

FINAL

TCRP Project J-11/Task 6

**Role of Transit Agencies in the
Regional Transportation Planning Process**

Draft Final Report

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INTRODUCTION AND PURPOSE OF PROJECT

Recently, several reports have been presented to the U.S. Congress recommending a heightened emphasis on regions for determining transportation priorities and allocating transportation resources. Among these reports were the January 2008 report of the National Surface Transportation Policy and Revenue Study Commission, the America 2050 report by the Regional Plan Association, and other reports by various public interest groups and transportation industry organizations. Consequently, APTA requested that TCRP undertake this project to (1) provide information on the current state of the practice in the United States regarding regional transportation planning and (2) develop guidance for transit agencies to enhance their involvement in regional transportation planning and decision-making.

This research addresses the following questions: How do regional transportation planning practices vary from region to region? How much involvement do transit agencies have in regional transportation planning decision-making? How much technical and policy support is given to transit agencies by regional planning agencies? How much technical and policy support is given to regional planning agencies by transit agencies? What are the various roles of agency staff and their policy boards in the development of regional transportation planning work programs and in the adoption of strategic regional transportation policies? What are the characteristics of effective regional transit planning programs and the organizations that carry out those programs?

This information is intended to inform discussions in the months ahead on improving regional transportation planning processes and the involvement of transit agencies in regional transportation planning and decision-making.

METHODOLOGY

The Project scope was divided into three major parts:

Literature Research. A literature search was conducted to review recent studies with similar aims. A web-based assessment was also completed, providing information on existing regional governance and transportation planning structures in the 75 largest U.S. metropolitan areas.

Case Studies. The project working group, established by TCRP, identified 12 regions in the U.S. for case studies – 3 each in 4 different regional size categories. In addition to size, the regions were selected because they differed with respect to the number and type of regional planning and transit agencies, their innovative or unique governance or organizational structures, and their likely relevance to other regions. The case studies included interviews with key transit agency and regional planning agency executives and research on planning structures and practices. The researchers assured confidentiality during all of the interviews to obtain candid responses.

Final Report. This report includes key research findings; examples of effective transit planning, and suggested guidance to transit agencies and regional planning agencies to improve transit agency involvement in regional transportation planning.

KEY RESEARCH FINDINGS

The key findings from this research are summarized below and discussed in this section of the report.

- Seven challenges that affect regional transit planning were identified.
- Regional planning and transit agency executives are eager to improve regional transportation planning and recognize that, in most areas of the United States, improvements are needed.
- The governance and institutional characteristics of regional planning and transit agencies vary considerably from region to region.
- Regional planning and transit agencies that have had the greatest success in developing and implementing effective regional transit programs have clear missions, effective leaders, and strong technical capacity.
- There is considerable uncertainty about the future roles of regional planning and transit agencies in regional transportation planning.

Challenges that Currently Affect Regional Transit Planning

The case studies identified seven challenges to effective transit agency involvement in regional transportation planning. These challenges are summarized below:

1. Coordination of regional land use and transportation planning is difficult.

Coordinating land use plans at a regional level is difficult because land use planning and zoning have traditionally been conducted by local governments and in most states local government rights are strongly held. Coordination of land use and transportation planning is important in all transportation planning, but particularly important to transit planning, because transit ridership is affected by land use density, street networks, relationships of buildings to streets, amount and location of parking, pedestrian accessibility to transit stops, etc.

While coordination of land use and transportation plans is called for in federal planning guidance, most MPOs (and other regional planning agencies) have historically assembled the adopted land use plans or “general plans” of the cities and counties in the region, and used them as a basis for projecting travel demand. Leading regional planning agencies and MPOs have begun to conduct scenario planning, which helps policymakers to compare the effects of alternative land use development plans, while leaving the final decisions on actual land use and zoning to local government.

Regions that do not have a regional comprehensive planning agency and regions with a small number of MPO staff often do not conduct scenario planning or perform intensive evaluation of land use plans because it is time consuming and expensive to collect and

analyze the required data and information. In addition, some local governments may see regional land use planning as infringing on their land use and zoning authority, making regional planning more difficult.

