Regional Models of Cooperation Handbook

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14. ABSTRACT
This handbook describes notable practices used by State departments of transportation (State DOTs), metropolitan planning organizations (MPOs), transit agencies, and other transportation planning partners which work across jurisdictions or traditional disciplines in order to enhance transportation planning at a regional scale. It provides a framework for how to think about regional cooperation opportunities, 20 case studies of how and why peer agencies have chosen to work together, and tools and resources agencies may consider adapting for use in their own regions. The handbook was developed as part of the Every Day Counts 3 Regional Models of Cooperation initiative.

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Foreword

Regional Models of Cooperation is a joint program of the Federal Highway Administration (FHWA) Office of Planning and Federal Transit Administration (FTA) Office of Planning. The program is part of FHWA's Every Day Counts 3 Initiative (EDC-3). Through Every Day Counts, FHWA and FTA work with State DOTs, MPOs, and other stakeholders to identify innovative technologies and processes that are deserving of accelerated deployment nationwide. Regional Models of Cooperation was selected for accelerated deployment in EDC-3, for calendar years 2015-2016. For more information about Every Day Counts, please visit the Every Day Counts initiative website.

In addition to this handbook, the Regional Models of Cooperation initiative supports a webinar series to promote notable examples of regional cooperation in a variety of topic areas. The initiative also sponsors technical assistance and information sharing workshops. For more information about these activities, including webinar recordings and workshop reports, please visit the FHWA Regional Models of Cooperation website.

Source: Volpe

Chapter 1
Introduction

Meeting the public's expectations for regional mobility increasingly requires that transportation agencies take a cooperative approach to regional planning and decisionmaking. Transportation planning has long been recognized as a regional concern. This is intuitive, because getting from one place to another often requires crossing municipal or State boundaries. Most travelers expect to find seamless, logical connections in roadway, transit, and other transportation systems throughout a region, and few give a second thought to the numerous jurisdictions through which their trips take them.

To meet these expectations, planning agencies are increasingly working together in order to solve problems, expand their reach, and improve the efficiency and effectiveness of their work. FHWA's Regional Models of Cooperation initiative supports and encourages these efforts.

This handbook describes notable practices used by State departments of transportation (State DOTs), metropolitan planning organizations (MPOs), transit agencies, and other transportation planning partners which work across jurisdictions or traditional disciplines in order to enhance transportation planning at a regional scale. It provides a framework for how to think about regional cooperation opportunities, case studies highlighting how and why peer agencies have chosen to work together, and tools agencies may consider adapting for use in their own regions.

What is Regional Cooperation?

Metropolitan and statewide transportation planning is a continuous, cooperative, and comprehensive process.[1] States, MPOs and others work together to achieve common goals and to ensure the general consistency of plans, programs, and schedules as appropriate. Agencies also consult with and consider the opinions, actions, and relevant information of other public and private sector parties during the planning process and when making decisions.

The value of cooperation in transportation planning has long been recognized in Federal transportation regulations.[2] Federal rules require that States produce statewide multimodal transportation plans and programs, and that States and local jurisdictions designate MPOs to plan for and manage the programming of Federal transportation funds at a regional scale. The Federal transportation planning process establishes requirements for consideration, consultation, and coordination between agencies within a State or metropolitan planning area and with adjacent areas. Many regions have embraced these requirements and gone beyond them to develop more advanced, cooperative approaches to transportation planning that reach across jurisdictional boundaries or involve non-traditional partners.

Examples of regional cooperation include jointly developed transportation plans and programs, cross-jurisdictional corridor studies, and project planning across MPO and State boundaries. It can also include collaboration between State DOTs, MPOs, and operators of public transportation on activities such as collecting, storing, and analyzing transportation data, and working together to improve transportation demand and air quality models.

Regional cooperation helps agencies reach beyond traditional borders and bring together entities from multiple jurisdictions and disciplines to support common goals in transportation planning, such as congestion management, safety, freight, livability, economic development, and efficient project delivery.

Terminology of Cooperative Planning

This handbook uses the following definitions from the statewide and metropolitan planning regulations in 23 CFR sec. 450.104. The term ***collaboration*** is also used to refer to the act of working together on a joint endeavor.

Cooperation means that the parties involved in carrying out the transportation planning and programming processes work together to achieve a common goal or objective.

[1] 23 CFR sec. 450.306 and 23 CFR sec.450.206
[2] 23 CFR part 450

Coordination means the cooperative development of plans, programs, and schedules among agencies and entities with legal standing and adjustment of such plans, programs, and schedules to achieve general consistency, as appropriate.

Consideration means that one or more parties takes into account the opinions, action, and relevant information from other parties in making a decision or determining a course of action.

Consultation means that one or more parties confer with other identified parties in accordance with an established process and, prior to taking action(s), considers the views of the other parties and periodically informs them about action(s) taken. This definition does not apply to the "consultation" performed by the States and the Metropolitan Planning Organizations (MPOs) in comparing the long-range statewide transportation plan and the metropolitan transportation plan, respectively, to State and Tribal conservation plans or maps or inventories of natural or historic resources (see CFR section 450.216(j) and sections 450.324(g)(1) and (g)(2)).

Benefits of Regional Cooperation

As urbanized areas have expanded and as the scope of transportation planning has evolved to include broader topics of multi-jurisdictional concern such as freight, air quality, performance management, and many others, regional partnerships in planning have multiplied. In some cases, traditional jurisdictional boundaries may no longer fully encompass an area large enough to fully address these issues. Furthermore, it is increasingly common for more than one MPO or State DOT to be responsible for a single urbanized area, requiring more frequent communication and collaboration to successfully plan for regional transportation needs.

States and regions find a variety of benefits from establishing cooperative planning structures:

- Working together can help agencies make the most of limited staff capacity and planning resources.
- Agencies can save time and money while achieving superior results when working together.
- Cooperating across jurisdictional boundaries provides planning agencies with expanded opportunities to optimize decisionmaking about transportation investments
- Regional cooperation allows transportation agencies to identify and address the highest priority regional needs and issues that will have the greatest impact on the traveling public in the region.

Table 1 Selected Examples of Regional Cooperation Benefits.

Benefits	Case Study	Example
Cost Savings	Atlanta's Regional Transit Survey	Four partners gained a greater understanding of regional transit needs by working together to fund an on-board transit survey. The partners evenly split the costs, and the survey provided a much broader data set than any partner could have produced on its own.
	North Carolina Research Triangle Area Cooperative Long-Range Planning	Adjacent MPOs in the Raleigh-Durham-Chapel Hill area regularly share staff and jointly fund major activities, cooperating to produce one joint long-range plan for the broader region. The MPOs estimate that if they were to work separately, each MPO would require an additional one to three staff members to accomplish the same work.
Regional and Statewide Impact	CREATE	In Chicago, State and local transportation agencies have worked with private sector rail companies for over 10 years to tackle issues in the most congested railroad operations region. Together they have completed more than 25 projects that have reduced freight travel times by 30 percent, increased economic productivity in the region, and decreased operating costs.
	Granite State Future	Nine regional planning councils in New Hampshire worked together to update their comprehensive regional plans and develop a statewide vision, synthesizing information from across the State.
	Operation Green Light	Two State DOTs and one MPO in the Kansas City metropolitan area worked together to plan and implement a major traffic signal system update that has reduced delay on some corridors and helped reduce air pollutant concentrations throughout the region.
Superior Results	Oregon Modeling Steering Committee	A State DOT, four MPOs and others worked together to fund and produce a modeling framework that is used throughout Oregon. The partnership has reduced model development time, increased the robustness of small MPO models, and increased access to high-quality statewide data.
	Utah's Unified Transportation Plan	A State DOT, four MPOs, a transit agency and others work together to coordinate transportation planning activities and produce one unified plan for Utah. The unified approach has improved communications, clarified priorities, and increased investment.
Optimized Decision-making	Metropolitan Area Planning Forum	MPOs in the New York City metropolitan area work together through regional forums. Having these relationships in place allowed the partners to effectively work together to identify adaptation options for vulnerable transportation assets in the region in the aftermath of Hurricane Sandy.
	SANDAG Borders Committee	A long-standing collaboration between the San Diego metropolitan area MPO, county governments, Caltrans, and counterparts in Mexico has produced several joint studies of border traffic issues and a binational strategic plan which identifies a common goal of developing a new border crossing to reduce long wait times.

Regional Cooperation and Performance-Based Planning and Programming

The Moving Ahead for Progress in the 21st Century Act (MAP-21) initiated and the Fixing America's Transportation Act (FAST) continued the development of national performance measures for safety, bridge and pavement conditions, system performance, and the FHWA Congestion Mitigation and Air Quality (CMAQ) program. As these regulations are finalized, State DOTs and MPOs are required to develop targets for and report on these measures. More generally, transportation agencies across the country are implementing Performance-based Planning and Programming (PBPP) in order to improve investment decisionmaking and provide greater transparency and accountability to the public. PBPP is a data-driven planning process through which agencies identify measures and targets for performance measures that will help them quantitatively assess their progress towards meeting agency goals. Measuring condition and performance informs investments and project and program delivery.

Regional cooperation is an important part of successful PBPP. The basic steps of the PBPP process are (1) gathering and analyzing data to assess condition/performance, (2) establishing targets, and (3) planning and programming projects that will contribute to those targets. Each of these steps benefits from cooperation across regions in the following ways:

- **Data:** PBPP relies on high quality, accurate, timely condition/performance data to identify targets and calculate measures. Cooperating across agencies by sharing data, determining universal or uniform data formats, and discussing data related issues and challenges can result in more efficient, successful implementation of PBPP.
- **Targets:** Some measures might apply to geographic areas that cross jurisdictional boundaries, such as urbanized areas. Establishing a single target for these types of measures necessitates working together across jurisdictional boundaries. In other cases, agencies benefit from communicating across jurisdictional boundaries if they are setting targets for performance/condition of transportation infrastructure that is owned or maintained by different agencies.
- **Planning and programming:** Programming funds and implementing projects that will impact measures of condition/performance are key aspects of achieving targets. Agencies can cooperate on planning and programming by developing flexible funding programs and supporting plans and projects that contribute to regional goals.

PBPP integrates with every step of a traditional planning process. Throughout this handbook look for sections that discuss how cooperation practices support the implementation of PBPP.

How does Regional Cooperation Work?

Transportation agencies across the country have developed a wide variety of regional cooperation practices, forming partnerships that work for them and their constituents.

Regional cooperation does not require a specific set of actions or activities, nor does it always serve a specific set of purposes. Transportation agencies in every region can tailor cooperative planning efforts to suit their unique regional needs and goals. This handbook aims to highlight a range of methods and efforts, weaving different examples through the descriptions of implementation practices in order to emphasize the diversity of notable and successful techniques.

Regional cooperation can take many forms. Often times it starts with regional or statewide forums where planning agencies get together to share ideas and identify common priorities. Once relationships are established, States, MPOs, and partners sometimes find that they can be more effective when they work together, and they seize opportunities to coordinate processes like data collection, procurement, and modeling. For complex corridors or technical topics such as freight and intelligent transportation systems (ITS), partners may work together to plan and implement projects that extend across State or MPO boundaries. In some cases, when agencies have worked together and built a foundation of mutual understanding and trust, they may work together to produce a joint plan that represents a common regional vision or a set of goals and priorities that all partners have bought into.

Regional cooperation can occur within a metropolitan area, between adjacent metropolitan areas, or at a megaregion scale. Megaregions can be defined as large networks of urban clusters connected by infrastructure, economic factors, and social relationships. As more and more of the U.S. population chooses to live and work in the country's megaregions, the importance of cooperating across jurisdictional boundaries is becoming more visible. Many consider cooperation at this scale to be essential to addressing big-picture goals like economic competitiveness. Increasingly, States and MPOs are working together to identify and prioritize topics of mutual interest and to find ways to work together at a megaregion scale.

How to use this Handbook

State DOTs, MPOs, transit agencies, and their partners in the multimodal transportation planning process may benefit from the numerous examples of current practices in regional and statewide cooperation featured in this handbook. It is designed as a comprehensive resource for transportation agencies working to improve their collaboration with neighboring jurisdictions, to establish statewide or regional partnerships, and to improve engagement with non-traditional stakeholders.

Agencies new to regional cooperation will find a discussion of the building blocks that make cooperative partnerships work and a robust discussion of current practice. Those more experienced in cooperative planning may find details in the case studies and appendix to be springboards for advancing and evolving their own cooperation activities. The handbook also provides examples of tools to help simplify planning coordination, such as FHWA's PlanWorks.

The handbook is organized into three major sections:

- The **Regional Models of Cooperation** section provides a framework for thinking about how, when, and why transportation agencies work together. It presents ***six key building blocks*** of successful regional cooperation and includes an in-depth discussion of cooperation practices, pulling from real-world examples of successful implementation.

- The **Case Studies** section provides detailed accounts of ***20 notable examples*** of regional cooperation in transportation planning, where agencies are working together to save money, be more efficient, and to have a greater impact than they could individually. The case studies cover a wide range of topics and practices addressed in regional transportation planning cooperation partnerships.

- An **Appendix** of resources collects additional materials from the case study examples that may be useful to transportation agencies that are interested in adapting specific practices to their own regions. ***Links to resources*** are also embedded in the case studies.

Source: Volpe

Chapter 2
Regional Models of Cooperation

Transportation agencies around the country are demonstrating how many different types of cooperation can enhance transportation planning. This section of the Regional Models of Cooperation handbook synthesizes ideas and strategies from case studies of regional cooperation and provides a framework to help State DOTs, MPOs, transit agencies, and their partners think about how they might improve cooperation in other regions.

This section is organized into three parts:

- **Building Blocks of Regional Cooperation:** Describes essential components of cooperation efforts that are common to nearly all case studies as well as notable practices featured in case studies. These building blocks form the foundation for success in regional cooperation.

- **Regional Cooperation Topics:** Briefly reviews topics that are often the focus of cooperative planning efforts.

- **Regional Cooperation Practices:** Provides a detailed discussion of implementation tactics, benefits, challenges, and the potential future evolution of four general categories of regional cooperation. These practices are drawn from the case studies and other notable collaborative processes (Table 3). This section also includes a discussion of how regional cooperation supports performance-based planning and programming (PBPP), a topic of increasing importance in cooperative transportation planning.

Building Blocks of Regional Cooperation

Successful regional cooperation in transportation planning can take a number of forms and have different focuses, but there are some central themes that form the foundation for nearly any cooperative planning effort. The Regional Models of Cooperation initiative has identified six central tenets, or building blocks, of regional cooperation that are hallmarks of cooperative planning. These building blocks are echoed across numerous case studies and examples as key aspects of successful regional cooperation. Figure 1 summarizes the building blocks.

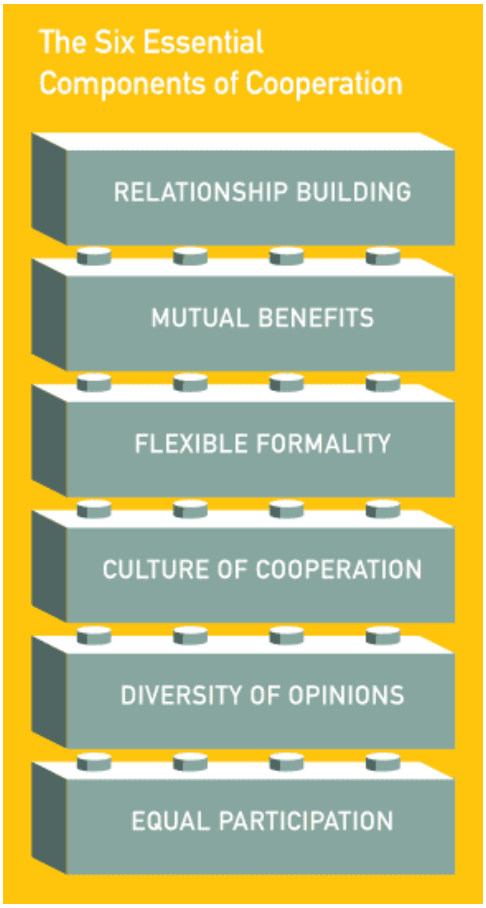


Figure 1. Building Blocks of Regional Cooperation. Source: Volpe Center

1. Relationship Building

Successful regional cooperation often starts with building strong relationships between staff across agencies. Strong relationships then facilitate future cooperation as agencies build on existing relationships to introduce collaborative efforts. Furthermore, cooperation strengthens and maintains existing relationships. Communication can occur in a variety of forms depending on what is most appropriate for the focus of the project or initiative at hand and may involve technical staff, leadership, or both.

As relationships expand and strengthen, transportation agency staff often find that more opportunities to collaborate emerge. Furthermore, they also find that strong relationships that are built on understanding of and respect for each other's goals and processes can make it easier to mitigate conflicts and address differences in perspective.

2. Mutual Benefits

Cooperative planning efforts are typically motivated by common goals. Agencies find that working together and pooling resources can reduce their individual costs and lead to greater outcomes than they could have achieved alone. Without these mutual benefits, agencies might not have motivation to dedicate resources to regional cooperation efforts.

Major regional events are often catalysts that help agencies recognize an opportunity for collaboration. For example, recovery from a natural disaster may require agencies to work together closely over an extended period of time. Encouragement from State or Federal agencies to work together more closely may also help regional agencies recognize opportunities to benefit from regional cooperation.

3. Flexible Formality

Cooperation can successfully occur in both informal and formal settings. Some agencies start with a memorandum of understanding (MOU) or similar formal document to outline roles, responsibilities, and the structure of their cooperation. Others find that working together informally and communicating on an ad hoc basis better serves their needs. Formal agreements provide structure and predictability; they are sometimes necessary for cooperative efforts that require joint funding or resource sharing. Informal structures allow partners to meet only when necessary and to be more flexible in how they work together.

In some cases, agencies move along a spectrum of informal and formal arrangements based on the needs of a project or initiative. Some agencies find that starting with a formal agreement to cooperate helps establish a structure, but later shifting to more informal collaboration is effective once relationships have been established. In other cases, informal cooperation at the staff level grows into a more formal relationship as the cooperation deepens.

4. A Culture of Collaboration

Agencies involved in cooperative transportation planning stress that a culture of valuing collaboration is central to their success. When the benefits of working across jurisdictions are recognized throughout the staff and organizational structure, cooperative planning efforts are more likely to be robust and to survive stressful times. Without this culture of collaboration, agencies may face increased challenges in maintaining communications or keeping cross-jurisdictional efforts afloat. Regions that have a shared understanding of the benefits of collaboration are more likely to keep up regular communications and long-term initiatives. Successful partnerships often have champions who take on leadership roles to ensure that the collaboration moves forward. Having a champion can help motivate all parties to maintain the collaboration despite resource constraints.

5. Diversity of Opinions

Working together can help agencies discover common goals, needs, and issues, but it does not require that they align on every issue. Regular collaboration helps agencies better understand each other's perspectives which can also help them better navigate disagreements and differing views. Agreement *and* agreeing to disagree are both key aspects of successful regional cooperation.

6. Equal Participation

Regional cooperation partnerships often involve agencies of varying size and resources. It is important that agencies ensure that all parties involved have an equal opportunity to participate. Without a commitment by the group to provide everyone with a voice in the process, smaller agencies may become alienated and disengaged.

Regional Cooperation Topics

Regional Models of Cooperation can be applied to a diverse array of transportation planning contexts. Some examples of topics that agencies have focused cooperative efforts around include:

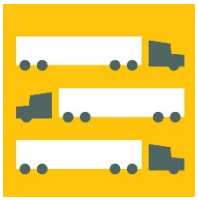
Air Quality and Environmental Planning: By their very nature, environmental and air quality issues do not stop at jurisdictional boundaries. Comprehensive solutions to environmental issues often require cross-jurisdictional planning and joint modeling efforts.

Asset Management: Assessing infrastructure conditions is a key aspect of maintaining a transportation system. Infrastructure owned and operated by different agencies overlap and connect throughout States and metropolitan areas. Agencies benefit from working together to collect infrastructure condition data and to develop tools to help track and analyze maintenance programs.

Congestion Management: Commuting patterns, particularly those in densely populated or rapidly expanding metropolitan areas, often cross metropolitan planning areas or State boundaries. Managing congestion at a regional scale often requires comprehensive regional planning efforts, such as data sharing agreements or joint committees.

Economic Development: An efficient transportation system is often the bedrock of a vibrant regional economy. Successful economic development initiatives require bringing together agencies from a variety of sectors, including transportation, private business, local government, and other regional organizations. Working across jurisdictions helps agencies better navigate economic trends and act on opportunities that fully exploit their economies of regional conglomeration.

Environmental Justice Analysis: Environmental justice populations often face issues, such as commuting from central cities to suburban job centers, which require them to cross jurisdictional boundaries. Without careful planning, they may face disproportionate impacts from regional transportation investments. Transportation agencies can work together to assess the impacts of transportation decisions on environmental justice communities and create regional transportation plans that better serve the needs of these and other vulnerable populations.

