NCFRP

REPORT 2

NATIONAL COOPERATIVE FREIGHT RESEARCH PROGRAM

Sponsored by the Research and Innovative Technology Administration

Institutional Arrangements for Freight Transportation Systems

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NATIONAL COOPERATIVE FREIGHT RESEARCH PROGRAM

NCFRP REPORT 2

Institutional Arrangements for Freight Transportation Systems

CAMBRIDGE SYSTEMATICS, INC.
Fort Lauderdale, FL

WITH

GILL V. HICKS & ASSOCIATES, INC.
Pacific Palisades, CA

AND

NETWORK PUBLIC AFFAIRS, LLC
Long Beach, CA

Subject Areas
Planning and Administration • Highway Operations, Capacity, and Traffic Control • Rail Freight Transportation • Marine Transportation

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TRANSPORTATION RESEARCH BOARD

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NATIONAL COOPERATIVE FREIGHT RESEARCH PROGRAM

America's freight transportation system makes critical contributions to the nation's economy, security, and quality of life. The freight transportation system in the United States is a complex, decentralized, and dynamic network of private and public entities, involving all modes of transportation—trucking, rail, waterways, air, and pipelines. In recent years, the demand for freight transportation service has been increasing fueled by growth in international trade; however, bottlenecks or congestion points in the system are exposing the inadequacies of current infrastructure and operations to meet the growing demand for freight. Strategic operational and investment decisions by governments at all levels will be necessary to maintain freight system performance, and will in turn require sound technical guidance based on research.

The National Cooperative Freight Research Program (NCFRP) is a cooperative research program sponsored by the Research and Innovative Technology Administration (RITA) and administered by the Transportation Research Board (TRB). The program was authorized in 2005 with the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). On September 6, 2006, a contract to begin work was executed between RITA and The National Academies. The NCFRP will carry out applied research on problems facing the freight industry that are not being adequately addressed by existing research programs.

Program guidance is provided by an Oversight Committee comprised of a representative cross section of freight stakeholders appointed by the National Research Council of The National Academies. The NCFRP Oversight Committee meets annually to formulate the research program by identifying the highest priority projects and defining funding levels and expected products. Research problem statements recommending research needs for consideration by the Oversight Committee are solicited annually, but may be submitted to TRB at any time. Each selected project is assigned to a panel, appointed by TRB, which provides technical guidance and counsel throughout the life of the project. Heavy emphasis is placed on including members representing the intended users of the research products.

The NCFRP will produce a series of research reports and other products such as guidebooks for practitioners. Primary emphasis will be placed on disseminating NCFRP results to the intended end-users of the research: freight shippers and carriers, service providers, suppliers, and public officials.

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FOREWORD

By William C. Rogers
Staff Officer
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This report describes successful and promising institutional arrangements for improving freight movement, now and in the future. It provides a resource, with 40 guidelines reflecting lessons learned from existing arrangements, designed to help agencies and industry representatives' work together to invest in and improve the freight transportation system. The enclosed CD-ROM includes appendices consisting of a literature review, workshop material, detailed case studies, and interview guide. This report and the material provided in the appendices provide guidance to elected officials, transportation planners, and the freight industry on the development of new and refinement of existing freight institutional arrangements.

The freight industry is a unique blend of private- and public-sector organizations, each with its own objectives and constraints. Political and jurisdictional boundaries do not define market relationships, but can affect them. New forms of public-private, private-private, and public-public arrangements are needed to address challenges, particularly, increased congestion and delay on freight transportation corridors and hubs, that do not conform to government jurisdictions, geographic boundaries, or traditional dividing lines between government and business. Over the past several decades, public agencies and private businesses have begun developing innovative freight institutional arrangements to meet freight transportation challenges. As a result, public agencies are developing a better understanding of the freight transportation system and its needs, while private industry is becoming more knowledgeable about transportation planning programs.

Under NCFRP Project 09, Cambridge Systematics, Inc., along with Gill V. Hicks & Associates and Network Public Affairs, LLC, developed a report that describes how to develop and sustain freight institutional arrangements. The report describes organizational and societal motivations for developing arrangements and the levers of influence for each of the parties in the arrangement (e.g., leadership, money, and regulation). The report also describes the factors that have contributed to or impeded the success of arrangements (including any federal constraints) and made recommendations for advancing the state-of-the-practice. The report also presents an approach to developing and maintaining an arrangement, including: (a) methods for assessing the need for an arrangement and for defining its goals and scope; (b) types of institutional arrangements (from ad-hoc to formal) and factors that influence their selection; (c) methods to overcome common challenges to successfully implement and sustain an arrangement; (d) methods for evaluating the success, structure, and performance of an arrangement, including ways to measure benefits and costs to the parties of the arrangement; and (e) relevant tools and resources such as checklists, self-assessments, templates, memoranda of understanding, and model legislation.

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SUMMARY

Institutional Arrangements for Freight Transportation Systems

With the nation's growing consumption of goods and services has come a growing reliance on freight transportation systems. Stakeholders in these systems—both public and private—have recognized the need for new investment strategies to keep up with demand. Dialog and collaboration between the public and private sectors have given rise to new institutional arrangements dedicated to advancing freight transportation through various means. Strong institutional relationships can help overcome the obstacles inherent in the complexity of freight movement systems and the limits to transportation funding.

This report identifies the factors that help freight institutional arrangements succeed and provides guidelines to help other institutional arrangements be successful. The findings reflect several data collection efforts, including a literature search, a stakeholder workshop, and in-depth interviews with representatives from established institutional arrangements. The data collection efforts led to the development of 16 detailed case studies, each of which includes a review of the institution's accomplishments as well as lessons learned.

Freight institutional arrangements can be grouped into three categories. Type I organizations typically seek to increase the visibility and importance of freight issues and policies. **Type I organizations often concentrate on education, consensus building, and general advocacy;** an example might be a freight advisory committee for a metropolitan planning organization. **Type II organizations evaluate, prioritize, and fund freight projects in a particular region or of a particular type** (e.g., freight rail). A state infrastructure bank, such as that in Washington State, is an example. **Type III organizations are formed to implement a specific project,** such as financing, environmental clearances, and negotiating contractual arrangements; an example explored here is the Alameda Corridor project.

Forty guidelines are presented for Types I, II, and III. Examples are drawn from the case studies to help readers understand the guidelines and how to apply them. Guidance for getting started is provided for those beginning to develop an institutional arrangement. Depending on the type of arrangement being contemplated, one or more sets of guidelines may be applicable. Some institutions may evolve from Type I to Type II or Type III; others may remain focused on their original purpose.

Report appendixes present the literature search (Appendix A); workshop materials (Appendix B); and detailed case studies (Appendix C). These appendixes are available on the CD-ROM enclosed with the print publication and can be downloaded from the TRB website (www.trb.org).

CHAPTER 1

Introduction

1.1 Research Need

The national freight transportation system is essential to the global economy, providing the gateways for our international trade, the corridors connecting our domestic markets, and the activity hubs that serve our population and industrial centers. With shrinking transportation funding sources, shifts in global trade, and continued population growth, our transportation system capacity has not kept pace with demand. This imbalance has resulted in increased congestion and delay on and at our transportation corridors and hubs. As our transportation system becomes less and less reliable, our businesses become less competitive, resulting in increased costs of our goods and services and an overall degradation of our quality of life. Public and private stakeholders alike recognize the need for new freight transportation investment strategies at local, regional, state, multi-state, and national levels.

Over the past few decades, public agencies and private businesses have begun working to address these challenges jointly. Public agencies have developed a better understanding of the freight transportation system and its needs, and private industry has become more knowledgeable about transportation planning programs. This has led to the development of advisory groups, shared funding programs, and new partnerships. Bringing these public and private stakeholders together for a common purpose has led to increasing numbers and types of institutional arrangements designed to support freight mobility needs. These arrangements have experienced varying degrees of success, providing lessons learned that can guide the activities of new, expanding, or evolving freight arrangements.

Considerable freight-related research exists; however, limited work has been undertaken that looks specifically at the development of institutional arrangements in the freight transportation system. The need is clear—the future of our transportation system will depend on our ability to develop partnerships that promote the importance of freight, leverage our financial resources, and identify and invest in agreed-on priorities while providing calculable benefits for all partners.

1.2 Research Objective

Freight transportation policies, plans, and programs have advanced significantly over the last few decades. A growing understanding of the importance of freight movement to the nation's economy has led to increased interest in planning and funding freight improvements and initiatives by public-sector agencies. Unfortunately, good intentions often have been stymied by institutional obstacles that appear insurmountable.

In the goods movement industry in particular, the wide variety of private-sector representatives (e.g., carriers at the local, regional, and national levels; shippers and receivers of freight; and unions) and public-sector agencies (e.g., ports, airports, roadway operators, and regulatory agencies) provide the opportunity to collaboratively address many critical issues, such as state and national truck motor vehicle certifications, congestion along key goods movement corridors, truck rest stops, railroad crossing concerns, conflicts between goods and passenger movement vehicles and flows, and safety and security. Collaboration works best when (1) institutional relationships among the public- and private-sector participants are strong; (2) there is a sense of mutual benefit among the parties; and (3) efforts are not only made to streamline regulation or expedite the flow of goods, but are reflective of both public- and private-sector needs and concerns.

There are several models of successful institutional arrangements in freight transportation. In many instances, success has come from integration and inclusion of freight considerations in existing metropolitan planning organization (MPO), state, and Federal transportation programs. Any successful freight program, from a local planning study to a major system development and deployment, relies on the

establishment of effective institutional arrangements that define roles and responsibilities, legal authority, funding allocations, and more. Freight system investments require the involvement of multiple partners, often representing a mix of public, private, and quasi-public entities that operate on vastly different business models and planning horizons. Often, projects span multiple jurisdictions and have multiple funding sources that must be merged effectively. These characteristics can challenge available institutional frameworks, leading to the need for new funding and contracting mechanisms, expanded use of public-private partnerships, and more effective development and use of multi-state coalitions.

As defined by NCFRP

> The objective of this project is to describe successful and promising institutional arrangements for improving freight movement, now and in the future.

To achieve this objective and provide freight practitioners with a useful tool, the work plan was designed to

1. Describe successful and promising institutional arrangements for improving freight movement, now and in the future;
2. Develop a resource guide that will help agencies and industry representatives as they work together to invest in and improve the freight transportation system; and
3. Define an implementation plan to facilitate effective use of the resource guide.

Key elements of the work plan included

- Definition and preliminary categorization of institutional arrangements,
- A literature search on diverse set of existing institutional arrangements,
- A stakeholder workshop,
- Follow-up interviews and case study development,
- Identification of best practices and key challenges and development of guidelines, and
- Resource documentation and dissemination.

1.3 Organization of the Report

The rest of this report consists of the following:

- Chapter 2, Overview of Institutional Arrangements, defines an institutional arrangement, summarizes the data collection and research activities, and explores various ways of evaluating institutional arrangements.
- Chapter 3, Institutional Arrangement Types, categorizes and describes the range of institutional arrangements that exist today in the freight transportation system.
- Chapter 4, Guidelines for Establishing Freight Institutional Arrangements, provides specific guidelines for each type of arrangement.
- Chapter 5, Application of Guidelines, provides recommended steps for the effective use of the guidelines.
- Appendixes and supporting materials are provided on the enclosed CD-ROM and are available for download from the TRB website (www.trb.org).

CHAPTER 2

Overview of Institutional Arrangements

There are many types of institutional arrangements in place today that serve freight transportation interests. Understanding these freight institutional arrangements provides the foundation for the guidelines presented in Chapter 4. Based on the definition of an institutional arrangement, information was collected through a literature review, a technical workshop, and interviews with public and private officials involved in freight programs and projects to identify common themes, lessons learned, successes, and challenges of existing institutional arrangements. In addition, experts were asked to brainstorm about future needs for successful arrangements. In order to begin developing guidelines to support future arrangements, existing arrangements were explored. This chapter reports the findings on existing institutional arrangements.

2.1 Definition

In order to develop guidelines to help create and maintain institutional arrangements, a common definition was needed. The definition of **institutional arrangement** reflects input from the public- and private-sector stakeholders canvassed as part of this project.

> A structured foundation that enables relevant parties to advance the general interests of freight mobility—infrastructure, operations, services, and regulations—or particular programs and projects to increase freight mobility.

The concept of a "foundation" indicates the importance of having a structure that will support a changing cast of members—as the institutional arrangement moves through its life cycle—safe from the effects of staff turnover and changing priorities. Having a champion (one person or organization) responsible for keeping the foundation intact is critical. This definition is broad enough to encompass all existing institutional arrangements and their functions. Institutional arrangements have been created for various reasons, including policymaking, planning efforts, capital improvements, operations and maintenance, regulation, research, and education. Most arrangements have been formed in large part to ensure private-sector needs are included in the public freight planning process, with an ultimate goal of improving freight mobility.

2.2 Literature Review

A literature review was undertaken to assess existing institutional arrangements. National, multi-state, state, regional, and local institutional arrangements, representing a range of organizational structures, missions, sizes, geographic locations, and functions, were selected on the basis of the project team's expertise. Table 2-1 lists the 36 organizations studied. Detailed summaries of each are provided in Appendix A. This list is not an exhaustive inventory of all possible institutional arrangements, but rather a broad and general illustration of the types of freight-related institutional arrangements in existence today and the ways in which they have been convened. Each institutional arrangement reviewed was summarized based on a structured set of data elements to allow easy comparison. These elements are as follows:

- Name
- Purpose
- Projects/Selection Process
- Modes(s)
- Motivator (Origin)
- Funding
- Geographical Coverage
- Sponsors

Table 2-1. Freight institutional arrangements.

Name	Category	Area Covered
American Trucking Associations, Inc.	Nonprofit Corporation	National
Commercial Vehicle Information Systems and Networks Program	National Public Agency	National
Commercial Vehicle Safety Alliance	Nonprofit Corporation	National
FHWA-Office of Freight Management and Operations-Freight Professional Development Program	National Public Agency	National
Intermodal Association of North America	Nonprofit Corporation	National
National Industrial Transportation League	Nonprofit Corporation	National
National Private Truck Council	Nonprofit Corporation	National
Performance and Registration Information Systems Management Program	National Public Agency	National
U.S. DOT-Framework for a National Freight Policy	National Public Policy	National
Advantage I-75	State/Multi-state Public Agency	Multi-state/ Jurisdictional
Canamex Corridor Coalition	State/Multi-state Public Agency	Multi-state/ Jurisdictional
I-95 Corridor Coalition	State/Multi-state Public Agency	Multi-state/ Jurisdictional
PrePass	Nonprofit Corporation	Multi-state/ Jurisdictional
West Coast Corridor Coalition	State/Multi-state Public Agency	Multi-state/ Jurisdictional
Florida Seaport Transportation and Economic Development Council	State/Multi-state Public Agency	State
Florida DOT Strategic Intermodal System	State/Multi-state Public Agency	State
Florida DOT Transportation Regional Incentive Program	State/Multi-state Public Agency	State
Freight Mobility Strategic Investment Board	State/Multi-state Public Agency	State
Maine DOT – Industrial Rail Access Program	State/Multi-state Public Agency	State
Maine DOT – Small Harbor Improvement Program	State/Multi-state Public Agency	State
Port Authority of New York and New Jersey	State/Multi-state Public Agency	State
Alameda Corridor Transportation Authority	Public Authority	Regional/Local
Atlanta Regional Council Freight Advisory Task Force	Regional/Local Public Agency	Regional/Local

(continued on next page)

Table 2-1. (Continued).

Name	Category	Area Covered
Bridging the Valley Project	Regional/Local Public Agency	Regional/Local
Chicago Region Environmental and Transportation Efficiency Program	Regional/Local Public Agency	Regional/Local
Delaware Valley Regional Planning Commission – Goods Movement Task Force	Regional/Local Public Agency	Regional/Local
International Mobility and Trade Corridor	Regional/Local Public Agency	Regional/Local
Miami Dade MPO-Freight Transportation Advisory Committee	Regional/Local Public Agency	Regional/Local
New York Metropolitan Transportation Council – Freight Transportation Working Group	Regional/Local Public Agency	Regional/Local
PierPASS	Nonprofit Corporation	Regional/Local
Port of Miami Tunnel	Joint Venture Company	Regional/Local
Puget Sound Regional Council – FAST Corridor	Regional/Local Public Agency	Regional/Local
Puget Sound Regional Council – Regional Freight Mobility Roundtable	Regional/Local Public Agency	Regional/Local
Susquehanna Economic Development Association Council of Governments Freight Advisory Committee	Regional/Local Public Agency	Regional/Local
Toledo Metropolitan Area Council of Governments – Freight Subcommittee	Regional/Local Public Agency	Regional/Local
Wilmington-Harrisburg Freight Study Steering Committee	Regional/Local Public Agency	Regional/Local

- Public Outreach
- Year Established
- Partners/Members
- Frequency of Meetings
- Description
- Organizational Structure/Changes
- Strengths/Successes
- Type
- Roles and
- Weaknesses/Challenges.

The literature review revealed that the largest number of current arrangements focus primarily on planning functions, followed by capital improvements. Most arrangements were statewide or regional in structure. Overall, the examples of institutional arrangements revealed a common set of strengths and weaknesses. Given that these institutional arrangements were formed for many different reasons, success for one may be calculated differently than for another. Key strengths identified include

- **Integrating freight into transportation policy, planning, and programming activities.** Freight advisory committees or task forces have been instrumental in helping MPOs draft and formulate regional freight goals, objectives, and policies as well as understand how to better incorporate and integrate freight planning into the regional transportation planning and programming process. By having the right public and private interests represented in these committees, it has been easier to find champions who can address the obstacles and rally momentum to move projects forward either by locating funding matches or promoting them to decisionmakers.
- **Facilitating freight project prioritization and completion.** Institutional arrangements have been successful in integrating freight projects into existing planning processes, as well as implementing stand-alone freight program elements. In many instances, this has helped expedite project completion. The availability of funding has made the difference in whether or not a project could move forward to construction.
- **Improving operational efficiency of freight movements.** Many arrangements have led to "quick fix" improvement projects that address bottlenecks in the short term and set priorities for longer term improvements.
- **Improving information dissemination and education.** Most arrangements have a self-appointed role in infor-

mation dissemination and educational activities. In fact, for many, the ability to educate leaders and community members is one their primary functions.

- **Promoting multi-jurisdictional solutions.** Many multi-state and regional coalitions have been successful in identifying key freight concerns that affect a region by providing the foundation and process to work with policymakers, the private sector, and local partners to address specific issues that cross jurisdictional boundaries and traditional financial structures. These coalitions encourage a system-level, multi-state, or regional approach to planning for and investing in the freight transportation system.
- **Forming project-specific operating authorities to address bottlenecks.** Although less common, creating a joint powers authority, like the Alameda Corridor Transportation Authority, can be used to tackle the design and construction of major infrastructure projects.
- **Leveraging public-private funding opportunities.** Many private partners are willing to share project costs, enabling public agencies to better use their funds. Chicago's CREATE and Puget Sound Regional Council's FAST have been successful in leveraging partnership funds and talents to get critical projects funded and delivered.
- **Promoting freight system needs.** In addition to information dissemination and education, some arrangements are created specifically to promote the industry. Trade associations serving as advocates for their industry have been a driving force in providing powerful representation, expert support, important policy-shaping forums, and valuable information to promote the industry's interests.

The analysis also revealed common challenges or weaknesses. Key weaknesses identified include

- **Lack of mandate.** Relatively few arrangements have a definitive mandate for their existence and operation. Many are ad hoc arrangements meant to address short-comings and gaps in established agency or industry functions. As such they lack dedicated funding and staffing, and many arrangements must devote considerable time and effort to justifying their existence, role, and expenditures. Examples include MPO-level freight committees, which have been difficult to sustain because MPOs were perceived as having mandates to address highways, transit, and congestion management, but not mandates and funding to address freight issues.
- **Mismatch of scope.** Freight institutional arrangements have failed because the scope and scale of their geographic and jurisdictional coverage did not match actual "freight sheds" and economic blocs. For example, relatively few of the early freight-oriented Intelligent Transportation Systems (ITS)/Commercial Vehicle Operations (CVO) corridor programs survived, in large part because they spanned jurisdictions and economic regions that did not have compelling mutual interests.
- **Insufficient funding.** Arrangements focused on policy and planning functions often operate on shoestring budgets with limited staff support. They serve an advisory role but their influence can be transitory and highly dependent on the willingness of their political administrators to make use of their advice.

2.3 Stakeholder Workshop

Understanding institutional arrangements includes not only exploring the details through research but engaging those developing and operating institutional arrangements in discussing their experiences. Personal experiences were drawn on during a 2-day workshop where representatives of all modes, all levels of government, and the private sector shared valuable information concerning their involvement in institutional arrangements and their thoughts on the future of institutional arrangements in the freight transportation system. Workshop summary materials, including a list of attendees and presentations given, are provided in Appendix B, which is included on the attached CD-ROM and is also available for download from the TRB website (www.trb.org).

The workshop was designed to engage a full range of public and private freight stakeholders in a discussion about the need for institutional arrangements. Specifically, the workshop was designed to explore the following questions:

- What do we mean by freight institutional arrangements?
- What institutional arrangements are critical for the future?
- How can these critical future institutional arrangements be created?
- What major national and international trends affect the formation of freight institutions?
- What can this project develop that would lead to creation of these future institutional arrangements?
- What have we learned about creating institutional arrangements?
- What are the future solutions/directions?

Representatives from eight freight institutional arrangements were invited to present their experiences to the group to help answer these questions. The presenters were a subset of the cases identified through the literature review. They were selected to illustrate a range of institutional types and levels of organization (national, multi-state, and local) that were well established and would provide workshop attendees with well-documented examples of best practices. The following programs were presented:

- Alameda Corridor Transportation Authority
- Commercial Vehicle Information Systems and Networks Program
- Florida Seaport Transportation and Economic Development Program

- Freight Mobility Strategic Investment Board
- I-95 Corridor Coalition
- Kansas City SmartPort
- Miami-Dade MPO Freight Transportation Advisory Committee
- Southern California National Freight Gateway Collaboration

Each presenter was asked to provide an overview of his or her organization, describe its strengths and weaknesses, and define what makes an institutional arrangement successful.

