

Implementing Intermodal Surface Transportation Efficiency Act of 1991: Issues and Early Field Data

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Implementation issues associated with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) are examined. In particular it is discussed whether ISTEA is more a truly revolutionary change in policy or a continuation of the status quo. These issues are considered in the context of a legislative battle that did not produce clear winners and losers, in which both sides appeared to have achieved what was important to enable a test of their own hypotheses, and in which each side had an interpretation of what the spirit or the intention of ISTEA is and how it should play out. The result is an experiment testing the viabilities of two world views. One view sees a public policy largely at odds with the real public sentiment on transportation, in which the will of the people has been distorted by federal intervention to favor single-occupancy vehicles and urban sprawl. Given an alternative this view predicts that the public will opt for different behavior and lifestyle changes. The other view sees public policy as largely consonant with abiding public preferences, behaviors, and land-use patterns that are unlikely to change quickly as a result of the flexibility and local focus introduced by ISTEA. The complexity is compounded by the new role of metropolitan planning organizations, especially with regard to requirements for public participation and clean air. Finally, since the expression of public preference is related both to the outcome of the policy experiment and to the ongoing legitimacy of the institutions (including metropolitan planning organizations) charged with its implementation, this participatory framework is critical to understanding the future direction of transportation policy.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) is one of the most widely heralded pieces of transportation legislation since the 1950s. Is it truly a revolutionary change in transportation policy? Does ISTEA, together with recent clean air legislation, remake transportation planning, programming, and financing as well as the intergovernmental system through which they operate? Or is it merely a modest shift from the previous trajectory?

It is not easy to assess such broad-scale questions about the impact of transportation policy systematically. Nobel economics laureate Robert Fogel, in his assessment of the impacts of railroads, for example, underscores the difficulty of assessing even so dramatic a change as that. He concludes that the conventional wisdom that railroads were instrumental to 19th century American growth was simply not well founded (1). Uncertainty about an ex post assessment of a technology of that scale gives pause to an assessment of the significance of ISTEA and the Clean Air Act Amendments of 1990 (CAAA). Clearly, we will have to wait and see.

These new laws incorporate air quality as an important priority in transportation policy, place states under deadlines to achieve clean air goals, give states and localities greater flexibility in the use of federal transportation funds, and alter the authority and responsibility

of metropolitan planning organizations (MPOs). The impacts of these changes, realized through implementation, will provide evidence for or against the viabilities of two very different outlooks on the world. One emphasizes mobility and social choice, whereas the other regards environmental quality and sustainability as the overriding consideration in transportation policy. Whether ISTEA effects actual changes in the decision-making process, in investments, and ultimately in the design of the infrastructure system must now be determined through implementation. But implementation may also determine how these two world views are themselves transformed and how this transformation of perception could affect the evaluation process. The consistent message of Fogel's historicism is that objectivity during a profound period of change is uncommon. This makes careful review of the progress of this sociocultural experiment a critical element of the transportation policy debate.

ISTEA raises implementation issues that range from recasting intergovernmental relations to altering individual travel behavior. The scope of these issues, together with the uncertainty of new and untried legislation, makes a comprehensive review of implementation a formidable undertaking. In addition, full evaluation now of a policy passed in late 1991 would be premature and might sell short those responsible for implementation. The goals of this paper are more modest: to identify some key problems and to suggest how they might be categorized and monitored.

We draw from three sources of information and insight. First, policy implementation has been a topic of significant research and analysis for at least 20 years. The literature provides guidance on what types of issues are likely to give rise to implementation problems. Second, the legislative history of ISTEA helps to identify the key actors, institutions, and issues as well as the strategies and agendas that they characterize. Our third source of insight is the early evidence on implementation from the Washington, D.C., national capital metropolitan region. On the basis of these sources, we identify key issues and discuss what sources can inform an ongoing assessment of ISTEA implementation.

After the introduction this paper is organized in six sections. The first presents a brief overview of the major provisions of ISTEA. The second reviews the literature on implementation to identify classes of issues that may give rise to problems "ISTEA-ing" transportation planning and programming. The third section reviews the legislative history of ISTEA and identifies implementation issues related to advocacy politics. We then review early experience with implementing ISTEA in the Washington, D.C., metropolitan region; this is followed by a synthesis of insights from the implementation literature, legislative history, and field experience to identify key concerns that warrant continued observation through 1996. Concluding remarks follow.

MAJOR PROVISIONS OF ISTEA

ISTEA provides greater flexibility to state, local, and regional planning entities, but it also places them under new obligations requiring openness to public dialogue and input. As a departure from transportation policies of the post-World War II era (which focused on developing the Interstate highway system) ISTEA provides greater flexibility for funding transportation modes that include not only highways but also carpools and vanpools, transit, commuter rail, and municipal bikeways. Yet the bill does not mandate much reallocation of spending. Of the \$151 billion authorized for transportation under ISTEA, \$110 billion can be spent by state and local governments on any transportation mode. Of the remaining \$41 billion, \$17 billion is allocated to maintaining (but not expanding) the existing Interstate highway system and \$16 billion is allocated to maintaining the nation's bridges. Only \$8 billion is earmarked specifically for expansion of Interstate-type highways.

ISTEA also requires states to develop and implement six management systems in cooperation with MPOs: pavement on federal-aid highways, bridges on and off federal-aid highways, highway safety, traffic congestion, public transportation facilities and equipment, and intermodal transportation facilities and systems. To aid in the development of congestion management ISTEA allocates \$6 billion to the Congestion Mitigation and Air Quality improvement program.

