minimal impact outside the pavement area, these were classified as Class II Type A Categorical Exclusions • Sidewalk repair project • No drainage or in a cleared archeological situation
Colorado, Delaware, Florida, Illinois, Kansas, Louisiana, Maine, Missouri, Nevada, New Mexico, New York, Ohio, South Carolina, Tennessee, Washington	Projects with no ROW purchase required	• Intersection improvements • Traffic signalization, railroad signals or crossing repairs, landscaping, emergency relief, trail grooming, pavement patching, 3R projects (resurfacing, restoration, or rehabilitation), 4R projects (resurfacing, restoration, or rehabilitation, and reconstruction), and rest area repairs • CE-A, CE-B, and CE-C: Based on past experience with similar actions, these type of projects do not involve significant environmental impacts • Sidewalk and other pedestrian-safety improvements • Sidewalk repair project • Restriping bike lanes, landscaping
California, Georgia, Idaho, Iowa, Illinois, Kentucky, Minnesota, New Hampshire, New Mexico, Oregon, Utah	Others	• Any projects that meet criteria under CFR 777.117 • Not necessary as the NEPA Assignment MOUs give full authority and responsibility and supersede previous Programmatic CE agreements • Nonconstruction, noninfrastructure, noninvasive, and noncontroversial projects • Safety projects • Projects with no significant impact

programs. Projects with no ROW purchase required include traffic signalization, railroad signals or crossing repairs, landscaping, emergency relief, trail grooming, pavement patching, 3R and 4R (restoration, resurfacing, rehabilitation, and reconstruction) projects, and rest area repairs. Projects that change the use rights for a property include protective or hardship property acquisitions; however, such property may not be acquired until the NEPA process is completed.

Pennsylvania

Pennsylvania DOT has outlined the use of checklists for categorical exclusion evaluation in the post-TIP NEPA Procedures chapter of its design manual. CEs can be completed directly in Pennsylvania DOT's CE Expert System. This system, which operates through ECMS, is the documentation tool for CEs in Pennsylvania. The information gathered in the screening forms, along with analyses conducted and documented in pre-TIP phases of the process, is the starting point for CE projects in the NEPA process. The pre-TIP information should be transferred and accepted into NEPA unless it is no longer valid, in which case further study is necessary.

In addition, Pennsylvania DOT has Section 4(f) checklists that expedite the Section 4(f) clearance and consequently the NEPA approval process. The applicable Section 4(f) checklist is attached to the CE document in the CE Expert System. Pennsylvania DOT reported that these checklists simplify and expedite the CE process because it is no longer necessary to write a Section 4(f) evaluation document for each project affecting an eligible Section 4(f) resource, as long as it is not an individual Section 4(f).

PROJECT MANAGEMENT

A portion of the survey focused on DOT project management approaches or processes. These include how the DOT is organized to handle the LPA program, if a formal one exists. This section presents agency organization, fiscal management, and project agreements.

Organization Structure of the Local Program Offices

DOTs provided information about their organizational structures. In 74% of the DOTs, staff from the central and district offices are involved in the administration of the LPA program. Some DOTs are assisted by a separate agency or consultant tasked with managing local projects on behalf of the DOT. The majority (74%) of DOTs use project development teams or task forces specifically to coordinate the LPA program.

California

The California Department of Transportation (Caltrans) has a formal LPA program, and while certain activities such as policy and procedures guidance, invoicing, and database management are handled by the Caltrans central office, the oversight of program development and execution is decentralized to the 12 district offices. Any jurisdiction can qualify for federal funds for any transportation project, with no cost limits, performance measures, or performance criteria.

Iowa

Iowa DOT has a formal LPA program coordinated out of a central office and executed primarily through six district offices. Depending on the type of program, such as the more traditionally used surface transportation and bridge programs, the DOT district offices handle the day-to-day project planning and design through PS&E development. For smaller programs such as Recreational Trails, Safe Routes to School, and TE activities, the central office takes the prime responsibility for project development. The central office also serves as the advisor on rules and regulations, and oversees the training program, for LPAs. Iowa DOT generally executes all contract procurements with some exceptions for smaller projects, which can be executed by an LPA. After projects are awarded, the LPA generally will handle the construction inspection and payments. One unique program is the designated "farm to market" road system whereby Iowa DOT handles contractor payments authorized by the county engineer through the preparation of voucher payments.

Iowa uses project development teams to coordinate the program. All of its 99 counties and 947 cities may receive federal-aid funds, with no prequalification, certification, or other qualification requirements. Potential LPA projects must meet the minimum threshold cost of $50,000. Iowa has more than 200 active projects, with about $120 million being allocated to local government agencies annually.

Minnesota

Minnesota Department of Transportation (MnDOT) has a formal LPA program centralized in the state aid office. Seven district offices and one Twin Cities metropolitan office district are involved in its execution. The state's 87 counties and 151 cities with a population over 5,000 can participate and receive federal funds. The appropriate LPA staff, jurisdiction population, and the previous satisfactory execution of federal-aid projects determine eligibility. MnDOT has not implemented an LPA certification program because the current LPA program operates efficiently and there appears to be very limited demand for expanded authority from local agencies.

Oregon

Oregon DOT historically managed the local program with more of a centralized structure, through the Local Government Section (LGS). The LGS was responsible for assisting LPAs with the application process, funding, scoping, and

responding to project issues throughout the life of a project in collaboration with the regional staff. Oregon DOT Regional Local Program Units were responsible for delivering the projects, including intergovernmental and contract administration throughout design and construction. This method of management did not have a clear delineation of responsibilities for program management and project delivery. Oregon DOT is currently undergoing organization realignment to make the five Regional Local Program Units responsible for local program project delivery, including scoping, responding to all project-related issues, and meeting project performance measures. Local program policy and program management remains at the central level, with continuous and strong collaboration with the five Regional Technical Centers and Regional Local Program Units to ensure continuity and priority. With more than 100 local agencies participating in the local program and 13 local governments participating in the Oregon DOT Certification Program, the Oregon DOT Local Program is supported by both central and regional leadership, technical, management, and stakeholder teams. These groups include the Local Program Leadership Team, Oregon Local Program Committee, Local Agency Guidelines Review Committee, Local Agency Spec Team, and Local/state Integration Team, a subteam of the Project Delivery Leadership Team. These teams support the local program, policy, and project delivery; collaborate on issues across the agency; and provide an avenue and medium for the local agencies to participate in Oregon DOT policy and process. Other groups include technical leadership teams such as the Environmental Leadership Team, Area Managers Team, and Technical Leadership Team.

The Local Program Leadership Team is a subteam of Oregon DOT Project Delivery Leadership Team. The Local Program Leadership Team is composed mostly of Oregon DOT internal staff and includes a representative from Oregon Division of FHWA, Oregon's Association of Counties, and the League of Oregon Cities. It is charged with managing policy and program updates, resolving project issues that have statewide impacts, and developing communication and training across regions and management levels. Recently, the Highway Leadership Team appointed one of its members, a regional manager, to chair the Local Program Leadership Team. This appointment was made to strengthen the ties with Oregon DOT executive management.

The Oregon Local Program Committee includes members who are mostly external staff from LPAs and is chaired by a representative of Oregon's Association of Counties. Members include Oregon DOT staff and a representative from Oregon Division FHWA. The committee works on statewide local program transportation issues and is the key external committee to the Oregon DOT Local Program.

The Local Agency Spec Team is composed of local agencies, Oregon DOT subject matter experts, specifications reviewers, and the certification program manager. The work group is developing local agency general specifications that will enable a streamlined project review using a standard that is LPA friendly.

The Local Agency Guidelines Review Committee is responsible for reviewing and revising the Local Agency Guidelines manual. The committee is lead by the Oregon DOT Certification Program Manager and includes representatives from certified local agencies, FHWA, Oregon Association of Counties, Oregon League of Cities, central and regional Oregon DOT staff, and other subject matter experts. The manual was developed to provide Oregon local agencies, consultants, and DOT staff with guidance when developing and constructing federally funded transportation projects. It outlines policies and procedures as well as state and federal requirements that must be followed to complete and document local project work involving federal funds. The manual is the most comprehensive resource for local agencies and Oregon DOT local program staff, as it covers the federal project delivery process from inception to closeout of construction including thousands of links to resource documents, other Oregon DOT manuals, process descriptions, flow charts, desk procedures, checklists, and AASHTO and contact information.

Pennsylvania

Pennsylvania DOT has established a Local Project Delivery Task Force composed of members from the central office, districts, and FHWA division office. The task force has identified a number of design and construction issues related to federally or state-funded LPA projects. Along with other stakeholders from Pennsylvania's consultant, county, city, MPO, and municipal organizations, the task force developed solutions to these issues. After soliciting stakeholder input, a feasibility study of implementable solutions identified which changes to pursue. One product of this process is the consolidation of six different manuals that relate to aspects of LPA projects, with appropriate revisions, anticipated for completion in 2013. Pennsylvania DOT is currently evaluating the recommendations to see which can be accomplished and which should be implemented.

Utah

Utah DOT has a formal LPA program, which is coordinated out of a central office and is implemented through four regional district offices. Utah has 29 counties and 245 cities and towns, all of which are eligible for federal-aid funding. Utah DOT is responsible for the design and construction of all LPA projects, with the central office handling the procurement phase. Each LPA project is assigned a project manager from Utah DOT to oversee the project in the regional offices. Although the Utah DOT Local Government Programs office is responsible for project programming and funding, other

offices are responsible for standards and regulations. To be eligible for federal funding, the LPA must be a legally recognized town, city, or county.

Washington

WSDOT has a formal LPA program coordinated out of a central office (Highways and Local Programs) and implemented through six Regional Local Programs offices. The regional offices are the direct link with local agencies and partners such as tribal governments, ports, and transit authorities. The primary responsibility of the regional offices is to manage federal and state funds in a manner that allows the agencies to be successful in their transportation endeavors. At the same time, WSDOT regional offices assist LPAs in compliance with program requirements.

Fiscal Management

Fiscal management was included as part of the synthesis scope because a large amount of the federal funding allotted to a DOT may be passed through to fund local government projects. The survey identified that in the past fiscal year (FY), only six DOTs allocated less than $2 million of their federal funds to local agencies. Approximately 85% of DOTs allocated more than $2 million to local agencies, with amounts as high as $1.6 billion. Among 32 DOTs, the average amount of federal funding distributed in FY 2011 was $129 million. Some examples of how the funds were distributed have been provided, but in all cases the amount and exact distribution of the funding varies each year. For example, in Illinois, the FY 2011 funds allocated to local agencies totaled $342 million and were distributed with $234 million to STP and HBP projects, $13 million to major bridge projects, $14 million to HSIP projects, $6 million to rail safety projects, $52 million to Congestion Mitigation and Air Quality Improvement Program (CMAQ) projects, and $22 million to Safe Routes to School projects. In Virginia, almost all of the TE activities funding ($20 million in FY 2011) is allocated to local agencies. Tennessee DOT estimated that approximately $84 million in federal funding was allocated to cities with populations between 5,000 and 200,000 and to four MPOs. In Michigan, the federal-aid funding is split into 75% for state roads and 25% for local roads; in FY 2011, the local share was nearly $250 million.

Of the federal-aid funding allocated to local agencies annually, 68% of DOTs estimated that up to 10% is distributed as congressionally directed funds. However, there were two states in which funds specifically designated by Congress totaled up to 50%, and up to 75% in a third state, of all federal funds passed through to local agencies.

Five DOTs have established a minimum project cost to determine LPA project eligibility for federal funding. Iowa and Oregon DOTs apply a minimum project cost around $50,000, while Connecticut, New Jersey, and Utah DOTs provide federal funds to potential LPA projects with a minimum cost between $100,000 and $300,000. Three DOTs apply a maximum project cost limit to LPA projects to be eligible for federal funding. Ohio and Wyoming DOTs allow federal funds on LPA projects that do not exceed a maximum cost between $300,000 and $1.0 million. In Minnesota, the maximum cost limit varies by area transportation partnership in the state but is typically greater than $1.0 million. Table 6 presents a summary of funding limitations by minimum or maximum project cost amount used to determine eligibility.

TABLE 6
SUMMARY OF FUNDING MINIMUM AND MAXIMUM PROJECT COST LIMITS USED BY VARIOUS DOTS

State	Minimum Project Amount	Maximum Project Amount
Connecticut	$100,000–$300,000	
Iowa	≤$50,000	
Minnesota		>$1 million but varies by Area Transportation Partnership
New Jersey	$100,000–$300,000	
Ohio		$300,000–$1 million
Oregon	≤$50,000	
Utah	$100,000–$300,000	
Wyoming		$300,000–$1 million

California

In 47% of the DOTs, state legislation provides flexibility for innovative approaches to assisting LPAs with guaranteeing the local match required for federally funded projects. For example, Caltrans has authorized a federal-for-state funding exchange the Caltrans and LPAs. Chapter 18 of the Local Assistance Program Guidelines discusses the Regional Surface Transportation Program Exchange.

Iowa

Every county and city in Iowa may receive federal funding, with no prequalification or other eligibility requirements; however, projects must meet the minimum cost threshold of $50,000. The Iowa DOT central office coordinates the projects, while the district offices handle the day-to-day LPA project planning and oversight through the development of the PS&E packages and all contract procurements for the STP and HBP programs. After the contracts are awarded, the LPA handles contract inspections and payments.

Nebraska

Nebraska DOR has a formal LPA program in which eligibility is based on the adequacy of LPA staff, local dol-

lar match availability, size and complexity of the project, and LPA qualification. Local agencies were programmed from $60 million to $70 million in federal funds in the past fiscal year. One new funding alternative, the federal Fund Purchase Program, will be an exchange program of federal for state funding. It will be used in the STP and bridge programs to avoid the more cumbersome federal regulatory process and regulations by using local laws and procedures. This swap concept is sometimes referred to as state cash in lieu of federal funding. To participate, local agencies will receive 80% return of state dollars for every federal dollar swapped.

Oregon

More than $100 million is provided to local projects in Oregon. No limit is placed on project cost to qualify for consideration for federal-aid funding. Local agencies are responsible for matching contributions. Once a federal grant is awarded and an agreement is executed, Oregon DOT local agency liaisons work with the local agency to develop a project schedule and assign anticipated project tasks to the following project phases:

- Scoping,
- Project Initiation,
- Design Acceptance Package,
- Final Design Acceptance,
- PS&E,
- NEPA,
- ROW,
- Construction Contract Administration, and
- Closeout.

Oregon DOT is responsible for NEPA clearance, civil rights compliance, ROW certification, funding, and final project acceptance. However, the local agency may be responsible for ensuring federal minimum requirements in other phases. This can lead to conflict, as Oregon DOT and the local agency apply different standards to designs, scoping quality, specifications, and contracting.

Historically, safety projects and projects involving NEPA reviews have longer timelines and are at a higher risk of failing to be completed within the planned budget. Safety projects are generally smaller projects that involve a variety of local agencies and can require considerable time to coordinate, manage, and complete. Additionally, projects specifically designated by Congress can be higher risk because of low initial cost estimates, political ripeness, build-readiness, or feasibility issues.

Oregon DOT staff use several methods to reduce the time and risks associated with NEPA reviews, working with local agencies that are geographically located for managing multiple smaller projects. These smaller projects include contract bundling, scoping, and programmatic agreements. Oregon DOT bundles smaller projects in the environmental and permitting phases and during construction inspection, and with the local agencies it bundles smaller projects under a single contract to increase efficiency and capture contractor project delivery economies of scale. Oregon DOT also works to reduce the number of projects that require increases in scope. Scope creep is minimized through firm funding commitments before consideration from sponsors, and early collaboration with stakeholders and intergovernmental agreements. Oregon DOT maintains and supports programmatic agreements on endangered species, Standard Local Operating Procedures for Endangered Species, Biological Assessment, State Historic Preservation Office, the Routine Road Four C Blue Book, and the U.S. Army Corps of Engineers (USCOE). CEs are pursued for projects with no change in construction footprint and no significant impact to the environment. Oregon DOT is working with its federal partners to develop a programmatic agreement for FHWA-funded projects. This programmatic agreement is scheduled to be executed in 2012.

In the design and PS&E phases, conflicts are resolved through the use of design exceptions, local agency–approved design standards, context-sensitive solutions through a team of DOT and local agency representatives, and collaboration with FHWA.

Another common area for conflict is scope creep and project capacity increases that can occur from ROW acquisition needs and design issues [standard lane widths, raised medians, access control, signals, crosswalks, curb extensions, loss of on-street parking and Americans with Disabilities Act (ADA) modifications]. Once a potential conflict is discovered, the local agency, its liaison, and Oregon DOT technical staff work together to find solutions, such as meeting signal warrants, mitigating or meeting safety standards, obtaining ROW, moving utilities, staging construction, determining business and citizen impacts, and determining placements of stormwater treatment facilities such as detention ponds. As many of these conflicts can lead to project delays, redesign, and even political elevation, Oregon DOT and the local agency work to recognize and resolve potential conflicts in the project development stage.

The Oregon DOT Construction Section is involved in local agency project delivery improvement processes, and Oregon DOT has implemented many tools to improve local program oversight during construction. These tools include preapproved local agency specifications for materials and testing, template project inspection schedules and responsibilities, published construction manuals, checklists and procedures, and the development of the regional assurance specialist position, which reviews payment and documentation. Oregon DOT's Office of Civil Rights also maintains regional field coordinators who are responsible for ensuring that projects comply with federal and state laws, such as equal employ-

ment opportunity, on-the-job training, disadvantaged business enterprise, and labor compliance programs.

The Construction Section is also improving its processes for training, deficiency recognition and follow-up, quality assurance/quality control report templates, and local agency construction projects tracking. Other improvements include striving for consistent quality assurance processes for construction and closeout, independent assurance reviews of local agencies, the use of consultants to assist with inspections, development of a specific monitoring and oversight plan for projects, and the use of federal audits during the contract.

Recently, Oregon DOT has shifted to become a more multimodal transportation department. One of the key goals for this multimodal movement is to integrate resources, funding sources, and programs to support and seek the best solutions to transportation problems. Once the best solution is determined, the right groups of funding sources are determined, which will lead to a more strategic use of resources and build on the transportation system connectivity as a whole.

One recent example of how Oregon DOT is working with the local programs to streamline the funding sources and project development phase is the combination of the applications for State Bike/Pedestrian and the federal TE grant programs. Starting in June 2012, the State Bike/Pedestrian Program and the federal TE program initiated a two-phase combined grant application process. The first phase was a call for proposed projects, for which 170 conceptual projects were submitted. The combined selection committee will choose around 60 of these projects to move forward into the application phase.

The second phase of the combined grant application will ensure a higher caliber of projects by allowing a 6-month combined Oregon DOT and local agency scoping phase. Creating an opportunity to scope proposed local projects similar to state projects enables local programs and funding managers to determine feasibility issues, environmental concerns, and constructability complications early in the project development. This will lead to better solutions and funding choices. By combining the grant application process and funding streams, local agencies were able to apply for larger grants, use one application process and form, and save time and money. The combined application and award process will be used as a test case for Oregon DOT to combine funding sources to reach the best multimodal solutions for local transportation needs.

Pennsylvania

Pennsylvania DOT requires a firm funding commitment on local projects. The funding must be shown in the TIP and an agreement with the LPA must be executed before the funds are considered secured. When the project is federally funded, a request for PS&E approval must be authorized.

One way the state legislation provides flexibility for innovative ways to guarantee the local match amount for federally funded projects is through the PA 1991 Act 26 legislation, which applies to county-owned bridge projects. The funding split on most federally funded local projects is 80% federal, 15% state, and 5% local. All county-owned covered bridges are eligible for the use of PA 1991 Act 26 funds in lieu of the local match. Other county-owned bridges are eligible for PA 1991 Act 26 funds if the bridge is in a financially distressed county. A financially distressed county is determined based on having a high unemployment rate (updated annually), and the local agencies in these counties do not pay any match.

Utah

Utah DOT recognizes any legally established local jurisdiction (e.g., county, city, town) as eligible to receive federal funds. The primary source of federal aid is through the STP, and Utah DOT did not identify any concerns over the size of the jurisdiction or in setting minimum or maximum costs in programming projects. Utah DOT is responsible for LPA project design and construction through a Utah DOT project manager. Project managers oversee LPA projects in their regional offices, and Utah DOT central office is responsible for the project programming and procurement phases.

Policies and Procedures for Project Delivery

The survey results indicated that 60% of DOTs apply a "one-size-fits-all" approach to federal requirements on LPA projects. However, 40% of DOTs make individual distinctions of federal regulations on a project-by-project basis.

The DOTs were asked what policies and procedures are instituted to assist with federally funded LPA project delivery. Ninety-five percent of DOTs use federal and state policy and guidance to assist LPAs with project delivery. In more than 40% of the states, guidance for project delivery is also established at the MPO/RPO and local levels. Some examples of the documents used include a quick reference guide for LPAs (Florida and Oregon DOTs and Vermont Agency of Transportation), specific guidance on the ROW process (Massachusetts DOT), and personal assistance from local agency liaisons (Oregon DOT). New Mexico has specific guidance on tribal regulations and their impact on the delivery of federally funded projects. VDOT provides LPAs with guidance on specific requirements applied at the state level.

One of the effective project delivery practices highlighted in the *NCHRP Synthesis 414* (McCarthy et al. 2011) report was bundling several smaller LPA projects into a single large project. The survey asked DOTs whether they were applying

the practice of project bundling and in which phase of project delivery the LPA projects were being combined. For the 43% of DOTs that combine LPA projects, the majority of projects were combined in the construction contracting or inspection phase (40%), environmental phase or during permitting (32%), procurement phase (30%), or the design or utility agreement phase (27%). Six DOTs combine LPA projects in the planning phase through the use of the STIP or TIP. In addition, both the Georgia and New Mexico DOTs have tied together several smaller LPA projects during the ROW acquisition phase. Another state is considering the combination of 10 to 30 bridges in one design-build LPA project under one consultant, and will evaluate this approach in a pilot program focused on the use of design-build consultants for similar LPA projects.

Nebraska

LPA projects are handled through a centralized local project division office, which has two project coordinators assigned to assist LPAs on each project: one for preletting activities and one in the construction phase. Construction oversight and inspection occurs at one of the eight districts. High-risk projects that take the longest to complete are those with ROW acquisitions and extensive environmental review. Nebraska is evaluating its planning process to identify additional efficiencies. Nebraska DOR reported efficiencies in combining or bundling LPA projects, particularly in high-risk rural road and emergency relief projects.

Washington

Washington State received about $233 million, or 35% of the total state federal program, for its LPA program in the past fiscal year. LPA projects using funds from the National Scenic Byways program and TE activities were reported to take the longest to complete and present the most risk to Washington's LPA program. WSDOT reported that the lengthy time occurred primarily because LPA project sponsors were not certified agencies and their projects were not properly scoped or estimated. WSDOT does not have authority to require certified LPA agencies to oversee these riskier projects.

WSDOT reported using several tools to improve communications and streamline processes in improving project delivery. Performance measures include performing advanced project programming, conducting risk determinations, enabling continuous monitoring and reporting, tracking LPA project funding obligations, incorporating the use of CEs and programmatic agreements, and continuing the implementation of the certification program. Other performance tools include providing LPAs with automated project expiration dates and live updates from WSDOT tracking systems, hosting periodic meetings with LPAs that have active projects, and incorporating project administration checklists.

Programmatic Agreements

Several DOTs have generated programmatic agreements for certain LPA projects to assist in project delivery. Figure 10 presents several agreements used to date. Programmatic agreements are most often used in dealing with historic preservation, endangered species, and natural resources issues. Nearly 25% of programmatic agreements are generated to work with permitting agencies such as the USCOE and the U.S. Coast Guard. Some DOTs are using programmatic agreements to assist with the Section 106 process as well as with categorical exclusions and exempt projects. Ohio DOT has a programmatic agreement that allows it to complete NEPA documentation for all LPA projects classified as Level 1 categorical exclusions or exempt projects. MnDOT will soon be executing a programmatic agreement that assists with LPA projects that fall under the emergency relief program, and will allow MnDOT to approve lower dollar amount sites. Pennsylvania DOT has generated a bridge and roadway programmatic agreement for assisting with NEPA clearance. Nebraska DOR uses programmatic agreements for several LPA project elements such as bridge inspection, nonconstruction activities, pavement markings, sign installation and replacement, lighting and signal replacements, and at-grade railroad crossing activities. An example of one of the PAs used in Nebraska is included in Appendix D.

Florida

In Florida, programmatic agreements are used with a number of resource agencies to review all Florida DOT projects, through the Efficient Transportation Decision Making process, that relate to parks and recreation, water management district, permitting, endangered species and other natural resources, and historic preservation issues. The process applies to all Florida DOT and LPA capacity projects.

Iowa

Iowa DOT has a programmatic agreement with FHWA Iowa Division that streamlines the process for determining which projects may be classified and cleared as a CE. Some projects have been determined to have no potential for significant environmental impacts, and therefore Iowa DOT can classify them as CEs without individual review by FHWA Iowa Division. These projects are grouped into three categories: (1) nonconstruction projects; (2) construction projects within existing ROW; and (3) projects that change the usage rights for a property. Projects that do not fall into one of these categories may still be classified as CEs if certain other conditions are met. These projects are documented by the LPA in a short memo, reviewed by Iowa DOT, and, if acceptable, forwarded to FHWA Iowa Division for review and signature.

Iowa DOT has a programmatic agreement with FHWA Iowa Division and the Iowa State Historic Preservation

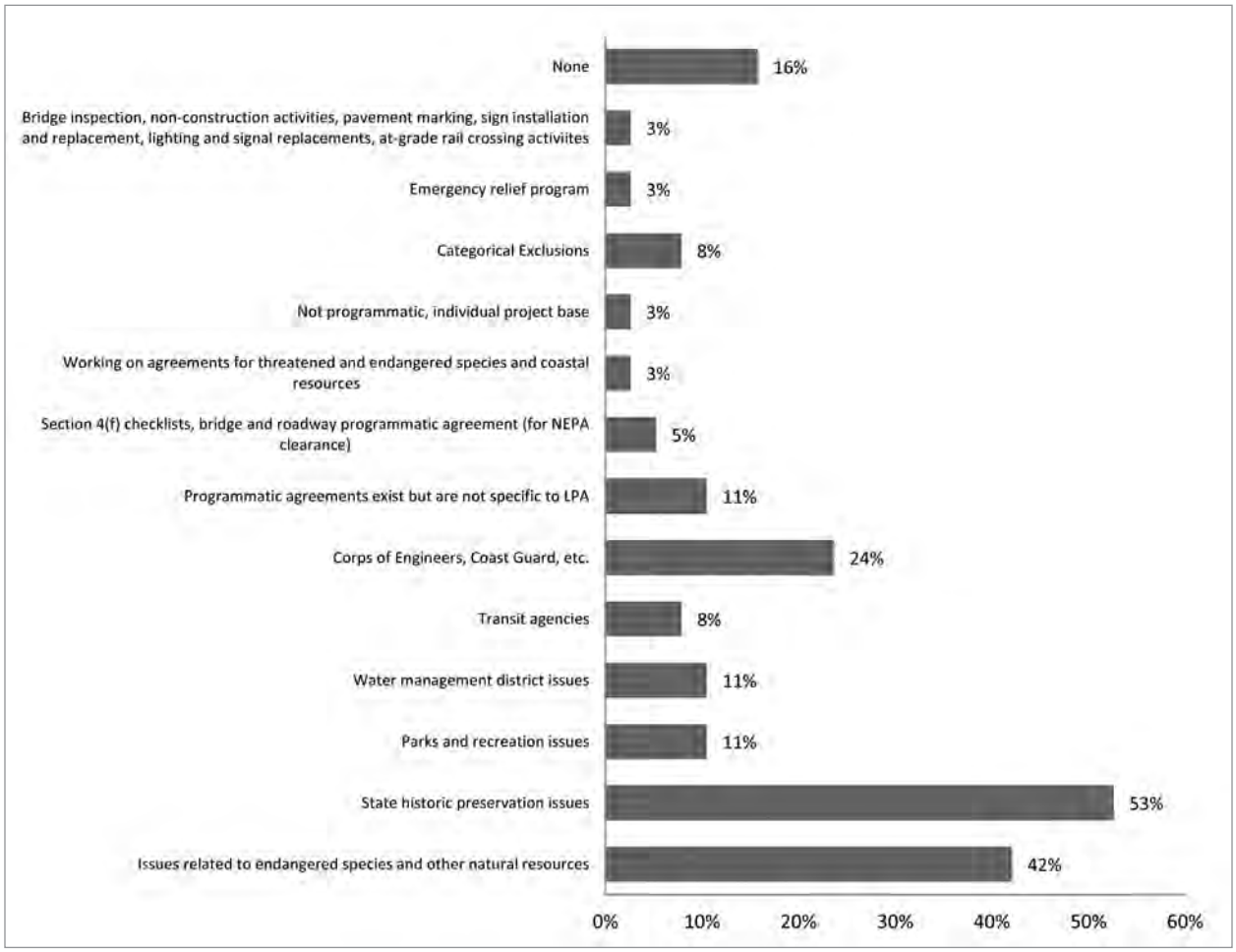

FIGURE 10 Summary of programmatic agreements used for LPA project delivery.

Office for meeting its responsibilities under Section 106 of the National Historic Preservation Act. This agreement establishes a streamlined process for identifying, evaluating, and documenting whether a project will have an effect on historic properties. This agreement defines certain categories of projects that have no potential to affect historic properties, and therefore require no further review.

Michigan

Michigan DOT has used programmatic agreements that result in certain projects being exempted from additional review. These projects generally are within the original project footprint, and the work type is primarily roadway resurfacing.

Minnesota

The local agencies in Minnesota received about $150 million in allocated funds in the past fiscal year, which amounts to 30% of the overall state's federal-aid program. MnDOT reported that the use of programmatic agreements and abbreviated submittal forms has improved the efficiency of its programs. An example of a MnDOT programmatic agreement is included in Appendix D.

New Jersey

In cooperation with FHWA New Jersey Division and the New Jersey State Historic Preservation Office, New Jersey DOT has established a list of project actions and project types that will result in a "No Effect Finding" to historic resources under Section 106 of the Historic Preservation Act. Projects in the "No Effect Finding" category are processed without individual project-by-project formal concurrence by the State Historic Preservation Office and FHWA.

Oregon

In Oregon, one unique programmatic agreement involves the National Marine Fisheries Service opinion and procedures outlined in the *Standard Local Operating Procedures for Endangered Species* (SLOPES) program. SLOPES refers to the process and criteria that USCOE uses to guide the administration of activities regulated under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean

Water Act of 1972. It also applies to activities carried out by USCOE as a part of civil works programs authorized by Sections 1135, 206, and 536 of the Water Resources Development Acts of 1986, 1996, and 2000, respectively, in areas occupied by Endangered Species Act–listed salmon and steelhead fish or their designated critical habitats.

The proposed action as outlined in National Marine Fisheries Service Northwest Region 2008 is a revision of SLOPES program that USCOE uses to guide the permitting of maintenance and improvement of roads, culverts, bridges, and utility lines. Use of the revised SLOPES helps ensure that USCOE's regulatory oversight of these actions will continue to meet Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act requirements with procedures that are simpler to use, more efficient, and more accountable for all parties. Under the revision to SLOPES IV *Roads, Culverts, Bridges and Utility Lines* (2008), USCOE is proposing to authorize four categories of actions:

- Major hazard response to complete an unplanned, immediate, or short-term repair of a road, culvert, bridge, or utility line;
- Stream bank and channel stabilization to ensure that roads, culverts, bridges, and utility lines do not become hazardous as a result of the long-term effects of toe erosion, scour, subsurface entrainment, or mass failure;
- Maintenance, rehabilitation, and replacement to ensure that roads, culverts, and bridges remain safe and reliable for their intended use without impairing fish passage, to extend their service life, and to withdraw temporary access roads from service in a way that promotes watershed restoration when their usefulness has ended; and
- Utility line stream crossings to install, maintain, rehabilitate, or replace pipes or pipelines used to transport gas or liquids, including new or upgraded stormwater outfalls, and cables, lines, or wires used to transmit electricity or communication.

Other programmatic agreements commonly used by Oregon DOT include the Routine Road Four C Blue Book, Historic Preservation Issues, and USCOE. All of the programmatic agreements, templates, and examples are available on Oregon DOT's website.

In addition, Oregon DOT is developing a new programmatic agreement for use on all FHWA-funded projects. This new programmatic agreement is scheduled for publication in 2012.

Pennsylvania

Pennsylvania DOT has executed two programmatic agreements in recent years. The programmatic agreement for bridges and roadways was developed originally for environmental clearance for most of the bridge, roadway, and noncomplex state projects and has been applied to LPA projects as well because the environmental review process is handled in the same way. The activities addressed as part of the agreement include roadway rehabilitation and pavement preservation activities; bridge replacement, rehabilitation, and preservation; and other noncomplex projects such as intersection improvements, addition of turn lanes, construction or replacement of signage and guiderail/barrier, traffic operations, grade crossings, certain pedestrian and bicycle facilities, fringe parking, and ADA curb cuts. An example of this programmatic agreement is included in Appendix D.

A second example of a programmatic agreement used by Pennsylvania DOT includes the Section 106 agreement with FHWA, Pennsylvania Historical and Museum Commission, and the Advisory Council on Historic Preservation for federally funded LPA projects (included in Appendix D). The normalized time and cost savings over the past 2 years as a result of the Section 106 agreement was estimated by the Bureau of Project Delivery and is presented in Table 7. The table shows the schematicized savings per 100 projects; an average savings of $829,000 per project and 4,170 days was calculated. Other examples of DOT programmatic agreements provided in the survey responses are shown in Table 8.

PERFORMANCE MEASURES

The survey identified performance measures that DOTs are currently using, as well as examples of the type of performance measures that DOTs recommend be explored to enhance the LPA program. Eighteen DOTs indicated that they apply performance measures when LPAs receive federal-aid funds. Some examples of these performance measures are

TABLE 7
PENNSYLVANIA DOT SUMMARY OF IMPACTS OF SECTION 106 PROGRAMMATIC AGREEMENT

Effect Finding	Number	Cost Savings per Project	Total Cost Savings	Time Savings per Project (days)	Total Time Savings (days)
Exempt	75	$8,000	$600,000	30	2,250
No Effect	17	$12,000	$204,000	90	1,530
No Adverse Effect	5	$5,000	$25,000	60	300
Adverse Effect	3	$0	$0	30	90
Totals	100	—	$829,000	—	4,170

TABLE 8
EXAMPLES OF PROGRAMMATIC AGREEMENTS USED BY VARIOUS DOTS

State	Category	Details
Colorado, Georgia, Florida, Illinois, Minnesota, Nevada, New Mexico, New York, Oregon, Utah, Washington	Endangered species and other natural resources	• All agreements pre-established at local or state level • SLOPES • In accordance with agreement with FHWA and in compliance with 23 CFR 771 and 36 CFR 800 • MOU and guidance • Agreement with U.S. Fish and Wildlife Service related to authority delegation
Colorado, Florida, Georgia, Illinois, Iowa, North Carolina, Michigan, Minnesota, Nevada, New Jersey, New Mexico, New York, Oregon, Utah, Washington, Wisconsin	State historic preservation issues	• All agreements pre-established at local or state level • In accordance with agreement with FHWA and in compliance with 23 CFR 771 and 36 CFR 800 • Based on historic bridge surveys and inventories • Section 106 Agreement • MOU and guidance • Tribal Historic Preservation Office agreement in place, historic bridge, and State Historic Preservation Office (SHPO) process agreement
Colorado, Florida	Parks and recreation issues	• All agreements pre-established at local or state level
Colorado, Florida, Minnesota	Water management district issues	• All agreements pre-established at local or state level • In accordance with agreement with FHWA and in compliance with 23 CFR 771 and 36 CFR 800
Colorado, Minnesota	Transit agencies	• All agreements pre-established at local or state level • In accordance with agreement with FHWA and in compliance with 23 CFR 771 and 36 CFR 800
Colorado, Illinois, Florida, Minnesota, Utah	Corps of Engineers, Coast Guard, etc.	• All agreements pre-established at local or state level • Regional and nationwide permits; water quality
California, Colorado, Iowa, Minnesota, Oregon, Pennsylvania, Washington	Other	• Section 4(f) checklist, bridge and roadway programmatic agreement (for NEPA clearance) • All agreements pre-established at local or state level • Programmatic CE approval

included in the following sections. Thirteen DOTs set specific performance metrics for LPA projects and share them with local agencies that receive federal-aid funds. In addition, five of the 13 DOTs provide statewide reports for meeting performance goals related to LPA project. The links to these reports are provided in Appendix C.