Following the presentations, small groups were formed to encourage roundtable discussion on the above questions to explore lessons learned and best practices in the industry. Although the small groups were given a specific question to address, most followed an unstructured flow of conversation allowing these freight transportation experts to share their thoughts pertaining to each topic. The common themes identified are as follows:

- Institutional arrangements must anticipate or respond to dynamic market forces that are changing freight movement patterns and technologies.
- Because freight problems transcend jurisdictional boundaries, so must institutional arrangements.
- New, diverse sets of players will expect involvement in institutional arrangements, but trust must be built among participants.
- Institutional arrangements need to be characterized by clear goals and explicit purposes.
- Additional institutional arrangement success factors are competence, credibility (trust and believability), champions (leadership), performance, and accountability.
- Successful models for institutional arrangements exist within states or at national level—more examples are needed for institutional arrangements at the multi-state level.
- Institutional arrangements can be advanced through incentives—funding, regulatory simplification, and threat avoidance.
- Different kinds of institutional arrangements with different members may be appropriate and necessary for different purposes.
- Mitigating trends are as follows:
  - Environment: fold in issues early in a broader, holistic planning effort;
  - Infrastructure: also focus on maintaining current system;
  - Funding: create sustainable, viable, national funding program;
  - Education: broaden skills, train entry workers, include education of public and elected officials;
  - Foreign and/or private investment: will investors keep transportation purposes in mind; and
  - Additional trends to consider: security, eminent domain, natural disaster recovery, economic trends.
- There is no one-size fits-all approach; there is a need to identify the core underpinnings of successful structure.
- Document successes and failures and how they are evaluated.
- Provide guidance to the Federal government; national freight policy can be an umbrella for actions.
- Explore the transition from planning to implementation.
- Provide a primer or educational program.
- Study the application of non-transportation arrangements already in place.
- Provide a better understanding of accessing and using available financing models.

The lessons learned in each small group session are summarized as follows:

- Institutional arrangements can have measurable results.
- Institutional arrangements can be highly organized, even if the structure is voluntary rather than contractual.
- Institutional arrangements with staying power can point to a record of accomplishments that transcend transitions in leadership within member organizations.
- Geographically disparate entities can join institutional arrangements in which all parties may not win equally in every project selection cycle, but all parties are better off together than individually.
- A record of delivering projects successfully is useful in attracting resources to an institutional arrangement.
- Institutional arrangements can use modest investments for accomplishing bigger results.
- Rejection of institutional arrangement ideas can cause participants to lose desire to make modest contributions.
- Even if institutional arrangements do not directly implement projects, they can hold project sponsors accountable for project performance.
- Some institutional arrangements can be structured to allow multiple ad hoc working groups.
- Institutional arrangements should balance process and product.
- Make simple legal arrangements between equity owners to support complex negotiations with other affected interests.

2.4 Follow-Up Interviews and Case Study Development

At the workshop, participants offered examples of institutional arrangements, in addition to the 36 summarized in the literature review. Fifty-four institutional arrangements in total were identified, providing a broad range of examples, including representation of all levels of governments, all

modes, and the public and private sector. Seventeen representatives were chosen for follow-up interviews; sixteen detailed case studies were developed. As with the literature search and workshop presenters, these cases were selected not to be exhaustive or statistically representative, but with the goal of identifying and learning from the best institutional practices, as drawn from the expertise of the workshop attendees and the project team. The detailed case studies and the interview guide are provided in Appendix C. The representatives from the following organizations were interviewed:

- Alameda Corridor Transportation Authority, Gill Hicks, Gill V. Hicks & Associates
- California Marine and Intermodal Transportation System Advisory Council, Norm Fassler-Katz
- Chicago Region Environmental and Transportation Efficiency Program, Luann Hamilton, Transportation Commissioner, Chicago DOT
- Commercial Vehicle Information Systems and Networks, Quon Kwan, FMCSA; Brad Wright, Cambridge Systematics, Inc.
- Delaware Valley Regional Planning Commission-Goods Movement Task Force, Ted Dahlburg, Delaware Valley RPC
- Federal Highway Administration, Tony Furst, FHWA Office of Freight Management and Operations
- Freight Mobility Strategic Investment Board, Karen Schmidt, FMSIB
- Florida Seaport Transportation and Economic Development Council, Nancy Leikauf and Toy Keller, Florida Ports Council
- Miami-Dade MPO Freight Transportation Advisory Committee, Larry Foutz, Miami-Dade MPO
- I-95 Corridor Coalition, Marygrace Parker, I-95 Corridor Coalition
- Maine DOT Industrial Rail Access Program, Nathan Moulton, Maine DOT
- Kansas City SmartPort, Chris Gutierrez, Kansas City SmartPort, Inc.
- Mississippi Valley Freight Coalition, Ernie Wittwer, MVFC Facilitator
- Nation'sPort, David Stein, Nation'sPort
- Natural Resources Defense Council—Southern California Clean Air Program, David Pettit, Senior Attorney, NRDC
- Southern California National Freight Gateway Collaboration, Lindell L. Marsh, Attorney/Facilitator; Ty Schuiling, SANBAG
- Trade Corridors Improvement Fund Consensus Group, Ty Schuiling, SANBAG

The purpose of the interviews was to collect information about each institutional arrangement in sufficient detail to support development of a detailed case study. Interviews focused on two areas of interest:

- Description of Arrangement
  - Overview/History
  - Mandate/Mission
  - Organization/Participation
  - Procedures/Activities
  - Resources
  - Accomplishments/Successes
  - Challenges/Weaknesses
  - Lessons Learned
  - Future Vision/Plans
- Input on Study Objectives
  - What is the best definition of *institutional arrangement* for freight?
  - What institutional arrangements are critical for the future?
  - How can these critical future institutional arrangements be created?
  - What major national and international trends affect the formation of freight institutions?
  - What can this project develop that would lead to creation of these future institutional arrangements?

The case studies provide an in-depth look into the key success factors and challenges for each institutional arrangement. In addition, detailed narratives are provided that document mission and mandate, organization, resources, process, and funding. Table 2-2 summarizes key input captured through the interview process categorized into three broad purposes of institutional arrangements: increased visibility and importance of freight; project consensus and selection; and a specific project focus.

In addition to the interviews, the 2009 TRB Annual Meeting was used to present initial project findings and get feedback. The Annual Meeting offered a unique chance to learn from the transportation professionals who serve on committees within the sponsoring organization for this research project. TRB's Technical Activities Division encompasses approximately 200 standing committees divided into 11 functional or mode-specific groups, including freight. Among other functions, the committees identify research needs, evaluate and interpret research findings, and encourage the adoption of appropriate findings into practice.

Following outreach to about 20 of the most relevant committees, presentations were given to the following committees, which represent 6 of the 12 standing Freight Systems committees (AT), 1 of the Rail committees (AR), and 1 of the committees in the Policy and Organization group (AB):

- Trucking Industry Research (AT060)
- Transportation of Hazardous Materials (AT040)

Table 2-2. Interview findings: summary of key success factors and challenges.

Broad Purpose of Institutional Arrangements	Key Success Factors	Challenges
Increase visibility and importance of freight through: • Information Sharing • Consensus Building • Education • Overcoming Distrust and Competitive Barriers • General Advocacy	• Having a common goal and clear illustration of benefits • Securing dedicated funding • Pursing commitment of executive leadership • Creating well-defined and productive meeting agendas • Engaging members in promotion activities • Ongoing public outreach, communications, and education regarding the role of freight • Partnering with academia • Pursuing an aggressive marketing campaign • Building Federal, state, and local support • Allowing flexibility in legal structure • Providing a neutral forum • Building strong partnerships with the Federal government, across state agencies, and with industry • Focusing on timely issues of public concern • Knowing your partners and their jurisdictions • Determining a common evaluation framework to determine cost benefit • Convening a commission to determine where freight corridors are likely to be in the future	• Communication and coordination with a wide range of public and private entities • Effective use of available planning tools • No single organization serving as a freight voice • Lack of available lands for expansion of the freight system • Need for more sophisticated, objective project evaluation tools and freight data • Keeping Task Force members motivated and engaged in the planning process • Conflicting agency priorities • Lack of private-sector involvement • Securing a dedicated funding source • Lack of trust among stakeholders
Project consensus and selection through: • Project Evaluation • Project Prioritization • Project Selection and Funding • Consensus Building at Project Level • Focusing on Advocacy • Leveraging Additional Funds	• Gaining continued support from program sponsor • Requiring program matching requirement • Considering multimodal, multi-jurisdictional approach • Securing private-sector commitment • Effectively leveraging state funds • Determining quantifiable criteria and guidance for project selection and evaluation • Seeking accountability • Providing an open, transparent project funding selection process	• Mandate to focus benefits only on strategic freight corridors • Partnerships are difficult to hold together • Inadequate funding • Redirection of funding
Focus on a specific project through: • Project Implementation • Design and Construction • Obtaining Environmental Approvals • Managing Financial And Schedule Risks • Providing Construction Oversight • Processing Debt Service Payments • Negotiating Partnership Agreements	• Establishing funding firewalls and sunset clauses • Carefully allocating risk between owner and contractor • Maintaining cost and schedule control • Adopting a product orientation • Keeping a focused agency mission • Establishing clear decision-making authority • Negotiating third-party agreements early • Adopting a partnering program • Maintaining adequate contingency and reserves • Considering design-build procurements • Understanding funding program requirements	• Securing a dedicated institutional funding source and competition for available project funding • Agreed-on project definition • Construction and project delivery • Environmental mitigation requirements • Job training and local participation • Personnel turnover among leadership and staff • Lack of a political champion • Complex multi-institutional committee structure • Keeping all partners involved and participating

- Local and Regional Rail Freight Transport (AR040)
- Freight Transportation Data (ABJ90)
- Motor Vehicle Size and Weight (AT055);
- Freight Transportation Planning and Logistics (AT015)
- Intermodal Freight Transport (AT045)
- Urban Freight Transportation (AT025)

In response to the presentation, committee members offered the following input by category.

2.4.1 Partner Involvement

Building and sustaining private-sector involvement should be started at the grassroots level, involving private companies in efforts to improve day-to-day urban freight operations. The private-sector is motivated by operational improvements; efforts to maintain or enhance operational improvements provide opportunities to build communication and trust. FHWA is working to develop a workshop to engage the private sector in transportation planning. Cargo owners are difficult to engage; they see many institutional arrangements as "all talk and no action"; they don't want to be seen as potential funding partners; they are looking for reliability, velocity and cost savings—without this focus they will not participate. The private sector is stove-piped; ocean carriers, truckers, railroads, third-party logistics providers (3PLs), terminal operators, and warehouses often are insular and do not communicate well or often enough with one other.

2.4.2 Implementation and Performance

Arrangements that identify bottlenecks and improvements are useful, but implementation is critical. Focus on the ability of the institutional arrangement to produce its desired result; document what did and did not work. Identify the current limitations of institutional arrangements and provide guidance on how to improve them. Opportunity costs should be evaluated as part of the prioritization process.

2.4.3 Organization Evolution

Although there is no one-size-fits-all approach, it is important to provide advice on the key factors that make an institutional arrangement succeed or fail. There is a need to refine and expand transportation planning institutions at all levels, enable MPOs to deal with all aspects of urban freight transportation, encourage states to create freight offices and/or institutions, fill the gap at the multi-state level, and strengthen the national freight program. There is a strong need for more effective multi-state institutional arrangements.

2.4.4 Funding Opportunities

Organizational requirements need to be identified to make effective use of available tools. Reauthorization should be monitored to maximize funding opportunities for institutional arrangements; funded programs could affect the types of institutional arrangements that are developed. Effective institutional arrangements that can provide matching funds will be more competitive pursuing Federal funding.

2.5 Characterization of Freight Institutional Arrangements

Each freight institutional arrangement is designed to meet the specific need of a group of stakeholders. The mission, organization, mandate, resources, processes—all the factors that define an institutional arrangement—are designed to address the identified need. Institutional arrangements can be defined by issue or scale, function, and legal structure. Each of these elements affects the make up of members and ultimately what the freight institutional arrangement can accomplish. An advisory committee or coalition that spans jurisdictional boundaries may be categorized by regional- or corridor-level issues, may require memoranda of understanding (MOUs), and may be housed within a regional transportation authority or be part of newly created coalition. As part of this research project, each of these approaches (i.e., issue/scale, function, and legal structure) was considered as a possible way to organize focused guidance.

2.5.1 Issue and/or Scale

The issue and/or scale of a freight arrangement directly affects the identification of members, the scope of the project (micro versus macro), the legal implications, funding opportunities, organizational format, and logistics. The following describes examples of scale:

- **Gateway or Port**—An arrangement that addresses the specific needs of a gateway or port; a hub of freight activity like a port complex or international border crossing.
- **Metro Freight**—An arrangement that addresses the freight needs of an urbanized area; a network of local and state corridors and freight hubs, focused on access and distribution activities.
- **State Freight**—An arrangement that addresses the freight needs of a state; a network of highway or rail corridors providing key intercity, interstate, and international freight flows.
- **Multi-State Network**—An arrangement that addresses the freight needs of multiple states; a national network of

freight systems or a coalition of multiple states working to address freight issues of national or regional concern.
- **Corridors**—An arrangement that addresses the freight needs of a specific corridor; a defined buffer around a single facility or multiple transportation facilities working to address a specific bottleneck.

2.5.2 Function

The functions of a freight arrangement dictate the types of activities and processes that will be undertaken. Functions provide the architecture or foundation for what the arrangement is attempting to accomplish (e.g., plan, construct, and advocate). Examples of functions are as follows:

- **Policy and/or Advocacy**—An arrangement whose function is to establish policy as it relates to freight mobility either at the national, state, or local level, providing a voice for the freight community.
- **Planning**—An arrangement whose function is to consider freight mobility in long-range planning efforts.
- **Capital Improvements**—An arrangement whose function is to provide for and help execute capital improvement projects to enhance freight mobility, whether through securing funding or public partner outreach.
- **Operations**—An arrangement whose function is to operate and maintain a freight facility or service to encourage freight mobility.
- **Regulation/Safety**—An arrangement whose function is to provide regulation for safe movements in freight transportation, including enforcement.
- **Research/Education**—An arrangement whose function is to provide research and an information-sharing platform to enhance public and private knowledge about freight movement and its effects on the transportation system.
- **Forum**—An arrangement whose function is to provide a forum for freight stakeholders to come together to identify issues, build consensus, and collaborate on common issues.

2.5.3 Legal Structure

Understanding the range of legal requirements or options allows a group interested in forming a freight-related organization to know the capabilities and limitations of certain types of arrangements. Although the legal structure may not define the mission of an arrangement, it directly affects the success of that mission. On the simplest level, freight institutional arrangements can be a public agency, a public-benefit corporation, or a private-sector company.

- **Public-agency-based arrangements** are identified by their location in government. These locations are grouped by geography into national, state/multi-state, and regional/local.
- **Public-benefit-corporation-based arrangements** are identified by the legal structure used to bring them into existence. The legal breakdown includes public authorities, public corporations, and nonprofit corporations.
- **Private-benefit-corporation-based arrangements** are also identified by the legal structure. The legal breakdown includes joint-venture companies, publicly held companies, and privately held companies.

Each legal structure was viewed from four angles: funding, purpose, control, and governing arrangement.

- The **funding** category considered the source of funds for the arrangement. For public agencies the only funding source is public. Public-benefit corporations range in source from public, often self-sustaining through taxes, to public or private sources through dues, fees, and project revenues. Private corporation funding is fully private.
- The **purpose** category considered the general purpose of each type of structure. Public agencies generally have a public purpose while public-benefit corporations vary from narrow public function to private activities. Private companies are in business for financial purposes.
- The **control** category considered the basis for management of the structure. Public agencies are controlled by the executive branch of a political jurisdiction. Depending on the type of public-benefit corporation, the control could be either public or private. Private companies are managed privately.
- The **governed by** category considered the administrative structure by which each type is governed. Public agencies follow statutes and administrative regulations. Public-benefit corporations follow statutes, trust, or association. Private companies are governed by owners or shareholders.

Table 2-3 provides an overview of these legal structures.

2.5.4 Examples of Characterization

The three elements described above provide critical input to the character and make up of a freight institutional arrangement. Figures 2-1 through 2-3 illustrate the elements for three existing institutional arrangements. The function of an institutional arrangement provides the definition of the technical direction of an institutional arrangement and is responsible for development of the mission, which brings together the stakeholders and/or partners and serves as the motivation for creating a freight institutional arrangement. Chapter 3 will define and group institutional arrangements by functional characteristics.

Table 2-3. Legal structures underpinning freight institutional arrangements.

	Government			Public-Benefit Corporation			Private Corporation		
	National Agency	**State Agency**	**Regional/Local Agency**	**Public Authority**	**Public Corporation**	**Nonprofit Corporation**	**Joint Venture Company**	**Publicly Held Company**	**Privately Held Company**
Funding	Public	Public	Public	Public/often self-sustaining through taxes, fees	Public/often self-sustaining through taxes, fees	Public or private, dues, fees, project revenues	Private	Private	Private
Purpose	Public	Public	Public	Narrow public function	Any public function	Public or private activities without commercial or monetary profit purposes	Private activities with monetary profit purposes	Private activities with monetary profit purposes	Private activities with monetary profit purposes
Control	Executive branch of a political jurisdiction	Executive branch of a political jurisdiction	Executive branch of a political jurisdiction	Public	Public	Private	Private	Private, subject to extensive disclosure	Private
Governed By	Statutes and administrative regulations	Statutes and administrative regulations	Statutes and administrative regulations	Statutes/board	Statutes/board	Board, trust, association	Owners and/or shareholders	Owners and/or shareholders	Owners and/or shareholders
Examples	USDOT	Depts of Transportation, Public Safety, Motor Vehicles	DOTs, Public Works, MPOs	Transit, port, toll road, multistate authorities (TVA)	Amtrak, USPS, state universities, Corporation for Public Broadcasting	Trade associations, United Way, Red Cross, universities	D/B & DBFOM consortia, terminal railroads	JB Hunt, Delta Airlines, Jacobs Engineering	HNTB, HDR, HEB Grocery

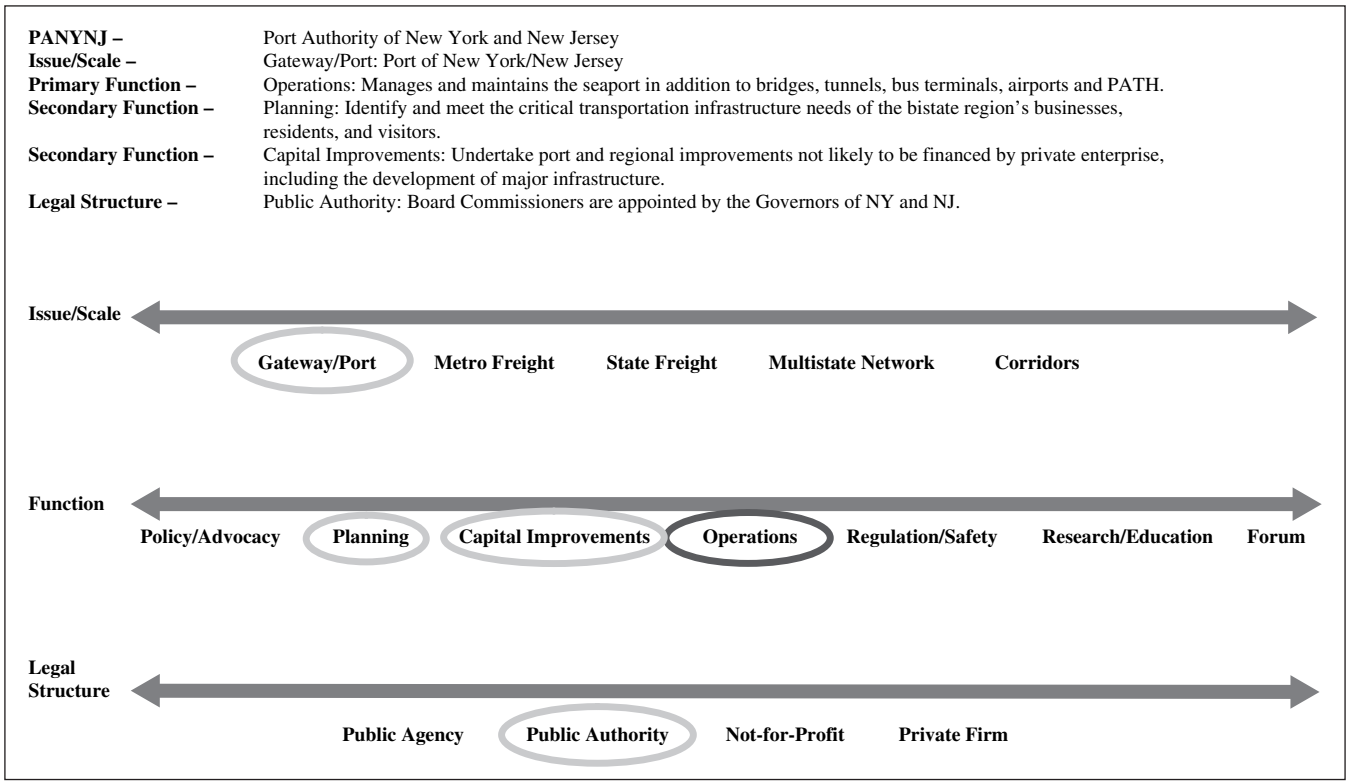

Figure 2-1. Characterization example: Port Authority of New York and New Jersey.

