# C O L L O Q U Y









ON THE COMING TRANSFORMATION OF TRAVEL

Organized by the Federal Highway Administration, the New York State Metropolitan Planning Organizations, and the USDOT Volpe National Transportation Systems Center

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# COLLOQUY

### ON THE COMING TRANSFORMATION OF TRAVEL

June 2006

To the Transportation Community:

A rapidly aging population pyramid, steadily improving vehicle technology and uncertainty about the stability and cost of petroleum supplies are but the beginning of the list of factors changing the face of travel in the United States. Add in rapid population growth in many metropolitan areas (and economic stagnation in others), climate change concerns, emerging methods for financing transportation improvements, and the economic impacts of globalization and you have a recipe for a very different environment for metropolitan planning over the next thirty to fifty years from the one in which our planning institutions were established.

Academicians, researchers, public policy advocates and private sector entrepreneurs typically live, move and think outside the "box" of the institutional mindset of state departments of transportation and metropolitan planning organizations (MPOs). For this reason, the transportation community reached out to these big thinkers to help articulate expectations for the future and to confront the planning profession with the risks and opportunities that will be present over the coming generation. The material in the following pages represents the findings and recommendations from these thinkers to practitioners.

Is this just an exercise in abstract conjecture? Hardly. Not a day goes by without the public and private sectors taking actions that establish long-lived land use and transportation frameworks. As practitioners, we can sleep at least a little more comfortably at the end of the day if we can say that our actions derived from an informed and intelligent perspective on what we can anticipate, what we cannot forecast and what we might possibly influence about the future.

John P. Poorman

Colloquy project chair

Staff Director, Capital District Transportation Committee, Albany NY Chairman, New York State Metropolitan Planning Organizations

# OVERVIEW

The Colloquy project was created to help planning practitioners make decisions regarding highway, transit, intermodal and intercity transportation facilities – decisions that will have impacts on the environment, economy, land form and community cohesiveness lasting for generations. The project's objective is to integrate the perspectives of experts in various fields and generate a set of expectations and recommendations that describes the inevitable; identifies the avoidable; and puts perspective on the unknowable.

The project centerpiece was a unique event. From June 1 to 3, 2005 more than three dozen leading thinkers and researchers in economics, demographics, technology, public policy and the environment gathered in Rensselaerville, New York – not for a series of presentations, but for structured discussions. While there were no MPO staff or state DOT representatives contributing to the Colloquy discussions, the critical objective was to produce recommendations for metropolitan planning. So, the Colloquy products are to be seen as recommendations to practitioners not from practitioners; to an extent, they are a set of outside-looking-in recommendations. The participants were from a number of disciplines and their positions on critical issues both converge and diverge. It is a testimony to their knowledge and good will, and to the skill of the facilitators, that such a broad set of perspectives on an enormous set of issues could be synthesized into concise statements that resonated with the participants.

The Colloquy project was initially organized by the New York State Association of Metropolitan Planning Organizations (NYSMPOs), a voluntary partnership of thirteen transportation planning agencies covering metropolitan areas with a total population of 17,000,000. The financial commitment of the NYSMPOs was matched by the Federal Highway Administration's Office of Planning. The FHWA arranged for the technical participation of the US DOT's Volpe National Transportation Systems Center.

As part of the preparation for the June Colloquy event, the Volpe Center prepared a focused synthesis of leading thought and research on each of five broad areas where long-term trends are expected to have significant consequences for travel demand: demographics, public policy, urban land use, technology, and economics. The white papers are not intended to be exhaustive: other areas of inquiry, other trends, and other perspectives certainly exist. They were developed for participants, as a starting point for discussion. Each paper includes a list of recommended readings.

The first product of the Colloquy event is a series of statements of generally-held expectations for long-term developments in five areas: demographics, technology, public policy, urban land use, and economics. From one perspective, there are few surprises in the generally held expectations for the future. Conditions of continued immigration, population growth, technological change and constrained infrastructure are all confirmed. Yet the emphasis on uncertainty and on the breadth and scale of the issues facing metro areas should not be discounted. Affirmation of the need to embrace uncertainty can be seen just in the events since the June event (e.g. Hurricane Katrina). A central element of the expectations is the assessment that transportation is becoming a knowledge-based commodity, and that we should plan for a greater private sector role than in the past. Most observers of the transportation planning process agree that this is a time of transition for MPOs, and that demands on these organizations are not only changing, but increasing.

The second Colloquy product is a series of recommendations for MPOs, based in part on the statements of long-term expectations developed by participants in the June event. These recommendations are offered to MPOs as a potential roadmap to maximize their relevance and meaningful impact, at the same time that they work to make sense of and respond to federal requirements.

These products are presented in the following pages.