Definition of Performance Measurement

Performance measurement is the use of statistical evidence to determine progress toward defined organizational objectives. This includes both evidence of actual fact, such as measurement of pavement surface smoothness, and measurement of customer perception, such as the results of a customer satisfaction survey. In a service industry such as transportation, the performance measurement process starts by defining the services that the organization promises to provide, including the quality or level of service (e.g., timeliness, reliability) to be delivered. There are often good opportunities for collecting feedback from system users in "real time," since the transportation service is often "consumed" at the same time it is "produced." Performance measures provide information to managers about how well that bundle of services is being provided. Performance measures should reflect the satisfaction of the transportation service user, in addition to concerns of the system owner or operator (NCHRP 1998).

Examples of Performance Measures

Several DOTs recommended performance measures that could be used to direct the amount and type of funding to LPA projects. The information is presented in Table 9 and indicates that the definition of performance measures is specific to each state DOT. There appeared to be some confusion among some DOTs in responding to questions on performance measures. Although the survey defined performance measures, some responses did not align with that definition and described various actions the DOT was employing rather than specific performance measures.

Figure 11 also presents the performance measures or tools that DOTs use to evaluate project delivery. The majority of DOTs reported using project administrative checklists as the main performance measure tool. However, seven or more DOTs also tracked obligations against programmed projects, hosted monthly or quarterly meetings with LPAs, predetermined capacity of LPAs to handle federally funded projects, and applied consistent quality assurance statewide on LPA

TABLE 9
PERFORMANCE MEASURES FOR DIRECTING AMOUNT AND TYPE OF FEDERAL FUNDING TO LPA PROJECTS

Category	Performance Measures	State
Time and Budgetary Measures	Percentage of projects delivered on-time and within budget	Pennsylvania
	On-time delivery within budget estimates	Virginia
Delivery Milestones Based on Project Phase	NEPA, ROW, plan file, sale, and construction completion date	Ohio
	Overall program delivery; compliance with federal requirements; billing activity and number of inactive agreements; project close-out	New Jersey
	Financial, schedule, and planning requirements	Wisconsin
LPA Performance History	Project complexity and LPA experience with projects of similar scope and magnitude. LPA financial history and current standing	South Carolina
	Review LPA staffing levels and history in delivering past locally administered projects in making determinations for project awards	Maine
	Ensure that the LPA has enough staff and knowledge/ability to administer a federally funded transportation project. Review previous LPA project history	Kentucky
	Past performance history and size of an LPA	Georgia
Financial Activity	Ratio of expended federal funds to funds allocated to capture whether an LPA is expending project funds in a timely manner	Missouri
	Automated updates to LPAs from DOT financial tracking system on the remaining obligation authority. Provide LPAs with reports on project bid savings. Monitor project delivery by tracking obligations against programmed projects	Michigan

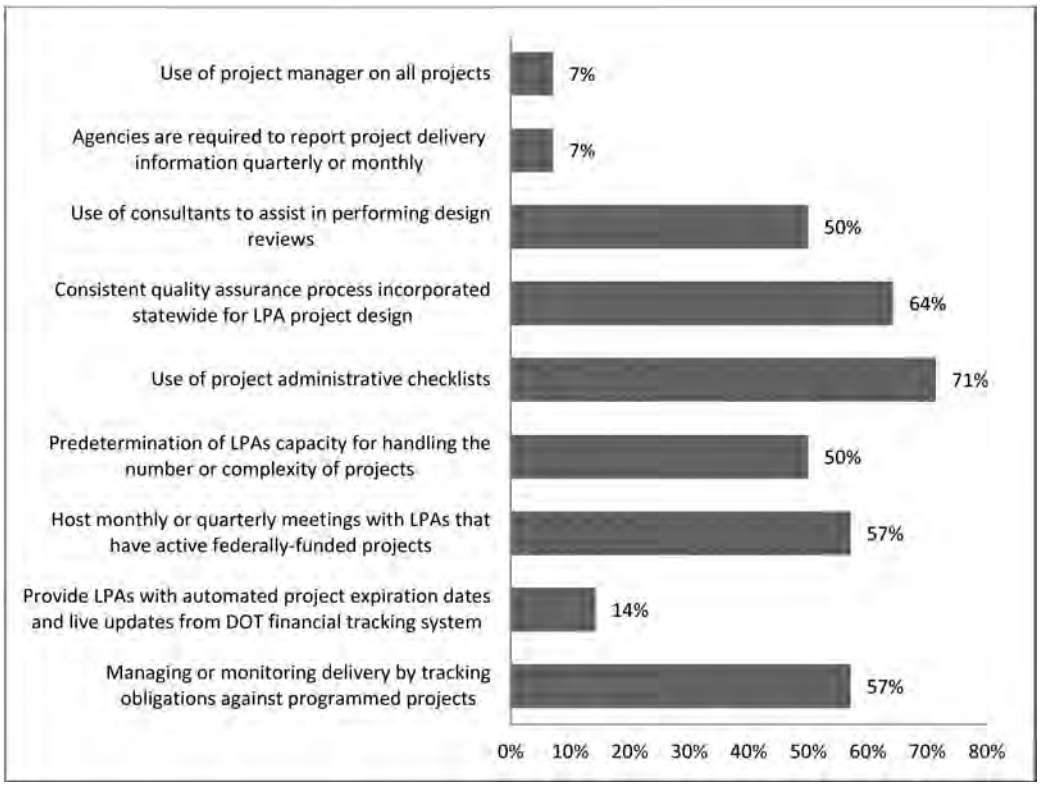

FIGURE 11 Summary of performance measures used by DOTs for evaluating project execution and delivery.

project design. For example, Maine DOT has implemented documentation to be used for rating and evaluating LPA performance in the project development stages to ascertain an LPA's capability to administer future projects (see Appendix D).

In California, LPAs are required to report project delivery information on projects funded by Proposition 1B infrastructure bonds and ARRA projects either quarterly or monthly. This information is used to track delivery and when necessary request approval of cost, scope, and schedule changes. Caltrans reported that as a result of the success of projects completed under these programs, it is exploring an expansion of performance reporting to all future projects. Utah DOT uses project managers on all LPA projects, who are

aided by several management systems, including the electronic project management system.

Arizona

Arizona DOT presents several performance measures applied specifically to the federal-aid highway program at different project stages and for different project scopes in "The FHWA and ADOT Stewardship and Oversight Agreement" (2010). Two performance measures that relate specifically to LPA projects are an annual review regarding the number of Arizona DOT LPA reviews completed in each of the program areas and the percentage of certification acceptance agreements that have been updated compared with their establishment dates.

Nebraska

Performance measures used by Nebraska DOR include (1) managing delivery by tracking obligations against programmed projects, (2) use of project administration checklists, and (3) consistent quality assurance process incorporated statewide for LPA projects. One key area that Nebraska DOR reports on relates to the planning and quality management groups, using both FHWA Nebraska Division and internal audits to review project performance and delivery. Nebraska DOR project coordinators provide oversight in the environmental and ROW phases. A systemwide project tracking system is in place to review all projects and their schedules. Nebraska DOR reported that six programmatic agreements exist in several areas and have improved the efficiency of the program. The programmatic agreements create an exception to the requirements necessary to complete a NEPA determination form. An example is provided in Appendix D.

Oregon

Oregon DOT instituted project and funding performance measures to track and monitor project progress and federal funding obligations. To track projects over time, Oregon DOT manages a Quarterly Business Review report that includes metrics for local program project delivery. The following analysis provided by the Oregon Local Program Leadership Team and FHWA partners is detailed in Appendix D:

- Funds obligated for each local program vs. allocation. Target: 100%.
- Percentage of projects on time for PS&E acceptance (statewide and regional). Target: 80%.
- Percentage of projects on time for Notice to Proceed (statewide and regional). Target: 80%.
- Percentage of projects completed on time (statewide and regional). Target: 80%.
- Percentage of construction engineering (statewide and regional). Target: 15%.
- Percentage of preliminary engineering (statewide and regional). Target: 15%.
- Percentage projects awarded within the engineer's estimate (statewide and regional). Target: 50%.
- On budget: Percentage of original construction authority spent (statewide and regional). Target: 100%.

Currently, the Quarterly Business Review does not track certified agency projects; these are tracked independently in the certified local agency tracking database developed in 2009. Oregon DOT is working on combining these two tracking systems to streamline the reporting duties and enable direct comparisons between certified and noncertified local projects.

In addition to these tracking systems, Oregon DOT regional local program staff, local agencies, and Oregon DOT management, including the certification program manager, meet monthly or quarterly. These meetings are designed to maintain working relationships, provide project status updates and reviews, provide project and program quality control and assurance, establish local program training needs, and develop local agency staff qualifications. Tools used to monitor and evaluate local agency project development and delivery include the following:

- Certified and noncertified local agency checklists;
- Local program desk procedures;
- Quality assurance/quality control documents;
- Intergovernmental and interagency agreements; and
- Oregon DOT manuals and publications.

Oregon DOT credits the certification program with helping to elevate the level of communication and partnership between Oregon DOT staff and certifying local agency staff. Recently, Oregon DOT regional staff was able to review and approve a number of certified agency projects within 1 day. As the certification program requires local agencies to perform process improvements, many of the certified local agencies are meeting or exceeding Oregon DOT performance metrics in design, procurement, and construction management phases. According to Oregon DOT's local program working principles, key elements for a successful local program include regular training, policy and regulatory updates on guidance, and collaborative reviews. For example, the Oregon DOT regional local program unit defined performance measures and goals in terms of on-time delivery, award amounts, and budget. On-time delivery is meeting the 13-month lock-in dates agreed upon with the local agency and includes at least 80% of projects on time for PS&E, construction, and Notice to Proceed. The performance target for award amounts is at least 50% of projects awarded within 10% of the engineer's estimate. The budget performance measure is based on the mean average percentage of total budgets spent for preliminary engineering and construction engineering (no more than 15% of total project budget spent on each of the two phases) for LPA projects in two of the Oregon DOT geographic regions (Regions 1 and 2), and the Bridge Delivery Unit performance measures and goals.

CHAPTER THREE

CERTIFICATION OF LOCAL PUBLIC AGENCIES

INTRODUCTION

This chapter presents information on the certification of LPAs by state DOTs. The content of this chapter is based primarily on the DOT survey results and focus interviews with five DOTs. The chapter is divided into sections covering preliminary application to LPA certification program through periodic recertification of LPAs. Details on the LPA certification program content, structure, and continuation process from interviews with the DOTs are presented.

Fifteen states indicated that their DOTs administer an LPA certification or qualification process for federally funded projects. In these states, the number of certified LPAs ranged from fewer than 15 to more than 90 agencies. In addition, a few states indicated that they are in the process of implementing an LPA certification program in the near future. Of the remaining states, only 14% are definitively considering implementing an LPA certification process. The DOT central office will be responsible for implementing a new LPA certification process, with some coordination with DOT district offices. Table 10 summarizes the entities certified and areas of certification reported by a number of DOTs. Kentucky, Minnesota, and Missouri indicated that they are not pursuing certification programs. However, upon review of their policies and procedures, it appears that each of these states uses a specific certification program for state aid, a practice that parallels the states that have formal certification programs for federally funded projects.

DOTs were asked whether federal regulations should be established to require certification program for LPAs. Approximately 62% of the respondents indicated that it should not be required. The primary reason cited was the need for additional staff and training, as well as another program to undertake with

TABLE 10
SUMMARY OF ASPECTS OF STATE LPA CERTIFIED ENTITIES AND AREAS OF CERTIFICATION

State	Entity Certified			Areas of Certification					
	Certifying Local Public Agencies	Certifying Consultants[1]	Certifying Individuals[1]	Design	ROW[1]	NEPA Study Lead[1,2]	Project Advertisement, Bid/Award, Consultant Selection	Construction Administration (EEO[1], DBE[1], Materials Quality Assurance, etc.)	Construction, Procurement, Inspection[3]
Florida	X			X			X	X	X
Georgia	X			X	X	X	X	X	X
Kansas	X			X			X	X	X
Maine	X	X		X		X	X	X	X
Mississippi	X	X		X		X	X	X	X
Nebraska	X	X	X	X	X	X	X	X	X
New Hampshire			X	X	X	X	X	X	X
Ohio	X	X		X	X	X			X (in development for consultants)
Oregon	X			X		X	X	X	X
South Carolina	X			X		X	X	X	X
Texas			X						
Washington	X			X	X	X	X	X	X
Wisconsin	X	X		X		X	X	X	X
Wyoming			X	X	X	X	X	X	X

[1] State DOTs cannot delegate certain functions per the FHWA stewardship agreement (e.g., civil rights, ROW Certification, Finance, NEPA closeout).

[2] Defined as providing the environmental studies and obtaining local permits, not final NEPA clearance.

[3] Does not include final inspection approval.

no additional resources forthcoming. Most DOTs were satisfied with their current LPA programs, and instead focused on a concerted effort to improve the efficiency of their current programs. However, one DOT responded that federal regulation should require certification programs for LPAs and that a minimum project amount of $500,000 should be established. Iowa DOT has no LPA certification program, but it is considering certification of individuals performing construction inspection.

About a dozen DOTs have implemented or are considering some related aspects of a certification program. Table 11 presents a sample of these approaches. In some states, such as Delaware and Oklahoma, it is not necessary to have a certification process because the DOT administers infrastructure federal funding programs on behalf of the LPAs. Other DOTs will perform a prequalification review of LPAs, but not a full certification process.

Figure 12 presents several reasons why DOTs have not implemented an LPA certification process. The main reason is the limited workforce at the DOT, local agencies, or both.

General Requirements of a Local Public Agency Certification Program

The survey solicited DOTs with an LPA certification program to provide information on some general requirements of the process.

Administration

Most DOTs (87%) with an LPA certification program formally review and update the process periodically. For 11 of the 15 DOTs, the average time to certify an LPA from start to completion is less than 3 months. However, the certification process can take more than a year in a couple of states. The frequency with which the certification is reviewed varies from review with every new project application to up to every 5 years. In New Mexico, the frequency with which an LPA's certification is reviewed is based on its incorporation as a political subdivision of the state.

TABLE 11
APPROACHES CONSIDERED AS PART OF LPA CERTIFICATION PROGRAM IMPLEMENTATION

State	Variation or Consideration for LPA Certification Program
Iowa	Require individuals performing construction inspection on LPA projects to be certified.
Michigan	A few LPAs are certified in the construction administration process. Currently do not have a certification process for the design phase of project delivery.
Montana	Suballocate Transportation Enhancement (TE) program funding to local and tribal governments for developing TE projects at the local level. Currently working on a certification process to allow local governments to administer selected federally funded (non-TE) projects.
Pennsylvania	Local Project Delivery Task Force created to find ways to improve the development and delivery of local projects. Considering a tiered qualification system that would allow for reduced reviews for consultants with successful previous Pennsylvania DOT project experience.
Virginia	Certification process that grants very experienced municipalities the ability to streamline VDOT oversight.

The nature of the certification process varies by state. In Ohio, the LPA certification program has two levels. The first level includes assignment of full administration capabilities of all project work types, given a satisfactory performance on

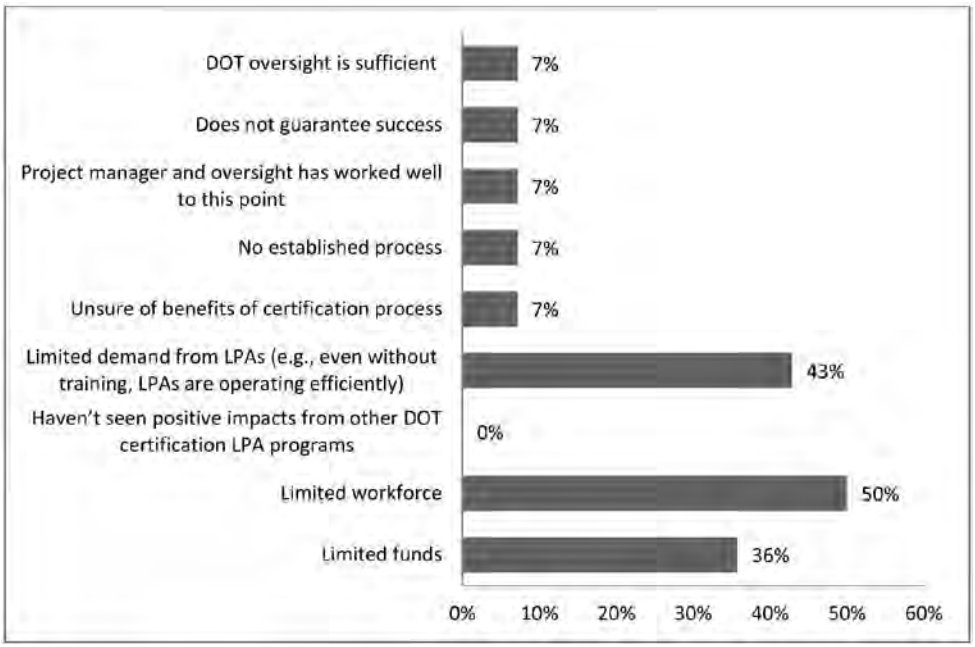

FIGURE 12 Reasons provided for not implementing an LPA certification process.

past projects and no change in stated qualifications. The second level grants limited administration capabilities assigned on a project-by-project basis, depending on the work type.

An LPA may have to undergo recertification for several reasons, primarily as a result of the LPA's past performance history or a staff change at the LPA. Figure 13 presents a range of survey responses.

Florida

The Florida DOT LPA Manual provides local agency certification requirements. One of the major requirements for being certified in Florida is that each project must be run by a qualified and experienced person who is either on staff as a public employee or is a consultant designated as the LPA's engineer. The LPA must demonstrate sufficient expertise and capability to perform and supervise the design, environmental, PS&E, and construction administration phases of the project. The LPA engineering force needs to be capable of performing the design, PS&E, and construction administration phases of the project, or it may enter into consultant agreements for this work. In addition, the LPA must designate an official with approving authority for all project approvals delegated by Florida DOT. The official, which could be an LPA executive or policy body, must formally approve each project step for which it is the approving authority. Examples of the LPA Administrative Checklist and a Certification and Qualification Agreement are included in Appendix D.

After receiving the above information, the Florida DOT District LPA administrator will interview LPA staff to determine whether it is capable of administering a federal-aid project. The administrator will use a District Task Team approach to evaluate the local agency's qualifications. The District Task Team consists of Florida DOT staff with expertise in the area(s) in which LPA certification is requested. The team will be present at the LPA interview and will consider past performance, current staffing, overall capability, and knowledge of FHWA and state requirements to determine the feasibility of certifying the LPA. If any information is missing from the application or additional details are needed, the LPA is given the opportunity to submit the documentation to the administrator in a timely manner.

Florida DOT will review the LPA certification every 3 years if the LPA is classified as inactive status. Certification is also reviewed with every new project if the LPA is classified as having a project-specific certification. The LPA must receive a Recertification of Qualification after 3 years of inactivity or at the administrator's discretion. Failure to receive recertification and/or unsatisfactory performance by the LPA will result in decertification.

Oregon

Oregon has a certification program whereby the Oregon DOT certification program manager and relevant Oregon DOT subject matter experts interview local agency staff to communicate expectations, procedures, and responsibilities. Once the manager and Oregon DOT staff are satisfied that a local agency has sufficient staff and resources to pursue certification, Oregon DOT and the local agency execute a Master Certification Agreement (see Appendix D). The

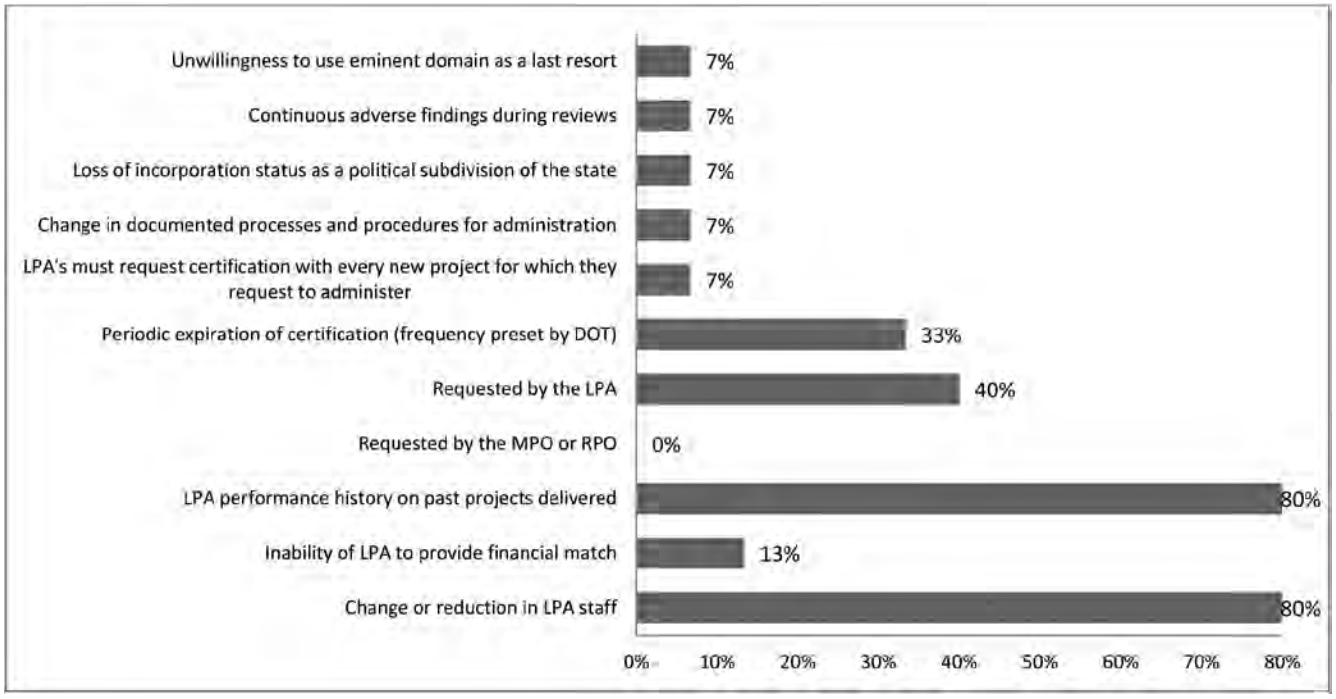

FIGURE 13 Types of events that prompt recertification of an LPA.

agreement establishes the roles, responsibilities, and expectations for federal-aid project delivery. The local agencies then manage two to four test projects to which Oregon DOT staff applies in-depth oversight and partnership with each local agency. During the test phase, local agencies manage the federal-aid project with their approved processes and are held accountable for compliance with their commitments in the agreement and the interview forms. The Oregon DOT regional local agency liaison is the key staff person responsible for the success of a local agency project. In the certification program, the 'liaison's role is increased, to include training the local agency on federal regulations, reviewing local agency deliverables and product, working on certification program documents and guidance, and helping the local agency develop internal processes to comply with federal regulations and best practices. The liaison is also the communication liaison for Oregon DOT technical staff, regional staff, federal partners, and the local agency staff whenever Oregon DOT review or approval is needed for a project to continue.

Local agencies can pursue certification in any or all of the following four areas of project delivery: (1) consultant selection; (2) design; (3) advertising, bid, and award; and (4) construction contract administration. Continued certification is pursuant to positive findings from formal biannual project reviews. Oregon DOT reviews local agency policy and process changes, staff reductions, and project delivery performance to determine whether a local agency may continue to operate as a fully certified agency.

Currently, 13 local agencies are involved in the certification program. Historically, local agencies have requested to become certified in only a couple of the possible areas. The current trend, however, is for local agencies to pursue certification in all areas. Those few early certified agencies that only pursued certification in some areas are now re-entering the program to complete the other areas. Once a local agency reaches full certification status, Oregon DOT plays more of an oversight and review role. The local agency takes responsibility for contracting, procurement, design, and construction contractor management. To revoke an agency's status for unsatisfactory work, Oregon DOT must comply with its notice and documentation procedures. These procedures require Oregon DOT to inform the local agency of deficiencies and give it time for cure. Oregon DOT staff is committed to working with local agencies to take corrective action. If the local agency fails to take corrective action, the certification program manager can revoke the certification status or require that all projects return to Oregon DOT management. A local agency can regain its certified status after the problems have been resolved.

Certified local agencies have experienced improved project delivery timelines and budget control as a result of certification. Large cities and counties that receive consistent federal funding have the most success in the certification program and in developing and executing federal-aid projects.

Training

All but one of the DOTs require that LPAs attend training on the certification program and become familiar with related policies and regulations. Ohio DOT does not mandate a training component for an LPA to become certified. Florida DOT requires that LPAs take an online training at the time of certification. There is no formal recertification training, though new employees at certified local agencies are asked to take the online training.

For the most part, training is made available to LPAs upon request or through annual training sessions. In 75% of the states that have an LPA certification program, the training is conducted by DOT central office staff, with some support of the local technical assistance program on specific technical items. However, there are some unique situations, such as in Georgia, where the Office of Program Control delivers LPA training, and in Tennessee, where the local program development office heads training efforts. In New Mexico, MPOs/RPOs are also involved in delivering training to LPAs, and Wisconsin DOT has engaged consultants to assist in training. Maine DOT produced a *Guide to Local Project Administration* (2011) that is part of the basis of the annual certification course.

In South Carolina, the LPA administration office provides training, and South Carolina DOT coordinates closely with FHWA–South Carolina Division by offering other training courses through the National Highway Institute.

Effectiveness of a Local Public Agency Certification Program

This section presents practices and performance measures that DOTs reported were useful in determining the effectiveness of their LPA certification programs. The survey asked DOTs how they measure the effectiveness of an LPA certification program and what type of performance measures are instituted as part of the certification process. In 87% of the DOTs with an LPA certification program, there was consensus that the process has helped both the DOTs and LPAs comply with federal-aid requirements. Florida and Nebraska reported that certification did not necessarily help specifically with regard to compliance with federal regulations. In Kansas, the certification process has only recently been implemented and the DOT has not yet had a chance to evaluate its effectiveness. Ohio reported that compliance is very difficult to determine; however, the prequalified (certified) LPAs, which administer federal projects more frequently, are the most successful.

Performance Measures Relative to Certification

Sixty percent of DOTs stated that the certification process has helped participating LPAs achieve more of the project delivery performance metrics set by DOTs. One DOT noted that an increase in quality during inspections is a result of the certification process. A second DOT noted that prequalified LPAs that administer federal projects more frequently are the most successful at achieving performance metrics. DOTs were also asked to identify specific project development phases in which LPA certification has improved project delivery. Figure 14 shows the range of responses, and that the most impact is found in the latter stages of project development: design phase and utilities; procurement; and construction contracting and inspection. The specific phases in which elements of LPA certification can be improved or streamlined were ranked by DOTs throughout the entire process from the environmental phase (47%) and ROW acquisition (47%), to procurement (67%), and construction (73%).

Maine

Maine DOT reported that LPA certification has improved project delivery in the ROW acquisition, procurement, and construction oversight phases. However, to help reduce the risk of projects not being completed in accordance with the performance measures, Maine DOT has identified a strategy for better management of the certification program. Maine DOT will handle the ROW process for smaller agencies and will assign a specific DOT project manager for each LPA project to provide one point of contact. A Maine DOT construction manager will assist the project manager in providing oversight on LPAs during the construction phase, similar to how FHWA provides oversight to the state. A Maine DOT contract specialist works with the project manager to assist in review of LPA procurement of consultant documents. Bringing in various specialists at key points of project delivery has helped reduce the risk of performance measures not being met.

Half of the DOTs with a certification process have established performance measures to evaluate the success of the LPA certification program. Table 12 shows examples of these performance measures, primarily including evaluation by process reviews and milestone development and tracking.

TABLE 12

EXAMPLES OF PERFORMANCE MEASURES INSTITUTED FOR LPA CERTIFICATION PROGRAMS

State	Performance Measure for LPA Certification Program
Maine	Delivery targets for LPA projects: a certain percentage successfully advertised within 30 days of their scheduled milestone dates. LPAs identify problems and plan solutions before delays occur.
New Hampshire	No instances of noncompliance with program requirements by LPA.
Ohio	Internal LPA Project Evaluation form completed at the end of each LPA project to determine how the LPA performed in each area of project development. Consists of one-page web-based form that allows each discipline in the Ohio DOT district [environment, ROW, construction, equal employment opportunity (EEO), etc.] to comment on the LPA's performance. The form is marked as satisfactory; satisfactory with comments; or not satisfactory, which affects certification for future projects.
South Carolina	Number of eligible reimbursement requests for work associated with various project phases. Includes examples such as design when procurement is involved and the number of concurrence of construction awards that are issued without requiring rebid.
Tennessee	Organization of LPA projects in phases and obligating funds for one phase at a time. Milestones are then used to determine the transition from one phase to the next.
Washington	Track and report the condition of local bridges and city arterial pavement conditions as part of the LPA project delivery.

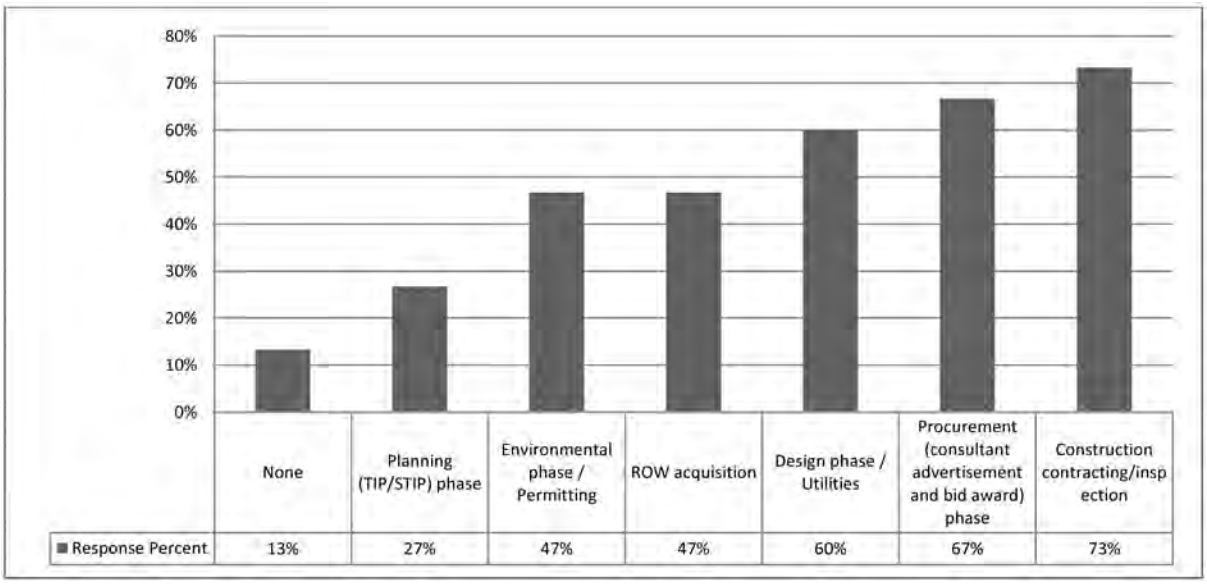

FIGURE 14 Improved performance by project phase as a result of LPA certification process.

As an example, Maine DOT has a goal of 85% on-time delivery, which is within 30 days of the delivery schedule dates set. Historically, LPAs in Maine were achieving a 50% on-time delivery rate. After the inception of Maine DOT's LPA certification program and related efforts by the Multimodal Program Office, the rate has increased to 60% on-time delivery for LPA projects. Maine DOT reported that the increase was due in large part to the certification program's impact on increasing LPA project schedule reliability.

A number of DOTs hold LPAs accountable when performance measures are not met. Figure 15 illustrates the ways DOTs execute accountability, with the most common being a loss of project funding.

Kansas

As an example, Kansas DOT is planning to use a progressive discipline approach that includes bringing deficiencies to the attention of the LPA and providing assistance and training to address those deficiencies. Ultimately, in the case of repeated issues, Kansas DOT could suspend an LPA's certification until steps are taken to ensure that proper procedures will be followed.

Another aspect of LPA certification program effectiveness was to ask DOTs what performance measures could be used for oversight. Many of the performance measures mentioned by DOTs relate to fiscal goals (e.g., expenditure of 95% of appropriated funds; project delivery costs less than 27.5% of construction costs) and scheduling milestones. Table 13 shows some of more unusual performance measures provided by DOTs.

Maine

Maine DOT indicated that experiential evidence has shown that the certification process has helped LPAs achieve more of the DOT performance measures. Some items planned for the forthcoming draft policy on performance-based measures may include the number of instances of nonparticipation by FHWA on LPA projects and the number of LPAs with Notices to Proceed that do not take action on a project within 30 days of delivery schedule date. The certification agreement between Maine DOT and LPAs commits the LPA to monthly communication, regardless of activity level, which is done to help manage when key checkpoints are imminent. Maine DOT is currently finalizing a policy to hold LPAs more accountable for insufficient progress in delivering LPA projects.

Examples of Local Public Agencies Certification Program Practices Used by Departments of Transportation

A number of DOT interviews were conducted to obtain details on practices or tools that are part of the LPA certification process. Examples of these tools are presented in the following sections.

