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TCRP Report 14

Institutional Barriers to Intermodal Transportation Policies and Planning in Metropolitan Areas

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Report 14

Institutional Barriers to Intermodal Transportation Policies and Planning in Metropolitan Areas

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with

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Subject Area

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TRANSIT COOPERATIVE RESEARCH PROGRAM

The nation's growth and the need to meet mobility, environmental, and energy objectives place demands on public transit systems. Current systems, some of which are old and in need of upgrading, must expand service area, increase service frequency, and improve efficiency to serve these demands. Research is necessary to solve operating problems, to adapt appropriate new technologies from other industries, and to introduce innovations into the transit industry. The Transit Cooperative Research Program (TCRP) serves as one of the principal means by which the transit industry can develop innovative near-term solutions to meet demands placed on it.

The need for TCRP was originally identified in *TRB Special Report 213—Research for Public Transit: New Directions*, published in 1987 and based on a study sponsored by the Federal Transit Administration (FTA). A report by the American Public Transit Association (APTA), *Transportation 2000*, also recognized the need for local, problem-solving research. TCRP, modeled after the longstanding and successful National Cooperative Highway Research Program, undertakes research and other technical activities in response to the needs of transit service providers. The scope of vice configuration, equipment, facilities, operations, human resources, maintenance, policy, and administrative practices.

TCRP was established under FTA sponsorship in July 1992. Proposed by the U.S. Department of Transportation, TCRP was authorized as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). On May 13, 1992, a memorandum agreement outlining TCRP operating procedures was executed by the three cooperating organizations: FTA, the National Academy of Sciences, acting through the Transportation Research Board (TRB), and the Transit Development Corporation, Inc. (TDC), a nonprofit educational and research organization established by APTA. TDC is responsible for forming the independent governing board, designated as the TCRP Oversight and Project Selection (TOPS) Committee.

Research problem statements for TCRP are solicited periodically but may be submitted to TRB by anyone at anytime. It is the responsibility of the TOPS Committee to formulate the research program by identifying the highest priority projects. As part of the evaluation, the TOPS Committee defines funding levels and expected products.

Once selected, each project is assigned to an expert panel, appointed by the Transportation Research Board. The panels prepare project statements (requests for proposals), select contractors, and provide technical guidance and counsel throughout the life of the project. The process for developing research problem statements and selecting research agencies has been used by TRB in managing cooperative research programs since 1962. As in other TRB activities, TCRP project panels serve voluntarily without compensation.

Because research cannot have the desired impact if products fail to reach the intended audience, special emphasis is placed on disseminating TCRP results to the intended end-users of the research: transit agencies, service providers, and suppliers. TRB provides a series of research reports, syntheses of transit practice, and other supporting material developed by TCRP research. APTA will arrange for workshops, training aids, field visits, and other activities to ensure that results are implemented by urban and rural transit industry practitioners.

The TCRP provides a forum where transit agencies can cooperatively address common operational problems. TCRP results support and complement other ongoing transit research and training programs.

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The members of the technical advisory panel selected to monitor this project and to review this report were chosen for recognized scholarly competence and with due consideration for the balance of disciplines appropriate to the project. The opinions and conclusions expressed or implied are those of the research agency that performed the research, and while they have been accepted as appropriate by the technical panel, they are not necessarily those of the Transportation Research Board, the Transit Development Corporation, the National Research Council, or the Federal Transit Administration of the U.S. Department of Transportation.

Each report is reviewed and accepted for publication by the technical panel according to procedures established and monitored by the Transportation Research Board Executive Committee and the Governing Board of the National Research Council.

Special Notice

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FOREWORD

*By Staff
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This report will be of interest to individuals involved in implementing the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), in particular, those involved in planning, approving, and financing intermodal surface passenger transportation projects. The report identifies institutional barriers to intermodal transportation policies and planning, examines opportunities for improvement, and provides ten strategies to mitigate current barriers and more effectively implement ISTEA.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) contains ambitious goals for the nation's intermodal transportation systems. The objective of the research was to develop strategies to overcome institutional barriers that hinder full achievement of these goals. The scope of this study included barriers related to planning, funding, operating, and implementing surface passenger transportation.

Under TCRP Project H-4C, Crain & Associates conducted research in four distinct stages as follows:

- **Identification of Barriers.** Available literature was reviewed, and structured interviews were held with 41 representatives of transit agencies, Metropolitan Planning Organizations (MPOs), state departments of transportation (DOTs), industry associations, and the U.S. DOT to identify institutional barriers that impede intermodal planning and decision making.
- **Prioritization of Improvement Opportunities.** A nationwide mail-back survey was conducted of 421 individuals responsible for intermodal planning at local, regional, and state levels to identify and prioritize opportunities for improving the intermodal planning process.
- **Implementation Forums.** Three implementation forums were held to learn about institutional barriers that exist in different parts of the United States and to document strategies identified by forum participants to overcome barriers. Each implementation forum was a 2-day, action-planning session, which included transportation planners at all levels of government and decision makers from the public and private sectors. The sessions addressed long-standing intermodal transportation planning concerns of Albuquerque, New Mexico; the Austin-San Antonio corridor in Texas; and Queens, New York.
- **Identification of Strategies.** Ten strategies, related to structure, procedure, and leadership were identified to overcome current barriers to more effective intermodal surface passenger transportation.

This report is a valuable resource for executives, decision makers, managers, and planners from transit systems, local governments, MPOs, state DOTs, the FTA, the FHWA, and organizations involved with intermodal transportation planning and committed to the fulfillment of the goals set forth in ISTEA.

Readers should direct initial attention to the Executive Summary prepared by the research agency. The full research report follows for those interested in the details of the research effort and all the findings.

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Clifford Chambers of Crain & Associates was the author of this report and is the current principal investigator. Mr. Chambers managed all research tasks, designed and analyzed the national survey, conducted 15 stakeholder interviews, participated in two implementation forums, and collaborated on the recommended strategies. Alan Winn, a former Crain & Associates employee and principal investigator, was a significant partner in developing this report. Mr. Winn conducted many of the stakeholder interviews, developed the initial topology of barriers, and participated in two of the implementation forums. The third key member of the research team was Tom Cooper of Pacific Consulting Group. Mr. Cooper provided the analytical tools for the national survey, facilitated the three implementation forums, and developed many of the recommended strategies. Crain & Associates employees

Corinne Goodrich and Howard Der contributed to the technical content of the research. Tracy Johnson and Andrea Lajoie provided valuable production and research support throughout the project. Robin Bogott was the talented graphic artist responsible for the layout and graphics. Jill Donzelli, as the technical editor, enhanced the clarity of this material.

Dianne Schwager, TCRP Senior Program Officer, provided helpful guidance throughout the research. Richard Bickel of the Southeastern Pennsylvania Transportation Authority has actively participated in the project panel meetings and provided several helpful suggestions to an earlier report draft.

The authors would like to express their appreciation to the agencies and individuals who assisted with this project. Many individuals and agencies, too numerous to mention here, provided thoughtful comments on their experiences with intermodal planning and policies. Others volunteered significant time to help organize the three implementation forums and make the action planning sessions a valuable component of the research effort.

EXECUTIVE SUMMARY

“Nothing endures but change.” Although Heraclitus said this almost 2,500 years ago, it remains true of surface transportation practices in the United States today.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) heralded dramatic changes to federal transportation policy. Many in the transportation industry looked at these changes with considerable enthusiasm. The transit industry lauded its flexible funding and increased autonomy at the local level. A Dallas Councilmember summarized the expectations of many: “Contrary to the usual centralized one-size-fits-all federal practice, this legislation allows local and regional transportation agencies the flexibility and authority to design systems tailored to their specific needs.”

The goals set forth in ISTEA represent an enormous step forward in transportation planning. Noted researcher Bruce McDowell summarized how the policy brought three, new, far-reaching philosophies into practice. ISTEA provides the following:

- Decentralized decision making by state and local governments;
- Strengthened connections to environmental policy, especially to the Clean Air Act; and
- New prominence to nontraditional goals and new stakeholders in the planning and decision-making process. (Goals now include international competitiveness, energy conservation, jobs and economic development, equality of access, and mobility for underserved and disadvantaged populations.)⁽¹⁾

Following their initial jubilation, however, many states, metropolitan planning organizations (MPOs), and localities have had difficulty using traditional transportation planning and decision-making practices to implement the intermodal planning principles promoted by ISTEA.

Implementation of ISTEA has been further complicated by ISTEA’s incongruity with the existing institutional structures of urban transportation planning, funding, and delivery systems. The literature indicates that transportation professionals believe there are too many layers of planning and decision making embedded in the existing transportation institutions and that the common result is inertia. Significant funding shortfalls and complex implementation regulations, moreover, have been cited as key inhibitors to successful intermodal planning. Some

states and regions have made great strides in furthering intermodal planning principles; others have fallen short of expectations. Now decision makers at all levels of government are searching for strategies to overcome institutional barriers to intermodal planning.

An important goal in doing this research was to develop strategies to overcome barriers and achieve a national intermodal transportation system to improve surface passenger

mobility. The research approach included four components. First, barriers to planning, decision making, funding, operating, and implementation were identified. Next, institutional barriers at all levels of government were assessed, regarding their individual significance and impact. Action planning sessions in three regions were then conducted to better understand the institutional dynamics needed to overcome these barriers in a real-world context. Finally, after looking at examples of successful intermodal planning, project personnel developed strategies to improve the institutional relationships necessary for a cooperative, coordinated approach to intermodal planning.