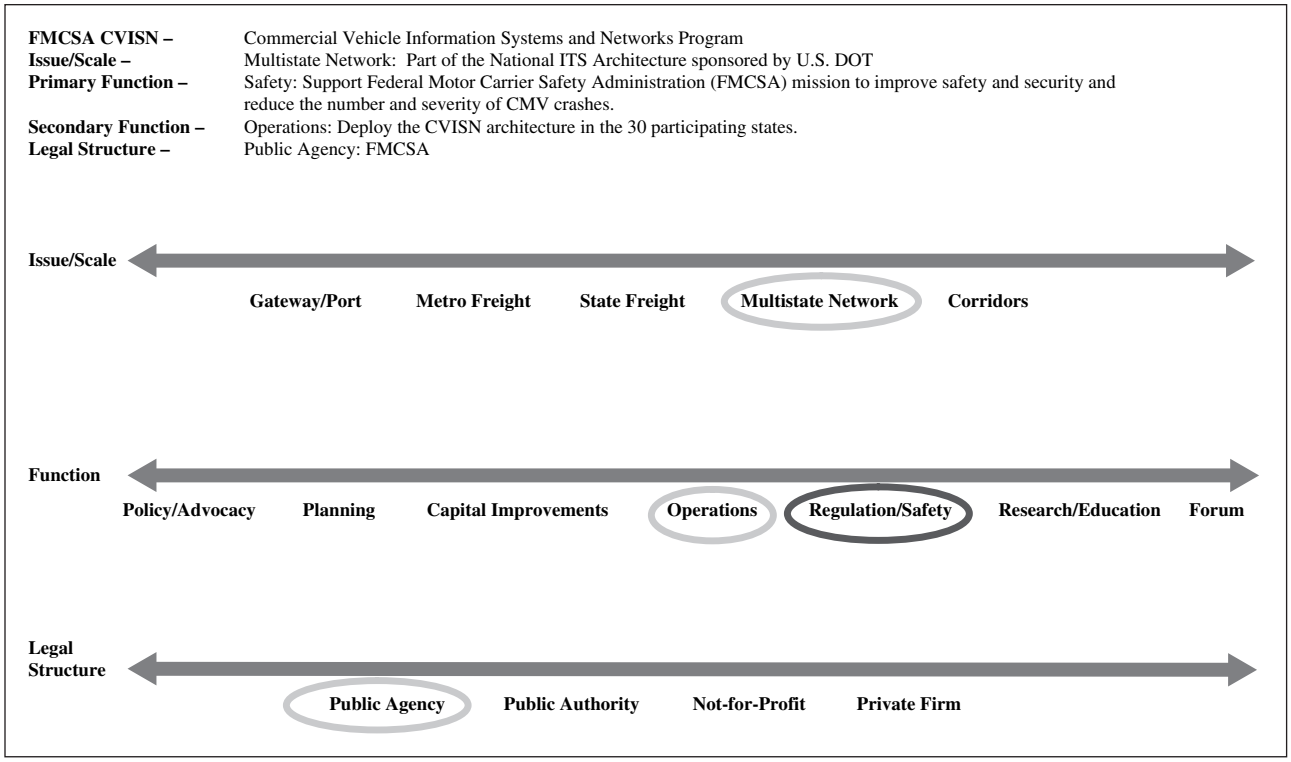

Figure 2-2. Characterization example: Commercial Vehicle Information Systems and Networks Program.

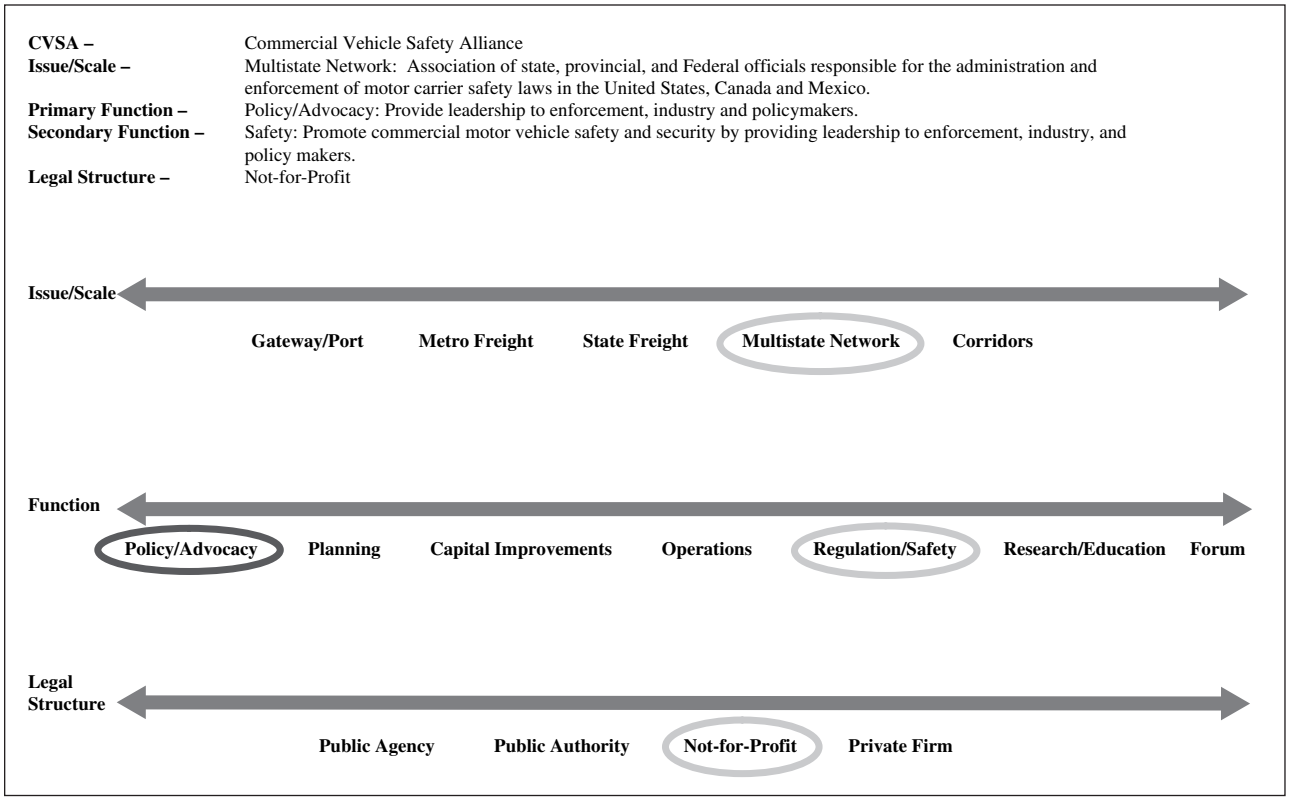

Figure 2-3. Characterization example: Commercial Vehicle Safety Alliance.

CHAPTER 3

Institutional Arrangement Types

Freight institutional arrangements have various functions and structures. Functions range from information sharing and consensus building to project design and implementation. The overriding mission or function of an arrangement can be used to establish types or categories of institutional arrangements. Three types of arrangements can be defined based on the activities they conduct. The range of types is illustrated in Figure 3-1 and described in more detail below.

The complexity of each type reflects the legal structure and scale of activities. Type I has the least formal legal structure, possibly championed by public-sector staff resources and a voluntary advisory board. As institutional arrangements move through the spectrum (e.g., Types II and III), the legal implications become much more formalized—contracts are developed, contractors are hired, and funds are allocated. Advisory boards staffed by voluntary or appointed members move toward development of MOUs and, in some cases, new authorities. The scale of the institutional arrangement may also increase in complexity as multiple jurisdictions become involved.

3.1 Type I

Type I organizations typically seek to increase the visibility and importance of freight issues and policies in their area. While adding members is seen as a success, losing members is viewed as a failure by the organization to maintain interest, relevance, or cohesiveness. To that end, Type I organizations generally seek as many members as possible in order to show solidarity and support. These organizations are similar to chambers of commerce, which promote business growth in a particular area. These organizations usually have a large membership—typically 25 or more members. A larger membership provides greater opportunities for information sharing, networking, and education, but makes it harder to reach consensus on controversial topics. Policy positions of large organizations are sometimes "watered down" so that a broad agreement can be reached.

These organizations focus mainly on information sharing, consensus building at the policy level, education, increasing visibility and awareness for freight issues, overcoming distrust and competitive barriers, and general advocacy. These focus areas are discussed in more detail below:

- **Information Sharing.** These types of institutional arrangements typically hold regular meetings that offer speakers on relevant topics or highlight specific projects or efforts by members. Type I groups may also engage in information-sharing activities such as field trips and site tours, newsletters, and websites. Information can also be shared when Type I groups act as technical advisory committees for freight studies.
- **Consensus Building at the Policy Level.** This is frequently done through committee meetings, freight studies, and related policy reports and white papers.
- **Education.** Typical activities include public education via websites, newsletters, and media outreach, or targeted industry education such as offering classes in logistics or supply chain awareness for public agency employees.
- **Increased Visibility and Awareness of Freight Issues.** This may be accomplished by high-level officials acting as conveners of a freight-oriented group or council. Many arrangements are housed within MPOs with the express purpose of ensuring that freight concerns are appropriately integrated into the regional transportation planning process.
- **Overcoming Distrust and Competitive Barriers.** Arrangements often include diverse members, typically both public- and private-sector participants. Occasionally they can extend to non-profit members such as environmental groups. The goal in each case is to engage the participants in regular

Type I	Type II	Type III
1. Information Sharing 2. Consensus Building 3. Education 4. Increased Visibility and Awareness 5. Overcoming Distrust and Competitive Barriers 6. General Advocacy	1. Project Evaluation 2. Project Prioritization 3. Project Selection and Funding 4. Consensus Building at Project Level 5. Focused Advocacy 6. Leverage Additional Funds	1. Project Implementation 2. Design and Construction 3. Obtain Environmental Approvals 4. Managing Financial and Schedule Risks 5. Construction Oversight 6. Debt Service Payments 7. Negotiate Partnership Agreements

Figure 3-1. Spectrum of institutional arrangement types.

interactions to build trust and identify common ground for action. Some arrangements have taken on data collection projects so as to make the supply chain more visible and reliable.

- **General Advocacy.** Some Type I groups may undertake advocacy for freight issues through resolutions, policy papers, and direct outreach to state and federal officials, as well as via websites, media outreach, and related publications.

3.2 Type II

Type II organizations tend to have more focused missions than Type I organizations. They are sometimes given statutory authority in state or federal legislation. These groups often have the responsibility to review funding applications for specific projects and to seek consensus on specific project priorities, especially expenditure of funds. Successful organizations in this category have a well-defined project selection process and use specific evaluation criteria for scoring and ranking projects competing for funds. These organizations have an average size of 10 to 25 members.

These organizations focus mainly on evaluation of alternative projects, project prioritization, project selection, consensus building at the project level, focused advocacy, and fund-raising. These focus areas are discussed in more detail below:

- **Project Evaluation.** Specific qualitative and quantitative evaluation criteria are used to score and rank projects competing for funds. The evaluation process measures the project's potential to improve freight mobility.
- **Project Prioritization.** Based on the project evaluation, a prioritization process is used to measure the degree to which projects address important program objectives and generate a project score that reflects a project's priority compared with other projects.
- **Project Selection and Funding.** After completing the project evaluation and prioritization, projects are selected based on their numerical score, fact verification, and determination of benefits. For some institutional arrangements, funding is allocated at the end of the project selection process; for others, the projects selected are recommended for funding to the legislature, which makes the final decision.
- **Consensus Building at Project Level.** Project consensus is built by considering interests of all stakeholders, especially project sponsors, project partners, and funding agencies, and working with them to define project parameters and facilitate programming and funding.
- **Focused Advocacy.** Focused advocacy efforts include advocating for funding at the state and Federal levels, advising the public and private sector on freight trends and concerns, taking stakeholders on field trips or project site visits, and other outreach efforts.
- **Leverage Additional Funds.** Funds allocated by the project sponsor can be leveraged by requiring a funding match from other public and private stakeholders.

3.3 Type III

Type III organizations often develop from Type I or Type II organizations because planning or discussing organizations usually do not have implementation authority. Once a project has been approved and funded, another group often takes over with an even more focused mission than its predecessor, or the original group reinvents itself with a more focused mission. These organizations usually have a small membership, typically fewer than 10.

These organizations focus mainly on project implementation through design and construction, obtaining environmental approvals, managing financial and schedule risks,

construction oversight, debt service payments, and negotiating partnership agreements. These focus areas are discussed in more detail below:

- **Project Implementation.** These arrangements are formed to address a particular need by actually overseeing the implementation and delivery of a project or a series of projects.
- **Design and Construction.** Typically these arrangements are responsible for the design and construction of projects. Often a design-build procurement is recommended to streamline the process.
- **Obtain Environmental Approvals.** Type III arrangements have implementation authority and, therefore, are responsible for obtaining all the environmental approvals necessary, including mitigating the environmental impacts the project(s) may have.
- **Managing Financial and Schedule Risks.** It is the responsibility of these organizations to decide how the risks between the owner and contractors will be shared for unexpected cost increases or schedule changes.
- **Construction Oversight.** These organizations oversee the construction of their project(s) by meeting regularly with project managers (contractors), tracking the construction progress, systematically identifying obstacles, maintaining adequate contingency and reserves, and monitoring the project budget.
- **Debt Service Payments.** In cases where bonds or loans are issued to finance a project, Type III organizations are responsible for paying that debt. They also are responsible for collecting and distributing any user fees.
- **Negotiate Partnership Agreements.** These agreements are typically consummated in the form of Memoranda of Understanding (MOUs) between the various partners vested in the project. These agreements define the responsibilities of each partner and make sure each partner is vested in the project.

Table 3-1 organizes the 16 case studies into the proposed categorization for Types I, II, and III. Organizations can fit into one or more types simultaneously or move from one type to another over time as missions shift and programs evolve (as is the case with two case studies).

Table 3-1. Categorization of case studies.

Name	Type I	Type II	Type III	Legal Structure	Scale
California Marine and Intermodal Transportation System Advisory Council (CALMITSAC) – Multi-stakeholder working group that has produced biannual needs assessments for the State's goods movement system to assist in educating state and Federal lawmakers.	X			Public Agency	State Freight
Delaware Valley Regional Planning Commission – Goods Movement Task Force (DVRPC-GMTF) – Long-standing freight advisory committee, including public and private representatives supporting the inclusion of freight projects in regional transportation plans.	X			Public Agency	Metro Freight
I-95 Corridor Coalition (I-95) – Coalition of 16 eastern states that serves as a forum to address regional transportation management and operations concerns of mutual interest.	X	X		Not-for-Profit	Corridors
Kansas City SmartPort (KCSP) – Investor-based economic development organization that encourages regional economic growth by attracting logistics businesses and improving supply chain security.	X		X	Not-for-Profit	Gateway/Port
Miami-Dade MPO Freight Transportation Advisory Committee (FTAC) – Private-sector advisory board to MPO for regional freight interests.	X			Public Agency	Metro Freight
Mississippi Valley Freight Coalition (MVFC) – Ten-state coalition aimed at improving the efficiency of freight transportation systems and regional economic well being.	X			Public Agency	Multistate Network
Nation'sPort – Public-private collaboration in the New York-New Jersey area that supported an earlier port dredging project and is now developing a regional logistics strategy.	X			Not-for-Profit	Metro Freight
Natural Resources Defense Council – Southern California Clean Air Program (NRDC) – Team of nonprofit attorneys using litigation, advocacy, and public education to promote public policy that reduces pollutant emissions from freight movement.	X			Not-for-Profit	Metro Freight
Southern California National Freight Gateway Collaboration Agreement (SCNFGC) – Memorandum of Agreement among Federal, state, and local agencies involved in freight transportation to collaborate on the challenges of growing freight volumes.	X			Public Agency	Gateway/Port
Trade Corridors Improvement Fund Consensus Group (TCIFCG) – Informal regional collaboration of county transportation agencies to effectively coordinate freight funding requests to the State.	X			Public Agency	Metro Freight
Florida Seaport Transportation and Economic Development Council (FSTED) – Board with legislative mandate to evaluate and fund projects designed to maintain and improve the global competitiveness of Florida's ports.		X		Not-for-Profit	State Freight
Freight Mobility Strategic Investment Board (FMSIB) – Public-private board with legislative mandate to evaluate and implement strategic investment program for freight projects in Washington State.		X		Public Agency	State Freight
Maine DOT Industrial Rail Access Program (IRAP) – State program to evaluate and fund projects that maintain the viability of freight rail service and thus support economic development.		X		Public Agency	State Freight
Alameda Corridor Transportation Authority (ACTA) – Public authority created to design, build, and operate consolidated freight rail corridor serving Ports of Long Beach and Los Angeles.			X	Public Authority	Gateway/Port
Chicago Region Environmental and Transportation Efficiency Program (CREATE) – Public-private partnership aimed at relieving freight and passenger rail congestion through rationalization, reconstruction, and upgrading of five rail corridors.			X	Public Agency	Metro Freight
Commercial Vehicle Information Systems and Networks (CVISN) – Federal initiative to organize, deploy, and fund technology to automate various motor carrier regulatory and safety enforcement functions.			X	Public Agency	Multistate Network

CHAPTER 4

Suggested Guidelines for Establishing Freight Institutional Arrangements

4.1 Guideline Development and Application Process

Case studies were developed to illustrate institutional arrangements throughout the United States. The selected case studies address a range of purposes and activities. After synthesizing the case study findings and defining three types of institutional arrangements, 40 guidelines were developed to facilitate the creation of new or enhanced existing arrangements. The guidelines reflect, in large part, the experiences of these existing arrangements.

These guidelines have been organized to address the range of activities undertaken by different types of arrangements and are grouped by type to coincide with the types of arrangements presented in Chapter 3. The guidelines also are structured to support both the key activities of an arrangement at a point in time as well as the natural progression of an arrangement over time. The guidelines have been organized within each type based on a recommended sequence of actions. Although each guideline can be used independently, the intent was to describe a natural progression of the actions required to achieve success. The three types of guidelines are as follows:

- **Type I** guidelines apply to all types of institutional arrangements. These overarching guidelines are the foundation for building a successful institutional arrangement. Most institutional arrangements, regardless of type, initiate their organization with Type I guidelines.
- **Type II** guidelines build on Type I and offer direction on seeking consensus on specific project priorities. Often an organization's goal is to employ methods to score and rank projects competing for funds.
- **Type III** guidelines build on Types I and II and are aimed at a more formalized organization responsible for designing, mitigating, constructing, and operating a new system element.

Figure 4-1 shows the types of guidelines and their basic activities as a spectrum. Type I is the foundation of all arrangements. As the arrangement becomes more specialized and focused, Type II and III guidelines can be applied. Any given arrangement can move in either direction along this spectrum, based on changes in expectations and responsibilities.

The effective use of these guidelines will help an institutional arrangement (1) define its purpose; (2) identify and organize its roles and responsibilities; (3) establish procedures necessary to conduct business; and (4) deploy available resources. Table 4-1 summarizes the 40 guidelines by type.

Examples of the application of these guidelines are provided based on the experiences of the 16 institutional arrangements selected for case study development. The acronyms used to identify each case study are as follows:

ACTA	Alameda Corridor Transportation Authority
CALMITSAC	California Marine and Intermodal Transportation System Advisory Council
CREATE	Chicago Region Environmental and Transportation Efficiency Program
CVISN	Commercial Vehicle Information Systems and Networks
DVRPC-GMTF	Delaware Valley Regional Planning Commission—Goods Movement Task Force
FMSIB	Freight Mobility Strategic Investment Board
FSTED	Florida Seaport Transportation and Economic Development Council
FTAC	Miami-Dade MPO Freight Transportation Advisory Committee
I-95	I-95 Corridor Coalition
IRAP	Maine DOT Industrial Rail Access Program
KCSP	Kansas City SmartPort

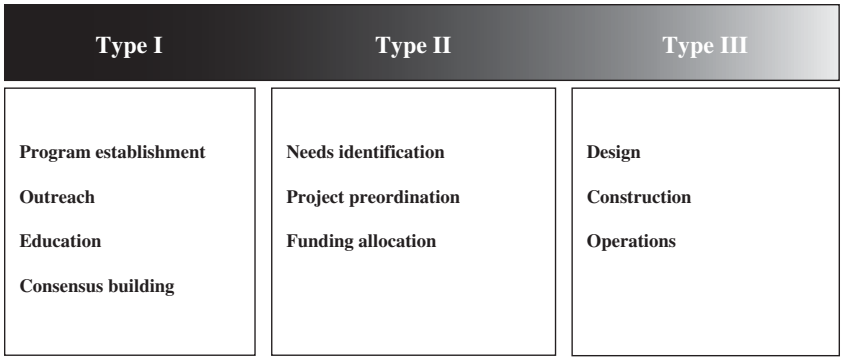

Figure 4-1. Spectrum of guideline types.

MVFC	Mississippi Valley Freight Coalition
Nation'sPort	Nation'sPort
NRDC	Natural Resources Defense Council—Southern California Clean Air Program
SCNFGC	Southern California National Freight Gateway Collaboration Agreement
TCIFCG	Trade Corridors Improvement Fund Consensus Group

4.2 Type I—General Guidelines

To develop successful institutional arrangements for freight transportation, basic guidelines must be followed. Many arrangements have proven successful; many have been less successful. As described in Chapter 3, these arrangements can be grouped by type. Although many arrangements meet the criteria of multiple types and/or evolve from one to the other over time, the underlying basis for all institutional arrangements can be encompassed in certain overarching guidelines, driven by a general set of success factors. The following provides a set of universal guidelines designed to initiate a successful arrangement. These universal guidelines should be reviewed and considered for all three types of institutional arrangements. These guidelines are presented in sequence but can be used independently based on the needs of the arrangement.

Thirteen overarching guidelines have been developed as summarized in Table 4-2. Each guideline is described and illustrated using case study examples. Table 4-2 shows which of the 16 case studies illustrate use of which guidelines. Shading indicates detailed examples for that guideline. All case studies are provided in detail in Appendix C.

Guideline 1. Identify need and purpose.

The first step in developing a successful institutional arrangement is to define its purpose. Institutional arrangements are developed to address a specific need. The definition and understanding of this need cut across all types of institutional arrangements. The development of a freight transportation advisory committee enables a region to better plan for freight transportation mobility by incorporating freight into established policy, planning, and programming activities. In some instances institutional arrangements are created to promote a specific project; in other cases, they provide an overall voice to the freight community. Institutional arrangements also can be used to identify and allocate funding to specific improvement projects. The definition of the specific need and purpose of the institutional arrangement is a key to success.

Given that a need and purpose are fundamental components of an organization, all institutional arrangements presented illustrate the use of this guideline. Institutional arrangements come in three basic forms: addressing a specific project-level need, acting in an advisory role, or performing an advocacy function. Example 1-1 describes an organization focused on a very specific project-level need and purpose while Example 1-2 illustrates moving from a narrow focus to a broader purpose over time. Example 1-3 illustrates the definition of the purpose within the documentation of the arrangement.

Guideline 2. Form deliberate strategies.

Defining the need and purpose provides the overall objective of the institutional arrangement; however, it does not define the action items or focus areas necessary to ensure success. A set of deliberate strategies provides the participants with a checklist of priorities that will guide the institutional arrangement's activities. These strategies provide a framework designed to achieve the established purpose. For freight transportation advisory committees, strategies may consist of needs identification, consensus building, developing political support, and advising work program development. All these strategies or actions would be designed to promote freight transportation system investments in the region. The ability to complete these activities also allows the institutional arrangement to evaluate its level of success. For more specific institutional arrangements, activities could include developing specific evaluation criteria, establishing MOUs, and other processes necessary to implement a specific program or develop a stand-alone entity. These strategies are, in large part,

Table 4-1. Summary of guidelines.

