



The Metropolitan Planning Organization, Present and Future

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CONFERENCE PROCEEDINGS 39

The Metropolitan Planning Organization, Present and Future

Summary of a Conference

KATHERINE F. TURNBULL, Texas Transportation Institute
Rapporteur

August 27–29, 2006
Keck Center of the National Academies
Washington, D.C.

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This report has been reviewed by a group other than the authors according to the procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

The conference was sponsored by the Transportation Research Board, the Federal Highway Administration, and the Federal Transit Administration.

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Preface

In August 2006, approximately 125 people assembled in Washington, D.C., to participate in a conference, The Metropolitan Planning Organization, Present and Future. The conference brought together individuals involved in regional governance—from national, state, regional, and local agencies and from the public, private, and academic sectors.

The conference goals were to explore (a) the organizational structure of metropolitan planning organizations (MPOs), including their operating and personnel relationships with other governmental institutions; (b) the current state of the practice for regional decision making among MPOs of various sizes; (c) approaches to integrating a wide array of additional considerations into the MPO planning process, including freight, operations, safety, asset management, and environment; (d) approaches to institutionalizing an integrated approach to comprehensive planning, beyond developing transportation plans; and (e) development of relationships with local decision-making bodies within the MPO region that are responsible for carrying out the MPO-developed vision for the region. To plan the conference, the Transportation Research Board (TRB) assembled a committee appointed by the National Research Council to organize and develop the conference program. The planning committee was chaired by Peter Plumeau, Wilbur Smith Associates. This summary of the conference was prepared by Katherine Turnbull of the Texas Transportation Institute, who also supported the committee in developing the conference program and inviting selected speakers and participants.

The conference program was designed to maximize the exchange of information and perspectives among program participants. Two workshops—one on safety and

planning and the other on environmental issues—were held at the beginning of the conference. During the conference, topics were introduced and discussed in panel sessions and breakout sessions. A series of mini-peer exchanges was organized for topics suggested by the participants in a preconference survey. The mini-peer exchange topics were MPO networks, training and research, staffing, and economic development. The exchanges were informal discussions of topics critical to the participants. This conference summary report is based on the conference agenda and includes summaries of the presentations made in each conference session, as well as a summary of the participants' discussions in the final breakout sessions, focused on research and capacity building.

This report has been reviewed in draft form by individuals chosen for their diverse perspectives and technical expertise, in accordance with procedures approved by the National Research Council's Report Review Committee. The purposes of this independent review are to provide candid and critical comments that will assist the institution in making the published report as sound as possible and to ensure that the report meets institutional standards for objectivity, evidence, and responsiveness to the project charge. The review comments and draft manuscript remain confidential to protect the integrity of the deliberative process.

TRB thanks the following individuals for their review of this report: V. Thera Black, Thurston Regional Planning Council, Olympia, Washington; Lawrence D. Dahms, Berkeley, California; Elizabeth B. Rushley, Ohio Department of Transportation, Columbus; and George Scheuernstuhl, Denver Regional Council of Governments,

Colorado. Although the reviewers listed above provided many constructive comments and suggestions, they did not see the final draft of the report before its release. The review of this report was overseen by C. Michael Walton, Ernest H. Cockrell Centennial Chair in Engineering, University of Texas at Austin. Appointed by the National Research Council, he was responsible for making certain that an independent examination of this report was carried out in accordance with institutional procedures and that all review comments were carefully considered.

The committee thanks Katherine Turnbull for her work in preparing this conference summary report and extends special thanks to the Federal Highway Adminis-

tration and the Federal Transit Administration for providing funding support for the conference, along with the vision and encouragement that made the event the success that it was. Thanks are also extended to the following organizations for their assistance in planning, advertising, and staging the conference: TRB's Metropolitan Policy, Planning, and Processes Committee; the U.S. Department of Transportation; the Federal Highway Administration; the Federal Transit Administration; the Association of Metropolitan Planning Organizations; the National Association of Regional Councils; and the American Association of State Highway and Transportation Officials.

PLENARY SESSION OVERVIEWS

OPENING PLENARY SESSION

Metropolitan Planning Organizations Evolution, Federal Agency Perspectives, and Current State

Peter Plumeau, *Wilbur Smith Associates*
Kevin Heanue, *Transportation Consultant*
Brigid Hynes-Cherin, *Federal Transit Administration*
Cynthia J. Burbank, *Federal Highway Administration*
Jim McKenzie, *Metroplan*

WELCOME

Peter Plumeau

Good afternoon. It is a pleasure to welcome you to this conference on the future of the metropolitan planning organization (MPO). I am Peter Plumeau from Wilbur Smith Associates. I have the privilege of chairing the conference planning committee as well as the Transportation Research Board (TRB) Metropolitan Policy, Planning, and Processes Committee.

We have excellent participation by MPO representatives at this conference, as well as by personnel from federal, state, and local agencies involved in the metropolitan planning process. This participation highlights the interest from a broad cross section of our industry in the critical questions to be examined at this conference. Among the questions are whether the MPO we have known for at least 40 years is still appropriate or we need to reinvent MPOs, and how MPOs should be organized in the future. It is gratifying to know that we have a good balance of perspectives to power the important discussions we will have over the next two days.

MPOs are at a critical juncture in their evolution. As a former MPO staff member and someone who has worked with MPOs, states, and federal agencies on metropolitan planning, I think I can safely say that the search for solutions to metropolitan issues has never been more important or more complicated.

We all know that the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) raised the profile of MPOs some 15 years ago. ISTEA reshaped the roles and responsibilities of MPOs. Since that time, we have seen what I would call a “be careful what you wish for” effect. That is, subsequent federal laws and policies, along with various state and local initiatives, have tasked MPOs with many new challenges. Some of these challenges have been outside the traditional planning arena. Examples include management and operations, security, and financing and privatization. Other challenges have precipitated overlaps and even conflicts with other agencies and institutions within the metropolitan transportation sphere. Some MPOs have taken on these challenges and thrived, while others have frankly struggled to meet the most basic requirements.

We have also seen the number of MPOs grow to nearly 400 nationwide. With this growth, we see more and more coterminous MPOs as urban sprawl continues, particularly in the Southeast, the Northeast, the Midwest, and the far West. At the same time, most of the MPOs added in the past 15 years are in smaller urbanized areas. The same MPO planning requirements developed for use in our largest metropolitan areas may be considered burdensome and even of questionable value in these smaller areas. Also, we know that funding for MPOs has not grown—nor is it likely to grow—in proportion either to the number of MPOs or to the responsibilities they face.

We are rapidly approaching the next decennial census and, believe it or not, the next reauthorization cycle, during which I have no doubt these questions will receive a good deal of attention. The timing of this conference is strategic. We are at an opportune time to think carefully and broadly about the most effective way to organize and manage metropolitan planning and, more specifically, about whether and how MPOs as we know them fit into that framework.

And that is what this conference is all about: harnessing the brainpower and diverse perspectives in this room to start crafting the MPO of the future. So during our next two days together, I want to ask you to listen, think, discuss, and participate. Your active involvement is critical to the success of this conference and the themes and suggestions that will flow from it.

I express my thanks to the conference planning committee. These people, whose names are in your program, have spent many hours and days during the past year working tirelessly to make this conference a reality. In addition to TRB, I would also like to thank our sponsors from the U.S. Department of Transportation, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Association of Metropolitan Planning Organizations (AMPO), the National Association of Regional Councils (NARC), and the American Association of State Highway and Transportation Officials (AASHTO). We could not have made the conference happen without your support. Of course, TRB staff members Kim Fisher, Freda Morgan, and Brie Schwartz did their normal outstanding job organizing and managing the conference logistics.

You will have the opportunity to discuss aspects of MPOs in 2020 during the breakout sessions. The discussion will focus on the following key questions related to the future of MPOs: What will MPOs do in 2020? How will MPOs work in 2020? How will MPOs work within the regional setting in 2020? Where are MPOs now compared with the vision for 2020?

I am confident that the time and financial resources all these people and organizations have invested will yield a great payback. I look forward to an interesting and productive conference. Thank you.

THE EVOLUTION OF MPOs

Kevin Heanue

It is a pleasure to participate in this opening session of a very important conference. It may be appropriate to say that the conference, which focuses on the present and future of MPOs, really starts after my presentation. I have been asked to talk about legislation establishing the metropolitan transportation planning process and

to highlight policy benchmarks creating the MPOs of today.

It is an appropriate time for this conference. We are celebrating the 50th anniversary of the Interstate system. Congressionally mandated commissions examining transportation funding and the highway and transit programs are starting their work. With the focus on the Interstate system anniversary, the role of transportation planning, transit, and multimodal considerations has been somewhat overlooked. You can help provide some balance to the discussion.

I also realized that this year, in addition to being the 50th anniversary of the Interstate system, was the 50th anniversary of the start of my transportation career. I had a summer job with the Massachusetts Department of Public Works in 1956. I have worked in transportation throughout the Interstate period. A few years ago, I was giving a similar presentation and was introduced by Alan Pisarski. Alan noted that it was important to select someone to give the presentation who remembered the past but who was not so old that he had begun to forget. I hope I still qualify.

Knowledge of the past is important in understanding the present. When the federal highway program started in 1916, it focused on providing funding to the states for construction of roads. There were no planning or other related requirements at that time. An article in *Engineering News Record* in 1918 suggested that road projects were so scattered that there would never be a coordinated national system.

A system requirement was added by Congress in the first reauthorization bill. The 1921 act required that 7 percent of a state's system, rather than any road in a state, be eligible for federal assistance. The Hayden–Cartwright Act of 1936 made 1½ percent of the highway funds to each state available for planning and research. While states were not mandated to spend the funds on planning and research, they were eligible activities. As a result of that act, states initiated traffic counts and data collection programs that became the basis of transportation planning.

The start of the Interstate program in 1956 was not accompanied by any special planning requirements. A map of the proposed system was available to Congress and the states, but the specific routes in metropolitan areas had not been determined. While the Interstate system got off to a good start, problems emerged in some areas as specific alignments were examined.

In 1962, Congress established the metropolitan planning process. Every highway investment in urbanized areas had to be based on a comprehensive and cooperative transportation planning process. Transportation planning below the state level was not common at the time, so most areas were starting from scratch in meeting these new requirements. States and metropolitan areas

were given 3 years to complete initial transportation planning studies. In 1968, FHWA, in cooperation with the new Urban Mass Transportation Administration (UMTA), added a requirement for a continuing process.

A concern at the time was that federal funds were available only for Interstate construction. A state lost federal funding if a decision was made not to build all or a portion of an Interstate route. The 1973 act included the Interstate Substitution Program, which allowed states to withdraw a portion of an Interstate route and use the available funding for transit. The type of projects eligible for the Interstate Substitution Program was later expanded to include highway projects.

The 1973 act was critical for MPOs. The term “local elected officials” was used numerous times in the act. However, a definition of the term was not provided. Congressional staff were not able to provide insight into the definition of the term. After lengthy discussions within the U.S. Department of Transportation, the term MPO, which occurred once in the act, was used to define local elected officials. Every place in the act where the term local officials appeared was defined to mean MPO. This interpretation provided a solid base for MPOs and empowered them.

This interpretation upset a number of jurisdictions. Los Angeles County sought an injunction in U.S. District Court. The court ruled against the county. The county appealed the ruling to the U.S. Court of Appeals. The state of Virginia joined Los Angeles County as a friend of the court in the appeal. Los Angeles County claimed that the regulations relating to MPOs were an infringement of states’ rights and illegal on the basis of the 10th Amendment to the Constitution, which limits to states the right to establish substate governments.

The Court of Appeals ruled against Los Angeles County and upheld the MPO regulations. The ruling noted that the federal rules were flexible and that numerous types of substate bodies, including planning commissions, councils of governments (COGs), counties, and cities, were accepted as MPOs. This decision was important in upholding the authority of MPOs. I am not aware of any legal challenges to the establishment of MPOs after this ruling.

Two other important milestones occurred at this time. One was establishment of the certification process. Before this time, to spend planning funds, an MPO had to develop a work program, which required approval by state and federal agencies. The same requirements were in place for the Department of Housing and Urban Development (HUD) funding. In the late 1960s, the coordinated efforts of FHWA, UMTA, and HUD required MPOs to develop a joint work program. Certification changed this approach to allow MPOs to conduct planning activities according to the law, with the federal agencies certifying after the fact that an acceptable process

was followed. Certification streamlined the planning process for MPOs.

The other milestone was the designation of specific planning (PL) funding for MPOs. Before the establishment of PL funds, states allocated planning funds to MPOs at their discretion. There was no set-aside for MPOs. Frank Turner led the effort to change the law to allocate PL funding to MPOs. This change provided MPOs with financial independence from the states.

I will digress for a moment to cover the termination of the HUD 701 program, which had provided funding for land use and housing planning. Many people think that the 701 program was eliminated by the Reagan administration. However, facing a tight budget in the final year of his administration, President Carter did not include the 701 program in his proposed budget. Up to that point, FHWA, UMTA, and HUD had worked closely with MPOs. Most MPOs received about half of their funding from HUD for land use planning activities and the other half of their funding from FHWA and UMTA for roadway and transit planning. This approach worked successfully and provided flexibility. I think it unfortunate that the partnership, which included land use planning, was lost.

HUD was also strong on institutional issues. HUD funded planning efforts in central cities, counties, and COGs. HUD initiated requirements related to minority participation on policy boards. Federal direction relating to policy boards changed numerous times during this period. The geographical areas for different federal programs also varied.

A basic flaw in the federal process is that outside of highways and transit, there is no link between planning and project funding. Highway and transit programs are the only federal assistance programs under which planning is funded first, and funding for capital projects must follow the results of the federally sponsored plans, but locally controlled planning process. This is an important element to watch in the reauthorization process.

From 1973 to the passage of ISTEA in 1991, there were five changes in the presidency and four changes in the party in the White House. Federal transportation policies also changed with the different administrations. The focus of the highway program was to complete the Interstate system on the basis of formula apportionment. Other than the demonstration projects, project decisions were made at the state, MPO, and local levels. On the other hand, transit funding decisions relating to New Starts projects and other programs were made at the federal level. Given the differences between the highway and the transit programs, it was difficult to address them both in a single set of planning regulations.

The 1982 act included an increase of 5 cents in the federal gasoline tax, with 1 cent dedicated to transit. This change brought the transit and highway programs

closer together since both were funded out of the same source. The roles and responsibilities of MPOs were addressed and strengthened in every reauthorization from 1973 through ISTEA.

ISTEA significantly broadened flexible funding between highway and transit projects. Many leaders in Congress focused on highway demonstration projects, leaving an overall leadership vacuum. Senator Moynihan stepped in and provided substantive leadership in the development of the major provisions of ISTEA.

While MPOs were clearly the winners in ISTEA, I believe the act's influence on MPOs is overrated compared with that of the 1973 act. ISTEA included the enhancement programs, the Congestion Mitigation and Air Quality Improvement Program, and the Scenic Byways and Recreation Trails Programs. These programs were pluses in programmatic terms and brought new groups into the transportation planning process. Many people and groups who laud ISTEA ignore the National Highway System (NHS), which was part of the act. The reauthorization was to develop a post-Interstate surface transportation program. The Surface Transportation Policy Project (STPP) did not support the NHS elements. STPP advocated splitting off the urban highway and transit funds directly to MPOs, bypassing states. This issue held up the act for a number of months, before Congress decided to stay with the traditional federal-state relationship.

The NHS was the vehicle for making the highway program relevant in the post-Interstate era. The NHS is basically a system of eligible facilities, encompassing far fewer miles than the old Primary System. The jury is still out on the NHS. ISTEA also included the five management systems, which were well intentioned but were just too much process and not enough value. All five management systems were subsequently made optional.

The Transportation Equity Act for the 21st Century (TEA-21) maintained the basic elements of ISTEA and focused on funding the highway and transit programs, as well as the increasing number of earmarked or demonstration projects inserted by Congress. I remember hearing an interview with a congressman on National Public Radio who kept referring to "his" highway projects. The 1916 legislation established the federal-state partnership. As part of that partnership, Congress established the policy direction, which states would carry out. It was never envisioned that Congress would select the projects.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) maintains the basic approach and the programs contained in TEA-21. It also includes numerous earmarked projects. The responsibilities of MPOs and the metropolitan transportation planning process remain strong components.

In closing, transportation planning is not an issue. It is a well-established and accepted part of the metropolitan highway and transit project development process. You are doing an excellent job. I look forward to a productive conference. Keep up the good work.

FEDERAL TRANSIT ADMINISTRATION PERSPECTIVE ON MPO REQUIREMENTS

Brigid Hynes-Cherin

It is a pleasure to participate in this conference. The discussions over the next two days should be very productive. I would like to suggest a few questions for consideration during your discussion.

Let me start with a few comments on SAFETEA-LU, which continues the tradition of extending the reach of the metropolitan planning process and the MPO sphere of influence. It also expands the topics for MPOs to address. These topics include new partners in consultation, more robust public partnering, taking an early look at environmental issues during system planning, and coordinating with land use planning.

The major question I would ask you to consider is, How well equipped are MPOs to take on the additional responsibilities, while maintaining current responsibilities? A recent review of the certification of MPOs that are classified as transportation management areas (TMAs) indicates that there is a continuing pattern of corrective actions relating to some of the fundamental elements of ISTEA and TEA-21, including fiscal planning and public involvement. Improvement is needed in these areas, even though the requirements have been in place since 1991. In addition, improvements are needed in the travel demand models in use at many MPOs. Thus, a related question for you to consider is, If MPOs are not meeting current requirements, how can MPOs be expected to take on additional responsibilities?

FTA recently completed a series of workshops cosponsored by STPP to acquaint local municipal officials with the transportation investment decision-making process. The preliminary results from these workshops indicate that there is a growing misunderstanding among local officials about the transportation planning and project selection process and their role in the process. How can MPOs take on additional responsibilities and excel, if their policy boards do not have a clear understanding of the planning process on such critical elements as finance and the environment? We need to better educate policy makers on key elements of the planning and investment decision-making process.

Perhaps the real question we should focus on is, With all these additional expectations, are we setting MPOs

up to fail? I would respond emphatically no; MPOs are not being set up to fail. FHWA and FTA, through the transportation capacity-building program, have a number of tools that can ensure that MPOs meet expectations. These tools include program guidance, targeted technical assistance to individual MPOs, and case studies of effective planning processes. The peer-to-peer exchange is another component of the capacity-building program. A peer-to-peer exchange allows an MPO to draw on the expertise of representatives from other MPOs throughout the country. On-site discussions focus on issues and concerns of the host MPO. I encourage you to use this program, since it provides an excellent method to learn from your peers.

The proposed rulemaking based on SAFETEA-LU is in the final review stage within the department. I will highlight the coordinated public transit human services transportation plan. This plan is not required in the planning section of SAFETEA-LU. Instead, the plan is under the FTA section. The transportation plans should be consistent with the coordinated plan. It is up to local officials to determine the best approach to coordination, including the appropriate agency to develop the plan. Nothing in the law requires the MPO to be the lead agency. The coordinated plan focuses on the operations and service area. As a neutral party, MPOs in many areas may be the logical agency to develop the plans.

Another topic for you to consider relates to methods to bring diverse groups into the MPO planning process in a nonthreatening and positive way. One approach is to build on existing partnerships with different stakeholder groups, including STPP, the American Public Transportation Association, NARC, and AASHTO. These groups represent agencies and individuals who are actively involved in the metropolitan transportation planning process in most areas. Expanding these relationships and expanding efforts with other groups can further strengthen the planning process.

A final issue, which was highlighted in a recent study, is that funding from the federal government represents a diminishing percentage of the total funding allocated to transportation projects and programs. The study examined transportation funding in the 19 largest metropolitan areas in the country. The average share of federal funding was 28 percent. The federal planning, environmental, and other requirements apply to a project as long as any federal funding is involved. Some areas are funding projects totally out of nonfederal sources to avoid the federal requirements. If this trend continues, the planning process may need to be reexamined. A final question related to this situation is how MPOs can remain viable in light of limited federal funding.

These are just a few questions for consideration during your discussions over the next two days. I appreciate

the opportunity to participate in this conference and look forward to hearing your thoughts and ideas on these topics and other issues. Thank you.

FEDERAL HIGHWAY ADMINISTRATION PERSPECTIVE ON MPO REQUIREMENTS

Cynthia J. Burbank

It is a pleasure to participate in this important conference. Brigid and I often speak together at conferences. Although we represent two different agencies within the U.S. Department of Transportation, we present the same consistent message related to the metropolitan transportation planning process and MPOs.

Brigid's comments focused on near-term challenges. My comments address longer-term challenges, including the next reauthorization of the federal surface transportation act. Some groups have raised questions about whether the same requirements should be applied to all MPOs or whether different requirements based on the size of a metropolitan area, the complexity of issues in an area, or other defining characteristics should be used. Another issue that may be considered in the next reauthorization concerns multiple MPOs in a single metropolitan area. Currently, some metropolitan areas have multiple MPOs, including a few that have three MPOs in one urban area. It continues to be obvious that we need to do a better job of integrating land use and transportation planning. Imposing a federal directive related to coordinating land use and transportation is probably not the best approach, since regulating land use is a local responsibility.

FHWA and FTA want to continue to work with you to make MPOs stronger, both in technical and in political capabilities. MPOs can play a key role in building regional consensus with regard to transportation and land use projects and programs. MPOs are in an excellent position to work with policy makers, the public, and other agencies. Many MPOs are using scenario planning to help engage other agencies, elected officials, the business community, and the public in discussions on future development and transportation alternatives. These efforts focus on examining future growth scenarios, land use and development patterns, environmental stewardship, economic growth, transportation infrastructure, and transportation service.

How these topics are being addressed by MPOs and other transportation stakeholders will be part of the discussions concerning the next reauthorization. The changes in transportation funding and financing that are occurring in metropolitan areas throughout the country will also be part of the reauthorization discus-

sion. We are seeing more interest in and more use of public–private partnerships, toll facilities, and congestion pricing. Examining how these emerging financing techniques are being considered in the metropolitan planning process is important, as is assessing the role MPOs play in this process. It is also important to examine how MPOs relate to the new transportation financing entities that are being created at the state and local levels.

I think one of the most important roles MPOs can play is regional consensus building. Public information and education, outreach to key stakeholder groups, and connecting with policy makers are all part of the consensus-building process. Listening to the needs of different groups, providing a forum for the discussion of diverse viewpoints, and facilitating the development of consensus approaches to transportation projects and programs are all part of this important process.

There is also a need to examine the larger picture of how metropolitan areas fit into the changing global economy and global trade. The transportation system in metropolitan areas, including highways, ports, railroads, airports, public transit, and other facilities and services, will play a key role in ensuring the global competitiveness of the United States. Distribution patterns are changing with the emergence of China and India as significant players in the global economy. These changes will have an impact on the transportation system in this country and our economy, especially in metropolitan areas. I encourage MPOs to include tasks in your unified planning work programs to examine the potential impacts of changes in world trade patterns on the transportation system in your area. Engaging elected officials and the public in this discussion is important.

One impact of the changes in global trade patterns appears to be a growing interest in planning at a larger megaregional level. It is appropriate to consider whether and how to support megaregional transportation planning and development in the next transportation legislation. One approach to consider would be basing some federal planning programs and funding on larger economic regions or corridors. The role of MPOs in addressing transportation needs in these larger geographical areas should be considered.

These are just a few topics to stimulate your thinking and your discussions over the next two days. In closing, let me suggest that you follow the advice of probably the greatest hockey player of all time, Wayne Gretzky. When Gretzky was asked how he scored so many goals, he said, “I skate to where the puck will be—not where it is now.” Let me suggest that as MPO representatives you skate to where the puck will be by facilitating discussion of future needs and building consensus on viable and sustainable transportation and land use alternatives.

