

ISTEA's Impact

MPOS AND STATE DOTS

BRUCE D. McDOWELL

The federal government depends on the 50 state departments of transportation and 340 metropolitan transportation planning organizations (1) to help achieve its surface transportation goals. Both types of organizations have existed for many years, evolving gradually to meet changing needs and circumstances; now they are on the threshold of fundamental change because of the enactment of the Intermodal Surface Transportation Efficiency Act of 1991 and its implementing regulations.

ISTEA envisions not only that each SDOT and MPO will change in many fundamental ways but also that they will become more closely linked. Nothing short of changing the corporate cultures in these organizations will suffice.

Seeds of Change

Driving the need for fundamental change is a new three-part philosophy regarding ISTEA: the nation's transportation decision making should be (a) decentralized, (b) more friendly to the environment, and (c) more responsive to the needs of increasingly diverse populations and businesses.

Decentralization

ISTEA has resulted in decentralizing transportation decision making, in part by downsizing the explicitly mapped federal-aid highway system from about 830,000

miles (categorized as Interstate, primary, secondary, and urban) to about 160,000 miles (in a single national highway system). At the same time, eligibility for federal highway funds has been extended to nonlocal streets approved by the state and metropolitan planning processes. These changes give greater responsibility to state and local governments for 670,000 miles of previously designated federal-aid highways and increase the total mileage of highways that are eligible for federal funding.

In addition, ISTEA provides for increased flexibility in the use of federal surface transportation funds. Modal allocations of most federal transportation funds are left to the state and metropolitan planning processes and to the state and local stakeholders involved in those processes. To remove artificial funding biases, the matching ratios for federal transportation grants have been equalized among most programs.

ISTEA also provides for giving the larger MPOs the lead in planning and programming projects to be funded with about 20 percent of the money authorized by the act and MPO-SDOT cooperation is required in spending state-controlled ISTEA funds within the MPO region. Furthermore, the expansion of MPO boundaries—to encompass the 20-year urban growth horizon and the air quality region—may increase the territorial reach of the decentralized decision making by many MPOs.

Environmental Connections

ISTEA and the Clean Air Act (CAA) are very closely tied together. Under these

acts, the 195 MPOs that serve areas where the air quality violates federal standards must clean the air by a specific deadline (FHWA, unpublished data). Transportation plans in these nonattainment areas must conform to the State Implementation Plan (SIP), approved by the U.S. Environmental Protection Agency, for cleaning the air. State and regional air quality agencies work with SDOTs and MPOs in preparing transportation plans and implementation programs to comply with EPA regulations. If these air quality agencies determine that the transportation plans for nonattainment areas do not conform to SIP, the plans may have to be reworked to avoid loss of federal transportation funds, EPA constraints on development, the substitution of a federal plan, or lawsuits.

Five MPOs, which have met the federal air quality standards over the past two years and are known as maintenance areas, must continue to conform to air quality maintenance plans to ensure that their regions do not slip back into noncompliance (FHWA, unpublished data). Several additional MPOs are expected to achieve this status soon. A total of 200 of the 340 MPOs are directly affected by CAA.

ISTEA earmarks \$1 billion per year in special funds to help meet these air quality needs. Nevertheless, attaining the federal standards will not be easy in many areas. Significant life-style changes for metropolitan populations may be required to conform to SIP. For example, new forms of urban development and limitations on the use of single-occupant automobiles are being considered.

Bruce D. McDowell is Director, Government Policy Research, U.S. Advisory Commission on Intergovernmental Relations.

Other federal environmental protection standards that need increased attention by SDOTs and MPOs are protection of wetlands, cleanup of urban storm water runoff, and the transportation of hazardous materials.

Nontraditional Goals and Stakeholders

The appropriateness and priorities of transportation projects and systems increasingly are being evaluated to determine contributions toward achieving such goals as (a) improved international competitiveness; (b) energy conservation; (c) domestic economic development and jobs; (d) equality of access, opportunity, and mobility for underserved and disadvantaged populations; (e) historic preservation; (f) neighborhood preservation; and (g) renewed vitality of central cities. These goals are not those of the traditional transportation decision makers; they are the goals of those who now need to be included in the transportation planning process.

ISTEA requirements for broader planning and greater public involvement reinforce these new directions. The implication for SDOTs and MPOs is that they must prepare and implement plans to demonstrate measurable contributions toward achieving broader social goals. Some SDOTs and MPOs have begun this task. Their approach is to identify goals and performance measures that indicate progress toward achieving the desired outcomes, not merely to measure changes in the transportation system.