Type I	
1	Identify need and purpose
2	Form deliberate strategies
3	Seek the support of a champion
4	Identify and recruit stakeholders
5	Build political support
6	Develop information-sharing and outreach venues
7	Partner with academia
8	Engage stakeholders as needed
9	Secure dedicated funding and resources
10	Use consensus-based process
11	Ensure short- and long-term progress
12	Develop and use performance measures
13	Encourage cost sharing
Type II	
14	Define specific program elements
15	Develop implementation process
16	Establish protocols for implementation
17	Identify evaluation criteria
18	Define funding allocation process
19	Require on-time completion of projects
20	Require project audits
21	Perform site visits
22	Ensure focus stays on purpose/mission
Type III	
23	Build consensus on specific project parameters
24	Seek out champions and develop a diverse coalition of interest groups
25	Provide a neutral forum
26	Secure private-sector involvement/commitment
27	Develop mitigation strategy for project impacts
28	Establish clear decision-making authority
29	Remain focused on defined mission
30	Adopt a product orientation
31	Identify, monitor, and address obstacles
32	Develop partnership agreements
33	Negotiate third-party agreements early
34	Allocate risk between owner and contractor
35	Establish funding firewalls and sunset clauses
36	Consider design-build procurement
37	Understand how bond rating agencies make decisions
38	Establish cost-sharing structure
39	Maintain adequate contingency and reserves
40	Maximize use of available funding cycles

Table 4-2. Summary of Type I—general guidelines.

	Guideline	ACTA	CALMITSAC	CREATE	CVISN	DVRPC	FMSIB	FSTED	FTAC	I-95	IRAP	KCSP	MVFC	Nation'sPort	NRDC	SCNFGC	TCIFCG
1	Identify need and purpose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Form deliberate strategies		✓			✓						✓	✓	✓	✓		✓
3	Seek the support of a champion		✓	✓	✓		✓	✓	✓		✓		✓				
4	Identify and recruit stakeholders		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓			✓
5	Build political support	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	Develop information-sharing and outreach venues		✓	✓		✓	✓			✓		✓	✓	✓	✓		✓
7	Partner with academia		✓							✓			✓				
8	Engage stakeholders as needed		✓			✓	✓	✓	✓			✓	✓	✓			✓
9	Secure dedicated funding and resources	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓				
10	Use consensus-based process	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11	Ensure short- and long-term progress	✓	✓	✓	✓	✓				✓		✓	✓	✓			✓
12	Develop and use performance measures	✓		✓	✓		✓		✓			✓	✓				
13	Encourage cost sharing	✓		✓	✓		✓	✓			✓		✓				

Note: Shading indicates that this is a detailed example of the guideline.

Example 1-1. Alameda Corridor Transportation Authority

The Alameda Corridor Transportation Authority (ACTA), a joint powers authority of the cities of Los Angeles and Long Beach, is the governing entity responsible for one of the largest and most successful public works projects in Southern California, the Alameda Corridor. Combining capacity improvements and environmental enhancements, the project dramatically improved railroad access to the largest port complex in the United States by consolidating harbor-related railroad traffic onto a single 20-mile corridor between the Ports of Los Angeles and Long Beach and the railroad mainlines near downtown Los Angeles.

The issue identified in the beginning was the **need** to improve traffic conditions in the port area for both highway and rail corridors and to address the effect of this traffic on surrounding communities. The success of this project could not have been possible without a clear **purpose** to accomplish this goal. To achieve this success, ACTA's purpose has evolved over the life of the Alameda Corridor project. The original purpose was to design and construct the Alameda Corridor. Beyond this initial purpose, ACTA is responsible for making debt service payments and maintaining the right-of-way and related facilities. When the design and construction phase of the project was completed in 2002, the purpose of ACTA expanded to other areas including data collection for supporting initiatives, design, and construction of highway improvements; assisting in goods movement studies; investigating funding options for goods movement projects; and participating in additional railroad projects.

ACTA's success story is defined by its ability to identify its purpose in the early stages of the Alameda Corridor project. By working through a step-by-step process toward its goal, the organization that eventually came to be ACTA was able to work through public and private concerns with a clear mission of where it was headed and remain focused on the railroad access problem to be solved.

Example 1-2. Nation'sPort

Nation'sPort is a non-profit organization formed to promote commercial freight interests in the New York/New Jersey harbor area. In partnership with the Port Authority of New York and New Jersey (PANYNJ), Nation'sPort's initial **focus** was coordinating local private-sector support with the U.S. Army Corps of Engineers (USACE) to deepen the New York harbor and berth access. The group was successful in bringing USACE's attention to the issue and the dredging project is on track for completion in 2014.

Once this initial **goal** was achieved, the entity remained dormant until 2006 when it was urged to undertake a new, broader **purpose** of promoting sustainable goods movement through a comprehensive logistics system while enhancing the region's economy. This restructured mission for Nation'sPort provided a new direction for the entity. This new purpose allows Nation'sPort to focus on gathering the support of both public and private stakeholders in the success of the mobility of goods in the port region. It continues to develop a strategic freight logistics plan that will guide its efforts. It sees its mission as mainly strategic rather than project oriented. It is working in partnership with PANYNJ to reach out to as many stakeholders, public and private, as possible to advance freight logistics in the harbor area.

Nation'sPort is an example of an organization redefining itself as the **need** originally identified changed. Being sensitive to the changing environment has allowed Nation'sPort to make changes as necessary to further its purpose.

Example 1-3. Southern California National Freight Gateway Collaboration Agreement

The Southern California National Freight Gateway Collaboration Agreement was signed by 19 Federal, state, and local government agencies (including 3 Southern California ports) on October 12, 2007. The three-page agreement documents these agencies' intent to collaborate on the challenges of growing freight volumes in Southern California, coupled with limited infrastructure capacity and funding and unacceptable environmental and human health impacts associated with freight movement.

The agreement among numerous agencies at several levels of government is a testament to the success in demonstrating the **need** for collaboration. Such collaboration is unusual, but in an arena where transportation, environmental, and economic factors are all relevant, the senior agency leaders were clearly persuaded and motivated to offer their commitment to a new effort. The **purpose** for the collaboration was documented in the agreement itself:

The purpose of this agreement is to promote cooperation, coordination, and collaboration among the signatories to advance projects for sustainable and efficient freight transportation operations while all signatories pursue their normal responsibilities under the law. This agreement is not intended to limit, increase, or affect the authority of any agency under the law. The undersigned agree to cooperate with all stakeholders in the Area to improve freight throughput capacity while protecting and enhancing the natural and human environment.

covered by the guidelines provided in this document; however, creating a plan early in the process will help determine the direction of the institutional arrangement.

Institutional arrangements considered successful have clearly identified strategies that help keep the organization focused on its mission and members engaged. For instance, Kansas City SmartPort (KCSP) has employed specific marketing strategies to achieve its mission. Example 2-1 illustrates a state-based organization that has developed strategies to raise awareness of its freight-related mission. Example 2-2 is a regional example where the leadership formed strategies early on to keep members engaged.

Guideline 3. Seek the support of a champion.

Institutional arrangements typically consist of various stakeholders who come together for a common purpose. However,

Example 2-1. California Marine and Intermodal Transportation System Advisory Council

The California Marine and Intermodal Transportation System Advisory Council (CALMITSAC) is a multi-stakeholder group that has been meeting since 2001 to raise awareness of the importance and needs of California's port and marine transportation system. Since its formation, CALMITSAC has been creating specific **strategies** to deal with the growing quantity of maritime cargo handled by the California ports. The group's first milestone publication came in 2003, *California Marine Transportation System Infrastructure Needs.* This report represented the first consensus listing of maritime infrastructure projects needed statewide. In 2004, Assembly Bill 2034 was passed into law requiring CALMITSAC to produce a **strategies** plan to the legislature. This plan, *Growth of California Ports: Opportunities & Challenges,* was delivered in April 2007 and included 54 specific recommendations on the following topics: economic growth, environment, project priorities, funding, intermodal trucking availability and terminal productivity, legislation, marine transportation system security, and education.

Every 2 years, a report is written by a CALMITSAC member with an academic affiliation who conducts extensive research and works closely with the Council to frame each report. These biannual Strategic Analysis reports serve as the main educational and outreach vehicle for state and Federal lawmakers for the organization. In addition, these reports lay out recommendations for **action** to foster the development of a marine transportation system in California that is safe, secure, efficient, environmentally sound, and can expand to meet the demands of the global economy. By producing regular written consensus reports that are of high quality, based on objective research and statistics, and contain recommendations for action on several mission areas including security, infrastructure, environment, and competitiveness, CALMITSAC has created deliberate strategies that have helped the group support its state-oriented mission of raising local and national awareness on the importance of California's ports and maritime system.

Example 2-2. Delaware Valley Regional Planning Commission—Goods Movement Task Force

The Delaware Valley Regional Planning Commission (DVRPC) Goods Movement Task Force (GMTF) is a freight advisory committee composed of about half private sector and half government representatives. Meeting since 1992, it has successfully built relationships among its members and improved their collective understanding of the Philadelphia region's freight system through planned **strategies.**

The task force was formed to give freight a stronger voice in the regional transportation planning process. The GMTF's purpose is to maximize the Delaware Valley's position in the global economy by promoting local freight operations and implementing a regional goods movement **strategy.** It has ensured this happens by taking specific steps to keep the freight industry engaged and working together. One strategy, employed by the Executive Committee, is to develop a theme for each year and plan all quarterly meetings around this theme. This helps members to know ahead of time what topics will be discussed. In addition, the task force clearly defined its structure so that it is organized into logical, pertinent subcommittees making the most use of the members' time for each meeting. Finally, the leadership uses membership involvement strategies (e.g., tours and speaking engagements) to help members learn from one another and provide valuable insight to the GMTF discussion.

These and other strategies have ensured that freight is effectively represented and included in the regional transportation planning and programming processes. In addition to awareness, the common understanding and regional freight focus fostered through the GMTF has resulted in funding for freight-specific infrastructure improvements in the Delaware Valley region.

in order for the institutional arrangement to achieve success, it is critical to have the support of a champion. A champion can take several forms: an elected official, a dedicated staff person, or a lead organization that may campaign toward a legislative mandate for implementation or for the funding needed to accomplish the defined goals. The champion often is in the best position to promote the common purpose, provide dedicated staff and funding, or serve as an objective contracting agent. As the key motivator, the champion is responsible for keeping other stakeholders engaged. This requires a common goal, showing evidence of progress/success, and a tireless commitment to motivate participation. A local or regional freight task force can be used to identify, prioritize, and fund specific improvement projects. In this case, the champion must be in a position to follow through with implementation of these improvements to be effective. More formalized programs can also be developed through public and private participation to facilitate improved efficiencies in business practices. In these instances, the champion often must provide the architecture or framework as well as a range of incentives to stimulate participation.

Examples of champions were found in many of the entities interviewed. For instance, the Miami-Dade Freight Transportation Advisory Committee (FTAC) has enjoyed the tireless effort of a coordinator who makes sure the council meets to discuss important freight issues to provide recommendations to the MPO. In the case of the Maine DOT Industrial Rail Access Program (IRAP), the Maine DOT fully supports the program and sees the importance in the mission of the program. The Mississippi Valley Freight Coalition (MVFC) executive officers have championed their effort through an MOU and pooled funds. Example 3-1 illustrates the outcome of a dedicated lead agency championing the effort for the CVISN Program while Example 3-2 shows how losing a champion can affect the institutional arrangement.

Example 3-1. Commercial Vehicle Information Systems and Networks

The Commercial Vehicle Information Systems and Networks (CVISN) Program provides a framework for organizing, deploying, and funding the implementation of technology to automate various motor carrier regulatory and safety enforcement functions. The program is managed by FMCSA. Although deployment planning and implementation of the program requires the full participation of FMCSA, state agencies with motor carrier safety or regulatory responsibilities, and industry, FMCSA is the **champion**, providing the national reach to unite a diverse set of public and private stakeholders and incentivize investments in new business and enforcement processes and technologies.

FMCSA cannot achieve its mission of reducing crashes involving trucks and buses without the support of the states, which are responsible for administering and enforcing commercial vehicle regulations. States, on the other hand, typically cannot fully finance the technology infrastructure required for CVISN, nor are individual states well-suited to coordinate activities across states to promote uniformity and standards. States wishing to receive Federal CVISN funds must enter into formal partnership agreements with FMCSA. These agreements (1) specify what is required of states in order to qualify for and receive CVISN grant money and (2) outline what they can expect from FMCSA.

In general, FMCSA has primary responsibility for managing and overseeing the CVISN program at the national level, including evaluation of the effectiveness of the program. States are responsible for planning, deploying, operating, and maintaining their CVISN architecture and services.

Example 3-2. Chicago Region Environmental and Transportation Efficiency Program

The Chicago Region Environmental and Transportation Efficiency Program (CREATE) is a public-private partnership created in 2003 that includes the state and city transportation departments, passenger rail services, and six of the largest North American freight railroads. The CREATE Program consists of approximately 78 projects of national and regional significance aimed at addressing existing and future congestion issues on the rail system, which, if not addressed, are expected to bring adverse effects to the national economy and the transportation system. In order to complete the 78 projects, Federal funding is necessary.

(continued)

Example 3-2. (Continued)

In 2005, the CREATE Program lost its strongest **champion** at the Federal level when a former member of several subcommittees of the House Transportation and Infrastructure (T&I) Committee, including the T&I Subcommittee on Railroads, retired just before SAFETEA-LU authorization. It was then left to others to champion the project during final Congressional deliberations, which may have resulted in CREATE not receiving the Federal funding anticipated from the Projects of National and Regional Significance (PNRS) Program in SAFETEA-LU. It had requested $900 million in Federal funding in addition to state, local and private contributions but, instead, it only received $100 million, which has been released in increments.

CREATE's goals could be advanced with strong champions throughout the nation who recognize the national significance of the program and will support the lobbying efforts to secure more funds in the next Federal transportation authorization. Without a strong champion at the Federal level who will help secure a dedicated funding source, the program will continue to be implemented in phases, resulting in significant delay.

Guideline 4. Identify and recruit stakeholders.

One of the key success factors for an effective institutional arrangement is identifying and recruiting stakeholders to achieve the defined purpose or mission. Given that freight transportation is, in large part, driven by the private sector, this requires a mix of public and private stakeholders—public transportation agencies and authorities to drive the funding, permitting, and programming of projects and private transportation companies to drive the needs identification, prioritization, and buy-in for specific projects and programs. To recruit the appropriate partners successfully, a win-win scenario must be defined and promoted. A group of like-minded stakeholders can be brought together to promote mutual benefits at a regional level to drive economic development, mobility, and overall competitiveness. At a specific project level, stakeholders can be organized to solve a key freight bottleneck that is bigger than an individual agency or company. It is critical that the individual stakeholders represent affected agencies and companies as well as being leaders and decisionmakers who can ensure the commitment of resources.

Many entities have successfully identified and recruited stakeholders to achieve the defined purpose or mission such as CREATE, which united several public and private parties to address a freight bottleneck in the region; DVRPC, which reaches out to various freight-related entities to join in the transportation planning process for a region; and KCSP, where investors are stakeholders representing a mix of public and private partners. Example 4-1 shows an organization that successfully reached out to a wide range of stakeholders to ensure the right individuals participated and contributed to the overall mission of the group. Example 4-2 discusses an entity that is building its membership after broadening its mission over time.

Example 4-1. California Marine and Intermodal Transportation System Advisory Council

The California Marine and Intermodal Transportation System Advisory Council (CALMITSAC) was created as a California-focused group to help the state develop a strategy to deal with the growing amounts of maritime cargo being handled by the California ports. This **group of like-minded stakeholders** was needed in order to act effectively in concert and address California's marine transportation system issues. As a result, a mix of public and private stakeholders were identified and recruited, including State legislative staff, Maritime Administration (MARAD) officials, the Marine Exchanges of Northern and Southern California, the California Association of Port Authorities, the Pacific Merchant Shipping Association, the California State Lands Commission, academics in trade and transportation fields, labor unions, and waterfront employers. This **multi-stakeholder group,** later referred to as CALMITSAC, has been meeting since 2001 to raise awareness of the importance and needs of California's ports and marine transportation system.

One of CALMITSAC's key success factors has been its ambition to bring a wide range of stakeholders together to ensure that the right individuals participate and contribute to the overall mission of the group.

Example 4-1. (Continued)

As a result, CALMITSAC has continued to **broaden its membership** to include stakeholders who will identify, prioritize, and recommend actions to improve California's maritime transportation system, making sure they represent affected agencies and companies like the California Chamber of Commerce and the BNSF Railway Company, as well as leaders and decisionmakers such as the California Department of Transportation and the California Business, Transportation, and Housing Agency. Most recently, the group has reached out to a major national environmental group, the Natural Resources Defense Council, which is working to reduce the pollution levels and community impacts produced by California's port operations. By identifying and recruiting this wide range of public and private stakeholders, CALMITSAC has proven that it is possible for **diverse members** to look past their individual agendas in service of CALMITSAC's overall mission to foster the development of a marine transportation system in California that is safe, secure, efficient, environmentally sound, and capable of expanding to meet the demands of the global economy.

Example 4-2. Nation'sPort

Nation'sPort is a non-profit organization formed to fulfill the need to create a single organization that would serve as a **voice for a full range of freight interests** in the Ports of New York and New Jersey region. There was no umbrella organization to bring the needs of these stakeholders together in a cohesive fashion. Therefore, one of its challenges has been to integrate the various public and private sectors' needs and expectations into **one single voice** advocating for the Ports of New York and New Jersey.

Nation'sPort began primarily as a private-sector group that is now motivated by the desire to encourage the general public's interest in the Port. However, it recognized the need to promote the benefits of the Port in terms of economic development, freight mobility, and overall competitiveness at the regional level. To do this, a **mix of public- and private-sector members** needed to be represented. As a result, Nation'sPort became a more formal structure consisting of five standing committees dealing with specific issues (Inland Transportation, Port, Land Use & Development, Labor & Workforce Development, and Technology & Systems Integration). Each committee represents a **diverse constituency** tailored to each issue. For example, the Inland Transportation Committee includes members from trucking, railroads, construction, engineering, communities, and planning agencies, while the Labor & Workforce Development Committee involves representatives from employment and training organizations, educational institutions, and a range of employers. Nation'sPort also intends to establish an **Advisory Board** made up of local and state governmental entities concerned with freight transportation. It expects to get the New York and New Jersey MPOs and state DOTs involved, expand union involvement, and build positively on the established working relationship with the Port Authority of New York and New Jersey.

In conclusion, Nation'sPort has recognized the importance of including a mix of public and private members in order to have the **appropriate stakeholders** and resources to encourage a strong regional collaboration and integrate the various constituents' needs and expectations into a regional logistics strategy for the Port's region.

Guideline 5. Build political support.

The success of an institutional arrangement is directly linked to its political support. Although many institutional arrangements are technically driven in nature, the ability to implement specific objectives is directly affected by the support of community and business leaders. Without political support, it may be more difficult to engage stakeholders, solicit dedicated funding, and implement recommendations. In the most extreme cases, support can result in a mandate that provides the authority to implement specific actions. Recommendations from an advisory committee are given more credence when the members are politically appointed. In some instances, legislative bodies can create new funding programs designed to tackle

freight mobility issues. Political support is one of the key success factors for most institutional arrangements.

The degree of political support for the organizations that were studied varied. In some cases (such as, CALMITSAC), this support resulted in a state-legislated mandate. In others, such as TCIFCG, local political support resulted in greater collaboration among members toward their funding goal. Example 5-1 illustrates an organization that employed various levels of political engagement to rally the support needed to be successful. Example 5-2 shows the effect of having strong political support to bring the public and private sector together.

Example 5-1. Freight Mobility Strategic Investment Board

The Freight Mobility Strategic Investment Board (FMSIB) is an independent state agency created by the Washington State **legislature** in 1998 to implement a strategic investment program exclusively for freight mobility needs. The 12-member **board** evaluates and scores project applications every 2 years using rigorous evaluation criteria that are competitively neutral across jurisdictions and modes. The FMSIB also advocates for funding at the state and Federal levels, in addition to advising the State legislature on freight trends and concerns. Because FMSIB can count on the political support of the State legislature, the private carriers, and the local communities, it has been able to fund and complete strategic investment projects to improve freight mobility in the State of Washington.

First, being created by the legislature gave FMSIB clear **statutory guidance** with defined roles, responsibilities, and goals to improve freight mobility in the region and, to some degree, promoted FMSIB as the authority for freight investments in the region. **Elected leaders** became freight champions, which has been crucial when advocating for funding at the state and Federal levels. In addition, FMSIB has had the support of the private freight carriers (shipping, trucking, and railroads). The Board, **appointed by the Governor**, includes a member of each private carrier industry and, as such, the private-sector Board members are directly involved in the decision-making and project selection process. This has resulted in a greater willingness of the private carriers to participate in planning and to secure private partners and private funds to leverage the largest amount of non-state funds necessary to improve the movement of freight in the State of Washington.

Finally, as its mission states, FMSIB is charged with finding solutions that lessen the traffic and environmental impacts on local communities. The project prioritization and scoring process has bonus points for projects that reduce environmental impacts and improve environmental benefits (i.e., reduce vehicle emissions, reduce train whistle noise in crossing vicinity, and improve local air quality). As a result, local communities also support FMSIB's projects.

Example 5-2. Chicago Region Environmental and Transportation Efficiency Program

The Chicago Region Environmental and Transportation Efficiency (CREATE) Program is a public-private partnership created in 2003 that includes the state and city transportation departments, passenger rail services, and six of the largest North American freight railroads. CREATE is aimed at addressing existing and future congestion issues on the rail system, which are expected to bring adverse effects to the national economy and transportation system if not addressed in the near future.