THE STATE OF THE MPO

Jim McKenzie

It is a pleasure to have the opportunity to participate in this session and this conference. My charge is to talk about the state of the MPO, so my comments focus primarily on MPOs since the passage of ISTEA in 1991.

I was at an American Planning Association conference in 1992 where Senator Patrick Moynihan spoke. He made the following statement in his comments related to MPOs and the metropolitan transportation planning process: “I have given you a chance with ISTEA. It is up to you to do something with it. If you fail, you will lose it.” I think ISTEA galvanized numerous MPOs to act in new ways and to take on new roles.

In responding to how MPOs have addressed Senator Moynihan’s challenge, I would offer the following poem:

Some MPOs have big staffs, some MPOs have one.
This TMA has suballocated funds, but the little MPO
has none.
That MPO has a good state DOT. This MPO does
not.
All MPOs say “Give us more money, and we’ll get
the job done right.”

In short, some MPOs have succeeded fabulously, completely fulfilling Senator Moynihan’s expectations. Examples of successful MPOs include large, midsize, and small MPOs. Some of the most successful MPOs are in states where the department of transportation is not all that cooperative. At the same time, some MPOs have been less successful. Leadership does make a difference. Studies have suggested that keys to successful MPOs include entrepreneurial leadership and support from the state. Some MPOs may never succeed as envisioned.

I think it is helpful to consider the present and the future of MPOs by examining three time periods—the Interstate era, the “TEA” era, and the Metro era. The Interstate era focused on building a linked highway system across the country as part of a federal program. That era began in 1956 and continues to this day, although I think it will end by 2009. I suggest that the Interstate era is the old paradigm.

The TEA era began with the passage of ISTEA in 1991 and continues today. The TEA era focuses on linking modes and on collaborative decision making and partnerships. While this era was initially thought of as a new paradigm, I suggest that it is actually a bridge between the Interstate era and the Metro era.

I think that the Metro era is the new paradigm. In this era, we will focus on metropolitan solutions. Most actions during this era will occur at the state and local

levels, not at the federal level. I think that this era has already begun in some areas.

It is appropriate to ask a few basic questions 15 years after ISTEA. First, do the TMA/non-TMA categories work? Second, is 50,000 too small an area for an MPO? Third, should MPOs in major metropolitan areas have authority and funding allocations similar to those of state departments of transportation?

In response to the first question, I think that the TMA/non-TMA categories do not work. For major metropolitan areas, there is a significant mismatch between their size and complexity and the authority, funding, and regulatory oversight needed by MPOs to solve metropolitan congestion problems. Small TMAs, like the Little Rock, Arkansas, area I represent, are held to the same TMA standards as large metropolitan areas, but the resources needed to meet these standards are not provided. Non-TMAs are in a difficult position because they do not receive suballocated funding. Local officials and state departments of transportation often do not take the planning process seriously without suballocated funding.

If two MPO classifications are not enough, how many should there be? Should the classifications be based just on population or should additional factors related to the complexity of issues in an area be added? Such factors might include air quality nonattainment designations; multistate MPOs; and major facilities such as ports, intermodal yards, and airports.

Is the 50,000 population requirement too small to be an entry-level MPO? What levels of funding and authority are appropriate for each classification? Here is one example of two metropolitan areas I am familiar with: Little Rock, Arkansas, and Dallas–Fort Worth, Texas. The population of the Little Rock metropolitan area is 637,000, while Dallas–Fort Worth has a population of 5.7 million. The Dallas–Fort Worth region is the fifth-largest metropolitan area in the country, while the Little Rock area is the 79th largest. Little Rock is the largest city in Arkansas. The Dallas–Fort Worth area is twice as large as Arkansas. The Little Rock MPO has 10 staff members. The Dallas–Fort Worth MPO has 95 staff members. Little Rock is an air quality attainment area, while Dallas–Fort Worth is a nonattainment area. Both MPOs are TMAs. As TMAs, the two MPOs have the same authority under federal law and the same relative funding formulas to solve widely divergent problems. This situation does not seem to be logical.

It reminds me of one of my favorite quotes from Winnie the Pooh. “That doesn’t make much sense,” said Tigger. “I know,” said Pooh humbly. “It did when it started out; it’s just that something happened to it on the way.”

The top 12 metropolitan areas—which include New York City, Los Angeles, Chicago, Philadelphia, Dallas–Fort Worth, Miami, Houston, Washington, D.C., Atlanta, Detroit, Boston, and San Francisco—are larger

in population than the 25 smallest states in the nation. Should these dozen metropolitan areas have the same funding, authority, and federal oversight as state departments of transportation? Their transportation issues are just as complex as those of the 25 smallest states, if not more so, and they are arguably in a better position to solve these issues.

The population of the largest 40 metropolitan areas is greater than the population of the smallest 10 states. The population of at least 95 metropolitan areas is larger than Wyoming, which has a population of approximately 507,000. One could ask why large metropolitan areas are not empowered with the same responsibility and funding as state departments of transportation. Where should the lines be drawn for increased funding and responsibility at the metropolitan level?

The 12 metropolitan areas noted previously contribute fully one-third of the entire country’s gross domestic product, some \$3.87 trillion. If these metropolitan areas were a single country, only the economies of the United States and Japan would be larger. I suggest that it is in the best interest of this country to give these areas the authority and the funding to solve critical mobility and congestion issues.

At a different level, we can compare two non-TMAs in Arkansas—Pine Bluff and Northwest Arkansas. Pine Bluff has a population of approximately 58,584, and Northwest Arkansas has a population of some 172,585. Pine Bluff has a stable or declining population. Northwest Arkansas, home of Wal-Mart, Tyson’s Foods, and J.B. Hunt Transport, is growing dynamically. The area probably passed the 200,000 population level in the early 2000s. The Pine Bluff MPO has one part-time staff member, while the Northwest Arkansas MPO has seven full-time staff. Pine Bluff’s long-range plan has not changed significantly over the years, while that of Northwest Arkansas changes frequently to address the rapid growth occurring in the area. The regions are substantially different and have substantially different problems. They currently have the same legal capacity to deal with these problems, however.

There are currently 384 MPOs in the country. A total of 174 of these MPOs are classified as TMAs, while 200 are non-TMAs. A total of 43 new MPOs were established after the 2000 census. It is anticipated that another 50 MPOs may be created on the basis of the 2010 census. Arkansas, which has eight MPOs, has three times more MPOs per capita than Texas, which has 25 MPOs.

Much of the debate on funding transportation is grounded in the Interstate era paradigm. To set the stage for discussing fundamental change, let me refer you to the recent *TR News* (May–June 2006, No. 244) issue celebrating the 50th anniversary of the Interstate system. The article by Jonathan Gifford, “The Exceptional Interstate Highway System: Will a Compelling New Vision

Emerge?” (pp. 10–15) presents a compelling new vision. The following is from the article:

The Interstate as an Exception

Many have come to view the dominant federal role in the Interstate system as normal, because it was the norm for the past half century. Yet compared with its role in other major systems in the nation’s history, the federal role in the Interstate system is exceptional.

The Interstate is exceptional in another way. The program commanded widespread support from Congress and the states for almost four decades. . . . During that time, the Interstate program was subject to almost no earmarking of projects. No other federal capital program survived as long without becoming the target of legislative earmarking.

Eroding Consensus

This exceptional period, however, appears to be drawing to a close. The recent reauthorization bill, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, contained more than 6,000 earmarked projects. Congress is no longer deferring to the judgment and guidance of the engineers and experts who designed and built the Interstate system. The exceptional consensus vision that brought the Interstate into being is eroding, and this erosion places the transportation system at risk. . . .

No vision as compelling as that of the Interstate has yet emerged. Achieving the Interstate-like consensus . . . may not be possible. . . . In this extraordinary time, it is imperative to explore new systems, new institutional and financial arrangements, new roles, and new responsibilities.

Is the Interstate paradigm over? To answer this question, one can look at the hallmarks of the era. Is there a clear vision and consensus on the federal role in transportation? I suggest that there is neither a clear vision nor a consensus on the federal role. Is there a dedicated revenue source adequate to fund the task? Again, I think the answer to this question is no. The Highway Trust Fund is on the verge of bankruptcy.

Is the system professionally defined and managed? With 6,000 earmarked projects in SAFETEA-LU, one might suggest that the process is becoming less professionally defined and managed. Many of the earmarks provide only initial funding for projects, so additional funding will be needed to complete most projects.

Is the system user-fee based? As Brigid noted, federal funds make up a diminishing share of project costs. The system has never been user-fee based at the local level. At the state level, user fees are increasingly being diverted to other uses.

Is the top-down federal command and control role still in place? I suggest that this role is not in place. I think we will continue to see a breakdown in the characteristics that made the Interstate program unique.

Although legislative devolution has been discussed in the past, it does not take formal action for de facto devolution to occur. If earmarks continue to increase, the core programs have de facto devolved to the states.

If there continues to be a political failure of will to fund the core programs sufficiently to address metropolitan congestion, de facto devolution to local governments and metropolitan areas has occurred. In those cases, the action moves from the federal arena to the states and, in some areas, to metropolitan regions.

Metropolitan solutions may take different forms. One solution is true constitutional regional government. The only example of this approach in the United States is Metro in Portland, Oregon. The Oregon constitution was amended to give the three-county region equal legal status with cities and counties in the state.

There are other examples of regional governance structures focused on transportation. Different names are used for these organizations in different parts of the country. Regional transportation authorities, metropolitan transportation authorities, or regional mobility authorities all represent examples of this approach. Examples include TransNet in San Diego, the Regional Transportation Commission (RTC) in Southern Nevada in the Las Vegas area, and TransLink in Vancouver, British Columbia.

California’s metropolitan transportation authorities are county based. The authorities are funded by up to a 1-cent sales tax based on approval of the voters in the county. The Transnet program in San Diego County operated by the San Diego Association of Governments provides one example of this approach. The ½-cent sales tax was first passed in 1988. The sales tax revenues have funded a \$3.3 billion, 20-year program. The funds are allocated one-third for regional freeways, one-third for transit, and one-third for local governments. Voters in the area recently approved a \$14 billion, 40-year program.

The RTC of Southern Nevada encompasses the Las Vegas metropolitan area. The RTC is the MPO for the area. It operates the transit service in the area and the coordinated freeway and arterial traffic signal system. The commission is funded through a local option gasoline tax, a local option sales tax, and an aviation fuel tax.

Using the broad powers available to Canadian provincial governments, British Columbia created TransLink in 1999. TransLink has jurisdiction over transit; ferry operations; and 12,000 miles of regional, urban, and suburban roads. TransLink is responsible for planning, funding, constructing, and operating a

regional transportation system. TransLink has broad-based taxing authority to fund programs and services.

In closing, as planners we are used to dealing with linear projections and linear change. Nonlinear change does occur, however. Nonlinear change is often considered a threat by the established order and is difficult for institutions and societies to deal with successfully. A few examples of trends that may lead to nonlinear change include 9/11 and the global war on terrorism, the global economy and the emergence of China and India as first-world industrial countries, the U.S. and global oil production peaks, the U.S. oil imports dominated by unfriendly countries, and the inconvenient truth of global warming.

Will Rogers noted, “Even if you are on the right track, you will get run over if you are standing still.” Even if

MPOs have been doing the right things, we cannot afford to stand still. MPOs must progress and grow if our metropolitan economies are to remain competitive in the global economy.

Let me end with a quotation from Ted Mondale, who served as the Minnesota Attorney General and as the Chair of the Twin Cities Metropolitan Council in Minneapolis–St. Paul. He said once, “The future ain’t what it used to be.” Our challenge over the next few days is to help define a new future for MPOs and to discuss ways to make this vision a reality. Thank you.

Peter Plumeau moderated this session.

PLENARY SESSION

Colloquy on the Coming Transformation of Travel

John Poorman, *Capital District Transportation Committee*

It is a pleasure to participate in this conference and to describe a recent project undertaken by MPOs in New York State, including the Capital District Transportation Committee (CDTC) in Albany. The project, called a colloquy, brought together an expert panel to examine current trends and future directions that will affect transportation and the MPO planning process.

I would like to share with you the purpose for conducting the colloquy, some of the comments from the expert panel related to future changes, and possible implications of these changes for MPOs and the metropolitan transportation planning process. The phrase we used to explain the colloquy was “describing the inevitable, identifying the avoidable, and putting perspective on the unknowable.”

The purpose of the colloquy was to examine factors influencing shifts in travel over the next 30 to 50 years. These factors, which will influence the planning process, include communication technologies, the nature of work, economic conditions and demographic changes, and types of vehicles and fuels. The implications of these factors were also explored. The focus of the colloquy was on national and global trends, not just New York State.

There is an active statewide MPO association in New York: the New York State MPO (NYSMPO). Representatives from MPOs throughout the state meet on a regular basis. We also pool funds to provide staffing for the association, to conduct projects of statewide significance, and to provide training for MPO staff. Examples of recent projects include a statewide attitudinal study, an examination of long-range funding needs for the state, a

study on innovative approaches to congestion management systems, and a project to develop approaches for integrating transportation and community design. The colloquy was funded with pooled NYSMPO resources, with additional funding from FHWA and the New York State Department of Transportation.

In considering possible approaches, it was believed that a typical research effort would be too limited. We wanted to access a range of expertise and foster interaction among participants. We also wanted to obtain recommendations from the experts. We decided that the colloquy concept would work best. “Colloquy” is defined as a structured high-level dialogue leading toward consensus.

There are a number of reasons why an understanding of the future is important. They include designing transportation facilities to meet anticipated demands; the treatment of anticipated land use in MPO plans; and flexibility and risk associated with highway design, rail transit investments, and freight rail considerations. For example, in New York State the design hour forecasts are based on the estimated time of construction plus 30 years.

The track record of predicting the future has not been all that good. Historically, we have often planned as if we knew the future. We assumed the future would be similar to the present, only more so.

The four-step transportation planning process of the 1960s had a number of limitations. Land use was considered to be external, and systems were typically designed to meet trends. Multiple system plans were tested against a single set of future assumptions. The

value of the planning process was diminished with errors in these assumptions.

The recent track record on future assumptions has resulted in reasonably correct forecasts. These assumptions include continued population growth; the suburban orientation of most new development; and the stability of personal mode choice based on travel time, out-of-pocket cost, and convenience. Other assumptions focus on the stability in the average trip length of personal trips and household income growth leading to greater vehicle ownership and trip making. Although we have seen recent increases in the price of gasoline, most of us would probably agree that we still have relatively low fuel prices.

We have missed some phenomena with these assumptions, however. The missed assumptions include high levels of immigration and the increased incidence of one- and two-person households and single-parent households. Other missed changes include the increased participation of teenagers and adult women in the labor force and the effect of two-worker households on travel. The two severe shocks to the gasoline supply in 1973–1974 and 1979–1980 caught the country by surprise. The dynamics of time-shifting and other mechanisms have also been somewhat unanticipated.

An example of a trend that was not fully anticipated is the effects of vehicle technology on travel dynamics with higher travel speeds at higher vehicle densities. Other unexpected trends include the curtailment of the traditional manufacturing base in many parts of the country, the shift in population to the southern and western sections of the country from the northern and northeastern sections, the globalization of the economy, the collapse of communism in eastern Europe, and the growth of the computer industry and its effects on the economy and national settlement patterns.

Other changes that may not have been fully anticipated include the collapse of many downtown business districts as regional retail centers, the negative reaction to the urban renewal and urban highway construction of the 1950s and 1960s and efforts to undo their effects, and the lack of public support for completion of the next generation of freeways after the Interstate system. Still other missed trends include the dominance of suburb-to-suburb commuting on metropolitan travel patterns and the emergence of e-commerce, cellular phones, telecommuting, and other technological advances. The ability to charge developers for traffic impacts under certain circumstances was also probably not envisioned.

The emergence of road rage, aggressive driving, and other reactions to congestion and time constraints represents another missed phenomenon. The noticeable public support in many metropolitan areas for high-cost rail transit systems, the lack of support for significant increases in highway funding even during periods of

economic expansion, the environmental movement, the extent of environmental regulations, and the not-in-my-backyard attitudes were also not necessarily anticipated.

The NYSMPO Association was the lead for the colloquy, with CDTC acting as the project administrator. Funding support for assistance from the U.S. Department of Transportation Volpe National Transportation Systems Center was provided by FHWA. The project team included NYSMPO, FHWA, and Volpe. The expert panel included individuals with a wide range of backgrounds and expertise from universities, consulting firms, governmental agencies, and other groups.

The schedule for planning and conducting the colloquy was compressed. The expert panel was invited in February 2005. The preparation of white papers and the design and testing of the colloquy exercises occurred over a 3-month period from March to May. The colloquy was conducted in June. The draft results were completed and posted in August. The draft report was circulated and finalized by February 2006.

TRB's *Critical Issues in Transportation* helped set the context for the discussion at the colloquy. The critical issues include congestion—increasing across all modes; emergencies—vulnerability; energy and environment; equity—burdens on the disadvantaged; finance—inadequate revenues; human and intellectual capital—inadequate innovation; infrastructure—enormous aging stock; institutions—20th century for 21st century needs; and safety—lost leadership.

The colloquy took place over a 48-hour period. It started with dinner on Wednesday evening, which allowed for informal interaction among participants. Thursday morning started with a breakout group in which participants were charged with developing statements of generally held expectations related to technology, public policy, economics, demographics, and urban growth.

The statements in the five areas were presented and discussed by the full group in a plenary session. Participants were assigned to different groups during the second breakout session and charged with reacting to the statements. The final plenary session on Thursday was used to review the revised expectations and refine the language. A list of elements that could undermine these expectations was also developed.

Friday morning started with a panel discussion on MPOs, followed by a breakout session to develop findings and recommendations. The colloquy concluded with a plenary session presenting the breakout group reports on the recommendations.

Consensus statements and qualifications were developed for demographics, economics, public policy, urban growth, and technology. Circumstances that would undermine the consensus statements were outlined. Core planning findings and recommendations were developed.

The findings and recommendations are relevant to the discussion at this conference.

Twenty-three statements on generally held expectations were developed. These concise statements reflect no major surprises. The 23 statements on generally held expectations as outlined in the final colloquy document are as follows:

- While the amount of further increases in per capita personal travel may be debatable, the expectation of increased aggregate travel demand is not.
- In rapidly growing areas with development constraints, urban expansion will likely result in higher overall densities.
- Diversity will emphasize the need for a more flexible transportation system than that designed for traditional 8:00 a.m. to 5:00 p.m. work travel.
- Immigration is expected to remain substantial because of the aging of the population and the needs of the economy.
- Decentralization of settlement patterns and jobs will contribute to spatial mismatch and inequities in many urban areas.
- An increasing proportion of the population will be old or very old and also active, which will result in both more older drivers and a growing need for flexibility.
- Use of pricing strategies will increase, with acceptance varying with the type of strategy. Public support is uncertain.
- There will be an increased role of the private sector in terms of delivery of transportation services and supply.
- Economic growth, globalization, and shifts of manufacturing to lower-wage nations will affect freight transportation. Truck traffic will increasingly compete with automobile travel for scarce highway capacity.
- Emerging economies and new world powers will have an increasing influence on the U.S. economic position.
- Treatment of global climate change issues may emerge as a significant factor.
- National transport policy at a scale equivalent to implementation of the Interstate system is unlikely.
- The real price of fuel, as well as the volatility of supply, is likely to increase.
- Environmental concerns will continue with undiminished significance, and the range of environmental considerations affecting transportation decisions may increase.
- Interest in smart growth or sustainable development will grow. The form and degree of influence of these policies will vary widely.
- There will be a diversity of both user-based and non-user-based funding strategies. The magnitude of funding availability relative to “need” is uncertain.

- Market forces will continue to drive urban form more than public policy.
- The central business district of the central city will continue to be important, but most regions will become increasingly polycentric in form.
- Advances in information technology will influence the nature of travel, providing countervailing influences on urban form.
- The continued shift away from a manufacturing base leads to both agglomeration and dispersal. The interaction between urban form and transportation will vary with geographic scale.
- Energy supply and climate change issues will stimulate the development of propulsion systems, vehicle design, and fuel types, mitigating mobility impacts to some degree. Equity issues may arise.
- There will be an increased management emphasis on improving the efficiency of use of the total system capacity over a 24-hour period with the aid of information communications technology.
- Vehicle-based driver support systems will result in fewer crashes and extend the mobility of older drivers.

During the discussion of these generally held expectations, a spontaneous discussion of possible events and circumstances that would undermine the assumptions behind the expectations occurred. The undermining events and circumstances identified included climate change, technological breakthroughs, fuel supplies, economic conditions, and policy initiatives. I will summarize these undermining events by using the text included in the final colloquy report.

The two undermining circumstances related to climate change identified by the expert panel were that substantial public and political sentiment could produce incentives and disincentives and that global climate change itself could increase infrastructure damage from exaggerated weather events.

Two possible undermining events related to technology breakthroughs were identified. First, it was noted that technology provides surprises, windfalls, and unintended negative consequences. Second, a new communication or transportation technology can be expected to emerge in the next 30 years that will change the dynamics in the generally held expectations.

Two possible undermining events related to fuel supply and cost were identified by the expert panel. An interruption in or a permanent reduction in the fuel supply is not implausible, and if supply or cost is permanently altered, substantial shifts in public policy and market responses could lead to a change in fleet mix, development patterns, and U.S. economic conditions.

The expert panel identified two undermining events related to economic decline. First, interdependence of the

world's economies has led to unprecedented vulnerability of economic health. Second, it is not implausible for the U.S. economic position to diminish, which would affect many of the generally held expectations.

The expert panel discussed possible public policy undermining events. It was noted that major public initiatives have preceded nearly all of the significant transportation developments in the United States. A public initiative—beyond those listed in the generally held expectations—may reasonably be anticipated to emerge at the federal or state level.

The second morning began with a discussion of MPOs and the metropolitan planning process. Many members of the expert panel were knowledgeable about the process, while others were not. The final breakout sessions focused on how these issues are being addressed by MPOs and the metropolitan transportation planning process and how they could be addressed.

The findings addressing the planning process focused on seven general areas including both internal and external factors. The seven general topic areas were risks, federal requirements, funding scale, successes at all sizes of regions, working relationships, turnover, and the MPO role in short-term shocks.

I want to highlight a few of the findings and recommendations with language from the final report. Among the findings were the following:

- Failure to engage in meaningful, informed decision making on issues ranging from urban form to the availability of modal alternatives exposes a metropolitan area to risks of significant inefficiencies and inequities that may be compounded by future events, both foreseen and unforeseen.
- Only when the partners share ownership of the MPO process and seek value added through the process can the MPO expect to be seen as a vital decision-making forum distinct from the individual member agencies and able to go beyond the institutional constraints of those agencies. MPO staff are in an excellent position to cultivate relationships among the various agencies.
- MPOs cannot be easily designed to respond to possible short-term system shocks, such as weather events, bridge failure, and energy supply interruptions. MPOs can work to build a multilayered transportation system that can adapt to short-term shocks and long-term trends, however.
- Only MPOs that are able to instill a constructive institutional culture that retains experienced staff and persists through the changing of the political guard can maintain policy continuity and build credibility over time.

The expert panel developed recommendations in three categories: entrepreneurial leadership, expanded

knowledge base, and revised planning process. These recommendations provide a road map for the MPOs of the future.