Geographic and Institutional Complications

Even if SDOTs and MPOs adjust their organizations and programs in accordance with the new goals established by ISTEA and CAA, in many cases there is no clear path to success. The institutions with whom they must work do not match the boundaries of the areas in which they must work. For example, the urbanized areas (UZAs) and air quality regions that are the focus of ISTEA and CAA frequently sprawl across state lines and local government jurisdictions. As a result, 46

MPOs serve more than one state and must coordinate with more than one SDOT (FHWA, unpublished data).

The UZAs are defined by the U.S. Bureau of the Census without regard to governmental boundaries. They are simply geographic areas of urban settlement with a population of at least 50,000 and a density of at least 1,000 persons per square mile. Thus the size, shape, and number of UZAs change after each decennial population census. In turn, the size, shape, and number of MPOs may be changed. By this process, the number of MPOs has grown from 218 in 1972 to 340 today (2,3).

In addition, UZAs sometimes overrun the boundaries of previously established MPOs or grow so large that state and local officials choose to use more than

Conversely, federal law allows a single MPO to serve more than one UZA. The use of this option is illustrated by the fact that the 33 new UZAs recognized after the 1990 census resulted in only 12 new MPOs. The other UZAs are served by pre-existing MPOs. Overall, 396 UZAs are served by 340 MPOs.

A new ISTEA requirement is that MPOs encompass the territory where urban growth is expected to occur during the next 20 years plus the air quality region in nonattainment areas. Another provision allows inclusion of the whole metropolitan area (providing the governor and the local governments agree). These provisions may increase the number and size of interstate MPOs, the size of MPOs that lie within a single state, and the number of unified transportation

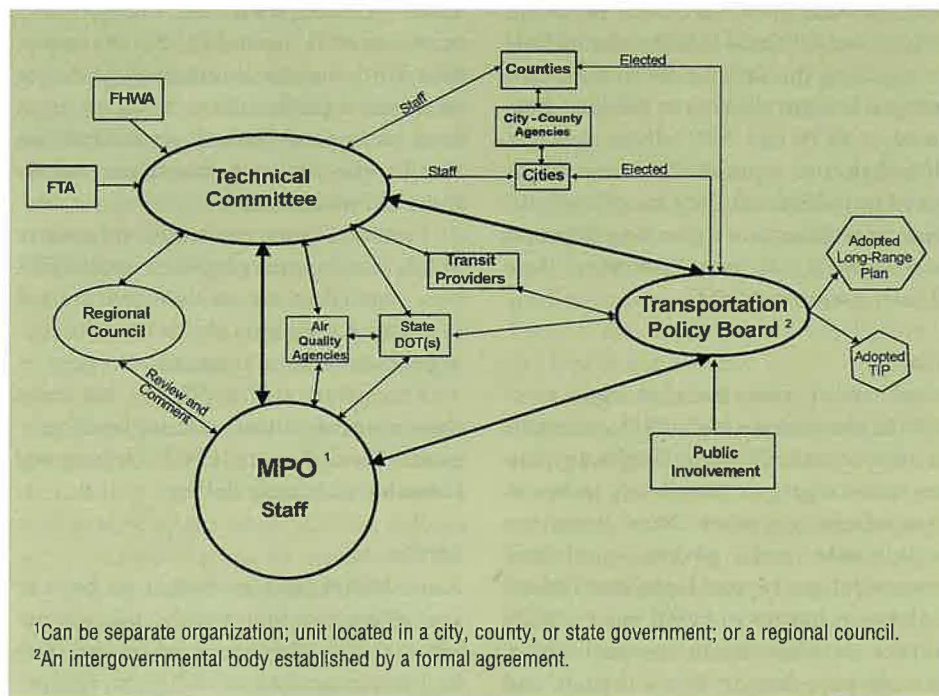


FIGURE 1 Typical participants in the metropolitan planning organization process (no two processes are structurally alike).

one MPO to serve the area. At the present time, 14 contiguously urbanized areas within a single state have two or more MPOs. Among the interstate UZAs, several are served by more than one MPO. Examples include Chicago, Memphis, New York, and Portland.

planning areas that are served by multiple MPOs. More complex MPOs may be created; however, the inclusion of whole metropolitan areas (by agreement of the governor and local officials) could simplify governmental relationships in some areas.