Although a broader range of choices for local and state planning and decision-making units does not preclude continuation of past spending patterns, the provisions of a complementary piece of legislation make this course more difficult. The CAAA require that transportation and capital investment plans conform to state clean air plans (2). These provisions complement and magnify the requirements of CAAA, for example, mandating congestion management for nonattainment areas. One of the strongest arguments of environmentalists in their successful support of CAAA was that automobile emissions are the greatest threat to air quality because vehicle trips are rising at three to four times the rate of population growth. This rate of automobile use is, furthermore, offsetting the benefits of reduced emissions through automobile and fuel modifications. Consequently, CAAA mandates reductions in the number of trips as an important element of protecting air quality.

According to CAAA new highways can only be built as part of a plan to improve air quality. Significantly, these new restrictions come with enforcement authority. In cases of noncompliance federal money can be withheld. Moreover, CAAA allows parties of interest to block funding and construction by suing decision-making units. For example, the Natural Resources Defense Council might sue an MPO or a state department of transportation (DOT) if state and local plans fail to meet new restrictions. Environmental interest groups have expressed their intention to use this new advocacy power (3).

ISTEA triples the money earmarked for spending in metropolitan areas. In return the bill requires that local governments participate in more rigorous transportation planning with state transportation agencies, considering air quality and energy use as well as social and economic impacts. ISTEA strengthens the roles of MPOs in conducting planning and programming (4). These measures include giving MPOs in major metropolitan areas significant control over federal funds; hence, states must also work with MPOs or risk forfeiting these funds. Such reciprocity provisions may nullify some of the parochial conflicts that originate from the composition of MPOs, which are often made up of officials from local jurisdictions that are recipients of federal funds.

ISTEA contains several provisions aimed at enhancing the role of the private sector in the design and operation of transportation services. This includes a relaxation of restrictions on toll roads as well as a provision for up to five congestion pricing demonstration projects. Additionally, the act provides \$660 million for testing intelligent vehicle-highway systems (IVHS). IVHS technologies, ranging from computerized traffic control centers to fully automated freeways, are envisioned as having significant private-sector involvement. One such approach could employ bundling innovative public-private partnerships to provide IVHS information functions that assist in diverting traffic from congested areas (5). Indeed, the strategic plan developed by IVHS America suggests that 80 percent of the costs for IVHS will be in the form of private-sector products and services (6,7).

The measure also introduces a variety of new participants to the transportation planning process through requirements for public participation as well as enhancement provisions that expand the number of stakeholders and that provide \$2.8 billion for scenic and historic preservation and environmental and landscape improvements. As a result a broader range of interest groups (e.g., preservationists and designers) now have a stake in the decision-making process for regional and state transportation projects.

Finally ISTEA is largely silent on some issues that powerfully affect transportation and clean air. Most notably, although it requires MPOs to consider the effect of transportation decisions on land use, ISTEA includes no direct constraints on use and development, which are traditionally the purview of local government. Any changes in land-use regulation will therefore only be developed from the bottom up, that is, by local officials, to comply with the air quality requirements of CAAA.

IMPLEMENTATION LITERATURE

The scope and magnitude of the changes stipulated in ISTEA suggest a broad range of implementation issues. One source for identifying which of these is central to the assessment of success is the literature on policy implementation. Since the seminal work of Pressman and Wildavsky (8) implementation has become one of the central foci of policy analysis. A sizeable literature is now available to serve the development of implementation studies (8). Generally this documents and explains why policies are typically not carried out as intended and why major changes are usually made (Louise White, personal interview, August 4, 1993).

Academic inquiry into implementation evolved in three phases. The first generation sought to anchor the field of study identifying policy implementation as an important problem and demonstrating specific cases in which execution mattered. The second generation focused on broadening the significance of execution to a range of policy fields through a series of case studies. The current generation is concerned with developing an effective theory of implementation and identifying principles that apply to most policy domains, thus attempting to secure an element of synergetic advantage for the field of implementation studies (9).

A brief review of the implementation literature suggests several insights useful in identifying key implementation issues for ISTEA. First, it is essential to recognize the activation of public programs as a complex political process. The actors and institutions that are engaged are not minions of rigidly organized hierarchies. Thus, it is appropriate to ask what provisions have been made to ensure willing cooperation between and within these agencies. To the extent that

ISTEA diminishes the power, prestige, or personal satisfaction of the actors charged with its implementation, those sufficiently disenchanted may seek to resist or subvert it (Gifford et al., this Record).

A second and related insight concerns the practical reliance on the intergovernmental system. Federal officials often lack effective leverage over state and local bureaucracies and, moreover, lack knowledge about the incentives and bureaucratic goals that guide those officials. Some believe that in the case of ISTEA federal agencies simply cannot have much of an impact in terms of policy guidelines (10).

A third insight is that implementation problems often arise in just those areas where the policy formulation process has generated the greatest controversy. In a sense "the mishaps of program administration are actually rooted in the policy-making process" (11). In the case of ISTEA policy formulation gave rise to several sharp differences, as we shall see in the next section. These controversial areas should clearly be considered possible key implementation subjects.

Finally, effective implementation is sometimes displaced by the desire of Congress and the executive to achieve short-term tangible deliverables that influence the allocation of inputs. Cash flow rather than intelligent planning is often the most important implementation issue for actors at all levels. A desire to get the money flowing may undermine efforts to effect some of the more fundamental changes in comprehensive planning (6).