# ORGANIZATION AND PROCESS

#### Organizers

New York State Association of Metropolitan Planning Organizations (NYSMPOs): The NYSMPOs is a voluntary coalition of the state's 13 MPOs working together toward common goals. It is comprised of a diverse group or organizations, representing very large, urban areas like New York City as well as small, urban areas such as Elmira and Glens Falls. By identifying common interests and needs, the NYSMPOs works on transportation-related planning and research initiatives to help member MPOs provide top quality transportation planning expertise to the public throughout the State.

and concerns of the society served by these plans and programs. Planners examine past, present, and prospective trends and issues associated with the demand for the movement of people, goods, and information at local, rural, tribal, metropolitan, statewide, national, and international levels.

U.S. Department of Transportation Volpe National Transportation Systems Center: The Volpe National Transportation Systems Center is located in Cambridge, MA and operates under the policy guidance of the U.S. Secretary of Transportation and the Administrator of the Research and Innovative Technology Administration (RITA).



# Federal Highway Administration Office of Planning, Environment and Realty (HEP):

The Office of Planning, Environment and Realty serves as FHWA's advocate and national leader for environmental protection and enhancement, comprehensive intermodal and multi-modal transportation planning. and for fair and prudent acquisition and management of real property. Transportation decisions need to be made in an environmentally sensitive way, using a comprehensive planning process that includes the public and considers land use, development, safety, and security. Transportation planners undertake a comprehensive analysis and evaluation of the potential impact of transportation plans and programs while addressing the aspirations

The Volpe Center provides research, analysis, and systems capability on a fee-for-service basis for all modes of U.S. DOT, and other Federal, State and local agencies, in addition to a number of international entities. The Center fosters innovation and develops integrated systems approaches to crosscutting interagency and intermodal transportation issues of importance to the nation. Government, industry, and academia recognize the Center as a focal point for the assimilation, generation, and interchange of knowledge of national and international transportation and logistics systems. Increasingly, the Volpe Center is requested to apply its unique intermodal perspective to anticipate transportation and logistics issues, to identify needs, and to serve as a bridge between public and private sectors.

THE PROJECT CENTERPIECE WAS A UNIQUE EVENT... MORE THAN THREE DOZEN LEADING THINKERS AND RESEARCHERS IN ECONOMICS, DEMOGRAPHICS, TECHNOLOGY, PUBLIC POLICY & THE ENVIRONMENT **GATHERED IN** RENSSELAERVILLE, **NEW YORK—NOT** FOR A SERIES OF PRESENTATIONS, **BUT FOR** STRUCTURED DISCUSSIONS.

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# ORGANIZATION AND PROCESS

IN SOME AREAS, THE TRANSPORTATION SYSTEM WILL OFFER CONSUMERS THE OPTION OF PAYING A PREMIUM FOR HIGHER QUALITY SERVICE. SUCH AS A CHOICE BETWEEN **GENERAL AND** CONGESTION-PRICED HIGHWAY LANES. THIS WILL CREATE A NEW TRAVEL AND MARKET PHENOMENON, PROVIDING A POTENTIAL DICHOTOMY BETWEEN HIGH SERVICE (AT A PRICE) AND

LOW QUALITY (ON

GENERAL PURPOSE

LANES OR

FACILITIES).

The June event relied heavily on small group and large group exercises conducted during the 48-hour contact time at Rensselaerville. Approximately fifty individuals, including support staff and organizers, participated in discussions of the changes to travel factors expected over the next thirty to fifty years. Exercises led to the identification of areas of agreement, discussion of the effect of uncertainty, and initial findings regarding travel and transportation policy and planning implications.

The approach built upon an assumption that the invited participants would bring a wealth of knowledge and exposure to a wide range of the subjects on the discussion agenda. Accordingly, there will be no formal presentation sessions.

Second, the approach worked from the assumption that participants would be eager

to share their perspectives on particular subjects and would expect that their individual knowledge and experience receive adequate attention. This required ample time for participants' points of view to be aired.

Third, the approach focused on the small group and plenary discussions to articulate common understanding of individual subjects and elicit alternative perspectives.

Fourth, the approach envisioned the greatest benefit of the overall exercise as the weaving together of threads from various subjects into an articulation of how various factors can be expected to interact.

The use of a retreat center for this exercise was intentional; multiple venues were provided for casual discussion of Colloquy subjects outside the structured sessions. It is hoped that the time spent by participants was personally satisfying and intellectually stimulating as well as productive.