Consolidated metropolitan areas (where two or more metropolitan areas have grown together, such as Baltimore, Maryland, and Washington, D.C.) are likely to have two or more MPOs that are serving what has become a single transportation marketplace. Coordination of MPOs in such areas is required. When these multiple MPOs are within a single state, the SDOT and governor may help bring them together. When they are in more than one state, the U.S. Department of Transportation has a responsibility under ISTEA to ensure that MPOs are brought together. In interstate areas, areawide MPOs may be helpful in bringing SDOTs together. The DOT role in interstate coordination is viewed only as a backup responsibility.

Pre-ISTEA SDOTs and MPOs

Any consideration of how to adapt SDOTs and MPOs to ISTEA must include recognizing the differences in their current status. One SDOT is as different from another as is one MPO from another. Although four types of MPOs are recognized in ISTEA and they are treated differently with respect to funding priorities and required responsibilities, there is no differentiation of SDOTs.

SDOTs

Until about two decades ago, most SDOTs were simply highway departments or were separately elected highway commissions largely or completely independent of the governor. Now, most are accountable to the governor and have responsibilities beyond highways. Federal legislation has encouraged most SDOTs to take on some transit responsibilities. Several have major urban transit and commuter railroad programs, and a few operate such systems. Some are also responsible for airports and water ports. However, there has been little involvement by SDOTs in comprehensive intermodal freight planning of the type now envisioned by ISTEA.

Even in their highway programs, SDOTs differ from one another. SDOTs own and operate from 93 percent to less than 10 percent of the highway mileage in

their states. Thus the local voice in funding, building, and operating highways ranges from very small to very large. Likewise the relative state and local responsibilities for transit vary widely.

In addition, some SDOTs are more innovative than others. Oregon, for example, is frequently cited for its innovative use of performance goals and outcome measurements and its close linkages between transportation and land use planning. Most SDOTs have not prepared statewide intermodal transportation plans.

The internal organization of SDOTs varies considerably. Whereas some are organized on the basis of clearly separated modal administrations (such as highways, transit, and airports), others are organized into functional units (such as design, construction, and maintenance) that serve all the modes. In most SDOTs, some combination of these two approaches is used (4). For example, Maryland has an intermodal planning unit and a unified transportation trust fund but separate modal administrations that handle design, construction, operation, and maintenance.

Few SDOTs were noted for innovative public involvement programs until ISTEA was enacted. Now several have started interesting programs of this type, including those in Idaho, Iowa, and Oregon.

The strong suit of SDOTs has been their control of the state highway programs, funded strongly by both state and federal-aid highway dollars.

MPOs

Some MPOs have roots that go back to special metropolitan transportation studies in the 1950s sponsored by the state highway organizations. Chicago, Detroit, New York, and Philadelphia are examples. Most of these have become large and mature planning programs that have been replicated in the nation's other major metropolitan areas.

In contrast, 70 new MPOs were created after the 1980 census, and 12 more were created after the 1990 census. These MPOs are mostly small, and many do not have difficult transportation problems. Some of the newest MPOs are still becoming

acquainted with federal planning requirements.

The populations served by MPOs range from more than 10 million to as little as 50,000.

Many of the older MPOs have smaller staffs and budgets, less fresh data, and less adequate analytical tools than they did in the 1970s, when other federal planning grant programs from such agencies as the U.S. Department of Housing and Urban Development and EPA lent strength to their planning programs.

Although many of the older MPOs were established initially under the wing of a state highway department or SDOT, most now have a local government-based organizational structure. In the 1970s, 75 percent of MPOs were staffed by metropolitan regional councils (3). The councils are intergovernmental advisory planning bodies usually governed by local elected officials appointed on a one-government, one-vote basis. These councils generally have their own independent staffs and deal with many program areas other than transportation.

Many new small MPOs have been created, however, and some older MPOs have separated from their regional councils. Now only about 44 percent of all MPOs are staffed by regional councils (3). The others are staffed by individual cities, counties, or city-county planning commissions, or they are freestanding entities having only the responsibilities given to them by federal transportation planning laws and regulations.

The strength of MPOs has been their provision of areawide data and analysis for highway and transit systems planning. Most have not been noted for studies of freight or intermodal facilities, their deal-making capacity, or their control of transportation implementation funds.

Meeting the Institutional Challenges of ISTEA

SDOTs and MPOs have a long way to go to meet the expectations of ISTEA. Listed are some of the changes that should be considered during the next few years as they respond to ISTEA.