LEGISLATIVE HISTORY OF ISTEA

Many consider ISTEA a revolutionary reorientation of transportation policy from automobiles and highway building to a multimodal, environmentally sensitive strategy. Some of the distinctive provisions of ISTEA were neither designed nor supported by the coalition of highway interests, which has traditionally dominated highway policy. Rather, they originated from a relatively small coalition of environmentalists and urban planners. If highway interests suffered a planned strategic defeat at the hands of the environmentalists and urban planners, as some have already suggested, this may lead to future implementation problems. For a broader discussion of issues related to the legislative conflict see the paper by Gifford et al. in this Record.

ISTEA's legislative history, however, may also be interpreted as an interplay of interests in which two coalitions ultimately obtained much of what they thought essential to establish conditions that would help prove the validity of their particular world view. Each world view, in turn, reflects a strongly held conviction regarding what kind of transportation system the public really wants. In the following historical discussion we refer to these two principal groups as the mainstream coalition and the reform coalition. The terms are used for notational convenience and are intended as neutral modes of reference.

By the mid-1980s the Interstate highway system was largely complete. The 1991 reauthorization offered an opportunity to reassess and redefine federal transportation policy, providing a new focus for the next 20 to 30 years. In recognition of the significance of this opportunity the mainstream coalition began, in the mid-1980s, to develop a new more inclusive rationale for transportation policy through a process of extensive consultations and hearings. These meetings, known as Transportation 2020, formulated a post-Interstate highway policy based on two concepts: a newly identified system of highways of national significance or a national highway system and the devolution of authority to the state and local levels.

Meanwhile a parallel effort moved forward under the auspices of a strategic plan commissioned by the U.S. Department of Transportation under Secretary Samuel Skinner. This strategic plan also emphasized the importance of highways of national significance.

Early in the 1990s a coalition of environmental and urban planning groups began to formulate a transportation initiative to complement, and indeed to help implement, the CAAA passed in 1990. The coalition of groups that had recently succeeded with the passage of the CAAA reorganized as the Surface Transportation Policy Project (STPP). The core belief of the STPP, in sharp contrast to that of the mainstream coalition, was that existing incentives for single-occupancy vehicle use and new construction designed to accommodate its growth were not in the public interest. The view that the public's true preference was for more livable and environmentally sustainable communities seemed justified by the success of recycling programs and by a new environmental ethic. These beliefs accorded with the ideas of the Senate Committee on Environmental and Public Works (which had jurisdiction over the CAAA), and especially with those of the subcommittee chair, Senator Daniel Patrick Moynihan (D-N.Y.). Thus began collaboration on a Senate transportation bill that matured as ISTEA.

In assessing implementation prospects it is important to understand the extent to which the final legislation constituted a planned victory by the reform coalition, an accidental victory by the reform coalition, or in fact no victory at all. Although there may be a certain appeal to victory, stealth, and defeat, our interest in these issues is that parties who lose in policy formulation may well be actively engaged in achieving their objectives through subverting or influencing implementation.

Did ISTEA really represent a victory of the reform coalition rather than a compromise? Some accounts maintain that the success of the reform coalition was partly attributable to a stealth strategy that avoided cross-coalition debate by maintaining low visibility in the policy formulation stage. Meanwhile, much of the debate within the mainstream coalition was absorbed with the nature and extent of congressional participation and with oversight of the designation of routes in the national highway system. Thus, the low visibility of the details within the reform dialogue in the Senate served to avert the full mobilization of opposition and allowed a concentrated focus on reform priorities for transportation legislation.

The stealth hypothesis rests on the assumption that the members of the reform coalition consciously concealed their activities. Yet obscurity might have been circumstantial rather than deliberate, since neither coalition had much incentive to engage in the specialized dialogue of the other. Hence, an involuntary lack of communication about differences might have averted an impasse. A main legislative concern of the highway interests was apportionment, or who got the money for major programs. The notion of providing more flexibility to local constituencies, which resonated well with the public involvement concerns of the reform coalition, also supported a desire for the devolution of authority that had long been sought by the mainstream. Flexibility of funding (to include non-highway projects) was a principle that had no natural enemies, and thus no ready-made opposition. There was little apparent political incentive to distinguish this principle from the related concept of devolving authority to local decision-making units such as MPOs. The result was a law that placed more emphasis on local decision making but that had many prescriptive planning requirements related to participation of environmental groups and the public. Ironically, given the complexity of the program, only those career professionals with an intimate knowledge of how programs are administered

are in a position to have any idea who really won or lost (Steve Lockwood, personal interview, November 23, 1993).

Another useful interpretation is the "whole-orange" scenario of conflict resolution whereby two parties contesting for possession of an orange have different purposes in mind. The first wants to consume the flesh and the second wants to use the rind in a recipe. Since the underlying interests are quite different it is possible for both to win full possession of the orange, or at least that whole portion of it that serves each one's interest (12). If both sides got primarily what they wanted from the legislative process, in what sense was anyone the loser? A winner may eventually be determined if one of their competing visions ultimately prevails. Hence, the evaluation of implementation is even more important than if the legislative contest had created clear winners and losers.

In terms of the literature on implementation, however, it seems advisable to at least consider the implication of the stealth strategy hypothesis: the conjecture that victory was due, at least in part, to the suppression (through strategic restraint) of open debate and confrontation. The perception that the environmental community won its case primarily by its maneuvers and strategies rather than on the basis of the substantive merits of its position might provoke the opposition to reverse its losses (10). So far, however, there is very little evidence to suggest that either side was significantly disgruntled by the outcome.

Finally there may be important divisions within the federal transportation community that could affect its overall performance. Consensus within that community was based on appropriations, and therefore, the inability of appropriations to meet authorization levels without a larger reservoir of money (which is what most expect from ISTEA) could magnify a sense of rivalry between transit and highway interests (Joel Markowitz, personal interview, July 21, 1993). Consequently, no matter which hypothesis one accepts as an explanation for the legislative history—stealth strategy or circumstantial scenario—the need to monitor and evaluate the consequences of ISTEA is imperative.