# PRODUCTS: DAY ONE

#### **Generally-Held Expectations**

#### Demographics

- -1- A growing population will produce economic activity and transportation demand that will put substantial pressure on the transportation system in certain growth states and metropolitan areas, at ports of entry and along trade corridors. The desire for mobility will remain strong and fueled by expected income growth. While the amount of further increases in per capita personal travel may be debatable, the expectation of increased aggregate travel demand – nationally and across all regions experiencing population growth - is not.
- -2- In rapidly-growing areas with development constraints (limits to developable land, water, etc.), urban expansion will be accompanied by infill development, and will likely result in higher overall urban densities.
- -3- The current diversity of household forms, lifestyles and changing nature of work will emphasize the need for a more flexible transportation system than that designed for traditional 8 to 5 work travel. The need for flexibility (travel choices that are ubiquitous and sensitive to an individual's or household's schedule requirements) will compound the challenges of designing a transportation system with effective non-auto travel options.
- -4- Immigration is expected to remain substantial due to the aging of the population pyramid of resident Americans and the needs of the economy for younger workers, professionals and entrepreneurs.

- Transportation patterns of immigrants quickly reach patterns similar to those of other residents with comparable incomes. However, certain metropolitan areas are expected to continue to experience high levels of immigration of low income workers. In these metropolitan areas, the travel needs of the new immigrants in their first few years of residency will continue to constitute a significant portion of overall demand for
- -5- Decentralization of settlement patterns and jobs will continue to contribute to spatial mismatch and economic and other inequities in many urban areas. Increasing polarization of the labor force composition (between skilled/educated on one hand and low wage service workers on the other) will exacerbate the regional jobs – housing balance and jobs access transportation concerns for lower wage workers.
- -6- 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 transportation system flexibility to meet the needs of the elderly who need to rely increasingly on alternative modes. This will also increase the need for attention to safety. The need to improve transportation options to better accommodate the needs of seniors will be greatest in automobile-dependent areas, and in communities that retain or attract large numbers of retirees.

# Economics

-1- Use of pricing strategies will increase, with acceptance varying with the type of strategy (congestion pricing vs. tolling, new vs. existing facilities). Pricing will help mitigate and manage, but not eliminate congestion. The degree of penetration of pricing for system management and the level of public support for the use of pricing for other social or environmental goals (such as transit support or freight movement priority) is uncertain. In some areas the transportation system will offer consumers the option of paying a premium for higher quality service, such as a choice between general and congestion-priced highway lanes. This will create a new travel and market phenomenon, providing a potential dichotomy between high service (at a price) and low quality (on general purpose lanes or facilities).

PRODUCTS: DAY ONE



- -2- There will be an increased role of the private sector in terms of delivery of transportation services and supply, offering greater market responsiveness than possible through exclusive reliance on implementation by public institutions. The rate of addition of private sector services or of privatization of existing public services is uncertain.
- -3- Continued growth in the consumer economy, globalization of the supply chain and a continued shift of manufacturing to lower-wage nations will impact freight transportation. Growth in freight will continue, especially for international and high-speed delivery – all of which is sensitive to quality, reliability and predictability. Economics will drive the push for increased efficiencies in freight logistics across all modes. Truck traffic will increasingly compete with auto travel for scarce highway capacity, and rail and waterborne freight networks will become increasingly-attractive alternatives to **Urban Growth** truck movements.
- -4- Emerging economies and new world powers will have an increasing influence on the US economic position, will ensure international economic interdependence and will increase international competition for scarce resources such as petroleum.

#### **Public Policy**

- may emerge as a significant factor influencing transportation technologies, perhaps pricing, as well as other aspects of the economy and society with their own impacts on travel.
- -2- National transport policy influence at a scale equivalent to implementation of the Interstate system appears unlikely. Key system design, management and funding decisions are likely to reside primarily in state, local and private entities, with significant variation across the nation.
- -3- The real price of fuel, as well as the volatility of supply, is likely to increase. However, similar expectations in the past have frequency, purpose), providing countervailing been proven wrong.



- -4- Environmental concerns will continue with no diminished significance, and the range of environmental considerations affecting transportation investment decisions may
- -5- Interest and action in strategies addressing objectives labeled "smart growth" or "sustainable development" will grow, as much for quality of life concerns as for a recognition of the interaction between land use policies and mobility decisions. The form and degree of influence of these policies will vary widely.
- -6- There will be a diversity of both userbased and non-user-based funding strategies for transportation facilities and services, with the specific strategies and mix varying by region/state. The magnitude of funding availability relative to "need" is uncertain.

-1- Market forces will continue to drive urban form more than public policy, due to lack of consensus, less public trust in government, and fewer available dollars for public investments. "Smart growth" and "sustainable development" initiatives will have significant impact when and where they reflect consumer market preferences. The combination of local state and national transportation policy will remain the norm.