- The panel emphasized the importance of nurturing entrepreneurial leadership. Nurturing requires new and sophisticated approaches that communicate more in terms of institutional culture than institutional structure and more in terms of entrepreneurial risk taking than in terms of staff administration. The panel identified visionary leadership as one of the greatest contributions the MPO institution can provide. It allows short-term local decisions to be consistent with long-term strategic goals. Such leadership requires an entrepreneurial culture and strong working relationships.
 - The recommendations related to enhanced knowledge base focused on investing in data, maintaining the existing knowledge base, training, and monitoring customer and consumer concerns. Topics for training included consensus building, visioning, financial mechanisms, and consultant management.
 - With regard to investing in data, the recommended MPO involvement in operations (at the short-term end of the spectrum) and concerns for environmental sustainability (at the long-term end) both come with substantial data needs, as does an increased emphasis on performance monitoring and outcome-based planning.
 - With regard to maintaining knowledge, the panel noted that the greatest success may be found in MPOs that have a strong set of adopted policies allowing the MPO to maintain continuity as players change. Colloquy participants recognized the need for a strong, capable staff and an informed stakeholder population, including private transportation and land use planners, engineers, designers, and developers.
 - Monitoring customer and consumer concerns included the need to monitor and consider the public's willingness to make trade-offs among such items as congestion relief, road rage, availability of useful information, quality of life, quality of the trip, compliance with speed limits, walkability, and quality economic development and smart growth in the articulation of planning priorities.
 - Six recommendations related to revising the planning approach. The recommendations included broadening and lengthening the process, focusing versus following, scenario development and uncertainty, incorporating technology, finding a role in education, and connecting to implementation.
 - The panel suggested that the planning perspective must not only be broadened in scope but also lengthened in horizon to include air quality, equity, pricing, public health, environmental sustainability, intercity freight and passenger movement, new technologies,

and other related factors. The 30- to 40-year expectations from the colloquy provide a broader context than does the typical 20-year plan.

– With regard to uncertainty, the panel recommended that MPOs focus policy discussions on subjects that they can or should influence, while closely following exogenous factors that have the greatest potential impact on travel. Visioning efforts should incorporate scenarios as a means of addressing the concept of uncertainty.

– The panel noted that MPO staff are called on to become more knowledgeable about the rapid changes occurring in information technology, goods movement technology, and vehicle–highway technology. Future transportation systems must be adaptive, with new governance and public and private management structures to monitor, manage, and use information.

A key question is how the colloquy results will be used by various groups. The colloquy results provide an inter-

esting summary of future conditions, and the treatment of uncertainty discussed by the expert panel is compelling. The results are of benefit in considering the existing planning process, as well as short-term enhancements and long-term changes. The findings and recommendations provide a starting point in articulating an agenda for the transportation community in future planning efforts and discussion of the next federal reauthorization. The colloquy also demonstrated a successful partnership among NYSMPO, FHWA, and the Volpe Center.

Additional information on the colloquy can be found at NYSMPO's home page: www.nysmpos.org. I appreciate the opportunity to share information on the colloquy and look forward to the discussions at the conference. Thank you.

Peter Plumeau, Wilbur Smith Associates, moderated this session.

BREAKOUT SESSION SUMMARIES

BREAKOUT SESSION

Looking to the Future

MPO Organizational Structures That Work and Why

Ronald F. Kirby, *Metropolitan Washington Council of Governments*

Mike Nunn, *Mobility Solutions Unlimited, LLC*

Harry Barley, *Metroplan Orlando*

MPOs ASSOCIATED WITH COUNCILS OF GOVERNMENT: NATIONAL CAPITAL TRANSPORTATION PLANNING BOARD

Ronald F. Kirby

Ron Kirby discussed the organizational structure of the National Capital Transportation Planning Board (TPB), the MPO for the Washington, D.C., Northern Virginia, and suburban Maryland metropolitan area. He described the TPB membership, the policy board and committee structure, voting methods, and coordination with other organizations in the area. The following is a summary of the presentation.

TPB serves as the MPO for the metropolitan Washington area. It was established in 1965 and was initially housed within the District of Columbia Department of Public Works. The Metropolitan Washington Council of Governments (WASHCOG) was established in 1957. In 1966, TPB and WASHCOG adopted a plan for associating the two organizations. TPB was designated as the MPO for the region by the governors of Virginia and Maryland and the mayor of the District of Columbia on the basis of an agreement between the local governments. Under that plan, TPB serves as the transportation policy committee of WASHCOG.

Membership on TPB includes Loudon, Prince William, Fairfax, and Arlington Counties and the cities of Manassas, Manassas Park, Fairfax, Alexandria, and Falls Church in Virginia; Frederick, Montgomery, and Prince George's Counties and the urbanized area of Charles

County and the cities of Gaithersburg, Rockville, Takoma Park, Greenbelt, College Park, and Bowie in Maryland; and the District of Columbia. These jurisdictions are all represented on TPB. Other voting board members include a representative from the Maryland House of Delegates, the Maryland Senate, the Virginia House of Delegates, the Virginia Senate, the District of Columbia Council, the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the Washington Metropolitan Area Transit Authority (WMATA). Ex officio members include representatives from FHWA, FTA, the National Park Service, the Metropolitan Washington Airport Authority, the National Capital Planning Commission, and the Private Providers Task Force.

Under normal voting procedures, each representative from the participating cities and counties, the General Assemblies of Maryland and Virginia, the District of Columbia Council, MDOT, VDOT, and WMATA have one vote. The bylaws provide for an alternative proportional voting procedure for TPB. Any voting member may require that the alternative voting procedure be used instead of voting on a regular basis, or subsequent to a vote taken by the regular basis, as long as the subsequent vote is taken at the same meeting. The proportional voting method assigns five votes each to the District of Columbia, Maryland, and Virginia and indicates how these votes are allocated. The proportional voting method has been used infrequently.

The bylaws establish a TPB Steering Committee to help develop the work program and manage the transportation

planning process. The committee is composed of 10 members, including the TPB chairperson; the immediate past chairperson; one local government representative from the District of Columbia; one elected local government representative from Maryland; one elected local government representative from Virginia; the chair of the Technical Committee; and the representatives from MDOT, VDOT, the District of Columbia Department of Public Works, and WMATA.

TPB utilizes other committees and task forces to assist in developing plans, projects, and programs. Among them are the Technical Committee, the Citizen's Advisory Committee, and the Access for All Advisory Committee. The Emergency Transportation Work Group was established after the terrorist attacks of September 11, 2001. The Private Providers Task Force; the Task Force on Value Pricing for Transportation; the Joint Technical Working Group for the Regional Mobility and Accessibility Study; and the Management, Operations, and ITS Policy and Technical Task Forces provide further support to TPB. The Technical Committee uses a number of subcommittees focusing on model issues, travel forecasting, and commuter services.

There is also a separate independent Metropolitan Washington Air Quality Committee (MWAQC). MWAQC is similar to TPB in organizational structure within WASHCOG. MWAQC is certified by the mayor of the District of Columbia and the governors of Maryland and Virginia to prepare air quality plans and conduct other activities as required by the Clear Air Act Amendments of 1990 and subsequent federal legislation. MWAQC members include elected officials of WASHCOG member jurisdictions and members from Charles, Calvert, and Stafford Counties; the air quality management and transportation directors from the District of Columbia, Maryland, and Virginia; members of the Maryland and Virginia General Assemblies; and the chair of TPB. Staff assigned to TPB and MWAQC work closely together and coordinate plans and program activities. There are also formal linkages between TPB and MWAQC. TPB provides formal comments on specific elements of the air quality plan and approves the land use, population, and housing forecasts.

WASHCOG Department of Transportation staff conduct the work of TPB. The director of the department serves as secretary for the TPB and reports to the WASHCOG executive director. WASHCOG is also responsible for health and human services, housing, and environmental planning. WASHCOG conducts public involvement and public participation programs in transportation and other planning areas.

Advantages of being housed within a council of governments include economies of scale and efficiencies related to joint staffing and administrative activities. This

organizational structure also provides for coordination and cooperation with planning activities for other functional areas. It further takes advantage of a visible and recognized umbrella organization.

CONTRACT SERVICES TO SUPPORT MPOs

Mike Nunn

Mike Nunn discussed the use of consultant contract services to provide on-site staff for MPOs. He described the experience of Mobility Solutions Unlimited, LLC, in providing contract staff for two MPOs in North Carolina and the benefits of this approach. The following is a summary of his presentation.

Staffing turnover is an issue at many of the small and midsize MPOs in North Carolina. One MPO experienced four changes in its director/lead transportation planner over a 3-year period. The councils of governments in the state do not include transportation as one of their core functions.

Mobility Solutions Unlimited was formed to respond to this need by providing on-site contract staff for MPOs and other transportation organizations. Mobility Solutions Unlimited provides contract staff support for two MPOs in North Carolina: the Burlington–Graham MPO, which is housed in the City of Burlington Planning Department, and the Cabarrus–Rowan MPO, which is housed in the City of Concord Planning Department. The Cabarrus–Rowan MPO is a TMA covering two counties. The policy board has 13 members. The area has a well-established public transportation system. The Burlington–Graham MPO covers one county and includes nine local jurisdictions. It has a seven-member policy board. A public transportation system is being initiated in the area.

Mobility Solutions Unlimited provides full turnkey staffing and operations for the two MPOs. Among the services are modeling, planning, corridor studies, and PL management. Contract personnel function in a manner similar to the MPO staff. As contract staff, they are located in the city offices. They staff the policy boards and committees and serve as the MPO representatives on regional committees. Contract personnel attend local planning board and city or township meetings as needed.

Using contract services has a number of benefits for MPOs. Contract staff provide stability and continuity for an MPO. Contract staff help avoid possible concerns that an MPO is biased toward a host jurisdiction or agency. Contract personnel are able to develop strong working relationships with personnel from other agencies, similar to full-time MPO staff. Contract staff also obviously want to maintain a long-term relationship with an MPO. As a result, contract staff are client oriented, responsive,

and accountable. In addition, if an MPO needs specialized expertise for a project, the contract firm may have personnel with those skills or be able to obtain them from another consulting group. For example, staff with travel forecasting modeling skills have been added to the two MPOs in North Carolina.

MPOs AS INDEPENDENT ORGANIZATIONS: METROPLAN ORLANDO

Harry Barley

Harry Barley discussed the organizational structure of Metroplan Orlando, the MPO for the Orlando urban area. He described the benefits and the limitations of stand-alone or independent MPOs. The following is a summary of his presentation.

Metroplan Orlando is a freestanding MPO. The MPO area covers Orange, Osceola, and Seminole Counties in central Florida. Orlando is the largest of the 22 municipalities in the MPO area. The population of the MPO area is approximately 1.8 million. Some 300,00 to 500,000 visitors a day come to the various theme parks and other attractions in the area. The region has been experiencing a 4 percent annual increase in population, which is expected to continue. Growth management is one of the top issues among the public and the policy makers in the area.

The Orlando Urban Area Transportation Study was initiated in 1965. The Orlando Urban Area MPO was formally created in 1977 as part of a regional planning council. The change to a freestanding agency was made in the early 1990s. The MPO name was changed to Metroplan Orlando in 1997 to highlight the importance of regional cooperation.

The Metroplan Orlando policy board includes 19 members, the maximum size allowed by Florida law. The policy boards of most MPOs in the state have 19 members. The Metroplan Orlando policy board members include county commissioners and representatives from the two international airports, the transit agency, and the expressway authority. There are also six nonvoting members. The nonvoting members include two smaller airports, the Florida Department of Transportation, and four Metroplan Orlando advisory committees.

The Metroplan Orlando Executive Director reports directly to the policy board. The agency is organized into five departments: board services, transportation planning, transportation systems management and operations, public affairs, and finance and administration. The transportation planning division conducts the core functions of the MPO.

An independent or stand-alone MPO structure has a number of benefits. Among them are independence and objectivity, accountability, responsiveness, and flexibility. An independent MPO can develop its own identity and agency culture. It can also interact directly with customers. Metroplan Orlando conducted an internal planning process focusing on definition of the agency's customers. Metroplan Orlando's funding partners were identified as the primary customers. Funding partners include FHWA, FTA, and the state. The public was identified as the secondary customer.

Some of the benefits of a stand-alone MPO can also be limitations. As an independent agency, there is no other organization to fall back on if problems arise with cash flow, computers, or other normal business activities. Resources are needed to ensure the day-to-day operation of the agency. Management controls are also needed, especially those related to financial matters. Staff recruitment and retention can also be an issue, especially in high-demand skill areas like geographic information systems and travel demand modeling. Promotion and advancement opportunities may be limited at smaller and midsize MPOs.

Metroplan Orlando is conducting a regional growth visioning process. A topic of discussion is the appropriate role of MPOs in growth management. Other efforts include collaboration with school boards to enhance driver education programs and an update of the agency strategic business plan. Metroplan Orlando has an ambitious state legislative program. There are also ongoing discussions about expanding responsibilities related to operations and other services. The taking on of more responsibilities for operations by MPOs is another possible topic of discussion.

Jeff Kramer, University of South Florida, moderated this session.

BREAKOUT SESSION

Implementing Decisions and Institutional Arrangements

Dannie McConkie, *Davis County Commission*
James Healy, *DuPage County Board*

INSTITUTIONAL ARRANGEMENTS IN UTAH

Dannie McConkie

Commissioner Dannie McConkie discussed institutional arrangements at the Wasatch Front Regional Council (WFRC) and other MPOs in Utah. He described the organizational structure of WFRC, the composition of the policy board, and the methods used to coordinate and interact with other agencies and local jurisdictions. A summary of his presentation follows.

WFRC is the MPO for the Salt Lake City metropolitan area. WFRC was organized in 1969 as a voluntary association of governments focused on fostering cooperation among participating counties, addressing regional issues, and meeting federal requirements. It was designated by the governor as the MPO for the Salt Lake City urban area in 1973. The role of WFRC has evolved over the years. WFRC provides a forum for discussion and cooperation among local elected officials on transportation and growth planning; assists with the coordination of local, state, and federal programs, plans, and projects; provides an effective organizational structure for local governments to coordinate local transportation plans and projects that overlap county boundaries or are regional in nature; and conducts required transportation planning and programming activities.

Different organizational structures are used at the four MPOs in Utah. WFRC includes Davis, Morgan, Salt Lake, Tooele, and Weber Counties. There are 57 jurisdictions in the five counties. Salt Lake County, which includes Salt Lake City, contains the majority of the

area's population and employment. WFRC also represents the most populated area of the state. The metropolitan area has experienced significant growth over the past decade, which is forecast to continue.

The Regional Council, which is the WFRC policy board, includes 18 voting members, who are all local elected officials. There are three nonvoting members representing the Utah Association of Counties, the Utah League of Cities and Towns, and Envision Utah. Committees are established to assist with WFRC planning activities. Current committees include the Transportation Coordinating Committee (Trans Com) and the Regional Growth Committee (RGC). Trans Com includes elected officials from the five counties and representatives from the Utah Transportation Commission, the Utah Transit Authority (UTA), and the Utah Air Quality Board. Representatives from FHWA and the Mountain Association of Governments, which is the MPO for the Orem urban area, are nonvoting members. RGC includes elected officials and representatives from UTA, the Utah Department of Transportation, and nonvoting representatives from FHWA and the Mountain Association of Governments. Additional technical advisory committees are established as needed.

WFRC interacts with other agencies and governmental units both formally and informally. The formal interaction occurs through the Regional Council, Trans Com, and RGC and the adoption of plans and programs. Informal interaction also occurs, with Regional Council and WFRC staff participating in various activities and projects. Establishing good working relationships with member jurisdictions and other agencies is important. Open and ongoing communication is also important.

Hosting the 2000 Winter Olympics helped bring agencies and local communities closer together. The transportation agencies did an excellent job of coordinating travel and transportation during the Olympics.

Participation on the Regional Council is viewed positively by local elected officials. While Regional Council members represent their areas, they also take a regional view. There are a number of interest groups in the area. WFRC has developed good working relationships with these groups, even though there may be different perspectives on approaches to address issues. WFRC has also established good working relationships with private-sector groups, developers, and other organizations.

Providing training to new board members, as well as ongoing training, is important. WFRC conducts a retreat/training program for the policy board once a year. Outlining the fiduciary responsibilities of board members is especially important. Building trust, understanding, and strong working relationships between staff and board members is critical. It is also important for board members and staff to develop strong working relationships with key local and state officials, including members of the legislature and their aides.

The board works to achieve consensus on issues. Board members interact with each other and work well with staff. Board members who are elected officials typically also have full-time jobs. Providing board members with concise information is beneficial.

INSTITUTIONAL ARRANGEMENTS IN THE CHICAGO METROPOLITAN AREA

James Healy

James Healy discussed institutional arrangements in the Chicago, Illinois, area, including the creation of the new Chicago Metropolitan Agency for Planning (CMAP). He described the consolidation of the Chicago Area Transportation Study (CATS) and the Northeastern Illinois Planning Commission (NIPC) into CMAP. He also discussed the role of elected officials as MPO board members. A summary of his presentation follows.

CATS is the MPO for the Chicago metropolitan area. NIPC is the comprehensive planning agency for the region. The potential of merging the two agencies had been discussed for many years, but no serious efforts were undertaken because of concerns among the various stakeholders. The city of Chicago is the dominant jurisdiction in the area. Officials in the city have historically been Democrats, while Cook County is typically split half Democrats and half Republicans, and the collar suburbs are predominately Republican.

Over the years, the makeup of the CATS Policy Committee has changed from elected officials to technical

staff from the various jurisdictions and agencies. This trend had positive and negative aspects. A positive aspect was that informed technical personnel were making decisions. A negative aspect was that information was not always provided to local elected officials, and their input was not always sought.

Serious consideration of the potential to merge the two agencies began in 2004. A number of task forces and committees were formed to examine the issues and approaches associated with a merger. The Regional Planning Act was approved by the Illinois legislature, and Governor Rod Blagojevich signed legislation in early August 2005 combining the two agencies into CMAP. The 15-member CMAP Regional Planning Board (RPB) is appointed by mayors and top elected officials in the region, with one-third of the members representing Chicago, one-third suburban Cook County, and one-third the collar counties of DuPage, Lake, McHenry, Will, Kane, and Kendall. The initial appointees to RPB were primarily elected officials, and it is anticipated that this approach will continue. In October 2005, RPB began a 36-month transition. A report is due to the Illinois General Assembly by September 2006 with a recommendation on a permanent structure and funding for CMAP and RPB.

It is important for MPO staff to build strong working relationships with local elected officials, both those who serve on the MPO policy board and those who do not. It is also critical for elected officials who are members of an MPO policy board to communicate with their peers. Relationships are key to building trust and strong working capabilities. Getting to know local elected officials should be a priority of MPO staff.

Participating in state and national organizations is good for policy board members. These groups provide the opportunity to learn from other areas and to share ideas. Training, both initial training for new board members and ongoing retraining, is beneficial. Retreats are good ways to provide training. Retreats also help board members get to know each other and the staff. It is only natural that policy board members will have a local viewpoint. Good board members have a regional perspective, however. Such a perspective evolves over time. Building trust is part of that process.

Elected officials are a key part of making MPOs effective. Strong leadership from elected officials also enhances the credibility of MPOs. The role of elected officials will continue to be important as MPOs take on additional responsibilities. Local elected officials provide an important link to the political process and play a key part in advancing MPO plans and programs.

Fred Abousleman, National Association of Regional Councils, moderated this session.

BREAKOUT SESSION

Revenue, Fiscal Constraints, and Finance

Larry Anderson, *Federal Highway Administration*
Jason Jordan, *Advocacy Associates*

REVENUE, FISCAL CONSTRAINTS, AND FINANCE IN TRANSPORTATION PLANNING

Larry Anderson

Larry Anderson discussed financial aspects of the metropolitan transportation planning process. He described revenue forecasting and cost estimation approaches, innovative finance mechanisms, and “big ticket” transportation projects and financing plans. A summary of his presentation follows.

Revenue forecasts are developed cooperatively between state departments of transportation, MPOs, and public transportation operators. The forecasts include public and private sources of proposed revenues. Funding sources included are those that are reasonably anticipated to be available. Funding sources that are available or committed are included for the first 2 years of the transportation improvement plan/State Transportation Improvement Program (TIP/STIP) in air quality nonattainment and maintenance areas. The forecasts may also include estimates of future federal revenues outside existing federal authorizing legislation.

Several methods are available for developing cost estimates. NCHRP Project 08-49, *Procedures for Cost Estimation and Management for Highway Projects During Planning, Programming, and Preconstruction*, presents a number of good techniques. NCHRP Project 08-49(2), *Right-of-Way Methods and Tools to Control Project Cost Escalation*, also presents approaches for

examining and containing cost escalation in projects. Cost ranges are acceptable for financial plans that support the metropolitan long-range transportation plan, particularly beyond the first 10 years.

SAFETEA-LU contains requirements for metropolitan long-range transportation plans to include operational and management strategies to improve the performance of existing transportation facilities and capital investments and other strategies to preserve the existing and projected future transportation infrastructure. With regard to fiscal constraint and highway and transit operations and maintenance, FHWA and FTA defer to states and local agencies in defining appropriate levels of operations and maintenance.

Examples of innovative finance mechanisms include tolling, Grant Anticipation Revenue Vehicles, and state infrastructure banks. Other approaches include the Transportation Infrastructure Finance and Innovation Act, advanced construction, and public-private partnerships. These approaches are being used in various states and metropolitan areas.

There are additional requirements for big ticket infrastructure projects, including finance plans and project management plans. FHWA Major Highway Projects and FTA Capital Investment Grant (New Starts) Projects require specific cash-flow schedule information. These project-specific finance plans can be a valuable resource for information on annual needs and sources of revenues for developing metropolitan long-range transportation plans and TIPs/STIPs.

TRENDS AND NEW OPTIONS IN TRANSPORTATION FINANCE

Jason Jordan

Jason Jordan discussed recent trends in financing transportation infrastructure and projects through state and local ballot measures. He described recent issues in transportation finance, the types and results of ballot measures, and strategies used to promote successful ballot initiatives. The information presented was from a recent study by the Center for Transportation Excellence, a non-partisan research center, that examined ballot initiatives. The following is a summary.

There are a number of emerging issues related to financing transportation infrastructure and operation needs. Among them are revenues from the state and federal gasoline taxes lagging behind funding needs, increases in costs for operating and maintaining the system, and higher construction costs. As a result of these issues and other concerns, there is a growing interest in infrastructure privatization, tolling and pricing programs, new sources of dedicated funding, and joint development agreements and real estate partnerships. The state and local shares of project financing are increasing, and more projects are being decided through voter referendum or ballot measures.

Between 2000 and 2005, voters in 33 states approved ballot measures related to transportation. There were some 200 ballot measures during that time period, accounting for approximately \$70 billion in new investment. This trend is continuing in 2006. There have been 20 ballot measures to date, and at least 25 transportation-related ballot measures will be considered in various areas in the November 2006 elections.

The approval rate for transportation measures has been approximately 70 percent, which is twice the approval rate of all ballot measures. Transportation-related ballot measures have been successful across regions, population groups, and party affiliations.

Ballot measures have been considered for a number of reasons. In some cases they are part of the legislative process, with voter approval required for changes in state financing authority or other responsibilities. Ballot measures have also been used obtain approval for specific projects and financing mechanisms.

There are different types of ballot measures. They include citizen-led initiatives, which are allowed in 24 states, referenda, and constitutional amendments. A referendum is a proposal that has been referred to the voters by the state legislature or other local elected body. Transit ballot measures may address the creation of a public transportation authority or district, the inclusion or exclusion of a city or county in a district, project financing, and other issues.

A number of trends can be identified in recent ballot measures. First, most include highly specific ballot language. Second, the inclusion of multiple infrastructure projects is common. Third, plan and project funding approval measures are often combined. Fourth, aggressive public education and outreach efforts are frequently used. Finally, multiple elections are sometimes needed to approve a measure.