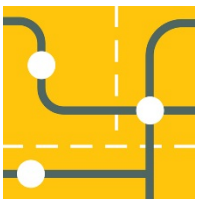


Freight Planning: Freight is by nature a regional and megaregional planning phenomenon. Freight routes cross planning boundaries in order to move goods from one region to another and throughout the country. Because of the strong private sector role in freight transportation, cooperation with non-traditional stakeholders and cooperative approaches to soliciting input from the private sector is a common tactic in freight planning.

Public Engagement: The general public typically does not recognize the different boundaries agencies use to guide their work. Successfully engaging the public in planning efforts may require agencies to work together to develop engagement opportunities that reach across jurisdictional boundaries and which support the needs and initiatives of multiple agencies.

Safety Planning: Ensuring the safety of the traveling public is a top concern for all transportation agencies. Collaborating on emergency response data collection and analysis, safety planning, and project selection and development can benefit and increase safety across a State or metropolitan area.

Transit Planning: Metropolitan and rural transit networks, including bus and rail services, may extend beyond traditional planning boundaries, and often times numerous transit agencies provide services within a single region. Transit planning at a regional scale often requires cooperation among multiple jurisdictions and agencies to coordinate services and realize a regional multimodal transportation vision.



Regional, Statewide, or Multi-State Planning: It can be challenging to establish a statewide transportation vision when there are numerous transportation agencies and stakeholders. Moreover, planning in metropolitan area and megaregions that cross State lines presents unique challenges. Nevertheless, some States and regions have developed strong partnerships that have overcome these challenges, enabling them to make progress toward establishing statewide, regional, and megaregional priorities and improving planning collaboration.

Table 2. Regional Models of Cooperation Case Studies and Resources by Topic.

Topic	Case Studies, Webinars, and Workshops
 **Air Quality and Environmental Planning**	• Mid-America Regional Council Operation Green Light (OGL) • North Carolina Research Triangle Area Cooperative Long-Range Planning • SB 375 Working Group • Air Quality Planning Webinar • Enhanced Data Sharing, Systems, and Tools Webinar
 **Asset Management**	• Vermont, New Hampshire, and Maine Asset Management • Indiana Peer Exchange Summary Report
 **Congestion Management**	• Chicago Regional Environmental and Transportation Efficiency (CREATE) • Metropolitan Area Planning (MAP) Forum • Mid-America Regional Council Operation Green Light (OGL) • Partners Using Archived Operations Data • San Diego Association of Governments (SANDAG) • Southeast Florida Transportation Council (SEFTC) • Congestion Management Webinar • Enhanced Data Sharing, Systems, and Tools Webinar
 **Economic Development**	• Chicago Regional Environmental and Transportation Efficiency (CREATE) • Northern Minnesota and Northwest Wisconsin's Regional Freight Planning • San Diego Association of Governments (SANDAG) • Southeast Florida Transportation Council (SEFTC) • Charlotte Peer Exchange Summary Report
 **Environmental Justice Analysis**	• Columbus Peer Exchange Summary Report

Topic	Case Studies, Webinars, and Workshops
 **Freight Planning**	• Chicago Regional Environmental and Transportation Efficiency (CREATE) • Northern Minnesota and Northwest Wisconsin's Regional Freight Planning • Southeast Florida Transportation Council (SEFTC) • Charlotte Peer Exchange Summary Report • Freight Planning Webinar
 **Public Engagement**	• Granite State Future • Florida Department of Transportation's Performance Management • San Joaquin Valley Blueprint Planning Process • Utah's Unified Transportation Plan
 **Safety Planning**	• Safety Planning Webinar
 **Transit Planning**	• Atlanta Regional Commission Transit Survey • Metropolitan Area Planning (MAP) Forum • Southeast Florida Transportation Council (SEFTC) • Utah Peer Exchange Summary Report (forthcoming) • Regional Transit Planning Webinar • Multimodal Planning Webinar
 **Regional, Statewide, or Multi-State Planning**	• Building a Quality Arizona (bqAZ) • Granite State Future • Florida Department of Transportation's Performance Management • Indiana MPO Council • Metropolitan Area Planning (MAP) Forum • Mid-Atlantic Roundtables • Oregon Modeling Steering Committee (OMSC) • San Joaquin Valley Blueprint Planning Process • Southeast Florida Transportation Council (SEFTC) • Association of Texas Metropolitan Planning Organizations (TEMPO) • San Diego Association of Governments (SANDAG) • Utah's Unified Transportation Plan • Vermont, New Hampshire, and Maine Asset Management • Alaska Peer Exchange Summary Report • Regional Models of Cooperation Overview Webinar • Joint Planning Products Webinar

Regional Cooperation Practices

Regional Cooperation describes a number of approaches to collaborating across jurisdictions in a State or region, ranging from committees for regular communication to working hand-in-hand to develop multi-agency plans or projects. In this section, a wide variety of practices are summarized into four general categories (Table 3) which provide a framework for approaching regional cooperation in transportation. For each category of practices, the handbook discusses implementation tactics, benefits, challenges, and how these practices may evolve over time. Each category also discusses how these practices may be relevant to Performance-Based Planning and Programming, a topic of increasing importance in regional transportation planning cooperation.

This section on Regional Cooperation Practices draws from 20 case studies of regional transportation planning cooperation. These case studies provide a variety of examples of how successful regional cooperation partnerships work, showing both similarities across agencies as well as tailored cooperation approaches to meet individual agency needs. Throughout this section, case studies that demonstrate each category of cooperation practices are highlighted. The Case Studies section of this handbook provides more detailed information about each of the 20 case studies, including links to additional relevant resources.

Table 3. Categories of Regional Cooperation Practices.

Practices	Key Aspects	Case Study Examples
Forums for Communication and Idea Sharing	Often the first step in cooperative planning initiatives. Involves agencies coming together regularly to communicate about mutual goals, challenges, and opportunities. Often takes the format of monthly or quarterly meetings of technical staff and/or leadership.	• Association of Texas Metropolitan Planning Organizations (TEMPO) • Florida Department of Transportation's Performance Management • Indiana MPO Council • Metropolitan Area Planning (MAP) Forum • Mid-Atlantic Roundtables • Northern Minnesota and Northwest Wisconsin's Regional Freight Planning • Partners Using Archived Operations Data • SB 375 Working Group • Southeast Florida Transportation Council (SEFTC)
Data Sharing and Developing Common Modeling or Forecasting Tools	Multiple agencies jointly conducting a data sharing activity, such as a survey or maintaining a shared data portal. Multiple agencies developing a data sharing or analytical tool, such as asset management tracking software or a common modeling platform. Often these partnerships include cost sharing arrangements and steering committees to jointly agree on technical details.	**Joint Surveys:** • Atlanta Regional Commission (ARC) • Oregon Modeling Steering Committee (OMSC) **Universal Data Practices:** • Florida Department of Transportation's Performance Management • Partners Using Archived Operations Data • Vermont, New Hampshire, and Maine Asset Management **Shared Models:** • Association of Texas Metropolitan Planning Organizations (TEMPO) • North Carolina Research Triangle Area Cooperative Long-Range Planning • Oregon Modeling Steering Committee (OMSC)
Project Partnerships	Agencies and stakeholders, including both the private and public sectors, collaborating to conduct a project or series of projects to address a pressing transportation issue in their region.	• Chicago Regional Environmental and Transportation Efficiency (CREATE) • Indiana MPO Council • Metropolitan Area Planning (MAP) Forum • Mid-America Regional Council Operation Green Light (OGL) • San Diego Association of Governments (SANDAG) Borders Committee • Southeast Florida Transportation Council (SEFTC)
Joint Planning Products	Agencies, such as MPOs, transit agencies, and State DOTs, working together to create a joint plan that describes a common approach to regional issues and goals.	**Metropolitan Regions:** • North Carolina Research Triangle Area Cooperative Long-Range Planning • Northern Minnesota and Northwest Wisconsin's Regional Freight Planning • San Joaquin Valley Blueprint Planning Process • Southeast Florida Transportation Council (SEFTC) **Statewide Efforts:** • Granite State Future • Building a Quality Arizona (bqAZ) • Utah's Unified Transportation Plan

Forums for Communication and Idea Sharing

Often times, the first step in regional cooperation occurs when agencies from different jurisdictions establish forums through which they can regularly communicate with one another about projects and plans, share ideas, and collaborate on regional initiatives of mutual interest.

This category encompasses a variety of coordination practices, such as organizing regular meetings, working groups, councils, and steering committees, with membership that spans jurisdictional boundaries. Over time, communication forums may help facilitate other kinds of cooperation in a region.

Figure 2. Indiana MPO Council Annual Meeting engages participants with social media. Source: Indiana MPO Council.

Regional Models of Cooperation case studies exemplifying this practice include:

- Association of Texas Metropolitan Planning Organizations (TEMPO)
- Florida Department of Transportation's Performance Management
- Indiana MPO Council
- Metropolitan Area Planning Forum (MAP Forum)
- Mid-Atlantic Regional Planning Roundtables
- Northern Minnesota and Northwest Wisconsin's Regional Freight Planning
- Partners Using Archived Operations Data
- SB 375 MPO Working Group
- Southeast Florida Transportation Council (SEFTC)

Key Takeaways

- Forums for communication and idea sharing are commonly used by transportation agencies to support regional cooperation; they often take the form of regular meetings, steering committees, and working groups through which partners can more easily share ideas, update one another on projects and plans, and collaborate on joint priorities.
- The keys to successful regional communication and idea sharing forums are (1) identifying the methods of communication and organization that work well for all parties and (2) jointly determining priority topics for discussion.
- Establishing a clear organizational structure is critical to successful regional forums; many organizations take the approach of sharing or rotating leadership roles during meetings and in collaborative initiatives to allow the organizations involved the opportunity to equally voice their priorities and provide direction to the group.
- Maintaining subcommittees to tackle specific challenges and communication outside of regularly scheduled meetings helps agencies find further benefits from collaboration and stay up to date on important developments.
- Developing an organizational and leadership structure can be challenging when agencies have differing goals and priorities—sometimes agencies have to formally agree to what is and isn't within the scope of the partnership.
- Arranging for staff and administrative support to organize regional forums can be challenging, but agencies stress that the benefits far outweigh the costs.

Implementation

Establishing a forum to communicate across jurisdictions can be achieved by holding regular meetings, organizing steering committees, working groups, or councils, or by developing a virtual forum for maintaining regular contact over long distances. Some key success factors include:

- Clearly identifying topics, issues, and projects that could benefit from collaborative planning
- Establishing a regular meeting time and location
- Understanding partners' and stakeholders' needs
- Establishing a clear organizational structure
- Establishing subgroups or subcommittees to tackle specific issues outside of regular meetings
- Opening both formal and informal lines of communication

Clearly identifying topics, issues, and projects that could benefit from collaborative planning motivates stakeholders to come to the table. For example, shared financial concerns and grant applications are common topics in multi-jurisdictional planning meetings because all agencies need funding to carry out their programs, and many agencies face challenges securing enough funding to tackle major projects. In addition to motivating attendance, determining a clear purpose at the outset of a collaborative effort helps planning organizations identify the methods of

communication that work best for them. For example, organizations that aim to informally update each other on their activities and brainstorm solutions to shared problems typically do not need to meet very often or develop as formal of a structure. Groups that have a more specific focus, such as identifying shared approaches to selecting and funding projects of highest regional priority, might need to meet more frequently.

Establishing a regular meeting time and location can help ensure consistent commitment among attendees. When meetings involve participants from multiple organizations and across large geographic areas, predictability about meetings is essential, and the format and frequency of meetings will vary based on the needs of the group. Groups that span large areas, such as across multiple States, might choose to schedule annual in-person meetings to avoid excessive travel for participants. For example, the Partners Using Archived Operations Data group, which includes representatives from most States along the I-95 corridor on the eastern seaboard, meets in person on an annual basis to discuss effective solutions to congestion management and other operations goals.

For some groups, regular meetings are conducted virtually, supplemented with less frequent in-person meetings. In Alaska, the Regional Models of Cooperation initiative sponsored a virtual peer exchange to gather representatives from the State DOT, MPOs, and local and Tribal organizations to discuss ideas for improved cooperation. Due to the size of the State and remoteness of many communities, the group found a virtual meeting was the most feasible way to hold the peer exchange. The group aimed to continue the conversation after the initial workshop by establishing a forum for communication and collaboration on transportation planning issues. The group agreed to meet in person when they could identify a feasible time and location, perhaps scheduled immediately before or after other major statewide meetings.

Groups that span smaller geographic areas often meet in person quarterly or more frequently. In Indiana, the MPO Council meets once per month, addressing agenda items suggested by its members. The group meets in Indianapolis, the State capital, which is a central location for all MPOs.

Despite the large geographic size of the State of Texas, TEMPO—which includes the State's MPOs, DOT districts, FHWA division office, and other relevant agencies—manages to meet quarterly to discuss the issues and challenges the MPOs face. TEMPO rotates the location of its meetings so that travel costs are more evenly distributed among attendees.

Case Study Highlight

Partners Using Archived Operations Data

Agencies in the Philadelphia area, including the Delaware Valley Regional Planning Commission and representatives from a coalition focusing on the entire I-95 corridor, collaborated to improve data management along the I-95 corridor and other major regional routes. Their activities included:

- Sharing operations data and working together to manage congestion
- Developing a shared repository for archived operations data

Read the full case study here

Taking another approach, the MPO working group in California that discusses strategies for integrating a greenhouse gas bill (SB 375) into MPO plans meets approximately every two months in Sacramento, CA. The location in the State's capital city is relatively central, and the group schedules meetings to coincide with other statewide meetings in order to facilitate attendance.

Connecting to PBPP: Establishing Targets Cooperatively

As States and MPOs begin to phase in Performance-based Planning and Programming (PBPP) requirements, regional communication forums play an increasingly important role.

Transportation agencies can use regional forums to work together to share best practices in data collection, analysis, and target setting, as well as to coordinate their performance management approaches. In some regions, agencies may consider establishing shared performance targets or working together to understand how one agency's targets many impact those of others in a region. In regions where regional cooperation forums already exist, these may be venues for working together on performance management.

A 2016 Regional Models of Cooperation peer exchange in Indiana focused on the topic of cooperation in PBPP. During this meeting, MPOs and the State DOT discussed Indiana's approach to cooperation on performance targets. The MPOs and State DOT set up a working group related to the national safety performance measures. This working group was organized to help ensure that the State and MPOs could analyze safety data in compatible ways and to ensure that targets will be aligned. The peer exchange participants discussed the possibility of emulating this approach for other performance measures.

The most important aspect in determining a meeting schedule is understanding partners' and stakeholders' needs. While regular meetings are important, some groups find that establishing more ad hoc means of communication better serves their needs. For example, the Ohio-Kentucky-Indiana Regional Council of Governments (OKI) in Cincinnati discussed its relationships with freight industry partners during a Regional Models of Cooperation peer exchange in Charlotte, North Carolina. OKI has successfully developed strong relationships with freight industry partners in the private sector, which has led to improved freight planning and public private partnerships to implement freight projects. OKI built these relationships through informal meetings and communication, which better suited private industry partners. Rather than setting up regular meetings with a large group OKI decided to meet with partners one-on-one and on an as-needed basis. They found that their private industry partners operate on a much shorter time scale than the public sector and that those partners were not as interested in attending standing meetings about long-range planning. However, private sector partners were interested in working together on projects that reduced freight travel times and facilitated freight movement if engaged when their involvement could make a difference.

Establishing a clear organizational structure is critical to successful idea sharing. Many organizations take the approach of sharing or rotating leadership roles during meetings and in collaborative initiatives to provide the organizations involved with the opportunity to equally voice their priorities and provide direction to the group. For example, TEMPO rotates its Executive Director and Executive Committee positions, and the individuals filling those roles are responsible for organizing quarterly meetings, determining meeting agendas, and taking notes.

In Indiana, the MPO Council divides most tasks evenly among the members, but one MPO has always been responsible for compiling the agenda. Having this one permanent assignment has helped maintain coordination and communication among the group, while rotating responsibility for other tasks has ensured equal contributions from each MPO.

Case Study Highlight

Indiana MPO Council

Indiana's 14 MPOs have maintained regular meetings to solve challenges of mutual interest for 30 years. The group's activities include:

- Executive directors of the MPOs meet in-person once per month to discuss topics of mutual interest
- The Council holds an annual 2-½ day conference

Read the full case study here

Establishing subgroups or subcommittees to tackle specific issues outside of regular meetings is another strategy that organizations have successfully employed to enhance communication and share ideas. For example, TEMPO has subcommittees that address relevant topics, such as strategies for meeting performance management requirements.

Similarly, SEFTC, comprised of the three MPOs in the Miami urbanized area, has subcommittees that focus on topics such as travel demand modeling, public involvement, and freight planning. The MPOs take turns leading each subcommittee in order to evenly divide responsibilities. Establishing subgroups or subcommittees that each contain representatives from as many of the agencies involved as possible is an efficient way to ensure that groups can address multiple topics at the same time. Subcommittees also allow groups to dive deeper into understanding challenges within a topic or issue and develop joint strategies to address them.

Opening the lines of communication through both formal meetings and ad hoc, informal contacts among all levels of staff can build trust and lead to more in-depth collaboration over time. Maintaining communication outside of regularly scheduled meetings helps agencies identify additional benefits from collaboration and stay up to date on important issues. For example, members of the SB 375 MPO Working Group receive feedback on the implementation activities discussed during its internal stakeholder meetings and report back to the larger group. SEFTC has evolved to conduct numerous projects that require informal communications through email and by phone; both the staff and leadership of the three MPOs communicate on a regular basis on a wide variety of topics.

Benefits

Establishing a forum for communication and idea sharing is the first step that lays the foundation for building strong relationships among planning agencies in a region. Some key benefits to this cooperation practice include:

- Strengthening relationships among agencies and setting the stage for deeper partnerships and collaboration
- Identifying how plans and goals align across agencies in a region
- Providing a flexible and inclusive method to communicate and share information
- Offering a space for agencies to have meaningful conversations about shared issues
- Allowing agencies to adjust the formality of the cooperation based on current needs and priorities

Regular meetings and communication strengthens relationships among agencies, which in turn can lead to deeper partnerships and collaboration. Communication is the foundation of all regional cooperation. The majority of the case examples presented in this handbook began with gradually opening the lines of communication through regular meetings in which participants gained an understanding of the issues and opportunities of nearby agencies. For example, SEFTC began as an informal forum of the three MPOs in the Miami region, which allowed the MPOs to coordinate on shared transportation plans and initiatives.

TEMPO began as a forum for discussion, and together, the MPOs developed a statewide financial model. Progress toward more concrete activities and outcomes that provide mutual, lasting benefits to the organizations must begin by building trust and understanding through regular communication and idea sharing.

Discussing ideas, challenges, and opportunities among adjacent organizations on a regular basis allows those organizations to identify where their plans and goals align. Regular communication helps to ensure that adjacent and/or overlapping jurisdictions priorities are aligned and that they aren't pursuing initiatives that conflict. Furthermore, regular communication regarding challenges and issues can also help agencies share and develop ideas about how to overcome barriers by working together. For example, TEMPO was able to bring representatives from the U.S. Environmental Protection Agency (EPA) offices in the State to teach members how to use a relevant analytical geographic information system (GIS) tool. By meeting together, all the agencies were able to benefit from the training and have access to a new tool. Furthermore, sharing information about goals allows agencies to see where priorities overlap and may lead to projects of mutual interest.

Featured Cooperation Tool

PlanWorks: Better Planning, Better Projects

PlanWorks is an FHWA online decision support tool, built from the experiences of transportation partners and stakeholders, which suggests when and how to engage cross-disciplinary partners and stakeholder groups in order to help build consensus throughout transportation planning processes, such as long-range transportation planning, environmental review, and corridor planning. Because of these functions, PlanWorks can be a vital tool in cooperative regional planning.

The PlanWorks tools include:

- Decision Guides that describe the common decision points and opportunities for cooperation in the transportation planning and environmental review processes;
- Assessments that enable project stakeholders to identify opportunities to work together, improve interagency cooperation, and expedite project delivery;
- Applications that provide specific information and approaches for how topics such as performance measures, visioning, and freight can be considered in the collaborative decisionmaking framework; and
- A Resource Library with relevant case studies and reports of successful interagency cooperation in the transportation planning and environmental review process.

Visit the PlanWorks website to learn more.

Forums for communication and idea sharing are flexible and inclusive. Given that attending meetings requires a relatively low time commitment, groups can invite a wide range of relevant organizations to participate. For example, TEMPO invites all 25 Texas MPOs as well as representatives from Texas DOT, the FHWA Division Office, and EPA to its meetings in order to give attendees the opportunity to hear perspectives from the local, State, and Federal levels. Organizing these forums requires effort and coordination, but their inherent flexibility enables agencies to involve a broader group of stakeholders than more intensive practices of regional cooperation. Providing options of remote participation may also further expand the flexibility and inclusiveness of regional forums.