–Section 2 ISTEA

KEY REFORMS OF ISTEA

- Increased authorized spending by 28 percent.
- Doubled the authorization of transit and made many highway funds eligible for transfer to transit. Made the non-federal match 20 percent for most programs to remove any financial disincentive for transferring funds.
- Channeled metropolitan planning for transit through the states for the first time.
- Required new style of more detailed and more effective “performance” planning by the state DOTs and MPOs.
- Authorized \$1 billion a year to support congestion management and air quality improvement.
- Used the fiscal capacity of recipients as consideration in non-federal match for certain fixed guideway transit capital investments.

Source: Bruce McDowell, “Reinventing Surface Transportation: New Intergovernmental Challenges,” *Intergovernmental Perspective*, Winter 1992.

The research included 41 individual interviews with MPOs, state departments of transportation (DOTs), federal agencies, and national transportation associations. A national survey of more than 400 MPO, state DOT, and transit agency stakeholders was conducted to identify those intermodal planning factors with the most promise for improving intermodal planning and policies. The action planning sessions or “implementation forums” were conducted in Austin, Texas; Albuquerque, New Mexico; and Queens, New York with decision makers and technical staff at all levels. After the stakeholders themselves developed specific action plans to address local institutional barriers, the research team conducted follow-up sessions at each of the three sites.

INTERMODALISM—A DEFINITION

A U.S. DOT working group defined the following as key elements of the intermodal approach:

- **Choice** among transportation options provided by competing modes, independently or in combination. (Choice also means that decision makers need to consider alternative systems to address transportation needs before investing in infrastructure.)
- **Connections** that provide convenient, rapid, efficient, and safe transfer of people or goods from one mode to another (including end point, pickup, and delivery) during a single journey to provide the highest quality and most comprehensive transportation service for cost. (This research focused on movement of people.)
- **Coordination and cooperation** among transportation organizations to improve transportation service, quality, safety, and efficiency across all modes or combinations of modes in an environmentally sound manner.

Source: R. Martinez, “Perspective from the Office of Intermodalism,” *ISTEA and Intermodal Planning: Concept, Practice, Vision*, TRB Special Report 240, Washington, D.C. (1993) p.47.

SECTION 2

INTERMODAL PLANNING AND POLICY BARRIERS

Three major categories of institutional barriers emerged during this research: organizational, interjurisdictional, and resource barriers.

The following sections (which reflect findings from the literature search, stakeholder interviews, and the national survey) describe the nature and complexity of these barriers.

ORGANIZATIONAL BARRIERS

The research showed that the *organizational legacies, regulatory processes and culture of many federal, state, regional, and local transportation entities impede the enactment of an intermodal vision.* These are discussed further in the following sections.

Modal Separation

For the past 30 years, the Federal Transportation Act had a strong modal focus. Accordingly, transportation agencies were organized around modespecific planning, research, and funding. Funding programs and policies neither required nor encouraged modal integration of transportation plans or projects. The Interstate Substitution Program, allowing the use of federal highway funds for transit projects, was the one notable exception. Since ISTEA, there has been some movement toward restructuring at the U.S. DOT, but many state DOTs continue to plan and operate modes separately.

Recently, President Clinton and U.S. DOT Secretary Peña announced intentions to consolidate the federal surface transportation agencies—highways, transit, and railroads—into an Intermodal Transportation Administration. The effectiveness of this reorganization will depend, in part, on ensuring that different modal interests receive due consideration when mobility lans and transportation options are discussed. An

executive at the FTA remarked that the challenge of intermodal planning is to “ensure that all modal contributions and options continue to be assessed equally.”

The separation of modes continues to be a major concern for planners and managers at the local and regional levels.

Transit agency isolation, insufficient intermodal planning guidance, complex regulations, and a prevailing highway preference were cited as examples of this separation. Many in the transit community have not been included in the transportation planning process. One official at a large western transit agency reflected: “How can transit be considered in the development of state transportation plans and projects if we aren’t part of the family discussing projects or taking part in making funding decisions?” Although many transit agencies have been invited to participate in the local and state planning efforts, significant room for improvement remains, particularly in rural areas.

"As I seek to maintain patience with the ISTEA process, I continue to remind myself that the highway program has had 75 years to develop its universe and transit now almost 30 years. It will take more than a few years for the barriers between the two of them to fall and for the parties to become convinced that the issue really is mobility, not who gets to provide it."

—Louis Gambaccini, SEPTA

Regulatory and Legal Restrictions

When decision makers pursue an intermodal plan, they face complex federal funding procedures. Many state DOT, MPO, and transit authority officials said the FHWA and FTA are not organized to process intermodal projects efficiently. “The modal-oriented organization within the U.S. DOT does not facilitate the easy pursuit of intermodal project planning approval or funding approval,” said a senior official of a southwestern DOT. Several officials told of having to split project elements along modal lines in order for federal funding requests to be considered. More-

INTERMODAL PLANNING AND POLICY BARRIERS

ORGANIZATIONAL

- Federal and state DOT structure separates modes
- Extensive modal orientation
- Inconsistent and complex federal regulations
- State laws that limit funding flexibility

INTERJURISDICTIONAL

- State DOT reluctance to share authority with MPOs
- Reluctance to form partnerships
- Insufficient track record
- Mobility solutions overshadowing mobility needs
- Poorly integrated land use and transportation decision making

RESOURCE

- Significant funding shortfalls
- Inadequate information on intermodal benefits
- Insufficient staff for intermodal planning

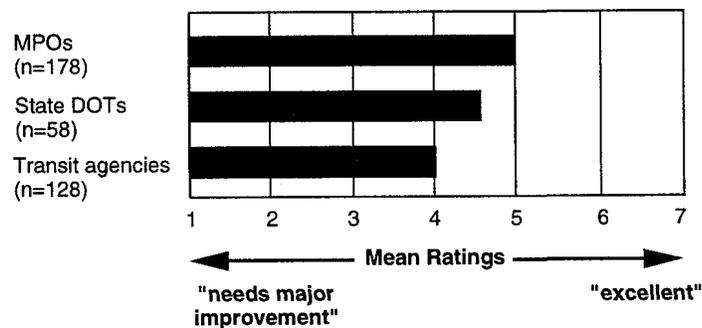
over, FHWA and FTA often interpret project eligibility differently. In one case, a state DOT, denied funding by FTA, submitted the same project to FHWA and obtained federal approval. In general, most stakeholders say ISTEA’s implementation regulations are not working well. As summarized by the Secretary of a western state DOT, “Regulations to date are too much, too detailed, overly prescriptive, not realistic, sometimes extending far beyond the intent of the parent legislation...”

State and local laws also impede the implementation of intermodal projects. Maryland, Pennsylvania, Oregon, Georgia, and Missouri are some of the states with legislation that restricts the use of state gasoline and auto-related taxes to highway-related uses. Many of these restrictions stem from pre-ISTEA legislation. Several transportation planners remarked that similar prohibitions have even been passed by their state legislatures since ISTEA’s passage.

Organizational Culture and Modal Orientation

Organizational culture develops through years of subtle definition and nurturing. Such culture, reinforced by the agency’s mission statement, is continually reinforced by senior managers and staff alike; the culture is perpetuated during the training of new employees. A modal orientation is endemic to most transportation organizations. Highway and transit agencies have historically strengthened their esprit de corps by reinforcing the importance of their particular mode and organizational purpose.

Figure 1
How Well Does Your Planning Process give Equal Consideration to the Full Range of Transportation Alternatives?



Source: National Survey of Stakeholders

The national survey revealed significant variance among stakeholders in how well their regions and states are considering the full range of transportation alternatives. As shown in Figure 1, transit agencies generally believe there is more need for improvement than do MPOs or state DOTs.

INTERJURISDICTIONAL BARRIERS

Transportation planning requires significant interjurisdictional cooperation among federal, state, and regional agencies as well as with the public and special interest groups. ISTEA shifted some federal transportation funding decisions from the state DOT to a shared responsibility between the state and the MPOs. These MPOs were charged with “opening up” the process to include all modes, all levels of government, and the public. According to the Surface Transportation Policy Project (STPP), the greatest success has been achieved by those willing to make alliances with new stakeholders who participate actively in the planning process.⁽²⁾ For states that had limited success in achieving this shared responsibility, five interjurisdictional barriers were critical; these are discussed in the following sections.

Different Views About Authority and Responsibility

MPOs and state DOTs frequently have significantly different interpretations of ISTEA guidelines. In one western state, an MPO described how its state DOT believes it has full discretion to use state-allocated Surface Transportation Program (STP) monies—even in transportation management areas (TMAs) with more than 200,000 in population—and has proceeded with highway projects that other stakeholders oppose. An eastern MPO said its state DOT did not understand that the MPO leads the project selection process because it is also a TMA. The MPO did not want to challenge the powerful state agency directly, so the transition has been “slow and gradual.”

Reluctance to Form Partnerships

Transportation planning decisions involve many local, regional, state, and federal officials. Because each agency has its own agenda, studies, and processes, decisions often reflect political concerns as well as transportation needs. This issue was discussed extensively at all three implemen-

The clearest winners have been those willing to make alliances with new stakeholders who participate actively in the planning process.