Examples of ballot measure finance tools include sales taxes, property taxes, bond issuances, gasoline taxes, dedicated fees, and special tax districts. These tools have been used for a wide range of projects in addition to traditional infrastructure and operation. Examples of other types of projects are transportation enhancements, open space, parks, land conservation, water infrastructure, public facilities, and schools.

In state elections during 2004, 42 transportation initiatives were approved totaling approximately \$55 billion in financing. Examples of transportation financing measures approved by voters included the ½-cent sales tax for transit in Charleston, South Carolina; the FasTrack Rapid Transit funding in Denver, Colorado; tax extensions in San Diego, California; funding packages in Phoenix, Arizona; and seven initiatives in the San Francisco–Oakland Bay Area. In 2005, voters approved statewide transportation funding initiatives in Washington, Colorado, New York, Ohio, and Maine.

Approximately 80 percent of recent transportation ballot measures have focused on finance. Sales tax measures account for approximately 40 percent of all ballot measures and almost one-third of all successful finance measures. A majority of these measures focus on local funding. The approval rating for these measures has been approximately 54 percent since 2000. Property tax measures have had the highest success rate, 80 percent. An extension of existing taxes has also been approved in numerous areas. Extensions are often promoted as not new taxes. Approval for bonding and dedicated funds for specific projects are more common as statewide ballot measures.

A number of campaign strategies can be identified for successful ballot initiatives. Examples include planning and public outreach, building a broad coalition of supporters, developing local champions, and using specific and simple messages. Other keys to successful elections include listening to the public and conducting public opinion polls, tapping into grassroots support, and countering any possible criticism with accurate and credible information. Managing a professional campaign and starting fund-raising well in advance are also important. Understanding both the political climate in the community or state and the unique nature of transportation measures is also a key to successful elections.

State funding of transportation infrastructure and operations has been increasing. There have been major

legislative initiatives in many states to address critical transportation needs. Many states are facing concerns related to reliance on the state gasoline tax or general fund for transportation needs. Among alternative revenue methods in use in various states are bonding, privatization, tolls, fees, lottery proceeds, vehicle license and registration fees, and sales and property taxes. These alternatives may pose challenges for MPOs in addressing financial planning and flexible investment strategies.

With recent ballot measures, many states and local areas are assuming a more significant role in funding transportation needs, while the federal percentage of

funding is declining. Federal funding still represents an important part of the overall program, however. The future of federal funding is uncertain, with questions related to the trust fund, project earmarking, and other concerns.

More information on ballot measures is available at www.cfte.org.

Mary Lynn Tischer, Virginia Department of Transportation, moderated this session.

BREAKOUT SESSION

Working Successfully with Decision Makers

Neil Pedersen, *Maryland State Highway Administration*

Michael Morris, *North Central Texas Council of Governments*

DECISION MAKING AND DEALING WITH DECISION MAKERS AT THE MPO OF 2020

Neil Pedersen

Neil Pedersen discussed successful approaches for working with decision makers. He highlighted key elements in the decision-making process and factors to consider in establishing strong working relationships with policy makers. The following is a summary of his presentation.

The TIP and the long-range plan, which address federally funded capital projects, have been a major focus of decision making at most MPOs. The types of issues MPOs and other transportation agencies will need to address in the future are changing. Future issues or emphasis areas include safety, security, asset management, and operations and congestion management. Among other issues are integrating land use and transportation decisions, environmental considerations, broadening system planning considerations, public-private partnerships, alternative funding sources, freight logistics, and energy. The Maryland State Highway Administration has been conducting a strategic planning process. A major emphasis of this process is talking with stakeholders throughout the state about these issues and other concerns.

Decision making in 2020 will involve new and different stakeholders and decision makers. Partnerships will need to be developed with groups and individuals who do not currently participate in the MPO process. These groups typically operate in decision-making processes that are separate from those of MPOs, and many may

not be aware of the MPO transportation planning process. They typically make decisions in different time frames and control financial resources that do not require MPO approval. In addition, they usually do not partner with MPOs. Bringing these groups into the MPO and the state department of transportation planning process is important.

The most successful MPOs of 2020 will be those deriving their authority and relevancy by adding value to the most important transportation issues of the day, rather than relying primarily on federal regulations for their authority. The MPOs that are most successful add value to the planning process, and their work is valued by decision makers.

A number of characteristics of successful decision-making processes can be identified. Decision making is an informed political process that recognizes and incorporates political considerations. Working with all stakeholders from the beginning and not just their representatives is important. Strong relationships with key decision makers should be developed. The process for decision making must be agreed on before information is developed and presented. If there is no agreement on the process, decision makers who do not favor the outcome may criticize the process.

The decision-making process recognizes the diverse interest of partners and finds something that can be a “win” for each of them. “Win-win” situations must be created when multiple decision makers are involved. Such situations typically provide for long-term, sustainable solutions.

The decision-making process focuses on relevant information rather than extraneous technical details. It recognizes and produces information that is important to the decision maker, including customer and political input. Credibility with decision makers is based on providing objective and evenhanded information. Integrity is also critical in establishing credibility with decision makers. Policy makers tend to not listen to agencies or individuals viewed as lacking credibility and integrity.

Decision makers are busy people, so the focus should be on key information and on presenting it in a concise manner. Furthermore, policy makers rely on information different from that relied on by technical staff. Policy makers want to be assured that their constituents have been heard and have had an opportunity to participate in the planning process. There is both a science and an art to effective communication with decision makers. This process has often not been focused on within the transportation planning community to the extent necessary.

Decisions should be made in a timely manner. Policy makers may be tempted to claim that they do not have enough information to make decisions, especially tough decisions. Being viewed as stuck in “paralysis by analysis” should be avoided. Schedules should be well thought out and agreed to. Decisions should be made through a consensus-building process. All groups need to feel that they have a part in the decision. Consensus does not mean unanimity. Consensus means consent and a predominant majority. Communications with the public, both before and after decisions, is key to obtaining support for the decisions being made. Ensuring that the rationale for a decision has been explained to the public is important.

MPOs face a number of technical challenges associated with decision making. There is a need for new tools for analyzing safety improvements, asset management, operations investments, and financial alternatives. More advanced technical tools are also needed for ecosystem analyses, examination of secondary and cumulative effects of transportation projects, and economic development analyses. Enhanced methods for communicating with the public are needed, including the use of GIS and visualization techniques, as are improved methods for obtaining public input and listening to the public.

Dealing with decision makers will continue to be critical. The issues that matter most to a decision maker need to be understood. Examining these issues from a decision maker’s perspective is part of this process. Understanding what the decision maker already knows and anticipating what questions and issues are likely to be raised are important. Knowledge of how the decision maker prefers to have information and decisions presented to him or her and how information should be presented so it is understandable is critical. Policy makers

like to make decisions. As a result, options should be presented so that the decision maker is actually making a decision and not just approving a recommendation.

Every decision maker has trusted advisers. Getting to know these individuals is important. Technical staff should not try to force a decision and should recognize that different information will be needed by different decision makers. The key information required for a decision should be presented, rather than getting caught up in the technical details.

Avoid surprises when dealing with decision makers. No one likes to be caught by surprise, especially policy makers. Private briefings should be provided to decision makers, especially on sensitive issues. Technical staff must work hard to be seen as objective, professional, and unbiased. Credibility must be developed and maintained. In dealing with group decisions, technical staff should act as facilitators to build consensus among the members of the groups. All the appropriate groups should be involved in the decision-making process so that the outcome is not reversed or changed later.

Decision making in the U.S. form of government is essentially a political process. The most effective way to deal with decision makers is to understand politics at the local and state levels and work within the political process.

WORKING SUCCESSFULLY WITH DECISION MAKERS: THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS EXPERIENCE

Michael Morris

Michael Morris discussed working with the Regional Transportation Council and other policy makers in the Dallas–Fort Worth Metroplex. He described the organization and role of the Regional Transportation Council and the North Central Texas Council of Governments (NCTCOG). The following is a summary.

NCTCOG and other transportation agencies in the region are focused on implementation. This focus is needed because the region is growing rapidly, with approximately 1 million new residents every 7 years. The elected officials are interested in implementing transportation facilities and services to meet this growth. Implementation does not always mean building new projects. Implementation may focus on policy development, management and operations, and transit services, as well as new capacity.

The MPOs in the country function in different contexts. These contexts and the political, institutional, and public policy nature of various areas must be understood. MPOs provide a value-added service. Building and maintaining strong working relationships with

elected officials and policy makers in an area is key to the successful operation of an MPO.

The Regional Transportation Council is the MPO policy body for transportation in the Dallas–Fort Worth Metroplex. The NCTCOG Executive Board is the fiduciary agent that implements the policies of the Regional Transportation Council. The council has 40 members. The members include elected or appointed officials from cities and counties and a representative from the Texas Department of Transportation, Dallas Area Rapid Transit, the Fort Worth Transportation Authority, the Denton County Transportation Authority, the North Texas Tollway Authority, and the Dallas–Fort Worth International Airport. Communities have one representative on the council for each 200,000 of population. Thus, the city of Dallas, with a population of about 1.2 million, has six city council members serving on the Regional Transportation Council. With almost 240 municipalities in the region, many have to combine to meet the 200,000 population requirement. Being a member of the council is considered an important responsibility. New council members often start with a parochial view but soon adopt a regional perspective on issues. There are a few MPOs in Texas with members of the state legislature serving on the policy boards. This approach is not used with NCTCOG.

The focus at NCTCOG is outcome based. The elected officials identify the key objectives, and NCTCOG staff work to develop strategies to accomplish these objectives. Elected officials are interested in policies, programs, and projects. In Texas, there is a state requirement for needs-based plans. These plans drive the identification of financial needs. Demographic trends, risk assessments, and financial options are all examined. Examples of projects and programs under way in the region include a low-income program to help pay to fix vehicles to meet air quality standards, a joint legislative committee examining an increase of \$0.05 in the region's gasoline tax to fund a regional rail system, a freeway management training program, and growth policies. The NCTCOG Executive Board establishes the toll rates related to comprehensive development agreement projects. Peak-period pricing is being examined, along with other options to address traffic congestion. The Regional Transportation Council recently approved a policy encouraging communities to adopt model ordinances for the purchase of energy-efficient fleet vehicles. Obtaining CMAQ funding for proposed projects was linked to approving the model ordinance. This policy was extensively debated.

Because of the lack of needed funding for projects and programs of all types, a variety of financing mechanisms have been explored in the region. Many public–private initiatives have been considered, and a number are under way. NCTCOG issues a state-of-the-region report on an

annual basis, which focuses on key performance measures.

With a focus on implementation, funding is a key concern in the region. PL funds provide the basis of financing for the transportation planning activities at NCTCOG. The technical credibility of NCTCOG staff has been established over the years. The cost of conducting specialized studies is allocated across public- and private-sector sponsors. In 1994, NCTCOG began allocating Surface Transportation Program funds. The Texas Transportation Commission also allowed the nonattainment MPOs in the state authority to allocate CMAQ funds.

NCTCOG has focused on management and operations as a major program since 1994. In response to concerns about the ability to implement sustainable development and transportation programs with federal funds, NCTCOG exchanged \$30 million of federal funding for \$80 million of local funds on some projects. For example, CMAQ funds were substituted for county funding of a freeway managed lane. The county funds were then used to finance the sustainable development projects and the air quality projects. This approach streamlines the implementation process for these types of projects. As MPOs become more involved in operations, providing mechanisms to advance needed projects becomes more important.

The last category of funding is focused on advancing toll projects in the region. Many of these projects have been in the planning stage since the early 1990s. These projects are being pursued as public–private partnerships. The anticipated \$2 billion in revenues from the projects will be used to finance other needed projects. This approach is allowing the region to advance critical projects while displaying stewardship in the use of public and private funds.

There are two central cities—Dallas and Fort Worth—in the NCTCOG region. The presence of two major cities may enhance the need, and therefore the credibility, of an MPO because one city cannot dominate the MPO. In this setting, the MPO provides an important coordination function. Other MPOs with two major cities—San Francisco and Oakland in California and Minneapolis and St. Paul in Minnesota—have active and innovative MPOs. In areas with one dominant city, the MPO may be viewed as playing a less critical coordination role.

The council members and local elected officials take pride in their roles. NCTCOG is also a multifunctional agency. NCTCOG conducts the demographic forecasts for the region, the air quality attainment plans, and other related activities. There is a strong public involvement process at NCTCOG and in the region. There is also a strong public–private working relationship. NCTCOG staff are known for their technical expertise and regional

leadership. Since 1970 NCTCOG has had three transportation directors, and all three have had strong technical skills. This foundation has been important in establishing the credibility of the agency and in allowing it to grow. NCTCOG is also customer focused. Credibility is earned over time. The needs-based approach and the use of performance measures and a congestion index are other important attributes of NCTCOG. Constraints

can breed innovation. Rather than focusing on congestion as the issue, NCTCOG has focused more on system reliability.

Ed Weiner, U.S. Department of Transportation, and Frank Francois, Transportation Consultant, moderated this session.

BREAKOUT SESSION

Private Funding and the MPO

Tamar Henkin, *TransTech Management, Inc.*
Patricia Berry, *Chicago Metropolitan Agency for Planning*

PRIVATE TRANSPORTATION FUNDING AND THE MPO

Tamar Henkin

Tamar Henkin discussed the expanding role of private capital in transportation funding and finance. She described recent examples of private investment in transportation infrastructure and roles that MPOs may play in this process. A summary of her presentation follows.

A number of factors are driving increased interest in private investment in transportation infrastructure. First, many states do not have the funding to address critical transportation projects. Second, the federal Transportation Trust Fund is being drawn down. Third, state gasoline tax revenues are facing a long-term decline. At the same time, there is heightened investor interest and available capital. Private investors provide public agencies with the ability to generate revenues for immediate use on other priority projects. Operational benefits may also be realized through private participation. Recent federal incentives support public–private partnerships. Examples of these incentives include the Transportation Infrastructure Finance and Innovation Act, \$15 billion in private activity bonds provided in SAFETEA-LU, FHWA approval of innovative procurement processes, and pilot toll programs.

There are many examples of large and small private investments in the transportation infrastructure, as well as in traffic operations. Examples of private investment in new capacity include SR-125 in San Diego, California; the TransTexas Corridor and other toll road projects in

Texas; and the Pocahontas Parkway in Richmond, Virginia. Examples of concessions and long-term leases of existing facilities include the Chicago Skyway and the Indiana Toll Road. These types of projects bring revenue to an area but do not necessarily build new capacity. How this revenue will be used should be examined. Does it represent new revenue for transportation projects or will it be used for other purposes? On a smaller scale, developers in many areas have donated rights-of-way, provided assessments and voluntary payments, and made other financial commitments to transportation projects.

There are a number of elements to consider with regard to private financing of transportation infrastructure and operations. MPOs could play a role in assessing many of these elements. A financial evaluation should be conducted to determine whether the proposed financing is sound. The project should serve a public interest. MPOs could also examine elements related to system performance versus profit maximization, the impact on project priorities, stewardship of public assets, and proposed uses of generated revenues. Assessing noncompete clauses is part of examining system performance versus project monitoring.

Private financing typically involves new institutional frameworks. MPOs can facilitate discussions and consensus building on institutional arrangements and engage the public in the discussion of these new financing approaches while protecting confidential information. There is typically a need to protect confidential information related to the private participants. At the same time, the public has a right to know that their interests are being safeguarded.

It appears that interest in private financing of transportation infrastructure will continue. There will be an ongoing need for resourcefulness and innovation and for greater leveraging of public assets. Experimentation with public-private and public-public partnerships will continue. Greater integration with the metropolitan transportation planning processes will be needed. New tools will be needed for project and financial evaluation, decision making and priority setting, and public involvement.

PRIVATE INVESTMENT IN TRANSPORTATION INFRASTRUCTURE

Patricia Berry

Patricia Berry discussed the long-term lease of the Indiana Toll Road to a private consortium. She described the situation surrounding the lease, the use of the sale revenues, and the roles of various agencies. She also highlighted considerations to date on the long-term lease of the Illinois Tollway. She noted that information on both projects was obtained primarily from staff at the Illinois General Assembly and the Northwestern Indiana Regional Planning Commission (NIRPC). A summary of her presentation follows.

The state of Indiana entered into a 75-year lease with the Spanish-Australian consortium Cintra-Macquarie to operate the 157-mile Indiana Toll Road in April 2006. The consortium paid the state \$3.85 billion up front for the right to operate the toll road for a 75-year period. Cintra-Macquarie is responsible for operating and maintaining the toll road. The consortium retains the toll revenues collected on the facility.

The decision to lease the toll road was made at the state level, with no real involvement by NIRPC, which is the MPO for the three-county area in northwestern Indiana. NIRPC did request information on the proposed lease and asked questions about certain aspects of the lease. The governor supported the lease, which was approved by the Indiana General Assembly along party lines. The long-term lease was viewed as a method to finance critical transportation projects in the state. The governor has pledged approximately 34 percent of the \$3.85 billion to fund projects in Lake and Porter Counties and the other five counties surrounding the toll road. The remaining revenues would be used to fund the Northwest Indiana Regional Development Authority, transportation projects in northern Indiana, and projects in other parts of the state. Concerns have been voiced about using revenues from a facility in northwest Indiana to fund projects throughout the state.

The long-term lease agreement contains a noncompete clause. Under that clause, the state must reimburse the con-

sortium for lost revenues if competing highways are constructed in the area. The definition of a competing highway is a highway at least 20 miles long within 10 miles of the toll road. A roadway in the long-range transportation plan fits the definition of a competing facility.

Concerns were raised by some groups concerning foreign ownership of a major transportation facility. The state maintains control of the toll road, however, and can exercise an option to terminate the lease at any time. There are financial ramifications for early termination. This approach has been used in other countries, so foreign firms are familiar with doing business this way. A concern was also voiced that the consortium would raise toll rates, which would result in more traffic on local streets and other roads.

Questions were raised concerning the impact of the lease on the project programming process and projects in the pipeline. NIRPC recently completed revision of the long-range transportation plan to include projects that were identified as part of the legislative approval process. There are still questions about the process that will be considered when projects are selected for the lease revenues.

The governor of Illinois proposed the long-term lease of the Illinois Tollway earlier this year. There was immediate concern in the General Assembly over the proposal. A bipartisan commission, the State of Illinois Commission on Government Forecasting and Accountability, was established to examine the proposal. It consists of six state senators and six state representatives. The commission reviewed information on the Chicago Skyway and the Indiana Toll Road and developed a request for proposal (RFP) to hire a consultant to evaluate and determine the potential monetary value of the tollway. The chair of the commission, a state senator, wanted to ensure that the lease would not diminish the wages, benefits, pension, collective bargaining agreements, or other rights of directors and employees of the tollway and subcontractors. The RFP was issued and a consultant was selected at the end of May 2006. The consultant's report is not yet available.

Both of the toll roads are state-owned facilities. The metropolitan planning process takes a good deal of time and is different from the way private groups work. It is important to discuss the roles MPOs may play in these types of transactions. Roles may include conducting financial evaluations, monitoring the public interest, examining potential institutional arrangements, and engaging the public while protecting confidential information. More discussion is needed concerning how these projects fit within the long-range planning process as well as the project selection process.

Alan Clark, Houston-Galveston Area Council, moderated this session.

BREAKOUT SESSION

MPOs Address Transit, Bicycle, and Pedestrian Planning

Nancy Kays, *Sacramento Area Council of Governments*
Doug Hattery, *Wasatch Front Regional Council*
Barbara McCann, *McCann Consulting*

BICYCLE PLANNING IN THE SACRAMENTO REGION

Nancy Kays

Nancy Kays discussed bicycle planning activities in the Sacramento, California, region. She described some of the advantages and limitations with regard to bicycling in the Sacramento area, how bicycling is addressed in the Sacramento Area Council of Governments (SACOG) Blueprint Transportation and Land Use Study, and possible future activities. A summary of her presentation follows.

The Sacramento area offers numerous advantages for bicycling. Among them are good weather, generally flat terrain, and an active bicycling community. Collaborative relationships have been developed over the years to promote bicycling. SACOG has an active Bicycle and Pedestrian Advisory Committee. The cities of Davis and Folsom have won awards for bicycle projects. Bicycling and walking account for approximately 8 percent of the mode share in the area, and bicycling is the preferred form of transportation at the University of California, Davis.

There are challenges for bicycling in the Sacramento region, as is true in other areas. Examples are inadequate bicycle facilities, lack of funding for bicycle facilities, and continuing sprawl that is not conducive to bicycling. While the cost of housing is not as high as in other areas of California, development patterns are dispersed.

The last metropolitan transportation plan included a static land use forecast. None of the alternatives examined in the plan addressed the growing levels of traffic congestion in the area. As a result, SACOG, with the support of

the policy board, began an extensive land use study. The Blueprint Transportation and Land Use Study was conducted over a 2- to 3-year period. The study was a scenario-based planning exercise. Although SACOG has no authority over land use, the agency does have information and technical expertise. The Planning for Community, Energy, Economic, and Environmental Sustainability program was used in the study, with data examined at the parcel level.

Thirty-five workshops involving about 5,000 people, including SACOG board members, policy makers, and the public, were held throughout the region as part of the study. In the workshops, small groups of participants reviewed maps with alternative land use patterns for the region. The land use alternatives included varying levels of smart growth elements. Examples of smart growth elements are the various scenarios including compact development, mixed-use development, and in-filling.

The Blueprint Transportation and Land Use Study led to a regional consensus on a preferred land use scenario for 2050. The blueprint focuses on smart growth principles. The preferred land use strategy adopted as a regional goal forms the basis for the Metropolitan Transportation Plan 2035. The bicycle and pedestrian mode share in 2050 is estimated at 13 percent. Elements in the blueprint are being implemented in a variety of ways. The smart growth principles are being implemented by local jurisdictions through land use plans, ordinances, and specific projects.

The Metropolitan Transportation Plan 2035, which should be adopted in 2007, reflects the blueprint concepts. A tour-based travel model is being developed for the metropolitan area. The new model will include the

bicycle and pedestrian network and will greatly enhance the ability to forecast bicycle and pedestrian trips. A regional bicycle, pedestrian, and trails master plan is also being developed. Funding is set aside for bicycling and pedestrian projects, which are competitively awarded. SACOG also has a community design program available to fund various projects, including bicycle and pedestrian facilities. Projects must demonstrate a link to smart growth elements and promote mode change.

A number of bicycle planning activities are anticipated. They include continued implementation of blueprint elements. Those elements emphasize modal choices, multi-modal connectivity, and Complete Streets. The activity-based travel demand model is being improved by the development of more extensive bicycle networks. Methods to link travel modes, including accommodating bicycles on the various transit modes, are also being considered.

MPOs AND TRANSIT

Doug Hattery

Doug Hattery discussed transit planning at the Wasatch Front Regional Council (WFRC). He described the institutional structure in the area, transit planning studies and transit projects, and the long-range transit plan. A summary of his presentation follows.

WFRC is the MPO for the Salt Lake City–Ogden, Utah, metropolitan area. The Utah Transit Authority (UTA) provides service in the area. WFRC staff have strong working relationships with staff from UTA, the Utah Department of Transportation (UDOT), other agencies, and local governments.

Like other MPOs, WFRC has responsibility for the development of the long-range transportation plan and the TIP. WFRC is also responsible for the regional travel demand forecasting model. WFRC works with UTA and UDOT on modeling activities. The model covers the Ogden, Salt Lake, and Provo areas. WFRC works with the Provo MPO and the Mountainland Association of Governments to coordinate travel-modeling activities.