NATIONAL CAPITAL METROPOLITAN REGION

The authors have collected preliminary evidence on implementation experience in the national capital metropolitan region. The selection of this area was based on the fact that since it is 1 of 13 multistate metropolitan regions, examination of this area is useful for exploring a range of jurisdictional issues likely to emerge under ISTEA. Its proximity also makes it a convenient case study area for the authors. One should bear in mind, however, that the national capital metropolitan region is not a typical metropolitan area precisely be-

cause it is multijurisdictional and also because its economy is so closely tied to the federal government. Additional research is necessary to balance the conclusions drawn from what some consider a highly nonrepresentative situation.

Sources of information include public records and interviews with officials who have responsibility for formulating, planning, and implementing transportation policy. This group includes professionals within organizations charged with coordination and integration of the policy process across the 20 counties and municipalities within three state-level jurisdictions (for the purposes of the analysis in this paper the District of Columbia is considered a state). In addition we interviewed principles from most of the environmental and community interest groups who have been actively involved in the implementation process. (See Table 1 for a list of interviewees.)

Overview

Transportation planning, programming, and financing occur through the actions of a complex web of federal, state, and local governments, private actors, and interest groups. This web is especially complex in multistate jurisdictions like the national capital metropolitan region. Each state has its own department of transportation [Virginia (VDOT), Maryland (MDOT), and the District of Columbia (DCDOT)]. The cities and counties of the region vary widely in income distribution, geographic size, and population density. There are also a host of quasigovernmental organizations, some with public affiliations and some with private affiliations.

All three state entities are required to submit two state improvement plans (SIPs) to comply with CAAA. The first, which was due on November 15, 1993, must reduce levels of volatile organic compounds by 15 percent by 1996. The second, which was due in 1994, must reduce levels by 20 percent by 1999. These in turn must be coordinated with transportation improvement plans (TIPs) for the metropolitan regions.

The National Capital Transportation Planning Board (TPB) is the designated MPO for the area, contracting for staffing with the Washington Area Council of Governments. Its meetings are open to the public. TPB is divided into two advisory committees, the Technical Advisory Committee (TAC) and the Citizen's Advisory Committee (CAC), and it is responsible for formulating the area's TIP, the primary document for regional transportation planning. The TAC recommends projects to be funded under the 10 percent set-aside for safety projects, whereas the CAC performs a similar function with respect to the 10 percent enhancement set-aside. Endorsement under these set-asides by VDOT (as well as DCDOT and MDOT) requires prior approval from the TPB as part of its TIP. Be-

TABLE 1 Interviewees from Environmental and Community Interest Groups

Name	Organization	Position
Burfield, Roderick	Office of Government Relations, Washington Metropolitan Area Transit Authority	Director
Hassell, John S., Jr.	Linton, Miels, Reisler & Cottone	Consultant (former Federal Highway Administrator)
Jones, Ellen	Washington Area Bicyclists Association	Director
Keller, Mary	Maryland Department of Transportation	Senior Transportation Planner
Lockwood, Stephen C.	Farradyne Systems, Inc.	Consultant (former Assistant Administrator for Policy, Federal Highway Administration)
Markowitz, Joel	San Francisco Bay Area Metropolitan Transit Commission	Manager of Advanced Systems Applications
McDowell, Bruce	Advisory Commission on Intergovernmental Relations	Director of Governmental Policy Research

cause of this connection between the responsibility for forming the TIP and requirements for public involvement as well as the high priority conferred on TIP by ISTEA, this review focuses primarily on issues raised by TPB.

Besides the state and regional structure the subregion of Northern Virginia has a Transportation Coordinating Council (TCC) that meets quarterly to address subregional issues (Roderick Burfield, personal interview, August 4, 1993). TCC is chaired by the Northern Virginia representative of the Commonwealth Transportation Board and comprises representatives of local governments. TCC advises TPB and VDOT on issues relating to Northern Virginia. In Maryland a similarly designated advisory committee, the Technical Committee, comprises the heads of four state agencies: Transportation, Historical Preservation, State Highway, and Mass Transit (Mary Keller, personal interview, August 4, 1993). The District of Columbia has no similar specialized entity because it is a unitary jurisdiction that does not need to coordinate its efforts with those of a larger state government. Its subregional interests are looked after by the D.C. Department of Public Works.

Responses to ISTEA

One of the earliest responses to ISTEA's requirements for public involvement was the formation of the CAC to TPB. In addition, TPB immediately opened its meetings to all interested parties, allowing them an opportunity to make a 3-min statement during a 20-min period at the beginning of each meeting. However, some feel that this involvement occurred too late in the process to provide meaningful input on complex issues and that public involvement must start well in advance of the meetings during which decisions are made. Merely inviting the public to attend when the agenda has already been set and the plans fully conceptualized is insufficient.

Early evidence and interviews suggest that public-interest groups have begun to participate in meetings of CAC. Active groups include the American Automobile Association, D.C. Roadbuilders, the American Trucking Associations, the Greater Washington Board of Trade, D.C. Wards 3 and 5, the Chesapeake Bay Foundation, the Sierra Club, and the Washington Area Bicyclists Association (WABA). CAC now sees itself as an advisory body with a regional focus and with a mandate to influence both long-range and short-range planning and to inform the public on transportation issues. The committee sponsors a series of citizen forums to help meet these objectives. Meeting times for TPB hearings were recently shifted from the lunch hour to 5:00 p.m. to facilitate a more diverse attendance (13).