Nebraska

Nebraska DOR has had a program in place for 4 years and currently has no limitations on which LPAs can request or

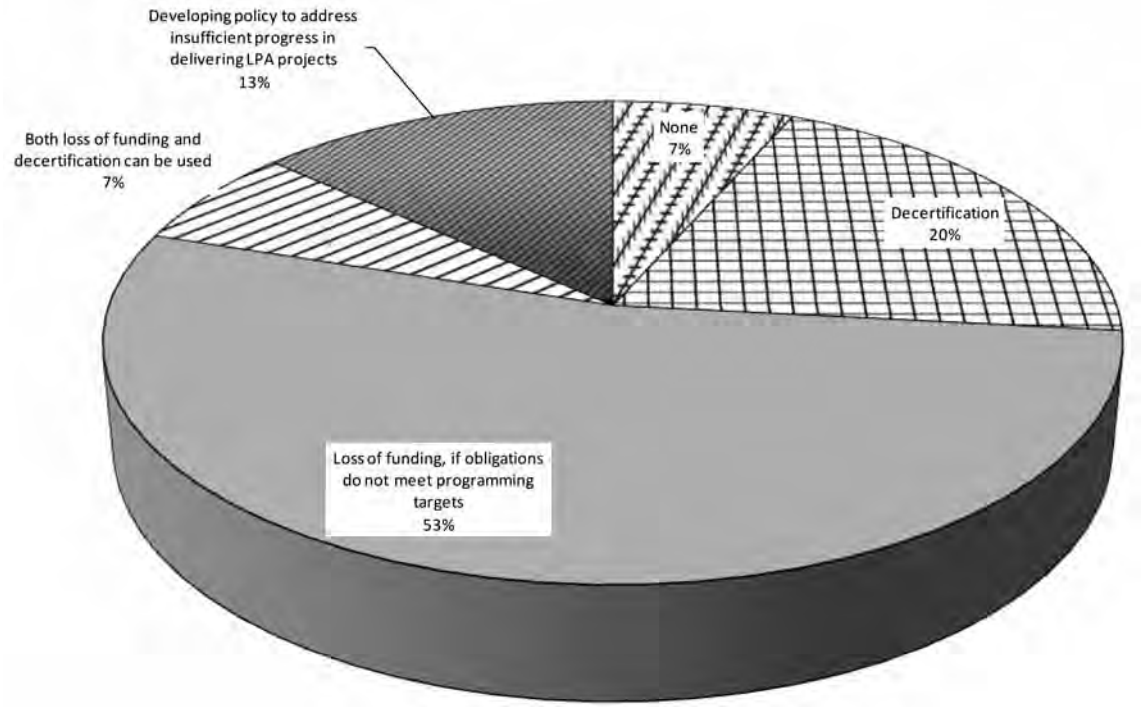

FIGURE 15 Methods used by DOTs to hold LPAs accountable for not meeting performance metrics.

receive qualification. Of 93 counties, 32 cities, and other organizations (schools, natural resource districts, and small cities), 90 are qualified. Nebraska DOR reserves the right to let all projects to minimize financial risk by handing the project financing and payments to contractors. In addition, local match dollars are collected in advance or on an advance payment schedule. Requalification is necessary in the case of changes to LPA staff, inability to provide local match dollars, poor performance on past projects, and unwillingness to use eminent domain.

TABLE 13
EXAMPLES OF PERFORMANCE MEASURES REPORTED AS MOST EFFECTIVE FOR OVERSIGHT OF LPA CERTIFICATION PROGRAM

State	Performance Measure for LPA Certification Program
Kansas	Measure whether federal/state regulations are being met and whether projects are being developed and constructed within time and budget constraints
Maine	**1.** High percentage of LPA projects that have been successfully delivered while maintaining federally funded participation **2.** High percentage of LPA projects delivered within 30 days of their schedule milestone dates
Nebraska	**1.** Exhausting the full amount of spending authority annually **2.** Duration of NEPA clearances and duration of professional services procurement phase **3.** No loss of federal funds due to noncompliance **4.** Environmental commitments met **5.** Time required to close out a project
New Hampshire	No instances of noncompliance with program requirements by LPA
Ohio	Delivering projects in accordance with developed milestone dates for each area of project development and construction
Oregon	**1.** Routinely held successful reviews of LPA performance **2.** Routine updates on policy and regulatory guidance and regular training
South Carolina	**1.** Number of concurrences for procurement of design or construction activities **2.** Number of eligible reimbursement requests from LPAs **3.** Number of PS&E that are received without returning for major revisions or resubmittals
Tennessee	**1.** Good communication between LPA and DOT **2.** Clear instructions on LPA project requirements and strict reimbursement requirements
Wyoming	Clear acceptance of work documentation

Oregon

Oregon has a certification process whereby the DOT Transportation Development Division interviews a local agency to outline expectations. Oregon DOT then applies in-depth oversight on four aggressive trial projects as training to handle the advanced responsibilities of a certified agency. The areas in which local agencies can become certified are consultant selection; design; advertising, bid, and award; and construction contract administration.

Continued certification is formally reviewed every 2 years or in the case of changes or reductions in LPA staff and performance history on past projects. Certification for local agencies varies. Some agencies are certified in several areas, while others request only partial certification. Once an agency is certified, the contracting and review processes are handed over to the LPA. To revoke an agency's status for unsatisfactory work, an LPA would be informed of any deficiencies; it can regain certified status after these problems have been resolved. Oregon DOT cited improved project delivery as a result of the certification process, which has been witnessed in the design/utilities, procurement, and construction contracting/inspection phases. It also responded that large agencies have had the most success in developing and executing federal-aid projects.

Oregon DOT has established two performance measures: (1) number of satisfactory reviews (audits) of LPAs, and (2) annual review and update of the local agency guidelines manual. Oregon DOT stated that the certification program has helped participating LPAs achieve the performance metrics (design, procurement, and construction management phases) set by Oregon DOT for project delivery. Routine successful reviews of LPAs, regular training, and policy and regulatory updates on guidance are key performance measures for a healthy LPA program.

Washington

WSDOT reported that 107 local agencies are designated as Certified Acceptance Agencies (39 counties, 63 cities, four port authorities, and Washington state parks). The basis for eligibility is appropriate and available LPA staff, along with a demonstration of satisfactory execution of federally funded projects through an "in training status." Of the 107 local agencies, 104 have achieved LPA certification. In Washington, LPA certification assigns local agencies the full responsibility for project design and construction. Although noncertified jurisdictions can receive federal funds, their limited responsibilities in project execution are defined in agreements with WSDOT.

CHAPTER FOUR

PRACTICES AND PERFORMANCE METRICS USED BY LOCAL AGENCIES

INTRODUCTION

This chapter discusses the practices and performance measures used by LPAs when planning, developing, and managing federally funded projects. A section is also dedicated to the impacts of the LPA certification program on project performance. Information is based on the results of a survey of a sample of LPAs provided by the state DOTs that participated in the DOT survey described in chapter two. Forty-one out of 105 LPAs responded to the survey; 19 were classified as large agencies, 11 as medium agencies, and 10 as small agencies (see chapter one). The range of participating LPAs is captured in Table 14 and listed in Appendix B. In addition, the original LPA survey questions are provided in Appendix B.

TABLE 14
SUMMARY OF THE DISTRIBUTION OF LPAS THAT PARTICIPATED IN SURVEY

State	No. of LPAs Responded	Size Range of LPAs Responded
Florida	3	1 small, 2 large
Hawaii	1	1 large
Illinois	2	1 medium, 1 large
Iowa	1	1 large
Kentucky	1	1 large
Maine	2	1 small, 1 medium
Minnesota	3	2 medium, 1 large
Missouri	2	1 small, 1 medium
Nebraska	6	1 small, 2 medium, 3 large
Nevada	1	1 small
New York	2	1 medium, 1 large
North Carolina	2	1 medium, 1 large
Ohio	4	2 small, 1 medium, 1 large
Oregon	6	1 small, 1 medium, 4 large
Pennsylvania	2	1 small, 1 large
Utah	1	1 large
Washington	1	1 small

Of the 41 LPAs that participated in the survey, 23 are formally LPA-certified by the DOT in their state. All of the LPAs were asked to share their opinion on whether federal regulation should be established to require states to administer a certification program for local agencies to be eligible for federal transportation funds. More than half of the LPAs responded that federal regulations should not be established to require states to administer a certification program.

PROJECT PLANNING AND PROGRAMMING

This section addresses information regarding the practices that local agencies use to conduct the planning process for federally funded projects.

Organizational Structure

The local agencies were asked to describe themselves. A wide distribution of agencies were represented: 20 counties, 16 cities, four municipalities, one regional planning organization, and one merged city/county. More than half of the LPAs reported that their public works and/or engineering departments had fewer than 30 people, although 10 agencies had 30 to 100 people and four had more than 100 people on staff. Three local agencies use consulting firms to handle engineering activities. In 33 of the LPAs, a full-time employee was always responsible for managing projects receiving federal funds. However, in the majority of cases, fewer than five LPA employees are involved in developing applications, defining project scopes, or supervising construction of federally funded transportation projects.

Programming Projects

Figure 16 illustrates the range in distribution of federal-aid funds to the 41 LPAs in the past 3 fiscal years and clearly shows that the majority of LPAs received in excess of $600,000.

The majority of LPAs reported developing up to five projects annually that are eligible for federal-aid funding; however, seven larger LPAs have been able to develop up to 15 eligible projects. More than half of the LPAs are aware of regional strategies or policies that have been developed by their DOT, MPO, or RPO to assist in obtaining federal funds. For example, Missouri DOT allows Missouri RPOs to assist LPAs with the development and preparation of federal grant applications, as defined under the RPO's

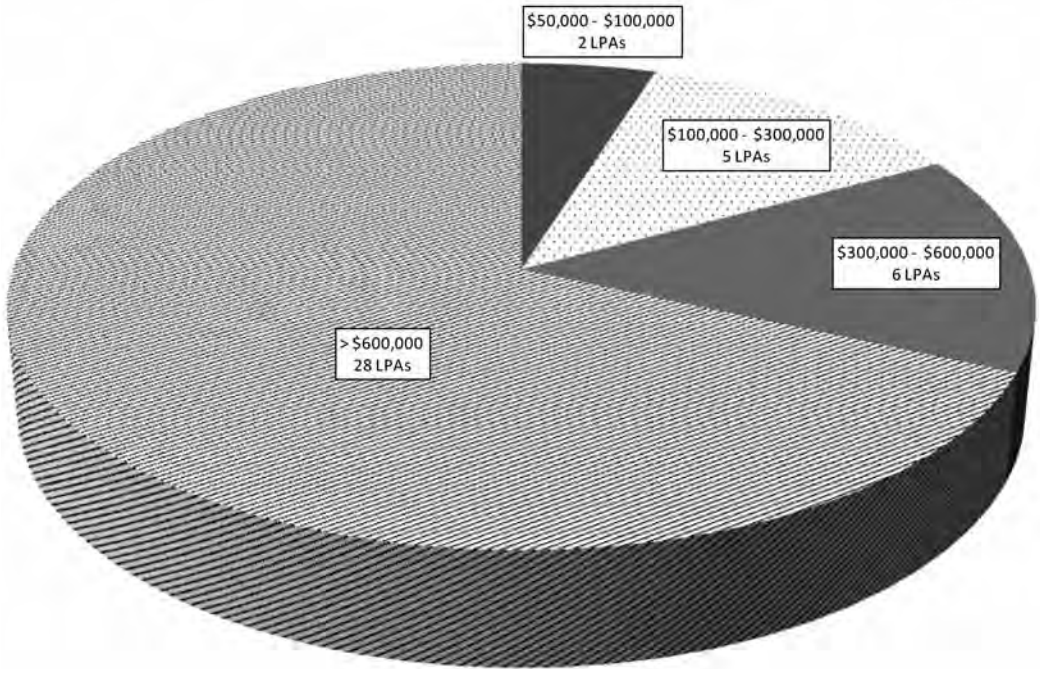

FIGURE 16 Range of federal funds that LPAs reported as having been received for transportation projects in the past 3 fiscal years.

planning contract. This practice was reported to allow for better-developed projects because the RPO has more frequent experience with federal requirements, as opposed to an LPA that may seek funding only every 4 to 5 years. In another part of the country, an RPO has identified areas on which projects must focus, such as on safety, system preservation, and multiuse corridors. Another strategy reported was to program federal funds to the planning phase in order to refine and update a project scope to meet more recent regulatory requirements. A number of local agencies alluded to active attendance at training and regional committee meetings that deal with the solicitation and programming of federal funds.

LPAs are using similar amounts of nonlocal funds to provide the nonfederal match. These funds include those acquired through the state DOT or state aid program, state resource agencies, private funds, and in-kind donations or support. One LPA has had a nonfederal match from the state public works commission, while another LPA has worked with railroad companies to provide the local match for federal-aid projects. Ten LPAs indicated that they are using innovative techniques to provide their matching funds, including in-house inspection services, intergovernmental agreements and cooperation, multimodal transportation system development charges, use of local materials and supplies, and matching federal funds from state grants.

In September 2011, California's Regional Transportation Planning Agencies met to discuss several aspects of federal-aid projects. The group identified an effective programming approach: mandate 2 to 3 years of advanced project programming, and adopt delivery policies with funds subject to reprogramming if specified project milestones are not met ("Best Practices in Federal Project Delivery" 2011). Expedited project selection procedures were applied, especially for local safety projects. A local agency obligation plan document was also developed to be used when projects are programmed in the TIP, and is included in Appendix D.

The Orange County Transportation Authority created the Comprehensive Transportation Funding Program guidelines to provide sequential funding, presented in a two-step approach: (1) a planning phase to address funding requests for planning/environmental, engineering, and ROW activities; and (2) an implementation phase to address ROW acquisition and construction activities ("Comprehensive Transportation Funding Program 2010 Guidelines" 2010).

The OCFundTracker is an Internet-based project and programming system that guides a local agency through the project application process ("Orange County Fund Tracker Call for Projects Training Manual" 2011) in California. Basic steps for accessing the database and responding to the Regional Capacity Program call for projects are part of the system. The system also allows the Orange County Transportation Authority to simultaneously review LPA project applications and the status of existing projects on a semi-annual basis ("Comprehensive Transportation Funding Program 2010 Guidelines" 2011). After projects are awarded, the authority can update LPA project cost estimates, review project delivery schedule, and determine the project's continued viability.

PROJECT DEVELOPMENT

This section discusses how local agencies are developing and meeting the challenges of the preliminary engineering process for federally funded projects. LPAs reported a number of practices used to develop candidate projects for federal funding. One practice is to guarantee the local match portion before applying for federal funds; more than half of the LPAs are engaged in this practice. Other frequently used techniques include advanced project programming in the STIP or TIP (18 agencies), designating trained LPA staff for administering federal requirements (14 agencies), developing only projects that require CEs (12 agencies), using joint project agreements with the DOT (10 agencies), and actively involving the MPO or RPO in the project scoping and development process (nine agencies). Some other LPAs gave specific examples of practices:

- Develop only projects that are high cost, or projects that require no ROW or environmental requirements;
- Develop and use a pavement management system and bridge inspection database to submit preventative maintenance, rehabilitation, and reconstruction projects with the best chance of selection for funding and staying within the allocated budget; and
- Screen projects listed in both the funded and unfunded categories of the Capital Improvement Program to put forward only the most competitive projects within competitive categories, while also actively engaging the board of commissioners to gain support for competitive candidate projects.

Half of the LPAs indicated that their MPO or RPO has been proactive in helping to streamline processes for the development of federal-aid projects.

Design Phase

Conflicts between the DOT design guidelines and a local community's needs are common on many LPA projects. A number of solutions were reported to deal with these conflicts, including using design exceptions, allowing LPAs to use their in-house design standards on some LPA projects, providing DOT-generated LPA standards and specifications, and developing context-sensitive solution multiagency teams. The trend reported by the DOT survey was similar to the responses provided by LPAs. DOT-generated LPA standards and specifications that have been established for more than 5 years include those developed by Florida DOT.

LPAs were also asked to comment on how the conflicts that arise during the design phase affect overall project delivery. Overall, the main impacts to project delivery were the delayed completion of LPA project reviews, postponement of LPA project milestones, project scope creep, and requests for additional funding. One LPA stated that issues often involve disagreements about lane widths and sight distance based on the AASHTO or DOT highway standards' applicability to an urban environment. In this state, this conflict has resulted in a loss of scope by a proposed sidewalk being removed from an LPA project. Some possible solutions provided by LPAs to minimize the impacts of design conflicts on project delivery included building the negotiation phase into the overall project's schedule and further emphasis on educating LPA engineering staff.

Many local agencies take measures to minimize project scope increases, and the majority of LPAs consider early collaboration with stakeholders before final project scope confirmation as an effective tool. Other LPAs place restrictions on the project scope, such as not allowing any increases after the final PS&E package has been submitted and approved or requiring a firm funding commitment from all project sponsors before considering the project as viable. One LPA reported that if a simple scope is established to begin with, it is less likely to experience scope increases; another LPA builds in contingency funds for increases before the start of every project. Another LPA presented the concept of becoming a certified LPA and directly managing and overseeing the design phase as an effective tool to minimize scope creep.

Categorical Exclusions

A large number of LPAs (22 of 41 surveyed) reported that their DOTs have used CEs for their local projects. The LPAs reported generally that the use of CEs saved both time and expense by not requiring the Environmental Assessment or Environmental Impact Statement documents. One LPA reported that its DOT bundled similar projects among the counties in a particular MPO's region and drafted the CE documentation on behalf of the LPA. In this case, the CE significantly reduced the total time to project delivery on the bundled projects. Table 15 provides general examples of CEs used in LPA projects.

TABLE 15

EXAMPLES OF CATEGORICAL EXCLUSIONS (CES) USED BY VARIOUS LPAS

Category of Project That Used CE	No. of Agencies
Restoration (1R); Resurfacing or Restoration (2R); or Resurfacing, Restoration, and Rehabilitation (3R) Projects	8
Bridge Projects (i.e., replacement, rehabilitation, reconstruction)	4
ARRA Projects	2
Safety Projects (i.e., rumble strips, chevrons)	2
Minor Projects (i.e., traffic signal projects)	1
Projects Bundled Together by DOT	1
Roundabout Conversion Projects	1

PROJECT MANAGEMENT

Only 14 LPAs reported on agency or regional strategies that have been developed to determine the optimal methods of project delivery, although some effective practices that could be considered in other places were included. The use or preapproval of consultants by the DOT was noted most often as an effective practice. One LPA mentioned that becoming a certified agency was the optimal method to streamline projects; another LPA had developed detailed procedural documents and limited its projects to those with simplified environmental documentation. Figure 17 presents number of LPA methods for improving project oversight during construction.

The LPAs were asked to identify the major hurdles to delivering federal-aid projects. Thirty-four LPAs noted that the length of and/or meeting the requirements of the environmental process [NEPA, Section 4(f), State Historic Preservation Office concurrence, obtaining permits, etc.] was the most difficult to overcome. A large number of LPAs indicated that delayed communications or approvals from the state DOT or FHWA, and funding limitations during the design or construction phases, were also major hurdles in project delivery. Additional input from LPAs included issues associated with ROW acquisition and the consultant procurement process. In terms of funding, a few LPAs also reported hurdles in the length of time to obtain funding agreements and the limitations on the use of funds at specific project phases. When asked about innovative practices to overcome project delivery hurdles, 17 LPAs noted the use of CEs and/or programmatic agreements, and 11 LPAs noted the use of abbreviated DOT specifications or in-house LPA materials, inspection, or construction specifications. Other innovative practices included mandatory LPA training, a certification process, and the use of more checklists and templates for federally funded projects. One LPA noted that using consultant procurement and working with the DOT to develop approved consultant price agreements was an innovative practice to overcome delivery hurdles. One unique practice noted was turning over archaeological reviews to be done by tribal governments, which significantly reduced review time. Finally, LPAs were asked to comment on positive impacts resulting from the innovative practices used: 26 LPAs indicated a reduction in total project delivery time, 16 noted a reduction in project cost, and 12 noticed a higher level of community satisfaction. Some other impacts offered by LPAs included building trust and effective teamwork between the DOT and locals, better tracking of cost and scope changes, and ensuring that funds are spent in the year they are identified for expenditure.

Table 16 presents the effective measures reported by LPAs to successfully deliver federally funded projects. Most LPAs indicated that the traditional measure of projects completed on time and within budget is effective. However, others indicated that success could be measured by documenting the improvements in safety, in the reduction in crashes and congestion, or

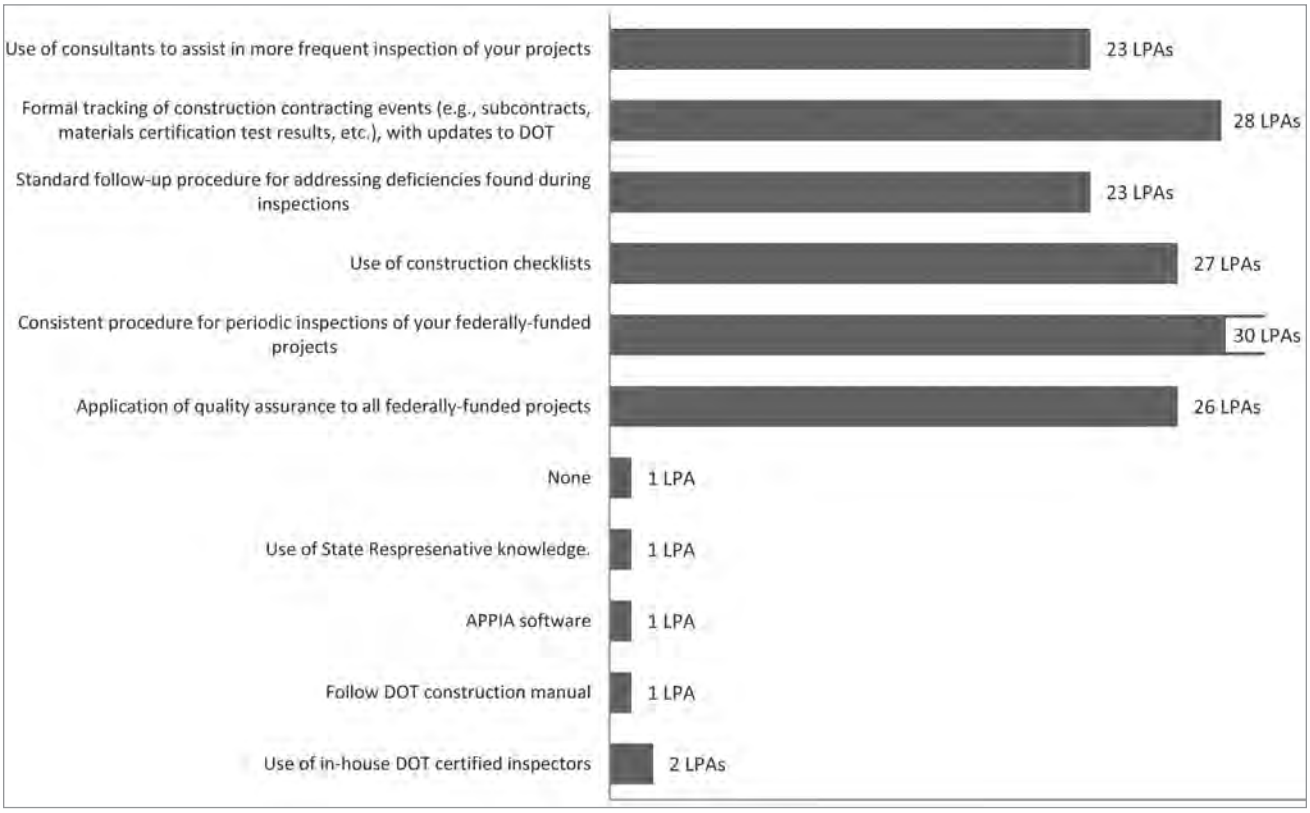

FIGURE 17 Summary of methods for improving construction project oversight of LPA projects (respondents checked all that apply).

by the positive impacts of infrastructure improvements to roads and bridges (e.g., ride quality, reduction in public complaints, noise reduction). A few mentioned that the minimization of the number of change orders and a reduction in the number of utilities issues are measures of success. Finally, a number of LPAs identified that the public perception of the final project and public acceptance (e.g., minimal number of complaints, calls, and comments from local citizens) are effective means for measuring the success of federal-aid project delivery.

TABLE 16
EXAMPLES OF LPA EFFECTIVE MEASURES FOR BUILDING FEDERAL-AID PROJECTS

Effective Measures Reported by LPAs	No. of Agencies
Project completed on time and/or within budget	8
Limited scope creep and no change orders	4
Positive stakeholder and community feedback	2
Others • Build project in less than 7 years • Minimal issues with utilities • Full use of authorized federal funds and minimal use of local funds (e.g., using only 5% local funds) • No loss in annual allocation funds • Improved safety and infrastructure (before/after studies)	4
Audit reviews that result in no negative findings	2

In terms of measures that the DOT also uses to evaluate LPA performance, most LPAs reported that they are tracked on the percentage of projects that are completed on time and specifically on the design phase being completed on time. Many LPAs are evaluated in terms of how the federal funding obligations compare with the programmed funding. Some LPAs are tracked by the amount of project scope increases during project development. Two LPAs reported that their DOTs track their performance related to audit findings and the subsequent LPA response time to audit findings.

Table 17 provides responses from 11 LPAs on the question of what performance measures should be used to direct the amount and type of federal funding to local projects.

Local agencies were asked whether they had benefited from programmatic agreements between their agency and the DOT or between the DOT and federal agencies (e.g., USCOE, U.S. Fish and Wildlife Service, National Forest Service, U.S. Coast Guard, Department of Environmental Protection, tribal agencies). More than half of the LPAs indicated that they had benefited from programmatic agreements and specifically noted improvement in time it took to execute a project. Approximately half of the LPAs provided a description of successful use of a programmatic agreement on a federally funded project, and many referred to the programmatic agreements used on all ARRA projects, Section 4(f), and USCOE nationwide permits. One LPA mentioned a programmatic Section 4(f) that was used on a railroad grade separation project, which was documented to streamline the environmental assessment process. A few LPAs reported that programmatic agreements were used for resurfacing projects and resulted in the design, PS&E review, letting, and construction of federally funded pavement projects in less than a year. Other programmatic agreements that accelerated the time of project completion were related to sewer system improvements, accessibility improvements (sidewalks), wetland and navigable waters impact reconciliation, fish coordination issues, ditch relocations/enclosures adjacent to bridges, and historical bridge projects. One LPA mentioned a threatened and endangered species matrix resulting from a programmatic agreement that accelerated project approvals. Another example was a batch biological assessment for DOT and LPA projects that saved time and costs for multiple projects in one state. Federal funding expedited improvements and gave the LPA the opportunity to make several improvements in a relatively short time.

TABLE 17
EXAMPLES OF PERFORMANCE MEASURES THAT SHOULD BE USED TO DIRECT AMOUNT AND TYPE OF FUNDING

Performance Measures Reported by LPAs	No. of Agencies
On-time project delivery and project schedule milestones	4
Project that is within original budget	2
Past performance on federally funded or state-funded projects	2
Successful innovation on aspects of LPA project funding or delivery	1
Safety improvements (accidents, pavement ratings, clear zone)	1
Infrastructure condition improvements, cost-benefit analysis	1

LOCAL PUBLIC AGENCY CERTIFICATION PROGRAM IMPACT ON PROJECT PERFORMANCE

The local agencies (22 of 41) certified by their state DOTs were asked about the perceived impact of certification on federal-aid project performance. All but one of the LPAs was aware of training provided by the DOT as part of the LPA certification process. When asked what aspects of the training were conducive to the successful development or delivery of federally funded projects, 19 LPAs responded that detailed training on federal regulations and the project delivery process was critical. In addition, the vast majority of the LPAs reported that training accessibility was important, and more than half said that training frequency was critical to successful projects. One LPA noted that the best training occurs in the development of new programs and when guidelines to streamline the project delivery process are permitted. Another LPA reported that peer-to-peer sharing, problem-solving, and LPA joint advocacy on issues were vital.

TABLE 18
SUMMARY OF EXAMPLES OF THE POSITIVE IMPACTS OF LPA CERTIFICATION ON PROJECT DELIVERY PHASES

Project Phase	Number of Agencies	Specific Examples
Planning/Programming (TIP/STIP) Phase	3	• Shortens the time of planning and implementation of plan • Made LPAs more aware of the system
Environmental Review/Permitting	5	• Better understanding of the details of the environmental review process
Design Phase/Utilities	6	• Specific requirements to adhere to, which allows LPAs to be more detailed when selecting design firms • Increased familiarity with AASHTO standards • Allows LPA to use in-house design, which results in more direct and efficient project delivery
ROW Acquisition	2	• Allows LPAs to be more involved in the actual process
Procurement Phase	8	• Requirement for concurrence allows LPAs to scrutinize bids received on a more detailed level • The Ad, Bid, and Award phase through the LPA is a faster process than when done through the DOT • Assigns the responsibility to LPA to advertise, bid, and award projects • More experienced with the selection of consultants for federally funded projects
Construction Contracting/Inspection	8	• More detailed inspection leads to better project performance • Allows construction managers, inspectors, and technicians to operate under local processes as outlined in the LPA's standard construction specifications • Contracting and inspection done directly by LPA with some consultant assistance under the direct procurement method • Specific requirements allow LPAs to be more detailed when selecting contractors or consultant engineering inspector firms

All but four of the LPAs responded that being LPA-certified by the DOT has helped them to better plan for and complete projects that are programmed or specifically designated by Congress. Table 18 presents various responses as to whether certification helped with the success of the individual project development phases.

Compliance with Federal Requirements

The majority of LPAs reported that being certified has helped them to better comply with federal requirements. Figure 18 addresses specific elements of LPA certification that were rated as being the most effective, including training that is continuously available and the delegation of authority from the DOT to the LPA.

Securing Federal Funds

Nearly half of the LPAs responded that certification has increased their success in securing federal-aid funds. Two LPAs noted that becoming certified had created opportunities for funding projects that previously would not have been eligible. A few LPAs indicated that being certified allowed their projects to proceed without a DOT-qualified consultant or to do work in-house, which resulted in more timely completion of federally funded projects. One LPA noted that although the process is still time-consuming and labor-intensive for a small staff, the guidance of the certification program has improved LPA knowledge of the process, especially when requirements change or are improved. Table 19 presents a general summary of the LPA responses on how certification has helped them secure more federal funding.

TABLE 19
SUMMARY OF IMPACTS OF CERTIFICATION ON OBTAINING FEDERAL FUNDS FOR LPA PROJECTS

Impact of LPA Certification	No. of Agencies
Project delivery accelerated and project review time reduced	3
More federally funded projects secured by LPAs	2
In-house project delivery	2
Others • Allowed for participation in Streetscape Enhancement projects • Facilitated access to grant programs through FHWA Federal Lands	2

Project Delivery

Project Scope

Almost half of the LPAs indicated that being certified helped minimize project scope creep and budget increases. A number of LPAs indicated that being certified gives them more control to keep federally funded projects within the original scope. An LPA-certified employee is better able to oversee the project scope, anticipate the potential issues, and be proactive in resolving any potential bottlenecks in project delivery. For

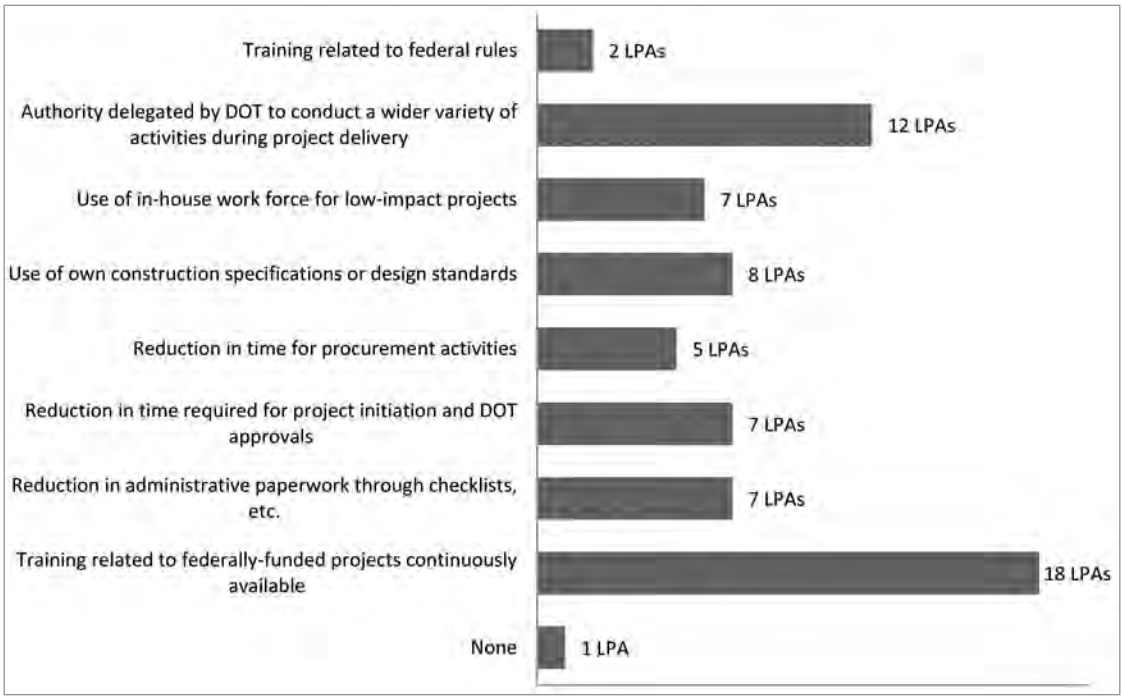

FIGURE 18 Elements of LPA certification rated as being most effective (respondents checked all that apply).

example, one LPA shared that the scope and budget of each project, as defined in each agreement with the DOT, allows it to closely monitor the finances of federally funded projects. Therefore, the LPA encourages the contractor to use extra care from the beginning of the project, in order to adhere to the project scope and budget. In another example, the LPA jointly developed a scope of services to produce independent cost estimates. This tool allowed the LPA and the consultant to have a complete understanding of the expectations while undergoing the project delivery process.

Project Delivery Time

When asked what elements of LPA certification they would identify as resulting in reduced project delivery time, eight LPAs noted that certification does not require the same number and frequency of DOT approvals or the use of full DOT design standards. Eight LPAs, however, responded that no elements of certification assisted in reducing project delivery time. One LPA shared that certification allows it to manage and provide the engineering design for federally funded projects. The result is that the step related to state DOT procurement for engineering services is eliminated, a process that has historically taken from 6 months to 3 years on federally funded projects. In addition, because of certification, the permit process will also streamline project delivery time. A few LPAs added that the ability to perform design in-house, attributed to the certification process, reduced project delivery time.

Construction Phase

LPAs were asked whether improvements in delivering construction projects with federal funds had been observed since the inception of their DOT's certification program. More than half of the LPAs had noticed improvements during the construction phase. One LPA noted that the certification program provided a fresh look at the LPA standards and guidelines, resulting in improved processes on all its projects. Another LPA reported that it is better equipped to control the schedule for the design phase and shorten the advertisement, bidding, and award phases by being permitted to use its own procurement process. One LPA estimated that being certified saves approximately 1 year in project delivery time, while another LPA simply stated that the reduced time for project delivery also reduced overall project costs. A few LPAs noted that the certification program forms help LPAs be more organized, and that improved training and education help them complete projects more quickly.

SUMMARY

Overall, more than half of the certified agencies indicated that the process has helped them meet performance measures for project development and delivery. In addition, they recognized that FHWA is improving its definition of expectations for the DOTs with regard to the LPA program.