One of the key factors of the CREATE Program's success in being recognized as a project of **regional and national significance** has been the **strong political support** from all of its stakeholders. Since its genesis, a strong leadership presence from political leaders has helped bring private industry into the project design process. Support from communities and freight organizations was also achieved thanks to the political leaders at the Chicago Department of Transportation (CDOT) and at the Illinois Department of Transportation (IDOT) who have actively promoted the benefits of CREATE to gain public support for the projects. Over 15 businesses have produced **letters of support** stating how the CREATE Program improvements will benefit their businesses. To add significant local resident appeal for neighborhoods bisected

Example 5-2. (Continued)

by freight lines and obtain their support, several key grade separation improvements were also included in the overall list of projects.

In the end, the support of political leaders, private and public partners, businesses, and local communities promoting not only the local and regional benefits but also the national benefits made the case for investing in CREATE projects. This helped position the project to better compete for the Projects of National and Regional Significance (PNRS) Program dollars. As a result, CREATE received funding from the PNRS Program and is recognized nationally as a single project that will benefit the movement of goods and passengers.

Guideline 6. Develop information-sharing and outreach venues.

Most institutional arrangements specialize in information sharing, outreach, and education. These activities are responsible for building consensus on needs and priorities, educating communities and stakeholders about the importance of freight transportation, and ensuring that all interested parties are current on developments and activities associated with the institutional arrangement. E-mail distribution and website development, along with brochures and newsletters, are effective tools for defining the identity of the institutional arrangement, distributing information, and soliciting feedback and input. Project awareness helps build support and acceptance of an institutional arrangement's mission or purpose. In some instances, this consists purely of information sharing and education relative to freight transportation system needs. It can also consist of organized, formal solicitation of stakeholder input on project identification and priorities within established transportation programs.

Information sharing takes on many forms (e.g., the I-95 Corridor Coalition's development and distribution of "lessons learned" reports and participation in industry conferences). Nation'sPort has provided a forum for all members to provide input into the entity's strategic planning process. Example 6-1 provides detail on an organization that used an extensive marketing program to reach potential stakeholders. Example 6-2 focuses on information sharing as a way to improve the understanding of freight in its region.

Example 6-1. Kansas City SmartPort

Kansas City SmartPort, Inc. (KCSP) is a non-profit, investor-based economic development organization supported by both the public and private sector. It was formed in 2001 to promote and enhance the 18-county, bi-state Kansas City region as a leading North American logistics hub. KCSP has encouraged regional economic growth by attracting logistics businesses to locate in the region and has promoted the efficient movement of goods by facilitating freight **information** to key stakeholders.

KCSP is a strong example of an organization that has been able to define its mission of positioning the Kansas City region as a top logistics hub thanks to an assertive **marketing and media campaign** that branded the region as "America's inland port solution." The marketing outreach has included **marketing trips, trade missions, presentations, brochures, newsletters, and events** that have helped build consensus on KCSP's mission at the local, regional, and national level.

Overall, KCSP serves as the **clearinghouse** for all the freight-related information in the region. KCSP maintains a comprehensive database of available logistics sites, freight service providers, educational and training opportunities on supply chain management, and relevant news and articles, making it easier for potential logistics business customers or clients to be better informed when they want to relocate to the region. Having all this information available in one location on the KCSP website (**www.kcsmartport.com**) has facilitated the communication among all freight stakeholders in the region. The website is KCSP main resource to educate public and private stakeholders and to ensure all interested parties are current on developments and opportunities associated with freight-related businesses in the region. The website and outreach venues mentioned earlier have been valuable tools effectively used by KCSP to promote itself as the freight umbrella group of the Kansas City region.

Example 6-2. Mississippi Valley Freight Coalition

The Mississippi Valley Freight Coalition (MVFC) is a regional organization created in 2006 to cooperate in the planning, operating, preservation, and improvement of the transportation infrastructure in the 10-state Mississippi Valley region. Its charter specifies three objectives to develop **information sharing and outreach venues** to support the coalition's mission of maximizing the operational efficiency of the freight transportation system in the region. These objectives are

- **Share information** to improve the understanding of freight issues and the management of freight services and facilities;
- **Reach out to and share ideas** with the private sector on how to make freight-flow efficient; and
- Gather, analyze, and **share information** on the movement of freight with sister agencies and private sector interests.

The MVFC has successfully achieved these three goals thanks to the effective communication that exists within the MVFC committees and outside the Coalition. By having **newsletters, workshops, a user-friendly website,** and other marketing materials, all parties interested in improving freight mobility in the region are kept informed and involved in the MVFC efforts. Staff reports quarterly on the progress of the MVFC projects and keeps the states in a dialogue on what is happening with the Coalition's efforts. At least annually, a workshop conference is held to bring all regional freight stakeholders together to share ideas with the ultimate goal of providing a learning experience for all members.

By keeping all committee members, the private sector, other public agencies, and advocacy organizations informed of recent news that may affect the Coalition's efforts or affect freight in the region, the MVFC ensures everyone is engaged with what the Coalition is doing while providing a **common voice** for the region's freight transportation issues.

Guideline 7. Partner with academia.

Over the years, academia has played an important role in many institutional arrangements. In fact, some are housed in or led by transportation research centers at universities. Academia provides many resources, including staff, research funding, stakeholder outreach, and continuity over time. In addition, universities can provide a neutral forum for discussions among a diverse set of stakeholders. For many institutional arrangements, these resources are critical factors for ongoing success. In addition, some have been the motivator for developing freight transportation coalitions. Academia typically involves itself in institutional arrangements that focus on research, outreach, and consensus-building activities. It is less involved in institutional arrangements designed to prioritize and fund improvement projects or establish new authorities.

Fewer examples are available for institutional arrangements that have partnered with academia; however, it is important to note the success of the ones that have reached out to this source. Example 7-1 illustrates how an institutional arrangement administered by a university program can benefit from the neutral perspective of the university environment. Example 7-2 points out the success of other academic opportunities through intense study programs in current subject matter related to freight transportation.

Example 7-1. Mississippi Valley Freight Coalition

The Mississippi Valley Freight Coalition (MVFC) is a regional organization created in 2006 to cooperate in the planning, operating, preservation, and improvement of transportation infrastructure in the 10-state Mississippi Valley region. It is administered by one of the **University Transportation Centers** (UTCs) sponsored by the U.S. DOT at the University of Wisconsin—Madison, the National Center for Freight and Infrastructure Research and Education (CFIRE). As the administrator, facilitator, and coordinator of the Coalition, CFIRE serves as an external entity that is not associated with any of the state DOTs. In addition,

Example 7-1. (Continued)

while the center is responsible for research and education efforts for freight infrastructure at a national level, as the Midwest Regional UTC it is in a position to **independently facilitate the collaboration of all 10 states** rather than one of the states facilitating the Coalition. It is the UTC's mission to work for the benefit of the region, not a particular state, which brings objectivity to the Coalition's work. Furthermore, since CFIRE partners with other universities in the region (University of Toledo in Ohio, University of Illinois—Chicago, University of Wisconsin—Milwaukee, and the University of Wisconsin—Superior), it can provide a comprehensive geographical perspective of the region.

CFIRE's **research and technical capabilities** are a tremendous asset to the MVFC and have resulted in a win-win scenario. As a research institution, CFIRE is always aware of the latest initiatives, developments, technologies, and tools, and it applies that knowledge to the benefit of the MVFC projects. University research assistants benefit from being exposed to real transportation projects while working toward a graduate degree and are also less expensive than private consultants; therefore, the MVFC can complete more projects within a limited budget. But above all, partnering with academia has offered MVFC **objectivity and a different perspective** to maximize the operational efficiency of the freight transportation system in the region through the university environment.

Example 7-2. I-95 Corridor Coalition

The I-95 Corridor Coalition is a group of stakeholders representing various organizations along the length of the I-95 corridor traversing the East Coast of the United States. The organizations include transportation agencies, toll authorities, public safety groups, and transportation industry associations. This multijurisdictional cooperative effort aims to improve the transportation conditions along the I-95 corridor. The strength of the Coalition lies in its ability to provide **objective analysis** in order to address transportation problems in a manner that transcends individual organizations.

The coalition is continually working to create an effective approach to an ever-changing political and technological landscape with particular emphasis in areas such as information exchange. The Coalition provides **training** to further the **education** of its members. The Consortium for ITS Training and Education (CITE) is an international **consortium of universities** that is using distance learning technologies to educate professionals in the latest technologies and applications. The Coalition also supports two academies, the Operations Academy and the Freight Academy, that provide participants from Coalition member agencies and others from around the country with opportunities for immersion in current subject matter for periods of a week or longer.

Although not housed in a university, the Coalition provides academic opportunities to train and inform its members on current issues in the freight industry to better respond to the constantly shifting environment of freight logistics. Coalition members directly benefit from Coalition investments in **education programs.**

Guideline 8. Engage stakeholders as needed.

The success of an institutional arrangement often is driven by its ability to generate ongoing, long-term stakeholder involvement. Although many stakeholders may originally agree to participate in an institutional arrangement, it can become increasingly difficult to engage them over time. Showing significant progress and forward momentum is critical, especially for private-sector participation. It is important to take into account the interests of the private sector (e.g., promoting lower shipping costs, improved velocity, and greater reliability of shipments). Considering these issues will help keep the private sector involved. Many programs have adopted short-term quick-fix elements to their programs to ensure that stakeholders remain involved. As programs advance, stakeholders should only be engaged when there is a concrete purpose—i.e., the group should not meet just to meet. A lack of a

substantive agenda and program will lead to reduced participation over time.

Many examples exist of entities engaging stakeholders throughout their process, including FMSIB where all stakeholders are part of the decision-making process, thereby keeping their interest in the entity's mission. Also, CALMITSAC holds leadership symposiums and meets across the state to maintain and encourage attendance at its meetings. Example 8-1 discusses an organization that uses specific strategies to keep members engaged. Example 8-2 describes an advisory committee taking deliberate steps to keep its members engaged.

Example 8-1. Delaware Valley Regional Planning Commission—Goods Movement Task Force

The Delaware Valley Regional Planning Commission (DVRPC) is the MPO for the greater Philadelphia area covering eight counties plus the City of Philadelphia and spans both Pennsylvania and New Jersey. The Goods Movement Task Force (GMTF) is a long-standing freight advisory committee within this MPO. The Executive Committee and members meet quarterly to discuss freight-related issues in the region.

The task force strives to keep its members **engaged** and working together. Because meeting attendance is voluntary, the leaders of the task force aim to provide compelling agenda content, including relevant topics and interesting speakers. This provides **incentives** for both private- and public-sector interests to be involved and encourages **regular attendance** at the quarterly meetings. Another way the task force keeps members engaged is by including components such as **tours** of freight facilities, a **simulated supply chain** re-created in a conference room, tracking several types of freight for a day, and similar activities designed to showcase members' operations and build awareness and goodwill. Another relationship-building tool is providing a **social hour** before each meeting for members and guest speakers to interact with the Executive Committee in a relaxed atmosphere.

The effort exerted keeping members engaged over time has proven successful for the GMTF given that members feel their time has been used effectively for topics of interest to them and their industry counterparts.

Example 8-2. Miami-Dade MPO Freight Transportation Advisory Committee

The Freight Transportation Advisory Committee (FTAC) was created to advise the Miami-Dade MPO Governing Board on issues related to freight movement and truck traffic demands. FTAC members represent freight, logistics, shipping, trucking, warehousing, and intermodal interests. The Committee acts as the institutional voice for freight at the County level by providing a forum for the freight community to discuss transportation needs and integrate freight in the MPO planning process. Although FTAC members are appointed by the MPO Governing Board, it does not necessarily mean members will fully participate and contribute to the freight transportation issues discussions.

The FTAC has to make sure its members are **engaged and contributing** to the Committee. Having MPO **staff dedicated** to coordinating the committee's work has been key to the development of FTAC and to keeping members and stakeholders engaged. The FTAC Coordinator develops a **substantive agenda** for each FTAC meeting and makes sure each meeting centers on topics related to freight mobility needing the MPO's attention. The Coordinator also searches for freight projects being considered by the Florida Department of Transportation or other agencies possibly needing the attention of the MPO. In addition, the Coordinator invites private consultants, public-sector representatives, and other freight stakeholders to **make presentations** to the committee in order to foster the **sharing of ideas** about the freight issues being presented or discussed. As a result, FTAC members have engaged in productive discussions of the issues presented, contributed to recommendations on the freight transportation issues affecting Miami-Dade County, and passed resolutions with suggested actions for the MPO Governing Board.

Guideline 9. Secure dedicated funding and resources.

One of the challenges for many institutional arrangements is the lack of a dedicated funding source. As with any transportation program, a dedicated funding source ensures continuity over time, evidence of an ongoing commitment, and resources to advance priorities. Allocation of staff time is often a driving force behind the establishment of freight advisory committees. The lead agency, often an MPO, assigns dedicated staff to an institutional arrangement to ensure development of agendas, distribution of relevant materials, meeting logistics, and technical support to the committee. Statewide programs have been successfully created through funding provided by the state legislature. Larger coalitions have been successful in securing Federal earmarks as well as participant contributions to organize technical research programs, outreach programs, and bottleneck analyses. Still others have found a funding stream through member dues and sponsorships. Dedicated funding often is one of the deciding factors between success and failure for any given institutional arrangement.

The need for dedicated funding is one of the most common challenges identified by all types of institutional arrangements. For example, CALMITSAC members had strong political support for a legislative mandate for its program but have not been able to secure funding to pursue its goals. Although the I-95 Corridor Coalition has enjoyed funding for most of its duration, it has not always had a consistent or known amount. Maine IRAP has received strong support for its program's purpose, but does not always know if it will receive funding each year or for how much. Examples 9-1 and 9-2 illustrate the stability that a dedicated funding source can provide to an organization.

Example 9-1. Florida Seaport Transportation and Economic Development (FSTED) Council

The FSTED Council was created by the Florida Legislature in 1990 to finance seaport transportation and seaport facility projects to further the state's economic development mission. This program evolved because of the need for flexibility to invest in Florida's seaport capacity so seaports could better respond to the global marketplace and compete for international trade, which is vital to the state's economy.

Prior to the early 1990s, individual seaports pursued funding independently from state and Federal sources with limited success. The Florida Ports Council (FPC), a trade association representing Florida's seaports, saw this as an opportunity to encourage a multimodal approach to transportation. In addition, the cruise industry was booming, and the seaports were at the limit of their ability to fund new facility expansion or maintain their current facilities. At this time, the FPC approached the legislature for state money to fund seaport activities. The FPC worked with the 14 seaport directors to collectively come to the Florida Legislature and request a **dedicated funding source** to fund seaport capital improvement projects. They based this request on the fact that seaports had never been allocated state transportation funding but were a huge asset to the state's economic development. As a result, during the 1990 legislative session, a bill was passed that created the FSTED program and resulted in a **dedicated state funding source** for this program to support and encourage the movement of people and goods through Florida's seaports. This funding would be provided only for approved projects.

This dedicated funding source has been the key to the success and longevity of this program as it keeps the ports engaged and communicating with each other on how to best carry out Florida's economic development mission. Without this funding, the continuity and commitment of the stakeholders to discuss and address the combined needs of Florida's 14 deepwater seaports likely would not exist.

Example 9-2. Commercial Vehicle Information Systems and Networks

The Commercial Vehicle Information Systems and Networks (CVISN) Program consists of a framework for organizing, deploying, and funding the implementation of technology to automate various motor carrier regulatory and safety enforcement functions with the ultimate goal of improving commercial motor vehicle safety. The program is managed by FMCSA; however, deployment, planning, and implementation of the program require the full participation of FMCSA, state agencies with motor carrier

(continued)

Example 9-2. (Continued)

safety or regulatory responsibilities, and the industry. This participation includes **providing funds** to support the planning, deployment, and operation of CVISN-related systems for all 50 states.

In 2005, in order to seed the deployment of CVISN, SAFETEA-LU legislation authorized $100 million in **Federal deployment funds** to support states' implementation of CVISN functionality. SAFETEA-LU authorized the U.S. DOT to provide up to **$3.5 million to each state** to support the planning, deployment, and operation of CVISN-related systems. The legislation dictates that Federal CVISN deployment funds cannot be used to fund more than 50 percent of a project's total budget. As such, states must identify matching funds that total 50 percent of a project's budget. The matching funds must be derived from non-Federal (i.e., state or private sector) sources and must be related to the state's CVISN Program. This **50-50 funding match** requirement has enabled Federal and state partners to pool their funds and accomplish more than if they were left to fund the program independently.

As a result, as of August 2008, 20 states are considered "Core CVISN Compliant" or have deployed all of the core CVISN capabilities. The dedicated funding source and local match requirement has provided FMCSA and its state and industry partners with the financial resources to identify expanded CVISN functionality that is being integrated into the CVISN Program so as to achieve nationwide deployment and continue improvements to commercial motor vehicle safety.

Guideline 10. Use a consensus-based process.

Most institutional arrangements consist of a mix of public and private stakeholders brought together for a common purpose. A consensus-based process should be used in order to keep the stakeholders engaged and the institutional arrangement on track to achieve this common purpose. Consensus can be built through collaboration where a committee or coalition works together to define common goals. This is common for institutional arrangements that focus on regional economic development programs designed to make their region more competitive for freight-dependent industries. For more formal decision-making activities, such as setting program or project priorities, a voting structure can be used. Although this may fall short of achieving a true consensus, it ensures that all members have an equal voice. This process is useful for allocating funds to multiple stakeholders for specific improvement projects.

Many organizations have consensus building as a goal including (1) MVFC where all state DOT secretaries and freight-related staff collaborate for the same goal, (2) FSTED where all port directors cooperate with each other on what is best for the ports in Florida as a whole, and (3) FMSIB where all members participate in project discussions and come to agreement on project selection. Example 10-1 discusses an organization that makes consensus-building part of its approach to provide objective analyses of transportation problems. Example 10-2 demonstrates the outcome of stakeholders who reached consensus on a project list to make their case for funding projects in their region. Example 10-3 illustrates the effective use of advocacy and education reflecting consensus building.

Example 10-1. I-95 Corridor Coalition

The I-95 Corridor Coalition is an organization created to deal with highway safety, mobility, and efficiency on a multi-state and—jurisdictional basis. The strength of the Coalition lies in its ability to provide objective analysis in order to address transportation problems in a manner that transcends individual organizations. The coalition's approach is based on the **4-Cs—Consensus, Coordination, Cooperation, and Communication.**

The I-95 Corridor Coalition's decision-making process seeks **consensus** among its members. No member has any more clout than any other. This approach ensures that the Coalition's work continues to meet the needs of its member organizations. The Coalition's flexibility in legal structure has allowed for a bottom-up and top-down approach that provides forums for decisionmakers to gather and improve

Example 10-1. (Continued)

the transportation system **collaboratively.** The voluntary membership helps to ensure that members are involved for the **good of the mission** and do not have a personal agenda. This approach makes it possible to strive for and achieve consensus among the members of the Coalition.

Without consensus, an organization cannot move forward easily. Consensus facilitates the I-95 Corridor Coalition's ability to pursue and implement studies and projects that address mutual interests and needs in a timely and cost-effective manner.

Example 10-2. Trade Corridors Improvement Fund (TCIF) Consensus Group (TCIFCG)

The Trade Corridors Improvement Fund (TCIF) Consensus Group is a new **cooperative** effort among a group of Southern California county transportation commissions that traditionally had competed for transportation funds. They came together with the goal of ensuring that Southern California received a proportionate share of the TCIF. This fund included $2 billion designated for infrastructure improvements along trade corridors in the State of California with a high volume of freight movement. The county transportation commissioners had a **common goal:** to obtain a proportionate share of the TCIF funds in order to complete or advance a **consensus list** of short-, medium-, and long-term priority freight projects previously identified by the counties in a Southern California Multi-County Goods Movement Action Plan.

When funding for infrastructure investments on the state highway system through the Corridor Mobility Improvement Account (CMIA) was made available in 2007, Southern California counties each fought for their own share of the CMIA funds and most came up short in the fierce competition for funds. Based on this experience, the Southern California county transportation commissioners recognized that a **new form of collaboration** among them was necessary in order to compete for the TCIF funds. Since Southern California ports handle over 80% of the state's containerized cargo, the transportation commissioners formed the TCIFCG and used a **consensus-based approach** to compete as a region and make the case that Southern California should receive a similar proportion (80%) of the statewide trade corridor funding (TCIF) to improve the numerous trade corridors in the region serving the Ports of Los Angeles and Long Beach.

There was internal agreement within the participating group of Southern California counties as to the priority of projects on the regional list, which was individually approved by each commission board. This set of project priorities was then provided as a single consensus communication to the state, whose role was to assign a portion of the state funds available. Despite the collaborative efforts of the TCIFCG, the group was not successful in obtaining its goal of a proportionate share of the TCIF money based on the percentage of the state's cargo transiting the region. The final share allocated to Southern California was estimated to be about 55% instead of the 80% expected. However, united by a strong common goal, the county members of the TCIFCG achieved one important objective: they successfully demonstrated a new model of regional collaboration in a statewide competition for infrastructure needs.

Example 10-3. Natural Resources Defense Council

The Southern California Clean Air Program of the nationwide nonprofit Natural Resources Defense Council (NRDC) is a small team of attorneys whose mission is to use litigation, advocacy, and public education to promote public policy that reduces emissions of pollutants, including greenhouse gases. The team focuses about half its time and efforts on goods movement, a major source of emissions in the area, and has had some success in moving toward its goals.

(continued)

Example 10-3. (Continued)

Both the nonlitigation advocacy and public education functions of this Clean Air team are examples of using a **consensus-based process** to achieve organizational goals. Advocates who work on the team often testify at public hearings for projects relating to goods movement and collaborate in this effort with other like-minded environmental and community-based groups, both formally and informally. The presence of multiple speakers and groups **all voicing similar concerns** with the potential environmental or public health impacts of a project is a clear influence on public decisionmakers. The team's public education efforts, through speaking to various interest groups, also are an example of consensus building.

One example of an **advocacy partnership** is the Coalition for Clean and Safe Ports, a collaboration of several national and local environmental groups, including NRDC's Clean Air Team, social justice groups, and labor unions. Their specific short-term goal was to influence the development of truck fleet replacement programs by the Ports of Los Angeles and Long Beach.

Guideline 11. Ensure short- and long-term progress.

A successful institutional arrangement should have short-and long-term elements. The short-term elements will ensure that the stakeholders remain engaged and that the institutional arrangement focuses on remedying the needs of today. The long-term elements ensure that the work undertaken by the institutional arrangement continues to move in an agreed-upon direction and sets a precedent for longevity. The long-term elements must also take into account shifts in priorities due to the ongoing evolution of the institutional arrangement. Some institutional arrangements that begin as advisory groups or coalitions evolve into new authorities as their vision gels into specific projects and/or investments. Although the overall mission may remain similar, the specific day-to-day operation of the institutional arrangement, as well as the legal structure, could change significantly.