Some agencies have found that limiting forum participants to transportation planning agencies can provide for more focused discussion of transportation issues. The Mid-Atlantic Roundtable discussions initially included a variety of other environmental and planning organizations in the Washington, D.C. and Philadelphia regions. However, the group found over time that it would be beneficial to limit the discussion to just the area's MPOs in order to provide space for more in-depth discussion of technical transportation planning issues faced across the region. The Mid-Atlantic Roundtable agencies value the flexibility inherent in this smaller group, as they are able to tailor their meetings to relevant issues affecting the MPOs. They organize their meetings annually or biannually, depending on the needs of the organizations. The flexible, informal structure of the group allows for these shifts in participation and organization of the group as needs and goals change over time.

Emerging Trends in Regional Communications Forums

Communication and idea sharing forums are a flexible, adaptable way to begin cooperating at a regional scale. As more of these partnerships mature, they may evolve to meet the changing needs of their member agencies and to take advantage of new technologies. A number of trends are emerging that give insight into how agencies may communicate and share information in the future:

- **Remote collaboration.** Many agencies face difficulty funding travel and hosting in-person events, which threatens to undermine regional forums. However, technological advancements make it easier to communicate virtually. Consider using a virtual communication platform, such as Skype, webinar platforms such as WebEx, or Google to communicate.
- **Keep up with shifting topics.** Agencies will most likely continue to shift the focus of regional forums in the future to help them address the most challenging topics or to take advantage of new opportunities. For example, as the Nation's transportation infrastructure continues to age, regional forums might begin to focus on topics related to maintenance and preservation. Similarly, high profile topics such as performance management, freight planning, and new technologies may become a focus of regional cooperation forums in the future. As topics shift, new partners may need to be brought into the fold to represent different perspectives or constituents.

Another benefit of the flexibility of regional forums is that groups can determine how formal or informal to make their collaboration. Some groups find that establishing a formal agreement and voting process is beneficial to their collective decisionmaking. Others, such as the MAP Forum, which includes the MPOs in the tristate New York metropolitan area, find that remaining informal allows the group to more efficiently discuss topics since coming to consensus or changing direction does not require a formal vote, which may need to be approved at a leadership level.

Challenges

Despite the flexibility and inclusiveness of regional forums, they can raise logistical and organizational challenges, such as:

- Difficulty reconciling differing missions and goals
- Lack of staff and administrative support
- Lack or time, resources, and motivation to keep an effort moving forward

Developing an organizational and leadership structure can be difficult when partner agencies have differing missions and goals. For example, the MAP Forum faced this issue when its members wanted to focus on conflicting topics. The group resolved this challenge by formally stating the need for the group to maintain flexibility in the issues it discusses in an MOU while also acknowledging that some issues are outside of the scope of the partnership to address.

Lack of staff and administrative support is another major challenge that many groups face. The Mid-Atlantic Regional Planning Roundtables, a series of roundtable discussions attended by several States in the Mid-Atlantic region, found that organizing major roundtables or conferences required substantial staff and leadership. The group relied on organizations to voluntarily host its collaborative events between 2005 and 2012 but has had difficulty finding volunteers for several years.

TEMPO also struggled with a shortage of dedicated, paid staff to support the collaborative activities of the MPOs. As TEMPO rotated the location of its meeting, it found that the smaller MPOs in the State did not always have the resources available to organize the meeting. The group addressed this issue by making staff volunteers from larger MPOs available to support the smaller MPOs and has considered using Federal metropolitan planning (PL) funds to fund staff to organize the meetings.

The cost of hosting and traveling to regional or statewide forums is another challenge. Smaller MPOs and agencies with less access to resources might not be able to host or attend meetings as easily as larger MPOs and agencies.

Establishing and maintaining regional communication forums takes time, effort, and motivation on the part of the organizers. While none of these challenges are insurmountable, it is important to note them so that agencies aiming to establish stronger means of communication understand the types of common issues they might face. For many agencies, it takes months and even years to find a structure that works for everyone. However, agencies consistently stress that the results of better communication and cooperation outweigh the costs.

Figure 3. The Regional Models of Cooperation workshop in Utah focused on connecting bike/ped and transit facilities. Source: Volpe Center

Resources

Association of Texas Metropolitan Planning Organizations (TEMPO)

Indiana MPO Council

2015 Indiana MPO Conference

Indiana MPO Council Cooperative Operations Manual

Metropolitan Area Planning Forum (MAP Forum) MOU

2015 Annual MAP Forum Meeting Agenda

Mid-Atlantic Regional Planning Roundtables Conference

SEFTC MOU for Rail Link Project

SEFTC MOU for Travel Demand Modeling (see Appendix p. 45)

Data Sharing and Developing Common Modeling and Forecasting Tools

Collecting and analyzing transportation data is a key aspect of transportation planning. Availability of data and analytical resources are critical to understanding the operations and challenges of a transportation planning agency. However, data collection and analysis are often costly endeavors, and when datasets are incomplete or don't align, it can make regional analysis difficult. To address these challenges, agencies are cooperating to develop common means of collecting and analyzing data which can reduce costs as well as provide them with richer data sets to inform their planning processes.

Figure 4. Operations data has been the focus on some Regional Models of Cooperation case studies, such as the Partners Using Archived Operations Data case study. Source: Volpe Center

Regional Models of Cooperation case studies exemplifying these practices:

- **Conducting Joint Surveys:**
  - Atlanta's Regional Transit Survey
  - Oregon Modeling Steering Committee (OMSC)

- **Establishing Universal Performance Measures and Shared Data Repositories:**
  - Florida Department of Transportation's Performance Management
  - Partners Using Archived Operations Data
  - Vermont, New Hampshire, and Maine Asset Management

- **Developing Shared Financial or Transportation Models:**
  - Association of Texas Metropolitan Planning Organizations (TEMPO)
  - North Carolina Research Triangle Cooperative Long Range Planning
  - Oregon Modeling Steering Committee (OMSC)

Key Takeaways

- Availability of data and the resources to analyze them are critical to understanding the operations and challenges of a transportation planning agency; however, data collection and analysis are often costly endeavors.
- Developing common means of collecting and analyzing data can reduce costs as well as provide agencies with richer data sets to inform their planning processes.
- Some examples of ways in which agencies work together on data analysis include (1) conducting joint surveys across jurisdictions, (2) establishing universal performance measures and a central repository for data, and (3) developing shared modeling tools.
- Successfully implementing a joint data sharing activity or analysis tool typically begins by identifying a mutual need and establishing a communication and collaboration structure.
- When working together to develop a data tool or software system, a key decision is whether to develop in-house or use a contractor.
- Formal agreements can clarify roles and responsibilities and ensure that partners are committed to developing and maintaining data tools.
- Developing a shared data collection and/or analysis tool or program provides a number of benefits to the agencies involved:
  - Lowers development costs per agency
  - Increased data consistency over a broader geographic area
  - Supports cooperative planning initiatives
  - Creates the potential to share the system with others
- Jointly creating software systems can create challenging legal issues regarding ownership unless carefully addressed in advance.
- Accounting for transitions and some staff turnover is important to sustaining partnerships.

Implementation

Joint activities can take many forms, from developing software and analytical tools to collecting survey data. Agencies have found that establishing a process that allows them to adapt their cooperation structure to meet changing needs is an essential aspect of successful collaboration. For example, an agreement about developing a software product might require a discussion or agreement on intellectual property rights, whereas conducting a joint survey might not require this type of agreement.

Successfully implementing a multi-agency data sharing and analysis tool or activity involves a number of technical, legal, and logistical steps. Some key success factors include:

- Identifying a mutual data or analysis need with other agencies
- Establishing a communication and collaboration structure
- Determining whether to develop tools in-house or hire a contractor
- Formalizing an agreement about a data tool or activity
- Creating a plan to maintain and update a tool or activity over time

Identifying a mutual data or analysis need can inspire conversations about developing a joint tool or activity. Agencies typically identify a mutual need when they are already in communication with each other or are informed about the issues each other faces. For example, when New Hampshire DOT (NHDOT) and Maine DOT (MaineDOT) learned about the Vermont DOT (VTrans) asset management software from a presentation at a regional conference, they approached VTrans about working together to expand the tool into a tristate partnership.

In the Partners Using Archived Operations Data example, informal discussion between MPOs and State DOTs inspired the development of consistent performance measures and the Vehicle Probe Project (VPP) Suite, a single repository for congestion data and analytical tools housed at the University of Maryland.

Case Study Highlight

Vermont, New Hampshire, and Maine Asset Management

The operations divisions of the State DOTs developed Managing Assets for Transportation System (MATS), a customized software system for operations tracking and reporting.

Read the full case study here

Florida Department of Transportation initiated a pilot project to assess data needs and the level of effort required to develop performance reports for Florida's MPOs. The pilot MPOs are developing standardized performance reports for the established federal measures. The product will be a standardized performance report and dataset that all Florida MPOs can utilize for future performance reporting.

Outlining roles and determining how agencies will communicate and resolve issues early on establishes a strong foundation for building a successful product or program. For example, the OMSC, a partnership in Oregon which developed a modeling tool and includes eight MPOs, Oregon DOT (ODOT), and a number of other Federal and State transportation agencies, uses a subcommittee structure to address different topics.

In the tristate asset management group, VTrans hosts bi-weekly conference calls to discuss contractor-related challenges and hosts a quarterly meeting to resolve technical issues in-house. The group shares documents and meeting minutes using a SharePoint website. Each State has its own database, but the interfaces are designed in the same way to enable simultaneous updates.

When working together to develop a data tool or software system, a key decision is whether to develop in-house or use a contractor. While creating a system in-house allows organizations to have full control of its development, this choice can be costly. Using consultants or contractors is a useful alternative, but agencies may need to write contracts carefully to allow for appropriate control and ownership over the end product. Additionally, when agencies collaborate, it can be a challenge to determine who should house a system or tool.

In Atlanta, the Atlanta Regional Commission (ARC), the local and regional public transportation authorities, and the Georgia DOT (GDOT) collaborated to select a consultant to conduct a region-wide transit survey.

Along the I-95 corridor, the Partners Using Archived Operations Data decided to collaborate with the University of Maryland to develop and maintain a data visualization and retrieval tool that would have been too costly and time-consuming for the MPOs to develop in-house.

TEMPO formed a workgroup that assisted Texas A&M Transportation Institute (TTI) in the development and maintenance of the statewide financial model: TRENDS; Texas DOT (TxDOT), which is a member of TEMPO, houses the model.

Case Study Highlight

Atlanta Regional Commission (ARC)

ARC worked with regional partners to conduct the 2009-2010 Regional On-Board Transit Survey, the largest of its kind in the United States. The group's activities include:

- Four agencies signed an MOA to plan and conduct the study
- The agencies pooled data and staff resources to reach more citizens than ever before

Read the full case study here

In Vermont, New Hampshire, and Maine, a vendor developed the tristate asset management model, but the agencies work together to keep costs down by resolving many issues in-house and ensuring that the contract with the vendor specifies that they own the source code for the software.

Formal agreements can clarify roles and responsibilities and ensure that partners are committed to developing and maintaining data tools. Many agencies develop agreements such as MOUs or MOAs to formalize partnerships and address relevant legal issues. Developing software and technical programs requires agencies to determine who owns the code or proprietary resource and how maintenance will occur.

The Vermont, Maine, New Hampshire tristate group has been developing an MOU to formalize the ownership and maintenance of its asset management system for two years; the agencies involved have run into challenges in determining how to assign ownership of intellectual property between the organizations and their vendor.

In Atlanta, the partner organizations signed an MOA to outline roles and responsibilities for each agency in conducting the transit survey.

Determining how the agencies will cooperatively maintain, update, and expand a data management system or model is a vital part of implementation. For example, the Vermont, Maine, New Hampshire tristate asset management group is designed so that each State DOT can develop additional components for the software system as needed, but all three agencies have access to the new components once developed. The group also meets regularly to address issues with the system before requesting assistance from the vendor. In Texas, TEMPO collaborates with TTI to update its financial model.

Connecting to PBPP: Cooperation on Performance Data

Reliable, accurate data is crucial to a PBPP approach. Transportation agencies benefit from sharing data and working together to develop uniform methods of collecting and processing data. If data and analysis techniques are compatible across regions, agencies are better able to compare performance and progress in achieving targets. Comparable data is particularly important for measures that are calculated across jurisdictional boundaries or apply to an entire State. Florida DOT introduced an annual workshop for MPOs and Federal partners to standardize performance management through a data framework of performance measurement, to standardize performance reports, and to integrate performance measures into the statewide long range transportation plan.

The Summary Report from the Regional Models of Cooperation Indiana Peer Exchange discusses the importance and challenges of developing consistent data collection and management processes. At the Peer Exchange, Ohio DOT (ODOT) and the Northeast Ohio Areawide Coordinating Agency (NOACA) shared successful efforts to coordinate performance data across agencies. For example, ODOT developed a safety data analysis tool, which it makes available to all MPOs in the State. The tool includes processed statewide safety data and allows users to calculate trends and potential targets. Similarly, ODOT and NOACA worked together to ensure that ODOT collected and shared road condition data that would work with NOACA's pavement management system, which will help the two agencies align pavement condition targets in the future.

Benefits

Developing a shared data collection effort, analysis tool or program provides a number of benefits to the agencies involved, such as:

- Reducing the per-agency cost of development
- Expanding the types of data and analysis available to support regional planning efforts
- Sharing improvements or add-ons among agencies with similar needs
- Developing data sets that cover a broader geographic area with higher quality data
- Improving efficiency by creating common data analysis structures and conventions

By pooling resources, agencies can develop a more robust, expanded tool than each could develop independently. Developing a tool jointly is usually less costly than it would be for each agency to develop on its own. When working together, smaller agencies can develop or access higher quality resources than each would be able to on its own.

Shared tools and software systems provide agencies with the opportunity to expand the types of data and analysis available to support regional planning efforts. Data from shared tools and software provides agencies with new ways to understand infrastructure performance and needs. For example, the Delaware Valley Regional Planning Commission

(DVRPC) has been using archived congestion data to illustrate the need for new construction projects, such as a local transit project.

The Vermont, Maine, New Hampshire tristate asset management group developed its own asset performance measure, which assesses bridge condition by maintenance requirements rather than using the good-to-critical rating scale.

Shared data collection initiatives, such as joint surveys, provide agencies with more expansive data for regional planning. For example, ARC and its partners conducted a regional on-board transit survey that received more than 50,000 responses from residents across 20 counties and users of multiple transit operators. Like the analytical software systems discussed above, the survey provided justification for including new transit routes in the regional transit plan by providing broader regional information.

In Oregon, OMSC influenced scoping of the statewide household travel survey.

Collaboration on multi-jurisdictional initiatives can lead to software tools that are open for other agencies to use in the future. VTrans, New Hampshire DOT, and Maine DOT jointly own the code for their tristate asset management software system, but they make it available for other DOTs to use free of charge; other DOTs only need to pay a vendor to configure the software to their needs. Creating software without strict proprietary constraints provides benefits not only to the agencies involved, but also creates the potential for others to benefit from the tools in the future.

Emerging Trends in Cooperative Data Sharing, Modeling and Forecasting Tools

The ways in which transportation agencies cooperative to collect, share, and analyze data will continue to evolve as technology advances. Some potential changes that are on the horizon include:

- **Mobile Technologies**. Increased focus on making programs available for smartphones and mobile devices might lead to different types of software development needs. Transportation agencies may begin to explore new data sources, such as cell phone data collection and mapping tools, to reduce the cost of implementing surveys and collecting data at a regional scale.
- **Data Gaps.** Data-related collaborations may shift their focus to address topics where data is becoming more important, or where existing data is lacking. For example, some agencies may focus on data to improve multimodal planning, particularly for public transit and nonmotorized transportation modes. One area in which data is almost certain to play a larger role is in performance management, where cooperation will be needed to ensure performance targets are aligned.
- **Decreasing Costs.** As technologies mature they often decrease in cost. Platforms that were previously cost-prohibitive may become more widespread and smaller agencies may be more able to participate in data collaborations.

Creating common data analysis structures and conventions can improve efficiency at a regional or State level. The Florida Model Task Force, which was featured in a Regional Models of Cooperation webinar, standardizes the software engine, file naming conventions, file formats, and model parameters and coefficients for all of the models in the State. This allows the Florida DOT central office to develop applications and trainings that can be used in all Florida regions, saving time, money, and man-power.

Challenges

Implementing a shared data collection or analysis tool can save money and increase access to regional data. However, creating cooperative data systems and tools can be challenging. Understanding and addressing these challenges from the beginning of a process can benefit all agencies involved. Some challenges include:

- Legal issues such as determining the ownership of intellectual property
- Lack of staff time for software and data projects
- Loss of staff knowledge due to transitions and staff turnover

Determining the ownership of intellectual property and addressing other legal issues are common obstacles that agencies face when developing a software system. This is a particularly important challenge when agencies decide to contract a vendor to develop the system. The Vermont, Maine, New Hampshire tristate asset management group has faced challenges developing an MOU that satisfactorily determines the ownership of the intellectual property between the States and the vendor for its asset management tool. While the State DOTs own the original code, ownership of the updates to the code are uncertain. Navigating these legal issues is an important but often challenging aspect of jointly developing software.

Finding staff time to contribute to collaborative data and software projects is another common challenge. OMSC's meetings are voluntary, and the committee found difficulty funding the day-to-day tasks of its staff. Oregon DOT stepped in to provide administrative support, but participants can only contribute to the multi-jurisdictional committee to the extent to which they have time and availability.

Accounting for transitions and some staff turnover is important to building a successful collaboration. OMSC also found that, as with other programs, staff turnover affects the ability to continue operations and sustain staff motivation to develop shared resources. As people who begin multi-jurisdictional projects retire or move on, it can become difficult to maintain institutional knowledge and commitment to the project. The Oregon group found that regular in-person meetings helps new staff members become more invested in the projects and get up to speed quickly.

Resources

Atlanta's Regional Transit Survey: MOA (see Appendix p. 6)

Atlanta's Regional Transit Survey: Regional On-Board Transit Survey Final Report

Oregon Modeling Steering Committee (OMSC)

OMSC Oregon Modeling Improvement Program

OMSC Meeting Agenda

OMSC Meeting Minutes

OMSC 2013 Operating Procedures

Vermont, New Hampshire, and Maine Asset Management: Tristate Partnership MOU

VT, NH, ME Asset Management: 2014 Annual Report on Tristate Performance Measures

TEMPO: Transportation Revenue Estimator and Needs Determination System

Project Partnerships

Establishing project partnerships between public agencies or with the private sector is a common cooperation practice. Transportation agencies often use these partnerships to directly address specific regional challenges or opportunities. Agencies use project partnerships to address a variety of different topics including freight movement, operations, and public transportation.

Figure 5 A complex railroad crossing in Chicago that was identified by the project team as a location with a high concentration of delays. Source: 75th Street Corridor Improvement Project.

Regional Models of Cooperation case studies exemplifying this practice include:

- Chicago Region Environmental and Transportation Efficiency (CREATE) Program
- Indiana MPO Council
- Metropolitan Area Planning (MAP) Forum
- Mid-America Regional Council (MARC)
- San Diego Association of Governments (SANDAG) Borders Committee
- The Southeast Florida Transportation Council (SEFTC)

Key Takeaways

- Project partnerships can help agencies achieve more together than they could working independently.
- Working together on individual projects can sometimes lead to long-term cooperative relationships.
- Project partnerships enable flexible funding arrangements and offer opportunities to make transportation resources go further.
- Project partnerships tend to develop cooperative structures that last through planning and development phases into project implementation and operations.
- Sometimes agencies and stakeholders are motivated to partner on transportation projects because of a high-profile event.
- Agencies often note that accounting for staff time to maintain project partnerships is an important consideration.
- Tracking project progress and performance is another key aspect of transportation project partnerships.
- Private sector and public sector partners may find that they operate on different timelines and planning horizons.

Implementation

Partnering across agencies to conduct a project or series of projects requires both strategic and logistical cooperation. Some key aspects of how agencies cooperation on regional projects include:

- Gaining motivation from a high-profile event in the region to initiate cooperative projects
- Considering the full lifecycle of the project
- Accounting for distribution of staff time and resources
- Looking for opportunities to flexibly use resources
- Tracking project progress and performance

Sometimes agencies and stakeholders are motivated to partner on transportation projects because of a high-profile event. Joint projects often come about because agencies are working to address a high-priority regional problem. Sometimes the extent of a problem is revealed by a particular event. For example, in 1999, a snowstorm forced Chicago's rail network to shut down, revealing many deep-seeded issues with the rail system, such as capacity constraints, communications and operations problems, and capital needs. The rail network shutdown motivated public and private sector agencies to form a new regional partnership to address the issue, which later led to CREATE, a public-private partnership program tasked with developing a project-based plan to address rail issues in the region. The group also signed a confidentiality agreement to build trust with

the private industry partners, who, afterwards, felt more comfortable sharing information and participating in group discussions.