2. Historically, MPOs have largely focused on highway planning, not transit and multi-modal planning. During the past 40 years, most MPOs have focused largely on highway planning because (1) the preponderance of federal transportation funding has been for highways, and (2) many MPOs were established under the direction of state highway departments (later DOTs) since the Federal Highway Act of 1962 required “area-wide transportation studies” be established with the participation of local governments as a condition of receiving federal funds for highways. Similar federal requirements pertaining to transit were introduced later. Consequently, state DOT influence on MPO structure, work programs and policies has continued, in almost all states. This is partly due to the MPOs’ core federal PL funding and contract management flowing through the state DOTs, while most transit funding flows directly from FTA regions to the transit agency. Most MPO travel forecasting models have been oriented primarily toward highway travel forecasts, not transit ridership, although many MPOs have been working to improve multimodal forecasting models.

Transportation corridor planning throughout the United States has historically been conducted mostly by state DOTs considering highway investments or by transit agencies considering transit investments. True multi-modal transportation corridor planning, led by an MPO, to determine the best transportation modes, alignments, facilities, and service levels is relatively rare, though growing in use.

3. Historically MPOs and transit agencies have had separate federal funding streams, resulting in some predictable formula funding for transit agencies, and allowing transit agencies to apply directly to FTA for discretionary project funding. Some transit agencies are concerned that proposed approaches for funding all regional transportation modes through a regional agency (e.g. an MPO) may reduce the predictability of formula funding for transit state of good repair. Other transit agencies are concerned that the historic highway orientation of most MPOs might affect their ability to obtain funding for transit capital projects.

4. Most MPOs rarely mediate differences among transit agencies when there are multiple transit agencies in a region, even when competing investments result. Most MPOs do not over-ride decisions made by transit agencies due to lack of legal authority and/or political constraints.

5. Transit planning is more difficult in regions that cross state boundaries. Transportation planning is far more complex in mega-regions. When a single metropolitan region includes multiple state DOTs, multiple regional agencies, and multiple transit agencies the organizational relationships, funding mechanisms, and political priorities of local governments toward land use and transportation planning become exponentially more complex. Differing state laws and transit funding mechanisms make programming for transit investments that cross boundaries difficult.

6. Although there is current interest in regional scale analysis of environmental resource protection needs, and the impacts of transportation investments, in particular climate change impacts, on those needs, regional-scale environmental planning is not routinely performed. One major exception to this norm is scenario planning, which typically incorporates environmental analysis. Increased focus on regional scale environmental analysis could affect future transportation investments, in particular when climate change is addressed. Most transit agencies interviewed for this study see this as critical for recognition of the role transit can play in environmental sustainability and climate change, and the need for greater transit funding levels in future transportation investments. In addition, regional environmental planning could support project-level environmental impact statements. Important barriers to improving regional scale environmental planning are: (1) Insufficient MPO staff with broad experience in environmental resource planning; (2) lack of staff to support them at state and federal resource agencies; and (3) the cost and effort of obtaining regional scale data and developing methods for environmental resource analyses.

7. Some studies suggest that MPO policy board structure and membership may create challenges that affect regional transportation planning and decision-making, and work against selection and funding of critical transit projects. Strong leadership is required to avoid spreading funding throughout the region, rather than targeting funds for the highest priorities. Local elected officials may think of themselves more as a representative of the jurisdiction that elected and appointed them, rather than as a regional agency board member, responsible for regional transportation. Further, in some regions the strong influence of the governor, state legislature, or most often the state DOT affect policy board decisions. Finally, decision-making continuity may be difficult when board member appointments are of short duration; making long-term programming harder to sustain.

Agency Manager Concerns

Transit and regional planning agency executives, almost without exception, are truly interested in improving transit agency involvement in the transportation investment decisions in their respective regions. There is an extremely high sense of urgency about the need for change, and at the same time, concern about how that change can best take place.

There is a widespread sense that both world circumstances – economic, environmental and energy-related – as well as the average citizen’s readiness for change, are out ahead of our current institutions’ readiness to respond. At the same time, there is great concern regarding how some institutional and financing proposals may affect planning for transportation in our urban regions. The concerns most often expressed both by regional planning agency managers and transit agency managers address the following:

- *Readiness of organizations for change*
- *Transition time from present funding programs to new ones*

- *Funding predictability in the near-term and in the longer term*
- *Application of outcome-based planning and performance metrics*
- *Availability of leadership for agencies*
- *Resources for building agency technical capacity*

Governance and Institutional Characteristics of Regional Planning Agencies and Transit Agencies

Region-to-Region Variations in Institutional Structure

There is enormous variation from region-to-region in institutional structure for regional transportation planning. This is true both for regional planning agencies and for transit agencies in the 75 largest U.S. regions. The variations include different relationships between Metropolitan Planning Organizations (MPOs) and regional comprehensive planning agencies (COGs); different numbers of transit agencies in the region; and differing extents of influence and involvement of State DOTs, transit agencies, and local governments in regional transportation policy development and public transportation planning.