Most institutional arrangements studied have some form of short- or long-term elements; some have both. It is important to document short- and long-term progress, especially from organizations that have been in existence for a while. Example 11-1 describes an organization that had its beginnings in the early 1980s. Example 11-2 discusses an organization that has been around since 1993. Both examples demonstrate short- and long-term elements that have been vital to their success.

Example 11-1. Alameda Corridor Transportation Authority

The Alameda Corridor Transportation Authority (ACTA) is the result of an evolving process to address capacity improvements and environmental concerns along the Alameda Corridor, a 20-mile stretch between the Ports of Los Angeles and Long Beach and the railroad mainlines near downtown Los Angeles.

From concept to reality, the Alameda Corridor project took 18 years to complete (1984–2002). The process began prior to 1984 with a coordinated planning effort focusing on highway and railroad access to the Ports of Los Angeles and Long Beach by the Southern California Association of Governments (SCAG). In late 1981, SCAG created the Ports Advisory Committee (PAC) to bring together a diverse collection of interest groups to begin the communications and consensus building process.

In a step-by-step approach, the PAC initially focused on highway access. After only 5 months, in March 1982, the PAC agreed on a comprehensive list of highway improvements that included widening of Alameda Street from four to six lanes from the ports to State Route 91. From 1982–1984, the PAC focused on developing a railroad access plan for the Ports of Los Angeles and Long Beach. By 1985, the next element was to pursue the Alameda Corridor concept, for which the SCAG created the Alameda Corridor Task Force (ACTF),

Example 11-1. (Continued)

whose membership was similar to that of PAC, with the addition of the California Public Utilities Commission (CPUC) and each of the cities along the corridor. The ACTF evolved into a Joint Powers Authority with design and construction responsibility for the Alameda Corridor. The Consolidated Transportation Corridor Joint Powers Authority was created in August of 1989. The agency changed its name to the Alameda Corridor Transportation Authority (ACTA) in November 1990.

Continuing to make long-term progress, ACTA's Governing Board approved the Environmental Impact Report (EIR) for the project in 1993 and the Environmental Impact Statement (EIS) in 1996. Construction began in 1997 with the building of the $6 million railroad bridge over the Los Angeles River at the northern end of the corridor. Construction of the main trench section in the mid-corridor started in 1999 and was completed in 2002.

This history of ACTA points to the success of ensuring long- and short-term progress. Without the **short-term focus** the project might not have gotten underway, but without the **long-term vision** it would never have turned into the success it is considered today.

Example 11-2. I-95 Corridor Coalition

The I-95 Corridor Coalition was formed in 1993 to facilitate transportation management and operational improvements along the I-95 Corridor region covering the East Coast of the United States.

With its successful alliance among transportation authorities, agencies, and related organizations, the Coalition has become a model for cooperative multi-regional transportation planning. Starting with a focus on Intelligent Transportation Systems (ITS) technology, the Coalition has broadened its approaches as it has expanded to better meet the needs of the corridor. The Coalition's **forward-looking initiatives** over the years are designed to save lives, time, and money with technological improvements and innovative projects implemented for the benefit of the corridor. Additionally, the Coalition has developed a **2040 Strategic Vision** for the I-95 Corridor to assist member agencies in developing their transportation plans and to define the Coalition's priorities. The Coalition is also exploring various approaches for financing large projects where the costs of the improvements are too great for a single entity to fund and where benefits accrue to the entire region or the nation.

Another key factor in the longevity of the Coalition has been the structure of the organization and the non-binding agreement between the transportation authorities, agencies, and related organizations to promote transportation issues in the region through volunteer and participatory activities. The Coalition's structure reflects both a bottom-up and top-down approach that provides a forum for decision-makers to gather and improve the transportation system collaboratively.

In the beginning, the Coalition's primary goal was to develop ITS to enhance the transportation system. Over the years, the Coalition has expanded its focus to include other areas that affect the corridor such as safety, multimodal projects, planning, financing, and information management.

The long- and short-term elements described above show the importance of being cognizant of both of these elements when ensuring the focus of the overall mission. This approach has proven successful for the Coalition over the last 16 years.

Guideline 12. Develop and use performance measures.

The use of performance measures has become common practice within the transportation industry and has direct application to institutional arrangements. The ability to show progress helps ensure continued support by stakeholders as well as funding agencies. Performance measures vary significantly by type of institutional arrangement. Advisory committees and coalitions can be evaluated by levels of stakeholder participation and meeting attendance, identification and completion of research initiatives, identification of bottlenecks, and recommendations for improvements. Transportation authorities can be evaluated on schedule, budget, implementation and operation, and resulting effect of a project. Performance measures evolve over time with the institutional arrangement. An annual "report card" on key successes and failures is an effective tool for ongoing performance monitoring.

The institutional arrangements studied in this project are at varying levels of developing and using performance measures to monitor the progress of their programs. Some measure completion of projects, some measure meeting attendance, and others do not have a set list of measures to monitor the development of their program. For instance, CREATE monitors expected benefits while FTAC observes the completion of tasks in the Unified Planning Work Program (UPWP) as a measure of performance. Example 12-1 presents a state-legislated program and its accountability to the legislature on the progress of its program. Example 12-2 shows how an investor-based program stays responsible to the investors.

Example 12-1. Freight Mobility Strategic Investment Board

The Freight Mobility Strategic Investment Board (FMSIB) is an independent state agency created by the Washington State legislature in 1998 to implement a strategic investment program exclusively for freight mobility needs. FMSIB is required to keep the legislature current on the **status** of all the freight mobility investment projects selected to be funded. Twice a year, the board performs a complete **project status review** on all of its projects and reviews the **progress** and any changes for each project quarterly. When a project is unable to fulfill its commitment as communicated to the legislature and the Office of Financial Management (OFM), FMSIB either moves the project to a later biennium or to a deferred projects list. Available funds are then **redirected,** after approval from OFM and the legislature, to projects that can advance and can fulfill their commitment.

Because of this **accountability,** many key members of the State of Washington's legislature are pleased with FMSIB. Since its inception, FMSIB has been committed to achieving its legislative mandate and goals. Its **annual report** highlights how successful FMSIB has been in using the greatest amount of state funds possible by bringing public and private partners together to favor a higher participation percentage match to state funds for each project. The annual report serves as a **report card** where key successes are highlighted and challenges and opportunities are identified. By keeping the legislature informed on FMSIB's performance and doing what is required by statute, policymakers have become freight advocates and continue to seek alternatives to provide funding for freight investments in the state.

Example 12-2. Kansas City SmartPort

Kansas City SmartPort, Inc. (KCSP) is a non-profit, investor-based economic development organization formed in 2001 to promote and enhance the 18-county, bi-state Kansas City region as a leading North American logistics hub. KCSP carries out its mission by engaging in different projects and activities in three main mission areas: Economic Development, Intelligent Transportation Systems (ITS), and Business Services. In order to **show investors progress** and ensure their continued support, KCSP's **performance is evaluated based on the achievement of the goals** set for the organization by the board of directors every year.

The President works closely with the Chairman of the Board of Directors to lead the organization and achieve the goals set for the organization. KCSP goals for 2008 were to attract new or more freight-

Example 12-2. (Continued)

related businesses, measured by the number of payroll jobs created; attract new large logistics businesses to the area, measured by square footage expected to be developed in the region; conduct as much marketing and outreach as possible, measured by number of conferences attended, interviews to the media and transportation consultants, and articles in newspapers and magazines among other activities; continue the development of the Trade Data Exchange project (ITS project), measured by the progress on the project; and maintain the financial health of the organization, measured by the amount of funds attracted from investors and Federal and state grants.

By using **performance measures** to evaluate KCSP's achievement of its mission goals, KCSP has been able to **quantify its level of success** and use its performance and accomplishments as another marketing tool to effectively promote the benefits KCSP generates in terms of economic development, ITS, and business services in the region. Ultimately, investors continue to contribute to the organization because they see the return on their investment in the results KCSP has achieved.

Guideline 13. Encourage cost sharing.

Over the last few decades there have been discussions about public investment in private infrastructure. Although many believe that public funds should not be used to promote for-profit business, others have recognized the public benefits provided by investments in private infrastructure. To mitigate these conflicts, many institutional arrangements have been successful in sharing project costs by requiring a match to public funds or, at a minimum, prioritizing those projects that have a private match. This approach has enabled institutional arrangements to better use limited public funds for specific improvement projects, resulting in greater community support.

Examples of cost sharing are becoming more frequent as public entities reach out to the private sector. In the case of CREATE, the organization partnered with the private railroads and agreed to provide matching funds to aid in alleviating the bottleneck in the region. CVISN, a Federal program, requires states to provide matching funds (which may be private) in order to share the cost of implementing this program. In Example 13-1, a state program partners with the seaports to provide funding for economic development. Example 13-2 describes a state program sharing costs with the public and private sector to improve economic viability of the state's railroads.

Example 13-1. Florida Seaport Transportation and Economic Development (FSTED) Council

Although Florida's seaports are public entities, they operate like businesses in order to fulfill their public purpose. This means they have to be flexible to respond to market demands and customer needs. The FSTED Council was charged with improving the "movement and intermodal transportation of cargo or passengers in commerce and trade and . . . support[ing] the interests, purposes, and requirements of ports located in the state." The business of Florida's seaports is vital to the state's economic health.

Since the creation of this program, state law has provided specific guidelines on what types of projects are eligible for funding under this program, including specific port facility and port transportation projects. The law also specified these projects must be **funded on a 50-50 matching basis;** funding is available for all of Florida's deepwater seaports, as defined in law. However, in order to be eligible for funding, a proposed project must be consistent with a seaport's comprehensive master plan as required by law. In 1996 and 1999, the legislature granted the FSTED Council bonding authority in order to provide funding for port and intermodal projects.

This **matching requirement guarantees that individual ports are ready to invest** in the project as well, prevents the state from having to bear the sole financial responsibility for the projects, and ensures the project is a port priority.

Example 13-2. Maine DOT Industrial Rail Access Program

Rail is essential to the economic vitality of Maine. Recognizing the need for continued economic development and employment growth, in the late 1990s, Maine considered potential opportunities in passenger and freight rail and, as a result, created the Industrial Rail Access Program (IRAP) in 1997 to better facilitate rail service and intermodal transportation. IRAP was also designed by Maine DOT to **promote economic development** and expand opportunities for job employment. IRAP is intended to fund projects that will have the most favorable impact on Maine's economy, the environment, and the transportation system.

The main purpose of IRAP is to provide **financial assistance, in the form of grants,** for the cost of projects that involve rail or rail-related investment in infrastructure. Applications are accepted from private railroad companies, municipalities, counties, private enterprises interested in freight rail transportation, and non-profit organizations. IRAP procedures allow for **financial assistance up to 50 percent of the total eligible project cost.** This ensures equal interest and investment by the applicant. Higher ranking is given to projects that emphasize commitment to economic development, promote multimodal initiatives, or show private investment of more than 50 percent of the project. In some cases, Maine DOT may provide an amount of assistance less than applied for, depending on the availability of program funds. The project applicant also must provide, as part of its application, a **commitment letter** from all non-state sources from which it anticipates receiving funds for the project.

The matching requirement of 50 percent ensures that applicants are willing to invest just as much of their own resources as they are requesting. It also guards against misuse of funds for the same reason. This cost sharing allows the **leveraging of public funds** while furthering economic development missions critical to both public and private entities.

4.3 Type II Guidelines

Type II guidelines are designed to build on those for Type I and provide additional input for Type II arrangements. Type II arrangements are organizations that seek consensus on specific project priorities. They use quantitative methods to score and rank projects competing for funds. These groups often have active and focused advocacy programs for specific projects but may not be directly responsible for the design and construction of these projects. The Type I guidelines are essential to the success of Type II arrangements, addressing all the activities required to initiate the institutional arrangement, establish a specific mission and set of strategies, and engage stakeholders in the process. Each of the Type I guidelines should be reviewed for applicability to Type II institutional arrangements. Table 4-3 summarizes

Table 4-3. Summary of Type II guidelines.

Guideline		FMSIB	FSTED	IRAP
14	Define specific program elements	✓	✓	✓
15	Develop implementation process	✓	✓	✓
16	Establish protocols for implementation	✓	✓	✓
17	Identify evaluation criteria	✓	✓	✓
18	Define funding allocation process	✓	✓	✓
19	Require on-time completion of projects	✓		
20	Require project audits	✓	✓	✓
21	Perform site visits	✓		✓
22	Ensure focus stays on purpose/mission	✓	✓	✓

the Type II guidelines. Following the specific guidelines, the case studies listed in Table 4-3 are presented in Examples 4.3-1 through 4.3-3. These cases are particularly focused, clear examples of the Type II guidelines. Full, detailed case studies are provided in Appendix C.

Guideline 14. Define specific program elements.

As institutional arrangements move beyond the general activities of needs identification, education, stakeholder involvement, and consensus building, it is important to define a specific set of program elements. These program elements provide the architecture for implementation activities that will be carried out by the institutional arrangement members. These activities could include project identification, evaluation and priority setting, funding allocation, and project tracking. As with the development of key strategies discussed above, this process sets the stage for the functionality that will be implemented by the institutional arrangement.

Guideline 15. Develop an implementation process.

Once the program parameters have been defined, specific attention should be given to developing an implementation process. This should include definition of member responsibilities and authority and a step-by-step description of the implementation of the defined objectives, including, but not limited to, a schedule of meetings, application development and submittal requirements, evaluations, and selection of projects. This process also includes developing necessary MOUs to facilitate funding allocations and a process for tracking progress. These process elements help establish expectations for the individual participants so that they understand the time commitment, decision-making protocols, and anticipated outcome.

Guideline 16. Establish protocols for implementation.

Within the implementation process, members will be asked to participate in discussions and decisions to guide the institutional arrangement's activities. Clear, well-thought-out protocols should be established to guide this activity so that the institutional arrangement meets its defined objectives while building consensus and acceptance of priorities throughout all processes (including individual roles in the approval and selection process). The existence of these protocols will help the institutional arrangement defend its decisions and actions to a full range of stakeholders and ensure that the members remain committed to the program.

Guideline 17. Identify evaluation criteria.

Successful Type II organizations use well-documented procedures for scoring and ranking projects. The objectivity and credibility of the selection process are critical to the success of the organization. These processes measure the degree to which projects address important program objectives by generating project scores that reflect a project's priority compared with other projects. This includes consideration of anticipated outcome, project cost, funding match, level of community support, inclusion in regional transportation programs (TIP and LRTP), ability to meet defined schedule, and comparison with other eligible projects. In addition, equity across modes and geographic regions often comes into play. The process should be transparent and built on mutual goals and consensus.

Guideline 18. Define funding allocation process.

A key activity of Type II institutional arrangements is the funding of specific improvement projects. This requires a funding source (preferably a dedicated funding source) and a defined mechanism for the equitable allocation of the funding. The protocols discussed above lay the groundwork for a process to guide these decisions; however, it also is important to define the specific steps in the allocation process based on the funding cycle, funding availability, funding eligibility, and established priorities. Each funding source will have requirements that must be understood and integrated into this process.

Guideline 19. Require on-time completion of projects.

As an "investor" in the project, Type II organizations have an interest in seeing the projects succeed. One way in which this can be accomplished is to provide strict guidelines on project completion requirements. Private-sector participants will only remain involved in arrangements that make progress. Funding often is given for specific time periods. Stipulations can be made that require projects to be completed within an agreed-on timeframe or the funding will be re-allocated to a new project. This ensures that projects are shovel-ready at the time of funding and specific improvements will come on line in a defined time period. These agreements can also set limits on escalation (i.e., regardless of how long the project takes, only the agreed-on funding allocation will be available). In addition, if the project comes in under budget, funding would be returned to the program for reallocation.

Guideline 20. Require project audits.

The use of performance measures helps ensure an institutional arrangement's success. When an institutional arrangement is responsible for selecting and funding improvement

projects, additional accountability is required. This accountability should consist of project-specific audits designed to ensure that (1) funding is being spent on agreed-on activities, (2) the contractor is completing the project as designed, and (3) there are no significant discrepancies regarding how the funds are accounted for. The results of these audits, in conjunction with other performance measures, should be used to help describe the overall success of a project.

Guideline 21. Perform site visits.

Institutional arrangement activities can often be characterized as a group of like-minded stakeholders brought together as needed to discuss and implement a program. However, often the members are not involved in the actual construction of an improvement project. To help members better understand the needs and the resulting improvements, field visits should be scheduled to review bottlenecks and support needs prioritization. Such visits help educate the members and build morale by confirming progress. Given that site visits can be costly and time consuming, the group should consider annual or semiannual trips to review select bottlenecks and projects. By visiting project sites, members get a first-hand look at the projects and become more engaged in the process.

Guideline 22. Ensure focus stays on purpose/mission.

Although all of the above guidelines address specific implementation activities, it is critical the stakeholders remain focused on their ultimate mission or purpose. As the group becomes engaged in selecting, funding, and monitoring projects, an operational mentality can take over, particularly as the group navigates the unavoidable politics that accompany funding decisions. Throughout the process, and particularly from cycle to cycle, the mission of the group should be revisited and reviewed. This will serve two critical functions. First, as the group membership changes, it ensures that all members are in agreement. Second, it allows the group to modify its mission over time to reflect changes or shifts in priorities. This may be necessary based on changes in funding, a new or changing set or type of needs, or evolution to a Type III arrangement.

Example 4.3-1. Freight Mobility Strategic Investment Board

The Freight Mobility Strategic Investment Board (FMSIB) is an independent state agency created by the Washington State Legislature with the mandate to implement a strategic investment program exclusively for freight mobility needs by evaluating and scoring project applications every 2 years using rigorous evaluation criteria that are competitively neutral across jurisdictions and modes. The 12-member board also advocates for funding at the state and Federal levels in addition to advising the State legislature on regional, state, and national freight trends and concerns.

FMSIB was created in 1998 by statute to identify and recommend funding for strategic prioritized freight investments that reduce barriers to freight movement, maximize cost-effectiveness, yield a return on the state's investment, require complementary investments by public and private interests, and solve regional freight mobility problems. This statutory guidance provided the board with specific direction, responsibilities, and unique objectives. The **specific program elements** are to identify and select, evaluate and prioritize, and recommend and create funding partnerships for strategic freight investments.

To implement the defined program objectives, a program **implementation process** was included in the statutory guidance. By statute, FMSIB may only fund the freight-related portion of a given project. Therefore, a qualitative and quantitative selection process and criteria are used to identify projects that are ready to go into construction and that have clearly identified freight benefits. This prioritization process measures the degree to which projects address important program objectives and generates a project score that reflects a project's priority compared with other projects. At the end, projects are prioritized based on their benefits and their ability to provide matching funds or partnerships.

A number of **protocols** or actions are established and fulfilled to guide the program implementation process. First, to maintain a 6-year list of active projects, the board issues a call for projects every other year, or more frequently if warranted. Announcements are sent to every city, county, WSDOT region, and port in the State of Washington. All project proposals received, regardless of mode (i.e., rail, road, and waterway), are evaluated according to 10 weighted qualitative and quantitative **evaluation criteria.** These broad evaluation criteria include regional, general mobility, and environmental benefits. Each proposed project is submitted to a board selection team and a technical team for review, evaluation, and scoring.

Example 4.3-1. (Continued)

The selection teams discuss whether the project should advance for final consideration and be added to the FMSIB list based on the project's numerical score, fact verification, and determination of benefits.

The **funding allocation process** provides recommendations to the full board about the percentage contribution or level of state participation determined based on the freight share of the project benefits. First, the full board reviews all submitted applications during a public meeting, and each recommended project is discussed. Both the recommendation to adopt the project and the specific recommendation of the appropriate state freight share of the financial partnership are considered. The board votes on the recommendations, adopts the prioritized list of projects, and establishes the appropriate dollar and percentage amount awarded to each project. The prioritized recommendations are then submitted to the legislature for funding consideration. FMSIB funding may not exceed the state freight share identified by the board when the project is added to the FMSIB list. The remaining cost of the project must be funded by the local sponsor and other public and private financial partners in compliance with FMSIB's charge to use the greatest amount of non-program funds possible. Although a minimum 20-percent match is required, the board has not approved a match amount below 50 percent in the last three calls for projects. Once adopted, projects cannot apply again or have the amount awarded increased, even if costs go up. If project costs go up, the dollar value assigned is used to determine the level of project funding and if project costs go down, the percentage assigned is used, thus protecting the state from unanticipated cost increases. In the end, projects are prioritized based on their benefits and their ability to provide matching funds or partnerships.

Once projects are funded, they are monitored to ensure **on-time and on-budget completion.** FMSIB works with all partners to develop workable cash flow plans that enable a project to move forward without hindrance. Funded projects are required to enter the construction phase within 12 months of receiving notification that they have received funding approval. This 12-month rule is enforced to ensure the project advances and to provide accountability to the legislature. If a project is not ready within 12 months of receiving funding, or if it has not made significant progress toward its construction schedule, FMSIB can remove the project from its funded list.

To keep projects advancing, FMSIB holds regular **site visits** and works with project sponsors to develop phasing of certain projects, when appropriate, to keep the project on schedule. A project starts with a groundbreaking and ribbon-cutting ceremony. Once the project is under construction, it must display signage at the construction site indicating the partnership funding of the project. The legislature is kept current on the status of all projects. The board performs a complete **project audit** on the status of all of its projects twice a year and reviews the progress and any changes for each project quarterly. When a project cannot fulfill its commitment as communicated to the legislature and Office of Financial Management (OFM), the board either moves the project to a later biennium or to the deferred projects list. Available funds are then redirected, after approval from OFM and the legislature, to projects that can advance and can fulfill their commitment. Because of this accountability, the OFM and the Senate and House transportation committees have become freight advocates at the regional, state, and national level and continue to seek alternatives to provide funding for freight investments in the state.

Since its inception, FMSIB has been committed to its legislative mandate and goals by **staying focused on its purpose and its mission.** FMSIB has had a successful record of delivering strategic freight investment projects with most projects completed on time or early and on or under budget. FMSIB has also successfully used state money and forged partnerships while attracting other funds from public and private partners and sources, including Federal, county, city, port districts, and private capital. In 10 years of existence, FMSIB has funded and completed 31 projects and stand-alone phases of projects across the state of Washington totaling more than $247 million, of which FMSIB contributed $76 million. It is currently leveraging $5 for every dollar it invests. In conclusion, FMSIB has developed a comprehensive and coordinated state program to strategically invest in projects that facilitate freight movement within the state and enhance trade opportunities among local, national, and international markets.