– Surface Transportation Policy Project

tation forums. For example, in Albuquerque, New Mexico, the City was sponsoring a major evaluation of transportation and land use within city limits and also was undertaking a major study of light rail; the County was evaluating a regional transit authority; the MPO was developing a strategic plan to reorganize to better meet the transportation and land use needs of the region; and the State was undertaking a major reconstruction of a freeway interchange and the evaluation of a high-occupancy-vehicle (HOV) lane.

That the purposes of and responsibilities for intermodal planning and policies are not well defined is also a problem. In New York, for example, the lead planning agency for the Sunnyside Intermodal Terminal is the Metropolitan Transportation Authority (MTA), but the Sunnyside Yard is owned jointly by the MTA and Amtrak. Furthermore, the MTA, the Port Authority of New York and New Jersey, and New Jersey Transit—all of which share responsibility for public transit into and out of Manhattan—are undertaking a major Access to the Core study, which is separate from (and competing with) the Sunnyside project concept. Freight interests need to be considered in the Sunnyside Intermodal Terminal, but the MTA's primary mission is people transportation, so freight concerns are not incorporated fully into the overall decision framework. In the San Antonio-Austin corridor, different major investment studies have been undertaken with little coordination among the different MPOs, transit agencies, and the Texas DOT until recently. In all three areas, jurisdictional confusion and inadequate interjurisdictional communication have impeded intermodal planning.

The importance of establishing authority and responsibility early in the planning process is characterized in a simple model of change developed by Michael Meyer⁽³⁾ through case studies of federal policy adoptions in numerous metropolitan areas. Dr. Meyer contends that resolving issues of authority, responsibility, and procedures for decision making enables the organizations involved to address issues of substance effectively.

Insufficient Track Record

Most MPOs and DOTs have little experience with the kind of relationship ISTEAs asks them to forge. They need time

to build mutual trust. States may be reluctant to relinquish some responsibilities to MPOs with short track records; yet, MPO leadership needs such experience to gain credibility in these areas. Both sides need to acknowledge the transition period and help each other to succeed.

Solutions Overshadow Needs

Many elected officials view transportation projects as a way to accomplish goals other than mobility, such as economic development. Consequently, attention often focuses on transportation solutions rather than mobility needs. During the research, numerous examples were provided of how a transportation solution or project drove the entire planning process. The mayor who pursues the building of light rail without understanding the prerequisites is as much a barrier to sound intermodal planning as the highway engineer who focuses solely on a highway solution.

Poorly Integrated Land Use and Transportation Policies

Insufficient integration between transportation and land use decisions hinders effective intermodal planning. A key issue is that unrelated governmental entities have authority over transportation and land use decisions. The local city council or county board of supervisors normally have distinct authority over land use decisions. Public transportation organizations rarely have authority or direct influence over land use. Transportation decisions often involve many local, regional, state, and federal officials.

The research provided examples of how poorly integrated land use and transportation decisions affect transit service delivery decisions. The TCRP is undertaking three research projects to develop strategies to address this issue: 1) *Transit and Urban Form*; 2) *Strategies for Influencing the Choice of Urban Travel Mode*; and 3) *The Cost of Sprawl—Revisited*.

RESOURCE BARRIERS

Funding, information, staffing, and analytical tools are essential to the success of ISTEAs' objectives. A deficiency in any of these resources was identified as a significant barrier in many jurisdictions.

Significant Funding Shortfalls

To date, ISTEA has not been fully funded. Adequate federal funding is critical to successful intermodal policy implementation according to most stakeholders; transit agency, state DOT, and MPO representatives were united in their dissatisfaction with funding levels. Most state, MPO, and local transportation stakeholders support the need to fund ISTEA fully. It was a major theme in the interviews, national survey responses, and federal DOT roundtables on ISTEA implementation.⁽⁴⁾ Facing significant funding shortfalls, an executive director of a California MPO suggested “providing funding at levels adequate to meet a region’s intermodal needs; planning without the ability to implement is meaningless.”

Funding enables choices, facilitates partnerships, and yields more support for intermodal projects. Inadequate funding, paired with the funding flexibility allowed in ISTEA, fuels rivalry rather than cooperation—particularly between highway and transit interests. A director of a rural transit agency in the midwest conveyed this frustration: “Intermodalism is supported as long as transit doesn’t try to access discretionary funds—when pitted against roads, transit loses every time.” A director of a transportation research institution in the northwest said, “The fact that ISTEA has not been fully funded in the face of undeniable

evidence of the large and growing unfunded needs of the nation’s highway and transit systems is not only a betrayal of ISTEA’s bright promise, but itself poses a significant hurdle to the new intermodal spirit which ISTEA promotes.”

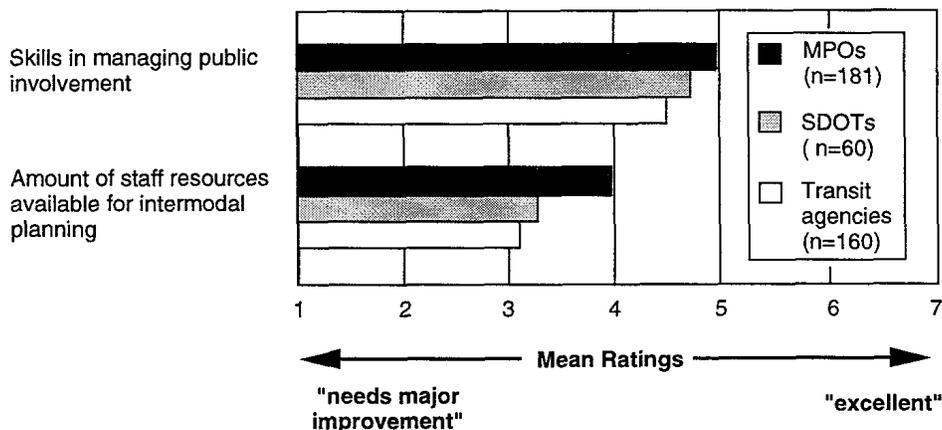
Insufficient Information

A small transit system administrator in the northern Plains summarized the need for better understanding about intermodal issues in many areas around the United States with the comment, “most local officials don’t have a clue as to what intermodal planning means.” In particular, elected officials lack the specific information necessary to understand and implement intermodal plans. The result, according to a very large East Coast transit agency, is that “we have developed intermodal strategic goals on paper, but they are lacking the underpinning to make them a reality.”

Insufficient Staff Resources

Part of the problem is that staff resources are not sufficient to advance intermodal planning adequately. Figure 2 shows that most stakeholders are reasonably satisfied with the abilities of staff to facilitate public participation and

Figure 2
Good Skills, but Inadequate Staff Resources



Source: National Survey of Stakeholders

plan specific intermodal projects but are significantly less satisfied with the number of professionals available to conduct intermodal planning. Both the American Public Transit Association (APTA) and an executive level appointee at U.S. DOT estimate that more than 80 percent of professional transportation staff time is devoted to routine operational issues, short-term plans, and addressing immediate operational needs specific to the mode in which they are involved. Very little time remains to explore and address intermodal opportunities. ISTEA provides an opportunity for increased participation in regional transportation planning, but, faced with cutbacks in their operating budgets, many transit agencies are finding that they do not have sufficient staff to participate as actively as they would like.

MPOs are similarly frustrated. According to a U.S. Advisory Commission on Intergovernmental Relations study that included extensive investigations of 18 MPOs serving 12 metropolitan areas, “this newfound importance [due to ISTEA], however, came at a time when many MPOs had fewer capacities than needed to perform their planning functions and when it was difficult for them to expand.”⁽⁵⁾

Inadequate Tools for Comparing Mobility Projects

ISTEA emphasizes selecting solutions according to transportation needs rather than mode. Choosing projects according to mobility has proven difficult for both MPOs

and state DOTs. According to the Executive Director of the Community Transportation Association of America, “it is difficult to make transportation decisions predicated upon mobility, when there is no agreed definition of the term. While the lack of definition can work to the benefit of some special interests in their advocacy of a particular project, this absence of definition might be the source of confusion in the decision-making process.”

In addition to no common definition, there are no common measures of multimodal mobility. This issue surfaced repeatedly during this research and is validated by the recently completed NCHRP Synthesis 201, *Multimodal Evaluation in Passenger Transportation Practice*. The synthesis concludes, “Clearly, mobility needs to be defined and measured. Mobility defined as highway level of service does not lead to multimodal solutions.”⁽⁶⁾

What is the correct formula? Are the correct weightings given to the decision-making variables? Are the results interpreted correctly? Most importantly, is the process constructed to select the best approaches for mobility, land use, and air quality needs of the community or region? Decision makers need tools to measure these and other indicators of success. The research found that existing measures often exclude potential intermodal planning options early in the process.

SECTION 3

OPPORTUNITIES FOR IMPROVING INTERMODAL PLANNING: NATIONAL FINDINGS

Intermodal planning is a dynamic process. Significant challenges facing intermodal decision makers are what social scientist Kurt Lewin describes as *restraining forces*.⁽⁷⁾

Factors that facilitate changes are called driving forces. The current effectiveness of intermodal planning in a given region reflects the degree to which driving forces overpower restraining forces, as illustrated in Figure 3. The national survey results helped identify driving forces having the most potential for improving the intermodal planning process.