CHAPTER FIVE

CONCLUSIONS

The responses provided by Local Public Agency (LPA) program coordinators in the state transportation agencies (DOTs) and 41 local agencies provided valuable insight into what practices are used to organize, implement, and manage the LPA program. Details on many agency performance measures were provided. Information obtained in the survey responses, as well as interview sessions with 11 DOTs, was used to acquire a more precise idea of the impacts and effective practices of LPA certification. Based on the work carried out in this synthesis, the following general conclusions can be made:

- The majority of LPAs surveyed reported that the length of, and/or meeting the requirements of, the environmental process [NEPA, Section 4(f), obtaining permits, etc.] is the major hurdle in receiving federal funds. The majority of DOTs rated TE activity projects as having the most risk of not being completed within budget and as requiring the most time to complete.
- More than half of the LPAs responding are aware of regional strategies or policies that have been developed by their DOT, metropolitan planning organization (MPO), or regional planning organization (RPO) to assist in successfully obtaining federal funds.
- Several federal reports, publications, and programs providing guidance on the federal-aid program are now available and were reported to provide useful information. These include the National LPA Peer Exchange program; U.S. DOT Office of Inspector General's *Oversight of Federal-aid and Recovery Act Projects Administered by LPA Needs Strengthening; Lessons Learned from American Recovery and Reinvestment Act: Improved FHWA Oversight Can Enhance State's Use of Federal-aid Funds*; FHWA's *A Guide to Federal-aid Programs and Projects*; FHWA's Environmental Review Toolkit; FHWA's Real Estate Acquisition Guide for Local Public Agencies; FHWA's *Contract Administration Core Curriculum Participant's Manual and Reference Guide*; and the soon-to-be-launched website on federal-aid essentials for LPAs. [start
- Findings from the literature review showed that collaborations among FHWA and key national organizations such as AASHTO, National Association of County Engineers, and American Public Works Association are improving communications between the state DOTs and LPAs, resulting in the promotion of good practices for project delivery.
- Several state DOTs have established programs that enhance the flexibility in their funding requirements by using state aid in lieu of federal funding, fund swaps, and related programs. Sixty-seven percent of the DOTs reported that less than 10% of federal funding to local agencies stems from congressionally directed funding.
- Almost all DOTs reported that they have LPA manuals governing the delivery of federal-aid projects, and most of these manuals are available online.
- More than half of the DOTs reported that more than 100 local agencies are participating in federal-aid projects in their state. The rationale for LPA eligibility was based mostly on the federal-aid program type, local match availability, certification status by the state DOT, appropriate and available LPA staff size, and project scope size or complexity.
- Ongoing training programs for LPAs, regardless of the existence of DOT-sponsored certification programs, are important in their understanding the complexities of the federal-aid program and in learning the skills needed to improve the planning, programming, designing, and procuring of federally funded projects. The vast majority of respondents indicated that training on federal regulations and the entire LPA program process was a key aspect of the training.
- Most DOTs do not have formal performance measures for determining eligibility for federal-aid funding or for evaluating project planning, programming, design, and construction. However, many DOTs reported that they informally use the results of both state and federal audits and project reviews to educate LPAs on how to improve their performance, and employ various tools to aid and monitor project execution and delivery.
- The development and implementation of comprehensive central database systems, some web-based, shared by the DOTs and LPAs, can improve project management. Several DOTs have developed project management and project delivery tracking systems, which identify all projects and monitor key milestones from initial funding through construction. Two areas identified by DOTs to minimize scope increases on LPA projects are early collaboration with stakeholders to finalize the project scope and a firm funding commitment from sponsors before consideration.

- Twenty-two of 41 LPAs reflected that agencies have benefited from programmatic agreements, in that they establish a process for consultation, review, and compliance with one or more federal laws. Seventy-two percent (72%) of DOTs reported that the use of programmatic agreements was reported to reduce the amount of time it takes to execute LPA projects.
- Categorical exclusions have reduced the environmental review period, primarily through the determination that certain projects do not require an Environmental Assessment or an Environmental Impact Statement.
- The most commonly used performance measures reported by LPAs to indicate successful project delivery include completion on time and within budget. The LPAs' survey data noted that a DOT's use or preapproval of consultants was an effective practice.

Based on the work carried out in this synthesis, the following conclusions can be made about the administration of an LPA certification program:

- The majority (87%) of the DOTs with an LPA certification program reported that the certification process had helped both the DOTs and LPAs comply with federal-aid requirements. Approximately 60% of DOTs surveyed indicated that the certification process had helped participating LPAs achieve more of the performance metrics established for project delivery. According to DOT survey data, the most visible benefits from the certification of LPAs occur during the construction contracting, construction inspection, and procurement phases. Not all DOTs with certification programs provide full LPA certification, but in many cases they limit the level of certification to certain project phases. In addition, a few states do not have formal certification programs, but do use a similar program for state aid that parallels those used for federally funded projects.
- DOTs without certification programs cited limited resources (50%), limited demand from LPAs (43%), and limited funds (36%) as reasons for not implementing certification programs.
- Of the 46 DOTs and the 41 local agencies that provided information to this study, only 13 states and 13 LPAs indicated that federal regulation should be established to require states to administer an LPA certification program.
- More than half of the LPAs reported that they have improved their ability to deliver federally funded projects more easily and quickly as a result of their state's DOT LPA certification program.
- The consensus from local agencies was that being certified allows them to be responsible for federally funded projects, rather than having them managed by the DOT and contracted to a consultant.

The work in this synthesis suggests the following information gaps and future activities:

- Only half of the LPAs reported that their MPO or RPO has been actively engaged in helping to streamline the federal-aid project development process. This finding indicates that there could be a larger role for planning organizations to play in furthering the success of federally funded LPA projects.
- A number of LPAs reported that having been given the responsibility for executing federally funded projects through the certification process actually accelerated project delivery. Thus, future research could explore the evidence of whether LPAs may be better suited to monitor and execute their own federally funded projects. Research could also study whether allowing this flexibility results in a quantifiable reduction in administrative burden to the state DOT.
- Although the LPA survey reported that half of the LPAs had benefited from the use of programmatic agreements among federal, state, and environmental or resource agencies, many LPAs made the point that these agreements are not often applied effectively to local projects. One consideration for future activities would be to identify how programmatic agreements can be better developed and applied to benefit the performance of locally administered transportation projects.
- Continued review and analysis of the effectiveness of performance measures being used by state DOTs is suggested for continuation. For example, monitoring the performance measures established by Oregon DOT and other DOTs could result in a targeted report on good practices being implemented, which could then be shared with all agencies.

There appears to be no one template for successfully executing federal-aid projects. Each state DOT has employed various approaches or strategies to aid LPAs in planning, programming, funding, designing, procuring, and constructing projects. One value of this synthesis will be to give state transportation agencies and LPAs the opportunity to consider new approaches and adapt them to their existing programs.

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ACRONYMS

3R	resurfacing, restoration, and rehabilitation project
4R	restoration, resurfacing, rehabilitation and reconstruction project
ADA	Americans with Disabilities Act
ARRA	American Recovery and Reinvestment Act
CE	categorical exclusion
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality Improvement program
DOR	Department of Roads
DOT	Department of Transportation (state highway agency)
FHWA	Federal Highway Administration
HBP	Highway Bridge Program
HRRR	High Risk Rural Roads Program
HSIP	Highway Safety Improvement Program
LPA	local public agency (county, township, city, town, village, etc.)
LSRP	local street and road projects
LTAP	Local Technical Assistance Program
MPO	metropolitan planning organization
NEPA	National Environmental Policy Act
NHS	National Highway System
NSB	National Scenic Byways Program
NTPP	Non-motorized Transportation Pilot Program (instituted in California, Minnesota, Missouri, and Wisconsin)
PS&E	Plans, Specifications, and Estimates
ROW	right-of-way
RPO	regional planning organization
RSTP	Regional Surface Transportation Program
RTPA	Regional Transportation Planning Agency
SLOPES	*Standard Local Operating Procedures for Endangered Species*
SRTS	Safe Routes to School Program
STIP Program	Statewide Transportation Improvement
STP	Surface Transportation Program
TIP	Transportation Improvement Program
USC	United States Code
USCOE	U.S. Army Corps of Engineers

APPENDIX A

List of Respondents, DOT Survey Questionnaire, and Summary of Results

List of DOT Survey Respondents

Alabama: Victor Jordan, Alabama Department of Transportation, Transportation Planner	**Illinois:** Darrell W. Lewis, P.E., Illinois Department of Transportation, Acting Engineer of Local Roads & Streets
Alaska: Clint Adler, Alaska Department of Transpo. & Public Facilities, Chief of Research, Development, & Technology Transfer	**Iowa**: "Charlie" M.J. Purcell, Iowa Department of Transportation, Director, Office of Local Systems
Arkansas: Steve Morgan, Arkansas State Highway and Transportation Dept., Senior Programs and Contracts Engineer	**Kansas**: Ron Seitz, Kansas Department of Transportation, Chief, Bureau of Local Projects
California: Susan Harrington, California Department of Transportation, Resource Manager	**Kentucky**: Jackie Jones, Kentucky Transportation Cabinet, Executive Staff Advisor
Colorado: Steve Markovetz, Colorado Department of Transportation, Professional Engineer I	**Louisiana**: Ann Wills, Louisiana Department of Transportation, Assistant to the Secretary for Policy
Connecticut: Hugh Hayward P.E., Connecticut Department of Transportation, Principal Engineer	**Maine**: Michael Laberge, Maine Dept. of Transpo., Multimodal Program, Local Projects Coordinator
Delaware: Jeff Niezgoda, Delaware Department of Transportation, Transportation Enhancement Manager/ Planning supervisor	**Maryland**: Stephen Pearce, Maryland State Highway Administration, federal Aid Liaison Engineer
Florida: Roosevelt Petithomme, Florida Department of Transportation, State LAP Administrator	**Massachusetts**: Pamela Marquis, Massachusetts Highway, ROW Compliance Administrator
Georgia: Genetha Rice-Singleton, Georgia Department of Transportation, Program Control Administrator	**Michigan**: Rudolph S. Cadena, Michigan Department of Transportation, Local Agency Programs Engineer
Hawaii: Mike Medeiros, Hawaii Department of Transportation, CE VI / Project Coordination and Control	**Minnesota**: Lynnette Roshell, Minnesota Department of Transportation, State Aid Project Development Engineer
Idaho: Monica Crider, Idaho Transportation Department, State Design Engineer	**Mississippi**: Sharpie Smith, Mississippi Department of Transportation, State LPA Engineer

Missouri: Kenny Voss, Missouri Department of Transportation, Local Programs Administrator	**Oregon**: Beth V. Duncan, Oregon Department of Transportation, Certification Program Manager
Montana: Mike Wherley, Montana Department of Transportation, Enhancement Program Manager	**Pennsylvania**: Christine Spangler, Pennsylvania Department of Transportation, Project Development Engineer
Nebraska: Jim Wilkinson, Nebraska Department of Roads, Local Projects Engineer	**South Carolina**: Michael M. Peterson, South Carolina Department of Transportation, Local Public Agency Administrator
Nevada: Kristena Shigenaga, Nevada Department of Transportation, Assistant Chief Road Design Engineer	**South Dakota**: Laurie Schultz, South Dakota Department of Transportation, Administration Program Manager
New Hampshire: Nancy J. Mayville, New Hampshire Department of Transportation, Municipal Highways Engineering	**Tennessee**: Kip Mayton, Tennessee Department of Transportation, Transportation Manager 1
New Jersey: Michael Russo, New Jersey Department of Transportation, Director, Division of Local Aid and Economic Development	**Texas**: Richard Kirby, Texas Department of Transportation, Construction Division, Contract Administration
New Mexico: Kimberly Wildharber, New Mexico Department of Transportation, Contract Manager	**Utah**: Matthew Swapp, Utah Department of Transportation, Local Government Programs Engineer
North Carolina: Jimmy Travis, P.E., North Carolina Department of Transportation, Manager, Program Management Office	**Vermont**: Susan E. Scribner, Vermont Agency of Transportation, Local Transportation Facilities Program Manager
North Dakota: Kim Adair, North Dakota Department of Transportation, Transit Section Manager	**Virginia**: Russell Dudley, Virginia Department of Transportation, Assistant Director
New York: Diane L. Kenneally, P.E., NYS Department of Transportation, Director, Local Programs Bureau	**Washington**: Kathleen Davis, Washington State Department of Transportation, Director of Highways and Local Programs
Ohio: Randy Lane, Ohio Department of Transportation, Local Programs Manager	**Wisconsin**: David M. Simon, P.E., Wisconsin Department of Transportation, Project Services Supervisor
Oklahoma: Mark Scott, Oklahoma Department of Transportation, Local Government Assistant Division Manager	**Wyoming**: Martin Kidner, Wyoming Department of Transportation, State Planning Engineer

INTRODUCTION/BACKGROUND

The purpose of this survey is to gather information on the current practices and performance measures used for developing and delivering federally funded local public agency (LPA) projects. Effective delivery of federally funded transportation projects by local public agencies has been cited as a serious concern by Congress, FHWA, state departments of transportation (DOTs), LPA program applicants, and transportation interest groups. The recent NCHRP Synthesis Report 414 focused on the identifying practices and tools for effective delivery of small-scale federal-aid projects in only a small number of states. Findings of the study indicated that major hurdles exist in the federal-aid project development and delivery process, many of which were related to projects granted to LPAs. For this reason, NCHRP Synthesis Topic 43-04 includes practices and performance measures used by all DOTs, as they relate to the LPA program. A special emphasis is placed on documenting the experiences of DOTs who have implemented a LPA Certification program for federal-aid applicants.

DEFINITIONS

Federal-aid projects: Projects funded with federal fund both on and off the federal-aid system, on and off the National Highway System (NHS), and off right-of-way; all phases of project delivery (planning through project close-out/reimbursement).

Local Public Agency (LPA): any agency that receives federal transportation funds. These funds are administered by the FHWA and passed through the state DOT to the local agency applicants for improving their infrastructure or other transportation services. Each state DOT which receives these funds has a designated local LPA coordinator with the responsibility to ensure the compliance of all state and federal-aid regulations related to the delivery process of locally administrated projects.

Performance Measurement: Performance measurement is the use of statistical evidence to determine progress toward specific defined organizational objectives. This includes both evidence of actual fact, such as measurement of pavement surface smoothness, and measurement of customer perception, such as would be accomplished through a customer satisfaction survey.

Programmatic Agreements (PA): a document that spells out the terms of a formal, legally binding agreement between two agencies such as a state DOT and another state and/or federal agency. It also establishes a process for consultation, review, and compliance with one or more federal laws

Categorical Exclusion (CE): a determination that an action (proposal or project) has no significant impacts and an Environmental Impact Statement (or Environmental Assessment for that matter) is not required.

Small Local Public Agency (LPA): rural counties or municipalities with less than or equal to 5,000 population.

Medium Local Public Agency (LPA): medium cities and counties with greater than 5,000 and less than or equal to 30,000 population.

Large Local Public Agency (LPA): large cities and counties with more than 50,000 population.

metropolitan planning organization (MPO): Per Federal Transportation Legislation (23 USC 134(b) and 49 USC 5303(c)), MPO is defined as the designated local decision making body that is responsible for carrying out the metropolitan transportation planning process. An MPO must be designated for each urban area with a population of more than 50,000 people.

RPO (regional planning organization): An organization that performs planning for multi-jurisdictional areas. MPOs, regional councils, economic development associations, rural transportation associations are examples of RPOs. These organizations are also sometimes referred to as a regional transportation planning authority (RTPA), Regional Planning Affiliation (RPA), or other similar designations.

Please identify your contact information. NCHRP will email you a link to the online report when it is completed.

Agency: _____

Address: _____

City: _____

State: _____

ZIP: _____

Questionnaire Contact: _____

Position/Title: _____

In case of questions and for NCHRP to send you a link to the final report, please provide:

Tel: _____

E-mail: _____

General Comment

The first series of questions are intended to establish a compendium of Practices and Performance Measures used by state departments of transportation for implementation and delivery of the LPA federal-aid program. The questions ask the recipient to assess current practices and use of performance measures. A second series of specific questions focuses only on DOTs with LPA certification programs, as well as address any streamlining activities that may be implemented in the near future.

Organizational Structure

The questions in this section relate to organizational structure of the local public agency (LPA) program in your state:

1. Identification of contact information

2. Does your state DOT have a formal LPA program?

   ☐ Yes (Go to Question 3)

   ☐ No (Go to Question 54)

3. Is your state DOT mostly decentralized or centralized?

   ☐ Decentralized

   ☐ Centralized

4. How is your state DOT structured to handle LPA program?

   ☐ Central office staff only

   ☐ Central office and district office staff

   ☐ District office staff only

   ☐ Other (comment box)

5. Does your state DOT use project development teams, task forces, etc., to coordinate the LPA program (i.e., educate and/or provide tools to LPAs)?

   ☐ Yes

   ☐ No

6. Estimate the number of local agencies participating in LPA in your state

   ☐ 0–25

   ☐ 25–50

   ☐ 50–75

   ☐ 75–100

   ☐ More than 100 (Please specify)

7. What is the basis for an LPA's eligibility to receive federal funds? Check all that apply.

   ☐ No certification, pre-qualification, or other eligibility requirements

   ☐ Appropriate and available LPA staff size

   ☐ Level of funding

   ☐ Population (or size) of city, county, or municipality

   ☐ LPA certification by the state DOT

   ☐ Number of federal projects awarded annually

- ☐ Federal-aid program type
- ☐ Local match availability
- ☐ Fund source used to provide local match
- ☐ Complexity of ROW issues (purchase required, urban vs. rural location, etc.)
- ☐ Extent of environmental process involvement
- ☐ Size or complexity of project scope
- ☐ Project status (i.e., construction-ready)
- ☐ Previous satisfactory execution of federal-aid projects
- ☐ Current and future workload of LPA
- ☐ Other qualifications (comment box)

8. In your opinion, which local agencies have had the most success in developing and executing federal-aid projects? Check all that apply.

- ☐ MPOs
- ☐ Large agencies (see definition of size)
- ☐ Medium agencies (see definition of size)
- ☐ Small agencies (see definition of size)

9. Does your state DOT have a written LPA manual?

- ☐ Yes (Go to Question 10)
- ☐ No (Go to Question 12)

10. If Yes to Question 9, is your state DOT LPA manual available online?

- ☐ Yes (please provide link:)
- ☐ No

11. How often is the manual formally updated?

- ☐ Every 1–3 years
- ☐ Every 3–5 years
- ☐ Every 5–10 years
- ☐ No formal plan for update
- ☐ Not yet updated

12. Is training available regarding LPA program? Check all that apply.

- ☐ Yes
- ☐ Upon Request (Go to Question 13)
- ☐ Available online (Go to Question 13)
- ☐ Routinely held (Go to Question 13)
- ☐ No (Go to question 14)

13. Does the training your DOT offers include the following topics related to the LPA process? Check all that apply.

- ☐ Eligibility requirements

- ☐ Project management risk assessment
- ☐ Program requirements
- ☐ State requirements
- ☐ Federal-aid requirements
- ☐ Quality assurance
- ☐ Reimbursement process
- ☐ Federal-aid 101
- ☐ Other (specify)

Project Development

The questions in this section relate to the project development process for the local public agency (LPA) projects in your state:

14. What was the total amount of federal funding (out of the entire amount allotted to the state) that was allocated to local agencies in your state for Federal Fiscal Year 2011?

- ☐ $0–$50,000
- ☐ $50,000–$100,000
- ☐ $100,000–$300,000
- ☐ $300,000–$600,000
- ☐ $600,000–$1,000,000
- ☐ $1,000,000–$1,400,000
- ☐ $1,400,000–$1,800,000
- ☐ $1,800,000–$2,000,000
- ☐ >$2,000,000 (Please specify)

15. Out of the total amount of federal funding allocated to local agencies annually, estimate the percentage that are typically Congressionally directed funding (earmarks)?

- ☐ 0–10%
- ☐ 11–25%
- ☐ 26–50%
- ☐ 51–75%
- ☐ 76–100%
- ☐ N/A

16. Does your state DOT (or MPO) have a minimum project cost to determine eligibility for federal funding?

- ☐ Yes (Go to Question 17)
- ☐ No, but a maximum cost limit applied (Go to Question 18)
- ☐ No (Go to Question 19)

17. If Yes to Question 16, what is the minimum project cost limit by your state DOT to potential LPA projects? Go to Question 19

- ☐ ≤$50,000

- ☐ $50,000–$100,000
- ☐ $100,000–$300,000
- ☐ $300,000–$600,000
- ☐ $600,000–$1,000,000
- ☐ >$1,000,000 (Please specify)

18. If No but a maximum cost limit applied to Question 16, estimate the maximum project cost applied by your state DOT to potential LPA projects.

- ☐ ≤$50,000
- ☐ $100,000
- ☐ $500,000
- ☐ $300,000–$1,000,000
- ☐ >$1,000,000 (Please specify)

19. Does your state DOT apply performance measures when LPAs receive federal-aid funds?

- ☐ Yes
- ☐ No

20. What are some innovative alternative funding allocation techniques your state DOT has implemented? Check all that apply.

- ☐ None (Go to Question 22)
- ☐ Set percentage of funds taken off the top of state transportation funds
- ☐ Set percentage of funds taken off the top of federal funds provided to state
- ☐ Federal for state funding exchange between the state DOT and LPAs
- ☐ Depends on the type of project (e.g., safety, trails, transit, bridge, etc.)
- ☐ Other (comment box)

21. Is the innovative funding allocation done at the MPO/RPO level or by your state DOT? Check all that apply.

- ☐ MPO/RPO
- ☐ State DOT
- ☐ Other (comment box)

22. Does your state legislation provide flexibility for other innovative ways to assist LPAs in guaranteeing the local match amount required for federally funded projects?

- ☐ Yes
- ☐ No

23. How are conflicts between the state DOT design guidelines and the local community's need resolved?

- ☐ No formal alternatives to resolve conflicts
- ☐ Through the use of design exceptions
- ☐ Through the use of abbreviated state DOT design standards on some LPA projects
- ☐ Allow use of LPA design standards on some LPA projects
- ☐ Development of context sensitive solutions by a team of DOT and LPA representatives
- ☐ Please describe any other tools you have established: (comment box)

24. How do conflicts over design guidelines or standards impact project delivery? Check all that apply.

- ☐ Not an issue experienced in our state
- ☐ Delay the completion of LPA project reviews
- ☐ Postponement of LPA project milestones
- ☐ Requires revisits of NEPA process
- ☐ Expansion of initial project scope
- ☐ Requires additional funding commitments
- ☐ Other (comment box)

Project Implementation

The questions in this section relate to aspects of local public agency (LPA) project implementation in your state:

25. What types of federal-aid fund does your state DOT receive for LPA projects? Check all that apply.

- ☐ Surface Transportation Program (STIP)
- ☐ Recreational trails
- ☐ National Scenic Byways
- ☐ Transportation Enhancements Activities
- ☐ Safety (HSIP, SRTS, HRRR)
- ☐ Non-motorized Transportation Pilot Program (NTPP)
- ☐ Congestion Mitigation Air Quality (CMAQ)
- ☐ Road improvement projects (widening, overlays)
- ☐ Bridge projects (repair, reconstruction)
- ☐ Accessibility (sidewalks, curbs, ADA)
- ☐ Other (please specify): _____

26. Which LPA projects (awarded federal-aid funds) historically take the longest to complete? Check all that apply.

- ☐ Surface Transportation Program (STIP)
- ☐ Recreational trails
- ☐ National Scenic Byways
- ☐ Transportation Enhancements Activities
- ☐ Safety (HSIP, SRTS, HRRR)
- ☐ Non-motorized Transportation Pilot Program (NTPP)
- ☐ Congestion Mitigation Air Quality (CMAQ)
- ☐ Road improvement projects (widening, overlays)
- ☐ Bridge projects (repair, reconstruction)
- ☐ Accessibility (sidewalks, curbs, ADA)
- ☐ Other (please specify): _____

27. Which LPA projects (awarded federal-aid funds) present the most risk of not being completed within the planned budget? Check all that apply.

- ☐ Surface Transportation Program (STIP)
- ☐ Recreational trails
- ☐ National Scenic Byways
- ☐ Transportation Enhancements Activities
- ☐ Safety (HSIP, SRTS, HRRR)
- ☐ Non-motorized Transportation Pilot Program (NTPP)
- ☐ Congestion Mitigation Air Quality (CMAQ)
- ☐ Road improvement projects (widening, overlays)
- ☐ Bridge projects (repair, reconstruction)
- ☐ Accessibility (sidewalks, curbs, ADA)
- ☐ Other (please specify): _____

28. Does your state DOT combine * LPA projects in any of the following project delivery phases? Check all that apply.

- ☐ Planning (TIP/STIP) phase
- ☐ Environmental phase/permitting
- ☐ ROW acquisition
- ☐ Design phase/Utilities
- ☐ Procurement (consultant or ad, bid award) phase
- ☐ Construction contracting/inspection

* combine = tying together or bundling several smaller projects into a single large project, at any phase of project delivery

29. What policies and procedures are in place to assist with LPA project delivery? Check all that apply.

- ☐ Federal regulations, policy, and guidance
- ☐ State regulations, policy, and guidance
- ☐ Local regulations and guidance
- ☐ MPO or RPO guidance
- ☐ Others (please specify)

30. Does your state DOT generally apply a “one size fits all” application of federal requirements on LPA projects rather than make individual distinctions per specific LPA project?

- ☐ Yes
- ☐ No

31. How does your state DOT minimize scope increase in LPA projects? Check all that apply.

- ☐ No project scope increase allowed after final plans, specifications, and estimates (PS & E) are completed and approved
- ☐ Firm funding commitment from sponsor prior to consideration
- ☐ Early collaboration with stakeholders to finalize project scope
- ☐ Others (comment box)

32. Identify project delivery tools used to improve internal and external communications and involvement, implement or streamline processes, and lead to overall efficiencies. Check all that apply.

- ☐ Improved communications through joint project agreements (JPAs) or other agreements
- ☐ Advanced project programming
- ☐ Risk determination (on-time delivery of projects, obligation deadlines, etc.)
- ☐ Continuous and improved monitoring and reporting
- ☐ Funds not obligated by deadline set in JPAs are subject to reprogramming with loss of funds to sponsor
- ☐ Tracking LPA project funding obligations
- ☐ Use of categorical exclusions/programmatic agreements
- ☐ Implemented a statewide LPA certification program
- ☐ Improved project oversight during construction
- ☐ Other (comment box)

33. Does your state DOT set specific performance metrics for LPA projects and share them with local agencies who receive federal-aid funds?

- ☐ Yes (Go to Question 34)
- ☐ No (Go to Question 36)

34. If Yes to Question 33, what performance measures and/or tools does your agency use to evaluate project delivery and describe how they are used? Check all that apply.

- ☐ Quantifiable savings in time to complete projects
- ☐ Quantifiable savings in project costs
- ☐ Managing or monitoring delivery by tracking obligations against programmed projects
- ☐ Provide LPAs with automated project expiration dates and live updates from DOT financial tracking system
- ☐ Host monthly or quarterly meetings with LPAs that have active federally funded projects
- ☐ Predetermination of LPAs capacity for handling the number or complexity of projects
- ☐ Use of project administrative checklists
- ☐ Consistent quality assurance process incorporated statewide for LPA project design
- ☐ Use of consultants to assist in performing design reviews
- ☐ Others (comment box)

35. Does your state DOT provide statewide reports for meeting performance goals related to LPA projects? Please provide a link to view these reports.

- ☐ Yes—please provide link.
- ☐ No

36. Has your state DOT generated programmatic agreements for certain LPA projects related to any of the following? Check all that apply

- ☐ Issues related to endangered species and other natural resources
- ☐ State historic preservation issues
- ☐ Parks and recreation issues
- ☐ Water management district issues
- ☐ Transit agencies

- ☐ Corps of Engineers, Coast Guard, etc.
- ☐ Other (comment box)

37. If any of the above boxes are checked in Question 36, please describe the details of or provide an example of the specific programmatic agreement.

38. Has your state DOT applied categorical exclusions for certain LPA projects?

- ☐ Safety projects under certain dollar value
- ☐ Projects with no change in construction footprint
- ☐ Projects with no ROW purchase required
- ☐ Other (comment box)

39. If any of the above boxes are checked in Question 38, please describe the details of or provide an example of the specific categorical exclusions.

40. How can your state DOT improve LPA oversight during construction? Check all that apply.

- ☐ Use of less stringent DOT materials and construction specifications tailored for LPA use
- ☐ Target to develop procedures for periodic LPA project inspections
- ☐ Provide adequate staff performing on-site inspections during construction
- ☐ Use of construction checklists
- ☐ Standard follow-up procedure for addressing deficiencies found during inspections (e.g., develop methods/reports to monitor trends from reviews and project site visits)
- ☐ Construction contract administration/quality assurance training for oversight staff
- ☐ State DOT tracking of LPA construction contracting events (e.g., subcontracts, materials certification test results, etc.)
- ☐ Consistent quality assurance process incorporated statewide for LPA project construction and close-out [e.g., conduct specific audits during construction (contractor payment reviews, Davis-Bacon compliance, etc.)]
- ☐ State DOT independent assurance (IA) reviews of LPAs
- ☐ Use of consultants to assist in performing inspection of LPA projects
- ☐ Development of a specific monitoring and oversight plan for project
- ☐ Other (comment box)

LPA Certification Process

The following questions pertain to measures taken by the state DOT to administer and monitor the certification program for local public agencies applying for federal-aid funds:

41. In your opinion, should federal regulation be established to require certification program for LPAs?

- ☐ Yes (Go to Question 42)
- ☐ No (Go to Question 43)

42. If Yes to Question 41, what performance measures should be used to direct the amount and type of federal funding to LPA projects? (comment box)

43. Is there a LPA certification/qualification process in your state?

- ☐ Yes (Go to Question 44)
- ☐ No (Go to Question 54)

44. If Yes to Question 43, who is the prime contact for this program/process?

Name Division

E-mail Phone

45. How many LPA's are currently certified by your state DOT?

- ☐ 0–15
- ☐ 16–30
- ☐ 31–45
- ☐ 46–60
- ☐ 61–75
- ☐ 76–90
- ☐ More than 90

46. Does your state DOT require LPAs to attend training on the LPA program and related policies and regulations?

- ☐ Yes
- ☐ No (Go to question 48)

47. If Yes to Question 46, how often is training made available to LPAs? Check all that apply

- ☐ Upon request
- ☐ Monthly
- ☐ Annually
- ☐ Available online
- ☐ Once, at time of certification
- ☐ Periodically, at time of recertification

48. Is the certification of LPAs formally reviewed and updated periodically?

- ☐ Yes (Go to Question 49)
- ☐ No (Go to Question 50)

49. If Yes to Question 48, at which frequency is an LPA's certification reviewed?

- ☐ Every year
- ☐ Every 3 to 5 years
- ☐ With every new project application
- ☐ Other (specify timeframe)

50. What types of events make the recertification of an LPA necessary? Check all that apply

- ☐ Change or reduction in LPA staff
- ☐ Inability of LPA to provide financial match
- ☐ LPA performance history on past projects delivered
- ☐ Requested by the MPO or RPO
- ☐ Requested by the LPA
- ☐ Periodic expiration of certification (frequency preset by DOT)
- ☐ Others (describe)

51. Who delivers LPA certification and recertification training in your state? Check all that apply.

- ☐ DOT District Office
- ☐ DOT Central Office
- ☐ Consultants
- ☐ MPO or RPO
- ☐ Local Technical Assistance Program (LTAP)
- ☐ Other (specify)

52. What is the average time it typically takes for a LPA to become certified by your state DOT from start to finish?

- ☐ <30 days
- ☐ <3 months
- ☐ <6 months
- ☐ >1 year

53. Your help is solicited to gather more in-depth information on the success you are having with the LPA program in your state. Please identify up to six (6) exemplary LPA-certified agencies in your state who have successfully developed and delivered federally funded transportation projects. The LPAs that you suggest should be those who are active in overall success of the LPA program in your state. Please consider providing examples from small, medium, and large LPAs who are certified. The LPA contacts you provide will be invited to participate in a brief survey that will enhance the findings from this survey.

Contact Name: Affiliation:

Phone: E-mail Address:

(After this Question 53, go to Question 58)

54. If No to Question 43, is your state DOT considering implementing an LPA certification process?

- ☐ Yes (Go to Question 55)
- ☐ No (Go to Question 56)
- ☐ Others (Specify)

55. If Yes to Question 54, which division in your state DOT will be responsible for LPA certification implementation process?

- ☐ DOT District Office
- ☐ DOT Central Office
- ☐ Consultants
- ☐ MPO or RPO
- ☐ Local Technical Assistance Program (LTAP)
- ☐ Other (specify)

56. If No to Question 54, what are main reasons why your state DOT has not implemented an LPA certification process? Check all that apply

- ☐ Limited funds
- ☐ Limited workforce
- ☐ Haven't seen positive impacts from other DOT certification LPA programs
- ☐ Limited demand from LPAs (e.g., even without training, LPAs are operating efficiently)
- ☐ Other (specify)

57. Your help is requested to gather more in-depth information on the success you are having with the LPAs delivering federally funded projects in your state. Please identify up to six (6) LPA contacts in your state who have successfully developed and delivered federally funded transportation projects. The LPAs that you suggest should be those who are active in overall success of the LPA program in your state. Please consider providing examples from small, medium, and large LPAs. The LPA contacts you provide will be invited to participate in a brief survey that will enhance the findings from this survey.

    Contact Name: Affiliation:

    Phone: E-mail Address:

Effectiveness of LPA Certification Process

The questions in this section relate to your assessment of the effectiveness of the LPA Certification program administered by your agency:

58. Do you have performance measures in place to evaluate the success of key elements of your state DOT's LPA certification program?

    ☐ Yes (Go to Question 59)

    ☐ No (Go to Question 60)

59. If Yes to Question 58, provide an example of one or two of the performance measures you have instituted and are finding success with: << describe >>

60. In your opinion, is there evidence that shows that the LPA certification process has helped both your state DOT and the LPAs to better comply with federal-aid requirements?

    ☐ Yes

    ☐ No

61. In your opinion, has the certification process helped participating LPAs achieve more of the performance metrics set by your state DOT for project delivery?

    ☐ Yes

    ☐ No

    ☐ Other (describe)

62. Identify specific project phases in which the certification of LPAs has improved project delivery. Check all that apply.

    ☐ Planning phase

    ☐ Environmental phase/permitting

    ☐ ROW acquisition

    ☐ Design phase/Utilities

    ☐ Procurement (consultant or ad, bid award) phase

    ☐ Construction contracting/inspection

63. How does your state DOT hold LPA's accountable when performance measures are not met?

    ☐ None

    ☐ Decertification

    ☐ Loss of funding if obligations do not meet programming targets

    ☐ Other (describe)

64. In your opinion, what oversight performance measures indicate a healthy LPA program?

- ☐ Please describe (comment box)

65. Identify specific project phases in which elements of LPA certification can be implemented, improved, or streamlined. Check all that apply.

- ☐ Planning phase
- ☐ Environmental phase/Permitting
- ☐ ROW acquisition
- ☐ Design phase/Utilities
- ☐ Procurement (consultant or ad, bid award) phase
- ☐ Construction contracting/inspection

Thank you for your willingness to participate in this NCHRP Synthesis 43-04. The survey is complete. All responses will be kept anonymous.

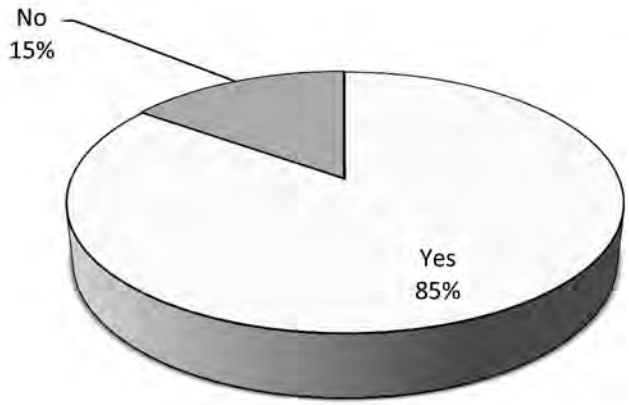
Summary of DOT Survey Results

The responses to the DOT survey questionnaire are presented in this section of the appendix.