One area that has been influenced by public involvement has been an increased emphasis on new bicycle projects, placing strategic bicycle paths so that they connect projected Metrorail sites with high-activity areas like the University of Maryland. Prince George's County, Md., has seen most of this activity so far, but Arlington County, Va., also has an active bicycle path program.

Some of the planning for these projects, however, predates ISTEA. A regional bicycle plan was developed by the Bicycle Technical Subcommittee of TPB in 1989 and was published in 1991, the year that ISTEA was passed. Bicycle interests sought \$60 million in new projects over a 5-year period. TPB suggested a much more conservative 20-year distribution of funds (Ellen Jones, personal interview, August 11, 1993). To make their priorities known WABA arranges special bike tours for members of the community, pointing out hazardous conditions, repair priorities, and new con-

struction possibilities. At these and other events they distribute literature and explain the intricacies of the ISTEA legislation. Most of the members of local planning commissions attend the bike tours, and many of the interest group's detailed recommendations have been implemented to improve safety and accessibility.

Although these projects are not large or expensive by comparison with highway projects they are significant in the sense that they facilitate the kind of lifestyle changes sought by the STPP coalition. WABA is quick to point out, however, that much of the region remains unaware of the funding potential that exists and that Prince George's and Arlington counties are exceptions to the general condition of knowledge and public participation (Ellen Jones, personal interview, August 8, 1993). The D.C. Department of Public Works has proposed the addition of a Metropolitan Branch Trail, but advocates claim that it is seriously underfunded and that District officials remain unaware of the potential that exists within the new legislation to improve alternative transportation.

The evaluation of projects has emerged as a potential issue of contention. As mentioned previously, in addition to projects funded as technical improvements others may be funded as enhancements. Reconstruction of the 1905 vintage Union Train Station in Alexandria, Va., is an example of a proposal made under the enhancement provision. The submission of that project was made on August 1, 1993, after the deadline for grant applications had been postponed several months. VDOT needed extra time to make preparations for evaluating proposals and establishing a process to make endorsements. As a result Virginia has just begun to solicit new project proposals. Little if any evaluation is conducted on enhancement proposals at this time because of the lack of the technical expertise required to make assessments and because the number of proposals has been so small that there is little need to prioritize the proposals (Mary Keller, personal interview, August 4, 1993). TPB has plans to prioritize projects or project categories in the future (Gerald Miller, personal interview, August 8, 1993).

Some groups are concerned about the inertia of projects once they are included in the TIP. The Chesapeake Bay Foundation submitted formal comments on the content of the TIP, requesting that it include language to the effect that projects may be dropped (14). The comments of the Washington Metropolitan Area Transit Authority focused on similar concerns: the delegation of the governor's transportation authority to state DOTs (seen as contributing to business as usual) and the ability of the statewide transportation plan to address longterm issues (Docket Division, Office of the General Counsel, FHWA). Underscoring these issues the Metropolitan Washington Council of Governments (MWCOG) recently released a report prepared by Price Waterhouse that indicates a 20 percent shortfall in funding for the long-range plan (15).

In addition to such procedural and technical issues is a political dynamic. Participants at a recent workshop raised the possibility of a new MPO for the Virginia part of the region if cooperation with Maryland and the District of Columbia became troublesome. There were also indications that MDOT would rather work through the counties than through the designated MPO (the TPB). The issue concerned whether or not discretionary money could cross state lines, and since the TPB is a tristate entity Maryland and Virginia were concerned that they might end up subsidizing improvements in the District of Columbia. The issue was resolved by an agreement, formalized as a bylaw, that the flexibility of funding stops at the state line. This, of course, does not resolve all of the economic rivalries between the states that have been intensified by linkage to the CAAA requirements.

The Washington metropolitan region plus three rural counties (Stafford County in Virginia and Charles and Calvert counties in Maryland) make up the Metropolitan Washington Statistical Area (MWSA), which has been designated by the Environmental Protection Agency (EPA) as the jurisdiction of the Metropolitan Washington Air Quality Committee (MWAQC) for the purpose of formulating plans to reduce smog 15 percent by 1996 and 20 percent by 1999 (Figure 1). These plans must be coordinated as part of the SIPs. Fairfax County, Va., recently vetoed the 15 percent reduction plan, which was due November 15, 1993, over the issue of an Employee Commute Option (ECO) that would require businesses with 100 or more employees to reduce single-occupancy vehicle commuter trips by 20 percent, which Virginia jurisdictions considered an excessive burden on business (16).

Maryland's interests place it in conflict with Virginia over the

ECO. Maryland counties are in a better position to cope with the ECO requirements than Virginia because of greater access to mass transit and higher-density land-use patterns in that state. In addition the adoption of the ECO in Baltimore is mandatory because it has a more serious air quality problem, and that city is concerned about the migration of its larger businesses to the Washington, D.C., area to avoid compliance. Thus if the Washington area as a whole rejects the ECO this creates an internal conflict in Maryland that the state would prefer to avoid by keeping its own playing field level. The ECO requirements highlight both inter- and intrastate competitive conflicts that will be very difficult to resolve. The smog reduction plan for the MWSA was finally passed without the controversial ECO measures (and still awaits doubtful approval by the EPA), but the much tougher 1999 plan is due next year, and the issue will undoubtedly resurface (17).