Example 4.3-2. Florida Seaport Transportation and Economic Development Council

The Florida Seaport Transportation and Economic Development (FSTED) Council was created by the Florida Legislature in 1990 to finance seaport transportation and seaport facility projects to further the state's economic development mission. This program evolved because of the need for flexibility to invest in Florida's seaport capacity so the seaports could better respond to the global marketplace and compete for international trade, which is vital to the state's economy. The program is administered through the FSTED Council which consists of 17 voting members: the port director, or the port director's designee, of each of the ports; the secretary of the Florida Department of Transportation (FDOT) or a designee; the director of the Office of Tourism, Trade, and Economic Development (OTTED) or a designee; and the secretary of the Florida Department of Community Affairs (FDCA) or a designee.

Florida statutes charged the FSTED Council with improving the "movement and intermodal transportation of cargo or passengers in commerce and trade and . . . support[ing] the interests, purposes, and requirements of ports located in the state." Program elements were defined in statute to create a program that fosters the economic growth as well as the future potential of the seaports. **Specific program elements** include the FSTED Council to oversee the program, a project identification process, rigorous evaluation criteria, funding allocation from a dedicated source, and project review.

The FSTED Council's main task is to review and approve project applications in order to distribute the state funds for seaport infrastructure improvements and intermodal access projects. To **implement the program,** the FSTED Council meets at least twice a year to review these project applications and decide on approved projects. To be eligible for funding, a proposed project must be consistent with a seaport's comprehensive master plan as required by law. In addition, to further the economic development goal of this program, each seaport requesting funds from this program must develop a procedure to ensure that jobs created as a result of the state funding are subject to equal opportunity hiring practices as required by law. After thorough review, the FSTED Council determines a list of eligible projects. Once a list of eligible projects has been finalized, the FSTED Council submits the list to the FDCA, FDOT, and OTTED for their statutorily required review.

All FSTED Council meetings are public and allow for transparency in the selection process. In anticipation of these meetings, the individual seaports prepare an application for the seaport improvement projects for which they plan to request funding. Applications must be submitted by August 1 of every year. The application requires a detailed description of the project and each project is then **evaluated on a set of specific criteria.** This rigorous evaluation process allows for each project to be thoroughly vetted, ensuring accountability and transparency. The FSTED Council considers all projects for their statewide economic benefit and selects projects based on what is good for all and not necessarily an individual seaport. State law provides specific guidelines on what types of projects are eligible for funding under this program and specifies they must be funded on a 50-50 matching basis.

Protocols were set in statute to guide the actions of the FSTED Council. As required by state statute, the FSTED Council consists of the 14 seaport directors and a representative from FDOT, FDCA, and OTTED, with members representing these agencies having independent veto power over any project. The FSTED Council elects a chairperson from the group of seaport directors along with a vice-chairperson, a secretary, a treasurer, and a ways-and-means position each serving 2-year terms. Under the direction of the FSTED Council, a project review committee, an environmental management committee, and a security committee provide more specific review and understanding of projects being considered. Each committee has a chairperson appointed by the FSTED Council chair. The Council is required to meet at the call of the chairperson, at the request of the majority of the members, or as prescribed by the bylaws; however, they must meet at least twice a year.

The FSTED Council began with a dedicated funding source as identified in state law for all eligible deepwater seaports. The **funding allocation process** requires a minimum of $8 million a year to be allocated to FSTED from FDOT for seaport capital improvement projects. All of these program funds are to be used to match, on a 50-50 basis, funds from any deepwater seaport as defined in law. In addition, the funds can be

Example 4.3-2. (Continued)

used to develop trade data as necessary to assist Florida's seaports with issues of global trade. An individual seaport's distribution of funds after their matching commitment is made cannot be more than $7 million in 1 calendar year and not more than $30 million over 5 calendar years. The Legislature **authorized** the FSTED Council to issue revenue bonds to be used for funding FSTED projects at a 50-50 match. When intermodal projects became more significant in the late 1990s, the FSTED Council was granted additional bonding authority, for these intermodal projects, which provides $10 million at a 75-25 match. All seaport capital improvement projects completed with funds from the FSTED program are subject to a final **audit by FDOT.**

The structure of the FSTED Council reaches out to multiple seaports and across modes. The vetting process each project must go through ensures that all projects are considered collectively. The cooperative nature of all seaport directors considering what is best for the state instead of their own port promotes the ability to see the bigger picture. This is also the case as the intermodal projects reach out to other modes to encourage a seamless transportation system. The ability to see the bigger picture across modes helps the FSTED Council stay **focused on its mission.** The seaport directors that meet as part of the FSTED Council are business persons first. Their knowledge of the industry gives the FSTED Council first-hand insight and expertise to allow for greater flexibility. As the market changes, the FSTED Council can respond quickly because the seaports are keenly aware of the global market and the necessary financial moves needed to keep pace with other domestic and international seaports.

Example 4.3-3. Maine DOT Industrial Rail Access Program

The Industrial Rail Access Program (IRAP) was designed by the Maine Department of Transportation (Maine DOT) to promote economic development and expand opportunities for job employment. It is implemented through the Office of Freight and Business Services (OFBS) and is intended to fund projects that will have the most favorable effect on Maine's economy, the environment, and the transportation system. In recent years, Maine DOT has consistently developed and funded projects that have benefited rail projects within established regional transportation corridors. These investments in rail infrastructure and operations were considered to potentially increase commerce and create employment opportunities. In 1997, to better facilitate rail service and intermodal transportation, IRAP began. After creation of the program and securing initial funding, the first list of approved projects came in 2000.

IRAP is not a statutorily required program but rather a program offered through and administered by OFBS within Maine DOT. The purpose of IRAP is to provide financial assistance, in the form of grants, for up to 50 percent of the cost of projects that involve rail or rail-related investment in infrastructure for private, public, and non-profit organizations. **Specific elements of the program** include stimulating economic and employment growth through generation of new or expanded rail service, preserving essential rail service where economically viable, enhancing intermodal transportation, and preserving rail corridors for future transportation uses.

To **implement the program,** the OFBS provides specific descriptions of the projects eligible for this program. Eligible projects are defined in four categories: rehabilitation, new siding improvement (capital project), right-of-way acquisition, and intermodal facility construction. Projects that enhance rail transportation without capital-intensive investment, such as rail track, are eligible to apply for consideration and have been considered in the past.

Applications are accepted from private railroad companies, municipalities, counties, private enterprises interested in freight rail transportation, and non-profit organizations. To apply, interested organizations must submit a completed application before the annual deadline, generally in early spring. An original

(*continued*)

Example 4.3-3. (Continued)

application and three copies are to be submitted to the OFBS, containing a summary application page, a project description, and cost estimates with site plan, track chart, or valuation map; a rail carrier survey; rail freight shipper and receiver surveys; and a benefit-cost analysis. Incomplete applications are not reviewed; however, if an applicant wishes to supply additional information to explain or clarify the proposed project, this information will be accepted and considered. If the OFBS determines it needs clarification from the applicant, OFBS will request such information.

The OFBS has established procedures to **evaluate and select projects using criteria** that reflect the purpose and intent of the program as well as the top priorities and initiatives of the state while keeping in mind the limitations of available funding. In order to be considered during the evaluation process, applicants must demonstrate the public benefit of their proposed projects. The OFBS assesses each project proposal to determine if it meets minimum requirements by using an objective process that evaluates projects on the merits of IRAP's goals, department needs, consistency with the Integrated Freight Plan, and support of public interest. Due to budget constraints, not all projects receive funding. Upon receipt, each application is rated in ten categories: (1) job creation or retention; (2) new investment; (3) intermodal efficiencies; (4) private share of project cost—the greater the share the higher the rank; (5) anticipated decrease in air emissions; (6) anticipated decrease in highway maintenance costs; (7) anticipated decrease in highway congestion; (8) transportation and logistics cost savings; (9) improvements in rail service; and (10) benefit-cost ratio. Higher ranking is given to projects that emphasize commitment to economic development, promote multimodal initiatives, or show private investment of more than 50 percent of the project. The OFBS also gives consideration to project proposals that demonstrate financial need, feasibility of project implementation, and operability of the rail carrier.

Implementation protocols for this program include providing a timely evaluation and response to each applicant for the IRAP funding. The OFBS staff reviews the application and ranks each project. An objective evaluation process is used that follows established criteria and ensures that each project selected for funding is in line with the intent of the program, meets the needs of the Maine DOT, is consistent with the State Integrated Freight Plan, and shows public benefit. The OFBS has the authority to grant projects financing pending final approval by Maine DOT.

The amount of **funding allocated** to IRAP determines the size of the program distribution each year. In some years the program has not received funding and has not been able to award any projects. If the program does not receive funding in any particular year, the OFBS does not solicit applications. However, since the inception of the program there have only been 2 years that the program did not receive funding. IRAP procedures allow for financial assistance up to 50 percent of the total eligible project cost. This ensures equal interest and investment by the applicant. The project applicant also must provide, as part of its application, a commitment letter from all non-state sources from which it anticipates receiving funds for the project.

After the OFBS has approved the project proposal, the applicant undergoes a required **project inspection** before the contract can be executed. The final inspection must pass State approval, site inspection, and an environmental evaluation before work can begin. A **follow-up evaluation** is conducted by Maine DOT to monitor the performance and investment strategy of the IRAP for all projects that receive funding.

The State has recognized the need for capital investment in railroads for the overall productivity of the transportation system. **Staying focused on its mission** has allowed the program to contribute to the economic development and growth of many businesses in Maine by increasing accessibility to rail. A key success factor has been the program's ability to connect public interests with rail operations and investment. Funding this program encourages new job opportunities, allows businesses to be more competitive, may reduce greenhouse gases, and maintains state-owned track and connections to national Class I carriers.

4.4 Type III Guidelines

Type III guidelines build on the Types I and II guidelines and specifically address the needs of Type III institutional arrangements. Type III arrangements are organizations that implement freight-related projects. These differ from Type II in that they typically represent a formalized organization designed to address one particular need or program, rather than competing projects or programs. These organizations are responsible for need identification, project definition, and project implementation. Project implementation entails environmental approvals, design, right-of-way acquisition, utility relocation, construction, mitigation of project impacts, and financing. In addition, some arrangements transition into operating authorities following completion of construction activities. Construction activities can range from physical capacity improvement projects to new uses of technologies to streamlined operations. Type I through III guidelines represent a progressive process that grows more specific and detailed as the mission of an institutional arrangement becomes more focused and specialized. Most, if not all, Type III institutional arrangements should follow all the defined guidelines as they work through their development. In fact, many begin as a Type I and progress to a Type III over time. Therefore, the Type I and II guidelines presented should be reviewed for applicability to Type III institutional arrangements. Type III guidelines focus on consensus building, organizational structure, leadership, risk reduction, cost and schedule control, and ongoing mitigation of challenges or obstacles. Table 4-4 summarizes the Type III guidelines. The examples presented in Table 4-4 are described in detail in Examples 4.4-1 through 4.4-3; full detailed case studies are given in Appendix C.

Guideline 23. Build consensus on specific project parameters.

Consensus on the scope of the project is essential. If there is uncertainty about the scale or location of the project, delays will occur and costs will rise. Key considerations include project design, development of the preferred alternative, and identification of specific costs and benefits. Having a clear understanding of the distribution of benefits is necessary for productive negotiations on project design, location, and funding responsibility (including funding responsibility for mitigation measures). Unfortunately, many projects never get beyond this stage.

Table 4-4. Summary of Type III guidelines.

Guideline		ACTA	CREATE	CVISN
23	Build consensus on specific project parameters	✓	✓	✓
24	Seek out champions and develop a diverse coalition of interest groups	✓	✓	
25	Provide a neutral forum			
26	Secure private-sector involvement/commitment		✓	✓
27	Develop mitigation strategy for project impacts	✓		
28	Establish clear decision-making authority	✓	✓	
29	Remain focused on defined mission	✓	✓	✓
30	Adopt a product orientation			
31	Identify, monitor, and address obstacles	✓	✓	
32	Develop partnership agreements		✓	✓
33	Negotiate third-party agreements early	✓		
34	Allocate risk between owner and contractor	✓		
35	Establish funding firewalls and sunset clauses	✓		
36	Consider Design-Build procurement	✓		
37	Understand how bond rating agencies make decisions	✓		
38	Establish cost-sharing structure	✓	✓	✓
39	Maintain adequate contingency and reserves	✓		
40	Maximize use of available funding cycles	✓	✓	

Guideline 24. Seek out "champions" and develop a diverse coalition of interest groups to support the project.

Champions are people in positions of authority (e.g., elected officials, major industry owners, and agency Board presidents) who can advocate the merits of the project. Such champions are often helped in their lobbying efforts when they are supported by a broad coalition of interest groups (e.g., chambers of commerce, individual companies, major shippers, carriers, and environmental groups). Supporters of a project can write letters to key decisionmakers to promote the project. Although the need for a champion was introduced in the Type I guidelines, it is re-emphasized in Type III to address the complexities of project development and construction. Breaking ground on a project often depends on the consistent efforts and commitment of one or more champions.

Guideline 25. Provide a neutral forum.

Major new projects affect a vast array of stakeholders including system users, local communities, and funding and operating entities. By providing a neutral forum, a level of confidence can be built among the stakeholders that will minimize conflicts and help ensure that the final outcome will provide the most equitable situation for all affected. The neutral forum provides a venue to ensure that all stakeholders have an equal opportunity to provide input regarding development of acceptable solutions.

Guideline 26. Secure private-sector involvement and commitment.

Specific projects and/or new organizations and authorities must provide new or improved conditions for the affected stakeholders. For example, a new tolled truck-only corridor will be used by industry only if the benefits outweigh the additional user costs. As projects are designed and constructed, these stakeholders must be involved to ensure the outcome adds value. A commitment by these stakeholders to use the new capacity or program requires outreach throughout the process.

Guideline 27. Develop a mitigation strategy for project impacts.

One of the key challenges of a major infrastructure project is the required mitigation activities. Mitigation often refers to environmental impacts, but can also include quality-of-life and community impacts as well as traffic impacts. For a project to address these requirements successfully, a strategy should be developed. This strategy should detail all the activities that will be required to conform to the requirements. A team of experts should be developed to lead the implementation of this strategy. Having a visible strategy will also communicate to key stakeholders that mitigation activities are being given the necessary focus.

Guideline 28. Establish clear decision-making authority.

In the public works arena, it is critical to know who has authority to make what decisions so that the project is not delayed while waiting for decisions to be made. Within each organization it is important to clearly identify at what level in the organization decisions can be made.

Guideline 29. Remain focused on the defined mission.

Over the course of project design and construction, there often is pressure from stakeholders to broaden the scope of a project in order to spread the benefits. This can lead to an increased scope, resulting in cost increases and schedule lapses. Although not analyzed in this study, the "Big Dig" project in Boston is often cited as a project that allowed many additional scope changes in response to constituents' demands, leading to cost overruns and schedule delays.

Guideline 30. Adopt a product orientation.

Many arrangements are process driven, designed to bring stakeholders together for a common purpose. However, for Type III arrangements, the focus must be on the defined product. Agencies that are more interested in achieving explicit goals and producing well-defined products are often more successful in controlling costs and keeping on schedule than agencies that are primarily process oriented. Following bureaucratic procedures is important, but when procedures hinder producing the project on time or on budget, adjustments to the processes should be considered. Being focused on specific goals will foster concurrent, rather than sequential, processing of key activities.

Guideline 31. Identify, monitor, and address obstacles.

It is important to continually monitor potential obstacles and develop action plans to resolve them in a timely manner. There often is a tendency to put off defining and implementing solutions. Such delay wastes money and can result in the termination of the project.

Guideline 32. Develop partnership agreements.

Partnering agreements among the owner, designer, and contractor can minimize disputes and shorten the time to resolve differences that may arise. These agreements establish responsibilities and ensure each partner is vested in the project. These agreements are similar to MOUs; however, they go a step further by putting key stakeholders on an equal platform, with defined responsibilities for ensuring project success.

Guideline 33. Negotiate third-party agreements early.

Agreements with utilities for relocation or protection of facilities affected by the project can be time-consuming and costly. Typically, these discussions focus on who has prior rights and thus who is responsible for paying for the relocation or protection. Another time-consuming task is negotiating with municipalities for city permits for work involving city-owned facilities (e.g., sewers, water lines, traffic signals, curbs and gutters, and striping of streets). Cities often use these negotiations to request extra mitigations such as urban design improvements, aesthetic treatments, landscaping, and other enhancements. All of this takes time, so project owners do well to address these issues early. Without agreements in place early in the program, the risks to the project can be much greater. These agreements can take the form of MOUs, which specify the responsibilities of the various parties as construction proceeds.

Guideline 34. Allocate risk between owner and contractor.

Before signing a construction contract, it is important to decide how risks will be shared between the contractor and owner for unexpected cost increases due to constructability issues, unknown conditions, hazardous materials encountered, mitigation requirements, and so forth. For example, depending on the scale of the project, it might be appropriate to agree that the first $X million cost of addressing an unknown condition would be the contractor's responsibility, the next $X million the owner's responsibility, and anything beyond that a 50-50 responsibility between owner and contractor.

Guideline 35. Establish funding firewalls and sunset clauses.

For projects that involve user fees or tolls, it is critical to provide safeguards to reduce investor risk. No one likes to pay fees, but the risk to the private sector can be reduced if there are assurances that the funds will only be used for their stated purpose and that after the project is completed, the fees will go away. Stakeholders responsible for paying these user fees must understand how the funds will be used and how long the fees will be charged. This helps build acceptance for the cost. Building support for these fees is critical. If the project does not provide significant benefits, the costs will not be accepted and facility users will find alternate routes.

Guideline 36. Consider Design-Build procurement, particularly for revenue-driven projects.

With Design-Build procurement, design activities can overlap construction to some degree, thus saving valuable time. In addition to saving time, Design-Build procurements can allow for contractor innovation.

Guideline 37. Understand how bond rating agencies make decisions.

Many agencies need to borrow funds in order to fund a major project fully. When asked to assess credit risk, the bond rating agencies (Fitch, Moody's, and Standard & Poor's) review all potential risks to a project. Project management skills and ability to control costs and keep on schedule are just a few of the items reviewed by rating agencies. It is prudent to understand what these agencies look for and to plan accordingly. This management advice is useful for any project, even if revenue bonds are not involved.

Guideline 38. Establish a cost-sharing structure.

The construction of a major project probably will rely on a mix of funding sources. It may include issuance of private or municipal bonds, local or state transportation funding, private-sector funding, or user fees. The success of the project will depend on the ability to provide funding on an as-needed basis throughout construction. Delays can hinder the schedule, support for, and overall outcome of the project. A plan should be in place to effectively manage the available funds, including match requirements, contracting requirements, and flexibility to address issues that arise during the project.

Guideline 39. Maintain an adequate contingency and reserves.

The success of many large infrastructure projects depends on adequate funding. In many instances, initial resources fall short of total costs because of unforeseen circumstances (e.g., complications with environmental mitigation requirements

or changes in design). To keep a project on schedule, it is necessary to have access to contingency funding.

Guideline 40. Maximize the use of available funding cycles.

Project sponsors should seize on all potential opportunities for funding and not let deadlines for applying for grants slip away. Sometimes agencies believe that they are "not ready" to apply or think that the competition is too great. As a result they often miss out on funding opportunities. It is important to get the project in queue, get the project known, increase the project's visibility, and tout the merits of the project at every opportunity. Requests for project information from key decisionmakers should be met. Each opportunity provides a new opportunity for success.

Example 4.4-1. Alameda Corridor Transportation Authority

The Alameda Corridor in Southern California is one of the nation's largest and most successful public works projects. Combining capacity improvements and environmental enhancements, the project dramatically improved railroad access to the largest port complex in the United States. The purpose of the project was to consolidate harbor-related railroad traffic onto a single 20-mile corridor between the ports of Long Beach and Los Angeles and the railroad mainlines near downtown Los Angeles.

The project was designed to **build consensus on the following project parameters:** impacts of trains on grade crossing delays (e.g., vehicular delay, emergency vehicles), noise impacts in residential areas, air quality concerns, efficiency of train operations, potential challenges to future port growth proposals, and facilitation of international trade. To get the process started, the Southern California Association of Governments (SCAG) created a Ports Advisory Committee (PAC). This committee brought together a **diverse coalition of interest groups** to begin the communications and consensus-building process. PAC members included local elected officials, as well as representatives of the Ports of Los Angeles and Long Beach, the U.S. Navy, the U.S. Army Corps of Engineers, affected railroads, the trucking industry, and the Los Angeles County Transportation Commission (LACTC). During this phase, the effort could have been described as a Type I institutional arrangement, dedicated to consensus building, information sharing, identifying obstacles, and building trust. As the concept for the Alameda Corridor progressed, the arrangement transitioned to Type III—one focused on implementing a specific project. SCAG created the Alameda Corridor Task Force (ACTF), with a membership similar to the PAC but including the California Public Utilities Commission and each of the cities along the corridor. The ACTF created the Consolidated Transportation Corridor Joint Powers Authority in August of 1989. The agency changed its name to the Alameda Corridor Transportation Authority (ACTA) in November 1990.

In 1995 ACTA hired a **program management entity** called the Alameda Corridor Engineering Team (ACET), which is a joint venture of four major engineering firms. This joint venture and its subcontractors were responsible for preliminary design, environmental reviews, engineering and construction oversight, and other key aspects of the project. Staffing for ACET has varied over the life of the project in response to the need for engineering and construction services. This project management team **established decision-making authority** and made it clear at what level in the organization a decision could be made.

ACTA's primary mission was to design and construct the Alameda Corridor Project. There was a strong mandate to complete the project on time and on budget. The dedicated **focus on the primary mission** of the project helped keep it from costly overruns and schedule delays. The **commitment to the product,** as opposed to just the process, also helped ACTA accomplish its mission in April 2002 when the project opened for service. ACTA had a reputation for focusing on the principal objective of completing the project on time and on budget.