Organizational Structure

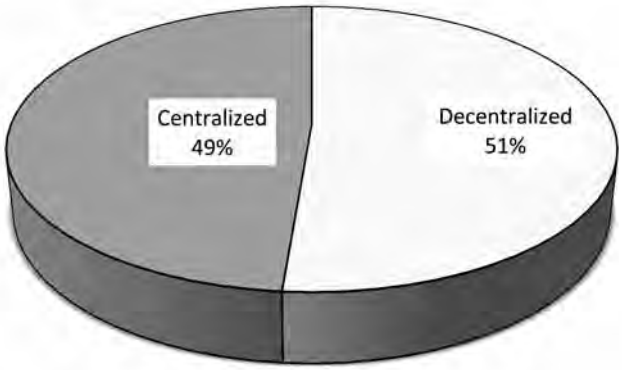
Question 2: Does your state DOT have a formal LPA program?

FIGURE A1 Survey response to Question 2: “Does your state DOT have a formal LPA program?”



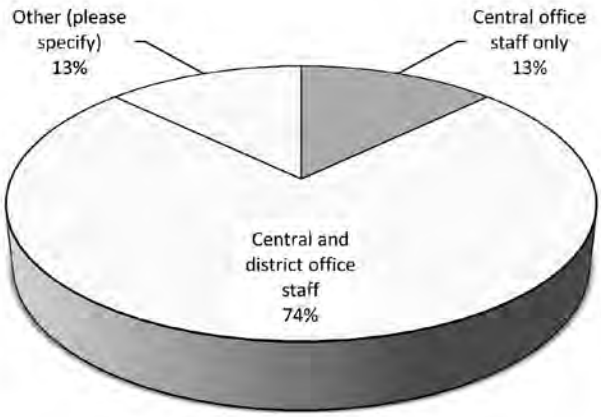
Question 3: Is your state DOT decentralized or centralized?

FIGURE A2 Survey response to Question 3: “Is your state DOT decentralized or centralized?”



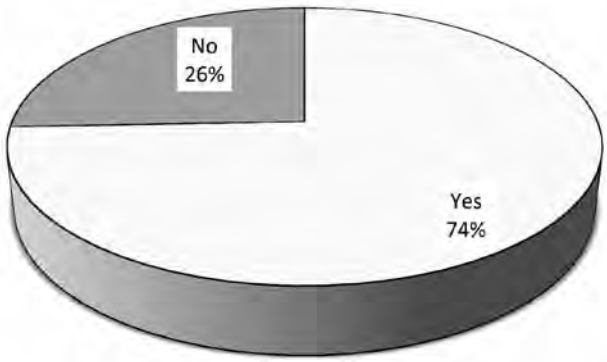
Question 4: How is your state DOT structured to handle LPA program?

FIGURE A3 Survey response to Question 4: "How is your state DOT structured to handle LPA program?"



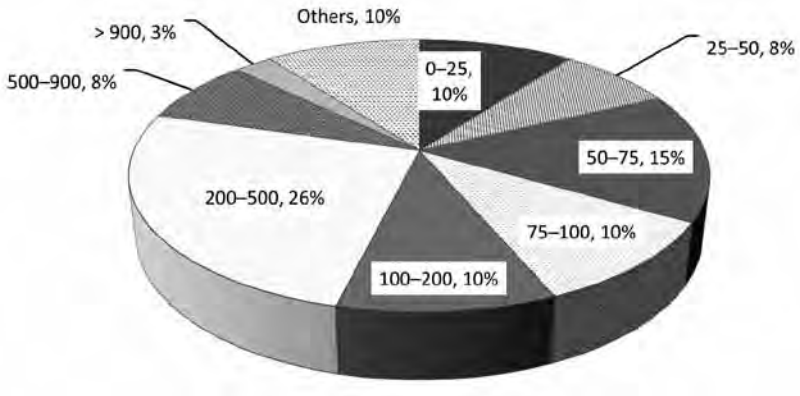
Question 5: Does your state DOT use project development reams, task forces, etc., to coordinate the LPA program (i.e., educate and/or provide tools to LPAs)?

FIGURE A4 Survey response to Question 5: "Does your state DOT use project development reams, task forces, etc., to coordinate the LPA program (i.e., educate and/or provide tools to LPAs)?"



Question 6: Estimate the number of local agencies participating in LPA in your state.

FIGURE A5 Survey response to Question 6: "Estimate the number of local agencies participating in LPA in your state."

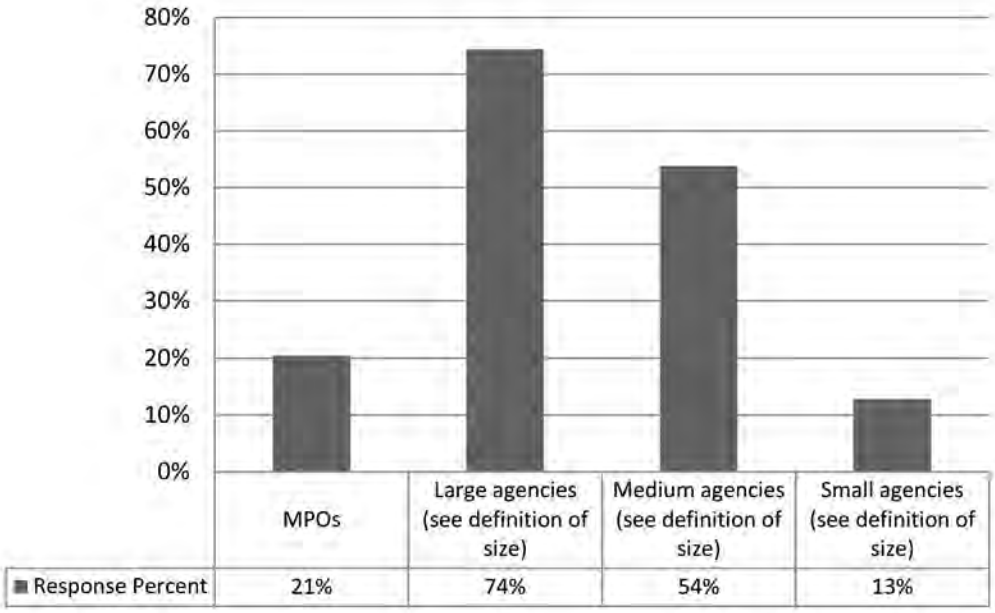


Question 7: What is the basis for eligibility for a local agency? (Check all that apply)

FIGURE A6 Survey response to Question 7: “What is the basis for eligibility for a local agency?”

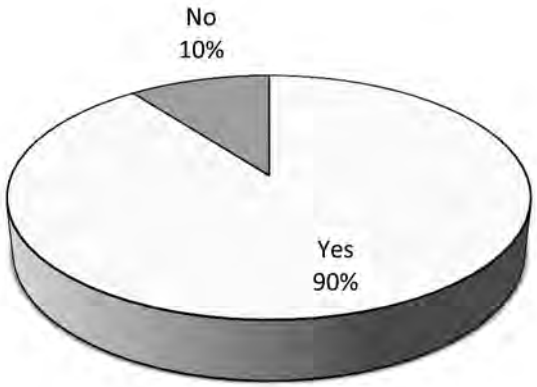
Question 8: In your opinion, which local agencies have had the most success in developing and executing federal-aid projects? Check all that apply.

FIGURE A7 Survey response to Question 8: “In your opinion, which local agencies have had the most success in developing and executing federal-aid projects?”



Question 9 Does your state DOT have a written LPA manual?

FIGURE A8 Survey response to Question 9: “Does your state DOT have a written LPA manual?”



Question 10 Is your state DOT LPA manual available online? If Yes, please provide the link.

FIGURE A9 Survey response to Question 10: “Is your state DOT LPA manual available online?”

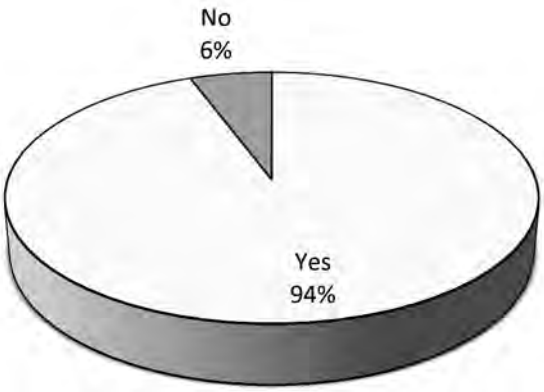


FIGURE A10 Survey response to Question 10: “If Yes, please provide the link.”

1	www.gomdot.com
2	http://www.dot.state.pa.us/Internet/web.nsf/Secondary?OpenFramSet&Frame=main&Src=/Internet/Bureaus/pdBOS.nsf/PubsAndFormsBOS?OpenForm
3	http://www.dot.ca.gov/hq/LocalPrograms/lam/lapm.htm; http://www.dot.ca.gov/hq/LocalPrograms/lam/lapg.htm
4	http://www.state.nj.us/transportation/business/localaid/documents/FEDERALAIDHANDBOOK.pdf
5	http://www.coloradodot.info/business/designsupport/bulletins_manuals/2006-local-agency-manual
6	http://www.iowadot.gov/local_systems/publications/im/lpa_ims.htm
7	www.maine.gov/lpa/training.htm
8	http://www.oregon.gov/ODOT/HWY/LGS/lag_manual.shtml
9	http://www.itd.idaho.gov/manuals/ManualsOnline.htm - Guidelines for Local Public Agency PRojects
10	http://www.scdot.org/doing/lpa.shtml
11	http://www.dot.state.oh.us/Divisions/Planning/SPPM/LocalPrograms/Pages/Manual_of_Procedures.aspx
12	http://dot.state.nm.us/Programs/Local_Government_Agreement_Unit/TLGA_HANDBOOK_October07.pdf
13	http://www.dot.state.tx.us/business/governments/lgpp.htm
14	http://transportation.ky.gov/Local-Programs/Documents/Local%20Public%20Agency%20Interim%20Guide.pdf
15	www.dotd.la.gov/administration/lpa/
16	http://www.nh.gov/dot/org/projectdevelopment/planning/documents/LPAManual.pdf
17	http://www.ncdot.gov/programs/Enhancement/ProjectAdministration/ProjectManager/default.html
18	http://www.dot.il.gov/blr/manuals/blrmanual.html
19	www.roads.maryland.gov
20	http://www.ct.gov/dot/lib/dot/documents/dconstruction/municipal_manual/msat_manual_july_2008_single_file.pdf
21	http://www.virginiadot.org/business/locally_administered_projects_manual.asp
22	http://www.tdot.state.tn.us/local/

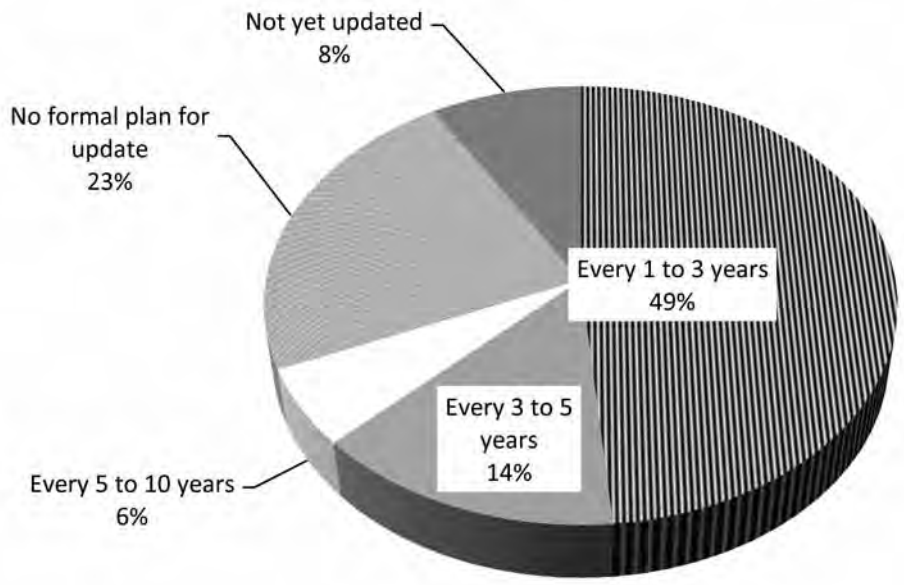
Figure A10 Continued on p.77

Figure A10 Continued from p.76

23	http://www.udot.utah.gov/main/uconowner.gf?n=200603020738251
24	http://www.wsdot.wa.gov/LocalPrograms/LAG/
25	https://www.dot.ny.gov/plafap
26	http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/LTFGuidebookMunicProj62011.htm
27	http://www.dot.state.mn.us/stateaid/manual/sam2011/SAM2011.pdf
28	The manual is located on the KDOT Authentication & Resource Tracking site http://kart.ksdot.org . You will have to register to use the site. There is no charge for registering.
29	http://www.dot.state.fl.us/projectmanagementoffice/LAP/LAP_TOC.shtm
30	http://epg.modot.org/index.php?title=Category:136_Local_Public_Agency_(LPA)_Policy
31	http://www.nevadadot.com/uploadedFiles/NDOT/About_NDOT/NDOT_Divisions/Engineering/Design/2010_04_April_LPA_Manual.pdf
32	http://www.nebraskatransportation.org/gov-aff/lpa-guide-man.html

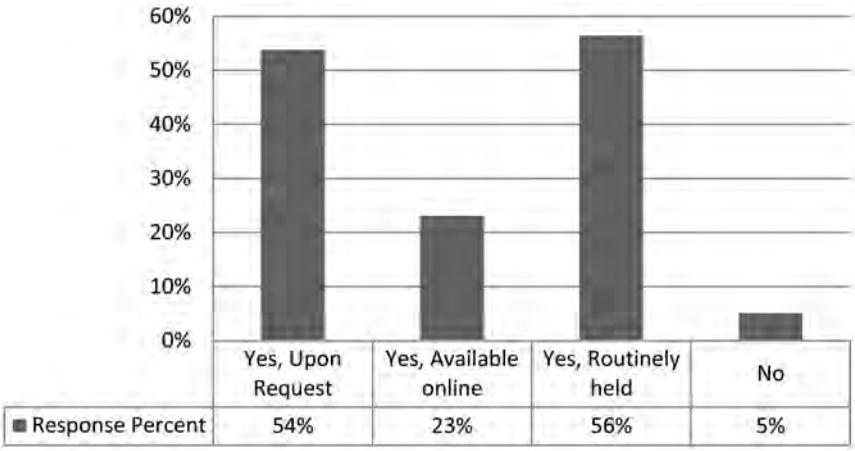
Question 11 How often is the manual formally updated?

FIGURE A11 Survey response to Question 11: “How often is the manual formally updated?”



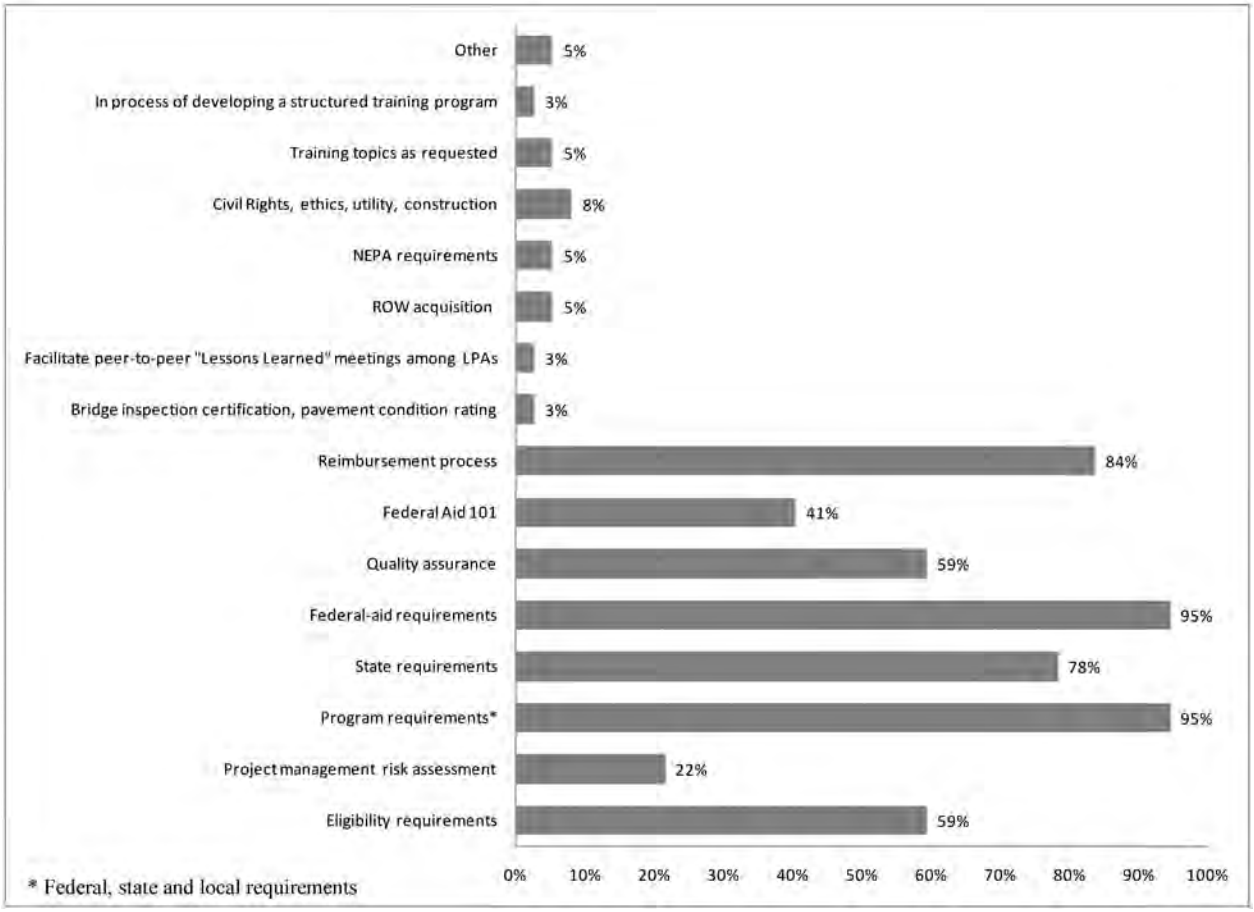
Question 12 Is training available regarding LPA Program? (Check all that apply)

FIGURE A12 Survey response to Question 12: “Is training available regarding LPA Program? (Check all that apply)



Question 13 Does the training your state DOT offers include the following topics related to the LPA process? Check all that apply.

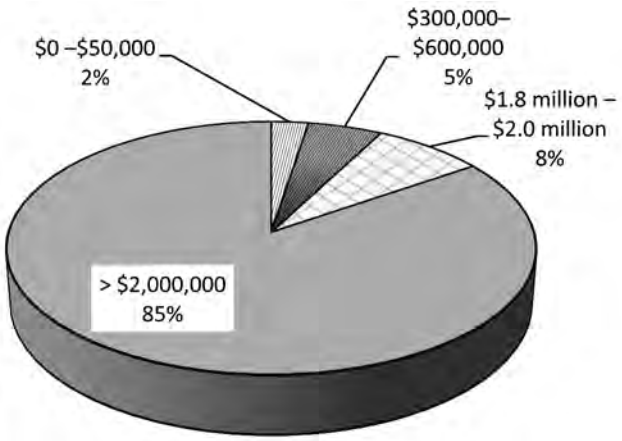
FIGURE A13 Survey response to Question 13: “Does the training your state DOT offers include the following topics related to the LPA process? Check all that apply.”



Project Development

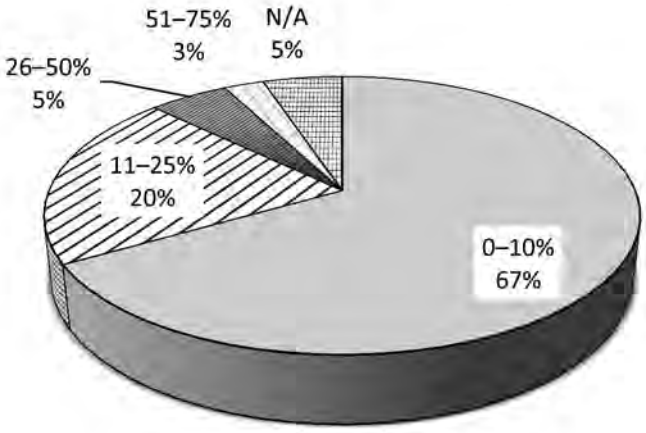
Question 14 What was the total amount of federal funding (out of the entire amount allotted to the state) that was allocated to local agencies in the past fiscal year (FY)?

FIGURE A14 Survey response to Question 14: "What was the total amount of federal funding (out of the entire amount allotted to the state) that was allocated to local agencies in the past fiscal year (FY)?"



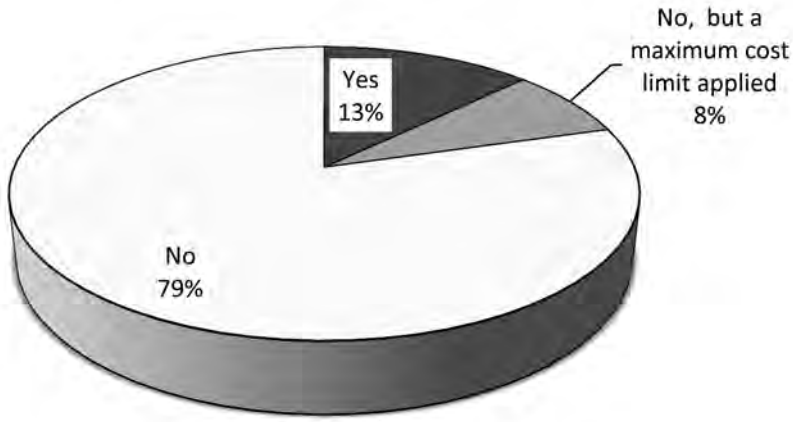
Question 15 Out of the total amount of federal funding allocated to local agencies annually, estimate the percentage that are typically Congressionally directed funding (earmarks).

FIGURE A15 Survey response to Question 15: "Out of the total amount of federal funding allocated to local agencies annually, estimate the percentage that are typically Congressionally directed funding (earmarks)."



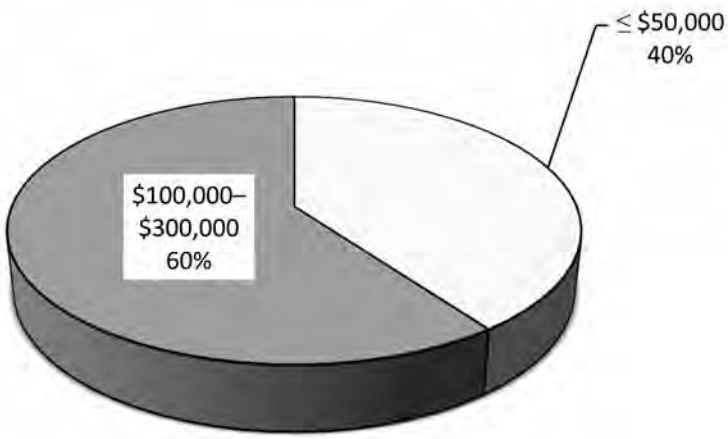
Question 16 Does your state DOT (or MPO) have a minimum project cost to determine eligibility for federal funding?

FIGURE A16 Survey response to Question 16: “Does your state DOT (or MPO) have a minimum project cost to determine eligibility for federal funding?”



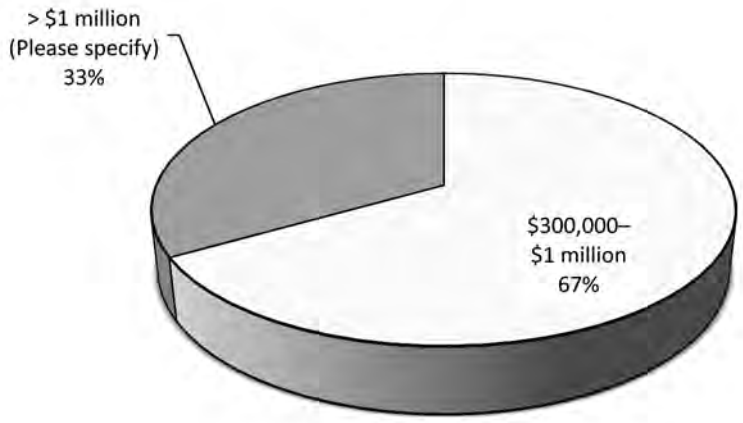
Question 17 What is the minimum project cost limit applied by your state DOT to potential LPA projects?

FIGURE A17 Survey response to Question 17: “What is the minimum project cost limit applied by your state DOT to potential LPA projects?”



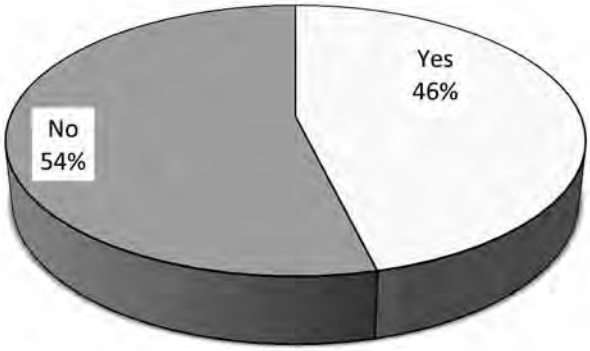
Question 18 Estimate the maximum project cost limit applied by your state DOT to potential LPA projects?

FIGURE A18 Survey response to Question 18: "Estimate the maximum project cost limit applied by your state DOT to potential LPA projects?"



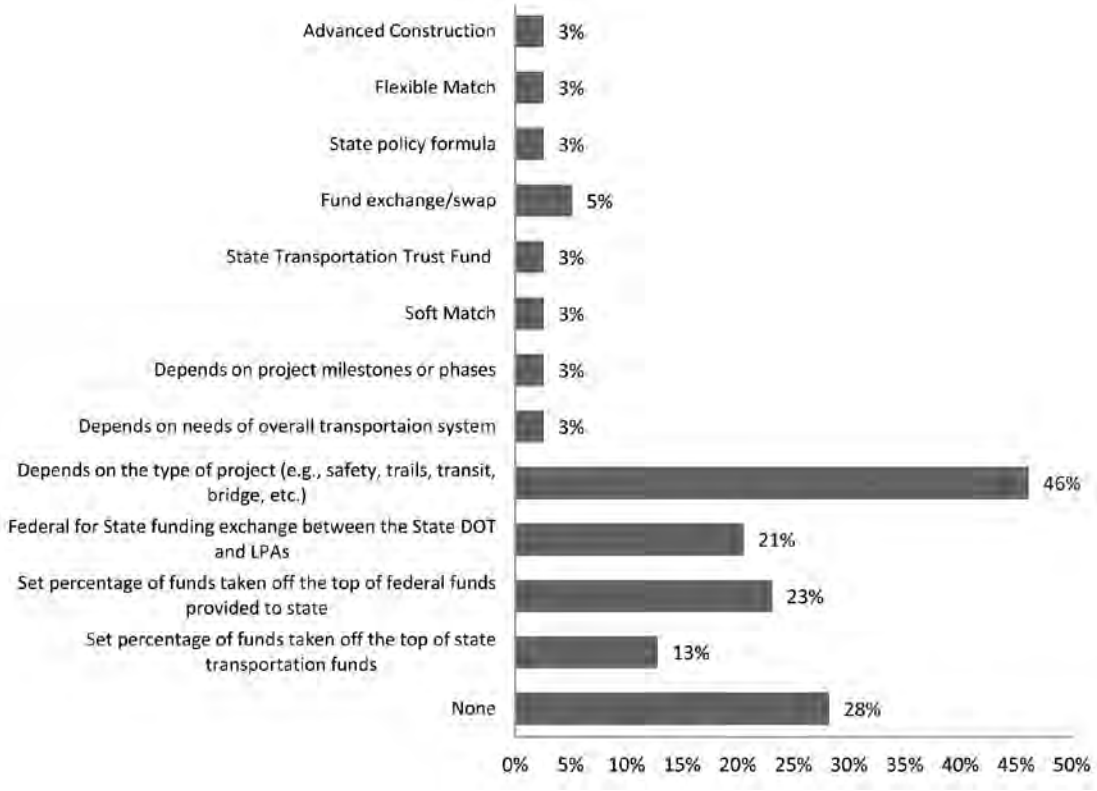
Question 19 Does your state DOT apply performance measures when LPAs receive federal-aid funds?

FIGURE A19 Survey response to Question 19: "Does your state DOT apply performance measures when LPAs receive federal-aid funds?"



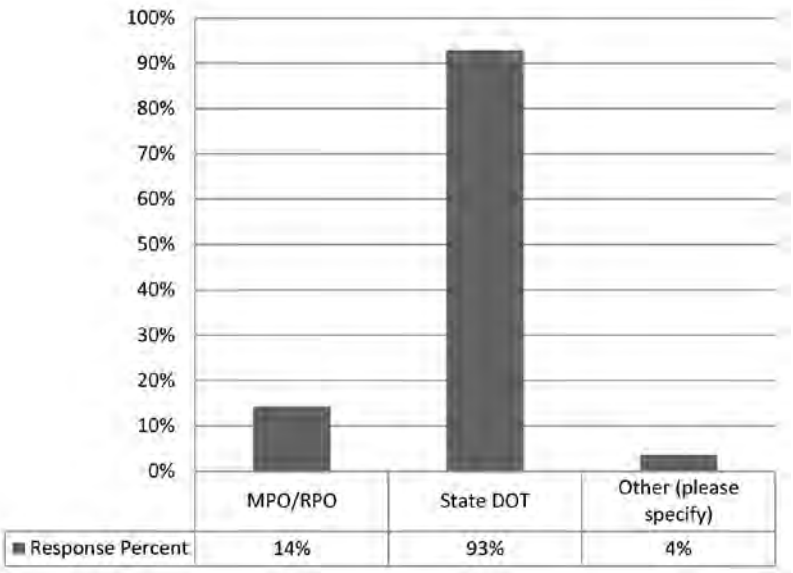
Question 20 What are some innovative alternative funding allocation techniques your state DOT has implemented for the LPA program? (Check all that apply).

FIGURE A20 Survey response to Question 20: "What are some innovative alternative funding allocation techniques your state DOT has implemented for the LPA program? (Check all that apply)."



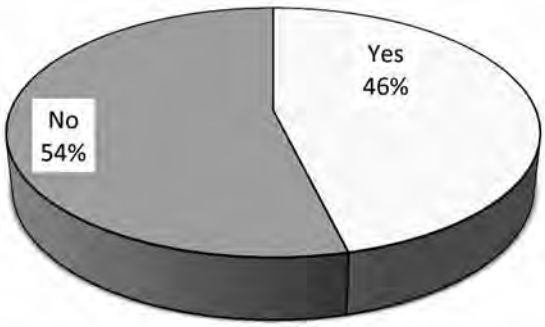
Question 21 Is the innovative funding allocation done at the MPO/RPO level or by your state DOT? (Check all that apply).

FIGURE A21 Survey response to Question 21: "Is the innovative funding allocation done at the MPO/RPO level or by your state DOT? (Check all that apply)."



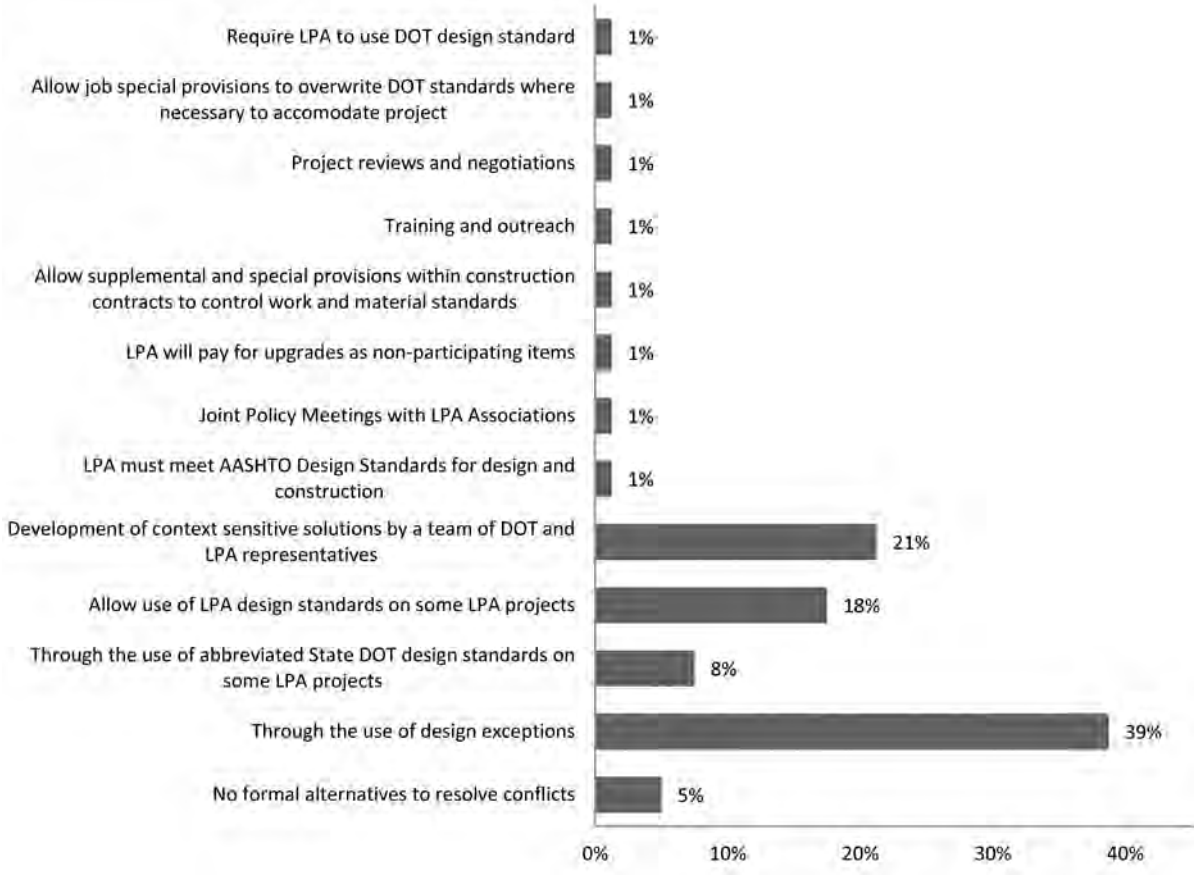
Question 22 Does your state legislation provide flexibility for other innovative ways to assist LPAs in guaranteeing the local match amount required for federally funded projects?

FIGURE A22 Survey response to Question 22: "Does your state legislation provide flexibility for other innovative ways to assist LPAs in guaranteeing the local match amount required for federally funded projects?"