WFRC is involved in a number of transit planning activities and works cooperatively with UTA. WFRC is responsible for conducting long-range transit analyses and incorporating transit into the long-range regional transportation plan. WFRC also conducts corridor feasibility studies at the planning level, which include commuter rail, light rail transit (LRT), bus rapid transit (BRT), and other alternatives.

WFRC and UTA work jointly on numerous projects. The two agencies are involved in environmental impact studies and preliminary engineering in the I-15 corridor, the West–East light rail study, commuter rail, and the Westside light rail study. UTA is responsible for prelimi-

nary engineering, construction, and operation. The I-15 corridor study, conducted in the mid-1980s, was one of the first studies in the country to examine both freeway and major transit investment alternatives. WFRC took responsibility for completing the Draft Environmental Impact Statement (DEIS). UTA and UDOT were partners in the DEIS. After the DEIS was completed and a preferred alternative selected, UDOT completed the I-15 EIS and WFRC and UTA completed the LRT EIS. WFRC also completed the EIS for the airport-to-university LRT line.

UTA is responsible for short-term transit planning activities related to service planning and the transit development program. UTA is also responsible for project implementation, including final design and construction.

The long-range transit plan for the region has evolved over the past 30 years. In 1977, the bus service area was expanded with the addition of express service in some corridors. An initial LRT line was identified in 1987 as part of the recommended 2005 transit plan. Other elements of the 2005 plan were further extension of the bus service area and identification of potential park-and-ride lots. There was a referendum in 1992 to fund the LRT line. The funding was not approved by the voters. UTA was able to finance the project without the referendum funding. Additional transit corridors were identified in 1998 as part of the 2020 Transit Plan. Among the elements in the plan are additional LRT lines, park-and-ride lots, transit hubs, and commuter rail.

UTA opened the first LRT line in 1999. The opening of the LRT line raised interest in additional lines, and voters approved an increase in the sales tax for transit from $\frac{1}{4}$ percent to $\frac{1}{2}$ percent in 2000. In response to policy board directives to accelerate transit projects, a 2030 Committee was established. The updated 2030 Transit Plan, completed in 2003, includes specific LRT, commuter rail, and BRT corridors.

Future WFRC efforts include reexamining the transportation and land use relationship and promoting transit service expansion and funding. In coordination with the Envision Utah process, WFRC has initiated a Wasatch 2040 project. Growth principles, which emphasize mixed-use development, were adopted. Updating the travel demand modeling and analysis capabilities is another future activity. Finally, maintaining good working relationships with UTA and UDOT will continue to be a high priority.

COMPLETE STREETS: A COMPREHENSIVE POLICY APPROACH TO LIVABLE STREETS

Barbara McCann

Barbara McCann discussed the Complete Streets concept. She presented a definition of the concept and gave exam-

ples of MPO and state departments of transportation involvement with Complete Streets policies and programs. The following is a summary of her presentation.

The National Complete Streets Coalition defines a Complete Street as a corridor that is safe, comfortable, and convenient for travel by all modes, including walking, bicycling, and riding the bus. There are numerous examples of roadways that follow the Complete Streets approach, and there are many examples of streets that are not safe or convenient for walking, bicycling, or using public transit. According to the National Survey of Pedestrian and Bicyclist Attitudes and Behaviors conducted by the Bureau of Transportation Statistics, 25 percent of walking trips occur on roads without sidewalks or shoulders, and bicycle lanes are available for only about 5 percent of bicycle trips.

One of the factors contributing to the lack of more Complete Streets is that planning specific to the various modes continues to occur in many areas. MPOs and other agencies develop bicycle plans, transit plans, and highway plans. These plans are not always integrated, however.

A Complete Streets policy ensures that the entire roadway right-of-way is routinely designed and operated to enable safe access for all users. The purpose of a Complete Streets policy is to create a network of roadways that serve all users. Complete Streets policies also ensure that the concerns of all roadway users are considered in transportation planning practices.

In 2000, the U.S. Department of Transportation recommended an approach for considering bicycle and pedestrian planning in new construction and reconstruction projects. The best examples of Complete Streets policies address a number of key elements. First, they cover all users, including automobiles and motorists, transit vehicles and transit riders, pedestrians, bicyclists, and travelers of all ages and abilities. Second, good Complete Streets policies aim to create a complete network for all modes. Third, the best policies specify that any exceptions require high-level approval. Fourth, good policies allow flexibility in balancing user needs.

Complete Streets policies should apply to new and retrofit projects. They should take advantage of best design standards. Policies should also encourage Complete Streets approaches that fit within the context of a community. Finally, performance standards should be established for assessing projects.

Some MPOs currently have Complete Streets policies. Examples of MPOs with policies and programs related to Complete Streets include the Metropolitan Transportation Commission (MTC) in the San Francisco Bay Area, the East-West Gateway Council of Governments in St. Louis, the Mid-Ohio Regional Planning Commis-

sion (MORPC) in Columbus, the Capital Area MPO in Austin, and the Northeast Ohio Areawide Coordinating Agency (NOACA) in Cleveland.

The Massachusetts Highway Department's design manual also addressed the Complete Streets concept. A guiding principle of the *Massachusetts Project Development and Design Guidebook* is that the roadway system of the commonwealth should safely accommodate all users of the public right-of-way, including pedestrians; people requiring mobility aids; bicyclists; and drivers and passengers of transit vehicles, trucks, automobiles, and motorcycles.

MORPC guidelines require project sponsors to accommodate bicycles and pedestrians in the planning and design of all proposed transportation projects using MORPC-attributable federal funds. The NOACA policy follows the federal guidance. Project sponsors are required to work with NOACA staff and other committees to identify bicycle and pedestrian planning and design issues. Written documentation of the coordination must be provided.

The Legacy 2030 Plan of the East-West Gateway Council of Governments supports the Complete Streets concept. The plan states that as a matter of standard practice, the transportation system should be designed, built, and maintained in a manner that accommodates not only automobiles but also transit vehicles and non-motorized modes of travel. Review of the design manual is under way to better support this approach.

MTC promotes Complete Streets policies on projects funded completely or in part with regional funds. The Charlotte, North Carolina, *Urban Street Design Standards* represents a local government example. The design standards include a six-step process for considering and balancing the needs of all users.

The National Complete Streets Coalition Steering Committee includes representatives from user organizations (such as the American Association of Retired Persons, America Bikes, the American Council of the Blind, and America Walks), professional organizations (such as the American Public Transportation Association, the American Society of Landscape Architects, the American Planning Association, and the Institute of Transportation Engineers), and other interested groups. The National Complete Streets Coalition website (www.completestreets.org) provides links to agencies with existing policies and PowerPoint presentations, brochures, and other resources on Complete Streets. Individuals can also register to receive a periodic electronic newsletter.

Deborah L. Singer, Association of Metropolitan Planning Organizations, moderated this session.

BREAKOUT SESSION

Land Use

George J. Scheuernstuhl, *Denver Regional Council of Governments*
Harrison B. Rue, *Thomas Jefferson Planning District Commission*

LAND USE AND TRANSPORTATION IN THE DENVER REGION

George J. Scheuernstuhl

George Scheuernstuhl discussed integrating land use and transportation planning in the Denver, Colorado, metropolitan area. He described the characteristics of the Denver area, growth and development trends, and approaches being used to coordinate land use and transportation. His presentation is summarized below.

The Denver Regional Council of Governments (DRCOG) covers nine counties. The MPO area is smaller and includes most of seven counties: Boulder, Jefferson, Douglas, Denver, Broomfield, Arapahoe, and Adams. The population of the metropolitan area is approximately 2.6 million and is forecast to increase to 3.8 million by 2030. Traffic congestion is a problem, and congestion levels are expected to increase with the growth in population. Roadway lane miles are being added to keep up with population growth. A comparison of roadway needs with available revenues resulted in a projected deficit of almost \$25 billion by 2030.

A number of methods are being used in the Denver area to enhance coordination between transportation and land use planning and decision making. They include an urban growth boundary, urban centers, and transit-oriented development (TOD). Policy documents supporting these efforts include the Mile High Compact, the Metro Vision 2030 Plan, the 2030 Regional Transportation Plan, and the TIP. The policy documents and the various approaches represent the coordinated efforts

of DRCOG, local jurisdictions, the Colorado Department of Transportation (CDOT), the Regional Transit District (RTD), and other agencies and groups.

Growth boundaries are one approach to minimizing the amount of land to be served by additional roadways and transit services. Growth boundaries better use existing facilities and services. The 2030 growth boundary in the Denver metropolitan area includes 580 square miles that are developed. The developed area is forecast to grow to about 750 square miles by 2030. This figure is approximately 300 square miles smaller than the estimate based on local comprehensive plans. The goal in the DRCOG plan is to increase density by approximately 10 percent. The term “density” often does not resonate positively with the public, which is a challenge in promoting growth management strategies.

Urban centers are the main element used to accommodate the anticipated 1 million people by 2030 without expanding the growth boundary. By working with local governments, 79 centers of various sizes to focus higher-density development were identified. These areas, which include mixed-use centers, activity centers, and regional corridors, all meet a minimum size requirement. The development patterns in these areas foster pedestrian and bicycle travel, as well as walking. Most of the urban centers are located along rapid transit corridors, which might include LRT or commuter rail. Voters in the region recently approved the FasTracks initiative, a \$4.7 billion measure to fund seven additional major rapid transit corridors.

The Mile High Compact represents a key element of better integrating land use and transportation in the

region. The Mile High Compact, which was adopted by the DRCOG policy board, includes a number of objectives related to land use and transportation. Most of the local governments in the region have signed Mile High Compact agreements. In signing an agreement, a local community acknowledges the Metro Vision Plan, a comprehensive development and land use plan, as the umbrella plan for the region. A community agrees that its comprehensive plan will be consistent with the Metro Vision Plan. Local jurisdictions also agree to adopt the urban growth boundary as part of their comprehensive plan, to participate in intergovernmental collaboration in the region, and to use a dispute resolution process if conflicts occur related to land use and development.

The Metro Vision 2030 Plan is the umbrella plan for the region. It is more than just a transportation plan; it is also a development plan. It includes the urban growth boundary and the urban center concepts. It has policies on open space and water quality. It integrates all of these elements together into one comprehensive plan.

The 2030 Regional Transportation Plan can be viewed as a subset of the Metro Vision 2030 Plan. It contains all the policies of the Metro Vision Plan but includes greater detail on the application of these policies. The Regional Transportation Plan identifies the types of transportation services and facilities to be provided in various areas. For example, widening of roadways is not identified as appropriate in the older developed portions of the region. Public transit, bicycling, walking, and travel demand management (TDM) strategies are identified as appropriate for the older, established areas. Options in the older suburbs include expanded bus services, TDM, and related services. Roadway expansion is being considered mainly in the newly developing areas. Roadway expansion projects are primarily widening of existing roadways rather than new facilities. The completion of a beltway around the metropolitan area is the only major new capacity project. Approximately three-quarters of the beltway is complete, and there is much debate related to the last segment.

The TIP brings these planning efforts together. The TIP begins with a policy consensus, which acknowledges that the TIP implements the Metro Vision Plan and the Regional Transportation Plan. It also contains the policy on project selection criteria. DRCOG is responsible for selecting Surface Transportation Program, Metropolitan Enhancement Program, and Congestion Mitigation and Air Quality Improvement Program projects. The project selection policy does not apply to CDOT and RTD projects. CDOT is still considering the role it can play in supporting the land use integration policies. RTD supports TOD and related land use projects. The TIP has a number of elements. It begins with the project categories, which

include capacity, operations, reconstruction, transit, and bicycle and pedestrian. There are common criteria that cross all project categories and criteria specific to individual categories. The common criteria include overmatching federal funds, Metro Vision criteria, and sponsor-related Metro Vision criteria. The funding-level targets for each of the major project categories are established by the DRCOG board.

Project-related Metro Vision implementation criteria have been developed. Points are awarded for various criteria. For example, a total of six points may be awarded, depending on how well a project serves specific urban centers. Six points are awarded for projects serving the Denver central business district, five points for projects serving fixed-guideway transit stations, and three points for projects serving other urban centers.

Sponsor-related Metro Vision implementation criteria deal more with the characteristics and policies of the sponsor than of the project. Examples of policies include preserving open space, developing urban centers and free-standing town centers, and increasing population density. Other policies relate to sharing revenues, establishing urban reserves, adopting senior-friendly programs, and implementing affordable housing. Developing storm water utilities, preparing alternative mode plans, providing connections between modes, and signing the Mile High Compact are additional criteria. A total of 10 points out of 100 points are awarded for these types of policies.

The six points available for the land use-related criteria and the 10 points for sponsor-related Metro Vision implementation criteria provide a total of 16 out of 100 points related to land use and development policies. Approximately 50 percent of the total points relate to the specific project category. Points are also awarded for overmatching with local funds, as a way of encouraging greater leveraging of available federal funds. In the 2005–2007 TIP, approximately 300 projects were selected. Of these projects, 7 percent received six points on the urban centers criteria and 48 percent received five points. Thus, 55 percent of the projects received five or more points on the urban centers criteria; 29 percent did not receive any points on these criteria. Of the 10 points available for the sponsor-related criteria, 9 percent of all projects received the full 10 points, while 48 percent received six to nine points. These figures indicate that local governments are taking the land use policies seriously and are interested in providing an integrated transportation and land use system.

Station area or TOD master planning studies have been funded in the TIP. These efforts support the FasTracks program. The criteria used to select the master planning studies included current congestion on nearby access roads, station usage, existing land use, and environmental justice concerns.

A number of issues still must be addressed to better integrate transportation and land use in the region.

Among them are the effects of land use decisions and development outside the region, multiregional coordination, and the use of transportation to revitalize areas. One issue relates to the growth that is occurring in areas just beyond the DRCOG boundaries. Consideration is being given to extending the MPO boundaries to include these areas. Multiregional coordination is a second issue. Most of the urban development in the state is occurring on the east side of the Rocky Mountains. This area, called the Front Range, extends from Fort Collins on the north through the Denver region to Colorado Springs on the south. The three MPOs in the Front Range area have initiated a planning effort to examine future growth scenarios and methods to coordinate activities. A third issue focuses on the role transportation investments should play in helping to revitalize older and economically depressed areas.

CREATING AN AGENCY ACTION AGENDA: LINKING LAND USE, TRANSPORTATION, ECONOMY, AND ENVIRONMENT

Harrison B. Rue

Harrison Rue discussed the approaches used by the Thomas Jefferson Planning District Commission (TJPDC) and the Charlottesville–Albermarle MPO in Virginia to create an agency action agenda to link transportation, land use, economic development, and the environment. He described the characteristics of the metropolitan area, the scenario-based planning process, the transit-ready development concept, and strategic multimodal investments. A summary of his presentation follows.

The Charlottesville–Albermarle MPO is part of TJPDC. The population in the five-county region is approximately 220,000, with some 120,000 in the city–county MPO area. The University of Virginia is located in Charlottesville.

TJPDC has functions other than transportation planning and MPO responsibilities. Among them are community planning, housing and human services, workforce and economic development, data and mapping, environment, and communication and public participation. Since most of the new development is outside the MPO boundaries, recent efforts have focused on a united plan that encompasses both the MPO area and the outlying counties.

Approximately 3,500 pedestrians an hour using the downtown mall in Charlottesville have been counted. The proportion of people who walk to work in the central area of Charlottesville ranges from 16 to 48 percent, depending on how close they live to the downtown mall and the university. In suburban parts of the city and in

the county, the number of people walking to work drops significantly, to 1 to 3 percent. One focus in the region is examining strategies to build on the experience in the downtown area to encourage walking in other areas.

The public participation process used on planning projects in the area has numerous components. One step is identifying community values related to the topic or issue. A second element combines programs and problems. Third, involving all groups and bringing everyone to the table is a key element. Fourth, the process is used to educate the public and to introduce innovative solutions. Fifth, scenarios are typically developed to test all issues and to model the alternative visions. Finally, the preferred scenario is incorporated into the project programming and funding programs. All of these elements are important in creating an agency action agenda.

A challenge to all MPOs is using visioning processes and other methods to engage the public. Obtaining public participation is not easy. A well-designed process is important in public involvement. Providing training for facilitators is key to ensuring successful programs. Issue-oriented focus groups and hands-on workshops are good methods to engage key stakeholder groups and the public. Visual displays and graphics can be used to present plans, especially with the new requirements in SAFETEA-LU. It is important to proceed with model projects so that the public sees the results of the visioning process.

An effective public participation process enhances good governance. It allows stakeholder groups to have ownership of decisions and planners and engineers to provide technical input. The decision makers are still ultimately responsible for project selection and approval. Effective public participation ensures that the resulting projects will be constructed and operated.

FHWA funded a scenario planning process a few years ago. The main outcome of the project was the development of the Sustainability Accords: Regional Values document. The Sustainability Accords document is similar to the Denver Mile High Compact and the Sacramento Blueprint Transportation and Land Use Study. The Sustainability Accords document contains 11 regional values. The values relate to encouraging strong ties between the region's urban and rural areas, distributing population in ways that preserve vital resources, retaining the natural habitat, ensuring water quality and quantity, optimizing the use and reuse of developed land and promoting clustering, retaining farm- and forestland, promoting the appropriate scale for land uses, developing attractive and economical transportation alternatives, conserving energy, providing educational and employment opportunities, and increasing individual participation in neighborhoods and communities. A consultant was hired to assist in the scenario-planning process. Twenty-six types of communities in the region were

examined, including neighborhoods, small commercial areas, suburban mixed-use areas, and the major downtown Charlottesville area. The characteristics of each type of development were diagrammed, and elements that were similar and different were identified.

The eastern portion of the county is the most rapidly developing area. An Eastern Planning Initiative focusing on this area was undertaken. Significant new roadway capacity will be needed if current patterns continue in the area. A total of four scenarios were modeled on the basis of the Sustainability Accords. An estimated \$1 billion investment in new roadways and other facilities would be needed under the scenario that continued dispersed development patterns. This cost figure is almost four times the entire 20-year funding package for the metropolitan area. Even with this investment, some 44 percent of miles traveled would be under congested conditions. The options with compact development and connected roads required an investment of only \$0.5 billion. The types of roadways would also be different in this option. This option is more efficient for three reasons: compact development fosters walking and bicycle trips, connections are closer together resulting in shorter vehicle trips, and the network of connected roadways rather than fewer larger roadways makes travel more efficient. Under the second alternative, one out of six household trips was made by a mode other than driving. Alternative modes included walking, bicycling, carpooling, and riding the bus.

With funding from the Virginia Department of Transportation (VDOT), a scenario planning effort was undertaken in the northwest Fluvanna–Louisa corridor. This corridor, which includes the city of Charlottesville, is the fastest-growing area in the region. The subplanning effort is linked to the county comprehensive plan. Spot improvement plans are also being considered in the process to address high-priority projects that could be undertaken immediately by communities and developers. This project and other planning studies are conducted at the request of the counties in TJPDC, which provides the technical expertise to conduct the analysis. The results of the studies are used by the counties as input to their comprehensive plans. The county planning commissions determine how the results will be used in the comprehensive planning efforts. Nelson County, the most rural county in the region, was not included in the initial scenario-planning study. County officials requested assistance from TJPDC in rewriting the county comprehensive plan.

The United Jefferson Area Mobility Plan (UnJAM 2025) is the long-range transportation plan for the area. It unites urban and rural portions of the region. UnJAM 2025 includes the typical elements found in an MPO long-range transportation plan and a rural transportation plan for the counties outside the MPO boundary but within TJPDC. In the rural areas, the plan provides a

guide for use by the counties to make investment decisions. In the urban MPO area, UnJAM 2025 is the official financially constrained long-range transportation plan. One of the public involvement strategies used in developing UnJAM 2025 was to provide the draft plan in a workbook format at workshops. Participants were able to revise alternatives graphically and sketch new options. The plan also contains level-of-quality guidelines for various elements. The guidelines include five levels, with the best being “exemplary” and the worst being “hall of shame.”

The transit-ready development concept has been used to guide the development of compact areas to be conducive to transit services. Transit-ready development focuses on incorporating transit-supportive strategies into greenfield developments and the redevelopment of older neighborhoods. These areas will then grow into transit-oriented developments over time. Characteristics of transit-ready developments include mixed land uses and a diversity of housing types, pedestrian-friendly site plans with generous sidewalks and transit stops, and an urban-type street grid with connections rather than cul-de-sac. Other elements include incorporating transit routes and stops into current developments and future plans. Selected public and commercial facilities are identified as transit targets and focus points for service. Developers market many of the transit-supportive strategies. Early action transit services may include commuter coaches providing peak-hour express service and activity center circular trolley service.

The US-29 North Corridor/Reengineering the Suburban Strip study is currently under way. The intersection of US-29 and US-250 is one of the most congested intersections in the area. It also represents the city–county boundary. Given the long-contested nature of the situation, the VDOT commissioner requested that TJPDC undertake a study to examine traffic safety and land use issues and to explore options to address these concerns. An early phase of the project was conducted through the coordinated efforts of staff from TJPDC; the City of Charlottesville; Albemarle County; the transit operators; and VDOT local, district, and central offices. A steering committee made up of business owners in the corridor was formed and given the responsibility of hiring and supervising the work of an economic consultant. The agency team spent much time developing a set of balanced goals addressing multimodal mobility, safety, economic development, and neighborhood and business protection. Workshops and focus groups were used to obtain input from various groups, including landowners, business owners, residents, and representatives from communities at the end of the corridor.

A number of concepts emerged from the early study phase. Among them were separating regional and local traffic streams, providing parallel streets for local traffic

movements, and focusing investments at key locations. Traffic volumes and travel patterns in the corridor were examined and displayed graphically for stakeholder meetings. The analysis indicated that approximately 12 percent of trips on the 10-mile section of US-29 start and end outside the study area, 24 percent had either an origin or a destination in the study area, and 64 percent were internal to the study area, with both origin and destination in the area. Most of the internal trips were in the most congested southern portions of the corridor. The analysis led to consideration of parallel roadways in the most congested segment to protect the throughput capacity of US-29.

Three alternatives and various development scenarios were modeled and tested. The selected alternative maintains the current level of service for 20 years; increases tax revenues; can be constructed in affordable segments; and increases pedestrian, bicycle, and transit access. The parallel road network provides for pedestrian zones on either side of US-29. Possible urban design treatments were outlined, and scenarios were developed for some properties. TJPDC is using the results to develop a corridor plan and

an access management plan for VDOT and the transportation component of the county comprehensive plan. Both of these elements are provided in one document through one process.

The potential of expanding the approaches used in the TJPDC region to statewide applications is being explored. This investment strategy would provide an integrated, multimodal transportation and land use planning process linking cities, suburban corridors, growing rural communities, and small towns in the state. The process would include interagency collaboration and technical teams and participation by the public and businesses. It would focus on implementing the vision and would be linked to local comprehensive plans and the VDOT project programming process. Projects could be used to demonstrate state-of-the-art practices and policy changes. Leveraging funding from all sources, including local, state, federal, and private, would be a key element.

Jane D. Hayse, Atlanta Regional Commission, moderated this session.

BREAKOUT SESSION

MPOs and Freight Planning

Paula Dowell, *Wilbur Smith Associates*

Caroline Marshall, *Atlanta Regional Commission*

Ted Dahlburg, *Delaware Valley Regional Planning Commission*

ROLE OF MPOs IN FREIGHT PLANNING

Paula Dowell

Paula Dowell discussed some of the key factors driving MPO involvement in freight planning. Among the factors are urban congestion, land use linkage, air quality concerns, and environmental justice issues. Her presentation is summarized below.

Traffic congestion continues to be a significant issue in all urban areas in the United States. Trucks contribute to traffic congestion in metropolitan areas. Truck volumes are highest in metropolitan areas, and truck volumes are projected to increase significantly by 2020. Most of the growth in truck volumes will occur in the already-congested urban areas. MPOs can provide a forum for examining these issues and identifying approaches to address these concerns.