- -2- As metropolitan areas grow, the -1- Treatment of global climate change issues core/CBD of the central city will continue to be an important location of economic activity, but most metropolitan regions will become increasingly polycentric in form. The outlying nodes of the polycentric metro area will range from modest multi-activity clusters at access points (transit stations, highway interchanges) to those that are city-sized. Low growth areas will have a different (closer to zero-sum) dynamic. In these areas, population and economic growth in suburban areas largely represents relocation from and the decline of older, inner suburbs and central cities.
  - -3- Advances in information technology will influence the nature of travel (time of day, influences on urban form (both facilitating dispersal of activity and encouraging concentration of like industries.)
  - -4- The continued shift in the US economic base away from manufacturing to service/ consumption/information is significant and leads to agglomeration and dispersal; dispersion could be polycentric/nodal or non-central sprawl. The interaction of urban form and transportation will vary with geographic scale.

#### Technology

- -1- Energy supply and climate change issues will stimulate the development of propulsion systems, vehicle design and fuel types therefore mitigating the impacts on mobility to a greater or lesser degree. Depending upon fuel and vehicle cost, equity issues may
- -2- There will be an increased management emphasis, improving the efficiency of the use of total system capacity over a 24 hour period with the aid of information communications technology (ICT). ICT and vehicle technology will affect the effective supply and demand for transportation by assisting with pricing and other management mechanisms, by facilitating more effective vehicle-vehicle interactions, and by allowing more informed user travel decisions. Technology will permit additional management and enforcement efforts, if supported by the public; these range from insurance billing to speed limit and red light running enforcement. More effective capture of externalities and more effective internalization of transportation costs are possible, but implementation is dependent upon public support.
- -3- Vehicle based driver support systems will result in fewer crashes for everyone and extend the mobility of older drivers; the degree of crash reduction from technology

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#### Circumstances and Events That Would Undermine the Assumptions In the Generally-Held Expectations

#### Climate change

Substantial public and political sentiment could produce a commitment by the nation, or a collection of serious commitments by states and localities to the issue of global climate change. Serious public policy directed at reducing CO2 emissions would be likely to involve a change to current incentives and disincentives for certain fuel and propulsion types, increase the public commitment to alternative modes, and accelerate the movement in areas such as growth management, development practices and other activities. These actions may be at a scale beyond those assumed in the generally-held expectations. In an opposite direction, it is not out of the question that public acceptance of CO2's significant contribution to global climate change could be tempered by natural events or scientific discoveries that appear to indicate a weaker relationship between human activity and climate change.

Global climate change itself could introduce significant impacts on the US economy and transportation system, ranging from increased infrastructure damage from exaggerated weather events to altered agricultural production and introduce serious challenges especially to coastal infrastructure.

#### Fuel supply and costs

An interruption to or permanent reduction in the fuel supply is not implausible. An initial supply shock would lead to a range of short term responses. If supply or cost is permanently altered from the modest expectations stated earlier, substantial shift in public policy and market responses could lead to a change in vehicle fleet mix, altered development patterns, and could challenge the strength of the US economy for at least a transition period, if not longer.

#### Economic decline

The interdependence of the world's economies has led to an unprecedented vulnerability of economic health to political conflicts, terrorist acts and unanticipated serious interruptions to worldwide economic activities. While the generally-held expectations point to a continued growth of the US economy in the context of worldwide economic growth, it is not implausible for the US' economic position relative to other world powers to diminish, leading to considerably higher unemployment and social polarization than reflected in generally-held expectations and alter the nation's attitude to a range of issues, including immigration.

#### New technologies

Technology is known for providing unanticipated surprises, windfalls, and unintended negative consequences. It is reasonable to anticipate a new communication or transportation technology to emerge in the next thirty years that will significantly change the dynamics stated in the statements of generally-held expectations. Transportation specifically experienced a number of radical technological changes in the 19th and 20th centuries; it is not unreasonable to suggest that another such change will occur over the next quarter-century to half-century.

#### Public policy

Major public initiatives have preceded nearly all of the significant transportation system developments in the United States. It is reasonable to anticipate that a public initiative – beyond those currently listed in the generally-held expectations – may emerge at the federal or state level to achieve a significant change in the form and extent of transportation facilities or services.

#### Findings and Recommendations for Metropolitan Planning

#### Introduction

Decisions in transportation planning have great and lasting consequences for the community. While transportation planning objectives initially focused on highway construction, the importance of transportation actions has led to steady and cumulative growth in the range of concerns considered at the transportation planning table – safety, environmental health, settlement patterns, human health, security, social equity, energy costs and other items. The colloquy was specifically focused on providing a current and comprehensive understanding of future travel behavior to allow planners both to better understand how today's decisions may or may not address tomorrow's needs and to better prepare for new planning objectives that may emerge in the future.

Understanding how travel behavior will be transformed also provides some indication of how the planning profession needs to evolve to meet those future needs. The participants at the colloquy used both a panel discussion and breakout sessions to explore aspects of the planning process. Breakout reports and notes articulate both findings on the state of

the practice and recommendations aimed at how the transportation planning process can meet both present and future challenges.