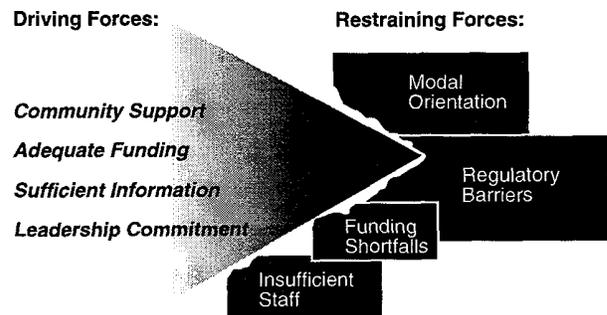
Forty-six factors that might improve the intermodal planning process were evaluated. (All 46 factors are listed at the end of this summary.) The top priorities from the transit agency, MPO, and state DOT stakeholder perspectives are shown in Figure 4. The research revealed that *improved federal funding for mobility projects will have the greatest impact from the transit agency perspective, but collectively, stakeholders believe that building a constituency for the intermodal planning concept will yield the greatest results.* Informing key players about the benefits of intermodalism, inviting citizen input on intermodal planning, and mobilizing business leadership also can result in improvement. The challenge is to amass external support that does not favor one mode or another but motivates citizens, business, and elected officials to determine collectively how to move people and goods most effectively.

Leadership is one of the most powerful driving forces of change. Energy and determination created by focused leadership can overpower restraining forces and enable communities to meet objectives despite serious barriers. Leadership was the main factor in all successful examples of intermodal planning and decision making studied. If effective leadership is present, it can overcome many of the barriers discussed earlier. One notable example took place in a mid-Atlantic state where the senior executives of the state DOT were opposed to the construction of a new light rail line because it would divert funding from the

the state highway trust fund. Throughout the state's DOT senior staff levels, the tone regarding the viability of the project from a state funding standpoint was continually negative. At the presentation of the plan to the Governor, the state DOT was going to recommend delaying the light rail project to the "out years" of the capital program; however, the Governor expressed support for the plan and directed state funds to be reprogrammed from highway use to transit so that the project could move ahead quickly. Following the meeting, the state DOT staff, including its Highway Department, rallied behind the project to support the transit agency in the construction of the project. In this and numerous other examples, leadership overpowered barriers by redirecting the focus of stakeholders away from restraining forces and toward achieving a shared intermodal objective.

Leaders must be informed about transportation options. Said a senior Iowan transit official: "ISTEA is only as good as policy makers are." Many stakeholders stressed the need for ongoing information to elected officials.

Figure 3
Driving Forces Can Overpower Restraining Forces

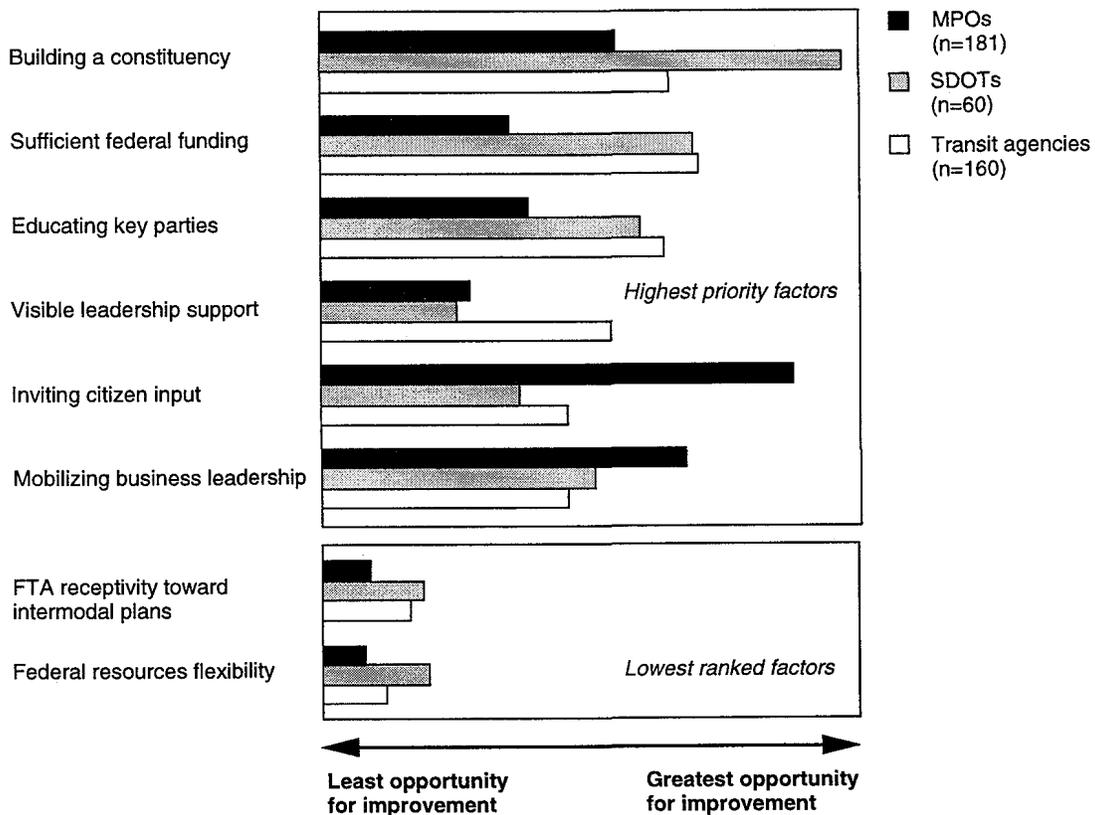


Full funding of ISTEA was important to all stakeholders, but it was not their highest priority for improving the overall intermodal planning process. When national survey respondents were asked to name one change that would improve intermodal planning and decision making, efforts to increase funding levels were cited by about 30 percent of the respondents. Although funding is important to the implementation of intermodal projects, the research indicates that *gaining external support for intermodalism is the most critical prerequisite to sound intermodal planning and policies*. As shown in Figure 4, transit agencies and state DOTs feel more strongly than MPOs that sufficient federal funding will have a much greater

effect on the intermodal planning process. This was a general pattern for other intermodal planning factors having the most opportunity for improvement. Of all 46 planning factors evaluated, federal resource flexibility had the least potential for improving intermodal planning across all stakeholder groups (see Figure 4). Stakeholders are very satisfied with federal resource flexibility, and there is little opportunity for change that would improve the intermodal planning process.

Survey respondents provided examples of successful intermodal planning. As shown in Table 1, development of intermodal transfer facilities and long-range plans were the top response categories.

Figure 4
Top Priorities for Improving Intermodal Planning



Source: National Survey of Stakeholders,
Pacific Consulting Group: Net Impression

Table 1
Best Examples of Intermodal Planning

Describe the best example of intermodal planning in your area. What in your opinion are the reasons for its success?

1. Development of an intermodal transfer facility. (83 mentions)
 - Development of an intermodal transit center in the central business district. Project was planned and programmed three years in advance, submitted for public input early in the process, and local funding, including business participation, was secured. (Small southwestern DOT)
 - Intermodal Amtrak Station had strong local and Congressional support. (Southern MPO)
2. Development of a long-range regional transportation plan. (28 mentions)
 - Long-range, statewide, intermodal transportation plan was successful because of early and continued involvement of the private sector and other public agencies. (Southern state DOT)
 - Development of a Statewide Intermodal Transportation Plan. This resulted in coordination and cooperation among modes of transportation that normally do not deal with each other. (Mid-America state DOT)
3. Provision of intermodal services (23 mentions)
 - Electric shuttles in the downtown area—these shuttles facilitate rail-transit-pedestrian traffic and allow motorists to park in remote lots and shuttle to business/tourist areas. (Medium-sized West Coast transit agency)
 - Commuter connection bus service to and from railroad stations. (Large northeastern transit agency)
4. Planning a specific transportation corridor (21 mentions)
 - Development of 100-mile HOV system lead by transit authority with significant interface and coordination with state highway department. (Large southwest transit agency)
 - MIS Study in an urban freeway corridor. (Southwest DOT)
5. TIP Process. (16 mentions)
 - During TIP process, we asked the people what they wanted through a visual preference survey and designed our evaluation criteria to reflect those preferences. (Southern MPO)

Source: National Survey

SECTION 4

STRATEGIES

To implement ISTEA effectively, leaders at all levels must address the context of how transportation and land use problems are defined, options are presented, and solutions are selected.

As shown in Figure 5, the following three types of strategies shape decision making:

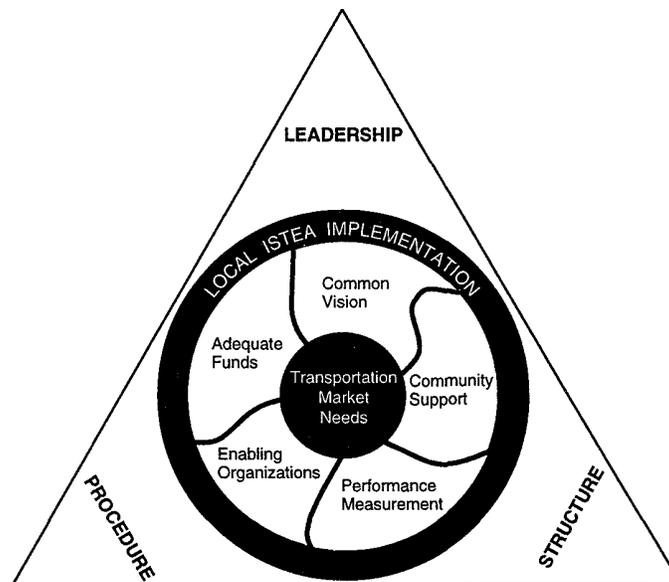
- *Structural* strategies focus on increased modal integration, defining new agency visions or missions, and establishing partnerships that strengthen regional constituencies.
- *Procedural* strategies eliminate regulatory discrepancies, provide intermodal funding incentives, and define mobility in long-range plans.
- *Leadership* strategies improve intermodal planning capabilities by providing information, communicating success stories, and broadening the selection criteria of senior transportation officials.