Identifying a pressing, cross-jurisdictional issue motivates agencies and stakeholders to work together to address the problem. In the Kansas City metropolitan area, three events motivated the Kansas and Missouri DOTs to collaborate on traffic signal coordination through Project Green Light: 1) the two DOTs had recently finished planning for a freeway management system that would cross jurisdictional boundaries, 2) Missouri DOT and the City of Kansas City began developing a common hardware standard for traffic signal controllers at overlapping intersections, and 3) the EPA designated the region as a non-attainment area for the one-hour ozone national ambient air quality standard. These three factors motivated transportation agencies in the region to work together on Operation Green Light to address air quality issues by re-timing traffic signals to reduce congestion. The bi-state nature of the Kansas City region and well-established relationships between the DOTs, MPO, and stakeholders in the region helped the parties come together on this joint project when the need arose.

Case Study Highlight

Mid-America Regional Council

To address the issue of traffic congestion, the Mid-America Regional Council, the MPO for the bi-state Kansas City region, administered Operation Green Light, a traffic signal management system that coordinates traffic signals on major routes in the area. The Kansas and Missouri DOTs, 26 cities, and 9 counties participate in the program.

Read the full case study here

Recognizing a gap in planning efforts can also motivate partners to work together. San Diego Association of Governments (SANDAG) serves a diverse region with 18 federally-recognized tribes and close ties to Mexico. Many area residents commute across regional and international borders and the region as a whole faces environmental issues related to energy and water together. SANDAG formed the Borders Committee to bring together representatives from its local agencies and Mexico to identify opportunities to work together on projects.

Project partnerships tend to develop cooperative structures that will last through the planning and development phases of their projects, into project implementation and operations. Cooperative structures vary based on the needs of the project partnership. Subgroups or committees working on project development during key phases of project partnerships may meet more frequently than groups focused on strategic planning or broader issues. For example, CREATE is a long-term project partnership that started with the intention of developing and implementing numerous projects over many years. The groups involved, which include the Association of American Railroads, Illinois DOT, and city DOTs, signed a Joint Statement of Understanding (JSOU) that established their agreed-upon objectives, terms and conditions, and scope of work. The group is organized into a stakeholder committee, which includes top officials from the three organizations as well as a management committee that is divided into a finance committee, an advocacy committee, and an implementation committee. Each committee is tasked with a different set of responsibilities and includes representatives from each organization. Given the multi-year,

multi-project nature of the partnership, devoting staff members to its implementation is a necessary component of the organizational structure.

Smaller project partnerships can also benefit from committees and subcommittees to oversee implementation. In Kansas City, Operation Green Light is administered by a steering committee with members from the Mid-America Regional Council (MARC)—the bi-state MPO, the Kansas and Missouri DOTs, and local government representatives. Operation Green Light also includes an ad hoc task force composed of technical and engineering staff from the member agencies. While the steering committee focuses on strategic planning, the ad hoc task force addresses technical issues. A jointly-funded, five-person work unit operates the Operation Green Light system, which connects traffic signals on major corridors throughout the region.

Connecting to PBPP: Flexible Programming

Implementing projects and initiatives whose outcomes will contribute to performance targets is a key aspect of PBPP. When agencies at the State and MPO levels work together to develop flexible funding streams, they can all more easily schedule and fund projects that contribute to their targets. As discussed in the Summary Report from the Indiana Peer Exchange, ODOT has built flexibility into its transportation funding mechanisms that benefits regional and statewide goals. For example, MPOs can carry over up to 25 percent of STP funds to the following year, which provides flexibility for them in scheduling projects and amassing funds for larger projects. Looking ahead, State DOTs can identify how flexible and alternative funding and programming strategies can help support performance goals.

Agencies often note that accounting for staff time to maintain project partnerships is an important consideration. The frequency of project partnership committee meetings can vary depending on project stages and committee focus. Many agencies find it beneficial to establish expectations for the frequency of communications and collaborative work. The committees of the CREATE program meet with varying frequency. For example, the finance committee, which discusses funding issues, meets on an ad hoc basis; the advocacy committee, which coordinates outreach with relevant agencies and community groups or residents, meets once per month; and the implementation committee, which monitors project development, meets every other week. In Kansas City, the Operation Green Light Steering Committee met monthly when it was developing the project but shifted to quarterly meetings once the system was implemented. These examples illustrate how different tasks and phases of a project partnership may require different levels of communication and collaboration.

Project partnerships enable flexible funding arrangements and offer opportunities to make transportation resources go further. Arranging sufficient funding for a major project is often a key goal of project partnerships, which offer the advantage of allowing agencies to develop flexible funding strategies. For example, Kansas DOT was able to transfer Congestion Mitigation and Air Quality (CMAQ) program funds to Missouri

DOT, which in-turn provided funds to the Mid-America Regional Council to implement Operation Green Light. Furthermore, the Mid-America Regional Council and the two State DOTs jointly fund the five-person work unit that operates the regional signal system.

The SANDAG Borders Committee is set up so that the agency securing funds for a project or study generally leads the work, but the other agencies contribute by providing staff time.

Tracking project progress and performance is another key aspect of transportation project partnerships. Tracking results demonstrates the benefits of conducting joint projects and provides all partners with consistent information. In the Chicago region, CREATE tracks project progress through a publicly accessible website, which allows for transparency between the internal group and external stakeholders, such as individual railroad companies. The website provides key information about project implementation, such as public meeting notes, grant applications, and active requests for proposals.

In Kansas City, the Mid-America Regional Council has taken the lead in tracking progress for Operation Green Light. The bi-State MPO publishes travel time studies to document the project's impact on traffic flow and air quality across the region. It also internally tracks operations metrics for partner agencies.

Case Study Highlight

CREATE

The Chicago Region Environmental and Transportation Efficiency Program (CREATE) is a public-private collaboration of planning agencies and the regional rail that jointly prioritizes projects to improve Chicago's freight, passenger, and commuter rail network. The partnership was officially created through a Joint Statement of Understanding in 2003.

Read the full case study here

Benefits

Some benefits of transportation agencies working with each other and the private sector on joint projects include:

- Achieving measurable, region level results greater than those that could be achieved independently
- Developing long-term cooperative relationships

Project partnerships can lead to results which could not have been achieved by agencies working independently. Establishing a project partnership to address a specific regional planning goal can demonstrate focused progress on regional priorities and can act as a springboard for future cooperative planning efforts. For example, by the time CREATE had implemented 21 of its 70 planned projects, freight rail travel times in the Chicago region had declined by 30 percent. In the Miami urbanized area, collaboration between the Miami-Dade and Broward MPOs to implement express bus lanes on I-95 resulted in a 400 percent increase in transit ridership and increased speeds on I-95 travel lanes. In both cases, it would have been impossible for an individual agency to have such a strong, regional impact without the partnership.

Working together on specific projects can sometimes lead to long-term cooperative relationships. The successes of project partnerships often pave the road for future collaborations. In the Kansas City region, consistently positive results from Operation Green Light have encouraged agencies to continue working together. Because the system benefits emergency response times, the partners are seeking to strengthen relationships between the Mid-America Regional Council and the region's law enforcement agencies.

Similarly, the successful Miami-Dade and Broward MPO collaboration to implement express bus lanes on I-95 has helped the MPOs promote other potential managed lanes projects in the region and they regularly work together, along with the Palm Beach MPO, on several notable regional transportation planning efforts.

Figure 6. CREATE partners break ground on a project in Chicago. Source: CREATE.

Challenges

Despite their benefits, project partnerships come with a set of unique challenges, including:

- Difficulty sharing staff time and resources
- Lack of trust between public and private agencies
- Different expectations about timelines

Sharing staff time and resources can burden project implementation. As with any project, an agency must determine how much staff time it can allocate. However, project partnerships often require additional staff time to ensure proper communication and cooperation across agencies. Some agencies have found that this challenge can be minimized by addressing staffing early on, when the partners are agreeing on an organizational structure for the partnership. Creating a structure that is sensitive to how much staff time and resources each partner can reasonably commit can help mitigate potential conflicts and ensure projects have the appropriate resources to move forward.

Public-private partnerships face unique challenges. Some agencies have found that an initial lack of trust between private sector and public sector partners can prevent a fully collaborative relationship. Private industry stakeholders may be hesitant to share non-public information about their operations or business projections, even though such data might help partners identify solutions to operational issues. However, formal agreements may help to address this challenge. For example, the CREATE program began to overcome these issues by introducing confidentiality agreements, which allowed all of its members to feel more comfortable speaking freely at meetings and sharing information.

Private sector and public sector partners may find that they operate on different timelines and planning horizons. Private industry typically works and plans on a shorter timeline than the public sector, potentially making it difficult to work together on long-rage plans or any effort without a near-term expected benefit. Working together on near-term projects is one way to overcome this challenge, as private sector partners may be more able to see and communicate the benefits of taking the time to participate in the partnership. For example, the Ohio-Kentucky-Indiana Council of Governments stressed the importance of engaging with private sector partners at the project level during a Regional Models of Cooperation peer exchange on regional freight planning in Charlotte, North Carolina.

Next Steps for Project Partnerships

Project Partnerships often lead to increased understanding between agencies and create opportunities for future planning cooperation. To take advantage of the benefits project partnerships can provide:

- **Remain on the lookout.** Project partnerships create opportunities to address regional priorities that individual agencies or stakeholders cannot address on their own. Continuously identify agencies with mutual interests and seek out ways to enter formal or informal partnerships with them.
- **Don't discount public/private partnerships.** As transportation agencies work within the limitations of tight budgets and constrained planning resources, public-private partnerships, particularly at the project level, may play an important role. An increasing national focus on freight planning suggests that a deeper involvement of private sector partners in regional and statewide planning will be a key focus for transportation agencies in many areas. A similar broadening of the types of stakeholders that may be involved in project partnerships could result from emerging regional transportation planning topics such as public health and connected or autonomous vehicles and other new mobility technologies.

Resources

Chicago Region Environmental and Transportation Efficiency (CREATE)

CREATE Final Feasibility Plan

CREATE Project Status Map

Mid-America Regional Council (MARC): Operation Green Light (OGL)

Traffic Signal Coordination Studies

MARC: OGL Concept of Operations: Roles and Responsibilities

MARC: OGL Traffic Signal Coordination Measures of Effectiveness Methodology (see Appendix p. 28)

MARC: OGL Brochure

San Diego Association of Governments Borders Committee

Southeast Florida Transportation Council (SEFTC): Southeast Regional Planning Model (SEPRM)

SEFTC: 95 Express Bus Service

Joint Planning Products

Two or more agencies working together to produce a joint transportation plan is one of the most complex and rewarding regional cooperation activities. MPOs in some regions have found that producing joint planning products allows them to better serve their constituents and to best address the highest-priority regional issues. At the State level, State DOTs, MPOs, and other agencies have worked together to gather input from a broad range of stakeholders, to define ambitious visions for their States and in some cases to develop a unified statewide plan.

Figure 7. Granite State Future conducts outreach at local festivals. Source: Nashua Regional Planning Commission.

Regional Models of Cooperation case studies that highlight this cooperation practice at a metropolitan area scale include:

- North Carolina Research Triangle Area Cooperative Long-Range Plan
- Northern Minnesota and Northwest Wisconsin's Regional Freight Planning
- San Joaquin Valley Blueprint Planning Process
- Southeast Florida Transportation Council

Regional Models of Cooperation case studies that highlight this cooperation practice at a statewide scale include:

- Granite State Future
- Building a Quality Arizona
- Utah's Unified Transportation Plan

Key Takeaways

- The development of joint planning products is often motivated by previous successful collaborations among regional agencies or by State-level encouragement.
- Statewide joint planning processes can be led by either State agencies or by MPOs or other local agencies.
- Agreeing upon an organizational structure that allows each agency to be involved and divides the production of content appropriately is important for ensuring each agency has a voice and for creating an efficient workflow.
- Both formal regular meetings and informal communications are important to successful plan development.
- Joint plans require more time for collaboration, but can result in a more efficient planning process overall.
- Embracing regional differences, as well as commonalities, can make for stronger plans that better reflect the needs and priorities of all communities in the region.
- Remaining flexible to shifting schedules and new directions in the process allows for agencies to reap additional benefits and produce a more robust product.
- When agencies work hand-in-hand on joint plans, it can strengthen relationships and make future cooperation easier.

Implementation

Of the cooperation practices discussed in this handbook, producing a joint planning product, such as a metropolitan transportation plan, a corridor study, or a statewide vision or long-range plan, likely requires the greatest level or cooperation and organizational integration. Despite this level of sophistication, flexibility is a key part of creating these products. Developing a joint plan can be a lengthy process that might shed light on unexpected issues or require new technical tools. Agencies who have worked through cooperative planning activities counsel others to expect hiccups along the way and to remain open to changing directions and adapting the joint planning process if needed. Some key success factors include:

- Motivating efforts through State-level encouragement, MPO leadership, and previous collaborative work
- Establishing a collaborative structure through a formal agreement
- Creating committees and sub-committees
- Identifying a lead agency for administrative and/or organizational issues
- Dividing work and meetings within subgroups
- Agreeing to disagree by finding ways to accommodate differing perspectives

To understand how and why agencies have chosen to work together on this level we will first discuss the motivation, or impetus, that leads to the joint planning efforts. Next we will discuss various organizational structures and collaboration techniques agencies have used to facilitate cooperative planning at this level.

Motivation for Developing Joint Planning Products

State-level encouragement often prompts work on joint planning products. For example, the Utah State Legislature encouraged transportation agencies to work together to more efficiently use State transportation funding. Utah's four MPOs and Utah DOT previously had non-concurrent planning cycles, used differing modeling techniques, and funding priorities were not always aligned across agencies. Over time, this encouragement led to a cooperative planning structure that resulted in all of the transportation planning agencies in the State aligning their planning cycles and everyone working together to produce a unified transportation plan.

Similarly, in Arizona, the Governor's Office and Arizona DOT headed the Building a Quality Arizona (bqAZ) statewide visioning process in an effort to address the effects of rapid statewide population growth on the transportation system.

The Minnesota DOT initiated development of a Regional Freight plan in the Duluth area of northern Minnesota. However, in this case, the Metropolitan Interstate Council (MIC), the region's MPO, took the process a step farther and ensured the Wisconsin DOT contributed to the plan development process through involvement on the Steering Committee.

In each of these cases, the States encouraged a different process and provided different types of support during the process, as is discussed below.

In some cases, joint planning initiatives start from the ground up. In New Hampshire, the State legislature requires that each regional planning commission (RPC) develop a comprehensive Regional Plan. In the regions with urbanized areas, these plans may also serve as the multimodal transportation plan. However, in practice, funding constraints often prevented smaller RPCs in largely rural areas from updating their plans on a regular cycle. The RPCs agreed to support Nashua Regional Planning Commission, which is also the MPO for the Nashua urbanized area, in applying for a U.S. Department of Housing and Urban Development (HUD) Sustainable Communities Regional Planning grant. The grant allowed all of New Hampshire's RPC to conduct a statewide outreach and cooperative visioning process, joining forces to update their Regional Plans and produce a statewide snapshot.

Sometimes, developing a joint plan is an evolution of cooperation that begins at the project level. Working on joint projects and coming together for regular meetings can set the foundation for collaborating at a larger scale. For example, the two MPOs in the North Carolina Research

Triangle region (Raleigh and Durham urbanized areas) decided to produce a joint long-range transportation plan after successfully working together on other cross-jurisdictional projects.

Similarly, the South East Florida Transportation Council (SEFTC), which initially began meeting at the suggestion of Florida DOT, worked together on smaller projects for years before deciding to embark on a joint regional transportation plan.

Case Study Highlight

Southeast Florida Transportation Council

The three MPOs in the Miami-Urbanized area (Miami-Dade, Broward, and Palm Beach) and the Florida DOT work together to address regional transportation challenges through the Southeast Florida Transportation Council (SEFTC). The group's activities include:

- Jointly developing the long-range plan 2040 Regional Plan
- Jointly developing the Southeast Florida Regional Freight Plan

Read the full case study here

Organizational Structure

Once agencies have decided to create a joint plan or planning document, they often determine their organizational structure for the planning effort. This process often involves:

1. Creating a formal agreement
2. Formalizing a committee and/or subcommittee structure
3. Determining how to divide work tasks
4. Deciding whether to hire a consultant to assist with the process

Agreeing on an organizational structure that allows each agency to be involved and divides the preparation of content appropriately is important for ensuring each agency has a voice and for creating an efficient workflow. For many agencies, establishing a formal agreement to create a joint planning document helps cement the organizational structure and ensure commitment over the plan development period.

In the Raleigh-Durham area, two MPOs established a formal advisory committee and a framework for the plan development process in an MOA. However, since signing the agreement, the agencies adopted a largely informal collaboration process.

In Utah, two MPOs, Utah DOT and the Utah Transit Authority signed an agreement to form a Joint Policy Advisory Committee. Over time, the State's two other MPOs were added to the agreement, which committed all of the MPOs and the State DOT to integrating their plans into a unified plan covering the entire State.

Regardless of the structure, formal agreements often provide an important foundation for agencies working together to develop joint planning products.

Joint planning processes typically work through committees or subcommittees. Often times joint planning effort have a high-level advisory committee that addresses strategic and big picture issues and technical committees that address topic-specific or logistical issues.

In Utah, the members of the high-level Joint Policy Advisory Committee formed a policy committee as well as a technical coordination committee and several topic-focused subcommittees.

In Arizona, the bqAZ team took a more hierarchical approach. It established two committees that provided high-level guidance–a policy committee, which included stakeholders such as elected officials and members of the private sector, and a management committee, which included the executive directors of the MPOs and councils of governments (COGs). The bqAZ staff team was divided based on Arizona DOT regions and regularly reported to the policy and management committees.

One agency is typically the administrative lead for a joint planning process but many tasks are divided so that each party remains invested. Just as with organizational structure, different groups of agencies take different approaches to determining the division of roles and responsibilities in a joint planning process.

In New Hampshire, Nashua RPC took the lead in conducting certain administrative tasks because it was the recipient of the HUD grant. However, for the majority of content, the RPCs evenly divided the work, identifying ways to streamline the process. For example, each RPC collected and analyzed data for one metric for the whole State, rather than each RPC conducting work on all metrics solely within its own region.

Case Study Highlight

Granite State Future

The nine regional planning commissions (RPC) within New Hampshire worked together to develop Granite State Future, the State's largest visioning, regional planning, and public involvement campaign. Successes of the collaboration included:

- Nashua RPC secured a U.S. Department of Housing and Urban Development Grant to implement Granite State Future
- The nine RPCs have all adopted their regional plans

Read the full case study here

In the Miami region, the SEFTEC MPOs rotate the lead responsibility for producing the joint regional plan every planning cycle. They also rotate hosting duties for their quarterly meetings to ensure equal participation and to avoid over-burdening any individual agency.

Many agencies also decide to hire a consultant to help develop joint plans. For example, in New Hampshire, the RPCs hired a consultant to help create a unified graphical look for the plan. They also brought in consultants and specialists to conduct public outreach trainings for all the RPCs.

SEFTC hires a consultant to help facilitate their joint planning activities, and they try to avoid hiring consultants who are working on each MPOs individual metropolitan transportation plans to ensure objectivity.

Figure 8. Residents learn about scenarios for San Joaquin Valley's planning process. Source: San Joaquin Valley Blueprint Flickr.

Cooperation Logistics

Establishing a regular meeting schedule as well as informal means of communication helps the process run smoothly and allows the agencies involved to more easily contribute. Developing a joint planning document requires long-term coordination and communication across agencies. Traditional communications often take place through in person meetings, phone calls, and emails, and they are supplemented by internal websites and document sharing platforms.

Management or advisory committees might not need to meet as frequently as the technical teams and project managers working on analyzing data and producing content for the plan. Agencies typically set up multiple types of regular meetings for the different committees or subgroups involved in developing a joint plan. For example, the regional bqAZ teams met every week, but the policy and management level committees met less frequently.

Similarly, in New Hampshire, the project managers from each RPC met in-person every month, whereas the advisory committee met quarterly. The monthly meetings allowed project managers to report on how each team's work had progressed and strategize about challenges they each faced.

It is also important to determine effective means of communicating outside of regular meetings. Many agencies describe using a number of different means of communication, including phone calls, impromptu meetings, and document sharing platforms.

In New Hampshire, the group mainly used a Google Sites website to share updates and link to relevant documents and draft in order to thoroughly

record the information without inundating email inboxes. Project managers would record their updates prior to the monthly meetings. The bqAZ team also used a website portal to document meetings and materials from each regional team. Making use of cloud-based file sharing platforms like Google sites, Dropbox, or Box helps agencies document their process, avoid versioning issues, and keep in more frequent contact.

Figure 9. Three MPOs in Southeast Florida developed a joint long-range transportation plan. Source: SEFTC

Strategic Collaboration

Producing joint planning products requires agreement on high-level strategic goals, but not on every detail. Partner agencies don't necessarily need to agree on everything in a joint planning process. There should be room for intraregional differences, but a joint planning process requires a certain willingness to come together on the highest-priority issues and to agree to disagree and be flexible when necessary. Partner agencies often achieve this "strategic" collaboration by assessing commonalities and differences, identifying where they can retain independence, and maintaining flexibility in the plan development process.