The gist of the planning recommendations emerging from the colloquy discussions is that MPOs can and should take a greater leadership role in their communities; that their activities must be informed by an enhanced knowledge base; and that the metropolitan transportation planning approach must be more comprehensive and sophisticated than ever before. These themes are applicable to current conditions but are increasingly essential to a future situation in which economic pressures and information technologies will complete the transition of transportation to a knowledge-based activity. Another theme woven throughout the recommendations is that this emerging environment poses a particular challenge to fast-growing regions.

In short, colloquy participants believe that many transportation and transportation-related issues can be successfully confronted only with effective regional planning and inter-jurisdictional coordination. Regions that develop effective MPOs can significantly

improve the efficiency of transport and land use systems, and reduce both direct costs to businesses and consumers and indirect costs to society and the environment. Regions with ineffective MPOs will fail to capitalize on many of these opportunities and the resultant (and unnecessary) inefficiencies and transport – land use incompatibilities will have negative impacts on quality of life and economic productivity in these regions.

The planning products of the colloquy effort are provided below. Findings emerging from the discussions are listed first; recommendations follow. While the recommendations could be sorted in numerous ways, they are grouped by major themes of the colloquy's planning discussions: the need for entrepreneurial leadership, an expanded knowledge base and a redesigned planning approach. By design, most of the recommendations are directed at Metropolitan Planning Organization (MPO) structure, culture and activity.

# FINDINGS

### Metropolitan Planning Risks and Opportunities

-1- There are significant risks associated with metropolitan planning processes. The presence of cooperative transportation decision-making processes provides a unique institution in every metropolitan area for comprehensive assessments of system-level options. It also provides for public accountability. Failure to successfully 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 which can be expected to be compounded by future events, both those foreseen and unforeseen. MPOs must be leaders in the areas of form, funding and policy.



- -2- These risks are greatest in areas experiencing rapid growth. One theme emerging from the colloquy's exploration of thirty- to forty-year futures is a particular concern for areas experiencing high growth. Participants state that the nation is in a "moment of a large order of magnitude" that demands a reevaluation of how planning is done. In growth areas, fundamental discussions about transportation system design and operation, modal dependency, urban form, sustainability and distribution of benefits and burdens as well as discussions about the ability and wisdom of public policy to shape the outcome are needed immediately. MPOs in areas facing the greatest risks also enjoy the greatest opportunities for positive influence. The ability for the MPO to engage in region-shaping decisions is less present in established, slow-growth and no-growth areas and thus the need is less urgent.
- -3- Federal statutory planning requirements are a mixed blessing. Participants express appreciation for the long-standing federal requirement for a comprehensive metropolitan transportation planning process. In the absence of the federal requirement, many MPOs would disappear leaving a significant vacuum with respect to inter-governmental and inter-agency coordination and basic public accountability. For MPOs to have clout, they need clear authority. Yet participants express concern that the statutory federal authority given to MPOs also represents a problem, in that the federal requirements for long-range plans and Transportation Improvement Programs (and related air quality conformity exercises) "consume" the attention of many MPOs. For an MPO to be fully effective, its objective must go beyond merely fulfilling federal requirements.
- -4- Planning resources are typically not provided at a level appropriate to the scale of issues. Participants acknowledge that the ratio of funding for metropolitan transportation planning to the funding provided for project development or construction is very small. MPO staffs ranging from a few people in the smallest areas to a few dozen in the largest regions are hard-pressed to address the ever-growing set of complex issues. Again, this gap is most pronounced in rapidly-growing communities.

THERE ARE SUCCESSFUL MPOS IN A RANGE OF SETTINGS. THE CHARACTERISTICS COMMON TO THE MOST SUCCESSFUL MPOS ARE ENTREPRENEURIAL LEADERSHIP, FLEXIBILITY, CREDIBILITY AND RELEVANCE IN SUBJECTS AND **ACTIVITIES OUTSIDE** THE REQUIRED FEDERAL PROCESS.

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TO A CERTAIN DEGREE, THE "ELEPHANT IN THE ROOM" DURING THE COLLOOUY-THAT IS, THE CONDITION THAT IS BOTH SUBSTANTIAL AND ALSO BEING IGNORED—IS THE STATE OF THE CURRENT TRANSPORTATION SYSTEM. BOTH HIGHWAY SYSTEMS AND TRANSIT SYSTEMS ARE FALLING SHORT OF PUBLIC EXPECTATIONS.