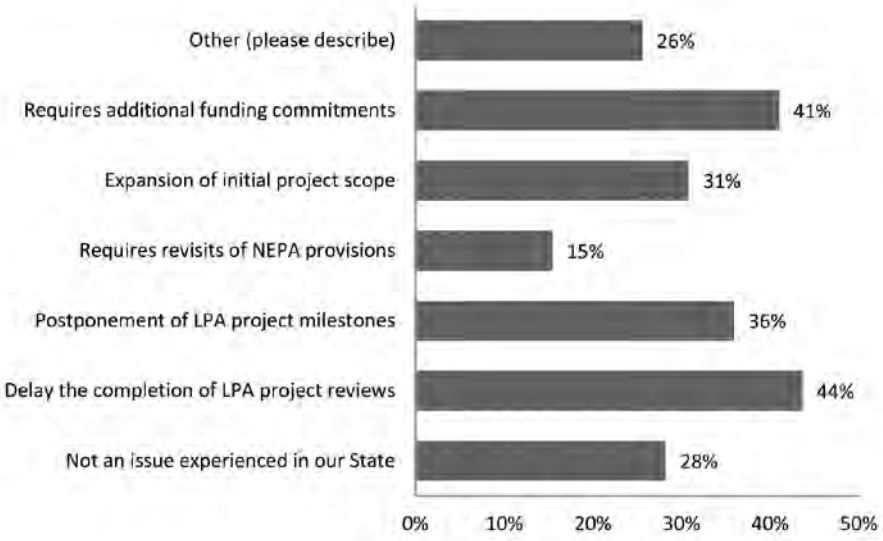
Question 23 How are conflicts between the state DOT design requirements and the local community's needs resolved? (Check all that apply).

FIGURE A23 Survey response to Question 23: "How are conflicts between the state DOT design requirements and the local community's needs resolved? (Check all that apply)."



Question 24 How do conflicts over design guidelines or standards impact LPA project delivery? (Check all that apply).

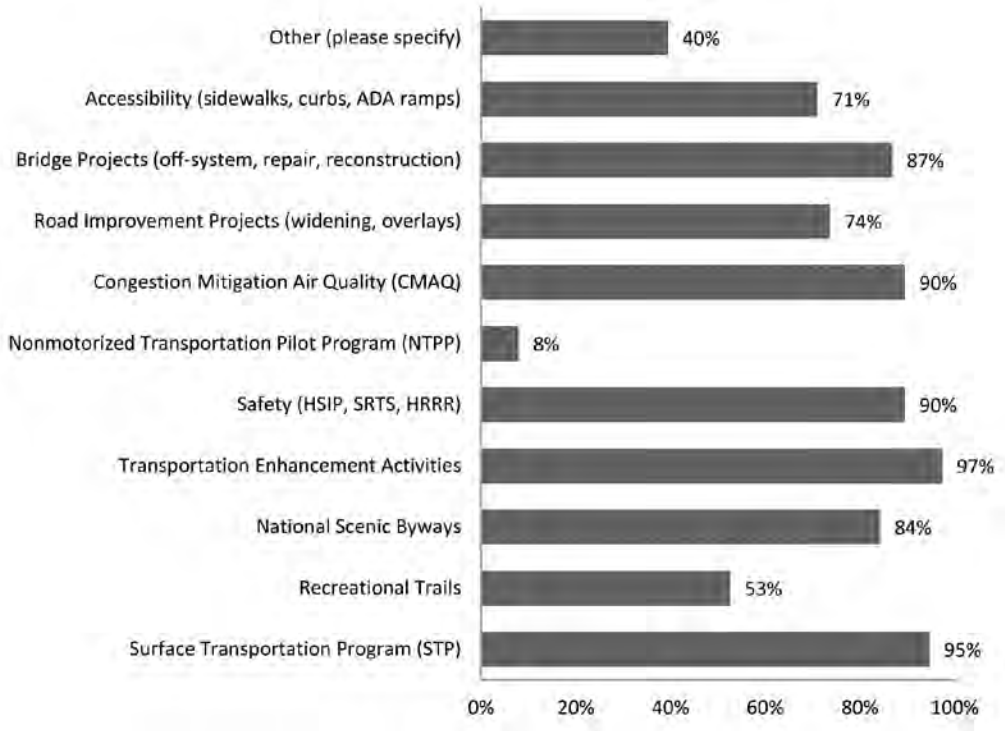
FIGURE A24 Survey response to Question 24: “How do conflicts over design guidelines or standards impact LPA project delivery? (Check all that apply).”



Project Implementation

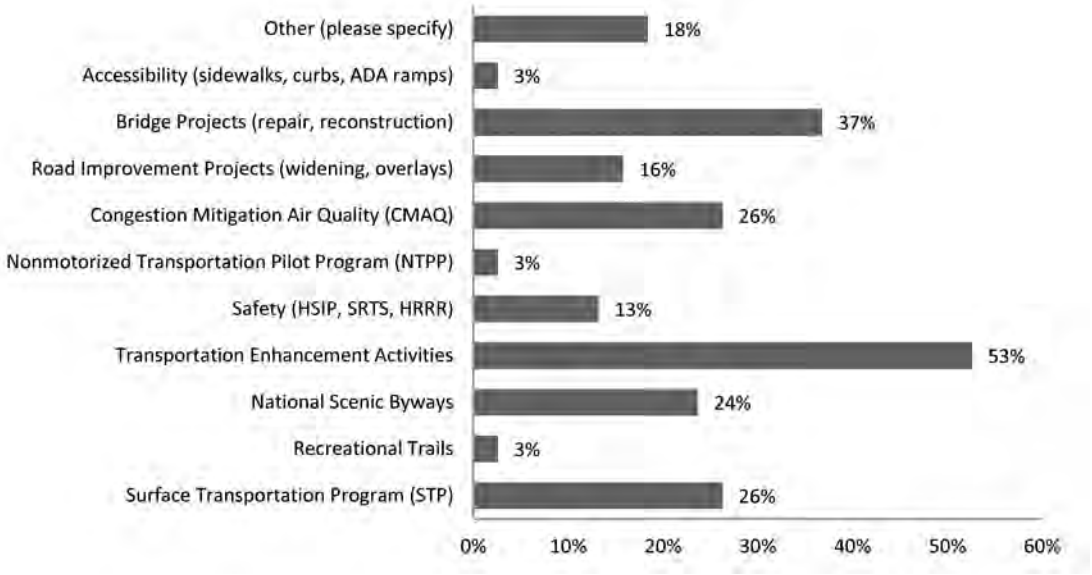
Question 25 What types of federal-aid funding does your state DOT receive for LPA projects? (Check all that apply).

FIGURE A25 Survey response to Question 25: “What types of federal-aid funding does your state DOT receive for LPA projects? (Check all that apply).”



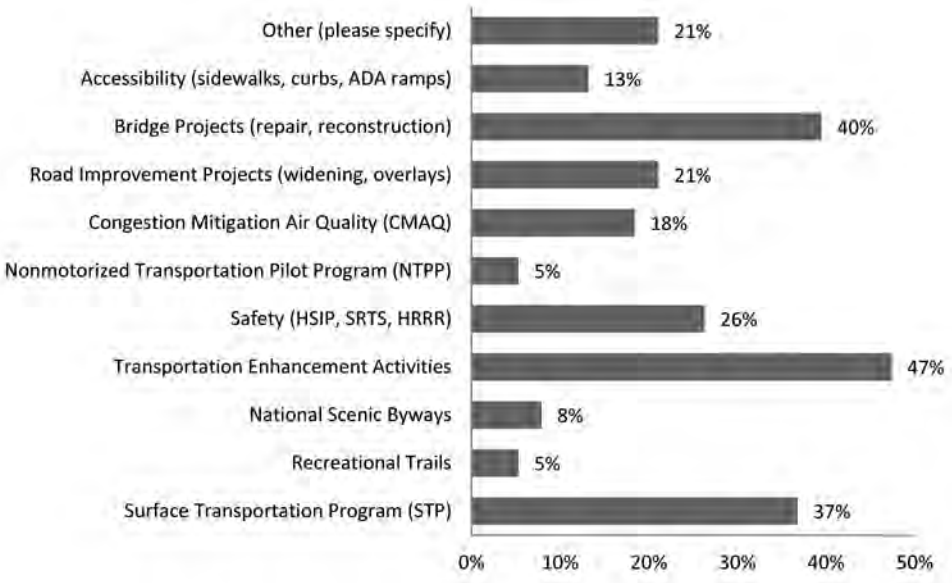
Question 26 Which LPA projects (awarded federal-aid funds) historically take the longest to complete? (Check all that apply).

FIGURE A26 Survey response to Question 26: "Which LPA projects (awarded federal-aid funds) historically take the longest to complete? (Check all that apply)."



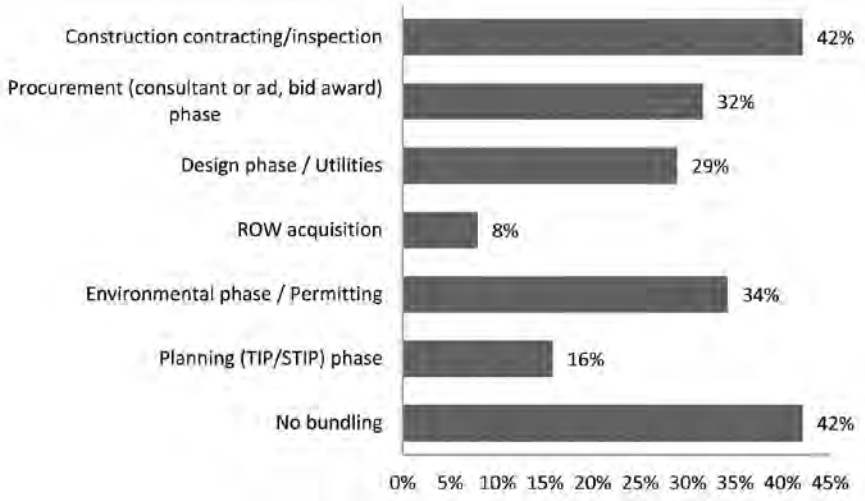
Question 27 Which LPA projects (awarded federal-aid funds) present the most risk of not being completed within the planned budget? (Check all that apply).

FIGURE A27 Survey response to Question 27: "Which LPA projects (awarded federal-aid funds) present the most risk of not being completed within the planned budget? (Check all that apply)."



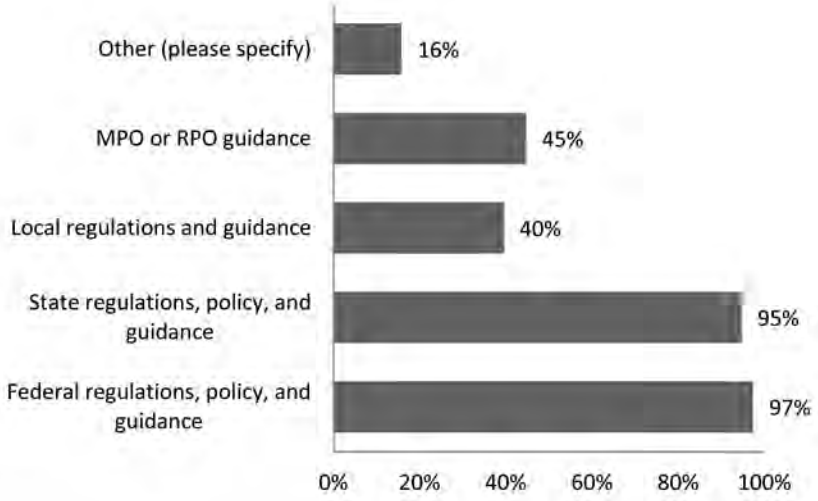
Question 28 Does your state DOT combine* LPA projects in any of the following project delivery phases? (Check all that apply). *combine = tying together or bundling several smaller projects into a single large project, at any phase of project delivery.

FIGURE A28 Survey response to Question 28: “Does your state DOT combine* LPA projects in any of the following project delivery phases? (Check all that apply).”



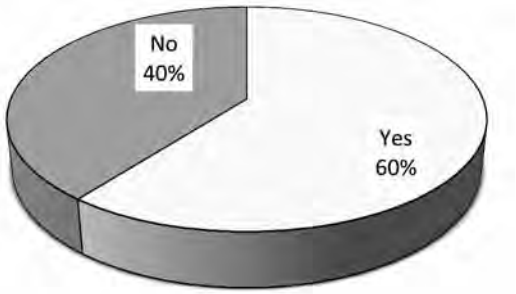
Question 29 What policies and procedures are in place to assist with LPA project delivery? (Check all that apply).

FIGURE A29 Survey response to Question 29: “What policies and procedures are in place to assist with LPA project delivery? (Check all that apply).”



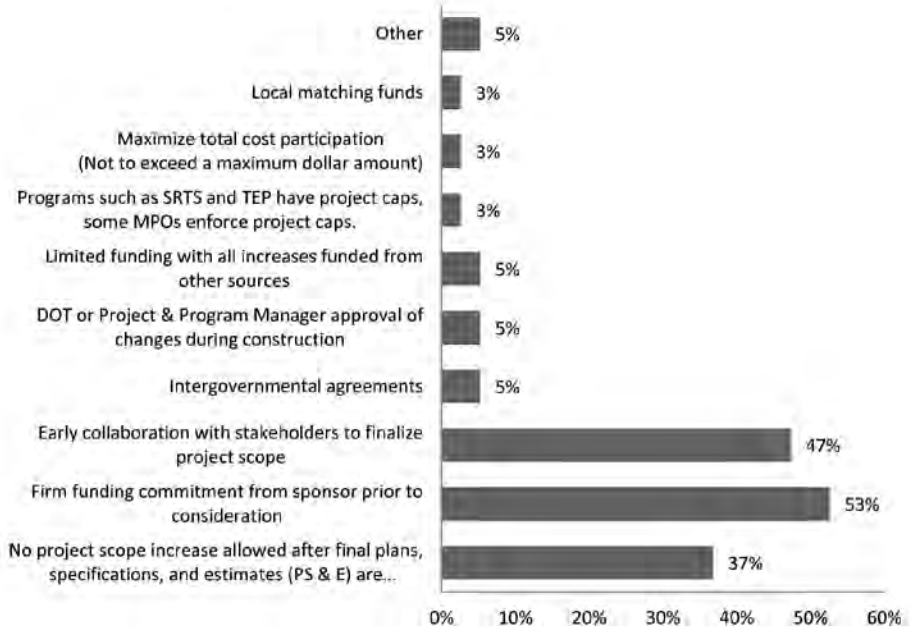
Question 30 Does your state DOT generally apply a “one size fits all” application of federal requirements on LPA projects rather than make individual distinctions per specific LPA project?

FIGURE A30 Survey response to Question 30: “Does your state DOT generally apply a “one size fits all” application of federal requirements on LPA projects rather than make individual distinctions per specific LPA project?”



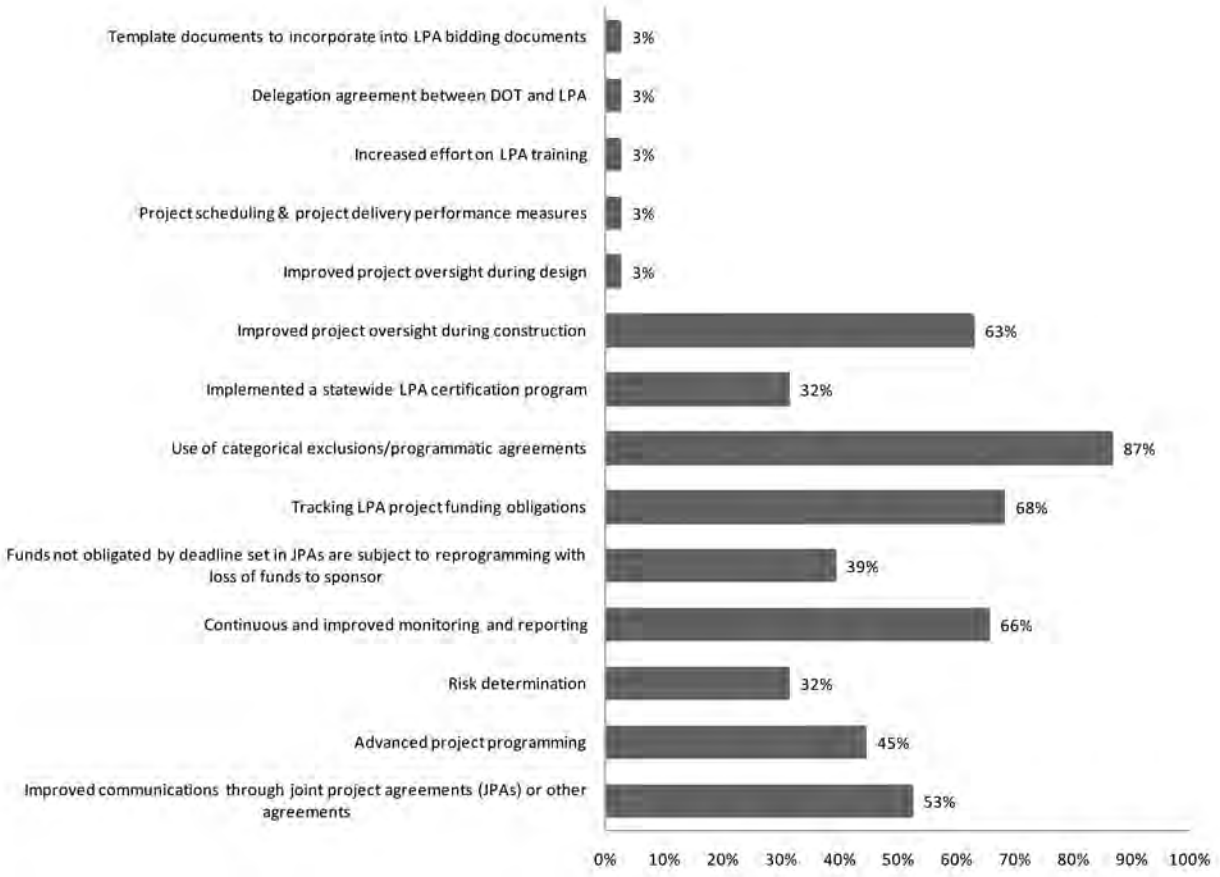
Question 31 How does your state DOT minimize scope increases in LPA projects? (Check all that apply).

FIGURE A31 Survey response to Question 31: “How does your state DOT minimize scope increases in LPA projects? (Check all that apply).”



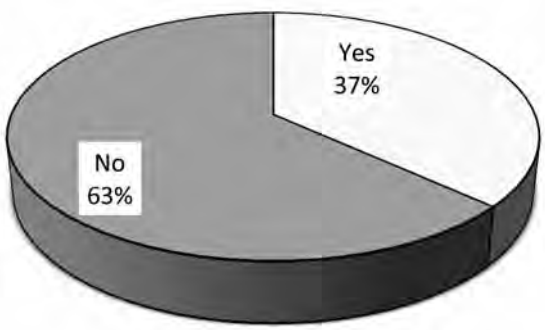
Question 32 Identify project delivery tools used to improve internal and external communications and involvement, implement or streamline processes, and lead to overall efficiencies. (Check all that apply).

FIGURE A32 Survey response to Question 32: "Identify project delivery tools used to improve internal and external communications and involvement, implement or streamline processes, and lead to overall efficiencies. (Check all that apply)."



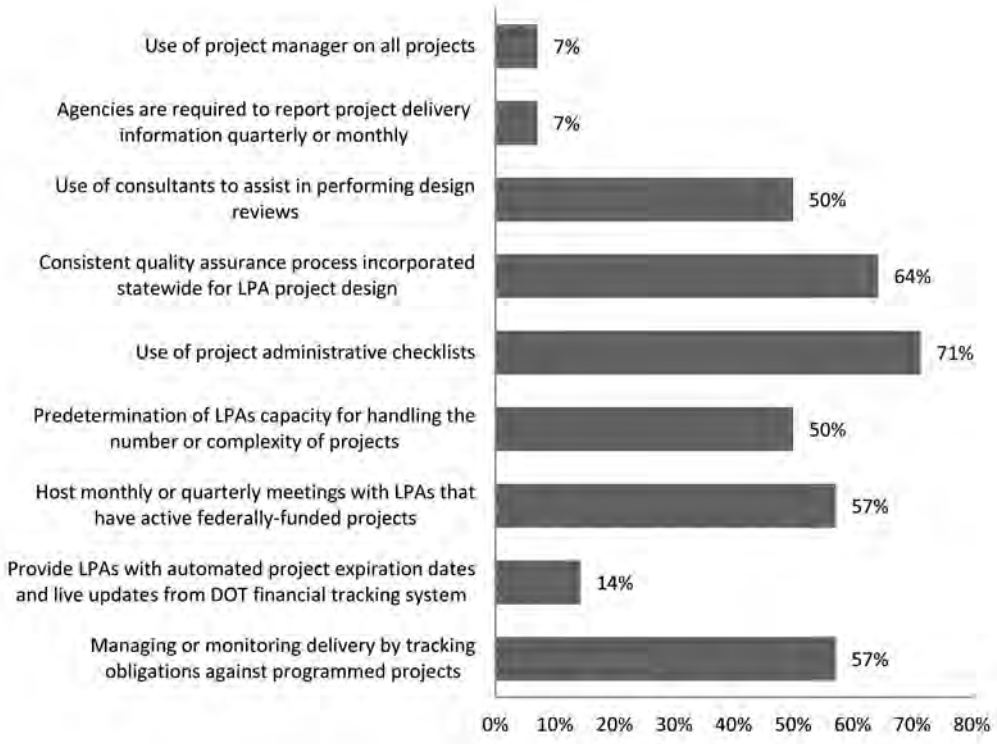
Question 33 Does your state DOT set specific performance metrics for LPA projects and share them with local agencies who receive federal-aid funds?

FIGURE A33 Survey response to Question 33: "Does your state DOT set specific performance metrics for LPA projects and share them with local agencies who receive federal-aid funds?"



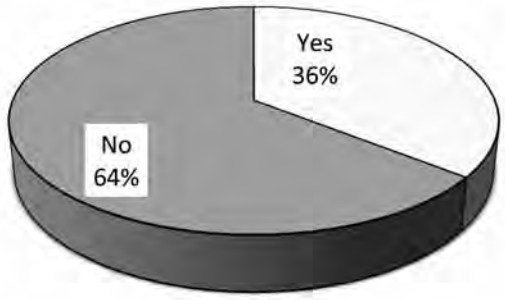
Question 34 What performance measures and/or tools does your agency use to evaluate project execution/delivery and describe how they are used? (Check all that apply).

FIGURE A34 Survey response to Question 34: "What performance measures and/or tools does your agency use to evaluate project execution/delivery and describe how they are used? (Check all that apply)."



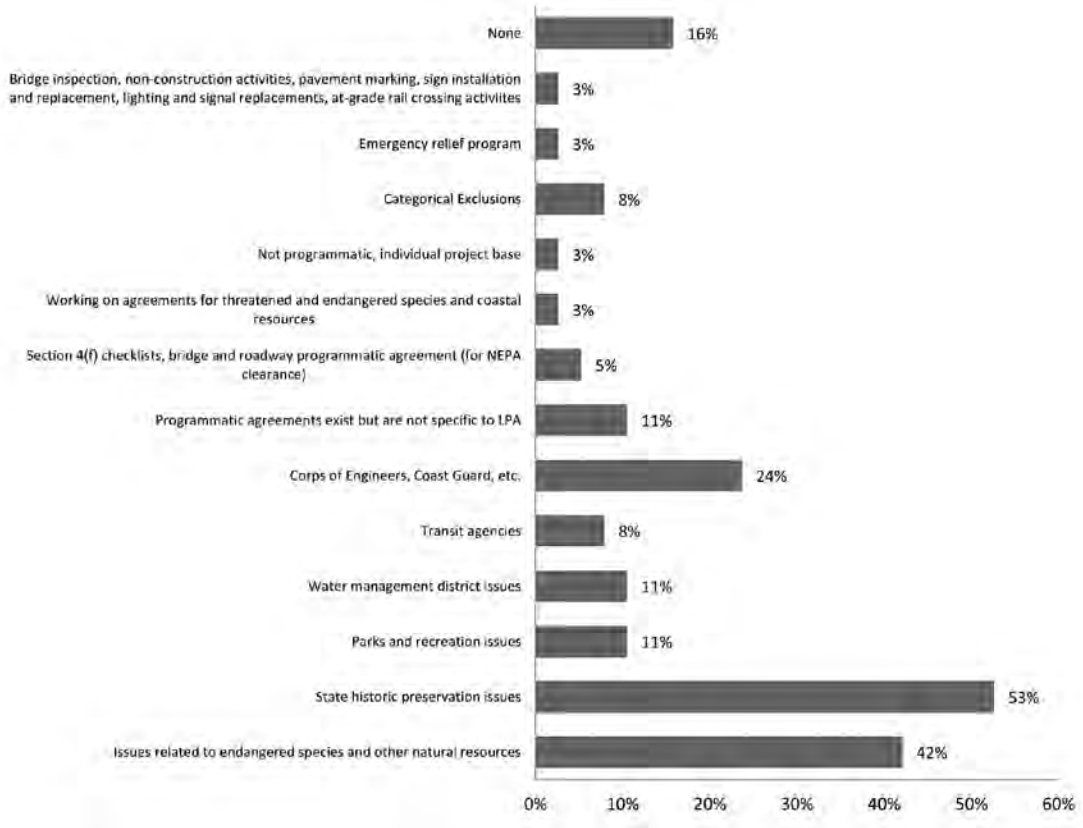
Question 35 Does your state DOT provide statewide reports for meeting performance goals related to LPA projects? Please provide a link to view these reports.

FIGURE A35 Survey response to Question 35: "Does your state DOT provide statewide reports for meeting performance goals related to LPA projects? Please provide a link to view these reports."



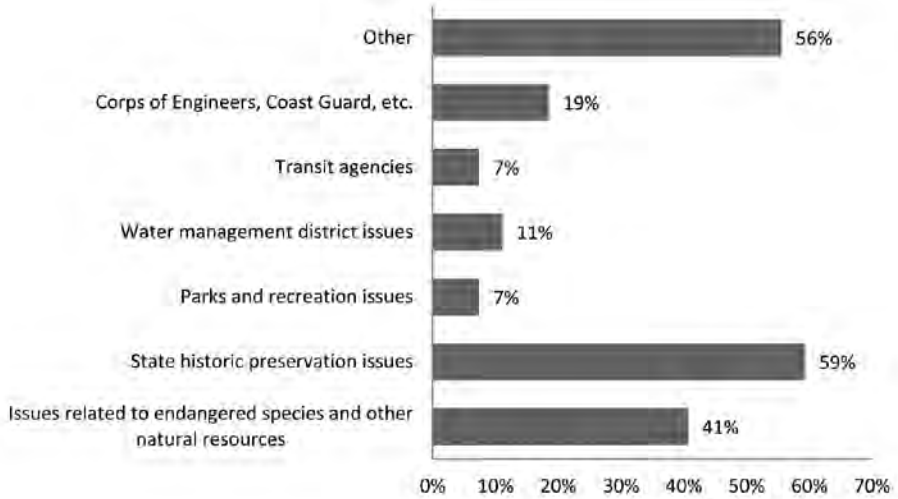
Question 36 Has your state DOT generated programmatic agreements for certain LPA projects related to any of the following? (Check all that apply).

FIGURE A36 Survey response to Question 36: "Has your state DOT generated programmatic agreements for certain LPA projects related to any of the following? (Check all that apply)."



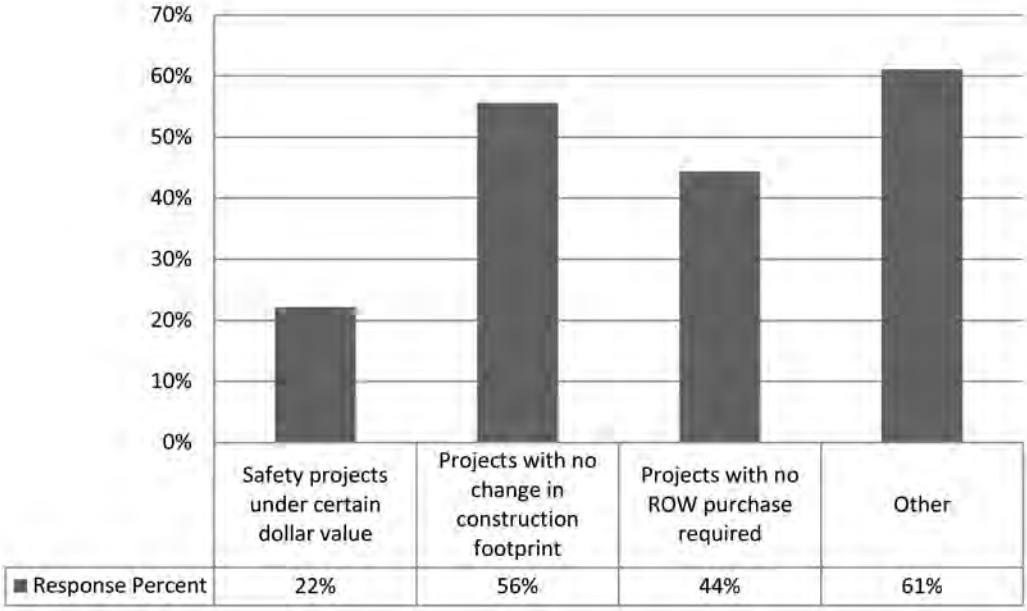
Question 37 Please describe the details of, or provide an example of, the specific programmatic agreement.

FIGURE A37 Survey response to Question 37: "Please describe the details of, or provide an example of, the specific programmatic agreement."



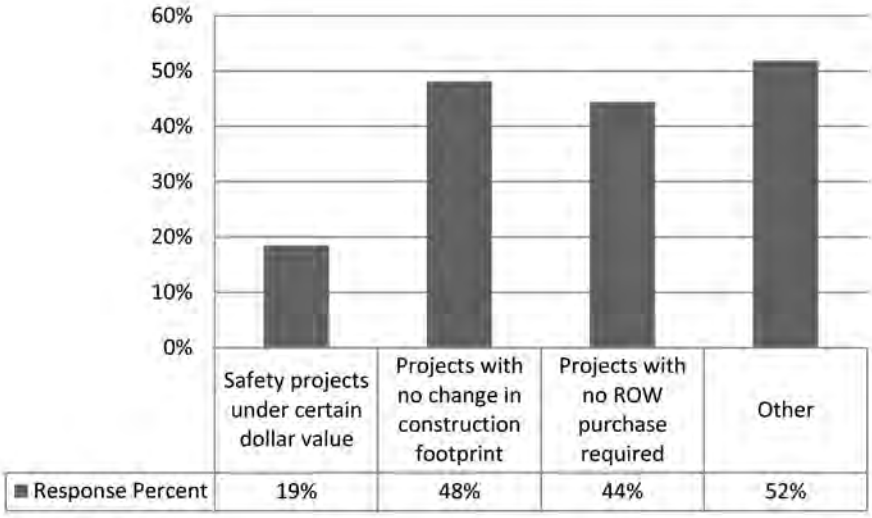
Question 38 Has your state DOT applied categorical exclusions for certain LPA projects?

FIGURE A38 Survey response to Question 38: "Has your state DOT applied categorical exclusions for certain LPA projects?"



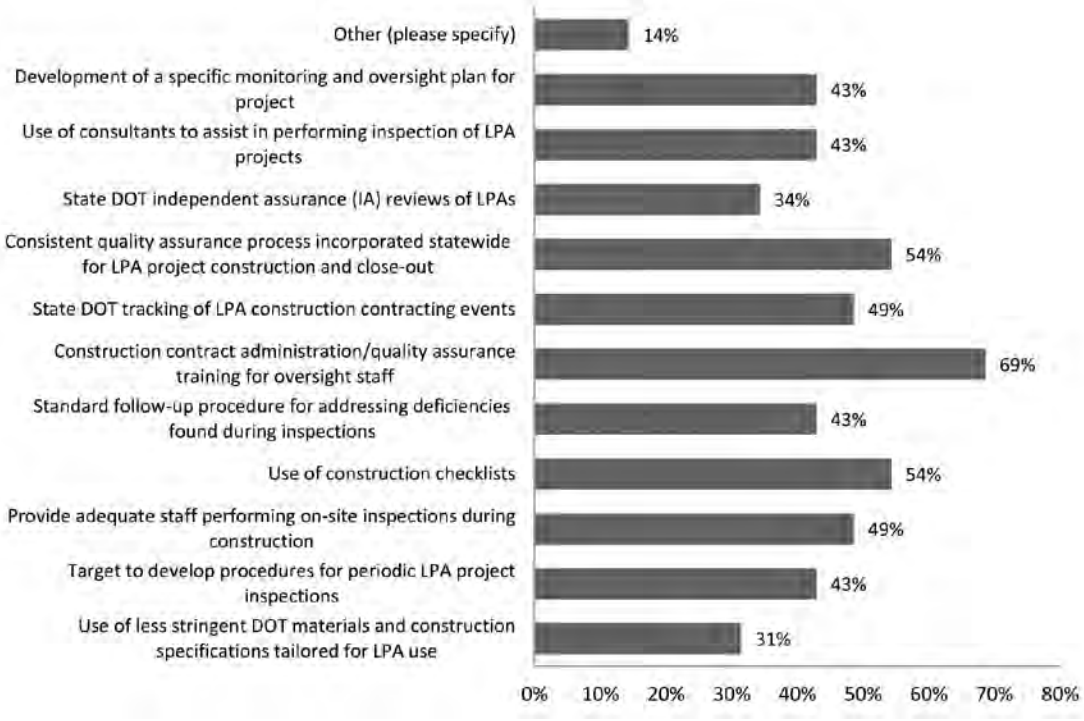
Question 39 Please describe the details of, or provide an example of, the specific categorical exclusions.

FIGURE A39 Survey response to Question 39: "Please describe the details of, or provide an example of, the specific categorical exclusions."



Question 40 How can your state DOT improve LPA oversight during construction? Check all that apply.

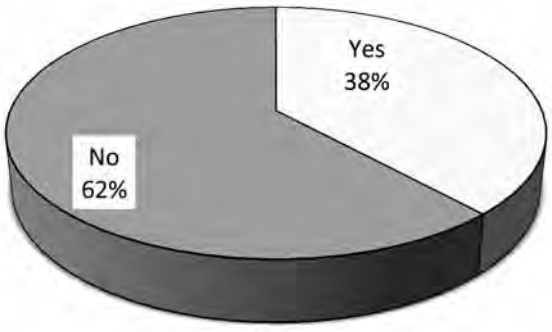
FIGURE A40 Survey response to Question 40: "How can your state DOT improve LPA oversight during construction? Check all that apply."



LPA Certification Process

Question 41 In your opinion, should federal regulation be established to require certification program for LPAs?

FIGURE A41 Survey response to Question 41: "In your opinion, should federal regulation be established to require certification program for LPAs?"



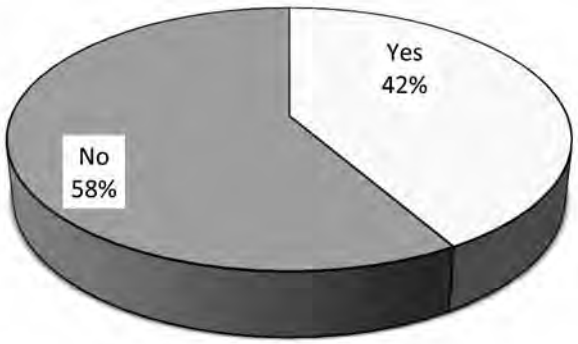
Question 42 What performance measures should be used to direct the amount and type of federal funding to LPA projects?