Although the greatest variations in institutional structure exist in the largest regions – i.e., those over 5 million people – there are variations in institutional structure for regional transportation planning in each of the other regional categories examined in this project: 2 to 5 million people; 1 to 2 million people; and those of 500,000 to 1 million people.

Relationships between Transportation and Comprehensive Planning Agencies Vary

In some regions the MPO is also the comprehensive planning agency, usually known as a regional Council of Governments (COG). In other regions, the MPO is a separate agency from the COG, and a number of regions have no comprehensive planning agency. Even where a single COG or other regional agency has both comprehensive and transportation planning responsibilities, the extent to which transportation and land use decisions are actually coordinated depends a great deal upon the willingness of local governments to allow their regional planning agency to undertake land use scenario planning, rather than just assembling the land use plans adopted by each local jurisdiction. This is a very important issue for transit agencies, because transit ridership is closely linked to land use patterns. However, regions that do have the MPO housed in a regional COG and conduct regional scenario planning are more likely to effectively link multimodal transportation planning and investments to local land use decisions.

MPO Policy Board Composition Varies Widely

Although there are federal provisions requiring elected officials of local general-purpose governments to participate on the MPO board, the composition of MPO policy boards is largely determined by the local governments and the governor (or state legislature). Consequently, there are many differences among MPO policy boards. For example:

- In some cases, such as North Carolina, Virginia and Florida, the state legislature and/or the State DOT have defined a strong role for the State DOT in the institutional and governance characteristics of all MPOs throughout the state.
- In some cases, such as in Washington, DC; the Twin Cities; and Portland, Oregon, the regional agency policy board cannot act unilaterally as the MPO, but acts jointly with a separate policy board established just for MPO purposes. In some regions, this is also due to the difference between the broader geographic area served by the regional planning agency (including rural counties) and the smaller urbanized area served by the MPO.
- There are great variations in whether or how regions provide for proportional representation on policy boards and in consideration of under-represented groups.
- There is also great variation in transit agency inclusion on MPO policy boards. In some regions transit agency representatives serve as voting members on the MPO board, while in other regions transit agency involvement in MPO decision-making is more informal.

Regions Vary in the Number of Transit Agencies

In general, regions with a population of over 5 million have several large transit agencies. Most regions with fewer than 5 million residents have a single transit agency serving the region, perhaps with some smaller local bus systems on the outskirts. (There are some notable exceptions – Phoenix, Seattle, and Minneapolis each has multiple large transit agencies involved in transit development and/or operation.)

The regions that do have several large transit agencies, often with overlapping service areas, have far more complex environments for regional transportation planning than regions with only one or two transit agencies. Again, this is a very important issue for achieving effective region-wide transit investment programs.

Innovations in Governance Structure for Regional Planning and Transit Agencies

This research examined several innovative governance structures for regional planning and transit agencies. These innovations include the following:

Combined MPO and Transit Agency:

- Twin Cities – The Met Council, which is the regional planning agency, shares responsibility with another policy board for the MPO function and also owns and acts as the policy board for Metro Transit, the major transit operator in the region.
- San Diego – SANDAG is the regional planning agency, MPO, and coordinator of state transit funding and also, by statute, must perform all transit project development, including design and construction. However, SANDAG does not oversee transit operations, which is left to other agencies.

- Las Vegas and Reno – A Regional Transportation Commission (RTC) is the statutory MPO and the transit agency board in each city. The Las Vegas RTC also oversees roadway operations and the airport, providing true multimodal coordination.
- Charlotte – The City owns and operates the regional transit agency and also staffs the MPO (which has a policy board separate from City Council).
- Indianapolis – The City-County Council of Marion County also acts as the MPO. The Council also appoints the board of the publicly-owned corporation that acts as the transit operator.