# FINDINGS

- -5- At the same time, there are successful MPOs in a range of settings. The characteristics common to the most successful MPOs are entrepreneurial leadership, flexibility, credibility and relevance in subjects and activities outside the required federal process. In the colloquy panel discussion on the MPO process and in individual breakout sessions, participants pointed to many cases in which an MPO has been able to overcome obstacles and fulfill the promise of the MPO concept providing objectivity and creativity, maintaining relevance and reaching successful, implementable agreements. The term "entrepreneurial" was expressly used to describe the ability of successful MPOs (often because of staff leadership) to be prepared for and to sense the correct timing for new initiatives that resonate with MPO members and other stakeholders in the community. The new initiatives are consistent with but not required by federal law or regulation.
- -6- MPO stature within the local community is directly related to effectiveness of working relationships between the MPO staff and MPO participants. Given that the MPO staff size is comparable to the "tail" on the larger "dog" of state and local governments and transportation authorities, strong working relationships between the MPO and its partners are inherent in successful planning processes. 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. When successful, MPOs enjoy broad local support.
- -7- High turnover rates within MPO boards and staffs jeopardize policy continuity and implementation. As an institution primarily composed of local elected officials and appointed officials of member agencies, members' tenure on an MPO board is typically brief. The same can be said for MPOs in which pay scales or job frustration perpetuates constant staff turnover. MPOs that maintain policy continuity and build credibility over time are only those that are able to instill a constructive institutional culture that retains experienced staff and persists through the changing of the political guard.
- -8- Regarding potential shocks to the system identified in the colloquy, MPOs cannot be easily designed to respond to possible short-term system shocks (bridge failure; energy supply interruption). They can work to build a multi-layered transportation system that could adapt to short-term shocks and long-term trends. The colloquy discussion articulated a wide range of "wild cards" that could undermine basic assumptions for the future. Participants express recognition that emergency circumstances generate their own sets of public and private response mechanisms, and that the MPO is not necessarily the place to expect emergency, real-time actions to occur. However, MPOs can help build both the basic system building blocks (transit systems, ITS services, etc.) and communications channels to facilitate both short-term emergency responses by MPO partners and longer-term system modifications to deal with unexpected, long-lasting impacts.





## RECOMMENDATIONS

# Entrepreneurial Leadership, an Enhanced Knowledge Base and a Revised Planning Approach

#### Entrepreneurial Leadership

-1- The characteristics of successful MPOs must be nurtured in other MPOs. Structured processes are required, such as peer-to-peer exchanges, best practice documentation, mentoring and formal training of staff, staff leadership and elected officials. This may build on the current "Metropolitan Capacity

Building Program" but also requires new and sophisticated approaches that communicate more in terms of successful institutional culture than in terms of institutional structure, more in terms of entrepreneurial risk taking than in terms of staff administration. The needed outcome is more MPOs that are able to tailor local technical

## RECOMMENDATIONS

and policy activity to address emerging issues in a manner that builds on solid credibility derived from past successes. This type of MPO institutional culture is seen as critical to success in the rapidly-changing and uncertain environment suggested in the colloguy.

- -2- MPO directors need to spend a considerable portion of their energies on cultivating relationships with local leaders, elected officials, and their peers in executive positions at relevant agencies in the region. This particular effort is required because of the critical need to maintain MPO relevance in a constantly-changing environment. Regular contact and personal credibility both offer entrée into the processes of members and stakeholders and also increases commitment to the MPO process on the part of these individuals.
- -3- MPOs must take a lead in the creation and stewardship of a shared regional vision. Participants state that a shared, dynamic regional vision is a more effective instrument of public policy than a traditional transportation facilities plan. "Visionary leadership" is identified as one of the greatest contributions the MPO institution can provide to the metropolitan area. Visionary leadership allows short-term, local decisions to be consistent with long-term, strategic goals. Such leadership requires both the institutional culture called for in recommendation #1 above and the working relationships established through recommendation #2.
- -4- MPOs must proactively break down barriers between planning and operations and provide for an integral MPO role in metropolitan operations. One individual reflects the sense of the whole by asserting that, "we're not saying you don't need a long-range perspective but there's a whole new way of operating that doesn't fit with a twenty-year, long-range planning process." Another recommends that MPOs should "think long and plan short"; in other words, recognize the very significant potential for near-term operational actions to both produce benefits and generate greater knowledge of travel dynamics that, in turn, improves the MPOs perspective on long-range needs.

#### An Enhanced Knowledge Base

-1- MPOs need to make a wholesale investment in data. Participants are quite clear in identifying data as central to both the MPO's awareness of issues and its successful engagement with them. The subject matter for data needs ranges from patterns of freight movement to relationships between transportation and public health. The recommended MPO involvement in operations (at the short-term

end of the spectrum) and the likely increasing concerns for environmental sustainability (at the long-term end of the spectrum) both come with substantial data needs, as does an increased emphasis on performance monitoring and outcome-based planning. Participants recommend that MPOs re-examine existing data collection efforts and consider directly sponsoring data collection at a higher scale than at present.