Many agencies develop a process that embraces both commonalities and differences among the partner jurisdictions so that everyone feels adequately represented in the planning process. A flexible process that tolerates intraregional differences can result in a plan that better reflect the needs of the range of communities in a region. For example, in New Hampshire, the nine RPCs each pulled together information about their residents' vision for their communities based on extensive public outreach. The RPCs then analyzed the results from each region, identifying major commonalities and differences. The group summarized these in their final statewide snapshot to properly capture the range of views and goals across the State. Each RPC also developed its own Regional Plan focused on what is specific to each RPC's area.

SEFTC promotes common goals by creating an overarching regional transportation plan. However, SEFTC recognizes that each of the three MPOs has different specific regional transportation issues as well as those that are

common across the three MPOs, so they continue to produce individual metropolitan transportation plans in addition to the combined regional plan.

These examples illustrate how a joint planning product does not necessarily require alignment on every issue. In fact, some agencies stress that embracing regional differences can produce a stronger final product.

Joint planning benefits from a flexible, adaptable process. Because joint plans are often breaking new ground it may be difficult to accurately set a timeline and process in advance. For example, in New Hampshire, the RPCs adjusted the plan completion schedule after they realized that they needed more time to properly capture the range of opinions and ideas of New Hampshire residents. While this shortened the time they had to write the regional plans and statewide snapshot, it allowed for a much more robust product that better reflected the sentiments around the State.

In Arizona, the bqAZ development process revealed the need for a statewide travel demand model. The group was flexible and allowed for the development of the model, despite the unexpected direction.

Connecting to PBPP: Planning Together

Transportation agencies seeking to coordinate on performance measures and targets can benefit from a joint planning process, because PBPP ties directly to many aspects of plan development.

Developing a joint planning document provides agencies with a framework for implementing all aspects of PBPP. For example, through the planning process agencies can work together to identify performance measures, assess baseline conditions using regional-scale data, and establish region-wide, rather than agency-specific targets, thus creating a more cohesive, comprehensive PBPP process for a region.

A number of agencies have incorporated shared performance measures into their joint planning documents. For example, Granite State Future developed statewide indicators that reflected its statewide vision and goals. Similarly, the San Joaquin Valley Blueprint Planning Process, a region-wide planning initiative in central California that informed urban and rural planning efforts, developed 12 "smart growth" principles which all of the program's grant-funded projects followed.

These examples illustrate how regional and statewide planning efforts can incorporate performance management principles. Looking forward, some agencies may also seek to work together to establish performance targets, new performance measures, and cooperative performance reporting.

Benefits

Joint planning products can produce a wide range of benefits, including:

- Identifying projects and initiatives with broad-reaching benefits
- Conducting a more efficient, cost-effective planning process
- Allowing for increased access to resources
- Collecting consistent data across a region
- Strengthening relationships and making future cooperation easier

Joint planning efforts provide agencies with the opportunity to identify projects and initiatives that can bring broad-reaching benefits to their communities. Agencies that work together on joint plans believe that together they develop better, more effective plans and programs of projects, that are more effective at addressing the needs of their regions.

In Arizona, the statewide outreach process revealed that rural communities preferred a focus on road maintenance rather than road construction, which in turn influenced the State's perspective on long-range plans.

In Raleigh-Durham, the MPOs can use the data from the plans to reduce congestion across jurisdictional lines, resulting in less delay for commuters and residents.

In South Florida, the three MPOs are working together to select projects of greatest regional significance and have developed a trusting relationship where they can work together to focus their efforts.

Joint plans require more time for collaboration, but can result in a more efficient planning process overall. Although joint planning efforts may require additional staff time to coordinate the efforts of multiple agencies, embarking on a joint planning effort instead of separately producing plans can reduce the number of staff needed per agency to work on the plan. For example, the MPOs in the Raleigh-Durham region found that their joint plan required about four staff members, whereas individual plans would have required three to five per agency.

Multi-agency planning efforts can access a greater pool of resources. For example, RPCs in New Hampshire were able to attend workshops with public outreach and communications experts who provided strategies that will benefit the agencies in future planning processes. This opportunity was only possible by pooling funds. Partners may also benefit from having access to a larger pool of staff expertise on various topics than is available within any individual agency in the region. Working together on a joint plan may allow planning agencies to hire more specialized staff.

Conducting data collection and analysis for joint planning efforts can result in more consistent, transparent forecasts across a region. In the Raleigh-Durham region, the plan preparation process used CommunityViz, a GIS-based scenario planning tool, to analyze future growth scenarios for more than 30 local communities. The results provide more consistent data than previous individual methods, which thereby improves the region's transportation modelling capabilities.

When agencies work hand-in-hand on joint plans, it can strengthen relationships and make future cooperation easier. For example, in New Hampshire, the RPCs are working together on implementing aspects of the statewide plan, as well as developing unified performance measures. This time around, another RPC is taking the administrative lead, but they are able to pull from the structure of the Granite State Future project, as well as the lessons they learned from working together, to jump start this new joint planning effort. Future initiatives could require less up front work because the foundational relationships and collaborative structure has been established.

Next Steps for Joint Planning Products

Joint Planning Products represent one of the most robust practices of regional coordination. Looking forward, agencies may choose to work together to produce plans that address a variety of topics which span more than one organization or geography. For example:

- **Megaregions.** As urbanized areas continue to develop and expand, agencies might begin to work together on even broader plans that reach across a "megaregion" scale. Megaregions incorporate multiple urbanized areas that are interconnected economically and socially, such as the Northeast Corridor between Boston and Washington, D.C. Successful planning at a multi-jurisdictional, regional scale can lead to larger scale planning efforts that seek to interweave data and issues at the megaregion level.

- **Performance management.** Joint planning efforts could begin to more actively incorporate performance measures and shared project prioritization tools. Working together on performance-based planning can further align regional transportation planning efforts, while strengthening a region's ability to collectively identify investments that will have a greater impact on mobility, economic development, equity, or a variety of other regional or statewide planning goals.

Challenges

Creating a joint planning product isn't always easy. Agencies may encounter significant challenges when working together, including:

- Reconciling differing views among regions
- Quelling concerns about large scale planning initiatives
- Overcoming "planning fatigue" during what can sometimes be an arduous process

The cooperative planning partnerships featured in this handbook each encountered varying perspectives across the region on key issues. They overcame these differences by 1) embracing the differences in the plan, and 2) making an effort to demonstrate to constituents that everyone's views are heard and valued. All of the plans produced reflected both commonalities and differences among the planning partners. Furthermore, each group held extensive and varied public outreach efforts to demonstrate their commitment to reflecting the similarities and differences among residents throughout their region in the joint plan.

When agencies work together on a broader regional scale, it may raise concerns about a loss of local influence over the planning process. For example, in New Hampshire, many residents expressed concern about their small RPCs engaging in a Federally-funded, large-scale planning activity. However, the RPCs were able to ease concerns by fully explaining the inclusive nature of the process and its benefits.

Large scale, long-term planning efforts may face a momentum issue commonly referred to as planning fatigue. Because of the extensive cooperation required, producing joint planning products can seem overwhelming and burdensome at times. However, sticking to regular meetings and a division of labor among partner agencies can help overcome this challenge.

Resources

Granite State Future

Granite State Future Regional Plan Framework

Granite State Future Core Metrics Methodologies

Granite State Future Statewide Snapshot

North Carolina Research Triangle Area Cooperative Long-Range Plan: MOA (see Appendix p. 33)

North Carolina Research Triangle Area Cooperative 2040 Metropolitan Transportation Plan

Duluth-Superior Metropolitan Interstate Council (MIC)

Harbor Technical Advisory Committee Meeting Agenda (p. 37)

San Joaquin Valley Blueprint Planning Process

Southeast Florida Transportation Council: SEFTC 2040 Regional Plan

SEFTC Regional Freight Plan 2014 update

Building a Quality Arizona (BqAZ): What Moves You Arizona LRTP (2011)

BqAZ: Joint Planning Advisory Council

BqAZ: Work Plan Template for bqAZ Framework Studies

BqAZ: Proposal for bqAZ: Statewide Intrastate Mobility Reconnaissance Study

Utah's Unified Transportation Plan

Utah: 2014 MOA for Unified Transportation Plan Funding Model Update (see Appendix p. 60)

Utah: 2004 MOU for Joint Policy Advisory Committee

Chapter 3
Case Studies

The Regional Models of Cooperation initiative developed 20 case studies that showcase notable practices in cross-jurisdictional transportation planning collaboration. The case studies illustrate cooperative efforts addressing a range of topics, scales, and practices. Some examples highlight cooperation within a metropolitan area while others discuss statewide or multi-state efforts.

Figures 10 and 11 show the locations of the case studies across the country and a breakdown of which case studies employ which of the regional cooperation practices presented in the handbook.

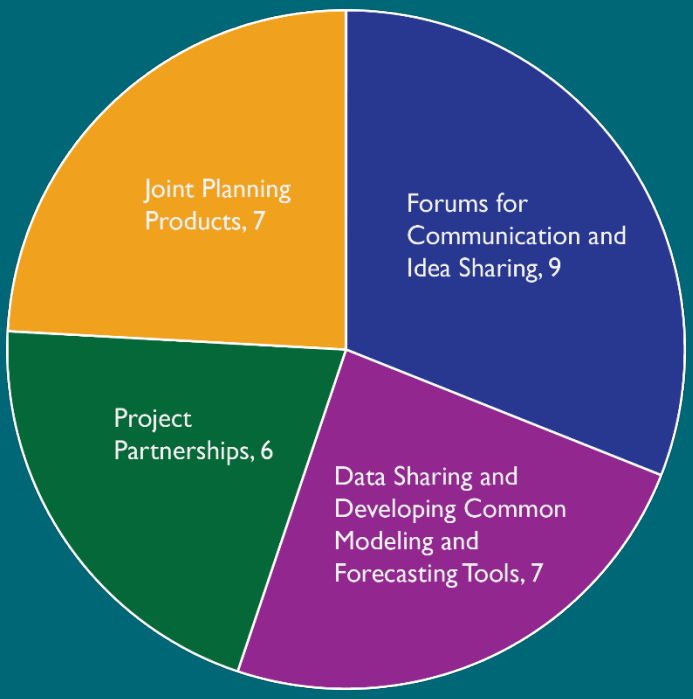


Figure 10: Breakdown of regional models of cooperation case studies by cooperation practice.

Note: Numbers of cooperation practices do not sum to the total number of case studies, because some case studies used multiple cooperation practices.

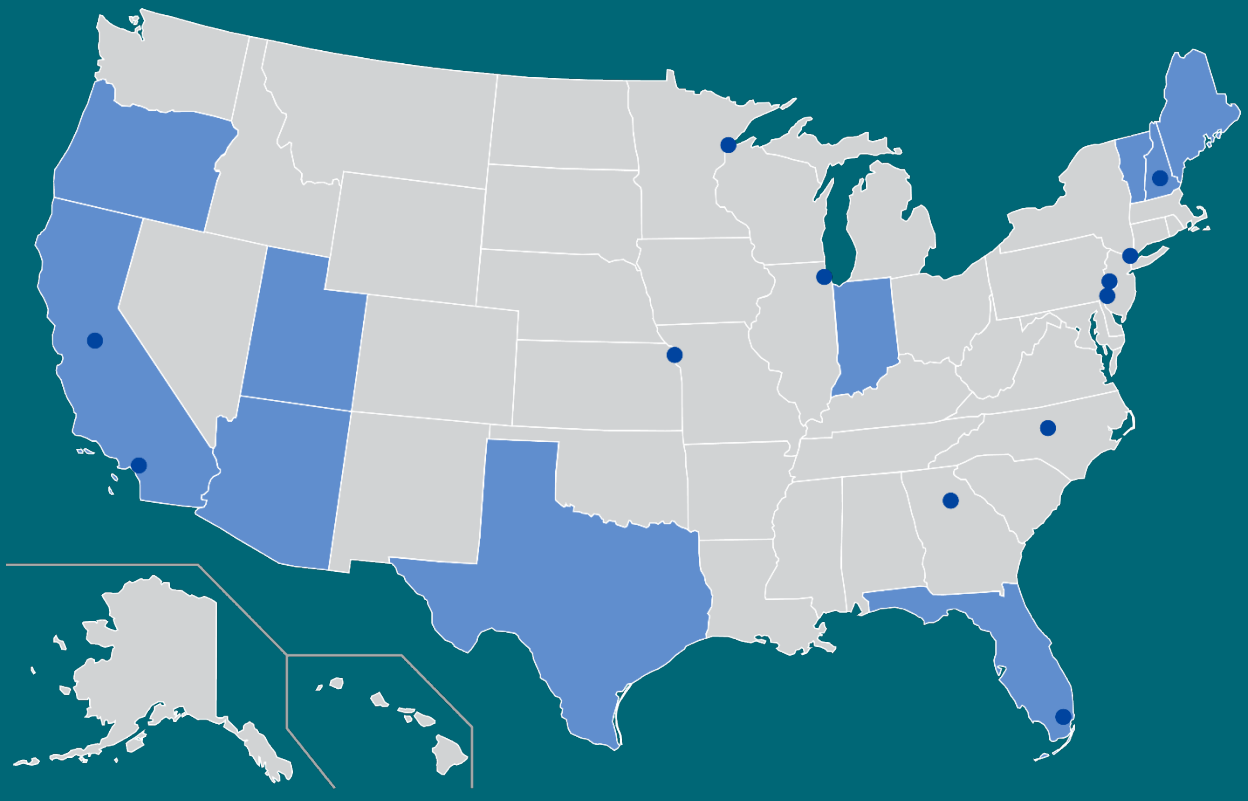


Figure 11: Locations of regional models of cooperation case studies (statewide examples shaded).

Case Study Index

Click on the name of a case study below to navigate to that case study. The icons next to the case study names indicate which topics are addressed in each example. Table 3 on page 18 shows which of the general practices for regional cooperation are used by the agencies in each case study.

Atlanta's Regional Transit Survey

Quick Information

Organization(s): Atlanta Regional Commission (ARC)
Contact(s): Guy Rousseau, Atlanta Regional Commission
Website: http://www.atlantaregional.com/info-center/gis-data-maps
Cooperation Topic(s): Transit Planning
Cooperation Practice(s): Data Sharing and Developing Common Modeling and Forecasting Tools
Cost Information: Survey cost $2 million, split evenly among four participating agencies

Population growth, increased development, and demographic changes in the Atlanta metropolitan region between 2000 and 2008 prompted the Atlanta Regional Commission (ARC), the regional planning and intergovernmental coordination agency for the 10-county area surrounding Atlanta, to think critically about the region's current and future transportation needs. Working with regional partners to pool funding and knowledge, ARC successfully conducted the 2009-2010 Regional On-Board Transit Survey, the largest survey of its kind in the United States.

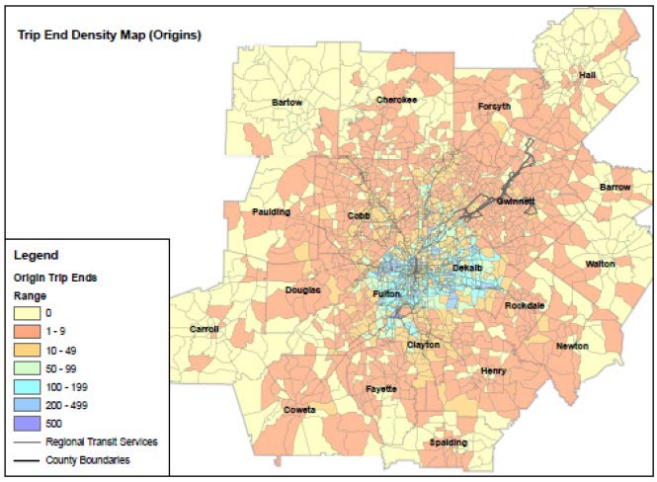


Figure 12. This map represents ridership trip densities (origins) from the ARC Regional Onboard Transit Survey. Source: ARC

Motivation for Establishing the Collaboration

The Atlanta region has attracted a steady stream of new residents and development during the past decade. According to the ARC *Cities & Towns 2010 Yearbook of Growth and Change*, nearly half a million people moved to the region since 2000, which is a 42 percent increase, and suburban municipalities grew by almost 200 percent. Increasing numbers of African American, Asian, and Hispanic residents have moved into the area, considerably shifting the demographics of the region.

Based on these changes, and the outdated information ARC had on transit behaviors in the region, the organization decided it was necessary to survey the region's residents on their travel behaviors and transportation needs. The previous survey from 2000 was missing market segments, such as zero car households, low-income communities, and several geographic areas. To obtain this information, ARC would need to expand its sample size, which would require much more funding than was initially anticipated and readily available. Instead of compromising the study's quality by working with a smaller budget, ARC contacted regional partners including Georgia Regional Transportation Authority (GRTA), the Metropolitan Atlanta Rapid Transit

Authority (MARTA), and the Georgia Department of Transportation (GDOT) to pool funds and expertise to conduct the desired study.

Collaboration Structure

The four participating agencies—ARC, GRTA, MARTA, and GDOT—signed an MOA in 2008 that provided a framework to plan and conduct the On-Board Survey (see Appendix). The MOA outlined the responsibilities for ARC, which was the lead agency responsible for providing overall coordination and management of the strategy, as well as the roles of the "participants" (i.e., GRTA, MARTA, and GDOT).

From the beginning of the project, all four agencies agreed that the survey development and implementation process would be open and that everyone involved would have opportunities to contribute to the project and work with the data. The agencies decided to split the cost evenly, with each of the four contributing half a million dollars. Splitting the cost evenly ensured that each agency felt equal responsibility and commitment to the project. Representatives from each agency convened in an oversight committee to select a consultant that would conduct the survey and then met regularly throughout the process to collaborate on the survey design, study area, collection methods, and data analysis techniques.

Prior to the survey initiative, ARC had hosted monthly interagency meetings since the late 1990s to discuss air quality and other issues. As such, the group did not need to determine a new structure for communication and collaboration. Because ARC had hosted the interagency meetings and led a number of other large scale efforts, the organization took the lead in administering the logistics of the survey, including releasing the Request for Proposal (RFP) and leading the selection process. However, all of the agencies remained engaged and involved throughout the process. GRTA, MARTA, and GDOT built trust with ARC early on in the process and through their prior interagency meetings, and therefore, they felt comfortable with ARC leading the process.

The group agreed upon a single set of survey questions to use for the entire geographic reach of the survey. These questions met all of the needs of the different transit operators in the region. Using the same survey allowed for the region to more easily compare responses across areas.

The group hired consultants to conduct the survey, which reached a large sample size of around 50,000 people. The consultants used tablets to collect

Takeaways

- Working with regional partners to pool funding and knowledge, ARC successfully conducted the 2009-2010 Regional On-Board Transit Survey, the largest survey of its kind in the United States.
- Faced with rapid population growth and outdated information, ARC decided it was necessary to survey the transit users from the entire region on their travel behaviors and transportation needs.
- The four participating agencies—ARC, GRTA, MARTA, and GDOT—signed an MOA in 2008 that provided a framework to plan and conduct the On-Board Survey.
- The agencies split the cost of administering the survey equally and hired consultants to conduct the survey.
- The group agreed upon a single set of survey questions to use for the entire region, which allowed them to more easily compare responses.
- To help mitigate the high cost of administering ridership surveys, the group aims to incorporate more passive data collection efforts through cell phone, GPS, and other data sources in the future.
- The group learned that it was very beneficial to formalize their partnership through an MOA.

onboard surveys, which allowed them to geocode the responses and facilitated data analysis. The survey responses were entered anonymously using geographic coordinates into a SQL database, which the viewers can easily query.

In addition to a common understanding of the project goals and agency responsibilities as well as the signed MOA, the region collaborates separately on planning and operations issues through standing transit-related and project steering committees convened by ARC. One such committee is the Transit Operators Subcommittee (TOS), which is comprised of staff from the region's seven transit operators and third-party sponsors eligible for specific FTA funds. TOS provided suggestions and recommendations throughout the On-Board Survey project development and implementation phases. This provided a way for additional stakeholders to be involved in the study and for the project partners to meet in a venue in which they were already familiar.

Collaboration Accomplishments

The survey was an unprecedented success. More than 50,000 surveys—representing roughly 1 out of 10 riders in the region—were completed, encompassing a 20-county region that includes seven separate transit systems. The survey improved regional planners' understanding of both basic and specialized needs in the region. For example, the survey results allowed the region to quantify the number of Kiss and Ride users for the first time. As a result of the survey, the region found that 30 percent of its transit users used the Kiss and Ride stations. The survey also provided justification for several new transit routes and helped planners minimize impacts on riders when a route had to be relocated. For example, agencies are better able to reach out to different types of riders, such as choice riders, because they have a better understanding of their transit patterns. The survey's impact has traveled beyond the Atlanta metropolitan region and is shaping similar transit surveys in other regions nationwide. Within the region, the partners have begun preliminary discussions about pooling funding to replicate the survey in 2020.

The survey has also led ARC to collaborate with the Metropolitan Planning Organizations (MPOs) in San Francisco, San Diego, and Seattle on a joint open source modeling effort. The group began working together after building relationships at meetings and conferences. They are funding the new open source modeling effort using Federal Metropolitan Planning funds.