Statutory Regional Planning Agency/MPO

- Twin Cities – The Met Council is a quasi-state agency, with a board appointed by the governor and serving at the governor’s pleasure and is responsible for transportation and land use planning, plus parks and solid waste management as well as transit operations.
- Portland, Oregon – Metro (which is a regional government agency with a directly elected board), operates the zoo and certain regional entertainment and convention facilities; manages solid waste and some regional parks; has significant land use and growth management controls; and performs regional transportation, land use and environmental planning.
- San Francisco – MTC is a statutory MPO, with significant funding powers and authority, allowing purse string control of transportation planning. However, there are three other regional planning agencies responsible for comprehensive and land use planning, air quality planning, and bay conservation and development planning. A joint policy committee works to coordinate planning across all four agencies.
- San Diego – SANDAG, which has statutory authority as the MPO, serves as the comprehensive planning agency and the implementing agency for transit capital programs.

Regional Transportation Agency Separate from MPO, COG or Transit Operators

- Chicago – RTA is the statutory regional planning and coordinating agency for transit that oversees the budgets of CTA, Metra and Pace but is a separate agency from the MPO (which was recently combined with the regional planning agency to form CMAP, a joint transportation/land use planning agency).
- Atlanta – The state legislature created the Georgia Regional Transportation Authority (GRTA) with transportation planning responsibilities separate from ARC (the MPO and regional commission) and from MARTA.
- Indianapolis – The state legislature recently created the Central Indiana Regional Transportation Authority to act as the planning and development agency for a nine-county region, including Indianapolis. CIRT works closely with the MPO, which is the City-County Council of Indianapolis-Marion County.

The oldest and perhaps the most effective of these organizations include the RTA in Chicago, MTC in San Francisco, the Met Council in the Twin Cities, and Metro in Portland, Oregon. However, each one of the regions, perhaps with the exception of those in Portland and Las Vegas, is currently facing challenges in regional transit planning.

Regional Planning and Transit Agency Missions, Leadership and Technical Capacity for Regional Transportation Planning

Regional Planning Agency Mission and Role

The most successful regional transportation planning agencies (i.e., MPOs) have a broad and compelling statement of purpose, going far beyond meeting stated federal planning requirements. Recent conferences and workshops on the role of MPOs (summarized in the Appendix, *Research from Other Studies*), stress the need for MPOs to articulate a strategic regional vision and state that MPOs that narrowly define their role are less effective in developing and implementing regional plans.

Some MPOs have expanded their role through leadership initiatives from executives or policy boards. Some MPOs have been challenged to take a larger role by visionary political or business leaders who then supported them, as the MPO rose to challenges and assumed broader responsibilities. A few MPOs have been given greater responsibility and authority by the state legislature.

Transit Agency Mission and Role

Transit agencies that are most successful in regional transportation planning and development are those that establish a broad vision and develop effective and enduring partnerships. Some transit agencies focus on their daily operations, not on strategic planning or development. Other transit agencies have a broader vision for transit, but do not reach out to create partnerships with their MPO, performing all regional transit planning studies and transit corridor planning themselves, with nominal involvement of the MPO (since their federal funding does need to be incorporated into adopted MPO plans and programs).

The most effective transit agencies join with their MPO to articulate a strategic vision and develop real partnerships, not only with their MPO, but with local governments, State DOTs and with other transit agencies, to share responsibility for regional transportation planning. Some notable examples are cited in this report.

Leadership and Technical Capacity

Effective leadership is a critical factor that distinguishes the regions that have achieved successful transportation planning. Effective leadership is needed among all organizations involved in regional transportation planning, including transit agency executives and transit boards; and MPO executives and MPO boards. This research concluded that, *Effective leaders articulate strategic visions or goals so that others are*

willing to follow; and have the ability to build successful and enduring partnerships to reach strategic goals.

In addition, MPOs and transit agencies need strong technical capabilities to conduct successful regional transportation planning. Continued and expanded federal support is needed to further enhance technical capabilities. This includes more peer exchanges, better transfer of technical information, improved methodologies and planning practices, better definition of good planning practice; and more classes in special topic areas, including travel modeling, air quality and greenhouse gas modeling, sustainability planning, environmental resource protection, freight demand modeling, land use scenario planning and other areas.

EXAMPLES OF EFFECTIVE TRANSIT PLANNING

The transportation planning and development processes in the 75 largest metropolitan areas in the U.S. were reviewed and evaluated for transit planning effectiveness. Among those 75 regions, it is the opinion of the author that, based on the research conducted, four stand out. The Portland, Oregon, Sacramento, Salt Lake City and Albany metropolitan areas each demonstrate excellence in planning practices that can benefit other transit agencies and MPOs. Each of these regions demonstrated truly effective transit development planning over an extended period of time, has shown leadership in creating enduring partnerships, and has been in the forefront of good planning practice.