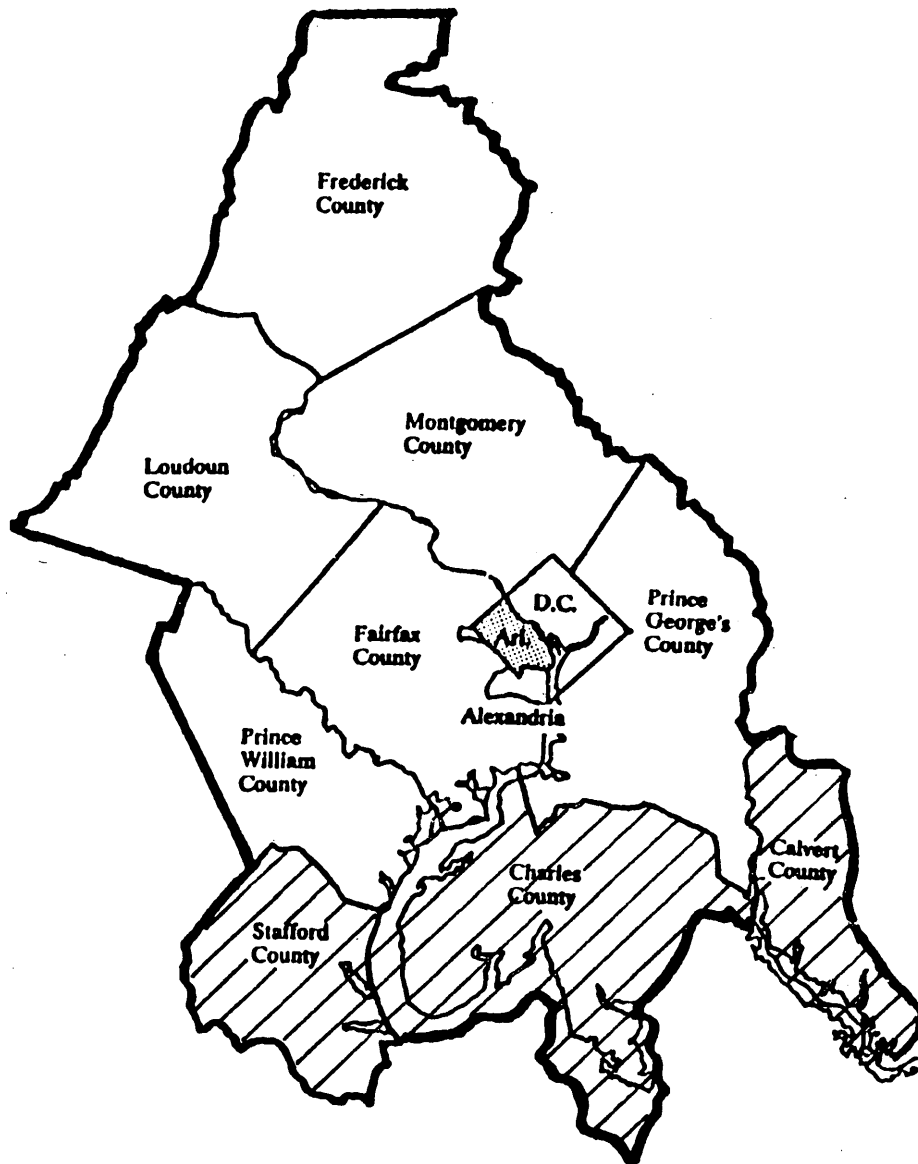


FIGURE 1 Metropolitan Washington Air Quality Committee (MWAQC) jurisdiction (hatched areas not in the MWCOG jurisdiction). (Map courtesy of the Greater Washington Research Center.)

KEY ORGANIZATIONAL ISSUES IN IMPLEMENTING ISTEA

The foregoing analysis suggests that both political and technical aspects of implementation will be critical for ISTEA. This is true for institutions as different elements of the intergovernmental system, particularly states and MPOs, vie for advantage. It is also true for interest groups as different constituencies, either established or emergent, organize their positions on ISTEA. The jurisdictional and interest group issues that are played out in the political arena are related to a set of serious constraints on organizational resources for both the MPOs and the states.

After two decades of declining budgets the now-restricted capacities of the MPOs are being asked to perform at a higher operational level than at any time in their histories. The gap between expectations and the resources required to fulfill them is at a historic maximum, and ISTEA fails to address this capacity problem directly since it funds MPOs as a percentage of the total funding. With the requirements for comprehensive air quality planning, for example, technical planning is now more complex than ever.

The political challenge is less obvious. MPOs have acquired the responsibility for dividing up funds for surface transportation projects under the STPP, administered by FHWA. These are non-mode-specific projects, divided within the 5-year TIP, that are fiscally constrained to available funds (not proposed taxes) and cannot assume increases based on authorizations (which are only upper limits rather than guarantees of funding). Someone must therefore prioritize projects within these constraints, and the challenge becomes political in the sense that the parties to the MPO each must receive enough out of the settlement to support it. The constraint on the political distribution of benefits is similar to that imposed on a legislative body that must make hard funding decisions. But the MPOs have neither the resources nor the legitimacy of real governmental bodies. Partly for this reason, as Maryland has demonstrated, some states would prefer to work directly through chartered local entities like the counties, assuming the responsibility for regional planning themselves. Finally, if one believes that the MPOs are essential to the implementation of ISTEA, both the technical and the political challenges are critical to the future since the MPOs can be emasculated by either (18). In addition MPOs now have some authority over programs that used to be under the discretion of the state DOTs, creating possible bureaucratic tension and requiring accommodation between the states and MPOs.

State DOTs likewise have two technical and political challenges. First, some will have to build from scratch. Only five or six states have significant planning capacities. Oregon is probably the leader, having had an integrated long-range transportation plan since the 1970s (19).