ACTA awarded consulting contracts through a qualifications-based selection process. Traditionally, construction projects are awarded through the Design-Bid-Build process; however, ACTA's largest contract for the mid-corridor trench was awarded on a Design-Build basis. In 1997, ACTA evaluated the pros and cons of the Design-Build approach for the Mid-Corridor contract. It was estimated that with the traditional

Example 4.4-1. (Continued)

Design-Bid-Build approach the project could not be completed until 2003. ACTA concluded that, in order to make the project financially feasible, an earlier delivery date was required. **Considering Design-Build procurement** allowed ACTA to (1) reduce the overall completion time by approximately 18 months by enabling the design and construction phases to overlap; (2) facilitate a bond sale through earlier identification of total project cost and shift much of the project risk to the contractor; and (3) encourage contractor innovation through early participation in the development of the project.

ACTA paid special attention to the **risk allocated between the owner and the contractor.** They developed a risk-allocation matrix as a framework for negotiation of design-build construction contracts. It was especially important to decide ahead of time how risks would be shared between the contractor and owner for unexpected cost increases due to constructability issues, unknown conditions, hazardous materials encountered, and other issues that might arise.

ACTA negotiated several complex agreements with corridor cities, utilities, railroads, and other stakeholders. For example, when SCAG adopted the plan for the consolidated railroad corridor in 1984, the railroads were generally opposed because they had their privately owned tracks and they thought the government should not attempt to force them to share a common right-of-way. Improving the efficiency of the rail line and facilitating the movement of international cargo were important objectives, along with the goals of reducing vehicular delays at grade crossings, improving emergency vehicle access, reducing noise in residential neighborhoods, and reducing air pollution. Negotiating agreements with the railroads took several years. A major issue was the competitive nature of the private railroads. The ports and railroads also negotiated construction and maintenance agreements and use and operating agreements. Without these **third-party agreements in place early** in the program, the risks to the project would have been much greater. In addition, it was important to have the right assurances in all agreements such as **establishing funding firewalls and sunset clauses.** ACTA built these guarantees into its agreements with the railroads.

Although there was no public opposition to the project, during the environmental review process, there were local disagreements over project design. The corridor cities preferred a lowered railway—i.e., a trench—but the ports preferred an at-grade railway with standard grade separations. During this debate over project definition, ACTA faced significant funding shortages. ACTA used the EIR and EIS processes to compare and contrast alternative project designs and to identify **mitigations for environmental impacts.** Several variations of the at-grade and the depressed railway options were analyzed. In the end, the final configuration included standard grade separations at the north and south ends and a lowered railroad in the mid-corridor. Other important compromises were negotiated on alignment and design, including aesthetic treatments along the entire 20-mile corridor. These agreements could not have been reached without extensive technical studies, including preliminary engineering and the EIR/EIS, and painstaking negotiations with project stakeholders.

ACTA faced several critical challenges and issues during the course of this project, including project definition, governance structure, relations with corridor cities, railroad cooperation and participation, funding, construction and project delivery, environmental compliance, disadvantaged business enterprise participation, job training, and local participation. ACTA continually **identified and monitored all potential obstacles and then addressed them** early to determine resolutions as soon as possible. In addition, with a complex project like the Alameda Corridor, ACTA deemed it prudent to maintain an **adequate contingency.** It had a $200 million contingency fund to start, which provided a mechanism to pay for unforeseen obstacles.

One of ACTA's biggest challenges was to raise additional funds beyond the initial seed money provided by the ports. ACTA acted on any opportunity to **maximize the availability of a funding cycle** in order to raise all the funds necessary for the Alameda Corridor Project. For example, in the early 1990s, the Los Angeles County Transportation Commission (LACTC) was responsible for programming state and Federal funds in

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Example 4.4-1. (Continued)

Los Angeles County. Initially, ACTA was frozen out of the competition for these funds because there was no category in which to compete. The Alameda Corridor was not a freeway project, a light rail project, or any of the other categories established by the LACTC. For 2 years ACTA lobbied for a new category on the basis that goods movement projects such as the Alameda Corridor are essential for reducing congestion and air pollution and for maintaining a healthy economy. Ultimately, the LACTC and its successor agency, the Los Angeles County Metropolitan Transportation Authority (MTA), provided a major financial contribution to the project. For projects funded with revenue bonds, it is necessary to **understand how bond rating agencies make decisions.** Many aspects of a project are reviewed by these organizations and can make a difference in what type of and how much credit might be available and at what interest rate.

The Alameda Corridor cost $2.43 billion. Much effort was given to secure this large sum of money. In addition to never missing an opportunity to apply for a funding cycle, a **cost-sharing structure** was established to secure necessary funding from various sources. The largest component of ACTA's funding came from a $1.1 billion revenue bond sale in January and February of 1999: $520 million in tax-exempt bonds and $643 million in taxable bonds were sold. Funding also included a $400 million Federal loan. This loan later became the inspiration for the Federal credit program for transportation projects of national or regional significance authorized by the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA). In 2004, ACTA pre-paid and replaced the Federal loan by issuing $475 million in tax-exempt bonds and $211 million in taxable bonds. The ports contributed $394 million for the purchase of needed railroad right-of-way. The MTA provided $347 million in Federal, state, and local grants. Of that amount, the Federal government provided only $80 million of grant funds (3% of the total project costs). Another $130 million came from miscellaneous sources, including income from investing bond and loan proceeds.

Example 4.4-2. Chicago Region Environmental and Transportation Efficiency Program

The Chicago Region Environmental and Transportation Efficiency Program (CREATE), a public-private partnership created in 2003, includes the state and city transportation departments, the passenger rail services Metra and Amtrak, and six of the largest North American freight railroads (i.e., BNSF, CN, CP, CSX, NS, and UP[1]). The CREATE Program consists of approximately 78 projects of national and regional significance aimed at addressing existing and future congestion issues on the rail system, which, if not addressed, are expected to adversely affect the national economy and the transportation system.

The CREATE Program is an excellent example of engaging private industry in capital investments that will intrinsically benefit them as well as the public sector. CREATE represents the first time the public sector (state and local government) has partnered with the railroad industry to solve the urban rail congestion problem in Chicago on such a large scale. It is an example of successful **consensus building,** because it is the first project where private railroads overcame competitive issues and reached agreement on a list of improvement projects to increase the efficiency of an urban rail network. These are primarily functions of a Type I institutional arrangement; hence Type I guidelines would have been helpful to the effort at this point in its evolution. Six of the seven Class I railroads operating in North America pass through Chicago and all six are partners in the CREATE Program. All have pledged to contribute funds to complete the necessary improvements that will benefit all six railroads as well as the commuter rail (Metra), the intercity rail service (Amtrak), and the highway network—all public benefits. The CREATE Program has also set new parameters on **private-sector commitment** for public-private partnerships. The freight railroads are committed to providing $212 million, based on an estimate of the economic benefits that the private sector will gain with the implementation of the program, as determined through analysis conducted by the railroads.

Example 4.4-2. (Continued)

In addition to the commitment by private railroads and the strong political support from all of its stakeholders, CREATE is recognized as a project of regional and national significance. Since its genesis, a **strong leadership** presence from political leaders has helped bring private industry into the project design process. Support from communities and freight organizations was also achieved thanks to the political leaders at the Chicago Department of Transportation (CDOT) and at the Illinois Department of Transportation (IDOT) who have actively promoted the benefits of the CREATE Program to gain public support for the projects. Over 15 businesses have produced **letters of support** stating how the CREATE Program improvements will benefit their businesses. To add significant local resident appeal for neighborhoods bisected by freight lines and obtain their support, several key grade separation improvements were also included in the overall list of projects. In the end, the **political support of a diverse coalition of interest groups** like political leaders, private and public partners, businesses, and local communities promoting not only the local and regional benefits but also the national benefits made the case for the significance of investing in CREATE projects and positioning it to better compete for the Projects of National and Regional Significance (PNRS) Program money. As a result, CREATE received funding, although not the amount requested, from the PNRS Program and is recognized nationally as a single project that will produce great benefit to the movement of goods and passengers.

Having a common goal and clear benefits has made it easier for CREATE partners to work together and cooperate with each other in order to see the CREATE Program completely implemented. The CREATE Program has successfully **remained focused on its mission** which is to proactively address and invest in the numerous railroad bottlenecks in the Chicago region to streamline operations and allow rail cars (freight and passenger trains) to move more efficiently through the regional network. All CREATE partners are working toward the same goal, even competing private railroad and public-sector partners. CREATE's focus on implementing a consensus set of projects typifies a Type III arrangement. The CREATE Program has effectively articulated how the main stakeholders (i.e., freight shippers, railroads, passenger rail services, and highway users) will benefit. It has also identified the significant local, regional, and national benefits CREATE will produce. In the end, all will benefit from an improved Chicago railroad network that will generate national and regional economic benefits, reduce congestion, improve transportation safety, enhance the national transportation system, and help protect the environment.

To ensure the program's implementation, a **partnership agreement** or "Joint Statement of Understanding" (JSOU) that identified the roles and responsibilities of the partners, created a governance structure, and defined the private funding contribution levels was signed in June 2003 by the program partners. The CREATE Program's 78 projects were divided into three categories, which also defined partner responsibilities: (1) railroad improvements, excluding rail-rail separation (Railroad Components); (2) rail-rail separation (Metra Components); and (3) public improvements, including separation of at-grade highway-rail crossings, viaduct improvements, and grade crossing safety enhancements (Public Component—IDOT and CDOT). A multi-institutional committee structure, including a series of groups with specific roles, was created to implement and manage all CREATE improvement projects. All together, these committees and groups make sure CREATE projects are completed on time and on budget, partners continue to advocate for additional funding at all levels (i.e., Federal, state, local, and private), and communities are informed of the progress of each project.

Given its complex multi-institutional committee structure, the **decision-making authority** falls to several committees that manage the program, resulting in a somewhat cumbersome and slow process. The Stakeholder Committee sets policy for the CREATE Program and approves any changes in scope or budget. This committee provides final resolution on all stakeholder issues and makes decisions by unanimous agreement. The Management Committee reviews and approves project designs, project cost estimates, and construction assumptions and makes decisions regarding scope, schedule, and budget based on recommendations

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Example 4.4-2. (Continued)

from the Implementation Team. The Implementation Team tracks budget and construction progress and recommends project changes. The Finance and Budget Committee identifies sources of public funds, monitors project cost estimates versus actual expenditures, and assists project managers with financial management issues. The Advocacy Committee is responsible for all CREATE communications, addressing community concerns, and advocating for CREATE. Each project in the CREATE Program was delegated to one or more partners, who become the Project Managers. The Component Project Managers are responsible for all phases of development through implementation, including design and construction, and are responsible for tracking project status and potential scope and cost changes. The Project Office is responsible for tracking all projects, approving final designs and cost estimates, assisting with grant applications, and acting as a liaison between the Component Project Managers and other groups. The Project Office **identifies, monitors, and addresses potential obstacles;** initiates requests related to changes in project scope and/or costs; and advises the Management Committee of proposed actions. Some have suggested that the CREATE Program would benefit from a separate institutional structure (i.e., Joint Powers Authority) to build the CREATE Program rather than this complex multi-institutional committee structure.

The total cost of all CREATE projects was estimated at $1.5 billion in 2003. In December 2008, the CREATE partnership updated the program cost and the new, total unfunded CREATE Program cost is estimated at $2.6 billion. The CREATE Program did not receive the $900 million in Federal funding anticipated from SAFETEA-LU in 2005. Instead, it received $100 million with the remaining funding coming from a **mix of funding sources** (private-sector contributions and state and local funding). As a result, the project list was prioritized and will need to be implemented in phases, which has slowed the program and significantly delayed its benefits. Phase I includes only 32 projects that are programmed to be in design or construction by 2009. Funding for Phase I comes from the following sources: SAFETEA-LU Programs of National and Regional Significance—$100 million; State of Illinois—$100 million (unsecured to date); Freight Railroads—$100 million; and City of Chicago—$30 million. These amounts will be insufficient to complete all 78 CREATE projects. Federal funding is necessary to complete all projects. Otherwise, all other partners will have to increase their contributions or projects will be delayed until funding becomes available. Continued delays will result in higher project costs due to inflation, especially the increased costs of construction materials.

CREATE stakeholders continue to move Phase I projects into construction. At the same time they have begun obtaining consensus and drafting the next phase (Phase II) of projects. CREATE partners will continue to participate actively in the national debate on freight policy and maximize the opportunity of the next **available funding cycle** at the Federal level. CREATE will seek additional funding in the next Federal transportation authorization. The partnership will engage the shipper, business, and passenger communities in order to generate more advocates supportive of CREATE goals. CREATE will continue to work to complete all the critically needed rail improvements included in the program in order to make the Chicago freight hub the country's model for safe, productive, and efficient railroad operations.

[1]Burlington Northern Santa Fe (BNSF), Canadian National (CN), Canadian Pacific (CP), CSX, Norfolk Southern (NS), and Union Pacific (UP).

Example 4.4-3. Commercial Vehicle Information Systems and Networks

The Commercial Vehicle Information Systems and Networks (CVISN) Program consists of a framework for organizing, deploying, and funding the implementation of technology to automate various motor carrier regulatory and safety enforcement functions with the ultimate goal of improving commercial motor vehicle safety. The mission is to support the U.S. DOT and FMCSA's performance goals in highway vehicle safety, hazardous materials safety, homeland and national security, transportation relia-

Example 4.4-3. (Continued)

bility and productivity, and organization excellence. The core CVISN Program capabilities focus on three program areas: Safety Information Exchange (automated roadside vehicle and driver inspections), Electronic Screening (transponder-based systems), and Electronic Credentials Administration (automatic application, processing, and issuance of credentials and permits). The program is managed by FMCSA; however, deployment, planning, and implementation of the program require the full participation of FMCSA, state agencies with motor carrier safety or regulatory responsibilities, and private industry.

Effective planning and deployment of CVISN projects in all three program areas has required effective **partnership agreements** at all levels, including Federal-state partnerships, regional partnerships, inter-agency partnerships within states, and public-private partnerships. On the Federal and state level, FMCSA cannot achieve its mission of reducing crashes involving trucks and buses without the support of states responsible for administering and enforcing commercial vehicle regulations. States, on the other hand, typically cannot fully finance the technology infrastructure required for CVISN, nor are individual states well suited to coordinate activities across states for purposes of promoting uniformity and standards. States wishing to receive Federal CVISN funds must enter into formal partnership agreements with FMCSA. These agreements specify what is required of states in order to qualify for and receive CVISN grant money and outline what they can expect from FMCSA.

As the **champion**, FMCSA's primary responsibility is managing and overseeing the CVISN Program at the national level. States are responsible for planning, deploying, operating, and maintaining their CVISN architecture and services. Multi-state coalitions, like the I-95 Corridor Coalition, have supported the CVISN program on a number of fronts, including providing funding to support (1) CVISN training and program planning activities and (2) design and implementation of specific projects of regional significance. State agencies with commercial vehicle operations (CVO) responsibilities like the Departments of Transportation, Revenue, Public Safety and/or State Police often are engaged in CVISN planning and deployment activities. Given the distributed nature of CVO regulatory and enforcement functions, most states participating in CVISN have executed formal memoranda of understanding (MOUs) to identify **cost-sharing agreements,** designate the lead agency, and clarify the responsibilities of all partners to the agreement. The funding contributions of the MOU participants vary depending on the functionality that a state is electing to deploy. For example, systems such as the Commercial Vehicle Information Exchange Window (CVIEW) provide functionality that is beneficial to all agencies in a state. As such, the agencies may agree to share in the costs to deploy a CVIEW equally. Certainly MOUs between or among multiple state agencies have helped to solidify working relationships and memorialize commitments that have been made, even when administrations change.

Public-private partnerships and **private-sector involvement** have played a significant role in advancing the CVISN Program and have taken on many different forms. For example, motor carriers have been asked to participate in discussions about the design of software that will allow them to apply for and receive certain credentials electronically. As the systems are built or customized, carriers also have been asked to review or participate in pilot testing of the systems to confirm that they have been built around the needs of industry and are operating as intended. These informal partnerships between states and industry whereby motor carriers and motor coach operators are engaged in the planning and design of CVISN systems to ensure that the systems are built in a manner consistent with the needs of industry exemplify how CVISN has reached out to the private sector to **build consensus on specific project parameters.** Formal partnerships include **cost-sharing agreements** among carriers, vendors, state agencies, and other third-parties that are memorialized in writing. Some of these contracts have resulted in cost sharing between the parties whereby vendors will provide in-kind services at a reduced fee or will implement their systems at no cost to the state in exchange for the opportunity to deploy their systems and collect future revenue based on user fees.

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Example 4.4-3. (Continued)

All 50 states have begun to deploy some of the core CVISN capabilities. As of August 2008, 20 states are Core CVISN Compliant or have deployed all of the core CVISN capabilities. These states have shown a more pronounced CVISN deployment progress because of their strong partnership with the Federal government, across state agencies, and with private industry. FMCSA and its state and industry partners have been critical to the overall success of the program and continue to support the development of the program. They have identified a series of expanded CVISN functionalities that are being integrated into the CVISN program while **remaining focused on its mission** to support FMCSA's ultimate goal of improving commercial motor vehicle safety.

CHAPTER 5

Application of Guidelines

5.1 Getting Started

Forty guidelines have been developed to support the development and ongoing operations of institutional arrangements. These guidelines are designed and organized to develop a strong program foundation. For many institutional arrangements, this foundation will provide the platform from which its primary mission or purpose can be accomplished. For others, it provides the platform from which more specific activities can be undertaken, such as programming and implementation activities.

To use these guidelines effectively, a self-evaluation should be undertaken by the initial set of stakeholders. Many of the requirements for completing the self-evaluation will necessitate an initial review and use of the guidelines. The self-evaluation should be designed to lay the groundwork for institutional arrangement development. Actions include the following:

- **Identify a leader/champion.** As with any new initiative, the successful creation of a new institutional arrangement will require a leader or champion to step forward and take ownership of initial organizational activities. In some instances, this may be the result of a legislative mandate or policy board action. However, in many instances, it is the result of interest by technical staff within public and private organizations. This person or organization must initiate discussions.
- **Identify potential stakeholders.** Identifying and soliciting key stakeholders is essential. Based on the perceived issue or challenge, an initial set of stakeholders should be identified and recruited to participate in initial discussions on need, purpose, and so forth.
- **Facilitate an open forum.** The stakeholders should be invited to a workshop to discuss the need for an institutional arrangement and what it would accomplish and to identify key opportunities and challenges.
  - Identify the need for an institutional arrangement. Stakeholders should be engaged in a general discussion about the need for an institutional arrangement. This would entail a review of current conditions and identification of a specific element that an institutional arrangement could address. Based on this, an initial need statement should be developed. Although this need probably will evolve over time, this will help focus the group on one or more motivating factors for an institutional arrangement.
  - Identify preliminary opportunities and challenges. Stakeholders should be engaged in a discussion to identify key opportunities that the institutional arrangement can accomplish as well as key challenges that could limit the success of the institutional arrangement. This will provide an initial description of the environment in which the institutional arrangement will be created.
  - Define a draft purpose for the institutional arrangement. Based on the need, opportunities, and challenges, the stakeholders should review the feasibility of developing a successful institutional arrangement. Based on the above considerations, a draft purpose should be defined. Again, this will be a draft or initial statement. It will form stakeholder input into an approach for what the institutional arrangement hopes to accomplish.
- **Develop an action plan.** Once the group has reached a preliminary agreement on the need and purpose of an institutional arrangement, an action plan should be developed to detailing the short-term activities that will be necessary to initiate the formal development of the institutional arrangement. Ideally, the action plan would be developed by a small group of stakeholder "leaders" following the forum. As part of this process, the full range of guidelines and case studies provided in this document should be reviewed and evaluated for applicability.

5.2 Effective Use of Guidelines

As illustrated in this report, numerous freight institutional arrangements are in place today providing specific functionality for a defined group of stakeholders. Institutional

arrangements have been developed for all kinds of reasons and in all kinds of forums, depending on the characteristics of their members. Some arrangements have been more successful than others; some have served specific purposes and then ceased to exist while others have evolved and taken on new challenges. Effective institutional arrangements can enhance the freight transportation system, ensuring that stakeholders are involved in the policy, planning, programming, and operations activities. This is critical to the success of the freight transportation system—at the local, regional, state, and national levels—because freight mobility cuts across all modes of transportation, affects communities and the environment, and spans jurisdictional boundaries, creating an environment that is not well managed by one geographically specific public agency.

The research completed for this project focused almost exclusively on the successes and failures of institutional arrangements implemented in the United States. The guidelines presented herein are designed to facilitate the development and implementation of an institutional arrangement. These guidelines are not intended to provide step-by-step instructions on how to develop a successful institutional arrangement, but to identify key activities that should be considered and used to develop a customized approach.

The guidelines are intended to apply to existing institutional arrangements as well as new institutional arrangements that may emerge in the future. Continued globalization of the economy, current economic hardships, limited funding, shifts in transportation program priorities, climate change—these factors and more will continue to strain and affect freight transportation and the institutional arrangements created to support freight transportation. The changes necessary to deal with these challenges in large part relate to specific program elements (e.g., statutory requirements, program funding eligibility requirements, multi-jurisdictional regions, effective use of performance measures, and overall Federal leadership). Most existing or new institutional arrangements will deal with these changes the same way they or their predecessors have in the past—through effective collaboration, coordination, communication, consensus building, and stakeholder involvement; strong leadership (champions); effective use of public-private partnerships; and efficient project implementation programs. An approach based on these general principles and guidelines ensures that the resulting institutional arrangement is based on a customized and agreed-on mission.

5.3 Conclusions

This report is a resource to help groups of stakeholders evaluate how potential development of an institutional arrangement can help them achieve a common goal. The guidelines provide specific recommendations based on existing institutional arrangements and are designed to address various functions, geographic boundaries, and legal structures. In addition, these guidelines are designed to be useful for future institutional arrangement needs as well as those in place today. Key success factors, challenges, and lessons learned have been summarized to support successful use of the guidelines. In many instances, such factors affected the development of the guidelines.

Appendixes and Supporting Material

Appendixes to and supporting material for this report are available on *CRP-CD-72*, which has been bound into print copies and is available for download from the TRB website (www.trb.org).

Abbreviations and acronyms used without definitions 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
HMCRP	Hazardous Materials Cooperative Research Program
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
PHMSA	Pipeline and Hazardous Materials Safety Administration
RITA	Research and Innovative Technology Administration
SAE	Society of Automotive Engineers
SAFETEA-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