-2- MPOs must foster mechanisms to

- maintain a strong knowledge base within the decision-making structure, including the stakeholder base. At a minimum, there must be tools and techniques in each MPO to effectively orient new policy members and their technical representatives to the general purpose and specific institutional culture and policy set of the MPO. The greatest success may be found in MPOs that have a strong set of adopted policies that allow the MPO to maintain continuity as players change. Colloquy participants also recognize the need for a strong, capable staff and an informed stakeholder population (including private transportation and land use planners, engineers, designers and developers). Continual professional development of all parties is required to maintain a strong knowledge base.
- -3- Training in consensus-building and inclusive visioning skills is critical to MPO effectiveness. The central role envisioned by participants for the MPO in leading regional visioning efforts requires substantial skills in this area. Training in group dynamics, process design, conflict resolution and handling difficult individuals are all called for in order to be fully successful. Additionally, visioning and "back-casting" are relatively new approaches without a solid base of literature on the "how's and "how not's"; work is required in this area.
- -4- Financial mechanisms, including innovative public-private arrangements, represent a rapidly-emerging area of need for enhanced MPO skills. A second particular skill set cited by participants is in the area of complex financial mechanisms. Currently and to a greater degree in coming years, non-traditional financing will be used to facilitate highway and transit capital construction and to support operations. These new mechanisms include leasing arrangements, mitigation fees, variable tolling approaches, non-compete clauses, right-of-way donations and others. MPO participants, particularly MPO staff, must be conversant in this language or risk either missing available opportunities for transportation system funding or having such explorations occur outside the comprehensive planning context of the MPO forum.

- -5- Skills in consultant management must be enhanced. A third needed skill set articulated by the participants relates to consultant management. Most MPOs rely on planning consultants for a number of critical activities, such as model development and calibration, corridor studies or alternatives analyses for new transit starts. Each of these kinds of activities may result in dramatic implications for public policy. Participants cite a need for strong management skills to ensure the development of effective scopes of services and timely, cost-effective delivery of useful products. This is especially important if the private sector assumes a greater role in system ownership and operation. A corollary to this recommendation is that the consultant community must be nurtured just like the MPO staff in its understanding of changing environment, its skills in visioning and consensus building and other activities.
- -6- MPOs must monitor customer/consumer concerns and seek effective approaches to deal with what is seen as important at the "street level" - congestion, reliability, availability of transit options. Balancing the need for broad long-term visioning, participants cite the need for MPO activities to be grounded in issues most pertinent to residents' daily lives. Preoccupation with long-range settlement patterns must be accompanied with a concern for daily congestion, with attention to reducing the frequency and magnitude of incident delay, with consideration of on-time performance of transit vehicles and the like. To a certain degree, the "elephant in the room" during the colloquy – that is, the condition that is both substantial and also being ignored – is the state of the current transportation system. Both highway systems (with rapidly increasing congestion) and transit systems (with operating resources typically inadequate to provide a competitive alternative to the auto) are falling short of public expectations. Continuous monitoring of public attitudes, of public perceptions of the effectiveness of implemented actions, and of public responses to implemented actions are all essential elements of a successful MPO's knowledge base and effective use of outcome-based performance indicators. Participants stressed the need to also monitor and consider the public's relative priorities and willingness to make tradeoffs among such items as congestion relief, road rage, availability of useful information, quality of life, quality of the trip (quality of daily travel for all vs. peak expressway commuter travel), compliance with speed limits, walkability and quality economic development/smart growth in the articulation of planning priorities. Neither an exclusive emphasis on highway level-of service nor a disregard for recurring daily congestion appears to accurately reflect the complex priority set of the public.