As illustrated in Figure 5, structure, procedure, and leadership promote or impede regional or local decision-making. The ISTEA implementation regulations are a good example of a procedural decision-making context. The local ISTEA decision-making process should conform to the ISTEA implementation regulations, which require financially constrained, long-range plans. This procedural context shapes the drafting of regional transportation plans by MPOs.

Figure 5 shows the steps that are crucial to effective local ISTEA implementation. These steps are as follows:

- Establishing a *common vision*,
- Generating *community support*,

Figure 5
Decision-Making Context of the Intermodal Planning Process



- Creating *system performance measures* that clearly relate to market demands,
- Developing *enabling organization(s)* to meet local needs, and
- Pursuing *adequate funds* to implement priority projects.

If the local ISTEA implementation is to succeed, each step should address transportation market needs. The local ISTEA implementation process cannot be prescribed—it must be developed at the local level. The research revealed strategies that enhance the context in which implementation can occur. “Context-shaping” strategies developed for use at the federal, state, and local level are provided in the rest of this section.

STRUCTURAL STRATEGIES

The separation of modes within state and federal transportation agencies, extensive modal preference in the transportation industry, and reluctance to share power and authority have constrained the implementation of ISTEA. The challenge is to change institutional structures to enable the development of an intermodal transportation system. The first three strategies are designed to provide the framework for improved intermodal planning and decision making.

STRATEGY 1

Increase the modal integration of state and federal agencies to be consistent with the policies and programs contained in ISTEA.

The structure of transportation agencies, specifically at the federal and state levels, needs to complement the policies of intermodalism and mobility set forth in ISTEA. The different implementation strategies that will achieve modal integration range from full restructuring to modal teams advocating modal interest.

The U.S. DOT’s 1995 proposal to merge the highway, transit, and railroad agencies into an Intermodal Transportation Administration would have been consistent with this strategy. This effort would be a significant step toward altering the federal transportation structure from one centered on modes to an organization whose efforts are focused

STRUCTURAL

KEY BARRIERS

- Federal and state DOT structure separates modes
- Extensive modal orientation
- Reluctance to share power and authority
- Insufficient MPO track record

STRATEGIES

Federal

- Increase modal integration

State

- Define a new vision and mission statement that focuses on market needs rather than modal solutions
- Increase modal integration

Regional (MPOs, transit agencies, local government)

- Develop partnerships to strengthen regional constituencies
- Broaden MPO policy board to include all major transportation players
- Define a new vision and mission statement that focuses on market needs rather than modal solutions

on the nation’s transportation system and the interactions among its many components.

Similar reorganization at the state and local levels would establish consistency in structure between transportation agencies. This would enhance communication between and decision making by federal and local governments.

In many states, wholesale restructuring of the state DOT may not be feasible or desirable. Functional integration of major transportation responsibilities could include the consolidation of transportation planning and programming, system design, and budgeting. For example, the Washington State DOT now has centralized planning and programming without regard to mode. The state also used the concept of modal advocates to ensure that appropriate solutions are being considered during planning and that appropriate institutional structures are there.

The use of modal teams is another step toward modal integration. In Florida, increased functional integration has taken place through teams at the district level. Each team

consists of a highway engineer, a transit official, and the District Secretary. The Secretary of Transportation also encourages modal advocacy and encourages friction between modal interests, “The only time you don’t see friction is when you don’t see movement,” he said.

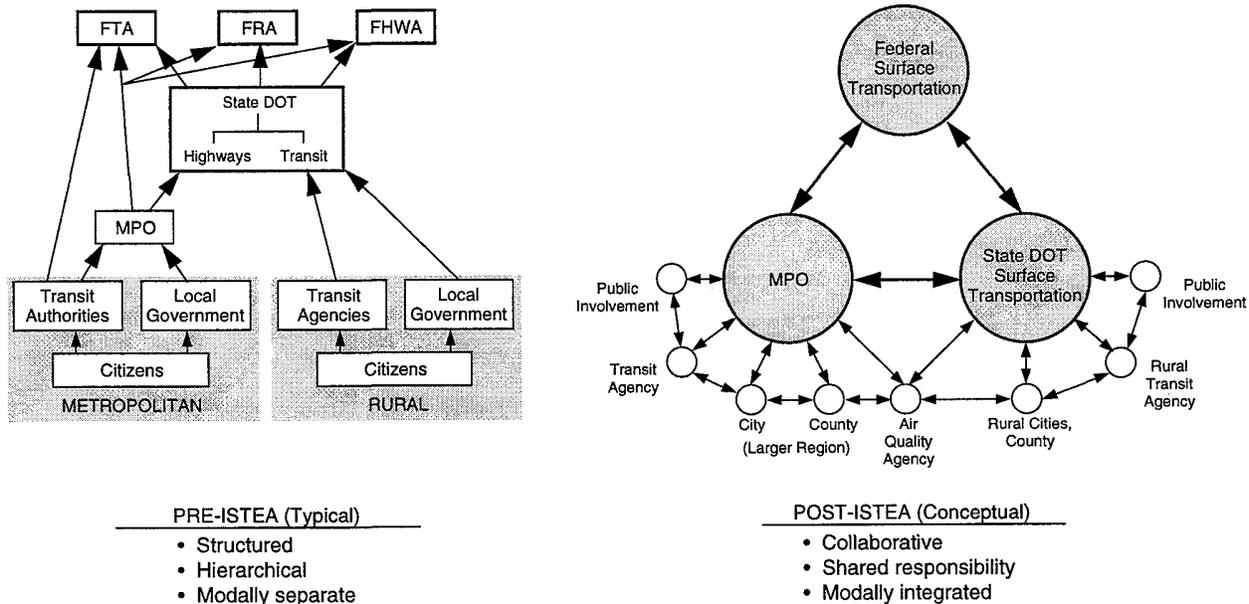
The research identified different ways to achieve increased modal integration to achieve the objectives of ISTEA. The left side of Figure 6 illustrates the typical hierarchical institutional relationships prior to ISTEA. The institutional challenge is to restructure transportation organizations to increase modal integration, encourage collaboration, and foster shared responsibility.

STRATEGY 2

Transportation agencies—particularly state DOTs, highway agencies, and transit authorities—should embrace intermodal planning in their vision or mission.

Many organizational problems that impede intermodal planning are rooted in agency vision and mission state-

Figure 6
The ISTEA Institutional Challenges: Modal Integration, Collaboration, and Shared Responsibility



ments. Intermodal planning requires an organizational support structure, cooperation, and dialog among modal transportation agencies.

An organization's mission guides its actions and decision-making processes. As such, it needs to reflect broader transportation responsibilities for all transportation agencies—highways and transit. While it should continue to address modal objectives, it also must stress the need to actively pursue and participate in intermodal opportunities. In essence, the broader mission is to promote a transportation network that is safe and efficient and evaluates transportation options from the perspective of finding the best solution—not fitting the solution to a particular mode.

STRATEGY 3

MPOs should establish or strengthen partnerships with agencies, local officials, businesses, and community leaders to strengthen support from their regional constituencies.

This strategy calls for an invigorated and innovative MPO structure to work creatively with its local partners and to build an ongoing planning and programming process that facilitates choice, connectivity, cooperation, and coordination.

Structurally, MPOs have strengthened support from their regional constituencies by doing the following:

- Developing formal partnerships with governmental agencies in the region;
- Including key transportation personnel, such as the transit agency chairperson or general manager, on the MPO policy board;
- Involving the private sector and public interest groups, including non-profit organizations, on the MPO board, and advisory committees;
- Establishing intergovernmental task forces to address specific corridor or regionwide needs; and
- Creating a special commission to implement the longrange transportation plan.