Second, the need for DOTs to build partnerships with other agencies such as those responsible for air and water quality can magnify the implications of a lack of planning capacity. Many practitioners see the governor as the pivotal actor both as the primary authority for resolving conflicts arising between bureaucratic jurisdictions and as the authority for helping to build the capacity for joint planning. In states with environmental and economic development planning experience, it has been the executive who has provided coordinating authority (Bruce McDowell, personal interview, July 21, 1993).

Perhaps what is occurring is a bureaucratic cultural shift. Because it is difficult to overcome inertia from an institutionalized mission (which has been internalized by individuals through a long process of cultural identification) change may only result from interest

group pressure unless the executive becomes more directly involved in managing institutional change (7). In some states governors have delegated their authority under ISTEA to their DOTs rather than confront the problems of defining this complex new mission, a step that advocacy groups such as STPP may challenge. The tension between institutional inertia, the mutual dependence of major organizational units (especially the MPOs and the states), and the expectations created by groundbreaking legislation are themes in most of the practitioner comments encountered in the study. One side regards change with apprehension, and the other side regards inertia with frustration. What sort of accommodation will work?

Beyond the direct technical and political challenges for organizations at the state and local levels are problems involving the larger community. ISTEA promotes private-sector involvement in new areas such as demand management and IVHS. In addition to this encouragement of private-sector participation, the act requires early and significant public participation in decision making (20). At this stage public participation is primarily important from the perspective of the provisions because failure to adequately address the regulations would render the MPO's product invalid (J. S. Hassell, Jr, personal interview, July 21, 1993). Again, these challenges require a high degree of political expertise that may not be available to MPOs.

MONITORING AND EVALUATION

Continued monitoring of ISTEA in the Washington, D.C., area should focus on three substantive domains: investments, on-street changes, and public involvement.

Investments

The continued tension between various institutions and interest groups over discretionary funds in support of the environmental or highway coalitions will continue to be important. Nearly all of the interviewees identified the allocation of flexible funds as a significant factor to be monitored. They are concerned with whether the funds are being spent on special projects, construction, or system management. Evaluation should be informed by the degree that flexible funds get used, what projects get considered, and how quickly they become obligated. Since there is an obligation limit on highways and transit we also need to measure the share that gets obligated specifically to innovative programs, even though the definition of this category is subjective.

In the short term evaluation must be concerned with whether investments that affect the modal infrastructure have shifted as a result of ISTEA. The conventional argument is that categorical grants skewed investment toward highways, and it will be important during the early years to determine if the supposed shift in priorities has modified the pattern (Joel Markowitz, personal interview, July 21, 1993). Whether the allocations reflect an integration between land use, transportation, and air quality is a question that directly addresses the world view of the reform coalition.

On-Street Changes

Some feel that the starting place for evaluation ought to be the priorities established by Congress, that is, the criteria governing the

intermodal and Interstate systems, congestion demand issues, and the physical capacities of facilities. This set of criteria is more closely related to the world view of the mainstream coalition.

Public Involvement

The problem with this set of criteria is that there is no consensus about what it means. Most respondents, however, see education as a critical overall factor, so it would make sense to monitor the accuracy and credibility of the information provided to the public in terms of the other two categories mentioned. In other words how well is the public being informed about project funding and planning and physical changes to the transportation infrastructure?

In addition, not only is the law a little ahead of the average citizen but the uncertainty connected with its regulatory environment also places formidable constraints on implementation. Initially, therefore, it seems a good idea to review comments on the rule-making process at FHWA in the form of letters, exceptions, and so forth. This should give an indication of who has become disillusioned with the bill and provide hints as to whether resources are being committed to active opposition. The deadline for comments on the first phase of the process, involving the planning regulations, occurred during midsummer 1993, and the deadline on the conformity regulations and compliance with CAAA occurred in October 1993 (21).

CONCLUSIONS

According to our findings four major factors affect implementation:

1. The politics of the states and their local subregions, including rural versus urban and interurban and interstate rivalries over funding and economic development;
2. The extent to which interest groups are able to coalesce at the regional level and overcome parochial interests;
3. The politics of intergovernmental relations between MPOs and the states, including issues related to bureaucratic culture and accommodation; and
4. The quality and quantity of expertise (both political and technical) available to the various actors, including interest groups.

The literature on implementation highlights the roles played by the various actors throughout the policy process, from policy formulation and design to implementation, and emphasizes the importance of status, suggesting that parties that feel left out of the design phase may reemphasize their perspective by attempting to move implementation toward their view of balance (see the paper by Gifford et al., this Record). Yet the emphasis on status, although instructive, may be somewhat thin. Why is status important in the first place? The legislative history of ISTEA suggests that, on the whole, neither faction was left out. Hence, status may not be the overriding issue, at least in terms of a concerted effort to right some perceived imbalance.

It may be useful to view ISTEA implementation as a sociocultural experiment of the validity of two competing world views. On the one hand is the reform coalition, which views the current state of travel and land use as the result of bias and manipulations of public policy to favor automobile-centric hypermobility. Public policy, according to this view, has been significantly displaced from public base preferences. A milder rendition of this view is that public preferences have shifted, whereas public policy has not shifted, it has

not shifted yet, or it has not shifted enough. According to this view the public need only be provided a real alternative to precipitate a shift in behavior. The legislative provisions essential to this view are MPO authority, public participation, linkages to air quality regulation, and funding of enhancements.