Characteristics of excellence in regional transit planning were also identified in other transit agencies and MPOs, including New York City, Dallas, San Diego, San Francisco, Washington, DC, Denver, Pittsburgh, St. Louis, Boston, and Tucson, among others.

Assessment of Effectiveness

The following factors were considered in assessing the effectiveness of regional transit development programs:

- Has a strategic long-range plan for transit in the region been developed and adopted, including a general framework for funding and implementation?
- Have closely related visions for regional land use, growth management, and economic development been part of the transportation planning process?
- Has the development of a strategic plan involved both the transit agency(s) and the MPO in a genuine planning partnership?
- Have elected leaders and staff from local governments been closely involved in the development of the strategic transit plan?
- Do the MPO, transit agency(s) and State DOT work effectively together on transportation plans and financing programs for highways and transit services, including consideration of multi-modal alternatives? Do they work together in

specific corridor planning and project implementation studies, such as MIS, alternatives analysis, or regional scenario planning studies?

- Have there been effective efforts to involve special interest groups, minority and under-represented communities, business interests and the general public in a dialogue about regional land use and transportation plans?
- Have innovative and relevant planning methodologies and planning practices been utilized by the partners in conducting the planning process?
- Have all of the above efforts resulted in approved funding and transit program implementation over an extended time period?

Common Characteristics of Effective Regions

There are significant differences among the four most effective regions in growth rate, economic strength, political outlook, governance and institutional structure. The path each followed in achieving effectiveness also differed. In some cases, initial leadership came from the transit agency; in others it came from the MPO; and in one particular instance, significant leadership came from a private group outside of either the MPO or the transit agency. However, in all cases, once leadership was exercised, effective partnerships were established involving transit agencies, MPOs and local governments.

Each of the four outstanding regions has the following characteristics in common:

- *Regional Vision.* Each region has (1) conducted land use, growth management, and economic development scenario planning that has involved local government and the public extensively in those planning efforts; (2) has developed transit and highway plans that respond to the preferred regional vision; and (3) successfully gained public understanding and support for that regional development vision. Development patterns and transit programs are linked.
- *Partnerships* with a high level of mutual trust. Each region has forged long-term partnerships involving MPOs, transit agencies, and the State DOT. They successfully address issues, resolve conflicts, and continue to work together. Partnerships may start with individuals, but extend to include executives, elected leaders, and staff over long terms.
- *Financing Transit Development.* Each region has successfully combined local and federal funds to develop the transit services contained in the regional vision, and has pursued that vision with step-by-step implementation of a long-term transit program.
- *Planning Practices and Methodologies.* Each region utilizes state-of-the-practice planning tools and transit development practices; including public participation; transportation modeling, and innovative methods of project financing and implementation. Each region considers important planning issues, including equity, sustainability, climate change, air quality, access to affordable housing,

transit-oriented development and transportation impacts on economic development. Each region has efforts underway to develop new planning practices and methodologies to address those issues.

OPPORTUNITIES FOR TRANSIT AGENCIES AND REGIONAL PLANNING AGENCIES TO IMPROVE THEIR EFFECTIVENESS IN REGIONAL TRANSIT PLANNING

This final section is divided into two parts that provide opportunities, first to transit agencies and then to regional planning agencies, to improve their effectiveness in regional transit planning.

Transit Agencies

1. Transit agencies should support and participate in efforts led by regional planning agencies to develop and implement a shared vision for regional growth and should encourage local governments to carry out that vision.

Regional land use plans, regional transportation plans, regional economic development plans and regional environmental protection plans are most useful and effective when they reflect a shared vision for a region. In some regions, land use scenario planning has helped local governments consider the implications of alternative growth patterns on municipal fiscal health, on economic development, on matching housing needs with demographic changes, on environmental impacts, water and energy use, and on infrastructure requirements for utilities and transportation. Scenario planning is most effective when (1) it is carried out with intensive public involvement, including local elected officials, business and special interest groups, as well as highway and transit agencies, and (2) it generates a shared regional vision, with enough specificity to guide the actions by all agencies. Current federal transportation planning regulations encourage a shared regional vision as the basis for transportation development plans.