Reinventing SDOTs

To comply with ISTEA, many SDOTs may need to be remade in the following ways:

1. *Sharing power.* ISTEA provides significant new decision-making roles for MPOs, the governor, the state legislature, and the federal and state environmental regulators. SDOTs may not have the last word in many important decisions. These decisions include making certain funding allocations, determining environmental compliance, setting the boundaries of MPOs, coordinating multiple MPOs in a single area, and setting transportation goals in cooperation with many other departments of state government.

2. *Preparing statewide plans.* ISTEA requires long-range state transportation planning for the first time. It is a demanding type of planning, with 23 factors to be considered and six management systems to be detailed as the basis for the short-range state transportation improvement program (STIP).

3. *Going intermodal and using flexible funds.* In most states the separation between transportation modes is strong, and intermodal planning is not practiced. Even when intermodal plans are developed for ISTEA, there may be difficulties in implementing the plans. For example, state transportation revenues generally are earmarked for spending on a single mode. Thus it may be impossible to match flexible federal funding without negating its flexibility. State laws and constitutions may have to be changed.

4. *Constraining STIP.* When STIPs are prepared and projects are selected for funding within the multiyear STIP, the availability of funds must be demonstrated. This implies that strategic choices will be made in accordance with the goals and priorities set forth in the statewide plan. This requirement establishes new standards of realism and public accountability. The standards will be more difficult to meet than those of the past, when long wish lists of projects were allowed. Setting priorities across modes and metropolitan areas may be difficult unless the statewide plan provides clear justifications in terms of expected outcomes.

5. *Involving the public.* Something more than a public hearing after the statewide plan has been prepared is clearly expected under ISTEA. SDOTs will need to find ways of providing deeper involvement that begins earlier in the planning process.

6. *Retooling the staff.* Intermodal and financial planners, public involvement specialists, and other nontraditional personnel may need to be added to the staff. Many SDOTs are experiencing a large number of retirements among engineers hired 30 to 40 years ago to build the Interstate highway system. This may provide an opportunity to change staffing patterns to meet new requirements.

Reinventing MPOs

To comply with ISTEA, many MPOs may have to be remade in the following ways:

1. *Expanding the MPO.* MPOs in which planning and membership have been limited to the census-defined UZA may have to expand their boundaries. If this involves additional units of local government, expanding membership may need to be considered. In addition, ways in which representatives of all the modes of transportation operating within its boundaries in the planning process can be included should be reviewed.

2. *Rebuilding and expanding the planning program.* Although the federal government has required MPOs to prepare metropolitan transportation plans and programs since 1962, a considerably more demanding type of planning for many MPOs is required under ISTEA. Fifteen separate factors must be considered, including intermodal and detailed air quality planning where applicable. MPOs with populations of more than 200,000 and certain other MPOs with air quality or other severe transportation problems must be particularly diligent in the preparation of the prescribed plans, because their planning processes must be certified for adequacy by the federal government. Other MPOs may use simplified planning processes and a self-certification procedure. These new planning challenges come when the capacity of many MPOs is at a low point because of staff and funding cuts during the past 10 to 15 years.

3. *Strengthening public involvement.* Among the 15 factors to be considered in preparing the MPO plan in addition to transportation factors are numerous social, economic, environmental, energy, and land development goals. Such factors affect virtually everyone in the metropolitan area. Thus the public involvement process must be expanded to represent all sectors of the population. A variety of public involvement methods can be used to make this expansion meaningful and manageable.

4. *Constraining the plan.* Like the states, MPOs must ensure that plans and lists of short-term implementation projects (the metropolitan transportation improvement program or MTIP) are prepared within the constraint of the funds that can be demonstrated to be available. This calls for setting the priority of projects according to the contribution they can make toward achieving strategic goals in the metropolitan plan. It also requires sound financial estimates.

5. *Building an effective political decision-making capacity.* For the MPO to gain a reputation as a force to be reckoned with, local public officials in the metropolitan area will need to unite to make hard political decisions about the allocation of transportation implementation funds. These commitments must remain firm in the face of controversy.

6. *Equitably representing central cities.* Now that MPOs have a real role in allocating some of the ISTEA funds, political interest in these organizations has increased. In particular, complaints have been registered by some central cities about their inadequate voting representation on the MPO governing board. A recent survey of central city voting strength in MPOs with populations exceeding 200,000 suggests that the central cities may be underrepresented in many cases (5). That situation may have to be resolved before some of the MPOs can become legitimate decision-making bodies.