The link between freight planning and land use planning and development is important. New residential development is occurring adjacent to traditional industrial, freight, and intermodal facilities in some metropolitan areas. In Atlanta, Georgia, property adjacent to industrial areas with high volumes of truck traffic has become a prime candidate for new residential development. The new developments raise issues associated with noise, light, air quality, safety, property values, and quality of life. Other issues related to locating new residential developments close to trucking facilities include potential mitigation requirements, possible constraints on expansion

and limitations on operating hours, and limitations on options to enhance logistic efficiencies. MPOs provide a logical forum for the discussion of these issues, as well as the identification of approaches to accommodate both industrial and residential uses.

Emissions from trucks contribute to air quality concerns. Air quality is poorest in major metropolitan areas where truck volumes are highest and are projected to increase. A total of 22 urban areas are projected to be in nonattainment for particulate matter 2.5 micrometers or smaller in size by 2010. These areas account for 122 counties and approximately 51 million people. MPOs are responsible for conducting air quality conformity analysis and are in a logical position to examine air quality concerns related to the movement of freight in urban areas.

Potential environmental justice issues are also being considered in freight planning in some areas. Air pollutants are linked to premature death from heart and lung diseases and aggravation of such diseases. These conditions may result in increases in hospital admissions, doctor and emergency room visits, medication use, and school and work absences. They may contribute to death from lung cancer, infant mortality, and development problems such as low birth weight. Some groups, such as people with heart or lung disease, older adults, and children, are more at risk. MPOs have a responsibility to consider environmental justice, including issues related to freight traffic, in the transportation planning process.

ENHANCING PLANNING BY MPOs FOR FREIGHT MOBILITY IN 2020

Caroline Marshall

Caroline Marshall discussed freight mobility planning by MPOs. She highlighted the state of the practice with freight planning at MPOs, identified elements enabling effective freight planning, and outlined critical success factors for enhancing freight planning. A summary of her presentation follows.

MPOs have a number of roles in freight planning. First, MPOs are mandated by federal legislation to consider freight needs in the metropolitan transportation planning process. Freight needs and issues should be included in the long-range transportation plans and TIPs developed by MPOs. Freight considerations may also influence other planning and project selection responsibilities of MPOs.

Staff at many MPOs are organized modally. Freight planning typically cuts across several areas of expertise, including land use, environmental, and transportation planning. Freight planning tends to lack a single advocate at many MPOs. Most MPO planners have no formal training in freight planning. There is limited freight training available, and many MPOs have difficulty in recruiting and retaining staff with expertise in this area. Many MPO policy board members do not fully understand freight issues. No substantive ongoing freight-related education and outreach programs are available to decision makers.

Freight planning at some MPOs tends to be reactive rather than proactive. At many MPOs, understanding of the needs of the freight community is limited. MPOs often do not distinguish between passenger and freight transportation needs. Many MPOs do not have sufficient resources to conduct freight planning successfully. Technical staff with expertise in the freight area are an important resource in successful freight-planning programs.

There are six key elements for enabling effective freight planning by 2020: organization and staff resources, freight goals and objectives, data and analytical tools, freight mobility studies, institutional and agency coordination, and private freight stakeholder participation. The use of freight advisory committees or task forces can ensure the accomplishment of these elements.

Having an MPO staff person dedicated to freight planning is important to successful freight planning. In addition, staff resources should be integrated modally to prevent personnel from being isolated in modal “silos.” MPO staff can help identify and address regional freight issues, guide freight-planning studies and activities, and facilitate outreach to the private sector.

Freight planning should start with the development of freight goals and objectives. They provide a structure and focus for a freight-planning program. They establish a basis for the development and implementation of freight plans. They also provide the basis for developing and applying ongoing performance measures to track progress.

Obtaining and analyzing key freight data are important elements of an effective freight-planning program. Data and analytical tools are important for conducting freight studies and projects. An ongoing data collection program that is integrated with other data collection activities provides the basis for developing and maintaining a regional freight database. Good data are also needed to better incorporate freight into travel demand models.

Freight mobility studies provide a better understanding of freight movement in a metropolitan area. Studies assessing the effect of freight on transportation infrastructure may also be appropriate. Freight mobility studies help identify critical freight issues, analyze possible solutions, and assess improvements.

Coordination among all the public and private groups is a key element of effective freight planning. MPOs are in an ideal position to coordinate freight-planning efforts among various stakeholders. On the public-sector side, these stakeholders include state departments of transportation, environmental agencies, economic development agencies, community improvement districts, environmental groups, and neighborhood associations.

Private-sector freight stakeholder participation may be the most important element in effective freight planning. Stakeholders include shippers, trucking firms, railroads, air cargo firms, barge and vessel operators, and other freight businesses and organizations. Engaging representatives from these groups in the MPO planning process is important for an effective freight-planning process.

Freight advisory committees or task forces are an important component of freight-planning efforts at some MPOs. Freight advisory committees provide freight stakeholders with a voice in transportation planning and programming. They also provide a sounding board on freight issues and concerns. Advisory committees or task forces can help identify, prioritize, and recommend freight projects.

Critical success factors in effective freight planning for MPOs include overcoming silo organization structures and integrating staff resources across modes. Obtaining and retaining staff resources to support freight-planning programs may involve special training. Dedicated resources for training and upgrading skills of freight transportation professionals and ongoing education of policy decision makers should be provided. Commodity flow data and other freight-specific analysis tools must be obtained and maintained. Continuous dialogue

with freight stakeholders will continue to be important. Conducting freight mobility studies and strengthening institutional relationships and agency coordination will be necessary for ongoing programs. Defining freight-specific goals, objectives, and performance measures will be critical.

CRITICAL FACTORS FOR FREIGHT PLANNING AT THE FUTURE MPO

Ted Dahlburg

Ted Dahlburg discussed critical factors for freight planning at MPOs. He provided examples from the experience with freight planning at the Delaware Valley Regional Planning Commission (DVRPC). The following is a summary of his presentation.

There is great variation among MPOs in the United States. Differences include the size of the metropolitan area, the number and expertise of MPO staff, and the nature and complexity of transportation issues. The nature and extent of freight issues will also vary among MPOs. It is appropriate for larger MPOs with more staff and financial resources to take the lead in examining freight issues, developing freight data collection and analysis techniques, and identifying approaches for incorporating freight into the metropolitan transportation planning process.

Freight-planning provisions in previous federal legislation have been critical in advancing the consideration of freight in the MPO transportation planning process. Starting with the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991, federal legislation provided funding for freight planning, state freight coordinators, professional development activities, and freight research efforts. Provisions in future federal legislation will continue to be critical in supporting such activities.

Support for freight planning from top agency personnel is a second critical factor. Key personnel within MPOs, state departments of transportation, and other agencies should provide leadership and overall direction for freight planning. These individuals can ensure agencywide commitment and demonstrate the importance placed on freight planning. The visibility given freight planning at DVRPC has been important in the success of the program. The freight portion of the DVRPC Internet site is one of the most visited sections. Top-level staff at the Pennsylvania Department of Transportation and the New Jersey Department of Transportation have also been supportive of freight-planning efforts.

A third critical success factor is designated agency staff with expertise in freight planning. Since the passage of ISTEA, staff at some MPOs have developed strong capabilities in freight planning. These experienced staff can fill roles as educators, communicators, integrators, and advocates for freight planning. Freight planners often have backgrounds different from those of transportation or land use planners.

MPO freight advisory committees or task forces are another critical success factor. The DVRPC Freight Advisory Committee has been active since its formation some 15 years ago. The committee includes representatives from carriers, shippers, economic development agencies, member governments, adjacent regions, federal agencies, and consultants. The committee meets quarterly. All of the various activities at DVRPC are covered at the meetings, including the long-range plan, the TIP, the unified planning work program, corridor studies, ITS, and travel demand modeling. Attendance has remained strong over the years, indicating the ongoing interest of the freight community. The meetings also motivate staff and provide opportunities for interaction with freight representatives.

MPOs are in a unique position to conduct the necessary technical activities. Examples of technical projects conducted by DVRPC are interactive freight maps, commodity flow profiles, a freight photo gallery, a freight-for-a-day survey, and an intermodal container case study. The DVRPC Internet site highlights these studies and other activities and provides links to other Internet sites.

Maintaining a customer focus is another critical success factor in freight planning. Building strong working relationships with freight groups and associations is key. The DVRPC Freight Advisory Committee helps bring diverse groups together. DVRPC staff also participate in the Traffic Club of Philadelphia and other organizations. Outreach efforts to freight groups are necessary.

Developing a context for coordination and cooperation that all groups can identify with is a final critical success factor. The DVRPC's Freight Corridors Conceptual Framework helps focus infrastructure needs and operations in key freight corridors. At the same time, the freight planning efforts must be relevant to local governments. There are about 900 highway-rail grade crossings in the DVRPC area. Issues associated with these crossings and local improvements for intermodal facilities are two concerns of local governments.

Paula Dowell moderated this session.

BREAKOUT SESSION

MPOs as Operating Agencies

M. Constance Kozlak, *Metropolitan Council of the Twin Cities*

Brian Hoeft, *Regional Transportation Commission of Southern Nevada*

THE FUTURE OF MPOs: MPOs COMBINED WITH OPERATIONS AND MANAGEMENT—THE TWIN CITIES EXPERIENCE

M. Constance Kozlak

Constance Kozlak described the consolidation of agencies in the Minneapolis–St. Paul, Minnesota, metropolitan area, which occurred in the mid-1990s. She discussed factors influencing the consolidation, the experience since the consolidation, and issues still being examined. The following is a summary of her presentation.

Before 1994, a number of agencies were responsible for transportation, parks, and waste control in the Twin Cities metropolitan area. The Metropolitan Council, the MPO for the seven-county area, was established in 1967. The Metropolitan Transit Commission was created in 1970 and took over operation of the privately owned Twin Cities Bus Line. The Parks Commission was established in 1974. It was responsible for funding, but not operating, public parks. The Regional Transit Board (RTB) was created by the state legislature in 1984 and charged with transit planning, policy making, and program administration. Two key responsibilities of RTB focused on contracting for suburban and specialized transit services and planning for LRT. The Waste Control Commission was established in 1969 and was responsible for operating the sewer system in the seven-county area. The cities of Minneapolis and St. Paul initiated coordination on waste control in 1935 with an agreement to develop and operate a sewage treatment plant along the Mississippi River jointly.

Minneapolis and St. Paul are the two largest cities in the area. The Metropolitan Council board includes 16 members, who are appointed by the governor. The members are not required to be local elected officials. The Transportation Advisory Board (TAB), which oversees the MPO functions, is made up of local elected officials and other representatives. One local elected official from each of the 16 districts is appointed to TAB by the Association of Metropolitan Municipalities. The 35-member TAB also includes eight citizen representatives—one from each of two council districts—and individuals from transit, freight, and other modes. TAB is responsible for setting priorities and approving the TIP. The council ratifies the TIP but cannot veto specific projects.

A number of factors contributed to consideration of consolidating these metropolitan agencies in the mid-1990s. First, the accountability and performance of the independent agency policy boards and commissions were a concern. Different appointment methods were used for the various agency boards. Second, the ability of multiple agencies to link planning with implementation was a concern. Third, the newly elected governor had previously served as the state auditor and was interested in streamlining government and improving accountability. Thus, leadership was interested in change.

An initial proposal was developed for consolidation of the metropolitan agencies. The proposal merged all of the agencies into the Metropolitan Council. The three major divisions within the council would have been environmental services, community development, and transportation. The community development group would have included land use, parks, and the Housing and

Redevelopment Authority (HRA), which contracts with communities to operate their Section 8 and other public housing programs. The transportation group would have included the MPO responsible for transportation planning, as well as transit administration and operations. The transit administration and operation function would have included both contracted services and directly provided transit services.

The implemented organizational structure was slightly different. The actual structure includes four major divisions within the Metropolitan Council: wastewater treatment, community development, metropolitan transportation services, and Metro Transit. The wastewater treatment group is responsible for the metropolitan sewer system. The community development group includes land use, parks, and HRA. The metropolitan transportation services group includes the typical MPO transportation planning functions and contracted transit services. The contracted services include Metro Mobility, the specialized paratransit service, and suburban service. The final group, Metro Transit, directly operates the regular route bus and LRT services.

The merger resulted in changes in board and agency oversight. Previously, each of the agencies had an independent board or commission. With the merger, the Metropolitan Council board oversees all parts of the agency. The governor appoints the 16-member Metropolitan Council board, which provides a clear line of accountability. The responsibility of the policy board is broader in scope now. This change places pressure on staff to keep projects on time and on budget. The policy board focuses on immediate issues and topics in addition to maintaining a long-range vision. Operating concerns can sometimes dominate discussion. District-based disagreements appear to have lessened with the change. The unelected and unpaid nature of a board with many responsibilities may result in the organization being more staff driven.

The current planning framework includes an overall plan and function-specific plans. The 2030 Regional Development Framework provides overall guidance for the metropolitan area. It was developed through a visioning process, similar to approaches used in other areas. The system plans include the Transportation Policy Plan, the Water Resources Management Policy Plan, and the Parks Policy Plan.

The consolidation has had implications for transportation planning. Planning and operations are better integrated. Operations can dominate planning, however, which can be exacerbated by limited funding. Even though planning is better integrated, funding decisions may not be better integrated. While there is better integration of transit and highway planning, transit issues can dominate in an organization delivering and operat-

ing transit but not highways. The consolidation appears to have resulted in more realistic planning.

The consolidation has also resulted in better cooperation between transportation, land use, and sewer system planning. Some intersystem conflicts still exist, however. In addition, operating agencies have higher visibility with the public than planning organizations. The operations aspects bring more attention, but also the potential for more conflicts. As funding for highways has been reduced, transit infrastructure has provided a new focus for planning. The integration of planning and transit has provided a higher likelihood of plan implementation.

A number of issues continue to be examined. First, geographic boundaries of all the systems do not match. The Metropolitan Council includes the seven-county metropolitan area. Transit services are provided within the Transit Taxing District, which encompasses a smaller geographical area focusing on the urbanized area. Sewer services are also provided only inside the Metropolitan Urban Services Area. The Metropolitan District of the Minnesota Department of Transportation covers an eight-county area. The commuter or travel shed for the area includes 19 counties. These differences can limit planning activities. Second, how best to focus the MPO functions continues to be considered. Finally, the possibility of electing the board is periodically discussed, although it has not been an issue recently.

MPOs AS OPERATING AGENCIES: THE SOUTHERN NEVADA EXPERIENCE

Brian Hoeft

Brian Hoeft discussed the operating responsibilities of the Regional Transportation Commission (RTC) of Southern Nevada, the MPO for the Las Vegas metropolitan area. He described the organization and responsibilities of RTC, growth trends in the Las Vegas area, and the Freeway Arterial System of Transportation (FAST). The following is a summary of his presentation.

RTC was created in 1965 by state statute. In 1981, the agency was named the MPO for the Las Vegas urban area. State legislation approved in 1983 allowed the agency to own and operate a public transit system, which is now the Citizens Area Transit. In 2004, RTC became the administrator of FAST. In addition, RTC performs transportation planning and directs the expenditure of funds from FTA, FHWA, the local gas tax, and the county sales tax. RTC ensures that plans and programs conform to approved air quality standards and administers the trip reduction program.

The metropolitan area includes Clark County and the cities of North Las Vegas, Las Vegas, and Henderson. Most of the resort corridor is in Clark County. The Las

Vegas area continues to experience rapid growth. Both population and employment are increasing. New developments along the resort corridor include condominium towers, retail complexes, and resorts and casinos. While most of the new employment is centered on the resort corridor, single-family residential development is dispersed, with much of the new growth occurring on the urban fringe.

In the early 1980s, the four jurisdictions and the Nevada Department of Transportation (NDOT) agreed to coordinate traffic signal systems in major arterial corridors. Each entity retained control over purchasing, installing, maintaining, and basic programming of the traffic signals. Signal timing and phasing were coordinated on major arterials as part of the Las Vegas Area Computerized Traffic System (LVACTS), which was administered by the City of Las Vegas. LVACTS focused only on arterials. Operation and management of the freeways and arterials were separate.

FAST was implemented in April 2003. RTC became the administrator of FAST in July 2004. FAST is responsible for arterial and freeway operations. In 2005, FAST moved into the new Nevada Highway Patrol Transportation Management Center. Elements of FAST include closed-circuit television cameras, dynamic message signs, and other ITS elements. Metering of freeway entrance ramps is being implemented on I-15.

Under the City of Las Vegas, an Operations Management Committee provided overall direction and oversight to LVACTS and FAST. The committee was made up primarily of traffic engineers from the participating jurisdictions and NDOT. Communication with elected officials from the participating jurisdictions was through the

traffic engineers. One of the factors influencing the merger of FAST into RTC was the need to provide a closer link to elected officials. A new reporting structure, which provides enhanced communication with local elected officials, was implemented with the merger.

A referendum was approved by voters in the early 1990s providing funding for needed transportation projects in the area. In 2001, RTC began to examine transportation challenges in the area, formulate solutions, and address funding issues. Realizing that the area was again facing a fund shortfall, RTC established an ad hoc committee, RTC3, to examine funding needs and recommend financing approaches. RTC3 documented the benefits of the previous local funding measure and recommended a new local transportation funding program. This initiative, called the Fare Share Funding Program or Question 10, was approved by the voters in 2002.

The merger of FAST into RTC has resulted in closer links between planning and operations. FAST has also become more responsive to policy makers and other groups. In response to a recent request concerning delays and mistimed signals on an arterial corridor, planning and FAST personnel were able to examine the situation quickly, assess alternative operating scenarios, and recommend a change. The recommendation was implemented, and operations in the corridor have improved. Additional opportunities are being examined to combine RTC planning expertise with FAST operations expertise to manage traffic in the area proactively.

M. Constance Kozlak moderated this session.

BREAKOUT SESSION

Security and Emergency Response

Alan Clark, *Houston–Galveston Area Council*

Gerry Bogacz, *New York Metropolitan Transportation Council*

Ronald F. Kirby, *Metropolitan Washington Council of Governments*

HURRICANE EVACUATION PLANNING IN THE HOUSTON–GALVESTON METROPOLITAN AREA

Alan Clark

Alan Clark discussed hurricane evacuation planning in the Houston–Galveston, Texas, metropolitan area. He described the situation during Hurricane Rita in September 2005 and the planning efforts that have occurred since then. A summary of his presentation follows.

Numerous hurricanes have made landfall along the Texas Gulf Coast. The September 1900 hurricane destroyed much of Galveston Island and resulted in some 6,000 deaths. Hurricane Carla made landfall near Port Lavaca in September 1961. It was a Category 4 storm, with sustained winds of 150 mph and gusts up to 175 mph. A maximum storm surge of waves up to 22 feet was recorded in Matagorda Bay. Waves of almost 15 feet were recorded in the Houston Ship Channel. The maximum rainfall of 16.5 inches was recorded in Galveston. Hurricane Carla resulted in 34 deaths in Texas.

Hurricane Katrina made landfall along the Mississippi and Louisiana coast in August 2005, resulting in severe damage to New Orleans and other areas. Hurricane Rita made landfall to the east of the Houston area in late September 2005. Galveston and Houston were in the initial projected path of Hurricane Rita. As a result, the mayor of Galveston called for an evacuation of the island. Witnessing the aftermath of Hurricane Katrina on television may have influenced many residents in the Houston area to evacuate. The evacuation resulted in traffic gridlock. Estimates are that 1 million to 1.5 mil-

lion people evacuated the area. Other estimates place the number as high as 2 million. The hurricane did not make landfall in the Houston area, but it still resulted in 137 deaths in the state, including elderly individuals in a bus that crashed and caught fire south of Dallas. The experience indicates that evacuating a metropolitan region of close to 5 million people is no trivial matter.

After Hurricane Rita, the governor of Texas signed an executive order addressing hurricane evacuation planning and response along the state's Gulf Coast. The order assigned specific responsibilities to councils of governments in these areas, including establishment of a unified command structure to respond to hurricanes and other disasters and designation of an incident commander. It also required councils of governments to collect and analyze data on special needs population groups and to develop an evacuation plan. The governor also appointed a state task force to examine evacuation planning needs.

The Houston–Galveston Area Council of Governments (HGAC) covers the 13-county Gulf Coast planning region. The MPO function includes eight counties in the Houston–Galveston urban area. Before the governor's order, elected officials in the HGAC area had requested that the agency examine the experience with Hurricane Rita and develop an evacuation plan. HGAC established a task force to help oversee these efforts. Numerous meetings were held throughout the region, traffic data on the Hurricane Rita evacuation were analyzed, and data on special needs population groups were collected and examined.

A tabletop exercise was conducted to examine the impact of various categories of hurricanes and various

evacuation scenarios. Much of Galveston Island would be underwater with a hurricane causing 11-foot wave surges. All of Galveston Island and portions of the area around Texas City would be underwater with 19-foot wave surges. All of Galveston County and much of eastern Harris County would be underwater with 22.5-foot wave surges, and a little over 1 million residents would be affected.

Mandatory evacuation areas were identified for categories of hurricanes, including Category 1 and 2 storms, Category 3 and 4 storms, and Category 5 storms. Between 800,000 and 1 million people would have to be evacuated with Category 3 to 5 hurricanes. The evacuation routes for most of these people are through Houston and the metropolitan area, which contain about 4 million residents. On the basis of the experience with Hurricane Rita, approximately 2 million people could be expected to evacuate in 500,000 to 1 million vehicles. During the Rita evacuation, people took boats, mobile homes, trailers, and other vehicles. Many families appear to have evacuated in more than one vehicle.

The planning process examined potential evacuation routes and traffic data from the Rita evacuation. The impact of different conditions on the highway network was modeled by using new forecasting tools. Bottleneck points along the freeway system were identified, and alternatives to address these problems were analyzed. On the basis of the capacity of the freeway system, clearing the evacuation vehicles would take about 53 hours under ideal conditions. Hurricanes do not occur under ideal conditions. Furthermore, notification and response time may be short, depending on the actual path of a hurricane. Other factors may influence an evacuation. With Hurricane Rita following so close to Hurricane Katrina, most of the hotel rooms in the Houston area were filled with Katrina evacuees, and many gas stations were low on fuel or closed.

The HGAC task force's major recommendations addressed evacuation command and control, fueling, special needs population groups, and traffic management. Under current Texas law, only the mayor of a city or a county executive has the power to order an evacuation. The governor does not have the authority to order an evacuation. When one mayor or county executive calls for an evacuation, it has a ripple effect throughout the area. The task force recommended a unified regional approach, with HGAC responsible for planning. The task force recommended that the private sector play a role in addressing fueling concerns. The private infrastructure would be utilized, with personnel located in the state emergency operations center. The special needs population was defined to include persons who could not evacuate themselves. The task force recommended the development of a statewide, web-based database on special needs groups, to be maintained locally. The task force

also recommended that the state develop a sheltering plan for these individuals.

The task force made a number of recommendations related to traffic management during an evacuation. They addressed the use of contraflow freeway operation, directed evacuation, incident management, and aid stations. Contraflow freeway operation, which involves opening all lanes in the outbound direction, was not initially implemented during Hurricane Rita. To help address major traffic congestion, contraflow operation was implemented on I-45 North and I-10 West. As part of the planning process, the Texas Department of Transportation (TxDOT) developed hurricane evacuation plans for contraflow operations on I-45 North, I-10 West, and US-290. The contraflow operation begins at the edge of the urban area and continues to the major destination cities. TxDOT also examined traffic bottleneck points that occurred during the Hurricane Rita evacuation on the freeway and state road systems. Plans to address the bottlenecks were developed and are being implemented.