2. Transit agencies should actively participate in all aspects of regional transportation decision-making, including both regional transportation and financial planning, and should include the public in the planning process.

The FTA Study, *Transit at the Table*, suggests that transit agencies participate in both regional transportation planning and in financial planning, as summarized below:

Regional Transportation Plan Development

- Transit agencies should participate in preparing the Long-Range Transportation Plan
- Transit agencies should be a strategic participant in all corridor studies
- Transit agencies should promote land use integration, including transit-oriented development plans

Financial Plan Development

- Transit agencies should help determine revenue forecasts
- Transit agencies should make the most of federal flexible funds
- Transit agencies should thoroughly explore other state and local revenue sources to expand available funding for transportation

Federal transportation planning regulations either recommend or strongly encourage transit participation in each of the above areas. The involvement of transit agencies requires both initiative and commitment to do so.

Public involvement in transportation planning is also required by federal regulations. Public outreach provides transit agencies opportunities to learn from and to help educate the public about transit needs and results in more meaningful transportation plans.

3. Transit agencies should provide leadership, develop partnerships, and commit necessary resources to successfully develop and implement transit plans.

Transit agencies should welcome and support leaders of other organizations and form partnerships with the regional agencies, State DOTs, local governments, special interest groups and the public. In some regions, there is also a great need for partnerships with other transit agencies. Importantly, transit agencies should invite MPOs to participate in transit planning, including long-range and short-range service planning, and the development of Transit Development Programs, corridor plans, alternatives analyses and draft EIS documents.

Developing partnerships best occurs when the transit agency general manager or executive director assumes that role, or assigns it to appropriate staff, with the full support of the policy board. The more effort committed to developing and maintaining partnerships, the more successful the outcomes are likely to be.

Trust among organizations is built through working relationships over an extended period of time involving elected officials, policy board members, and key agency staff. Hard work is done at the staff level; agreement on proposed courses of action is reached in interagency meetings at the executive level; and policy actions are endorsed by policy boards. These efforts require a substantial commitment of time and organizational resources. Often, formal, written agreements are needed to better define the aims of each party, build trust, and establish the mechanisms for ongoing communication.

Regional Planning Agencies/MPOs

1. MPOs and other regional planning agencies should work collaboratively with appropriate public and private entities to develop a shared regional vision and plans for the future.

Effective MPOs and other regional planning agencies successfully engage the public, elected officials, special interest groups, and appropriate organizations (including transit

agencies) in creating a shared regional vision, and then act to bring that vision to reality. Developing a shared vision requires addressing matters concerning environmental protection, growth management, economic development, and regional transportation needs. Scenario planning techniques are especially useful in soliciting input on these complex matters.

2. While recognizing the unique character of each region throughout the U.S., MPOs and regional planning agencies should address the following institutional and political concerns to ensure that their planning activities represent their constituency:

- Establish rational MPO boundaries, for example by including the entire regional MSA.
- Consider proportional representation through population-weighted votes.
- Provide more long-term continuity on MPO and regional planning agency policy boards by establishing longer and overlapping terms.
- Include traditionally under-represented population groups in transportation decision-making.
- Improve working relationships between MPOs and land use planning agencies.
- Include transit agency representation on MPO policy boards.

3. MPOs and regional planning agencies should support capacity building and state-of-the-art planning methods for their staff and board members.

MPOs and regional planning agencies can improve the quality of transportation planning through capacity building of their staff and board members. This may require investments to undertake the following types of efforts:

- *Conduct peer exchanges* on specific topics, providing opportunities for staff and, as appropriate, policy board members to meet for 1-2 day exchanges about planning practices, methodologies, and technical tools; etc.
- *Encourage information transfer in federal monographs* such as the recently issued FHWA guidance document, *Planning and Environment Linkages*.
- *Establish standards of good planning practice*, in particular in such areas as public participation and outreach methods; freight demand estimation; land use scenario planning; congestion management; air quality (and GHG) modeling; and others.
- *Conduct classes in technical topic areas*, including travel demand modeling, planning for regional scale environmental resource protection, outcome-based planning and performance accountability, sustainability planning, transit planning, and similar topics.

- *Train new MPO policy board members* as they are appointed, including introducing them to federal transportation planning regulations, describing appropriate roles of board members, and presenting the history and evolution of transportation policy in the region.