Challenges and Lessons Learned

Each planning agency, transit operator, and government entity pursues a set of priorities specific to its mission and objectives—a situation that is not unique to the Atlanta region but one that causes competition for funding among and within Atlanta organizations. Region-wide committees, like TOS, have established a collaborative environment for the region and have helped to alleviate conflicts regarding policies, plans, boundaries, project designs,

facilities management, and funding. The On-Board Survey, in particular, demonstrated that agencies with similar objectives can achieve more by working together than by working individually.

The On-Board Survey partners also attribute their success to support at all levels of the organizations, from senior leadership to the technical coordinators. Everyone involved understood the significance of the project and felt that they had something to gain from their participation.

Despite the cost savings of conducting a shared survey, collecting data for a survey is an expensive process. Transit surveys are typically conducted every 10 years, in part due to the high cost, which means that the data is frequently outdated before a new survey is initiated. Looking forward, the group aims to incorporate more passive data collection efforts through cell phone, GPS, and other data sources in order to maintain more up-to-date ridership information.

Shared data can be a powerful tool for enacting meaningful, thoughtful change in a region. To achieve successful data sharing, however, cooperation at the planning and policy levels must occur first. ARC, GRTA, MARTA, and GDOT realized the importance of formalizing an agreement through an MOA, communicating regularly, discussing complex and at times controversial issues, and pooling resources to achieve goals that are mutually beneficial for all.

Additional Resources

- Memorandum of Agreement (see Appendix, p. 6)
- 2009-2010 Regional On-Board Transit Survey
- Cities & Towns 2010 Yearbook of Growth and Change

Building a Quality Arizona: State and Local Agencies Create a Common Vision

Quick Information

Organization(s): Arizona Department of Transportation (ADOT); Arizona's Council of Governments (COG); and Arizona's MPOs
Contact(s): Mike Kies, Arizona DOT
Website: http://www.bqaz.org/
Cooperation Topic(s): Statewide Planning
Cooperation Practice(s): Joint Planning Products
Cost Information: Costs divided among agencies

Faced with rapid development and population growth, Arizona's Councils of Governments (COGs) and MPOs partnered with Arizona Depart of Transportation (ADOT), State Legislature, Governor's Office, and Arizona Business Coalition to develop a common understanding of the State's infrastructure needs. In 2007, together they initiated Building a Quality Arizona (bqAZ), an unprecedented public outreach effort to stakeholders from Tribal governments, neighboring States and Mexico, environmental and business groups, and almost every transportation mode and region in Arizona. Their efforts culminated in a visioning document that details the State's transportation needs and goals for the next 50 years.

Motivation for Establishing the Collaboration

In the early 2000s, Arizona's economy and population were growing faster than its transportation infrastructure. Private developers began requesting additional interchanges on the interstate highway system to accommodate the developments they were constructing. The developers and MPOs did not communicate with each other, resulting in requests for duplicative or poorly planned highway projects. ADOT decided to initiate bqAZ to coordinate the needs of the many users of its transportation system into a common assessment and vision. While the Arizona Governor's Transportation Vision 21 Task Force published a report in 2001 that compiled all MPOs' plans, bqAZ was the first visioning effort that brought multiple MPOs together to take an integrated look at the needs of all transportation users, model future scenarios, and use the information to determine a long-term statewide plan.

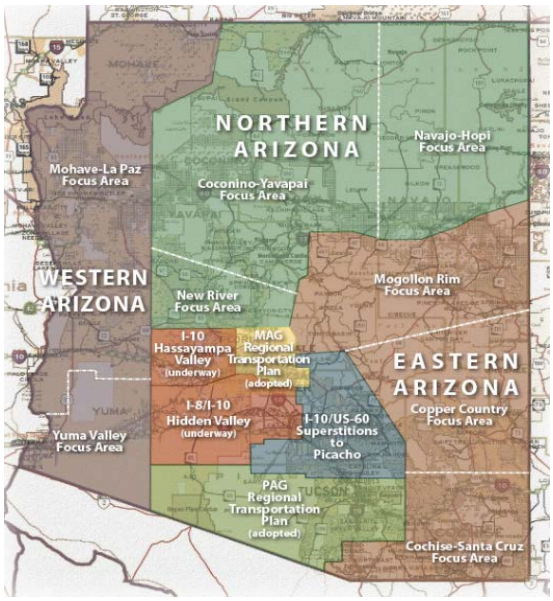


Figure 13. bqAZ framework study locations. Source: bqAZ

The Governor's Office established six primary goals for the visioning process. The process had to: (1) be multimodal, (2) consider smart growth, (3) promote the State's economy and businesses, (4) preserve the environment and allow conservation, (5) incorporate Tribal input, and (6) include collaboration with the State's MPOs and COGs.

Collaboration Structure and Process

The bqAZ team consisted of ADOT, five MPOs and four COGs from the State, four consulting teams, land-management agencies, environmental stakeholders, and universities. ADOT and the MPOs and COGs developed and signed a charter to formalize their partnership. The charter designated ADOT as the project manager and created four regional, multidisciplinary work groups that included representatives from each of the bqAZ partner agencies and met in person on a monthly basis. An ADOT regional manager was responsible for coordinating with the partner agencies in each region and serving as the liaison between them and the centrally-located team at ADOT. Including all of the partners in each work group enabled a comprehensive visioning process and provided a space in which members could keep each other up to date on their work.

Takeaways

- bqAZ was an unprecedented public outreach effort to stakeholders from Tribal governments, neighboring States and Mexico, environmental and business groups, and virtually every mode and region in Arizona.
- ADOT served as the project manager and developed four regional work groups that included representatives from each of the bqAZ partner agencies.
- bqAZ allowed for the development of a statewide travel demand model.
- ADOT completed its statewide LRTP, What Moves You Arizona, in 2011.
- The planning team employed two methods of addressing the challenge of reconciling diverse interests: incorporating the existing visioning documents from metropolitan areas, and using consistent messaging to ensure that feedback could be more easily addressed.

In addition to the weekly team meetings, two formal committees guided the bqAZ effort. A policy committee consisting of representatives from the State Transportation Board, stakeholders from the trucking community, and elected officials from several cities and counties, met regularly to provide high-level input related to the vision itself. Similarly, a management committee, which included the Executive Directors from the State's MPOs and COGs, provided guidance about the practicalities of the visioning process. The four regional teams regularly presented to these committees their progress towards six visioning goals. The primary consultant maintained a website portal that documented the meetings and materials of each committee and regional team.

In 2007, the bqAZ teams conducted an intrastate mobility reconnaissance study (Appendix), which incorporated considerable public outreach regarding the topics in the six vision goals. When seeking input from and communicating results to the public, the bqAZ partners used a variety of tactics, including internet, television, and newspaper media. The consultants and ADOT also provided public involvement specialists to each regional team to facilitate discussion. The regional teams met with all 22 Tribal governments in Arizona and with interest groups related to highway, transit, freight, trucking, and the environment. These groups included the Arizona Department of Commerce, Department of Public Safety, Game and Fish

Department, State Land Department, and Arizona State Parks. The bqAZ partners also held focus groups with representatives from Mexico, California, Utah, Nevada, and New Mexico to understand the impact that projects and plans in these jurisdictions would have on Arizona's infrastructure and development in the future.

The regional teams used input from the study to conduct further framework studies, including forecasts, environmental scans, and consideration of multi-modal alternatives and implementation strategies. The bqAZ team developed the What Moves You Arizona Long-Range Transportation Plan (LRTP) by consolidating the input and studies, prioritizing proposed projects, and developing a financial plan.

Collaboration Accomplishments

One of the main benefits of the bqAZ visioning process was that the State and local agencies better understood their stakeholders' priorities regarding future development. For instance, the bqAZ team learned that rural communities wanted to invest in transit infrastructure rather than in road construction, which prompted ADOT to seriously consider the expansion of alternative modes across the State. The visioning process also allowed State and local agencies to better understand the varying needs of different MPOs.

Before bqAZ began, ADOT did not have a statewide travel demand model, but rather used various models as available from its MPO partners. The lack of a statewide model caused bordering MPOs to make independent, and occasionally contradicting, transportation decisions based on their own regional models. ADOT initially created the first version of its statewide travel demand model to help smooth over differences between framework studies during the development of bqAZ. Now, the agency is working to develop the third version of its statewide travel demand model that MPOs and regional agencies can use it their decisionmaking.

The conversations made possible by the collaborative structure led to several new, actionable ideas. One concept that emerged from bqAZ regional discussions was the idea of a new interstate highway that would connect Phoenix to Nevada. ADOT completed a two-year study with Nevada DOT (NDOT) that led to the creation of a multi-state planning and environment linkages (PEL) document. ADOT has since begun a Tier 1 environmental impact statement (EIS) process and is currently working through the National Environmental Policy Act phase of development for the project.

The agencies involved developed strong relationships by working together on the public outreach and visioning efforts. These relationships have carried over into other State planning projects. Working with the MPOs and COGs on the bqAZ committees and regional teams encouraged ADOT to include these groups as members of the What Moves You Arizona LRTP project management team. Beyond their traditional role as stakeholders, the MPOs' and COGs' inclusion in the project management team enabled them to help guide and direct the LRTP work. The What Moves You Arizona LRTP itself

represents another lasting accomplishment in agency collaboration. ADOT, the MPOs, and the COGs continue to use the document as a starting point for their planning processes and project prioritization.

That same collaborative spirit also helped to catalyze the creation of the Joint Planning Advisory Council (JPAC), a planning partnership for the Arizona Sun Corridor. The agencies in the council are located adjacent to one another and recognize that regional planning issues often transcend jurisdictional boundaries. The JPAC meets quarterly to identify mutual goals, provide guidance on joint activities, and enhance communication and cooperation among the region's policymakers.

Challenges and Lessons Learned

While listening to and securing buy-in from all stakeholders was crucial to the success of bqAZ, it also presented one of the effort's main challenges: reconciling the diverse interests of different, diverse entities into a single vision for the entire State. For example, certain regions of Arizona with unique wildlife challenges worried that a statewide visioning effort would not adequately address their environmental needs, whereas others were most interested in the profitability of their transportation systems. The partners addressed this challenge in two ways: first, they incorporated the existing visioning documents from the State's two metropolitan areas, Phoenix and Tucson, into the overall plan without change; and second, they used consistent messaging with groups in the rest of the State to ensure that feedback could be more easily compiled and reconciled. The bqAZ regional teams employed scenario planning to illustrate the different visions and messages to stakeholders. They presented three scenarios to each stakeholder group: maintaining the status quo by focusing on personal mobility, emphasizing investments in transit, and promoting compact growth in the urban areas. Presenting the options in a consistent way and incorporating the urban region's existing visions enabled the bqAZ partners to establish a specific combination of the three scenarios as the statewide plan.

bqAZ presents an impressive example of multi-jurisdictional planning. Incorporating multiple stakeholders on the project management teams, securing input from representatives of all modes and regions, and balancing the interests of urban and rural areas provided Arizona with a shared vision and plan that will guide the State's transportation infrastructure development during times of critical growth and change.

Additional Resources

- What Moves You Arizona LRTP
- Joint Planning Advisory Council website
- Work Plan Template for bqAZ Framework Studies
- Proposal for bqAZ: Statewide Intrastate Mobility Reconnaissance Study

Chicago Region Environmental and Transportation Efficiency Program: Public-Private Collaboration on Rail Projects

Quick Information

Organization(s): Association of American Railroads (AAR); Chicago Department of Transportation (CDOT), Illinois Department of Transportation (IDOT)
Contact(s): William Thompson, AAR; Jeffrey Sriver, CDOT; Samuel Tuck, IDOT
Website: www.createprogram.org
Cooperation Topic(s): Congestion Management; Economic Development; Freight Planning
Cooperation Practice(s): Project Partnerships
Cost Information: Costs spread among agencies between projects

For the past decade, the Chicago Region Environmental and Transportation Efficiency Program (CREATE) has improved Chicago's freight, passenger, and commuter rail network by implementing 70 projects that address capacity and operational needs. Such projects include infrastructure upgrades, enhanced terminal management, and reduced road congestion via new grade separations. This unique public-private collaboration has significantly cut freight travel times throughout the region, benefiting the economy, businesses, and residents.

Figure 14. CREATE grade separation project GS15a under construction at 130th St. and Torrence Ave. in Chicago. Source: CREATE

Motivation for Establishing the Collaboration

For the past 150 years, the Chicago region has been an epicenter for the Nation's freight and passenger rail operations. The region is so significant to the county's rail network that it currently manages one-fourth of the Nation's freight rail every day. Despite an ever-growing volume of goods and number of rail passengers over the past several decades, Chicago's infrastructure has not kept pace with demand. In 1999, a debilitating snowstorm shut down the city's rail network, inspiring a rallying call for both private and public railroads and government agencies to solve the shared problems of rail capacity constraints, operations issues, capital needs, and communications problems in the Chicago region's rail network.

In response to the storm and the region's shared problems, the railroad industry assembled the Chicago Planning Group (CPG), which was comprised of the six Class I railroads in Chicago, two regional carriers, and

two passenger carriers, Metra and Amtrak. CPG was tasked with recommending improvements for the industry's management processes, and as a result established the Chicago Transportation Coordination Office (CTCO) in 2000. CTCO works to improve coordination, analyze services, and implement operations improvement initiatives for the railroads. In 2003, representatives from the Association of American Railroads (AAR), the Illinois Department of Transportation (IDOT), and the Chicago Department of Transportation (CDOT), signed a Joint Statement of Understanding (JSOU) that established CREATE. The JSOU established the framework for the program and outlined objectives, terms and conditions, and the scope of work.

Takeaways

- In 2003, representatives from AAR, IDOT, and CDOT signed a JSOU that established the CREATE Program to address railroad-related capital improvement needs.
- The Chicago region manages ¼ of the Nation's freight rail every day. Trains had experienced extensive delays due to rail capacity and operations issues.
- CREATE members published a Final Feasibility Plan that lists 70 projects all partners agreed to pursue.
- CREATE is led by a stakeholder committee, under which is a management committee comprised of finance, advocacy, and implementation committees.
- The partners track project implementation on the CREATE website, which serves as a repository for all public information.
- In CREATE, a common concern for Chicago's future freight capacity and congestion issues led to a foundation for strong future partnerships and collaborations.

Collaboration Structure

The partners agreed to the following objective for CREATE: "to restructure, modernize, and expand the freight and passenger rail facilities and highway grade separations in the Chicago metropolitan area while reducing environmental and social impacts of rail operations on the general public." This objective is the foundation of the program and guides all of the partners' resulting work. CREATE specifically manages the environmental and capital aspects of rail improvements in the region. The CTCO is a parallel effort to CREATE that addresses operational improvements.

In 2007, CREATE members published a Final Feasibility Plan that listed 78 specific projects that the partners jointly identified and agreed to work toward completing. The partners revised the plan in 2009 and 2011, reducing the total projects to 70. The group identified projects through input from key stakeholders and use of a model, described in the following sections that simulated how performance would change given different improvements.

CREATE partners make decisions on consensus, where all partners must agree to any suggested changes (i.e., scope, schedule, and budget) to individual projects or the Plan, to ensure full investment and participation in the program. Consensus can typically be reached in staff-level discussions, but at times certain decisions may also require management-level discussions. Each partner follows its own internal processes for project construction. Auditors from IDOT frequently review practices and recommend revised processes, and the partners incorporate these recommendations as appropriate. To build trust among the partners—particularly with the private railroads—all agencies signed confidentiality agreements at the outset of the agreement. Doing so allowed the partners to open channels of communication and share information that would not normally be discussed between private companies and public agencies.

CREATE is led by a stakeholder committee comprised of the IDOT Secretary of Transportation, the CDOT Commissioner of Transportation, and the Chief Executive Officer of AAR. A number of committees conduct key activities for CREATE under the leadership of the stakeholder committee. The management committee, which directly reports to the stakeholder committee, meets quarterly and includes representatives from CDOT, IDOT, FHWA, and the railroads. The management committee contains three distinct sub-committees: finance, advocacy, and implementation. The finance committee meets on an ad hoc basis to discuss overarching funding needs and opportunities. The advocacy committee meets at least once per month to coordinate continuing outreach to intergovernmental organizations, community groups, residents, and government officials. The implementation committee meets twice per month—once in person and once over the phone—to monitor progress on environmental reviews, design, construction, and project completion.

Committee meetings are scheduled several months in advance to facilitate maximum participation. Stakeholders can participate in person or remotely via a web room, which allows many individuals who cannot travel to the meeting location to attend. The CREATE team has found that providing visual reference points at committee meetings—such as agendas and project status charts—helps participants remain engaged. The agendas for committee meetings have a common template, but individual items are added and deleted depending on what projects are active at any given time.

The implementation and advocacy committees are the driving force behind CREATE, managing individual projects with consultants and tracking the progress of the program's overarching goals and objectives on a day-to-day basis. The advocacy committee is partially comprised of public affairs staff and Government Relations officers. This group drives CREATE's outreach efforts by ensuring communications are executed in a coordinated manner and project partners are kept well informed of communication efforts. As the CREATE program continues to become more well-known, the partners have found it is essential to maintain a unified, coordinated message on all program communications.

The partners track project implementation on the CREATE website in order to create transparency in communication with both internal project managers, external stakeholders, and the general public. The website serves as a repository for all public information related to projects, including newsletters and announcements, public meeting notes, fact sheets, grant applications and awards, press releases, partnership opportunities, active requests for proposals, open bids, and a project supporter list. The CREATE partners jointly fund website maintenance.

Collaboration Accomplishments

As of May 2016, 25 of the 70 projects were completed and 9 were in construction phase. Completed projects have reduced freight travel times by approximately 30 percent, benefitting Chicago's economy and reducing the railroads' operating costs. Finished projects have also reduced the number of complaints made to the railroads regarding train delays. Reduced delays for freight and passenger rail provide benefits to local businesses and communities by ensuring that business' goods arrive on time and people can travel more efficiently. Prior to CREATE, freight trains traveling from the West Coast to the East Coast spent roughly two days moving through Chicago. CREATE projects have cut 12 hours from manifest freight travel and detention times, leading to local and regional economic benefits and reduced congestion throughout the Chicago rail and roadway networks.

Figure 15. Ensuring that containerized freight on railroads can efficiently move between and through cities is an important aspect of CREATE.
Source: Volpe Center

CREATE conducted a number of modeling exercises to simulate the various scenarios that could develop as a result of implementation of different projects. The group used the model to identify and select projects for the final project list, based on the projects' impacts on capacity and congestion. The model provided information about the effects of different projects on not only specific areas, but across the entire region. It has proven useful to CREATE because it has the functionality to account for multiple factors and evaluate the proposed effects of different variables in real time. CREATE also uses the model to evaluate the environmental effects of any project in which a transit system is built close to residential areas in order to estimate impacts on noise, pollution, and vibrations on the communities that live there. This information is later combined with traffic noise information in order to illustrate a comprehensive picture of the effects of different projects.

In addition to CREATE, the railroads spend millions of dollars annually on maintenance and infrastructure upgrades outside of the program. CTCO reported that the Class I railroads have spent nearly $4.5 billion outside of the CREATE program to upgrade and maintain the Chicago terminal area since 1998. Also, safety and accounting standards that were developed within CREATE programs have been utilized in other areas, such as highway projects, across Illinois.

Challenges and Lessons Learned

CREATE's success has largely stemmed from a common concern for Chicago's rail capacity and operations problems among private sector stakeholders and government agencies. Further success has been realized due to an active advocacy effort and private sector funding that partially supports public projects, such as grade separations. Securing Federal funding

for private companies' projects can be challenging, but CREATE offered a way for IDOT and CDOT officials to work with the railroads to institute protocols and documentation that would allow the railroads to work with Federal funding. CREATE's ability to overcome this challenge set a precedent for public-private partnerships, establishing a process for effectively using innovative funding sources such as Transportation Investment Generating Economic Recovery (TIGER) and FRA High-Speed Intercity Passenger Rail Program (HSIPR) grants. CREATE has secured two TIGER grants totaling $110.4 million and a HSIPR grant of $126 million. Using the HSIPR grant, the CREATE stakeholders recently completed the Englewood Flyover project, which is a rail bridge that carries the Metra Rock Island tracks over a set of tracks used by Amtrak and freight trains. The project benefits include eliminating conflicts between different trains, improving air quality for area residents, and eliminating noise pollution from idling trains. The project was completed in May 2016.

The railroads' flexibility with funding has also helped keep CREATE projects moving, particularly during periods between application and receipt of public grant funding. At times, the railroads have provided local match for Federal funding to keep projects moving and to preserve the opportunity for future public investment in the region's rail network. IDOT oversees management of environmental work, while design and construction are typically overseen by the entity that will ultimately own the asset (i.e., a railroad, IDOT, or CDOT).