A telephone hotline (211) has been established for individuals with special needs. Individuals needing assistance will be transported in state vehicles to a state-designated shelter. The vehicles will be equipped with Global Positioning System and other communication devices to allow monitoring of their location. Individuals using the system will be tracked in a database.

The experience with the Hurricane Rita evacuation and the evacuation planning that occurred over the past year highlights a number of elements in meeting the challenge of emergency evacuations. Effective collaboration among local governments, transportation agencies, health and human service agencies, and the public is an obvious key element. Ongoing communications and technical expertise in planning, data analysis, forecasting, and traffic operations are also important elements of successful programs.

EVACUATION PLANNING IN THE NEW YORK CITY AREA AFTER SEPTEMBER 11, 2001

Gerry Bogacz

Gerry Bogacz discussed evacuation planning in the New York City area after the terrorist attacks of September 11, 2001 (9/11). He described the involvement of the New York Metropolitan Transportation Council (NYMTC) in evacuation planning before 9/11, the self-evacuation of Lower Manhattan on 9/11, and emergency evacuation planning activities that have occurred since that time. A summary of his presentation follows.

NYMTC is the MPO for the New York City metropolitan area. The area includes New York City and five

surrounding suburban counties. There are close to 200 municipalities in the five counties. The population of the area is approximately 12 million. The MPO area is part of a larger 21-county multistate region that includes about 20 million people.

Before 9/11, NYMTC had no real involvement in emergency planning. Member organizations, including New York City, the counties, the cities, and the state, were involved in emergency management and response activities. The Metropolitan Transportation Authority and other transportation agency members also maintained security and emergency response functions. In addition, there are two evacuation zones for nuclear power plants in the region. One plant is inside the MPO area, while the second is located just outside the area. Evacuation plans were in place for those facilities. Other emergency management plans, public health plans, and related efforts were in place.

There are numerous law enforcement, fire, and emergency medical services in the area. New York City, New York State, the five counties, and the nearly 200 municipalities all have some type of law enforcement agency. There are also federal agencies in the area with enforcement and emergency response duties, including the U.S. Coast Guard. Before 9/11, these enforcement agencies were highly fragmented and rarely interacted with NYMTC.

The events of 9/11 changed this situation. Lower Manhattan was evacuated after the collapse of the World Trade Center Twin Towers. Given the situation, the evacuation was self-directed. The subway was damaged in the collapse of the towers and was not operational. Most people walked out of Lower Manhattan. People also used waterborne modes, including ferries and tugboats, to evacuate. It has been estimated that close to 1/4 million people evacuated by boat. There was no plan for this type of evacuation, so the response was ad hoc. It did work, however, with no serious injuries reported from the evacuation.

NYMTC offices were located in the North Tower of the World Trade Center. The organizational capacity of NYMTC was significantly affected by 9/11. NYMTC all but ceased to exist for a 6-week period immediately after the terrorist attacks. NYMTC's planning process did not return to normal until about 6 months later. Member agencies continued to coordinate in their recovery roles during this period. The emergency management and emergency services jurisdictions were operating at full capacity. These agencies were engaged with law enforcement agencies to address all aspects of the situation. Operation decisions, such as restricting single-occupant-vehicle use of some bridges and roadways, were made through an emergency order by the mayor.

Operation and emergency management did not coalesce within NYMTC, even after the agency resumed

functioning in a cohesive manner. NYMTC has historically not played a major role in emergency planning. Emergency agencies were not always aware of the MPO process and the role of NYMTC. The U.S. Coast Guard did approach NYMTC to assist in coordinating planning for patrolling of bridge and tunnel operations in the area. NYMTC helped in facilitating the development of patrolling protocols and in coordinating other response activities. The Port Authority of New York and New Jersey, which is a member of NYMTC, initiated a planning effort for evacuating all of Manhattan. This effort was outside its MPO-member role.

An issue that has emerged since Hurricane Katrina is how to evacuate an enormous region such as the New York area. Issues include what modes to use, destinations for the evacuees, and communicating with the public. The individual emergency management agencies have some level of planning, but no group has examined the entire region. The suburban counties are concerned because they are in the path of residents evacuating from New York City. Furthermore, the only way to evacuate residents on Long Island is through New York City or by boat. Approximately 5 million people were trapped on Long Island when New York City was all but shut down on 9/11.

The emergency plans of the various agencies must be coordinated. A formal planning process has not been initiated, however. A good deal of planning has been done for the potential arrival of avian flu in the region. Public health agencies have been communicating and coordinating on these plans, which include a transportation component. To date, the health agencies have been dealing directly with the transit agencies, and NYMTC has not been actively involved in the process.

NYMTC has examined a few security issues at the request of member governments. In response to a request from the New York City Department of City Planning, NYMTC staff examined perimeter security arrangements and the impacts on transportation.

To date, NYMTC has not been actively involved in emergency response and evacuation planning. NYMTC and MPOs could play an important role in emergency response coordination. MPOs could also play a role in coordinating information on security planning. Funding for these efforts from federal, state, and local sources would be needed.

EMERGENCY PLANNING ACTIVITIES AT THE WASHINGTON METROPOLITAN COUNCIL OF GOVERNMENTS AFTER 9/11

Ronald F. Kirby

Ron Kirby discussed emergency planning activities at the Washington Metropolitan Council of Governments

(WASHCOG) and in the Washington, D.C., region since 9/11. He described the events immediately after the terrorist attack on the Pentagon and the role WASHCOG is playing in coordinating planning activities. The following is a summary of his presentation.

The terrorist attack on the Pentagon resulted in a major change in emergency planning in the Washington, D.C., region. Numerous meetings were held immediately after 9/11 to review the response to the attacks and the evacuation of the area around the Pentagon. The consensus was that on-the-scene response at the Pentagon was conducted in an exemplary manner. There was a clear command structure, with the Arlington Fire Department in charge. Other fire departments provided backup, and public safety agencies provided support. The coordinated response was a result of intergovernmental relationships established by the public safety agencies in response to previous emergencies, including the airplane crash on the 14th Street Bridge. The inter-agency backup arrangements worked well at the Pentagon.

On the other hand, the general view was that the response to the ripple effect or the spillover effect was not handled well. Limited information was available to the public throughout the day. The information that was provided was often confusing. Many people self-evacuated because no one knew exactly what was happening. Many federal agencies took actions to protect members of Congress, the President, and other key officials. There was not a great deal of communication between the federal agencies and the District of Columbia Department of Transportation, the Washington Metropolitan Area Transit Authority, or the states of Virginia and Maryland. There was a good deal of confusion and congestion on the roadway system. As a result, many roads were gridlocked, with people stuck in the traffic and exposed to follow-up attacks. Moving emergency vehicles into other parts of the area if they had been needed elsewhere would have been difficult.

WASHCOG convened a number of meetings to review the emergency response. WASHCOG was viewed as the appropriate agency to convene these meetings because of its history of facilitating discussions of important issues in the region. There was a good deal of discussion at the meetings concerning the roles and responsibilities of various agencies. Much of the focus was on communication between the various agencies and communication with the public, which all groups believed needed improvement.

Different phases of emergency planning have been completed since 9/11. WASHCOG immediately received \$5 million from Congress for emergency planning. A comprehensive emergency planning effort was begun with the funding, which was initiated before the establishment of the Department of Homeland Security

(DHS). An oversight committee was formed. The committee included local officials and representatives from the departments of transportation of Virginia, Maryland, and the District of Columbia. It also included the emergency managers from the states, which was a new group to work with WASHCOG.

A number of task groups focusing on different topics were established. WASHCOG was responsible for the transportation component. An emergency transportation coordination component of the larger plan was completed. The transportation component focused on how to deal with all types of incidents. Weather events, such as hurricanes, were not a major focus of the planning process, simply because those types of events are not typical in the region. The planning process focused on the potential of an incident or disaster occurring in a specific part of the region. Under the most likely scenario, the incident would be contained to that specific area and most residents in other areas would be able to shelter in place, leaving the roadways open for incoming emergency response vehicles and the evacuation of residents from the affected area. It was generally believed that the response to the 9/11 attack had not met these expectations. The attack on the Pentagon was restricted to a specific area. In retrospect, the regional self-evacuation was not necessary, but the situation was not clear at the time.

Numerous meetings were held with personnel from emergency management agencies and transportation agencies. The report prepared from the process focused primarily on demand management strategies. The report indicated that evacuating everyone from the region in a short period of time with the existing transportation system would be difficult due to a lack of capacity. A number of people were surprised at the limited capacity not only of the freeway and roadway system but also of the Metrorail system. As a result, managing demand became an important part of the plan. The second key point in the plan addressed coordination among the various agencies. Coordination is critical so that all agencies have an idea of what other agencies are doing and can communicate on a real-time basis. Public information is a key component of the demand management approach.

In addition to terrorist attacks, the plan addressed other types of incidents, including major traffic crashes. The planning process was believed to benefit response to all types of incidents. Examples of recent incidents include an individual who threatened to jump off the Woodrow Wilson Bridge and an individual who drove a tractor into the pond in front of the Capitol building claiming he would detonate a bomb. Analysis of these incidents indicated that the personnel managing the response were totally focused on the incident itself and the immediate area. There was little communication with other personnel trying to deal with the ripple effects.

A number of tabletop exercises were conducted with representatives of the departments of transportation, transit agencies, emergency management agencies, law enforcement, and other groups. The exercises proved to be effective in working through the roles and responsibilities of the various agencies in response to scenarios. They reinforced the conclusion that responders at the scene knew what to do but that the ripple effects were not being managed well. The tabletop exercises pointed out the need to have one agency take responsibility for providing information to the public and to coordinate among the transportation agencies to deal with effects beyond the scene of the incident.

Toward the end of the first phase, the task force was established as a permanent WASHCOG committee, the Emergency Preparedness Council. The council includes local elected officials and representatives from public safety, emergency management, law enforcement, and transportation and transit agencies. It meets on a regular basis.

Ongoing planning is being funded under the federal Urban Area Security Initiative. Approximately \$1 million per year is provided to WASHCOG through this program to maintain and support the Emergency Preparedness Council and to conduct continuing scenario development and planning for all types of emergencies. It was a complex process working through DHS proce-

dures. WASHCOG was active in the initial phases of planning but has focused more recently on the transportation component. The current focus is on ensuring that transportation agencies in the region can respond appropriately to all types of emergencies.

The lack of capability to communicate and coordinate in real time, both among transportation agencies and with the public, was identified as a shortcoming. A new program is being established that will be responsible for managing the ripple effects of incidents, including traffic crashes. The program is being funded by a combination of a federal earmark and state matching funds. The Transportation Operations Coordinating Committee in the New York City region has been used as the model for this program. Agreements are currently being finalized with the participating agencies. The program requires participating agencies to agree to a coordinated approach, which means giving up some of their independent actions and responsibilities. Negotiating these agreements has taken time. While the main benefit of this program will be improved response and management of traffic incidents, it will also provide capabilities in the case of a major incident.

Alfred Foxx, Baltimore City Department of Transportation, moderated this session.

BREAKOUT SESSION

Research and Capacity Building

James Gosnell, *Southern California Association of Governments*
Jose-Luis Mesa, *Miami-Dade Metropolitan Planning Organization*
Donald Shanis, *Delaware Valley Regional Planning Commission*
M. Constance Kozlak, *Metropolitan Council of the Twin Cities*
Katherine Turnbull, *Texas Transportation Institute*
Robert Winick, *Motion Maps, LLC*
Janet Bell, *Jefferson County*
Tigist Zegeye, *Wilmington Area Planning Council*
Carmine Palombo, *Southeast Michigan Council of Governments*

The final breakout session focused on MPO-related research and capacity-building needs. Participants were able to select the session they wished to attend. The four sessions were large MPOs—research, large MPOs—capacity building, small and medium-sized MPOs—research, and small and medium-sized MPOs—capacity building. The major research and capacity-building needs identified and discussed during the four breakout sessions are summarized in this section. Discussion notes from the other breakout sessions were reviewed, and additional suggestions related to research and capacity-building needs were included in the session. The comments and suggestions are not presented in order of priority.

LARGE MPOs—RESEARCH

James Gosnell, Facilitator
Jose-Luis Mesa, Recorder

Participants in this breakout session identified and discussed a range of research topics that would be beneficial for advancing planning and other activities at large MPOs. The following is a summary of the session.

There are a number of research needs related to travel demand modeling. Among them are the changing nature of trip making, the substitution of technology for trips, and the impact of pricing strategies on trip making.

Assessment of the growing and changing nature of truck travel and goods movement, and how this information can be incorporated into travel demand models, was also suggested as a research topic. Longitudinal travel surveys with time-of-day information are needed for new models and for analyzing pricing alternatives. Staff with expertise in travel demand models are in demand at MPOs. Recruiting and retaining staff with travel demand modeling skills are ongoing concerns at many MPOs.

Research on developing and sustaining partnerships with traditional partners and with new public- and private-sector groups would be beneficial. Elements to examine include potential barriers to partnerships, methods to overcome these barriers, innovative partnerships with new public- and private-sector groups, and sustaining partnerships. Including best practice case studies, as well as experiences from other nontransportation services, would be of benefit.

Research on outcome-based planning and how it is being or could be used by MPOs is suggested. Topics to examine include defining outcome-based planning, case study examples from the public and private sectors, training needs for MPO staff, and techniques for transitioning from process-based to outcome-based planning.

Examination of options to current MPO boundaries and methods to coordinate within megaregions would be beneficial. Topics to explore in this research include (a) multiple MPOs in a metropolitan area and a megaregion and (b) MPO boundaries and the service areas of other

metropolitan agencies, such as transit and water and sewer. The use of flexible or floating boundaries based on different topics and needs could also be examined. The question of functional versus political boundaries was discussed.

Research could be done that examines MPOs as operating agencies and MPOs conducting operations planning. A synthesis of current examples of MPOs as operating agencies and MPOs conducting operations planning would provide a good starting point. A more detailed research project could examine needs related to legislative changes, technical tools and technical expertise, and policy board modifications that may be needed when MPOs take on operating responsibilities.

Research on travelers' response to pricing strategies is desirable. Pricing approaches are being discussed, considered, and implemented in various areas. Sharing information on the experience with current projects, as well as different planning approaches, would be helpful.

Research on models for organizing and coordinating megaregions, regions, and metropolitan planning would help address future discussions of this topic. Approaches to explore include corridor coalitions, megaregional agencies, and coalitions of MPOs.

Developing an MPO leadership program was discussed. Such a program could help develop MPO staff with the management and leadership skills needed in the future. It could help foster entrepreneurial leadership skills, as well as communication, consensus building, and outreach skills.

Research focusing on the use of visioning processes and techniques is desirable. A synthesis of best-practice examples of successful transportation visioning programs was identified as a good first step. Additional research could build on the synthesis by addressing key elements of successful visioning programs, sustaining visioning efforts, and monitoring and evaluating progress toward achieving the outcomes of these programs. The development of a handbook on conducting visioning processes could be one product of this research.

Research on the use of collaboration and collaborative techniques would be of benefit to MPOs, state departments of transportation, and other stakeholder groups. Topics to examine include collaboration techniques, keys to successful collaboration, the use of collaboration by MPOs, and staff training needed to conduct collaborative efforts.

Research on international experiences in major urban areas was suggested, including exploration of approaches that have been used successfully in other countries. An ongoing dialogue with international transportation planners would be productive.

Continued research on the impact of development on transportation and techniques to enhance the coordina-

tion of land use and transportation planning would be beneficial.

Research related to the use of advanced technologies for data collection and data warehousing is desirable. Consideration of a central national data clearinghouse was also discussed.

Research related to energy sources, global climate change, and the impacts on travel and transportation was identified as needed. More research is needed on transportation and air quality.

The potential for MPOs to pool resources to conduct needed research should be explored. The pooled-fund study approach used by state departments of transportation and FHWA is one model that could be examined. Topics include establishing a mechanism to pool funding, coordinating the development of project statements, issuing requests for proposals, selecting consultants or universities to conduct the research, managing projects, disseminating results, and assisting in implementing results. The development of a multiyear MPO-focused national research agenda could be part of this effort.

Peer-to-peer exchanges would be beneficial for both MPO staff and policy board members. Such exchanges could focus on highlighting best-practice examples and on emerging issues. Examples of topics include freight and intermodal planning, innovative financing and project development methods, security and emergency response planning, and MPOs as operating agencies. Interaction of policy board members from different MPOs would be beneficial.

The need to identify better methods to disseminate the results of research projects was discussed. Enhancing the distribution of information on past and current research would be of benefit to all groups. Ideas suggested included posting reports online, highlighting research at conferences and workshops, and using e-newsletters to summarize key results.

LARGE MPOs—CAPACITY BUILDING

Donald Shanis, Facilitator
M. Constance Kozlak, Facilitator
Katherine Turnbull, Recorder

Participants in this breakout group discussed skill sets needed by MPO staff in 2020, capacity building to meet these needs, and characteristics of suggested capacity building and training. It was noted that staff at MPOs in 2020 will need a variety of skills and technical expertise. Participants discussed the following skills and areas of technical expertise for MPO staff in 2020, in addition to traditional transportation planning skills.

Additional Skill Sets Needed by MPO Staff in 2020

Collaborative and consensus-building skills will be needed at MPOs. Staff who can facilitate discussions among diverse groups and help these groups reach a consensus concerning plans, policies, programs, and projects will be needed.

Travel demand forecasting and modeling skills, including expertise in new models and techniques, are needed at MPOs. Staff should understand the basic components of travel demand models. There is a difference between running the models and understanding their results and their inputs, outputs, limitations, and uses. Communicating the results of the modeling process to stakeholders and the public is also a valuable skill.

Expertise in financing, including innovative financing methods, toll assessments, and public-private partnerships, is needed at MPOs. The ability to work with the private sector will be increasingly important. Training in methods to examine and analyze private proposals for leasing transportation infrastructure, as well as techniques for examining toll projects, will be desirable.

Staff with expertise in freight planning, including an understanding of logistics and the globalization of trade, are needed at MPOs. Establishing links to the business community will continue to be important.

Public involvement, public participation, and media relations will become even more necessary. The methods that the public and policy makers use to access information continue to change as technologies evolve. The public has come to expect instant access to information. The use of the Internet and other technologies will grow. Staff with skills in these areas will be needed, as will skills in public facilitation techniques, market research, and outreach and education.

Entrepreneurial leadership skills are needed by MPO directors and top staff. Identifying techniques and methods to teach and foster entrepreneurial leadership skills in public agencies, including MPOs, would be beneficial.

Staff with skills in geographic information systems and related software programs will continue to be needed. Retaining staff with such skills can be a problem at MPOs and other public agencies.

A variety of skill sets are needed at MPOs that have operating responsibilities. Some MPOs operate public transportation services, while others are responsible for traffic management and traffic operations. Staff with skills related to the specific operating functions will be needed at these MPOs.

Skills in demographic and socioeconomic forecasting will continue to be needed at MPOs. An understanding of how these projections are developed, the impact of the forecasts on the transportation system, and the use of the data in travel demand forecasting models is needed.

Project management skills will be needed at MPOs taking on responsibilities related to overseeing project development. Project scheduling, budgeting, grants management, construction management, and operation management are examples.

Skills are needed in network information systems and data transfer. Data and information will continue to be dispersed among agencies. Sharing staff with expertise in these areas may be a logical approach.

In addition to staff with strong technical skills, MPOs need staff with public policy skills and an understanding of the political process. MPO staff with the ability to relate to policy makers, elected officials, and the business community will become even more useful.

Capacity Building to Meet Needs in 2020

Capacity building related to communication skills, public affairs, media relations, public information, and public participation is needed. Techniques for reaching out to diverse groups and obtaining participation from all segments of society are desirable. One approach to training in this area would be to reach out to professional organizations and universities. A university certificate program could be considered.

Training is also needed in the use of visualization techniques and related methods to enhance public involvement. Capacity building in the use of these techniques, which include computer programs and other graphic visualization software, would be beneficial. Innovative methods to provide information on key transportation issues and projects should be explored.

Available funding and resources should be leveraged to provide needed capacity building and training. The FHWA and FTA peer exchange programs provide one method to share information and experiences among MPOs. More information on these programs is available from FHWA and FTA. Peer exchanges may occur within the states. Use of online communication techniques is another available method. The Travel Model Improvement Program online exchange is one example of this approach. The Association of Metropolitan Planning Organizations (AMPO) and the National Association of Regional Councils (NARC) have similar programs.

Statewide associations of MPOs can be used to provide training and capacity building. They can help maximize capacity-building opportunities by pooling resources. MPOs with expertise in certain areas could host workshops and seminars. Topics could include freight planning, security and emergency planning, land use and transportation planning integration techniques, and public involvement methods.

Formal training is available through courses offered by the National Highway Institute (NHI) and the

National Transit Institute (NTI). The development of new courses can take time, but NHI and NTI courses offer highly structured training options.

Ongoing training and educational opportunities should be provided to MPO policy board and committee members. Workshops and orientation seminars for new board members, as well as ongoing sessions on timely topics, are appropriate. The content and format of these sessions should be matched to the available time and interests of the board and committee members. Most board and committee members have full-time jobs, so focusing these efforts on shorter time periods is desirable.

Developing a leadership academy for MPO directors and top staff is one approach to enhance entrepreneurial, communication, and leadership skills in MPO staff. Among the options for sponsoring this type of leadership training are national organizations and universities. Topics could include a mix of technical and leadership development skills, with the major focus on leadership skills related to staff management, board member interaction, and outreach to community leaders and policy makers. Sessions at the AMPO and TRB annual meetings and conferences of other organizations can be used to focus on emerging issues of importance to MPOs and MPO leadership.

There is a difference between training and education. Training focuses on the development of skills in a specific topic area, while education focuses on understanding broader concepts. Both training and education are needed to develop skills that will be in demand in the future.

Characteristics of Capacity Building and Training

Capacity building and training should be flexible, with approaches matched to the needs of MPO staff and policy board and committee members. Different presentation techniques and different forums are appropriate for various groups. Formats include online message exchanges, peer-to-peer programs, workshops, seminars, NHI and NTI courses, and sessions at conferences and meetings. Taking advantage of new and emerging technologies can benefit capacity-building efforts.

Capacity building may help in the consensus-building process in an area, with information on issues incorporated into projects and planning activities. Capacity building could also be targeted toward a megaregion. This is a way to bring MPOs, agencies, communities, and policy makers in the megaregion together. Capacity-building activities could be a first step toward more formal interaction and coordination in a megaregion.

Universities, university-affiliated transportation research groups, and university transportation centers

are resources for capacity building and training. Universities are also responsible for educating the next generation of transportation professionals. The skills noted previously should be included in university courses. The directors and top staff of MPOs in 2020 are in school now or are starting their careers. These groups must have skills in the areas identified.

Cross-training of MPO and other agency staff is one approach to consider in some areas. Having expertise spread among staff at various agencies in an area may help maximize available resources. Cross-training may also help address staff turnover concerns.

SMALL AND MEDIUM-SIZED MPOs—RESEARCH

Robert Winick, Facilitator
Janet Bell, Recorder

Participants in this session discussed research needs related to small and medium-sized MPOs. While most of these research topics are appropriate for MPOs of all sizes, the discussion focused on the unique aspects of small and medium-sized MPOs. The following points were discussed.

Research should examine methods to enhance the connection between community comprehensive planning and transportation planning, including approaches to foster collaborative decision making. Case study examples of good approaches, along with key elements of successful efforts, were identified as elements of this research.