“The Oregon Transportation Plan envisions a transportation system that moves people and goods in a way that provides for livability and economic prosperity for all Oregonians. The system provides Oregonians with access to goods, services, jobs and recreation, while providing Oregon industry access to national and international resources and markets. To most effectively meet the state’s needs, the transportation system takes advantage of the inherent efficiencies of each transportation mode and encourages interconnection between modes.” – Oregon Transportation Plan

PROCEDURAL

KEY BARRIERS

- Federal regulations overly extensive
- State laws limit funding flexibility
- Insufficient tools for comparing mobility projects
- Poorly integrated land use and transportation decision making

RECOMMENDED STRATEGIES

Federal

- Review and streamline laws, regulations, and guidelines to intermodalism and simplify requirements
- Consider incentives to pursue intermodal solutions
- Develop analytical framework for comparing intermodal solutions

State

- Consider incentives to pursue intermodal solutions
- Define mobility measures in long-range plans
- Develop project selection criteria and procedures that reflect state and community goals

Regional (MPO, transit agency, local government)

- Define mobility measures in long-range plans
- Facilitate external support and interest in intermodal approaches
- Develop project selection criteria and procedures that reflect community goals

The San Francisco Bay Area Partnership is an example of building a local constituency to facilitate intermodalism. Larry Dahms, Executive Director of the Metropolitan Transportation Commission in the San Francisco Bay Area, described the forging of new formal partnerships this way: “Launched almost immediately on the heels of the President’s signing of ISTEA, the 36 governmental agencies comprising this ‘Partnership’...covers the spectrum of local to federal agencies—transportation and environment—and multiple modes. Its goals are improved mobility and cleaner air. The Partnership’s initial burst of energy was signaled by adoption of a regional Joint Urban Mobility Program, better known as ‘JUMP Start.’ It consists of 21 multi-agency projects designed to demonstrate an immediate ISTEA benefit—effective projects on the street and/or more understandable planning and decision processes.”⁽⁴⁾

The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) has established two commissions to address two key issues that affect implementation of the long-range transportation plan. The Commission on Land Use will focus on bringing consistency to its long-range plan goals and local land use policies. Its recommendations will be the basis for new transportation-sensitive land use standards and will establish criteria for planning commissions and departments throughout the region. The Commission on Transportation Financing and Transit Institutional Restructuring will focus on how to restructure existing transit service institutions and how to finance its plan’s implementation.⁽⁸⁾

PROCEDURAL STRATEGIES

Extensive regulatory requirements, cumbersome and sometimes contradictory grant processes, and excessive reporting also impede consideration and pursuit of intermodal planning and projects. As one senior state DOT official stated, “the federal government must shift from their role as regulators to a role of a facilitator.” The next three strategies direct this shift.

STRATEGY 4

Review and streamline procedures and regulations among the surface transportation agencies of the U.S. DOT and other federal agencies. This review should also simplify the

regulations and address inconsistencies in order to reduce the MPO and state DOT administrative burden and clarify responsibilities.

The FHWA recently produced a “Regulatory Reinvention Initiative,” which recommends measures to streamline procedures and eliminate regulations where necessary. The FTA recently revised its regulations in order to provide grantees maximum flexibility in their procurement decisions. Further efforts to identify and eliminate inconsistencies in rules and regulations within the U.S. DOT itself and other federal agencies would be beneficial. Efforts to simplify ISTEA implementation regulations would benefit understaffed MPOs, state DOTs, and transit agencies.

STRATEGY 5

Consider funding incentives that promote intermodal planning to enhance the willingness with which state, regional, and local transportation agencies view and pursue intermodal approaches to mobility improvements.

This strategy suggests that intermodal planning and resulting projects receive special promotion and attention. For example, in the recent past, the Interstate Transfer Program provided an opportunity to transfer interstate highway funds to transit uses, and an 85 percent federal match provided an incentive over the standard 80 percent federal transit match. Several metropolitan areas took advantage of the program. Another example is the promotion and attention that privatization efforts received in the 1980s.

Another incentive would be to amend project selection criteria to give greater weight to projects resulting from effective intermodal planning. Several MPO stakeholders mentioned this strategy as one they had either adopted or were considering.

If federal and state agencies were to commit to a timely review and approval of intermodal projects, with a streamlined process for distributing funding in an expeditious fashion, this would provide an additional incentive.

STRATEGY 6

State, MPO, and transit agencies should define “mobility” and develop measures that reflect mobility in their long-range transportation plans based upon the needs of the jurisdiction.

A strategy to define mobility is believed to be best implemented by transportation planners and decision makers at the state, regional, and local levels. In this way, mobility can be defined in response to local needs. Planners should assess a project on its quantitative value but also should consider a project’s qualitative impact on the customers that it intends to serve—whether they are commuters, business sector representatives, or other types of traveler.

In *NCHRP’s Synthesis of Highway Practice 201: Multimodal Evaluation in Passenger Transportation*, Dr. Scott Rutherford states that “A multimodal measure of mobility should be developed to compare effectiveness across modes. This measure should not only reflect mobility implications of highway and transit improvements, but also demand management, land use forms, and nonmotorized travel modes.” The current intermodal planning research strongly supports this strategy.

STRATEGY 7

MPOs and state DOTs should develop project selection criteria and procedures that reflect state and community goals.

A critical final step in the transportation planning process is the selection of projects to be funded. Project selection criteria provide the framework for (1) taking community goals and priorities articulated in the development of long-range plans, citizen outreach, and multi-agency coordination and (2) translating these into “on the ground” transportation expenditures. Unless the selection criteria and programming structure capture the community’s priorities as well as enable fair comparison of highway, transit, and alternative modes, traditional modal orientation will continue. Although ISTEA was passed several years ago, many agencies have not yet achieved intermodal objectives since their project programming criteria are inconsistent with intermodalism.

LEADERSHIP

KEY BARRIERS

- Insufficient information on intermodal benefits
- Inadequate collaborative skills
- Insufficient staff for intermodal planning

RECOMMENDED STRATEGIES

Federal

- Coordinate initiative to inform elected officials about intermodal planning
- Fund development of intermodal planning success stories

State

- Expand hiring criteria for senior officials
- Modify incentive structures for senior transportation planning officials
- Communicate success stories (process and results)

Regional (MPO, transit agency, local government)

- Inform local elected officials of the benefits of intermodal planning
- Broaden the selection criteria for senior officials
- Modify incentive structures for hiring senior transportation planning officials
- Communicate success stories (process and results)

A wide array of different project selection processes are being utilized. Typical of efforts to achieve “mode-neutral” criteria is a process used by the North Front Range Transportation Air Quality Planning Council in Fort Collins, Colorado. The MPO uses 11 criteria for each project and assigns a weight between 1 and 5 to reflect community values. According to local staff, the process has resulted in an excellent mix of highway capacity improvements, transit enhancements, and transportation demand management projects. Other areas, such as the Rochester, New York, region first determine how much funding should be made available to each mode and then rank the projects by mode.

Regardless of the project selection procedure chosen, the research points to a clear need for developing a project programming structure tailored to local conditions. A western MPO executive director conveyed to the researchers how the MPO originally tried to adapt the project selection criteria from another region but found that their community goals required a totally different approach.

LEADERSHIP DEVELOPMENT STRATEGIES

Agency and elected officials who appreciate the “big picture” are skilled at helping communities address their problems, generate solutions, and follow through on actions that can make the largest contribution to success. Although the planners and engineers, who want to evaluate a range of alternatives, and elected officials, who often need immediate solutions, will continue to need to negotiate, the following strategies will improve leadership development.

STRATEGY 8

Inform elected officials of the benefits and dividends of intermodal planning.

A broad-based effort to inform elected officials and organizational leaders about the benefits of intermodal transportation could facilitate cooperative efforts. More information could enhance the relationship of transportation planning, land use planning, and air quality as well as help elected officials suggest reasonable alternative solutions to local transportation problems.

Specific actions proposed by the U.S. DOT and the U.S. Advisory Commission on Intergovernmental Relations and others include the following:

- Preparing a video on ISTEA planning for state, MPO, and local policy officials;
- Conducting seminars on ISTEA planning for local elected officials and senior staff for presentation at the National League of Cities, U.S. Conference of Mayors, National Association of Counties, and National Association of Regional Councils' annual meetings; and
- Getting on line with satellite hook-ups, electronic bulletin boards, and interactive video conferencing.

The National Transit Institute is also developing a curriculum on intermodal planning with plans to conduct local intermodal planning seminars.

Before these ideas can be truly effective, MPO and state DOT staff need to understand how their elected officials learn about transportation issues. For example, staff may need to know what conferences officials attend, what magazines they read, and with whom they speak. With this information, staff can develop an affordable communications plan that sends a consistent message about the intermodal planning aspects of ISTEA.

STRATEGY 9

Communicate success stories to staff, elected officials, and community organizations.

Management literature shows that people in organizations communicate as much through stories as through facts and data. The strategy here would capitalize on this phenomenon by documenting success stories surrounding intermodal planning and policies. Case studies of successful practices need to document the steps people followed, the challenges they faced and how they overcame them, as well as the results achieved. Because intermodalism involves the use of informal and political processes as well as the traditional analytical ones, people need a road map of how

to obtain support and commitment, perhaps more than they need a road map of how to analyze the options.

The Association of Metropolitan Planning Organizations has developed and published mini case studies of successful ISTEA implementation practices around the country, called *In the Spotlight: MPO Best Practices*. These publications are useful, although they do not document the institutional challenges and barriers that were overcome. These and other case studies should be widely disseminated in various media.

STRATEGY 10

Broaden the selection criteria for hiring senior transportation officials.

The new collaborative skills required to operate in a multimodal environment argue for redefining the job descriptions of senior managers in the transit industry, highway industry, MPOs, and state DOTs. There is a need to supplement the knowledge and expertise within a particular transportation function with criteria such as the following:

- Working effectively in a multimodal environment,
- Managing teams composed of diverse specialties,
- Communicating a shared vision,
- Working constructively with diverse stakeholder groups, and
- Helping diverse organizations reach agreement and take action (versus just studying the issue).