The CREATE program revealed the importance of opening lines of communication. CREATE stakeholders noted that while it can sometimes be difficult to penetrate large bureaucracies like railroads and government agencies, establishing personal relationships helps to facilitate future collaborative work. One of the greatest benefits of the program is the enhanced communications network among the public and private sector partners involved. Using the JSOU and confidentiality agreements as a foundation for building trust and communications, the CREATE partners can now call on each other whenever necessary to efficiently solve problems, strategize, and complete projects.

Additional Resources

- CREATE
- CREATE Final Feasibility Plan
- CREATE Project Status Map
- Englewood Flyover Project

Florida Department of Transportation and MPOs Work Together on Performance Management

Quick Information

Organization(s): Florida Department of Transportation (FDOT)
Contact(s): Yvonne Arens, Florida Department of Transportation
Website: http://www.fdot.gov/agencyresources/performance.shtm
Cooperation Topic(s): Public Engagement; Statewide Planning
Cooperation Practice(s): Forums for Communication and Idea Sharing; Data Sharing and Developing Common Modeling and Forecasting Tools
Cost Information: Effort funded with Federal and State funds, including Statewide Planning and Research Program

Transportation performance is of paramount importance to State DOTs and their Federal and MPO partners. Florida Department of Transportation (FDOT) has been aggressively implementing performance-based management for many years. Florida's commitment to a culture of performance is underscored by its leadership and its comprehensive policy on performance management. FDOT's efforts to collaborate not only within the agency, but with multimodal planning agencies and operators such as MPOs, transit agencies, freight, and other stakeholder partners, are key aspects of the policy's success.

FDOT's performance policy, established in 2014, calls for performance-based programs and plans. In 2015, FDOT updated the Florida Transportation Plan (FTP), a performance-based long range transportation plan, with measures linked to performance reports that the department has produced annually for the past 20 years. FDOT has proactively collaborated with its partners to advance performance management and measurement principles into the department's planning, programming, and decisionmaking processes.

Motivation for Establishing the Collaboration

Having responsibility for the overall performance of the State's transportation system, FDOT established a broad statewide performance policy that emphasizes performance as a part of the planning, financing, and work program development processes. FDOT's transportation plans take into account both Federal policy and MPO planning. As such, it is important that these intergovernmental efforts align to the greatest extent possible. Doing so requires partnerships for performance, a concept promoted by FDOT. FDOT held its first statewide performance workshop in 2014, which established a shared need and motivation for collaboration on the PBPP in Florida to address five objectives:

Efficiency and Effectiveness – FDOT and MPO collaboration is essential and opportune, particularly in terms of ensuring an efficiency and effectiveness of effort.

Resource Optimization – MPOs are concerned about having the resources necessary to comply with pending Federal reporting requirements, as well as the expanded focus on performance measurement in general. For a collaborative approach to be truly innovative, it must consider ways to share noteworthy practices, data, and other resources.

Data Issues – There are many data issues related to performance measurement that need to be sorted out and prioritized by FDOT, MPOs, modal partners, and other stakeholders. FDOT's collaboration efforts have recognized that data issues such as availability, consistency, and cost are paramount concerns of all partners.

Multimodal Focus – Performance measurement should be multimodal with a focus on intended outcomes that tie to planning. There should be meaningful opportunities to collaborate with modal partners representing freight, public transportation, and bicycle/pedestrian concerns.

Public and Stakeholder Engagement – Performance measurement, if properly deployed, provides an opportunity for greater communication and engagement with the public and other transportation stakeholders. The internet and social media greatly enhance the potential possibilities for doing so.

Takeaways

- FDOT's performance policy, established in 2014, guides performance-based programs and planning.
- FDOT initiated its collaborative effort on transportation performance with annual workshops that began in 2014.
- FDOT's performance reporting requirements are supported by State and Federal funds.
- The workshops spurred the creation of a pilot project that aims to develop standardized performance reports for the established Federal measures as a part of this pilot project. The product of this pilot will be standardized performance reports and datasets for all MPOs.
- Florida's collaboration efforts also include FDOT's Performance Summit for Transportation Partners, which included additional partners and stakeholders into the discussion of performance measures and planning.

Collaboration Structure

FDOT initiated its transportation performance collaboration with annual workshops that began in 2014. FDOT's performance reporting requirements are supported by State and Federal funds including the Statewide Planning and Research Program (SPR). Each annual workshop includes participation from FDOT, all of Florida's MPOs, and Federal partners. The workshops provide a forum for idea sharing and learning, which has resulted in a dramatic increase in communication and participation with Florida MPOs since the initial workshop. The first workshop in 2014 included briefings by FDOT, FHWA, and the FTA, as well as an interactive discussion with MPO partners. In the 2015 and 2016 workshops, the MPOs' role grew with more active participation and a greater partnership role in the performance planning discussion.

The 2015 workshop included a panel discussion with four MPOs that highlighted detailed data sharing results. As a result, FDOT initiated a pilot in early 2015 to assess the level of effort needed to develop performance reports for Florida's MPOs. The four MPOs, who participated in the panel discussion at the workshop, were selected to develop standardized performance reports for the established Federal measures as a part of the pilot project. Still underway, the pilot project requires collaboration between FDOT and the MPOs on a frequent basis. The product will be a standardized performance report and dataset that all Florida MPOs can utilize for future performance reporting.

Another facet of Florida's collaboration efforts was FDOT's implementation of the *Performance Summit for Transportation Partners*, which was held in May 2016. This major milestone brought additional partners into the performance dialogue including other State agencies, transportation modes, public health and safety officials, and other stakeholders. The results of the summit are being used by FDOT to inform its annual performance reports and the implementation of the State's long range transportation plan, the Florida Transportation Plan (FTP). Partner connections will be a new component of FDOT's performance reports.

Collaboration Accomplishments

Florida's collaboration accomplishments as a result of the three annual workshops highlighted the following themes:

- Standardize the data framework and process for performance measurement.
- Standardize performance reports.
- Improve communication and collaboration around performance.
- Consider the implications of MPO size relative to performance requirements moving forward.
- Ensure performance measurement incorporates planning visions and that it is relevant to the public.
- Consider performance measurement in relation to the various transportation systems and networks (e.g., higher statewide and lower order local networks as well).
- Communicate performance measurement expectations and align expectations with the level-of-effort required.
- Improve long range transportation plans by making them more performance-focused.

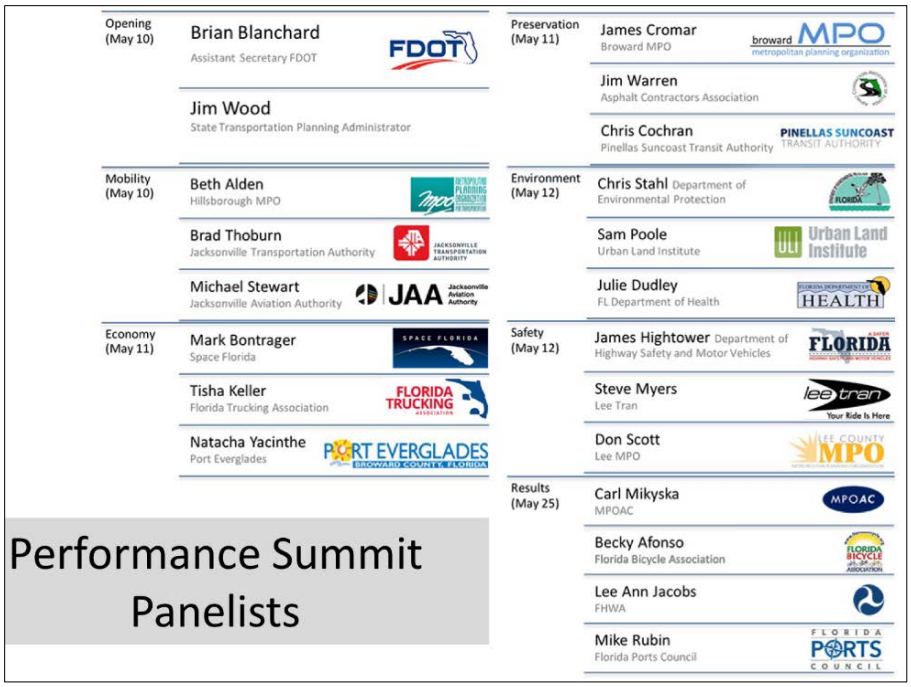


Figure 16. Performance summit panelists. Source: FDOT

Focusing on a variety of topics related to Florida's transportation system performance, the summit included six webinars conducted within a single week in May 2016, along with a concluding Results webinar that occurred two weeks after the initial summit. The summit was structured with a moderator and three panelists per webinar. Each panelist discussed what performance means to them in relation to the focus of each webinar (e.g., mobility, economy, preservation, environment, and safety).

Challenges and Lessons Learned

FDOT's primary performance challenge, which is fundamental to the collaboration process, is ensuring that performance is an integrated element of the transportation planning, financing, programming, and decisionmaking processes. There is often a tendency associated with Federal rulemakings to fall into a compliance-only mindset. It is essential that leaders be involved in performance management in ways that add value to the decisionmaking process and also provide meaningful feedback on transportation system performance. FDOT strongly recommends the value of a statewide performance management policy.

Other lessons learned include:

- Keeping performance measurement visual, so agencies can clearly communicate its value in the overall planning/collaboration process.
- More measures does not mean better performance or better performance measurement. Throughout FDOT's collaboration process, the agency has continuously emphasized the practical

importance of establishing core measures that effectively tell the performance story.
- Transportation system performance is not the responsibility of any single agency, but a collaboration among all organizations that plan, operate, and maintain transportation facilities and services.

Through the collaboration processes, including the annual statewide workshops and Partner Summit, FDOT is working with its partners to develop measures and reports that are more multimodal and incorporate measures and data beyond FDOT's sphere of direct influence, such as population and socioeconomic data. FDOT anticipates beginning a collaborative conversation with its partners on performance targets. FDOT understands that partners with a stake in a multimodal transportation system should work together on performance measures and targets, information sharing, and finding ways to carry out strategies that achieve desired results.

Additional Resources

- FDOT Performance Resources
- www.fdotperforms.org

Granite State Future: New Hampshire Planning Commissions Develop Statewide Strategy

Quick Information

Organization(s): Central New Hampshire Regional Planning Commission (RPC), Lakes RPC, Nashua RPC, North Country RPC, Rockingham RPC, Southern New Hampshire RPC, Southwest RPC, Strafford RPC, Upper Valley Lake Sunapee RPC
Contact(s): Jennifer Czysz, Nashua RPC
Website: http://www.granitestatefuture.org/
Cooperation Topic(s): Public Engagement; Statewide Planning
Cooperation Practice(s): Joint Planning Products
Cost Information: Effort funded through HUD Sustainable Communities Grant. Grant divided among participating agencies, Nashua RPC received slightly larger portion to cover administration of grant.

The differences between rural, suburban, and urban communities can be stark, which makes statewide planning challenging. Although New Hampshire has a population of about 1.3 million people, the communities spread across its nine planning regions are diverse. To integrate planning efforts throughout the State, the State's nine RPCs worked together on Granite State Future, the State's largest ever visioning, regional planning, and public involvement campaign.

Motivation for Establishing the Collaboration

New Hampshire law requires the State's nine Regional Planning Commission (RPCs) to develop comprehensive regional plans. Though the nine RPC directors meet monthly to coordinate their work, it is still a challenge for regions to coordinate their planning efforts to get an overall picture of New Hampshire's future. When the Nashua Regional Planning Commission (NRPC) volunteered to pursue a substantial U.S. Department of Housing and Urban Development (HUD) grant, the other eight RPCs agreed to support NRPC. The RPCs decided that competing locally for Federal funding would not be advantageous if none of them were awarded funds, and conversely, that working together could benefit everyone involved.

In its first attempt, NRPC submitted an application on behalf of the State's RPCs for a 2010 HUD grant but did not receive funding. In 2011, the consortium applied again and was awarded $3,369,648 to implement Granite State Future, a three-year, community-based public dialogue about what New Hampshire residents wanted for the future of their communities. The program culminated in updates to each of the nine RPCs' regional plans in late 2014.

Collaboration Structure

NRPC took the lead in administering the grant and ensuring that the RPCs and their constituents participated in the effort. The consortium's first task was to develop integrated marketing products that encompassed a common language and messaging, as well as a website and logo. This communications framework was designed to guarantee that the RPCs would communicate the same basic information in a consistent, shared voice throughout the program.

Granite State Future was organized into three phases. Years one and two focused on engaging citizens and leaders through a broad visioning process, followed by local working sessions that focused on specific areas of local interest. In year two, each region conducted a regional needs assessment to set goals and priorities and developed components of the regional plan. In year three each region reviewed the plan. All nine RPCs finished drafting plans in late 2014, and as of 2016, all of those plans were adopted.

Takeaways

- New Hampshire's nine RPCs worked together on Granite State Future, the State's largest ever visioning, regional planning, and public involvement campaign.
- Collaboration enabled the RPCs of a small State to submit a more competitive proposal for Federal funding that benefited all regions.
- The RPCs conducted a robust public engagement effort to secure buy-in from skeptical community members and gather a variety of input.
- Nashua RPC took the lead in compiling findings from each region.
- The RPCs learned that flexibility is essential in order to accommodate everyone's needs and develop a stronger final product.

The leaders had planned to spend only a few months conducting public outreach and participatory activities, but soon realized they needed to spend more time. The public participation process required more than a year to successfully understand residents' needs and perspectives. However, this was a crucial component of Granite State Future's success, because it allowed the planning team to secure the buy-in of community members who were initially skeptical that a statewide visioning campaign would adequately address their individual region's interests. One region framed its public engagement meeting as a "night to listen" and gave every community member in attendance the opportunity to ask questions and provide input on the current plans. Additionally, the planning team organized focus groups to obtain feedback from social service agencies with clients who typically cannot participate in the planning process, such as non-English speakers and individuals who cannot read. Through these agencies, the RPCs partnered with a State agency to hold a summer block party and spent a full day there engaging underrepresented community members. That Granite State Future leaders believed giving every community member a chance to say their piece went a long way in securing long-term support for the effort.

Collaboration between the agencies and stakeholders was required from the start of the Granite State Future initiative. Project managers at each of the RPCs met monthly to work on product and plan development, and a statewide advisory committee met quarterly to ensure that each RPC was on schedule. In order to synthesize the data collected within each region and produce the preliminary Regional Plan Framework and Statewide Existing Conditions and Trends reports, NPRC worked with the eight other RPCs to collect data pieces on each region using a shared reporting template,

categorize it by topic, and organize the findings. To develop the Core Metrics Methodologies for Regional Comprehensive Plans, a committee with representatives from all nine RPCs identified common metrics, delegated metrics to each RPC to perform suitability assessments on each one, and then collectively selected which metrics to use. Then, the committee divided the metrics again and each RPC prepared methodologies for its assigned metrics for all New Hampshire towns. NRPC then compiled the data using spreadsheets and Geographic Information System (GIS) technology.

To develop the final Statewide Snapshot, NRPC developed an additional template through which the other RPCs identified and submitted the top issues, opportunities, trends, and goals from their regional plans. NRPC then identified similarities and differences in these datasets, and this formed the basis for the Statewide Snapshot. This was an iterative process, and NPRC emphasized accuracy in the final product.

Technical advisory subcommittees comprised of subject matter experts assembled and met as needed to work through issues and share solutions among the RPC staff throughout the State. Staff developed a Google site for working documents that allowed them to communicate and share information, including data, methodologies, and lessons learned. This reduced the risk of duplicating efforts within and among the RPCs, saving both time and money.

From the beginning of the grant period, the RPCs met to discuss communications and development of the Granite State Future website. They developed an internal staff communications structure that facilitated delegation of tasks and created a subcommittee to support website development. They hired a communications professional to help curate appropriate, uniform information and graphics to include in the website. Once all RPCs agreed on a general outline, they divided the task of developing webpage content between the RPCs so no one agency faced an undue burden. Now, each region's pages are dynamic sources of information that are continually updated with new projects and information.

In addition to establishing several levels of coordination among the RPCs, NRPC coordinated project work with multiple departments at the University of New Hampshire (UNH) and with more than 100 local partners. UNH's Carsey Institute helped to educate the regions about how to conduct equitable public outreach. The University also assisted with a statewide telephone survey, conducted climate impact assessments, and provided GIS data support.

The RPCs developed an implementation matrix that allows them to compare the implementation actions each RPC is promoting for the future and rank them (as high, medium, or low) as the strategies are rolled out.

Collaboration Accomplishments

The Granite State Future process provided New Hampshire's RPCs an opportunity to work together and with other organizations to identify a common vision and goals across the State. New Hampshire law mandates RPCs to complete regional plans. Although planning staff are supposed to consult other regions in developing these plans, such communication had rarely occurred before the start of Granite State Future. Partners such as the New Hampshire AARP chapter and NH Listens have been supportive of the program and have continued to work with the RPCs since Granite State Future concluded in 2014.

Building trust with local communities and residents in a State that is historically suspicious of large planning projects was key to the success of the initiative. The RPCs strengthened their relationships with communities by extending the amount of time and opportunities to gather public input and ensuring that participants knew their voices were heard, no matter their input. As a result, the Statewide Snapshot and plans reflect both commonalities and differences among regions and communities, highlighting that the process did not require complete unification on ideas about the future.

The regions and their residents now have a better understanding of the attributes and interests of their neighbors throughout the State, as a result of the extensive public engagement conducted for the project. Each region is able to extract information from the Statewide Snapshot to inform its own regional plans and processes. The staff at each RPC built strong relationships among each other; they are more comfortable communicating with each other to seek advice and conduct other collaborative projects.

The RPCs presented the products developed during the Granite State Future program to the Governor and the New Hampshire Office of Energy and Planning (OEP) as resources for the OEP to utilize for its own initiatives. The OED actively uses the Snapshot in its work, and there have been discussions about using Granite State Future products as a basis for the future New Hampshire Statewide Development Plan.

Challenges and Lessons Learned

Given the length of the project timeline and the sheer number of stakeholders involved, maintaining momentum throughout the plan development process was a challenge. This was particularly true in the second year of the project when RPCs focused their efforts in their own regions. Having a project lead in NRPC, identifying milestones and deadlines, and maintaining regular communication among RPCs were essential to moving the project forward.

Overcoming skepticism of large-scale planning processes from communities and individuals across the State was another major challenge. Discussions regarding sustainability and climate change were particularly sensitive. The RPCs discovered that it was important to minimize planning jargon and to be

open to feedback from a variety of perspectives. Throughout the program, the RPCs listened to stakeholders' variety of concerns and thus were able to deliver stronger, more tenable products as a result. Planners learned that it is essential to be flexible and to accommodate the interests of others as much as possible, even if such actions lengthen the project timeline.

The Granite State Future program galvanized local communities throughout New Hampshire to be active participants in planning for their futures, offering fresh perspectives and motivating the RPCs to collaborate in other ways. In fact, another RPC in New Hampshire recently received a SHRP2 grant for a performance management effort. In this case, that agency has taken on the "aggregator" role in organizing MPOs that NRPC filled during the Granite State Future effort. By working together on a common program, the RPCs were able to share a new source of Federal funding, save time and money, and most importantly, benefit the communities that they serve.

Additional Resources

- Granite State Future Website
- Core Metrics Methodologies for Regional Comprehensive Plans
- Regional Plan Framework
- Statewide Snapshot

Indiana MPO Council: Informal Collaboration Yields Successes

Quick Information

Organization(s): 14 Indiana MPOs
Contact(s): Dan Avery, Northeastern Indiana Regional Coordinating Council, and James Turnwald, Michiana Area Council of Governments
Website: http://www.indianampo.com/
Cooperation Topic(s): Statewide Planning
Cooperation Practice(s): Forums for Communication and Idea Sharing; Project Partnerships
Cost Information: Costs of meetings, annual conference, and responsibilities shared across participating agencies.

For the past 30 years, Indiana's 14 MPOs have met regularly to solve problems through a statewide collaborative forum called the Indiana MPO Council. The Council has successfully tackled regional issues such as shifts in funding allocations, planning regulation updates, and air quality concerns. This decades-long collaboration has ensured that available funds are distributed fairly among all of Indiana's MPOs, leading to uniform, yet tailored projects and processes that have benefitted residents across the State.

Motivation for Establishing the Collaboration

Grant funding can be a difficult topic to broach among MPOs, especially since they must often compete with each other for the same funds. Nonetheless, the topic was often discussed among Indiana's MPOs at Indiana Department of Transportation's (INDOT) annual, statewide meetings. To attract greater Federal investment in Indiana and to better distribute such investment throughout the State, the MPOs' executive directors decided to create the MPO Council as a forum for MPOs to discuss issues and form a representative voice for MPOs in State legislative, executive, and judicial matters. Thus, in the early 1980s, Indiana's 14 MPOs formed the Indiana MPO Council to work together on mutually beneficial funding opportunities and work with the State DOT and FHWA on improving community solutions to transportation and planning issues.