On the other hand is the mainstream coalition, which views the current arrangement as largely consistent with the public's base preferences. They are willing to accept greater authority for the MPO because they feel it will change little. This faith is realistic in the sense that it rests on years of administrative experience and on a tacit understanding of administrative processes. These processes in turn rest on deep-seated convictions about the legitimacy of institutions that even transcend statutory provisions. Such deep-seated convictions are related to established ways of doing things, to electoral accountability, and to a pragmatic assessment of the unwillingness of the public to suffer the high-opportunity costs associated with direct participation in a process of change (22).

The analogy of a sociocultural test implies a single objective standard of evaluation, which may be misleading. It is unlikely, for instance, that both groups will use the same criteria to judge the viability of an integrated regional community. The reformers value livability and environmental sustainability. The mainstream values mobility and choice. When these values are inconsistent one should expect conflict, and possibly fragmentation. The expectation that a definitive experimental result or a future fusion of horizons will resolve the significant value differences is probably an acutely idealistic presumption, especially for planners and engineers steeped by education and temperament in pragmatic virtuosity.

Finally, since the expression of public preference is related both to the outcome of this sociocultural experiment and to the legitimacy of the institutions charged with its implementation, it might be well to ask the public what it thinks of the situation (23). To what degree do people feel that transportation planning and coordination should be the responsibility of a national, state, local, or interjurisdictional regional authority?

One recent study found that although public confidence has been going down the decline was much more precipitous for federal and state governments than for local government (24). What this indicates is that confidence in local authority relative to that in federal and state authorities has been increasing for at least 20 years, providing a partial explanation for the consensus on the devolution of governmental responsibility. A similar study of a cross-jurisdictional level of authority between state and local governments may be instructive. It might provide a new reference point for the development of an effective theory of implementation in a world that increasingly manifests a tendency toward public participation in the policy process within a regional frame of reference.

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REFERENCES

1. Fogel, R. W. *Railroads and American Economic Growth; Essays in Econometric History*. Johns Hopkins University Press, Baltimore, 1964.

2. Pub. L. 101-549 Title I § 101 (f) '' (2), 104 Stat. 2410.
3. Roberts, W. J. ISTEA: An Environmentalist's View. Presented at the Land Use Conference III: Toward a More Livable Region, Falls Church, Va., June 27, 1992.
4. Edner, S. M., and B. McDowell. Reinventing Metropolitan and State Institutions for Surface Transportation Planning. Presented to the Conference on Transportation Planning, Programming, and Finance, Seattle, Wash., July 19-22, 1992.
5. Stafford, F. P., and K. Chen. Economic Aspects of Public-Private Partnerships for the Provision of Roadway Services. Presented at 72nd Annual Meeting of the Transportation Research Board, Washington, D.C., 1993.
6. *Strategic Plan for Intelligent Vehicle-Highway Systems in the United States*. Report IVHS-AMER-92-3. IVHS America, Washington, D.C., 1992.
7. Gifford, J. L., and S. W. Talkington. The Impact of Regional Planning and ISTEA on the Implementation of IVHS: Issues and Early Field Data. *Proc., 4th Annual Meeting of IVHS America*, April 17-20, 1994.
8. Pressman, J. L., and A. B. Wildavsky. *Implementation*, 3rd ed. University of California Press, Berkeley, 1984.
9. Goggin, M. L., et al. *Implementation Theory and Practice: Toward a Third Generation*. Harper Collins, New York.
10. Liner, E. B., ed. *Sorting out State-Local Relationships. A Decade of Devolution: Perspectives on State-Local Relations*. Urban Institute Press, Washington, D.C., 1989.
11. Hargrove, E. C. Implementation. In *Public Administration and Public Policy* (G. H. Fredrickson and C. R. Wise, eds.), Lexington Books, Lexington, Mass., 1977.
12. Fisher, R., and W. Ury. *Getting to Yes: Negotiating Agreement Without Giving in*. Houghton Mifflin, Boston, 1981.
13. A Six-Month Report from the Citizens Advisory Committee to the Transportation Planning Board of the National Capital Region, Sept. 1993.
14. Testimony of the Chesapeake Bay Foundation and the Environmental Defense Fund regarding the Metropolitan Washington 1994-1999 Transportation Improvement Program to the Transportation Planning Board, July 21, 1993.
15. Fehr, S. C. Road, Rail Projects May Require New Taxes, Tolls. *Washington Post*, Nov. 18, 1993, p. C1.
16. Owens, C. A. Washington Metropolitan Regional Compliance with EPA Air Quality Standards: A Case Study. Manuscript, 1993.
17. Bates, S. Regional Committee Supports Tougher Clean Air Requirements. *Washington Post*, Dec. 18, 1993, p. B1.
18. McDowell, B. D. Role of Metropolitan Planning Organizations in the 1980s. In *Transportation Research Record 1045*, TRB, National Research Council, Washington, D.C., 1992.
19. Crunican, G. Linking Land Use and Transportation: Models for ISTEA and Clean Air Act Implementation. Presented at Lincoln Institute of Land Policy, Philadelphia, June 14, 1993.
20. Pub. L. 102-240 Title III §8(g)(4) and (h)(6), 105 Stat. 2101.
21. U.S. Department of Transportation. 23 CFR Part 450 & 49 CFR Part 613. Statewide Planning; Metropolitan Planning; Rule October 28, 1993.
22. Olson, M. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Harvard University Press, Cambridge, Mass., 1977.
23. Habermas, J. *Legitimation Crisis* (translated by Thomas McCarthy), Beacon Press, Boston, 1975.
24. Conlan T. J. Federal, State, or Local? Trends in the Public's Judgment. *The Public Perspective*, Jan./Feb. 1993, p. 3.

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