Although many of these are qualitative in nature and, therefore, hard to assess quickly, they will become increasingly important to success in the multimodal environment. The incentive structure and performance criteria for senior transportation planning officials should be revised to incorporate these new roles. Managers who do not look for opportunities in these areas may be left behind.

SECTION 5

LOCAL ISTE A IMPLEMENTATION: LESSONS LEARNED

Each local jurisdiction must tailor individual intermodal planning components to its own situation.

The details cannot be prescribed—they must be adapted to changing circumstances at the federal, state, regional, and local level. The next transportation reauthorization legislation, called next-TEA by some, will influence the future decision-making context, which, in turn, will affect the local implementation process. Environmental conditions (such as land use patterns, air quality conditions, and historical transportation market shares) must all be considered in adapting a local planning process.

The three implementation forums (conducted in Albuquerque, New Mexico; Austin, Texas; and Queens, New York) as well as the national survey indicated that several attributes can enhance local intermodal planning processes. Table 2 summarizes the most valuable attributes of each local planning process.

A TALE OF THREE CITIES

The following sections summarize the results of the three implementation forums and local efforts to improve the ISTE A implementation process.

AUSTIN-SAN ANTONIO

The 80-mile corridor along Interstate Highway 35 between Austin and San Antonio, Texas, is becoming increasingly congested. In Austin, a 5 percent annual population growth rate is expected to continue until 2020 with automobile traffic volumes increasing at a historical rate three times greater than population growth. Automobile traffic has been compounded by a 6 to 8 percent annual growth in truck and rail traffic with a single-track rail line along the corridor nearly reaching capacity, mostly because of the North American Free Trade Agreement.

For years, planners have been investigating the potential to relocate the Union Pacific freight rail line to a proposed

State Highway 130 corridor that essentially parallels Interstate 35 between the two cities. There has also been considerable interest in the intermodal potential for reuse of the Union Pacific right of way between Austin and San Antonio for commuter rail. The implementation forum brought together approximately 50 technical and decision-making officials representing the public and private sectors to develop an action plan to move the intermodal planning process forward. The forum participants identified several barriers to intermodal planning, including insufficient communication among key participants (this was the first time Union Pacific was involved), the absence of active external support, the complexities of addressing multijurisdictional projects, and the lack of a defined funding strategy. Five teams of participants developed action plans to do the following:

Develop a vision for transportation in the Austin-San Antonio corridor,

- Develop a project coordinating structure,
- Solicit external project support,
- Develop funding strategies, and
- Market the project in the communities.

During the summer of 1995, the groups met several times and made significant progress. The new relationship with Union Pacific personnel spawned plans for a demonstration commuter rail train to visit the corridor with more than 100 elected and other community officials participating. This demonstration is a good example of how to build external constituencies for intermodal planning concepts. The group also has discussed an outline of a commuter rail feasibility process, and plans are underway for an origin/destination study.

QUEENS, NEW YORK

For more than 60 years, planners have discussed the construction of an intermodal facility at Sunnyside Yards, 150 acres of below-grade railroad tracks and vacant land in Long Island City in the Queens Borough, New York. Originally proposed in a 1929 Regional Plan as a means of relieving overcrowding at Penn Station in Manhattan, Sunnyside Yards is again being discussed not only as a solution to transportation problems within Queens but as a regional transfer center for passengers using MTA subways and Amtrak, Long Island Rail Road, and New Jersey Transit rail lines. At present, these rail services pass through Sunnyside en route to other destinations with no opportunity for passengers to transfer from one mode to another.

A 1993 study commissioned and conducted by the New York City Department of City Planning highlighted the regional benefits of such a facility, including the economic development potential for Queens itself. The planning study for Long Island City envisioned a new “vibrant 24-hour pedestrian-oriented Central Business District with development capacity for 20 million square feet of new housing, shops, and community facilities.”⁽⁹⁾

Several factors have contributed to the difficulties that the New York region has experienced in moving forward on the Sunnyside intermodal facility idea. First, although there are transportation agencies and planning groups interested in the idea, none has jurisdictional responsibility for a project of this scope. Furthermore, competition for limited transportation funds is intense. Other major projects under consideration include: a light rail connection between Kennedy and La Guardia airports and downtown Manhattan; development of an intermodal facility in midtown Manhattan; and expanded use of the Sixty-Third Street tunnel. Each of these major proposals is a step toward an improved transportation network; however, each addresses only a specific transit need. In contrast, the Sunnyside Yard project represents a coordinated, comprehensive approach that looks at transportation and land development issues in a broader context.

Table 2

Attributes That Enhance the Local Intermodal Planning Process

Common Vision

- ✓ Provides for a broad array of modal options.
- ✓ Establishes broad goals.
- ✓ Promotes early up-front and continuing public involvement.
- ✓ Includes land use and air quality considerations.
- ✓ Defines issues clearly in the language of the public.

Community Support

- ✓ Identifies potential sources of support.
- ✓ Establishes ongoing mobilization forums.
- ✓ Includes short-term achievable projects.
- ✓ Achieves broad base of ownership.

Adequate Funds

- ✓ Offers significant local funding base.
- ✓ Proactively identifies new sources.
- ✓ Prioritizes projects equitably and objectively in a mode-neutral manner.

Enabling Organizations

- ✓ Resolves issues of authority and responsibility.
- ✓ Establishes continuous partnership.
- ✓ Includes diverse interests.
- ✓ Expands roles for existing organizations.
- ✓ Facilitates action.

Performance Measurement

- ✓ Relates specific system performance measures to market demands.
- ✓ Responds to stakeholder concerns.

On July 18 and 19, 1995, under leadership from the New York City Department of City Planning and the New York Metropolitan Transportation Council, an implementation forum took place. The work group developed a 90-day action plan to begin work on the following issues: 1) address tunnel capacity and other issues surrounding access from the Sunnyside Yard location to Manhattan; 2) develop alternative designs for a Sunnyside Yard project; and 3) estimate the effect of the Sunnyside Yard on regional transportation patterns.

By October 1995, significant progress had been made in each of these areas, with the Metropolitan Transportation Authority (MTA) assuming the lead role. By the end of October, alternative intermodal facility designs had been developed and presented in a public forum in Queens for citizen reaction. At the same time, the MTA was finalizing collection of transportation demand data in order to forecast the effect that such an intermodal facility would have on regional mobility. Meanwhile, the prospects for constructing a major competing project, the midtown intermodal facility, dimmed because of the high cost of such a facility and insufficient federal funding to finance it.

Although implementing a project on the scale of the Sunnyside Yard concept would present a challenge in any area, the multitude of transportation agencies in New York, the planning complexities, and fragmented political support have made progress difficult. As of the end of 1995, however, there is renewed energy for exploring the Sunnyside Yard concept and the prospects for progress look better than at anytime in the past 60 years.

ALBUQUERQUE, NEW MEXICO

With a metropolitan area population of over 600,000, most residents and elected officials are proud of the high quality of life in Albuquerque. Although the region includes a non-attainment area for carbon monoxide with “brown clouds” prevalent during winter months, congestion issues are generally limited to bridge crossings along the Rio Grande River, one freeway intersection, and some major intersections during the commute period. New employment growth is symbolized by Intel Corporations’ investment of \$1 billion for a new plant and equipment in

suburban Rio Rancho, immediately north of Albuquerque. There is a strong interest in maintaining a high quality of life in the region, without the serious side effects of growth experienced by other Sun Belt cities. The Albuquerque Region’s Long-Range Transportation Plan calls for a 10 percent reduction of single-occupant vehicle trips by 2015 in order to accommodate new growth without serious traffic problems. The implementation forum was to bring key players together to craft actions that might lead to an intermodal plan to achieve the regional transportation plan trip reduction objectives. A key barrier identified in a survey prior to the forum was insufficient leadership. According to a key private sector representative, “There is currently no individual or organization strongly championing intermodal transportation in Albuquerque.” At the forum, participants identified the top three intermodal planning issues as follows:

1. Craft a Long-Term Strategy. The planning process should result in the identification of which infrastructure projects get funded.
2. Develop Regional Development Perspective. Albuquerque and other entities need to have a common vision.
3. Determine Best to Coordinate Land Use and Transportation Decisions. Both land use and transportation regulatory bodies need to consider appropriate transportation and land use decisions.

The City of Albuquerque is undertaking a major land use and transportation evaluation study to address the long-term mobility and transportation needs of the City. The City initiated the study for several important reasons: 1) to clearly define its direction; 2) to accomplish an integrated set of land use/transportation goals and policies; and 3) to develop a strategic plan of action to implement a “place image.” This study and concurrent efforts to evaluate the need for a regional transit authority and study of light rail options will address the top priority issues.