7. *Linking with others.* Expanding MPO boundaries will require relationships with local governments, the governor, and perhaps the state legislature. Expanding

continued on page 29

agement and fiscal controls for the operating agency. All transit customers, including transit operators and management, will benefit from the integration of GIS/AVL and real-time information systems at stations and bus stops and on board transit vehicles.

References

1. *Americans with Disabilities Act*. U.S. Public Law 101-336, 101st Congress, Washington, D.C., July 1990.
2. Simon, R.M., *Americans with Disabilities Act of 1990: Mandate for Full Accessibility*, *TR News* 168, Sept.-Oct. 1993, p. 17-22.
3. Hunter-Zaworski, K.M., and M. Hron. *Improving Bus Accessibility Systems for Persons with Sensory and Cognitive Impairments*. Federal Transit Administration, U.S. Department of Transportation, Report FTA-OR-11-0007-93-1, Aug. 1993.
4. Balog, J.N., D. Chia, A. N. Schwarz, and R. B. Gribbon. *Accessibility Handbook for Transit Facilities*. Federal Transit Administration, U.S. Department of Transportation, Washington, D.C., Report FTA-MA-06-0200-92-1, May 1992.
5. Garrity, R., and L. L. Eads. *Bus Stop Accessibility: A Guide for Virginia Transit Systems for Complying with the Americans with Disabilities Act of 1990*. In *Transportation Research Record 1390*, TRB, National Research Council, Washington, D.C., 1993, pp. 23-30.
6. Coburn, N., C. Martin, R. Thompson, and D. Norstrom. *Guidelines for Improvements to Transit Accessibility for Persons with Disabilities*. Federal Highway Administration, Washington, D.C., Report DOT-T-93-04, Sept. 1992.
7. Hemily, B. *Electronic Fare Collection Systems*. In *Transportation Research Circular 410*, TRB, National Research Council, Washington, D.C., July 1993.
8. Hunter-Zaworski, K. M. *Ergonomic Guidelines for Electronic Information Systems*. Interim Report, U.S. Department of Transportation, Federal Transit Administration, Report FTA-OR-26-7000/93-019A, Jan. 1994.

MPOs and State DOTs continued from page 9

the planning process to deal realistically with environmental protection and land development will require close relationships with federal, state, and local regulatory agencies. Incorporating MTIP into STIP will require close relationships with the governor and the SDOT. In complex urban areas, where there is more than one MPO or SDOT, constructive relationships with each of those organizations will be needed.

8. *Retooling the staff*. Like SDOTs, MPOs may need to be restaffed to meet new needs. Because MPOs have been meeting federal planning requirements under previous laws, their need to retool may not be as great as that of SDOTs. Nevertheless, most MPOs will probably find staffing needs in activities such as air quality planning, intermodal and financial planning, and public involvement.

Sources of Help

DOT, TRB, and the Surface Transportation Policy Project (STPP) are all aware of the fundamental changes called for by ISTEA, and they are trying to be helpful. For example, DOT is funding several research projects and conferences to assess MPO and SDOT capacities to perform ISTEA tasks and to identify best practices. TRB has initiated a task force on intermodal planning. STPP has established a Partner State Program to help expand the public involvement processes in SDOTs and strengthen the relationships between SDOTs and MPOs. (See related article in this issue of *TR News*.)

It is too early to report results from these efforts, but they can be expected in the next year or two as the reauthorization of ISTEA nears. Meanwhile, keep improvising, and share experiences.

References

1. *Directory of Metropolitan Planning Organizations (MPOs)*. FHWA, U.S. Department of Transportation, Aug. 1993.
2. McDowell, B. D. *The Metropolitan Plan-*

ning Organization Role in the 1980s. *Journal of Advanced Transportation*, Vol. 18, No. 2, 1984, pp. 125-133.

3. McDowell, B. D., and S. M. Edner. *Reinventing Metropolitan and State Institutions for Surface Transportation Planning*. In *Transportation Research Circular 406: Transportation Planning, Programming, and Finance*, TRB, National Research Council, Washington, D.C., April 1993, pp. 64-74.
4. *Organization Charts of AASHTO Member Departments 1992*. AASHTO, Washington, D.C., revised Jan. 1993.
5. Benjamin, S. B., J. Kincaid, and B. McDowell. *MPOs and Weighted Voting*. *Intergovernmental Perspective*, Vol. 20, No. 2, Spring 1994, pp. 31-36.