Research should examine the impact of freight and goods movement on small and medium-sized metropolitan areas. Providing best-practice examples of freight planning programs at small and medium-sized MPOs would be beneficial. Examining infrastructure and services needed to support freight capacity increases and achieving a better understanding of the role small and medium-sized communities can play in the changing U.S. and global economy were identified as elements of the research. Examining shifts in industrial locations and the general economy of smaller areas was discussed.

Suggested areas for research related to data collection included identifying the key data collection needs given limited resources, examining the use of new technologies to improve data collection, coordinating data collection between agencies, and utilizing private data sources.

Research examining traveler and household responses to increases in fuel costs, natural disasters, and other major activities was discussed. Research should explore incentives and disincentives, including those related to state and federal policies.

Research should assess alternative public transportation modes, technologies, and service options in small

and medium-sized communities. Topics identified included the costs and potential ridership associated with various approaches, alternative financing methods, and impacts on land use and development patterns.

Research on factors that influence travelers to change mode is desirable. A synthesis of current experiences, as well as more detailed exploratory research on responses to various strategies, was suggested.

The need for performance measures appropriate to small and medium-sized areas was discussed. A synthesis of performance measures in use by small and medium-sized MPOs would be a good first step. More detailed research could be conducted to examine other performance measures, as well as data collection and programs needed to support these efforts.

Research should examine emerging issues related to natural resources. Issues suggested include water quality and quantity, mining, timber, oil extraction, and air quality. Assessing how these issues might affect growth forecasts was suggested.

There is a need for research into new infrastructure and infrastructure replacement needs in small and medium-sized MPO areas. Much of the infrastructure in these areas was constructed during the 1950s and 1960s. Examination of the cost of replacement, alternative funding methods, and construction approaches would be useful.

Comparative studies of small and medium-sized MPOs are needed. Among the topics for these studies are methods to foster coordination in smaller areas, techniques for engaging stakeholders, staff recruitment and retention, and development of leadership skills at the staff and board levels. Methods to establish and maintain the MPO identity in smaller areas, especially if the MPO is part of a city or county, would be useful. Techniques for developing MPO champions would also be of help.

Small and medium-sized MPOs face many of the same issues as do larger MPOs; the scale is just smaller. Research, including best-practice case studies, on safety and security, emergency evacuation planning, goods movement and freight, and land use is needed. Examination of public-private partnerships, toll projects, and innovative financing in small and medium-sized areas would be helpful.

Many small and medium-sized areas are adjacent to larger metropolitan areas that are expanding into the small and medium-sized areas. Research is needed on approaches to address the expansion, techniques to coordinate planning efforts and decision making, and methods to identify and fund transportation facilities and services.

Research on coordinating MPOs and transportation decision making across state lines was identified as a need, especially in small and medium-sized areas. Examining the experience in areas that have one multistate MPO and areas with MPOs in each state would be ben-

eficial. The impact of differences in state laws is another element to include in the assessment.

Examining methods to communicate with decision makers concerning consequences of plans and actions was discussed. Outcome-based planning may help address this issue, but sharing experiences at small and medium-sized MPOs would be helpful.

Research on building links with regional and national groups would be useful. Among these groups are the U.S. Conference of Mayors, trucking associations, AASHTO, AMPO, and NARC.

The skill sets needed by MPOs and other transportation agency staff are changing. Research and capacity building are needed to identify the new skill sets and to develop and provide training, education, and technical assistance.

SMALL AND MEDIUM-SIZED MPOs— CAPACITY BUILDING

Tigist Zegeye, Facilitator
Carmin Palombo, Recorder

This breakout group began with a discussion of MPOs within the metropolitan setting. Participants also discussed capacity-building and training needs for staff at small and medium-sized MPOs.

MPOs work closely with other agencies and local communities to accomplish metropolitan transportation planning activities. MPOs work with citizens groups, the public, the business community, private transportation operators, and other groups.

A “dream team” concept was discussed, with MPOs working with state departments of transportation and others to accomplish key tasks. Staffing and resources could be shared among agencies to maximize benefits to all groups.

Statewide MPO organizations provide a good option for sponsoring training. Many states have MPO organizations or associations. Providing training, workshops, and seminars is often a key function of these associations. Statewide MPO organizations can coordinate professional capacity-building activities, leverage funding, and maximize available resources.

Staff with skills in travel forecasting will continue to be in demand at all MPOs. Having staff with travel demand modeling skills provides independence from the state department of transportation and from relying on consultants. Sharing staff among MPOs in a state might be an option. Providing training in travel demand models is an ongoing need at MPOs.

Training in fiscal analysis techniques and revenue projection methods would be beneficial. Training and information sharing in new financing methods, including

public–private partnerships, tolling, and other innovative approaches, are needed.

If MPOs take on operating responsibilities, training related to the new functions is needed. Operational responsibilities could include public transportation services, rideshare and travel demand model programs, traffic management, and traffic signal coordination.

Capacity building is needed in the areas of safety and security planning, as well as disaster and emergency planning, response, and recovery. Scenario planning and tabletop exercises are methods for skill development in these areas.

Some small and medium-sized MPO areas are experiencing rapid growth and development. Capacity building in methods to coordinate and integrate land use and transportation planning would be useful in these areas.

Establishing partnerships with universities in the area and in the state to assist with training needs and to provide speakers for meetings is a viable option. Universities provide a connection to students, graduate students, faculty, and researchers that can be beneficial for MPOs. Connections with universities provide opportunities for

part-time student workers and students completing internships at MPOs. Furthermore, MPOs may be able to coordinate with and learn from research projects and other activities. Providing suggestions for topics to cover in courses can ensure that students have the skill sets needed for the future.

Training based on project planning has been used successfully in the past and should continue to be appropriate. This technique may focus on multiagency staff teams responsible for projects. Special workshops or seminars on specific topics and projects can be used to inform and educate MPO board members and policy makers.

Funding for training and capacity building is an ongoing issue. Exploration of ways to maximize available resources and take advantage of opportunities offered by FHWA, FTA, and national and state organizations should continue.

Information summaries on projects and emerging issues or topic areas can be used in capacity building and outreach efforts with policy makers and the public. This approach can help inform the public and policy makers on specific issues and help build credibility for MPOs.

THE FUTURE MPO

PLENARY SESSION

The Future MPO

A Framework for Discussion

Howard Glassman, *Florida Metropolitan Planning Organization Advisory Council*

This session focuses on summarizing some of the key points discussed at the conference. The conference planning committee and session moderators and recorders met last night to review the notes from the breakout sessions and to discuss common themes and salient points. The common themes identified for further discussion will be presented at this session. The summary focuses on the questions discussed in the breakout sessions. These questions addressed the vision for MPOs in 2020, the work of MPOs in 2020, MPOs within the regional setting, and the transition from MPOs today to MPOs in 2020.

I will start this session with a few observations on the conference. Speakers at the opening session on Sunday did an excellent job of setting the stage for the discussions that followed. John Poorman's presentation on the colloquy held in New York State helped set the tone for fostering interaction at this conference. He noted that the colloquy brought a diverse group of people together to discuss future issues and opportunities. We have followed a similar process. John also noted that the colloquy was designed to produce a final product. This session begins to bring together common ideas that may be discussed further in other venues.

The conference speakers and participants made a number of points in the sessions. First, we heard that MPOs need to be nimble and quick to respond to diverse issues, as well as adaptable to changing conditions. The complexity of transportation issues in an area was noted as more important than the size of the area in defining possible roles of MPOs. Many participants stressed the importance of MPOs adding value to the transportation planning process and providing relevancy in addition to

the federal process. The need for entrepreneurial leadership at MPOs was discussed by a number of participants, as was the need to focus on key issues of local and regional significance. Flexibility in federal legislation and regulations related to MPOs was suggested.

Several participants noted that MPOs can play an important role in ensuring that the transportation system is planned as part of a sustainable urban fabric. The role MPOs play as the forum and convener for the discussion of key issues was noted. It was suggested that MPOs provide a focus on regional vitality that goes beyond just transportation. These common themes focus on entrepreneurial leadership, expanding the knowledge base and investing in training, and examining enhancements to the transportation planning process.

THE MPO IN 2020

Peter Plumeau, Wilbur Smith Associates; Libby Rushley, Oregon Department of Transportation; Constance Kozlak, Metropolitan Council of the Twin Cities; and Lois Goldman, New Jersey Transportation Planning Authority, presented a vision of the MPO in 2020. This vision was purposely provocative and intended to prompt a lively discussion.

Vision of the MPO in 2020

The presenters described the future MPO as having the following roles and characteristics:

- The MPO has legal authority commensurate with its responsibilities, as well as adequate resources to carry out its responsibilities.

- The planning and programming for the regional transportation system, regardless of who does it, respects and supports the regional vision and goals adopted by the MPO.

- Transportation funding can be applied in as flexible a manner as deemed necessary.

- MPOs are structured and function to support and further a well-articulated national transportation policy.

- Activities that MPOs may be responsible for in 2020 include multimodal regional transportation planning, programming, and, as appropriate, operating.

- MPOs self-designate their work programs.

- MPOs develop partnerships that promote entrepreneurial leadership in the region.

- MPOs provide leadership on regional issues and champion change based on adopted goals and policies.

- MPOs facilitate agreement on regional priorities and have the authority to influence local decisions, including land use, growth, and economic development.

- MPOs have the professional expertise to track the past, monitor the present, and forecast the future performance of regional transportation systems.

- MPOs provide a visionary force in the region.

- MPOs foster local leadership to fill the champion role.

- MPOs have grown beyond the federal enabling legislation and regulations and are not dependent on state or federal funding.

- The complexity of a region, as well as the population, helps determine the status of an MPO.

- The role or niche of an MPO varies by regional characteristics.

- MPOs have relevant boundaries that may vary by issue or topic, such as those scaled to sewer areas, transit districts, or commuter sheds. There may be a mega-MPO in a region with coterminous MPOs or there may be one MPO per metropolitan area, with locally flavored variations.

- MPOs provide a one-stop shop that streamlines the provision of transportation while maintaining planning and programming objectivity.

MPO Structure in 2020

The presenters envisioned the following organizational and operating characteristics for the MPO in 2020:

- MPOs are organized to succeed in meeting their responsibilities and are able respond expeditiously and effectively to emerging issues.

- MPOs function as independent agencies with the authority to contract for specialized services as needed.

- MPOs have adequate funding to carry out work responsibilities, including nongovernmental funding.

- MPO staff are multidisciplinary, technically sophisticated, well trained, positively challenged, nimble and flexible, team oriented, and multimodal in perspective.

- MPOs communicate effectively with the public, the media, and stakeholders.

- MPOs conduct unbiased and competent technical analyses.

- Evolving technologies are used both to understand public and stakeholder attitudes and to create awareness of regional issues and needs.

- MPOs expand participation and membership to include the business community and economic interests.

- MPOs are rightsized to fit the assigned and appropriate responsibilities.

- Strong cross-MPO training and mentoring are available.

PARTICIPANT DISCUSSION

Conference participants engaged in a lively discussion of the vision for MPOs in 2020. Comments addressed both the roles and characteristics of MPOs presented in the framework and elements that were not included in the framework. The following is a summary of the topics discussed by participants. The points are not presented in any order of priority.

A number of comments focused on MPOs today compared with the vision for 2020. The variety among MPOs today was noted. MPOs, even within the same state, can differ widely in leadership, technical proficiency, ability to meet basic requirements, funding, and other characteristics. While some MPOs are doing some tasks extremely well, no one MPO is doing everything well because of resource, staff, authority, and funding constraints. The limited or nonexistent authority to affect land use and security severely limits MPOs' effectiveness.

A major point of discussion was the role of MPOs in land use and development. The suggested vision used the word "authority" in relationship to the MPO role in land use. Participants voiced concern that authority was not the appropriate term to use, since land use decisions are primarily the responsibility of local governments. Instead, it was suggested that MPOs play important neutral, unbiased, and facilitating roles in the discussion of coordinating land use, transportation, and investment decisions. The role of MPOs as the "place to go" for the discussion of land use and transportation issues was noted. The role of MPOs in facilitating a regional consensus and resolving

conflicts was suggested as more appropriate than MPOs having authority over land use. Many participants disagreed with the statement that limited or nonexistent authority to affect land use and security severely limits the effectiveness of MPOs.

An item noted as missing from the vision was why MPOs are important and why they are needed. It was suggested that the vision should start with a statement on the valuable role MPOs play in the transportation planning, policy-making, and project selection process. MPOs provide a forum to bring diverse groups together to discuss critical transportation issues in an area; to help identify a future vision for the region; and to reach consensus on projects, programs, and policies to achieve this vision.

The importance of partnerships in the metropolitan transportation planning process and as an element of successful MPOs was identified as missing from the vision. MPOs work in partnership with state departments of transportation, other transportation agencies, local jurisdictions, private operators, interest groups, and the public. MPOs provide the “glue” that brings these diverse groups together to accomplish agreed-upon goals and policies. The importance of such partnerships was noted in many of the conference presentations and during the discussions.

It was suggested that establishing the context for the vision was important. Possible elements to include in the context, which were discussed at the conference, include the end of the Interstate era, the global economy, the

growth of megaregions, the energy situation, and global climate change. Other elements include declining funding, federal devolution, metropolitan areas as the economic engine of the country, population growth, and security and emergency response.

The importance of the neutral and unbiased role MPOs play was cited. MPOs can bring solutions to the table, facilitate discussions among diverse groups, and develop a consensus on future directions.

The suggestions related to MPO boundaries were discussed by participants. Different viewpoints were expressed with regard to the importance of MPO boundaries as an issue, and various approaches were identified to address concerns. The “megalight” approach was suggested as a possible starting point for dealing with megaregions. This approach focuses on regional coordination and cooperation as a first step to more formal relationships.

Participants noted that it is difficult to predict the future. There should be a focus on the MPO’s role as the place where the state, local governments, other transportation agencies, the private sector, and the public come together to discuss key issues. It was suggested that linking the agreed-upon future vision to performance measures would be important.

Participants suggested that more discussion must take place on these issues before a shared vision could emerge. In addition, a clear national transportation vision is needed.

CLOSING PLENARY SESSION

Panel Discussion on the Future of MPOs

Therese McMillan, *Oakland Metropolitan Transportation Commission*

Harrison B. Rue, *Thomas Jefferson Planning District Commission*

Anne Canby, *Surface Transportation Policy Partnership*

Mary Lynn Tischer, *Virginia Department of Transportation*

Peter Plumeau, *Wilbur Smith Associates*

Charlie Howard, *Puget Sound Regional Council*

Therese McMillan

It is a pleasure to welcome you to this closing session. I will be asking our panelists to share additional ideas on many of the topics discussed over the past two days and to provide their thoughts on how we move forward to address some of the suggestions.

It is a little scary discussing the taking on of new roles and responsibilities by MPOs when many of us feel overextended dealing with a full pallet of issues. MPOs are ideally suited to take on these roles, however, and to work with other agencies and groups to address critical transportation needs in metropolitan areas throughout the country.

As MPO staff, we also need to ask whether we are planning to meet federal requirements or to solve problems. If we are focusing on solving problems, are MPOs organized to plan reactively or proactively? As the first question for the panel, are MPOs planning to meet federal requirements or are MPOs planning to solve problems?

Harrison B. Rue

We fulfill federal requirements because they are mandatory, but we undertake many other planning projects and activities to meet critical issues in the region. We work hard at establishing and maintaining strong working relationships with our partner agencies, the private sector, and other groups. Local jurisdictions and other agencies and groups participate in the metropolitan transportation planning process because they find it of benefit, not

because of federal requirements. We provide a forum for the discussion of key transportation issues and for building consensus with regard to solutions. We are effective because we help advance needed projects and programs. The Virginia Department of Transportation is an important supporter of the MPO process in the area. The elected officials and policy makers perceive the strong working relationship among the staff from all agencies.

Therese McMillan

Anne, how would you respond to the question of proactive versus reactive approaches?

Anne Canby

First, let me introduce myself, since I was not able to participate in all parts of the conference. I am currently president of the Surface Transportation Policy Partnership (STPP). My previous experience includes working at the federal level and as head of the Delaware Department of Transportation, where I chaired the MPO.

STPP recently conducted a series of seven workshops around the country. Many of the same issues you have been discussing at this conference were brought up at those workshops. The momentum for building our way out of congestion that has grown over the past 50 years remains strong, with MPOs tending to react to development pressures. An increasing number of MPOs are recognizing the need to be proactive, and there are examples of MPOs undertaking proactive visioning processes, trend analyses, and other forward-looking planning

efforts. Many of you are leaders in taking a proactive approach in your metropolitan areas.

There are many people and groups who do not know what MPOs are. This situation is not helpful if you are trying to redefine the roles of MPOs. Many states do not have clear definitions of the roles and responsibilities of MPOs. The authority of most local governments comes from state law. It is important to keep this situation in mind as we consider how MPOs can take a stronger leadership role in metropolitan regions, which are the drivers of the U.S. economy. The role of regions as economic drivers is not being considered at any governmental level in a coherent and comprehensive manner.

One of the comments we heard frequently at our workshops related to the disconnect between the long-range transportation plan and the capital program (TIP). This issue relates to a comment made at the session this morning on the lack of transparency and accountability. I think the public is demanding more from all of us. By working together, we need to find a way to meet these demands.

Therese McMillan

Mary Lynn, there has been a good deal of discussion concerning the size of different MPO areas and the impact of size on the ability of MPOs to meet requirements and take on additional responsibilities. Others have suggested that the complexity of transportation issues in an area is more important than size. How would you react to these viewpoints?

Mary Lynn Tischer

I suggest that size is often a corollary for complexity. While size is not the only factor that influences the complexity of transportation issues in an MPO area, it is typically more difficult to address transportation needs in larger areas, and more resources are required. The decision-making process is frequently more complex in larger metropolitan areas, with more diverse stakeholder groups involved in the process.

I have been involved in the travel demand forecasting process in various areas of the country. It is clear that the sophistication of the models and the capabilities of staff differ greatly on the basis of the size of an MPO area and the complexity of the transportation system. Elements that factor into the complexity of the transportation system include the number and size of freeways, roadways, and transit systems; the location of ports, airports, and railroads; the population and employment base in an area; and air quality and environmental concerns. It would logically be preferable to use complexity rather than size in defining the requirements for different MPOs, but I am not sure that this approach could realistically be applied.

Therese McMillan

We have talked about how emerging issues may affect different areas in different ways at different times. What role do MPOs have in defining and addressing these issues?

Peter Plumeau

I think MPOs can play an important role in structuring and managing the discussion of important transportation issues in a way that is understandable and accessible to decision makers and the public. There are numerous examples of MPOs effectively engaging stakeholders and the public in discussions and reaching consensus on approaches to addressing key issues. Common elements of successful examples include strong and entrepreneurial leadership by the MPO, especially the MPO director; proactive public and policy-maker involvement; and strong working relationships with other agencies, jurisdictions, and groups. Effective MPOs provide a forum where diverse groups can come together to discuss and even resolve important issues.

From my experience as an MPO director, I think it is important to show leadership in the MPO region. Interacting with key policy makers and technical staff is critical, as is raising the visibility of the MPO. Establishing and maintaining credibility are also important. Policy makers and other groups will seek assistance from MPOs if you have credibility, integrity, and technical expertise.

When I ran an MPO, we conducted an assessment of our performance in meeting the goals, objectives, and priorities contained in the long-range plan. This objective assessment received a lot of attention from policy makers, the media, and the public. It developed positive recognition with these groups for the work of the MPO. It helped raise our visibility and credibility.

Public involvement programs help in establishing an understanding of the roles and responsibilities of MPOs, as well as in obtaining input on specific plans, programs, and projects. Building recognition is an important component of establishing the long-term credibility of MPOs.

Therese McMillan

A number of speakers have suggested that MPOs have an inherent value for conducting objective and neutral analyses of critical issues. On the other hand, MPOs may sometimes need to take positions on issues or promote needed projects. How do you reconcile these two points of view?

Charlie Howard

MPOs deal with diverse jurisdictions and groups. There are significant differences between central cities, first-ring

suburbs, outer-ring suburbs, and edge communities. MPOs function in complex settings, with a wide range of issues. Maintaining objectivity is important for MPOs in dealing with these diverse groups. Providing technical expertise is also important. Typically, no other groups are focusing on the region as a whole the way MPOs are. As a result, MPOs can have a good deal of influence on issues of regional significance.

We have been examining alternative growth strategies for the region. As for transportation, the view from the local level can vary significantly from the view from the regional level. Many local jurisdictions view regional transportation as an externality and are rightfully concerned with how transportation affects their local communities and issues of context-sensitive design. Local communities can sometimes lose sight of the broader issues of regional commuting and system performance. MPOs can focus on these regional issues and needs.

Our executive director is a former county executive. It is telling when an MPO board selects one of its members to be the executive director. He understands regional politics and knows how to address issues and opportunities. He also knows how to get things done in a regional setting. For example, the economic development district has been merged into the Puget Sound Regional Council, which integrates economic development into the planning process. We are the agency being looked at more and more to discuss and resolve regional issues of all types, including tax reform and education reform.

Harrison B. Rue

I think this issue is critical in discussing the roles of MPOs. It is critical that MPOs be objective in conducting transportation analyses. We are viewed as providing objective and unbiased analyses. We are also viewed as an agent to facilitate needed changes. Part of my role is to facilitate desired and agreed-upon changes through education, outreach, the introduction of new ideas, and other methods. I think it is possible to be objective, to provide a range of options, and to facilitate implementation of the selected options.

Anne Canby

I think this issue is critical. I do not think there is an inconsistency between being objective and helping advance agreed-upon projects and programs. MPOs play an important role in presenting the facts about regional trends and concerns and the investments needed to address them. There are significant issues that must be addressed at the regional level. Among them are the mobility needs of our aging society, reduction of energy consumption, and maintenance of economic competitiveness. MPOs can help advance the discussion of these and

other topics. MPOs can also help build broader constituencies and broaden the agenda for regional solutions. Another opportunity for MPOs relates to performance and accountability. Performance and accountability are necessary for the public to support and policy makers to provide additional resources for transportation. All of these elements fit within the possible roles of MPOs. Providing accurate, timely, and understandable information on transportation projects is another important role MPOs can play.

Mary Lynn Tischer

I think one of the important roles MPOs can play is to act as a catalyst for the state. This role will continue to be critical. MPOs adopted a multimodal focus before most state departments of transportation became multimodal agencies. MPOs can play an increasingly important role in facilitating the coordination of transportation and land use issues. Other emerging areas for increased MPO participation are freight and port planning and examination of the role of metropolitan areas in the changing global economy.

Harrison B. Rue

MPOs often play an important neutral facilitator role. MPOs work with other transportation and transit agencies, local jurisdictions, special interest groups, and the public. Facilitating discussions on metropolitan transportation needs is an important role for MPOs. MPOs may also act as change agents in an area. Focusing on the goals of the agency provides direction to staff and sends a clear message to other agencies and the public.

Therese McMillan

How do you think we will achieve the elements outlined in a possible vision for MPOs in 2020?

Mary Lynn Tischer

I think the issue of funding is critical. The use of earmarks at the federal and state levels for specific projects is much more common today. At the same time, private-sector groups are approaching some states with proposals for projects. These trends could distort the transportation planning process. The methods used to develop, construct, and operate projects are changing. This change is both a threat and an opportunity to the planning process and to MPOs.

Therese McMillan moderated this session.

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Darin Allan, *Federal Transit Administration*

Larry Anderson, *Federal Highway Administration*

Harold Barley, *Metroplan Orlando*

Moshe Becker, *National Association of Regional Councils, Israel*

Janet Bell, *Jefferson County*

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Patricia Berry, *Chicago Metropolitan Agency for Planning*

Gerry Bogacz, *New York Metropolitan Transportation Council*

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