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# RECOMMENDATIONS

#### A Revised Planning Approach

- -1- The MPO planning perspective must be not only broadened (in scope) but also lengthened (in planning horizon). The range of nontraditional subjects that strategies and objectives must cover includes CO2 emissions; environmental justice and social equity; pricing; public health; environmental sustainability; intercity freight and passenger movement; new transportation technologies and other issues. The implications of the thirty- to forty-year expectations articulated in the colloquy are that there is a broader context for MPO decisionmaking than traditionally reflected in the twenty-year MPO long-range planning process.
- -2- In constructing its planning program, MPOs must focus policy discussions on those subjects that they can or should influence, while closely following those exogenous factors that have the greatest potential impact on metropolitan travel. The discussions of future trends often return to the observation that some of the driving forces of society and the economy (indeed, some of the most significant), such as global climate change and international terrorism, are exogenous to metropolitan transportation planning. The conclusion is that MPOs must make a carefully crafted distinction between areas of influence and exogenous conditions. The former include a wide range of aspects of the region's physical form (from site design to regional settlement patterns) and transportation system design (from the methods of service delivery to major capital investments). The latter include vehicle technology, price and availability of fuel, national policies regarding immigration, social patterns regarding family size, and other national or global trends and events. An MPO can seek success by carefully "growing" the list of items over which it has influence – into intercity freight transportation or interstate corridor management, for example – while constantly reflecting on the effectiveness of local decisions in light of global conditions. Closer cooperation with and enhancement of statewide transportation planning efforts is also warranted.
- -3- To that end, visioning efforts should also incorporate scenario development as a means of incorporating the concept of uncertainty. Traditional MPO exercises settle on a certain set of future population, employment, household and vehicle ownership forecasts before evaluating alternative transportation system designs. Typically, future land use patterns are a given before the transportation analysis begins. Further, the wide range of items that are inarguably exogenous to the MPO process are nearly universally excluded from consideration in current MPO planning. Colloquy participants recommend that scenario development be part of regional visioning exercises and that the scenarios engage not only in the interaction between transportation system designs and alternative metropolitan growth scenarios but also in the flexibility of the transportation / land use system to respond to a variety of outcomes in the exogenous variables.
- -4- A changing environment calls for a more thorough incorporation of technology in planning activities and in resulting plans. Participants at the colloquy indicate that technology in general and ITS in particular is at the center of the future of travel and should be a singular attention for transportation planners. This recommendation calls for MPO staffs to become more knowledgeable about the rapid changes occurring in information technology, goods movement technology and vehicle-highway technology in order to properly account for their impacts and potential benefits in regional transportation plans and programs. Participants stress that future transportation systems must be adaptive with new governance and public and private management structures to monitor, manage and use information.
- -5- Education is a critical component of effective transportation/land use planning and MPOs must find their role in the educational process. Participants state that public consciousness of transportation and its relationship to the environment and society is weak. "Education at all levels needs to be enhanced public education, higher education and job training at different levels of focus and specificity" as transportation becomes a "knowledge-based system". The MPO will need to play a critical role in this activity.
- -6- Effective planning requires a close connection to project implementation. Even in an enhanced planning process, MPOs will continue to have great influence in handing off project commitments to designers. For the increased sophistication of the MPO process to be reflected in real-world projects, MPOs must help facilitate an environmental streamlining approach that provides a smooth hand-off between the planning and project development processes. This calls for adoption across more states and MPOs of early, NEPA-quality environmental analyses within the planning process that is evident in some locations today, along with greater accountability of designers to the MPO regarding project objectives, scope and cost.

## N E X T S T E P S

The Colloquy exercise generated the products of this report in just 48 hours – quite an accomplishment. But the face-to-face discussions were but a first step in a long process of integrating the substance of the material into planning practice. The true accomplishment worthy of praise will be when the vast majority of metropolitan areas have entrepreneurial leadership at the regional level, when well-informed decision processes take full account of uncertainty, when all stakeholders embrace a core set of aspirations and concerns in common. Extensive discussion of the material in this report, and its continual refinement, will maintain the credibility of the message of the report. MPOs, state DOTs, local governments, transit agencies, developers and community and environmental advocates are encouraged to engage with this material and improve on it. Localized extensions of the exercise to identify geographic-specific expectations, uncertainties and planning implications could serve as logical next steps toward a more robust and sustainable planning process. After all, the statements and recommendations in this report are not necessarily correct. Just important.

### TO FIND OUT MORE

Although the Colloquy considered conditions that will take thirty to fifty years to develop, events and perceptions change quickly. The interested reader is encouraged to routinely search out, examine and critique a wide range of perspectives on the range of issues covered in this report.

One place to start is with the five white papers prepared by the USDOT Volpe National Transportation Systems Center, available at: http://www.nysmpos.org/sci/colloquy.

As part of the preparation for the Colloquy event, the Volpe Center prepared a focused synthesis of leading thought and research on each of five broad areas where long-term trends are expected to have significant consequences for travel demand: demographics, public policy, urban land use, technology, and economics.

The white papers are not intended to be exhaustive: other areas of inquiry, other trends, and other perspectives certainly exist. They were developed for participants, as a starting point for discussion. Each paper includes a list of recommended readings. Additionally, Volpe prepared a 45-page annotated bibliography (with many direct url links to source material). The bibliography is available at: http://www.nysmpos.org/sci/colloquy.



AN MPO CAN SEEK SUCCESS BY CAREFULLY "GROWING" THE LIST OF ITEMS OVER WHICH IT HAS INFLUENCE— INTO INTERCITY FREIGHT TRANSPORTATION OR INTERSTATE CORRIDOR MANAGEMENT, FOR EXAMPLE— WHILE CONSTANTLY REFLECTING ON THE EFFECTIVENESS OF LOCAL DECISIONS IN LIGHT OF GLOBAL CONDITIONS.

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