FIGURE A42 Survey response to Question 42: "What performance measures should be used to direct the amount and type of federal funding to LPA projects?"

1	On-time project delivery and within budget.
2	N/A
3	Program delivery; compliance to federal requirements; billing activity/inactive agreements; project close-out
4	SC has awarded LPA qualification to projects of varing levels of funding. In reviewing the LPA considering should be given to the completxity of the project and the LPA experience with projects of similar scope and magnitude. The LPA's financial history and or standing should also be considered.
5	At MaineDOT, we review a community's staffing levels and history in delivering past locally administered projects in making determinations as to whether to allow local public agencies to administer projects on behalf of MaineDOT.
6	Minimum project amount of $500,000.
7	Delivery Milestones - NEPA, ROW, Plan File, Sale, and Construction Completion date.
8	Financial, Schedule, Planning requirements.
9	Ensure the LPA has enough staff and knowledge/ability to administer a federally-funded transportation project. Review previous LPA project history.
10	on-time delivery within budget estimates
11	Past performance and size of local Agency
12	Provide LPAs with automated updates from DOT's financial tracking system on the remaining obligation authority. Provide LPA's reports on bid savings on projects. Monitor delivery by tracking obligations against programmed projects.
13	% of projects delivered on time and within budget % of projects with contract chnages outside of an acceptable range
14	Ratio of expended federal funds to funds allocated. This shows whether an agency is expending the funds in a timely manner.

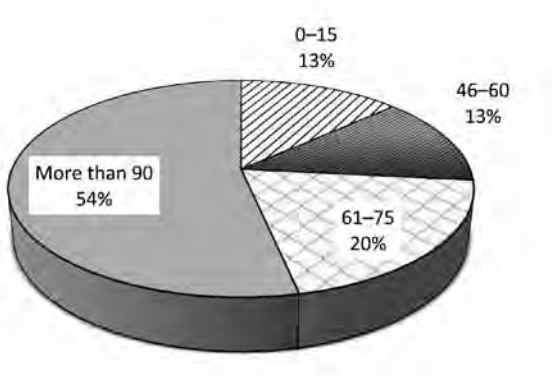
Question 43 Is there a LPA certification/qualification process in your state?

FIGURE A43 Survey response to Question 43: "Is there a LPA certification/qualification process in your state?"



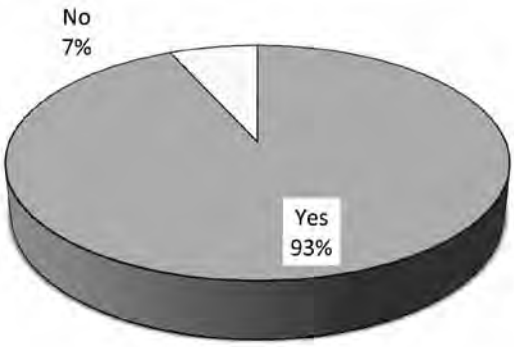
Question 45 How many LPAs are currently certified by your state DOT?

FIGURE A44 Survey response to Question 45: “How many LPAs are currently certified by your state DOT?”



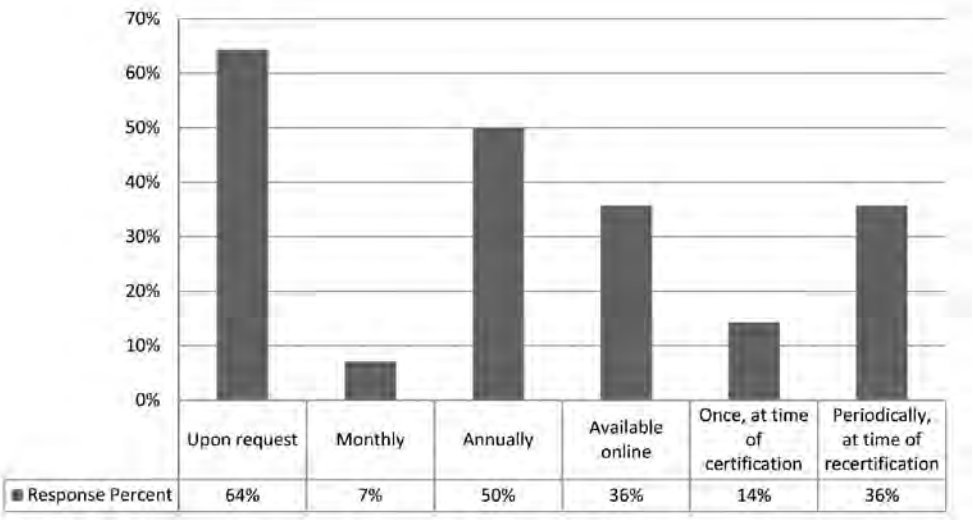
Question 46 Does your state DOT require LPAs to attend training on the LPA program and related policies and regulations?

FIGURE A45 Survey response to Question 46: “Does your state DOT require LPAs to attend training on the LPA program and related policies and regulations?”



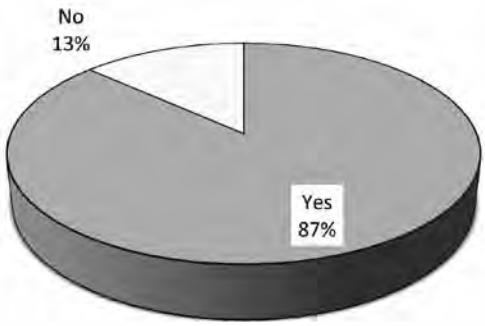
Question 47 How often is training made available to LPAs? Check all that apply.

FIGURE A46 Survey response to Question 47: “How often is training made available to LPAs? Check all that apply.”



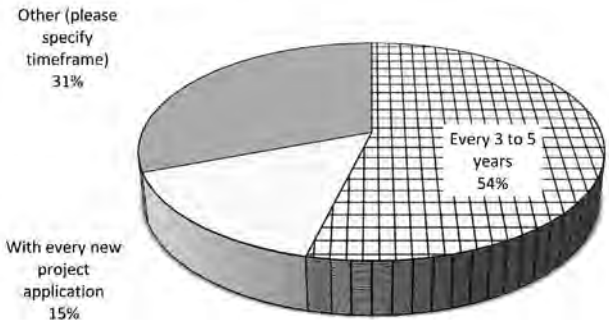
Question 48 Is the certification of LPAs formally reviewed and updated periodically?

FIGURE A47 Survey response to Question 48: “Is the certification of LPAs formally reviewed and updated periodically?”



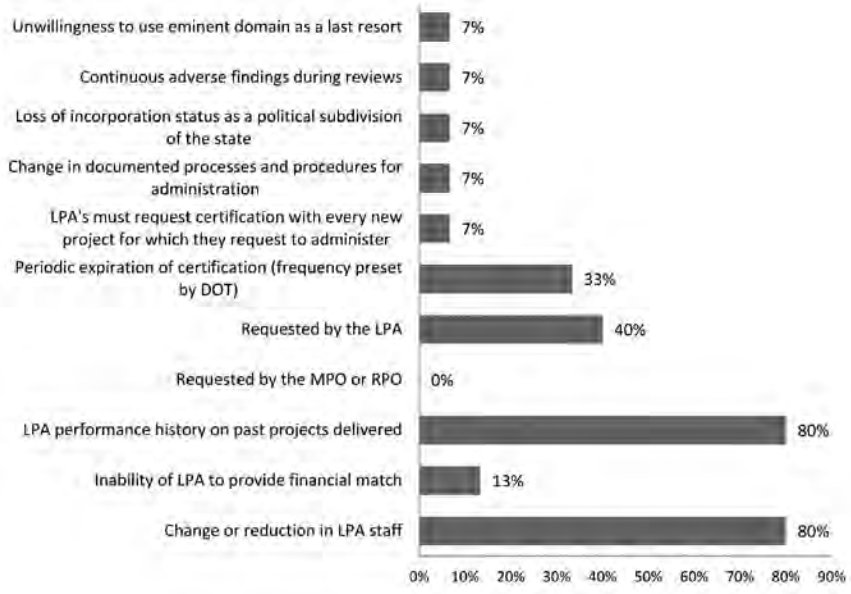
Question 49 At which frequency is an LPA’s certification reviewed?

FIGURE A48 Survey response to Question 49: “At which frequency is an LPA’s certification reviewed?”



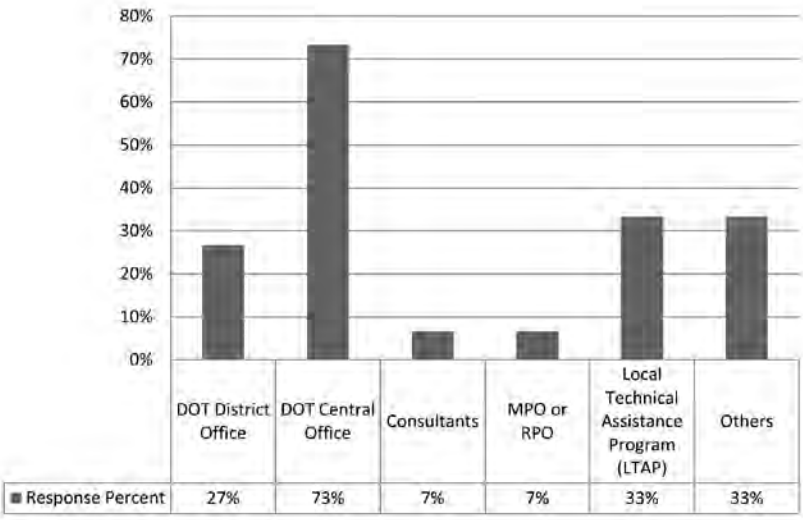
Question 50 What types of events make the recertification of an LPA necessary? Check all that apply.

FIGURE A49 Survey response to Question 50: “What types of events make the recertification of an LPA necessary? Check all that apply.”



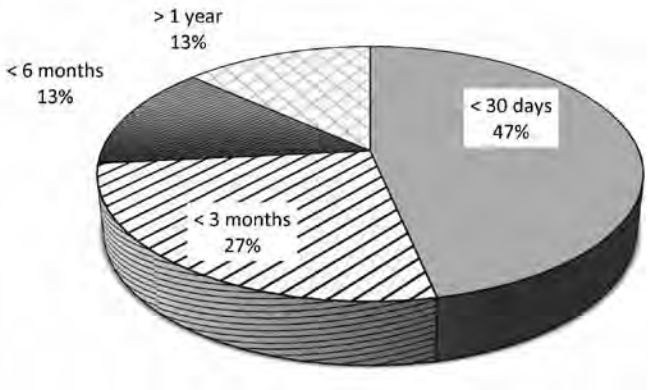
Question 51 Who delivers LPA certification and recertification training in your state? Check all that apply.

FIGURE A50 Survey response to Question 51: "Who delivers LPA certification and recertification training in your state? Check all that apply."



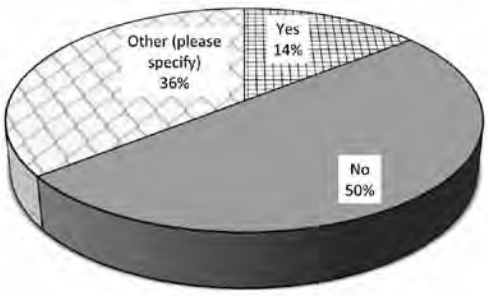
Question 52 What is the average time it typically takes for a LPA to become certified by your state DOT from start to finish?

FIGURE A51 Survey response to Question 52: "What is the average time it typically takes for a LPA to become certified by your state DOT from start to finish?"



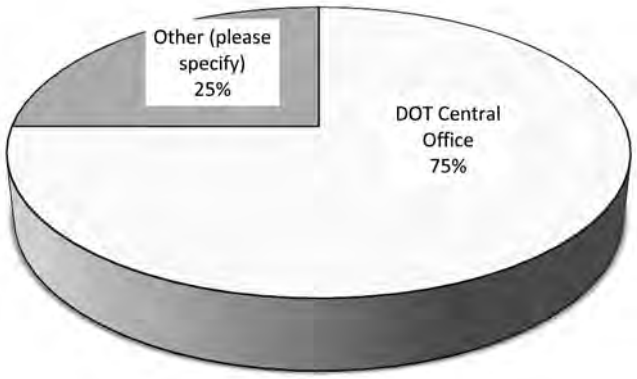
Question 54 Is your state DOT considering implementing an LPA certification process?

FIGURE A52 Survey response to Question 54: "Is your state DOT considering implementing an LPA certification process?"



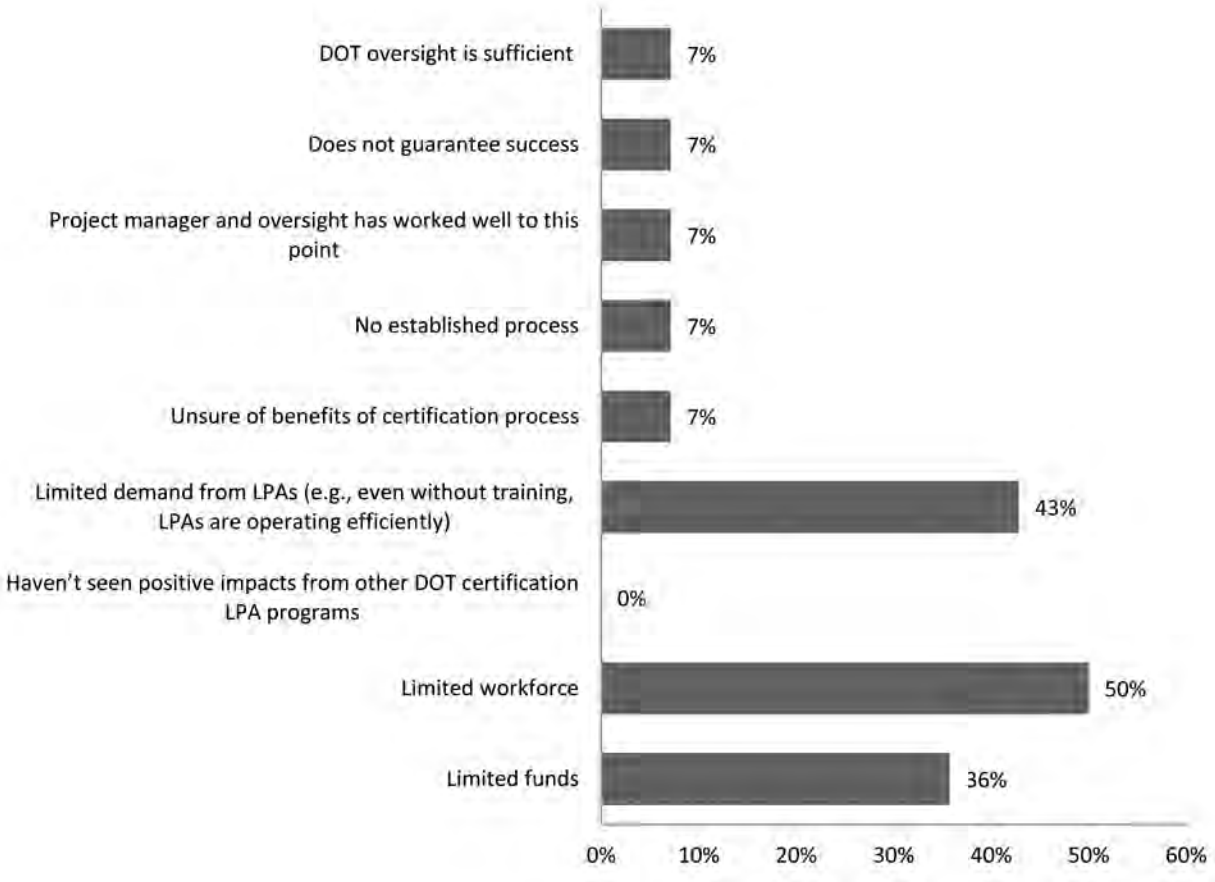
Question 55 Which division in your state DOT will be responsible for implementation of the LPA certification process?

FIGURE A53 Survey response to Question 55: "Which division in your state DOT will be responsible for implementation of the LPA certification process?"



Question 56 What are the main reasons why your state DOT has not implemented a LPA certification process? Check all that apply.

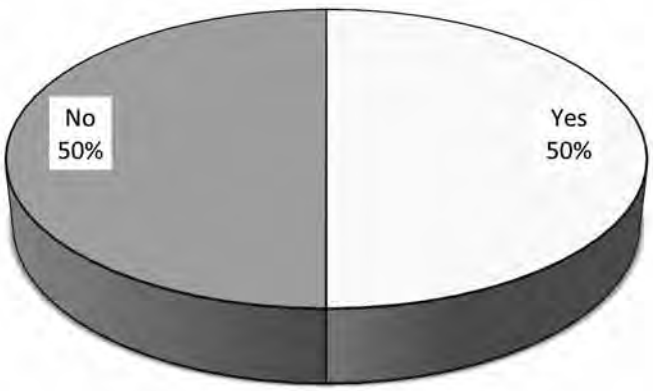
FIGURE A54 Survey response to Question 56: "What are the main reasons why your state DOT has not implemented a LPA certification process? Check all that apply."



Effectiveness of LPA Certification Process

Question 58 Do you have performance measures in place to evaluate the success of key elements of your state DOT's LPA certification program?

FIGURE A55 Survey response to Question 58: "Do you have performance measures in place to evaluate the success of key elements of your state DOT's LPA certification program?"



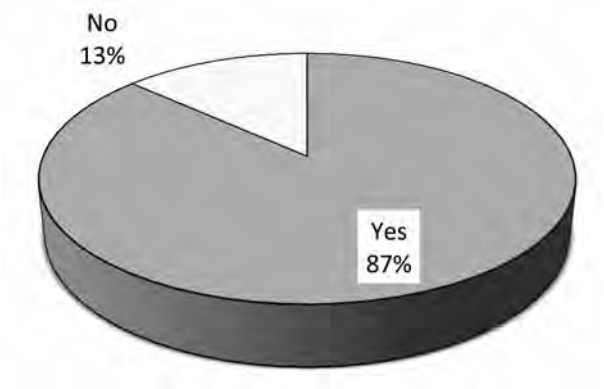
Question 59 Provide an example of one or two of the performance measures you have instituted and are finding success with:

FIGURE A56 Survey response to Question 59: "Provide an example of one or two of the performance measures you have instituted and are finding success with"

1	Number of eligible reimbursement requests for work associated with various project phase such as design when procurement is involved and number of concurrence of construction awards that are issued without requiring rebid.
2	MaineDOT sets delivery targets for LPA projects: a certain percentage successfully advertised within 30 days of their scheduled milestone dates.
3	- Number of satisfactory reviews (audits) of LPAs - Review and update of Local Agency Guidelines Manual annually
4	We just have one performance Mevaluation, not so mush a measure: Internal LPA Project Evaluation Form which is completed at the end of each LPA project to determine how the LPA performed in each area of project development. Simple one page web based form that allows each discipline in the District (ENV, ROW, CONST, EEO/PW, etc.) to comment on LPA performance. The form is marked satisfactory, satisfactory with comments, or not satisfactory, which impacts certification for future projects.
5	No instances of non-compliance with program requirements
6	Periodic process reviews. Currently reviewing findings from reviews conducted with FHWA.
7	Setting up the projects in phases. Obligating funds for one phase at a time. Milestones determine the transition from one phase to the next.
8	Track and Report local agency bridge conditions, city arterial pavement condtions

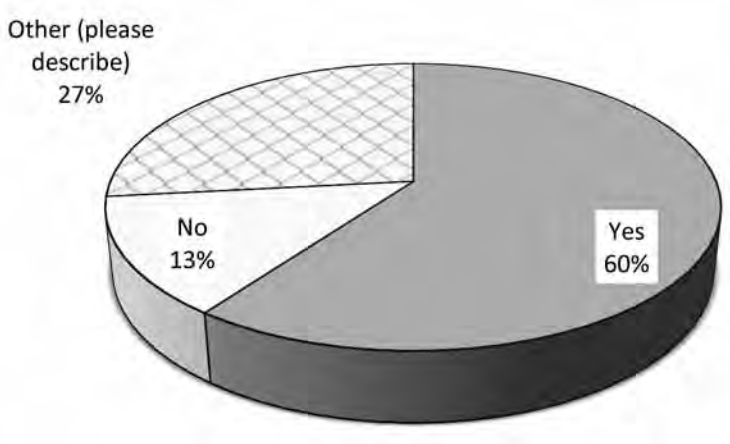
Question 60 In your opinion, is there evidence that shows that the LPA certification process has helped both your state DOT and the LPAs to better comply with federal-aid requirements?

FIGURE A57 Survey response to Question 60: "In your opinion, is there evidence that shows that the LPA certification process has helped both your state DOT and the LPAs to better comply with federal-aid requirements?"



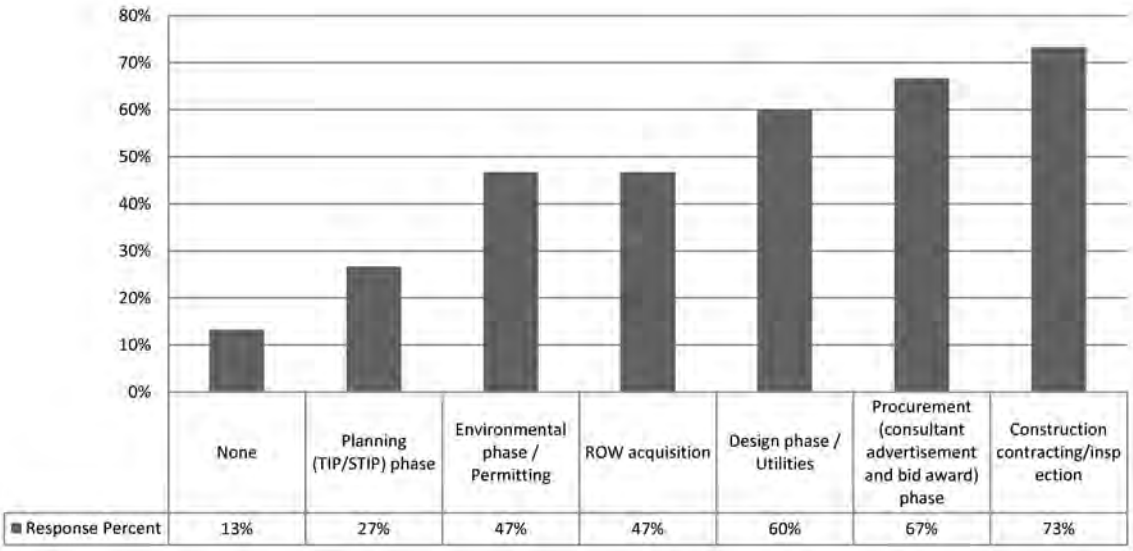
Question 61 In your opinion, has the certification process helped participating LPAs achieve more of the performance metrics set by your state DOT for project delivery?

FIGURE A58 Survey response to Question 61: "In your opinion, has the certification process helped participating LPAs achieve more of the performance metrics set by your state DOT for project delivery?"



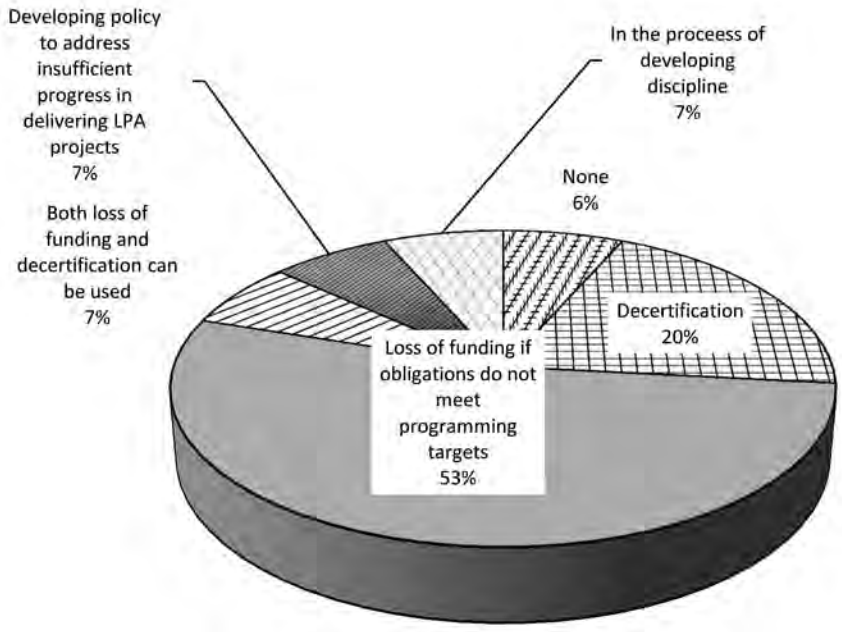
Question 62 Identify specific project phases in which the certification of LPAs has improved project delivery. Check all that apply.

FIGURE A59 Survey response to Question 62: "Identify specific project phases in which the certification of LPAs has improved project delivery. Check all that apply."



Question 63 How does your state DOT hold LPAs accountable when performance measures are not met?

FIGURE A60 Survey response to Question 63: "How does your state DOT hold LPAs accountable when performance measures are not met?"



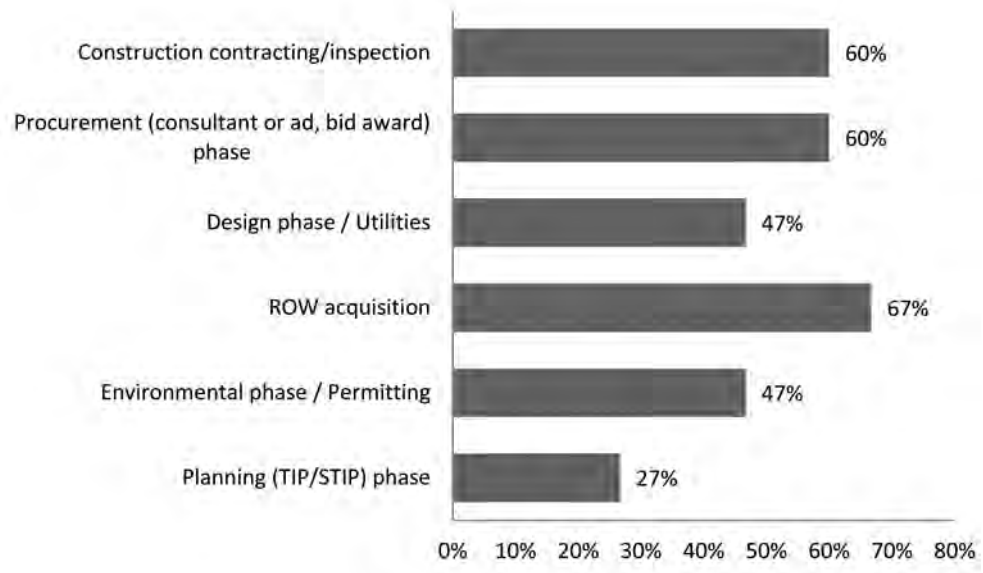
Question 64 In your opinion, what oversight performance measures indicate a healthy LPA program?

FIGURE A61 Survey response to Question 64: “In your opinion, what oversight performance measures indicate a healthy LPA program?”

1	Number of concurrences for procurement of design or construction activities. Number of eligle reimbursement request Number of PS&E that are recieved without returning for major revisions or rewrite.
2	1.) High percentage of LPA projects that have been successfully delivered while maintaining Federal participation; 2.) High percentage of LPA projects delivered within 30 days of their schedule milestone dates.
3	-Routine successful reviews of LPAs -Routine updates on policy and regulatory guidance and regular training
4	Project delivery - delivering projects in accordance with developed milestone dates for each area of project development and construction.
5	On time on budget. Drawdown of 95% of appropriation.
6	Project delivery costs < 27.5% of construction cost.
7	No performance measures are used.
8	The main measures are whether federal/state regulations are being met and if projects are being developed and constructed within time and budget constraints.
9	No instances of non-compliance
10	On time delivery and within budget
11	Good communication, easy to understand instructions, strict reimbursement requirements.
12	Annual Stewardship Report provided to FHWA and FHWA's annual Performance of WSDOT
13	Clear acceptance of work documentation.
14	We do not have any oversight performance measure that indicate the health of the program.
15	Getting the full amount of spending authority used up annually, projects meeting schedule milestones, duration of NEPA clearances, duration of professional services procurement, no loss of federal funds due to non-compliance, project lasts as long as expected, environmental commitments met, time to close out a project.

Question 65 Identify specific project phases in which elements of LPA certification can be implemented, improved, or streamlined. Check all that apply.

FIGURE A62 Survey response to Question 65: “Identify specific project phases in which elements of LPA certification can be implemented, improved, or streamlined. Check all that apply.”



APPENDIX B

List of Respondents and LPA Survey Questionnaire

List of LPA Survey Respondents

Florida:
- City of Gainesville
- City of Jacksonville
- City of Key West

Hawaii:
- County of Hawaii
- Illinois:
- City of Urbana
- Jackson County

Iowa:
- City of Des Moines

Kentucky:
- Louisville Metro Public Works and Assets

Maine:
- City of Bangor
- Town of China

Minnesota:
- City of Moorhead
- Freedom County
- Hennepin County

Missouri:
- City of Grandview
- Meramec Regional Planning Commission

Nebraska:
- City of Blair
- City of Hastings
- City of Lincoln
- City of Omaha
- Lancaster County
- Lincoln County

Nevada:
- Storey County

New York:
- Monroe County
- Yates County

North Carolina:
- Town of Apex
- Town of Cary

Ohio:
- Geauga County
- Seneca County
- Tuscarawas County

Oregon:
- City of Corvallis
- City of Eugene
- City of Portland
- Clackamas County
- Deschutes County
- Linn County

Pennsylvania:
- Franklin County
- Lewisburg Borough
- Montgomery County

Utah:
- Sandy City

Washington:
- Columbia County

INTRODUCTION/BACKGROUND

Many transportation agencies (DOTs) are seeking innovative approaches to reduce inefficiencies associated with these projects including environmental reviews and permitting; right of way, acquisition; time-sensitive stakeholder issues, such as funding match; compliance with federal regulations, etc. In addition, pending federal transportation legislation would require use of performance measures in administering the federal-aid highway program. Research such as this may be used to inform future policy decisions that may affect the administration and oversight of local public agency (LPA) federal-aid projects.

The purpose of this survey is to solicit valuable input regarding how a select group of local public agencies are handling the delivery of federal-aid projects through the LPA program. Another goal is to identify successful practices that LPAs and their state DOT have employed to improve efficiencies in project delivery. Surveys are being sent to a small group of LPAs identified by the respondents to the DOT Survey Questionnaire.

DEFINITIONS

Federal-aid projects: Projects funded with federal fund both on and off the federal-aid system, on and off the National Highway System (NHS), and off right-of-way; all phases of project delivery (planning through project close-out/reimbursement).

Local public agency (LPA): A Local Public Agency (LPA) is any agency that receives federal transportation funds. These funds are administered by the FHWA and passed through the state DOT to the local agency applicants for improving their infrastructure or other transportation services. Each state DOT which receives these funds has a designated local LPA coordinator with the responsibility to ensure the compliance of all state and federal-aid regulations related to the delivery process of locally administrated projects.

Performance Measurement: Performance measurement is the use of statistical evidence to determine progress toward specific defined organizational objectives. This includes both evidence of actual fact, such as measurement of pavement surface smoothness, and measurement of customer perception, such as would be accomplished through a customer satisfaction survey.

Programmatic Agreements (PA): A Programmatic Agreement (PA) is a document that spells out the terms of a formal, legally binding agreement between two agencies such as a state DOT and another state and/or federal agency. It also establishes a process for consultation, review, and compliance with one or more federal laws.

Categorical Exclusion (CE): Categorical Exclusion (CE) is a determination that an action (proposal or project) has no significant impacts and an Environmental Impact Statement (or Environmental Assessment for that matter) is not required.

Metropolitan planning organization (MPO): Per Federal Transportation Legislation (23 USC 134(b) and 49 USC 5303(c)), Metropolitan Planning Organization (MPO) is defined as the designated local decision making body that is responsible for carrying out the metropolitan transportation planning process. An MPO must be designated for each urban area with a population of more than 50,000 people.

RPO (regional planning organization): An organization that performs planning for multi-jurisdictional areas. MPOs, regional councils, economic development associations, rural transportation associations are examples of RPOs. These organizations are also sometimes referred to as a regional transportation planning authority (RTPA), regional planning affiliation (RPA), or other similar designations.

Responsible Charge: The Code of Federal Regulations (23 CFR 635.105 - Supervising Agency) provides that the state DOT is responsible for construction of federal-aid projects, whether it or a local public agency (LPA) performs the work. The regulation provides that for locally administered projects, the LPA must provide a full time employee to be in “responsible charge” of the project. The duties of the person in responsible charge cannot be delegated to a general engineering consultant (GEC).

State Transportation Improvement Program (STIP): The staged, multi-year, statewide, intermodal program of transportation projects, consistent with the statewide transportation plan and planning processes as well as metropolitan plans, TIPs, and processes.

Transportation Improvement Program (TIP): The document prepared by a metropolitan planning organization that lists projects to be funded with FHWA/FTA funds for the next one- to three-year period or for the period required by the state.

Please identify your contact information. NCHRP will email you a link to the online report when it is completed.

Agency: _____

Address: _____

City: _____

State: _____

ZIP: _____

Questionnaire Contact: _____

Position/Title: _____

In case of questions and for NCHRP to send you a link to the final report, please provide:

Tel: _____

E-mail: _____

General Comments

The following survey questionnaire is intended to establish a compendium of Practices and Performance Measures used by Local Public Agencies in the delivery of projects in the federal-aid program. The recipient is asked to describe the following items: details regarding organization; strategies for project development and delivery; tools implemented to provide performance measures; and practices followed that result in streamlined delivery of federally funded projects. In addition, the recipient will be asked to assess the LPA certification program (if the agency is certified by their state DOT to conduct projects with federal funds) and the impact of the certification program.

Organizational Structure

The questions in this section relate to organizational structure of the local public agency (LPA).

1. Identification of contact information.

2. How would you describe your agency?

- ☐ County
- ☐ City
- ☐ Municipality (township, borough, village, etc.)
- ☐ MPO
- ☐ RPO
- ☐ Transportation authority
- ☐ Other (describe)

3. What is the total staff size of your agency's public works and/or engineering or equivalent department?

- ☐ None, use consultants for engineering activities
- ☐ Less than 30 people
- ☐ 30 to 100 people
- ☐ Greater than 100 people

4. For federally funded transportation projects executed by your agency, is there a full-time employee responsible for their management?

   ☐ Yes, always

   ☐ Yes, most of the time

   ☐ Sometimes

   ☐ No, consultants perform this function

   ☐ No, not required

5. What is the number of staff who are mainly involved in developing applications for federal funds, defining federally funded project scopes, or supervising construction of transportation projects?

   ☐ Less than 5

   ☐ Between 6 and 10

   ☐ None, use consultants for these actions

   ☐ Other (comment box)

Project Development

The questions in this section relate to the project development process for the local public agency (LPA) projects in your agency.

6. What amount of federal-aid funding did your agency receive for transportation projects by year in the last three fiscal years?