To demonstrate progress toward the regional plan’s trip reduction objective, the forum’s action planning session focused on the development of a specific plan for achieving

the 10 percent reduction in trips by employees working at the city and county government complex. Reconstruction of the Civic Center Plaza and a subsequent reduction in parking availability produced a need for the demonstration

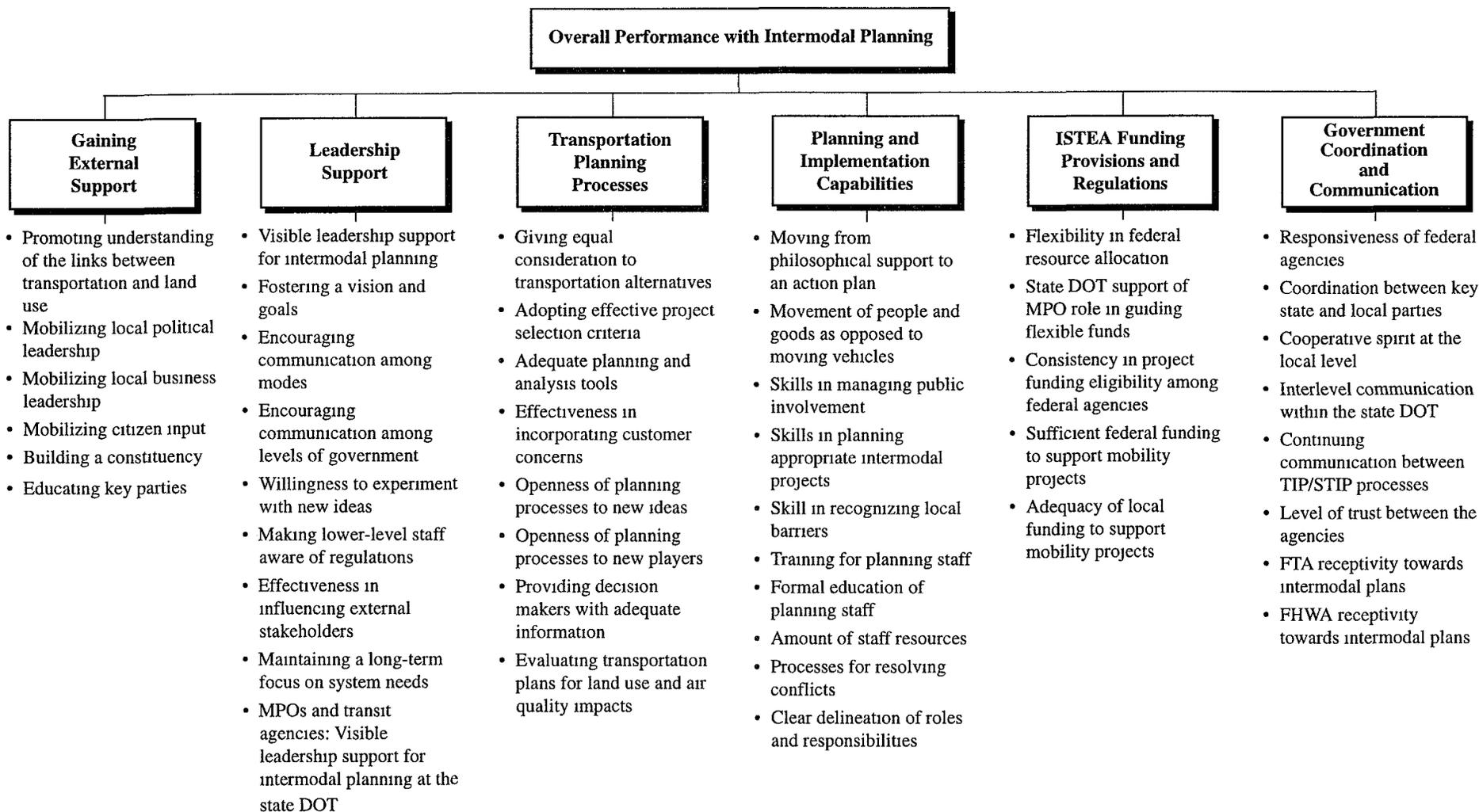
effort. Plans are underway for a major campaign to promote the use of bicycling, carpools, transit, alternative work schedules, and telecommuting to achieve the intermodal objectives.

CONCLUSIONS

In the 4 years since ISTEAL authorization, many regions and states have made significant strides in changing their structures and processes to collaborate successfully and share responsibilities in an effective intermodal planning process. Others have found that organizational, interjurisdictional, and resource barriers have impeded the progress of ISTEAL. The research revealed that most decision makers and executives are pleased with the primary policies of ISTEAL but have been frustrated by many of the implementing regulations. There has been significant momentum

toward improved intermodal planning practices, and the research points to the need to continue the basic philosophies of ISTEAL: decentralized decision making, strengthened connections to environmental policy, and the economically efficient movement of people and goods. Greater leadership commitment, new regional constituencies, increased funding, and additional information on intermodal choices are the primary forces that can overcome existing barriers and continue the excellent progress that has been made in achieving ISTEAL's goals.

46 INTERMODAL PLANNING FACTORS CUSTOMER SCORECARD FOR INTERMODALISM



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**Institutional Barriers to
Intermodal Transportation Policies and Planning
in Metropolitan Areas**

**TCRP Project H-4C
Final Report**

1. INTRODUCTION

“Nothing endures but change.” Heraclitus said this almost 2,500 years ago, yet it remains true of surface transportation practices in the United States today. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) heralded dramatic changes to federal transportation policy. Section 2 of ISTEA provided a new direction for the transportation industry as follows:

It is the policy of the United States to develop a National Intermodal Transportation System that is economically efficient and environmentally sound, provides the foundation for the nation to compete in the global economy, and will move people and goods in an energy efficient manner.

Initially, many in the transportation industry viewed these changes with enthusiasm. The transit industry, for example, lauded its flexible funding and increased autonomy at the local level. A Dallas Councilmember summarized the expectations of many: “Contrary to the usual centralized one-size-fits-all federal practice, this legislation allows local and regional transportation agencies the flexibility and authority to design systems tailored to their specific needs.” The primary reforms of ISTEA are described in Table 1-1.

The ambitious national goals embedded in ISTEA represent an enormous step forward in transportation planning. Noted researcher Bruce McDowell summarized how the policy brought three, new, far-reaching philosophies into practice. ISTEA promotes the following:

- Decentralized decision making for state and local governments;
- Strengthened connections to environmental policy, especially to the Clean Air Act; and
- New prominence for nontraditional goals and new stakeholders in the planning and decision-making process. (Goals now include international competitiveness, energy conservation, jobs and economic development, equality of access, and mobility for underserved and disadvantaged populations.)(1)

Following their initial jubilation, however, many states, metropolitan planning organizations (MPOs), and localities have had difficulty using traditional transportation planning and decision-making practices to implement the intermodal planning principles promoted by ISTEA. Implementation of ISTEA has been further complicated by ISTEA’s incongruity with the existing institutional structures of urban transportation planning, funding, and delivery systems. The literature indicates that the many layers of planning and decision making embedded in the existing transportation institutions have resulted in inertia concerning intermodal planning. Significant funding shortfalls and complex implementation regulations, for example, often have been cited as key inhibitors to successful intermodal planning.

TABLE 1-1
KEY REFORMS OF ISTEA

- Increased authorized spending by 28%.
- Doubled the authorization of transit and made many highway funds eligible for transfer to transit. Made the non-federal match 20% for most programs to remove any financial disincentive for transferring funds.
- Channeled metropolitan planning for transit through the states for the first time.
- Required new style of more detailed and more effective “performance” planning by the state DOTs and MPOs.
- Authorized \$1 billion a year to help pay for congestion management and air quality improvement.
- Used the fiscal capacity of recipients as consideration in non-federal match for certain fixed guideway transit capital investments.

Source: Bruce McDowell, “Reinventing Surface Transportation: New Intergovernmental Challenges,” *Intergovernmental Perspective*, Winter 1992.

Some states and regions have made large strides in furthering intermodal planning principles. Many others have fallen short of expectations. Now decision makers at all levels are searching for strategies to overcome the institutional barriers to intermodal planning.

RESEARCH OBJECTIVES

The objective of this research is to develop strategies to overcome institutional barriers that hinder full achievement of a national intermodal transportation system. To accomplish this objective, the research panel asked the research team to: (1) identify barriers related to planning, decision making, funding, operating, and implementation; (2) categorize the institutional barriers at all levels of government and characterize their individual significance and impacts; and (3) cite specific successful examples of intermodal planning.

INTERMODALISM DEFINED

During the course of the research, it was apparent that the participants did not share a common understanding of the term intermodalism. When ISTEA was first approved, a U.S.

Department of Transportation (DOT) working group defined the following key elements of the intermodal approach:

- Choice among transportation options provided by competing modes, independently or in combination (Choice also means that decision makers need to consider alternative systems to address transportation needs before investing in transportation infrastructure);
- Connections that provide the convenient, rapid, efficient, and safe transfer of people or goods from one mode to another (including end point, pickup, and delivery) during a single journey to provide the highest quality and most comprehensive transportation service for cost (This research focused on movement of people); and
- Coordination and cooperation among transportation organizations to improve transportation service, quality, safety, and efficiency across all modes or combinations of modes in an environmentally sound manner.(2)

The focus of the present research is on surface passenger transportation.

REPORT OVERVIEW

The next chapter provides an overview of the research methodology. In Chapter 3, structural, interjurisdictional, and resource barriers to intermodal planning are described and analyzed. In Chapter 4, national survey findings are presented and priority opportunities for improving the intermodal planning process are identified. In Chapter 5, attributes that enhance local ISTEA implementation are presented. Examples of successful intermodal planning practices are highlighted in addition to summaries of the three implementation forums. In Chapter 6, strategies to improve the institutional relationships necessary for a cooperative and coordinated approach to intermodal planning are suggested. Finally, in Chapter 7, research conclusions are provided and areas for additional research are suggested.

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