   ☐ $0–$50,000

   ☐ $50,000–$100,000

   ☐ $100,000–$300,000

   ☐ $300,000–$600,000

   ☐ >$600,000

7. How many projects are typically developed annually to be eligible for federal-aid funding?

   ☐ 0–5

   ☐ 5–15

   ☐ Greater than 15

8. Are you aware of regional strategies or policies in place that have been developed by your DOT, MPO, or RPO to support LPAs in successfully obtaining federal funds for scoping transportation projects?

   ☐ Yes (please provide an example)

   ☐ No

9. What is/are the source(s) of non-federal match typically used to support projects eligible for receiving federal-aid? Check all that apply.

   ☐ Local funds

   ☐ State DOT funds (state aid)

   ☐ Other state agency funds (Natural Resources, Parks and Recreation, etc.)

   ☐ Private funds (Public Private Partnerships , non-profit and for-profit)

   ☐ In-kind (non-monetary donations of materials, equipment, services, or right-of-way)

   ☐ Other sources (please describe in comment box)

10. Are there innovative techniques that you have developed or are using to provide matching funds to the projects funded by the federal-aid program?

- ☐ Yes (please describe—comment box)
- ☐ No

11. What practices do you use to more effectively develop candidate projects to qualify for federal funds? Check all that apply.

- ☐ None
- ☐ Guarantee of local match portion prior to project application
- ☐ Projects that only require categorical exclusions
- ☐ Use of joint project agreement (JPA) with DOT
- ☐ MPO or RPO active involvement in project scoping and development
- ☐ Advanced project programming in STIP or TIP
- ☐ Advance ROW negotiation and purchase by LPA
- ☐ Designation of specific trained staff for administering federal requirements
- ☐ Other practices (please describe)

12. Are there agency or regional strategies in place that have been developed to determine the optimal methods of project delivery (e.g., use of consultants, type of contract, etc.)?

- ☐ Yes (please describe—comment box)
- ☐ No

Project Implementation

The questions in this section relate to project implementation process for the local public agency (LPA) projects that have been federally funded.

13. What would you rate as the major hurdles to delivering projects which have received federal funds? Check all that apply.

- ☐ None
- ☐ Length of and/or meeting the requirements of the environmental process (NEPA, Section 4f, obtaining permits, etc.)
- ☐ Fund limitations during design or construction phase
- ☐ Conflict with public interest or project scope changes
- ☐ FHWA staff availability for guiding federal requirements
- ☐ DOT staff availability for oversight of federal requirements
- ☐ Lack of support from DOT or FHWA on guiding the LPA through federal requirements
- ☐ Delayed communications or approvals from DOT or FHWA
- ☐ Project funded but not construction-ready
- ☐ Others (please describe)

14. Are there innovative practices that you have developed or are using to overcome the project delivery hurdles identified? Check all that apply.

- ☐ None (skip to Question 16)
- ☐ Activities approved through the state DOT Certification Program

- ☐ Advanced project construction programming
- ☐ Improved project monitoring and reporting
- ☐ Risk management program (e.g. determination that project can be obligated in a year, programmed in TIP, on-time delivery of projects, etc.)
- ☐ Use of categorical exclusions/programmatic agreements
- ☐ Use of your own LPA materials or construction specifications, or an abbreviated DOT specification provided for LPAs
- ☐ Use of your own in-house work force (force account) to build projects
- ☐ Others (specify in comment box)

15. In your opinion, what were some of the positives impacts of the innovative practices that you identified? Check all that apply.

- ☐ Reduction in project delivery time
- ☐ Reduction in cost
- ☐ Minimization of project scope creep
- ☐ Enhanced community satisfaction
- ☐ Other (describe)

16. How are conflicts between the state DOT design guidelines and the local community's need resolved?

- ☐ No formal alternatives to resolve conflicts
- ☐ Through the use of design exceptions
- ☐ Through the use of abbreviated state DOT design standards on some LPA projects
- ☐ Allow use of LPA design standards on some LPA projects
- ☐ Development of context sensitive solutions by a team of DOT and LPA representatives
- ☐ Please describe any other tools you have established: (comment box)

17. How do conflicts over design guidelines or standards impact project delivery? Check all that apply.

- ☐ Not an issue experienced in our state
- ☐ Delay the completion of LPA project reviews
- ☐ Postponement of LPA project milestones
- ☐ Requires revisits of NEPA process
- ☐ Expansion of initial project scope
- ☐ Requires additional funding commitments
- ☐ Other (comment box)

18. How does your agency minimize project scope increases and what tools have you established to do this? Check all that apply.

- ☐ None
- ☐ No project scope increase allowed after final PS & E completed & approved
- ☐ Firm funding commitment from sponsor prior to consideration
- ☐ Early collaboration with stakeholders to confirm final project scope
- ☐ Other tools (comment box)

19. How does your agency/would your agency measure success when building a project with federal funds? (comment box)

20. Has your agency benefitted from programmatic agreements between your agency and state agencies or between state and federal agencies (e.g., Corps of Engineers, Fish and Wildlife Service, Forest Service, U.S. Coast Guard, EPA, etc.)?

- ☐ Yes (Go to Question 21)
- ☐ No (Go to Question 22)

21. If answered "Yes" to Question 20, then please describe an example of when a programmatic agreement was used successfully and how it impacted your agency's performance. Please include project name. (comment box)

22. Has the state DOT applied for or used categorical exclusions in the federal-aid program for your projects?

- ☐ Yes (Go to Question 23)
- ☐ No (Go to Question 24)

23. If answered "Yes" to Question 22, then please describe an example of when a categorical exclusion was used successfully and how it impacted your agency's performance. Please include project name. (comment box)

24. How does your agency improve project oversight during construction? Check all that apply.

- ☐ None
- ☐ Application of quality assurance to all federally funded projects
- ☐ Consistent procedure for periodic inspections of your federally funded projects
- ☐ Use of construction checklists
- ☐ Standard follow-up procedure for addressing deficiencies found during inspections
- ☐ Formal tracking of construction contracting events (e.g., subcontracts, materials certification test results, etc.), with updates to DOT
- ☐ Use of consultants to assist in more frequent inspection of your projects
- ☐ Other practices (comment box)

25. Has your MPO or RPO been helpful in streamlining processes for project development or for the delivery of federal-aid projects?

- ☐ Yes (Please describe)
- ☐ No

Evaluation of LPA Certification Program

The questions in this section relate to your assessment of the effectiveness of the LPA Certification program administered by the DOT in your state.

26. Is your agency formally LPA-certified by the DOT?

- ☐ Yes (Go to Question 27)
- ☐ No (Go to Question 49)

27. Does your state DOT provide training as part of LPA certification?

- ☐ Yes (Go to Question 28)
- ☐ No (Go to Question 29)

28. What aspects of the training do you find conducive to successful development or delivery of your federally funded projects? Check all that apply

- ☐ None
- ☐ Frequency of training
- ☐ Accessibility of training (online and recorded, on-site, upon request, etc.)
- ☐ Detailed nature of training with respect to federal regulations and process
- ☐ Other aspects (comment box)

29. Do you find that being LPA-certified by your state DOT has helped to better plan for and complete projects that are earmarked or programmed to your agency? Check all that apply.

- ☐ Yes, for earmarked projects
- ☐ Yes, for projects that come from the MPO/RPO project selection process
- ☐ No (Go to Question 36)

Do you feel that being LPA-certified has helped your agency more successfully conduct activities related to the following project phases?:

30. Planning/Programming (TIP/STIP) Phase:

- ☐ Yes
- ☐ No

(if Yes, then provide a specific example)

31. Environmental review/permitting

- ☐ Yes
- ☐ No

(if Yes, then provide a specific example)

32. Design phase/utilities

- ☐ Yes
- ☐ No

(if Yes, then provide a specific example)

33. ROW acquisition

- ☐ Yes
- ☐ No

(if Yes, then provide a specific example)

34. Procurement (consultant or ad, bid award) phase

- ☐ Yes
- ☐ No

(if Yes, then provide a specific example)

35. Construction contracting/inspection

- ☐ Yes
- ☐ No

(if Yes, then provide a specific example)

36. What are some of the measures that your agency currently tracks which the DOT also uses to evaluate your agency's performance on federally funded projects? Check all that apply.

- ☐ None
- ☐ No increase in project scope during project development
- ☐ Design phase completed on time
- ☐ Percentage of projects notice-to-proceed (NTP) issued on time
- ☐ Percentage of projects completed on time
- ☐ Project fund obligations tracked to programmed funding
- ☐ Other measures (comment box)

37. In your opinion, is there evidence that the LPA certification process has helped your agency to better comply with federal-aid requirements?

- ☐ Yes
- ☐ No

38. What elements of LPA certification would you rate as being the most helpful? Check all that apply.

- ☐ None
- ☐ Training related to federally funded projects continuously available
- ☐ Reduction in administrative paperwork through checklists, etc.
- ☐ Reduction in time required for project initiation and DOT approvals
- ☐ Reduction in time for procurement activities
- ☐ Use of own construction specifications or design standards
- ☐ Use of in-house work force for low-impact projects
- ☐ Authority delegated by DOT to conduct a wider variety of activities during project delivery
- ☐ Other elements—please provide examples in (comment box)

LPA Certification Program Impact on Project Performance

The questions in this section are designed to identify how your agency measures the impact of LPA certification on project performance.

39. Since the inception of your state DOT's LPA Certification Program, have you seen improvements in your agency's success in securing federal-aid funds?

- ☐ Yes (Go to Question 40)
- ☐ No (Go to Question 41)

40. (if yes to Question 39) Please provide an example of how LPA certification has helped your agency in securing more federal-aid funding for projects: (comment box)

41. Since the inception of your state DOT's LPA Certification Program, have you seen improvements in your agency's success in more easily and quickly delivering construction projects with federal funds?

- ☐ Yes (Go to Question 42)
- ☐ No (Go to Question 43)

42. (if Yes to Question 41) Please provide an example of how LPA certification has helped your agency in streamlining construction of federally funded projects: (comment box)

43. Since the inception of state LPA certification program, have you seen improvements in minimizing project scope creep and keeping projects close to the original budget allocated by the DOT?

- ☐ Yes (Go to Question 44)
- ☐ No (Go to Question 45)

44. (if Yes to Question 43) Please provide an example of how LPA certification has helped your agency in better controlling the financial aspects of federally funded projects: (comment box)

45. What elements of LPA certification do you identify as helping to reduce project delivery time? Check all that apply.

- ☐ None
- ☐ Spending percentage of funds by a certain time
- ☐ Does not require same number and frequency of DOT approvals
- ☐ Does not require use of full DOT design standards (highway design manual)
- ☐ Does not require use of DOT prequalified design firms
- ☐ Does not require use of DOT prequalified Contractors
- ☐ Does not require use of full DOT materials or quality assurance (QA) specifications
- ☐ Other elements (please describe)

46. Do you have specific performance metrics that were developed specifically for tracking federal-aid project delivery?

- ☐ Yes (Go to Question 47)
- ☐ No (Go to Question 48)

47. If Yes to Question 46, then please list a few measures used for project tracking. (comment box)

48. Does your organization feel that certification of LPAs has helped your agency overall with meeting performance metrics for project development and delivery?

- ☐ Yes
- ☐ No
- ☐ Other (explain)

49. In your opinion, should federal regulation be established to require certification program for LPAs?

- ☐ Yes (Go to Question 50
- ☐ No (End of Survey)

50. If Yes to Question 49 what performance measures should be used to direct the amount and type of federal funding to LPA projects? (comment box)

Thank you for your willingness to participate in this NCHRP Synthesis 43-04. The survey is complete. All responses will be kept anonymous.

APPENDIX C

Links to Resources Identified

Several of the findings contained in this synthesis report can also be found online at the various agency websites. A sampling of online resources is presented in the following 11 general categories in this appendix.

Agreements

Environmental Programmatic Agreements (California): http://www.dot.ca.gov/ser/mou.htm

Reference to Master Agreements (California): http://www.dot.ca.gov/hq/LocalPrograms/lam/prog_p/p04agree.pdf

Programmatic Agreement on Pavement Markings (Nebraska): http://www.dor.state.ne.us/gov-aff/pdfs-docs/environmental/programmatic-agreements/PavementMarkingPA.pdf

Categorical Exclusion Evaluations, Publication 10B (DM-1B) Chapter 3 (Pennsylvania): ftp://ftp.dot.state.pa.us/public/bureaus/design/PUB10B/PUB10B_Cover.pdf

Programmatic Agreement for Bridges and Roadway (Pennsylvania): http://www.dotdom2.state.pa.us/ceea/ceeamain02.nsf

Section 106 Programmatic Agreement, Publication 689 Appendix 1 (Pennsylvania): ftp://ftp.dot.state.pa.us/public/PubsForms/Publications/PUB%20689.pdf

Certification Programs

LAP Certification Website (Florida): http://www.dot.state.fl.us/projectmanagementoffice/LAP/BecomingCertified.shtm

LAP Certification and Recertification Course (Florida): http://wbt.dot.state.fl.us/ois/LocalAgency/default.htm

LAP Checklist (Florida): http://www.dot.state.fl.us/projectmanagementoffice/LAP/checklist.shtm

LPA Certification (Maine): http://www.maine.gov/mdot/lpa/trainingreg.htm

Delegated Contract (Certification) Process (Minnesota): http://www.dot.state.mn.us/stateaid/sa_dcp.html Certification and Federal-Aid Project Oversight Agreement (Missouri): http://www.modot.org/plansandprojects/construction_program/STIP2012-2016/documents/Sec08_CertificationandFederal-AidProjectOversight.pdf

LPA Participation Requirements Form (Ohio): http://www.dot.state.oh.us/Divisions/TransSysDev/ProgramMgt/Projects/Documents/LPA%20Manual/2/LPA%20PARTICIPATION%20REQUIREMENTS%20CHAPTER%20-%20MAY%202008.pdf

Local Agency Certification Process (Oregon): http://www.oregon.gov/odot/HWY/LGS/Certification.shtml

Urban Construction Initiative—Certification Program, Appendix N (Virginia): http://www.virginiadot.org/business/resources/local_assistance/UCI/UCI_Guide_Update_09_final.pdf

Local Agency Certification Acceptance Program (Washington): http://www.wsdot.wa.gov/publications/manuals/fulltext/M36-63/Lag13.pdf

Design and Construction

Design and Construction Project Support (Colorado): http://www.coloradodot.info/business/designsupport/codt-local-agency/cdot-local-agency

LAP Materials Specifications (Florida): http://www.dot.state.fl.us/specificationsoffice/Implemented/LAP/LapSpecs/

Architectural and Engineering Firm Selection Process for LPA (Indiana): http://www.in.gov/dot/div/legal/rfp/LPASection/information/ConsultantSelection/LPAConsultantSelection1-1.pdf

LPA Standard Job Special Provisions (Missouri): http://www.modot.mo.gov/business/standards_and_specs/LPAStandardJobSpecialProvisions.htm

Local-let Procedures and Guidance (Ohio): http://www.dot.state.oh.us/Divisions/TransSysDev/ProgramMgt/Projects/Pages/Local-letProceduresandDocuments.aspx

Roadway Construction (RC's) Standards (Pennsylvania): ftp://ftp.dot.state.pa.us/public/Bureaus/design/PUB72M/PUB72COV.pdf

Local Agency General Specification – Asphalt (Washington): http://www.wsdot.wa.gov/LocalPrograms/LAG/HMA.htm

Federal-Aid Programs

Complete Streets Policy (Delaware): http://www.deldot.gov/information/pubs_forms/manuals/complete_streets/o06_complete_streets_policy.pdf

SRTS Program Website (Delaware): http://www.deldot.gov/information/community_programs_and_services/srts/index.shtml

TE Program Website (Delaware): http://www.deldot.gov/information/community_programs_and_services/te/index.shtml

RTP Website (Florida): http://www.dep.state.fl.us/gwt/grants/

RTP Website (Iowa): http://www.iowadot.gov/systems_planning/fedstate_rectrails.htm

Section 106 Procedures (Iowa): see http://www.iowadot.gov/ole/106PA&Procedures.pdf

RTP Website (Minnesota): http://www.dnr.state.mn.us/grants/recreation/trails_federal.html

RTP Website (North Dakota): http://www.parkrec.nd.gov/recreation/grants/rtp.htm

RTP Website (Ohio): http://www.dnr.state.oh.us/tabid/10762/default.aspx

Recreational Trails Program Grants Manual (Oregon): http://www.oregon.gov/OPRD/GRANTS/docs/RTP/2010_RTP_Grants_Manual_draft.pdf

Delaware Valley Regional Planning Commission (DVRPC) ARRA Program Website (Pennsylvania): http://www.dvrpc.org/transportation/stimulus.htm

DVRPC SRTS Program Website (Pennsylvania): http://www.dvrpc.org/SafeRoutes/

DVRPC TE Program Website (Pennsylvania): http://www.dvrpc.org/TE/

RTP Website (Pennsylvania): http://www.dcnr.state.pa.us/brc/grants/rectrails.aspx

RTP Website (Washington): http://www.rco.wa.gov/grants/rtp.shtml

STP/CMAQ report (Washington): http://www.wsdot.wa.gov/NR/rdonlyres/2D5D51BB-1D19-43EE-AE21-784F51E9C113/0/federalSTPReport.pdf

Federal Highway Administration

ADHS Program Fact Sheet: http://www.fhwa.dot.gov/safetealu/factsheets/appalachia.htm

CMAQ Program Website: http://www.fhwa.dot.gov/environment/cmaqpgs/

HRRR Program Guidance Website: http://safety.fhwa.dot.gov/safetealu/memos/memo051906.cfm

HSIP Website: http://safety.fhwa.dot.gov/hsip/

LPA Reference Guides: http://www.fhwa.dot.gov/federalaid/lpa/reference.cfm

LPA Training Resources: http://www.fhwa.dot.gov/federalaid/lpa/training.cfm

LPA Website: http://www.fhwa.dot.gov/federalaid/lpa/index.cfm

NSB Program Website: http://www.fhwa.dot.gov/hep/byways/

Off-System Bridges Program Fact Sheet: http://www.fhwa.dot.gov/safetealu/factsheets/bridge.htm

RTP Website: http://www.fhwa.dot.gov/environment/rectrails/

SRTS Program Website: http://safety.fhwa.dot.gov/saferoutes/

Stewardship and Oversight Agreements: https://www.fhwa.dot.gov/federalaid/stewardship/

TE Program Website: http://www.fhwa.dot.gov/environment/te/

Funding Techniques

Optional Exchange for Regional Surface Transportation Program (RTSP) (California): http://www.dot.ca.gov/hq/LocalPrograms/lam/prog_g/lapg-complete-2-06-2012.pdf, Chapter 18

LPA Project Funding Process (Indiana): http://www.in.gov/indot/div/projects/LPASection/pubs/LPA_Fed_Aid_Process.pdf

Federal Fund Exchange Program (Kansas): http://www.ksdot.org/burLocalProj/default.asp

LPA Funding Distribution (Missouri): http://www.modot.mo.gov/plansandprojects/construction_program/STIP2012-2016/documents/Sec06_SpecialPrograms.pdf

LPA Funding Information (Missouri): http://www.modot.mo.gov/business/lpa/fundinginfo.htm

Federal Funds Purchase Program (Nebraska): http://www.nebraskatransportation.org/gov-aff/ffpp.html

Guidelines

Local Public Agency Projects (Alabama): http://cpmsweb2.dot.state.al.us/TransPlan/LPA/Default.aspx

Local Assistance Program Guidelines (California): http://www.dot.ca.gov/hq/LocalPrograms/lam/lapg.htm

TE Program Guidelines (Delaware): http://www.deldot.gov/information/community_programs_and_services/te/guidelines.shtml

Accessible Sidewalks and Street Crossings – Informational Guide (Florida): http://www.dot.state.fl.us/projectmanagementoffice/ADA/AccessibleSidewalks-Guide_012610.pdf

LAP Quick Reference Guide (Florida): http://www.dot.state.fl.us/projectmanagementoffice/LAP/pdfs/LAPQuickReferenceGuide.pdf

Guidelines for Local Public Agency Project (Idaho): http://www.itd.idaho.gov/manuals/Online_Manuals/Loc_Pub/LPA.htm

LPA Frequently Asked Questions (Indiana): http://www.in.gov/indot/div/projects/LPASection/pubs/LPAFAQ.pdf

LPA Process Guidance Document (Indiana): http://www.in.gov/indot/div/projects/LPASection/pubs/LPAProcessGuidance.pdf

Federal-aid Project Development Guide for Local Public Agencies (Iowa): http://www.iowadot.gov/local_systems/publications/im/guide.pdf

Guide to Transportation Funding Programs (Iowa): http://www.iowadot.gov/pol_leg_services/Funding-Guide.pdf
Instructional Memorandums To Local Public Agencies (Iowa): http://www.iowadot.gov/local_systems/publications/im/imtoc.pdf

Federal-Aid Highway Program Project Development Guide for Local Public Agencies (Kentucky): http://transportation.ky.gov/Local-Programs/Documents/Local%20Public%20Agency%20Interim%20Guide.pdf

Federal Highway Bridge Program Guidelines for Local Government (Maryland): http://www.sha.maryland.gov/oppen/maryland-action-plan-2011.pdf

Instruction to Local Agencies for Preparing Federal-aid Projects to Bid through MDOT (Michigan): http://www.michigan.gov/documents/mdot_fedaid_78422_7.pdf

State Aid Rules (Minnesota): https://www.revisor.mn.gov/rules/?id=8820

Local Public Agencies (Mississippi): http://sp.gomdot.com/LPA/Pages/Home.aspx

Contractor/Bidding Information (Missouri): http://www.modot.mo.gov/business/lpa/contr_biddiinginfo.htm

LPA Website (Missouri): http://www.modot.mo.gov/business/lpa/index.htm

Green Sheet Form and Guidance (Nebraska): http://www.dor.state.ne.us/gov-aff/downloads.htm

Master List of LPD Docs, Forms, Templates & Samples (Nebraska): http://www.nebraskatransportation.org/gov-aff/master-list.html

Local Projects Division (Nebraska): http://www.nebraskatransportation.org/gov-aff/index.html

Division of Planning: Office of Local Programs (Ohio): http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/Pages/default.aspx

Program Resource Guide (Ohio): http://www.dot.state.oh.us/Divisions/TransSysDev/ProgramMgt/Projects/ProgramResourceGuide/Documents/2008%20Program%20Resource%20Guide.pdf

Local Program Quick Reference Guide (Oregon): http://www.oregon.gov/odot /HWY/LGS/docs/Oregon_LA_Quick_Reference_Guide.pdf

Procedures for the Administration of Locally Sponsored Projects (Pennsylvania): ftp://ftp.dot.state.pa.us/public/PubsForms/Publications/PUB%2039/PUB39PrintVersion.pdf

Local Government Guidelines Process Overview Flowchart (Tennessee): http://www.tdot.state.tn.us/local/docs/LGG_Flowchart.pdf

Local Government Project Procedures (Texas): http://www.dot.state.tx.us/business/governments/lgpp.htm

Local Government Assistance (Utah): http://www.udot.utah.gov/main/f?p=100:pg:0:::1:T,V:84

Local Government Guide (Utah): http://www.udot.utah.gov/main/uconowner.gf?n=200603020738251

Local Transportation Facilities Guidelines (Vermont): http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/DocumentsLTFPages/LTFPart12001GuideBookRevApr2009.pdf

Local Transportation Facilities Guidelines Appendices (Vermont): http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/DocumentsLTFPages/LTFPart22001GuideAppendixRevApr2009.pdf

Highways and Local Programs (Washington): http://www.wsdot.wa.gov/LocalPrograms/default.htm

LTAP Information

California LTAP Center Website: http://www.techtransfer.berkeley.edu/

Florida LTAP Center Website: http://www.t2ctt.ce.ufl.edu/t2ctt/default.asp?SnID=1595228588

Iowa LTAP Center Website: http://www.intrans.iastate.edu/ltap/index.htm

Minnesota LTAP Center Website: http://www.mnltap.umn.edu/

Nebraska LTAP Center Website: http://ne-ltap.unl.edu/

North Dakota LTAP Center Website: http://www.ndltap.org/

Ohio LTAP Center Website: http://www.dot.state.oh.us/Divisions/Quality/LTAP/Pages/default.aspx

Oregon LTAP Center Website: http://www.oregon.gov/odot /TD/TP_T2/

Pennsylvania LTAP Center Website: https://www.dot7.state.pa.us/LTAP/

Washington LTAP Center Website: http://www.wsdot.wa.gov/localprograms/ltap/

Manuals

Local Government Section Manual (Arizona): http://www.azdot.gov/highways/localgov/Projects_Manual.asp

Local Assistance Procedures Manual (California): http://www.dot.ca.gov/hq/LocalPrograms/lam/lapm.htm

LPA Quality Assurance Manual (California): http://www.dot.ca.gov/hq/LocalPrograms/public/QAP%20Manual.pdf

Manual on Streamlining Techniques (California): http://www.dot.ca.gov/hq/LocalPrograms/Best%20Practices%20080902%20v2.pdf

Local Agency Manual (Colorado): http://www.coloradodot.info/business/designsupport/bulletins_manuals/2006-local-agency-manual

Municipality Manual (Connecticut): http://www.ct.gov/dot/lib/dot/documents/dconstruction/municipal_manual/msat_manual_july_2008_single_file.pdf

LAP Manual (Florida): http://www.dot.state.fl.us/projectmanagementoffice/LAP/LAP_TOC.shtm

Local Administered Project Manual (Georgia): http://www.dot.state.ga.us/localgovernment/fundingprograms/pages/lapmanual.aspx

Bureau of Local Roads and Streets Manual (Illinois): http://www.ncdot.gov/programs/Enhancement/ProjectAdministration/ProjectManager/default.html

Local Public Agency Manual (Louisiana): http://www.dotd.la.gov/administration/lpa/documents/LPA_Final_Manual_06-2011.pdf

LPA Course Manual (Maine): http://www.maine.gov/mdot/lpa/trainingmanual.htm

State Aid Manual (Minnesota): http://www.dot.state.mn.us/stateaid/manual/sam2011/SAM2011.pdf

LPA Manual (Missouri): http://www.modot.mo.gov/business/lpa/lpamanual.htm

LPA Guidelines Manual Checklists (Nebraska): http://www.nebraskatransportation.org/gov-aff/lpa/lpa-checklists/index.html

LPA Guidelines Manual for Federal-aid Projects (Nebraska): http://www.nebraskatransportation.org/gov-aff/lpa/lpa-guidelines.pdf

Local Public Agency Manual (Nevada): http://www.nevadadot.com/uploadedFiles/NDOT/About_NDOT/NDOT_Divisions/Engineering/Design/2010_04_April_LPA_Manual.pdf

Local Public Agency Manual for the Development of Projects (New Hampshire): http://www.nh.gov/dot/org/projectdevelopment/planning/documents/LPAManual.pdf

New Jersey Department of Transportation Division of Local Aid & Economic Development Federal-aid Handbook (New Jersey): http://www.state.nj.us/transportation/business/localaid/documents/FEDERALAIDHANDBOOK.pdf

Tribal/Local Government Agency Handbook (New Mexico): http://dot.state.nm.us/Local_Government_Agreement_Unit/TLGA_HANDBOOK_October07.pdf

Procedures for Locally Administrated Federal-Aid Projects Manual (New York): https://www.dot.ny.gov/plafap

Local Programs Management Handbook (North Carolina): http://www.ncdot.gov/programs/Enhancement/ProjectAdministration/ProjectManager/default.html

Local Government Manual (North Dakota): http://www.dot.nd.gov/manuals/localgov/localgovernmentmanual.pdf

Locally Administered Transportation Projects Manual (Ohio): http://www.dot.state.oh.us/Divisions/TransSysDev/ProgramMgt/Projects/Pages/ManualofProcedures.aspx

Local Agency Guidelines Manual (Oregon): http://www.oregon.gov/odot/HWY/LGS/lag_manual.shtml

LPA Manual (Pennsylvania): ftp://ftp.dot.state.pa.us/public/PubsForms/Publications/PUB%20535.pdf

Local Government Guidelines Manual (Tennessee): http://www.tdot.state.tn.us/local/docs/LGG_Manual.pdf

Local Government Project Procedures Manual (Texas): http://www.dot.state.tx.us/business/governments/lgpp_manual.htm

Local Agency Program Manual (Utah): http://www.udot.utah.gov/main/uconowner.gf?n=200603020738251

Locally Administered Projects (LPA) Manual (Virginia): http://www.virginiadot.org/business/locally_administered_projects_manual.asp

Local Agency Guidelines Manual (Washington): http://www.wsdot.wa.gov/publications/manuals/fulltext/M36-63/LAGManual.pdf

Planning

MPO Prioritization Processes (Florida): http://www.mpoac.org/mpos/index.shtml

Maryland Action Plan (Maryland): http://www.sha.maryland.gov/oppen/maryland-action-plan-2011.pdf

Local Agency General Special Provisions (Washington): http://www.wsdot.wa.gov/Partners/APWA/

Program or Project Management

Project Delivery Reporting System (California): http://www.dot.ca.gov/hq/LocalPrograms/projectdeliveryreport.htm

Sample Boilerplate Contract Documents (California): http://www.dot.ca.gov/hq/LocalPrograms/sam_boil/sam_boil.htm

LPA Task Force Meeting (Colorado): http://www.coloradodot.info/business/localagency/task-force-meetings.html

LPA Reevaluation (Colorado): http://www.coloradodot.info/business/localagency

American Recovery and Reinvestment Act Tracking Tool (Florida): http://www.d6laptracker.org/arra

Local Agency Program Information Tool (Florida): http://www.dot.state.fl.us/projectmanagementoffice/lap/LAPIT/default.shtm

Project Development Flow Chart (Iowa): http://www.iowadot.gov/local_systems/publications/im/lpa_ims.htm

Local Project Administration (Maine): http://www.maine.gov/mdot/lpa/index.htm

Lean Kaizen process (Minnesota):

http://www.state.mn.us/portal/mn/jsp/common/content/include/contentitem.jsp?contentid=536918381

http://www.lean.state.mn.us/training_and_events_calendar.htm

http://www.lean.state.mn.us/docs/February%20E-Lean_2010.pdf

Project Memo Writer Tool (Minnesota): http://www.pmwriter.dot.state.mn.us/

State Aid Environmental Templates (Minnesota): http://www.dot.state.mn.us/stateaid/sa_environ_templates.html

FHWA Plans, Specifications, and Estimate Checklist for Certified Agencies (Oregon): http://www.oregon.gov/odot/HWY/LGS/docs/LAG_Manual_09/C11_A1.pdf

Local Program Committee (Oregon): http://www.oregon.gov/odot /HWY/LGS/lpoc.shtml

Procedures for the Administration of Consultant Agreements (Pennsylvania): ftp://ftp.dot.state.pa.us/public/Bureaus/design/Consultants%20Agreements/Pub93c/Publication93CDec2006.pdf

Checklist for Local Public Agency (LPA) Projects (South Carolina): http://www.scdot.org/doing/doingPDFs/localPublic/LPA_Project_Checklist.pdf

Local and Public Agency Project Flow Chart (South Carolina): http://www.scdot.org/doing/pdfs/LPA_Process.pdf

Local and Public Agency Project Procedure (South Carolina): http://www.scdot.org/doing/pdfs/LPA_Procedures.pdf

Summary of 2008 Survey Responses (Virginia): http://www.virginiadot.org/business/resources/SurveyCoverSheet.pdf

Project Tracking and Monitoring System (Washington): http://webpub1.wsdot.wa.gov/LocalPrograms/Projects/Dashboard/ProjectMapWA.aspx

Local Force Account Policy and Process (Wisconsin): http://www.dot.wisconsin.gov/localgov/localforce/policy.htm

Training

LPA Training Program Website (California): http://www.dot.ca.gov/hq/LocalPrograms/training/training.html

ARRA CBT Training (Florida): http://wbt.dot.state.fl.us/ois/ARRA/

LPA Training (Indiana): http://rebar.ecn.purdue.edu/LTAP1/TechAssist/LPA/LPA%20Certification%20Training%20Slides%20April%202012.pdf

LPA Training Material (Maine): http://www.maine.gov/mdot/lpa/training.htm

LPA Certification and Training (Missouri): http://www.modot.mo.gov/business/lpa/cert_train.htm

LPA Training Brochure (New Hampshire): http://www.nh.gov/dot/org/projectdevelopment/planning/documents/LPABrochure.pdf

Local Government Training Website (Oregon): http://www.oregon.gov/odot /HWY/LGS/training2.shtml

Local Programs Training Website (Washington): http://www.wsdot.wa.gov/LocalPrograms/Training/

APPENDIX D

Sample Documents That Support Practices or Performance Measures

California

Local Agency Obligation Plan

Florida

Concrete for LAP (Off-System)—Section 344

Earthwork and Related Operations for LAP (Off-System)—Section 120

Hot Mix Asphalt for LAP (Off-System)—Section 334

Local Agency Certification Qualification Agreement

LAP Administration Checklist

Local Agency Program Information Tool (LAPIT)

On-System LAP Specifications Guidelines (Design Build)

Kansas

Presentation on the Federal Fund Exchange Program

Maine

LPA Performance Evaluation Document

Michigan

Instruction to Local Agencies for Preparing Federal-aid Projects to Bid through MDOT

Minnesota

Environmental Documentation for Federal Projects with Minor Impacts

HSIP Projects, Statewide Program

No Effect Determination (Federal Threatened and Endangered Species) 2009-2010 Highway Safety Improvement Program Various Locations

Overview of State Historic Preservation Office (SHPO) Programmatic Agreement for the Small Cities Development Program

Programmatic Categorical Exclusion Approval Agreement

Missouri

Local Public Agency (LPA) Final PS&E Checklist

Nebraska

Programmatic Agreement between the Federal Highway Administration–Nebraska Division and The Nebraska Department of Roads for Pavement Marking Activities

Oregon

Endangered Species Act Section 7 Formal and Informal Programmatic Opinion SLOPES IV Restoration

Endangered Species Act Section 7 Formal Programmatic Opinion SLOPES IV In-water and Over-water Structures

Local Agency Certification Program Agreement

Local Agency Certification Program Supplemental Project Agreement

Programmatic Biological Opinion SLOPES IV Roads, Culvert, Bridges and Utility Lines

Quarterly Business Review Local Federal-aid Program (January–March 2012) *Presentation*

Pennsylvania

Guidelines for Use of the Bridge and Roadway Programmatic Agreement

Programmatic Agreement for Bridge, Roadway, and Non-Complex Projects

Programmatic Agreement Under Section 106 of National Historic Preservation Act for Federally Funded Projects

Programmatic Section 4(f) Evaluation Checklists

Virginia

Local Agencies Projects Manual Chapter 9—Project Development Overview/Summary

Abbreviations used without definition in TRB Publications:

AAAE	American Association of Airport Executives
AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ACI–NA	Airports Council International–North America
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATA	Air Transport Association
ATA	American Trucking Associations
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
DHS	Department of Homeland Security
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
IEEE	Institute of Electrical and Electronics Engineers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
NASA	National Aeronautics and Space Administration
NASAO	National Association of State Aviation Officials
NCFRP	National Cooperative Freight Research Program
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
SAE	Society of Automotive Engineers
SAFETY-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TCRP	Transit Cooperative Research Program
TEA-21	Transportation Equity Act for the 21st Century (1998)
TRB	Transportation Research Board
TSA	Transportation Security Administration
U.S.DOT	United States Department of Transportation

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