Figure 17. Indiana MPO Council tackles a variety of topics, such as congestion. Source: Volpe Center

Collaboration Structure and Process

Once per month, the MPO executive directors hold an in-person Council meeting in Indianapolis where they discuss a formal, MPO-sourced agenda that may cover a wide variety of topics, such as new modeling and data

technologies, planning regulations, improved internal processes, and partnerships with State and Federal agencies. The MPO directors also update one another on projects that their Council committees have undertaken or completed. Committees are formed as need for them arises; there are approximately 10-15 committees active at any given time, though some are more active than others. The committees address a number of issues, including MPO policies and processes, project development, pavement management, safety performance measures, and local and sustainable communities.

Two co-chairs head the Indiana MPO Council, and as one co-chair retires, another is selected by the other members of the Council to take his or her place. The Council typically tries to select a younger MPO director to replace the retiree so that person may learn from the existing co-chair. These elections are usually made unanimously. Prior to each meeting, a staff member from one co-chair's MPO solicits agenda items, compiles the agenda, and distributes it among the MPO directors. This volunteer position is the only "formal" position within the Council and it has helped the MPOs to coordinate their Council communications. All members—those that serve both large and small urban areas—are responsible for contributing equally to Council tasks and initiatives.

Takeaways

- The Indiana MPO Council was formed in the early 1980s to help the MPOs better distribute Federal investment throughout the State.
- The MPO executive directors hold a monthly meeting in Indianapolis to discuss matters of mutual interest, and various committees meet as needed to tackle specific subjects.
- Each MPO rotates the responsibility of hosting an annual 2½-day conference, which also includes staff from INDOT, FHWA, and private firms.
- The Council members have found an informal structure without bylaws, which has allowed them to collaborate most efficiently.
- The MPOs developed a mutually-agreed upon Planning Fund (PL) funding formula that distributes Federal funds; they also have a system for sharing funds.
- Allowing the MPOs to make allocations as a group builds better transparency throughout the State and ensures that the money goes towards projects where it is needed the most.

In addition to monthly meetings, each MPO rotates the responsibility of hosting an annual 2½-day Council conference, which also includes staff from INDOT, FHWA, and consulting firms. The conference location rotates each year so that participants from the MPOs have the opportunity to explore a part of the State that they may not otherwise have the opportunity to visit. The conference agenda typically consists of large group sessions on various transportation topics, small breakout sessions, tours, and an awards dinner. The host is responsible for designing and implementing the annual awards program that recognizes various MPO contributions to planning, construction, and partnership programs throughout Indiana.

The Council periodically revisits the idea of making the organization more structured by establishing bylaws and designing requirements for the member MPOs to follow. Decades of successful collaborative work have convinced the MPOs that the Council's current structure has been advantageous to all of them and does not warrant significant changes. Regardless, there is benefit in including everyone at the table for these discussions.

Collaboration Accomplishments

Around the same time the Council was founded, the MPOs worked together to develop a Planning Fund (PL) funding formula that provides a method and calculations process for MPO PL distribution and is agreed to annually by INDOT and FHWA. This formula was developed because of a discrepancy in utilization of Federal funds—some MPOs could not spend down their funds while others were too resource-constrained to move ahead with projects. The formula is mostly population-based, but includes certain caps on the amount any individual MPO can receive. When the Council developed the formula, it was also able to continue a process it had begun with INDOT in which MPOs are able to "bank," or not obligate, up to 25 percent of their of PL funds (or up to $100,000). PL funds can be carried over to the next fiscal year. The MPOs have an ongoing three year rolling fund agreement with INDOT in which, for example, funds allocated in FY14 do not need to be spent down until FY17, with the exception of funds for active construction projects. Additionally, the Council has developed a process in which MPOs can choose to put PL funds they cannot obligate in a discretionary pool, and then other MPOs can apply for a certain portion of the funds in that pool.

The Council also utilizes a Local Sharing Agreement, published annually by INDOT, the Council, and numerous State agencies, that outlines the category of funds and traditional split of Federal funds between the State and local public agencies. Based on these collaborative efforts to allocate funds, the Council and its partners have been able to advocate for additional funding. Allowing the MPOs to make allocations as a group builds better transparency throughout the State and ensures that the money goes towards projects where it is needed the most.

The Council has also worked with INDOT to use its State Project Management System to track how much funding is allocated to individual projects so that short- and long-term funding issues can be managed. In addition, the Council developed and supported the statewide implementation of quarterly project tracking from preliminary engineering to design and right-of-way (ROW) acquisition, which has been an effective way to support local public agencies and improve project development and delivery.

Almost every MPO now has a sidewalk inventory as a result of the Council's efforts to standardize pavement and asset management throughout Indiana with help from State and Federal partners. The Council has also supported a statewide effort to help local agencies develop transition plans to ensure they meet Americans with Disabilities Act compliance requirements.

These are just a few of the many projects, processes, and programs the Council has developed and implemented as a result of its sustained efforts to achieve multi-jurisdictional cooperation. Guidance and planning efforts that occur together at the director level translate into coordinated, streamlined work at the technical level because of the relationships cultivated by the Council.

Challenges and Lessons Learned

The Council is successful, in part, due to the consistency of its participants. While its monthly meetings are informal, they are very well attended. Many of the MPOs' executive directors have served in their positions for many years, and these tenures provide valuable institutional knowledge to and cohesion among the directors. They have been able to build strong statewide relationships as a result of the collaboration. When a new MPO executive director is appointed, the current Council members proactively demonstrate the value of active participation. For example, the Directors and senior staff of other MPOs will make themselves available to answer questions or provide insight to new MPO directors. In this way, involvement is never depicted as a requirement and is instead seen as a mutually beneficial opportunity for the new MPO director and the other Council members.

Looking forward, one of the Council's main priorities is improving the robustness of its performance management in light of new Federal legislation. A modelers group comprised of members of the Council routinely meets with INDOT and private sector representatives to discuss best practices in data collection, modeling and forecasting, GIS, and other information sharing techniques. The Council is also closely working with its local planning authorities to ensure they are actively modifying their Title VI assurances and policies.

After so many years of collaboration and considering the many political and regulatory changes that occur in Federal, State, and local government, the Council can boast an impressive number of planning, funding, and policy achievements for itself, its partner agencies, and the State of Indiana. An open, informal structure that is grounded in the motivation to achieve more for everyone by working together has brought the Council lasting success that seems poised for many more years of prosperous cooperation.

Additional Resources

- Indiana MPO Council website
- 2015 Indiana MPO Conference
- Indiana MPO Council Cooperative Operations Manual

Metropolitan Area Planning Forum: Enhancing Tri-State Planning

Quick Information

Organization(s): New York Metropolitan Transportation Council (NYMTC); North Jersey Transportation Planning Authority (NJTPA; Housatonic Valley Council of Elected Officials (HVCEO); the South Western Region Metropolitan Planning Organization (SWRMPO); and the Greater Bridgeport/Valley MPO (GB/VMPO)

Contact(s): Gerry Bogacz, NYMTC

Website: https://www.nymtc.org/about_NYMTC/nymtc_mpos.html

Cooperation Topic(s): Congestion Management; Transit Planning

Cooperation Practice(s): Forums for Communication and Idea Sharing; Project Partnerships

Cost Information: NYMTC used Federal funds to develop the New York Best Practice Model; NYMTC and NJTPA shared the cost of implementing the 2010/2011 Regional Household Travel Survey.

The Metropolitan Area Planning (MAP) Forum enables MPOs in the New York City metropolitan area to address shared transportation challenges that stem from the region's unique scale and population density. The MAP Forum crosses the boundaries of New York, Connecticut, New Jersey, and Pennsylvania and officially includes eight primary MPOs that address multimodal transportation issues.

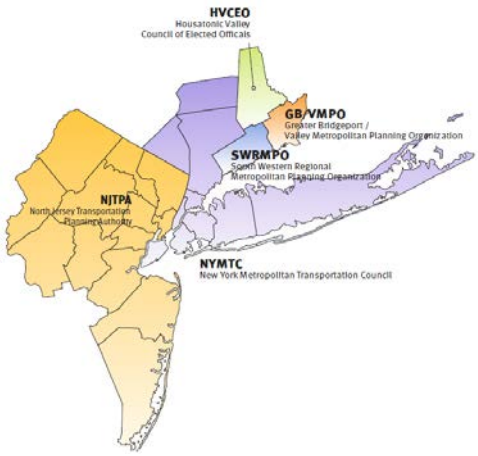


Figure 18. Metropolitan Area Planning Forum map. Source: MAP Forum

Motivation for Establishing the Collaboration

The jurisdictions of New York Metropolitan Transportation Council (NYMTC); North Jersey Transportation Planning Authority (NJTPA; Housatonic Valley Council of Elected Officials (HVCEO); the South Western Region Metropolitan Planning Organization (SWRMPO); and the Greater Bridgeport/Valley MPO (GB/VMPO) were originally part of the Tri-State Regional Planning Commission, which was disbanded in 1982 after a decline in Federal funding to support regional councils. However, these areas continued to face the same issues that the commission addressed, as they are connected by shared commuter patterns and geography. As a result, the MPOs found new ways to informally cooperate across State lines. In January 2008, the five MPOs entered into an MOU to create the MAP Forum in response to recommendations from FHWA and FTA Transportation Planning Certification Reviews to formalize the group's coordination on transportation planning documents as well as National Ambient Air Quality Standards (NAAQS) attainment efforts. The Forum enabled the agencies to more formally continue their efforts to reduce duplication of effort, promote consistency, and respect the interests of each MPO within the region. In

December 2015, the members agreed to expand membership to three additional agencies: South Central Council of Governments (COG), South Jersey Transportation Planning Organization (SJTPO), and Orange County Transportation Council (OCTC).

Collaboration Structure and Process

In the formal MOU, the MPOs agreed to collaborate on modeling, Unified Planning Work Programs (UPWPs), Long-Range Transportation Plans (LRTPs), Transportation Improvement Programs (TIPs), and air quality State Implementation Plan conformity. However, the partners have successfully leveraged the established relationships to discuss a broad range of issues that arise and benefit from coordination across the metropolitan region. While all the MPOs contribute to the conversations and activities of the MAP Forum, NYMTC, and NJTPA have taken unofficial leadership roles, in part due to the fact that as large MPOs, they have more resources than some of the smaller MPOs. NYMTC in particular has contributed to ensuring the Forum's continuation by conducting necessary administration functions.

Takeaways

- The MAP Forum enables the MPOs in the New York City metropolitan area—spanning New York, Connecticut, New Jersey, and Pennsylvania—to address shared transportation challenges that stem from the region's unique scale and population density.
- The MAP Forum was established in response to recommendations to formalize coordination on planning documents and NAAQS attainment efforts.
- The MAP Forum's MPOs typically meet in person at least twice a year and hold conference calls every few months.
- The MPOs collaborate on modeling, UPWPs, LRTPs, TIPs, and air quality State Implementation Plan conformity, as well as other initiatives.
- One of the MAP Forum's most significant accomplishments is its ongoing work in the wake of Hurricane Sandy.

The MAP Forum collaborates in two ways: hosting biannual in-person meetings and holding conference calls every few months to organize future meetings and discuss issues that affect the region.

Executive directors, managers, and staff from each of these MPOs attend the meetings and calls, as do representatives from the three State DOTs, public transit agencies, the Port Authority of New York and New Jersey, and other resource agencies. Which agencies attend any given meeting often depends on the agenda, and meetings are also open to the public. The MPOs advertise meetings through their own email lists to encourage public attendance.

The location of in-person meetings rotates in order to facilitate participation for the MAP Forum's geographically diverse membership, which stretches from New Haven to South Jersey. The members have found that hosting the meeting in a central location, such as New York City or Newark, facilitates participation. Members can also participate remotely using webinar software.

The MPOs talk through a list of issues on which to focus over the course of the meeting, which typically lasts from two to three hours. The MOU between the MPOs does not make provisions for actions, so members cannot formally vote on actions or make decisions at meetings. The MAP Forum functions more as a foundation for building relationships and identifying projects of mutual interest that the members can collaborate on. The group has found that participation, particularly from the public, is greater when meetings have clearly defined themes. Topics include transportation projects that cross

MPO and State boundaries, common challenges facing the agencies, and long-range planning efforts that, due to the region's integrated nature, strongly benefit from all members' input. When collaborating on long-range planning, the members consult each other on principles, scenarios, strategies, major project assumptions, and key issues addressed in their LRTPs. They also share draft copies of the plans.

The MPOs also host conference calls every few months to plan for the in-person meetings and discuss other cross jurisdictional issues. These informal calls ensure that the conference will address relevant topics and provide a space for the agencies to continue developing strong relationships and collaborate in an ongoing fashion.

Collaboration Accomplishments

One of the MAP Forum's most significant accomplishments was its ongoing work on the Hurricane Sandy Follow-up and Transportation Vulnerability Assessment and Adaptation Analysis. After Hurricanes Sandy and Irene, the MAP Forum's three State DOTs and four of its MPOs secured FHWA funding to identify vulnerabilities in the region's transportation system and determine how to best address them. The MPOs contributed staff resources to manage the project and conduct the study. The partners identified 10 representative transportation assets—including the New Haven Line of the MTA Metro-North Railroad, the NJ 37 East Bound Barnegat Bay Bridge, and the Brooklyn Battery Tunnel—and worked to develop adaptation options for each asset.

NYMTC used Federal funding to develop the New York Best Practice Model (NYBPM) over the course of 10 years. With the help of a consultant, NYMTC completed the modeling tool in 2005, and as its data covers 28 counties in the tristate area, the other MPOs in the MAP Forum can access the tool for their own planning studies and environmental assessments. Due to the complexity of travel in the region, the model requires substantial maintenance, including staff and contractor time as well as the funds needed to collect survey responses that are input into the model. The modeling tool conforms to Environmental Protection Agency standards.

In 2015, NYMTC completed analyzing the results of a 2010/2011 Regional Household Travel Survey, which was co-funded by NJTPA. The survey was conducted to inform the NYBPM, which is used by many MPOs of the MAP Forum. Each MAP Forum MPO contributed relevant information to help inform the survey, including data from their own household travel surveys, socioeconomic and census data, and border traffic volumes. This type of survey can be very expensive to carry out, so sharing resources across MPOs was essential to effectively conducting the survey. Due to the high cost, the MPOs will only conduct the survey every 10 years.

NYMTC and NJTPA have also closely coordinated on the development of the socioeconomic/demographic (SED) forecasts for their Regional Transportation Plans (RTPs). For the 2013 RTP forecasts, NYMTC and

NJTPA used essentially the same county-level forecasts. For the current 2050 SED forecasts under development, NJTPA is working closely with NYMTC to ensure that the forecasts for the two MPOs are consistent. The MPOs in southwestern Connecticut were also included in the development of the forecasts.

The MAP Forum is developing additional megaregional content that can be included in future UPWPs to provide an overview for addressing projects that cross agency boundaries, which often includes freight projects. There is a continuous effort within the MAP Forum to practically evaluate the projects along jurisdictional boundaries that would benefit most from increased coordination. One such project is the recent reconstruction of the I-287 corridor near the Tappan Zee Bridge in New York. The bridge provides vital links to regional and national transportation networks. The partners also work to incorporate boundary activities into future TIPs to better address issues across the region.

Challenges and Lessons Learned

One of the challenges the MAP Forum has faced is the inherent complexity of the larger Northeast region, particularly as it relates to planning topics such as freight and air quality. Although multi-state, multi-jurisdictional forums, including the I-95 Corridor Coalition, do facilitate collaboration in this region, the MAP Forum complements such institutions by addressing issues from the unique perspective of the greater New York City metropolitan area.

While an MOU formalized the relationship, the MAP Forum maintains flexibility in the issues it addresses, which proves a benefit at times and a constraint at others. For example, the original MOU does not make provisions for actions, so members cannot formally vote on actions at the biannual meetings on behalf of their MPOs and COGs. The MPOs retain the ability to discuss any project or challenge that arises, which allows the partnership to adapt to changes in the larger Northeast Corridor megaregion. This flexibility also helps the partners address the many challenges involved in planning for a multimodal system across multiple States. To ensure the effectiveness of this strategy, the MPOs acknowledge that some issues are outside their control and focus instead on goals they can realistically achieve through their partnership.

Another challenge is that the MAP Forum is effectively spread out over four States and a number of service areas with different cultures and interests. Staff across the region's MPOs are often facing different issues and have limited time to participate in collaborative efforts due to resource constraints. However, the agencies are always encouraged participation on projects and initiatives of mutual interest.

The MAP Forum hopes to grow in order to be more effective at addressing regional issues, and its leadership is working to add additional agencies to the group.

In order for ongoing coordination of MAP Forum activities to run smoothly, it is essential for one agency to serve as a champion of sorts and catalyze broader group efforts; NYMTC has served in this role. Because interagency activities are not the highest priorities of most members and because groups like this do not often coalesce organically, it is essential for one agency to take the lead.

Overall, the MAP Forum presents an impressive model of collaboration in one of the largest and most densely populated metropolitan areas in the U.S. Efforts such as sharing data and models, coordinating on cross-jurisdictional projects, and regularly discussing current issues have allowed the MAP Forum members to be effective in improving transportation planning on a regional level.

Additional Resources

- MAP Forum Memorandum of Understanding
- New York Best Practice Model 2010/2011 Regional Household Travel Survey
- 2015 Annual MAP Forum Meeting Agenda

Mid-America Regional Council: Bi-State Planning for Operations Improves Traffic Flow and Air Quality

Quick Information

Organization(s): Mid-America Regional Council (MARC), Kansas Department of Transportation (KDOT), Missouri Department of Transportation (MoDOT)
Contact(s): Ron Achelpohl, MARC
Website: http://www.marc.org/Transportation/Commuting/Operation-Green-Light/About-OGL
Cooperation Topic(s): Air Quality and Environmental Planning; Congestion Management
Cooperation Practice(s): Project Partnerships
Cost Information: MoDOT unused CMAQ funds to implement the project; MARC used CMAQ and STP funds and collects annual dues from partners for ongoing operation. Federal funding initially covered 80 percent of the cost for new cities to enter the system.

Kansas and Missouri have found that traffic congestion and problematic air quality defy State boundaries. Mid-America Regional Council (MARC), the MPO for the bi-state Kansas City region, addresses this reality by administering Operation Green Light (OGL), a traffic signal management system that uses wireless technology to coordinate traffic signals on major routes in the Kansas City area. Kansas Department of Transportation (KDOT), Missouri Department of Transportation (MoDOT), 26 cities, and 9 counties on both sides of the State border participate in the system. OGL has enabled real-time responses to traffic changes in the region and reduced delays up to 80 percent.

Figure 19 Operation Green Light technician adjusts signal timing at traffic signal cabinet. Source: MARC

Motivation for Establishing the Collaboration

In the late 1990s, three events occurred that led to Operation Green Light. First, KDOT and MoDOT completed planning for the Kansas City (KC) Scout freeway management system, which caused concern for the surrounding cities about potential impacts on the signalized street system. Second, both MoDOT and the City of Kansas City, Missouri began developing a common hardware standard for traffic signal controllers at intersections between their highway and street systems. Third, the region was categorized as a non-attainment area under the Environmental Protection Agency's one-hour ozone standard. These events sparked interest in retiming traffic signals as a way to mitigate both traffic and air quality. After the leaders of all three initiatives learned of each other's work, they met, identified common interests, and designated MARC to coordinate planning for OGL.

OGL provides needed traffic signal connections along key corridors in the region using radio and fiber-optic communication networks. These networks provide real-time operations data from each intersection and enable MARC to remotely retime signals. Local cities paid to join the network because 80 percent of the cost was provided by Federal funds, which were mostly awarded to larger cities. This program provided smaller cities connections to the new OGL communications network and access to MARC's regional software license. Recently, two additional communities were added along the K-7 line through KDOT, which is a quickly growing suburban corridor.

Takeaways

- MARC, the MPO for the bi-state Kansas City region, addresses traffic congestion and air quality issues by administering OGL, a traffic signal management system that uses wireless technology to coordinate traffic signals on major routes in the Kansas City area.
- The OGL traffic signal networks provide real-time operations data from each intersection and enable MARC to remotely retime signals.
- Local cities paid to join the OGL network because 80 percent of the cost was provided by Federal funds.
- MARC operates OGL with oversight from a steering committee and ad hoc task forces.
- MARC was able to use CMAQ and STP funds to cover the project.
- OGL has reduced delay on the system's corridors by up to 80 percent, and the Kansas City region has shown a decreasing trend of air pollutant concentrations.

Federal Funding

Prior to the Transportation Equity Act for the 21st Century (TEA-21), Kansas would not have been eligible for MoDOT to spend unused CMAQ funds, because St. Louis was also a non-attainment area. The TEA-21 legislation changed this provision, which allowed MoDOT to designate CMAQ funds to the project, providing the resources for MARC to plan OGL and implement it in 2000.[3] Kansas created a committee structure that programmed the non-attainment areas that fell under the OGL service area together. Under that programming cycle, MARC applied to receive CMAQ and Surface Transportation Program (STP) funds to build and operate the system. MARC was cognizant of dedicating CMAQ funds to shorter term uses, such as construction, and STP for longer term uses, such as maintenance. Both CMAQ and STP funds were used for OGL expansion over the years, although the use of STP funding may change in light of new restrictions.

Collaboration Structure

MARC operates OGL with oversight from a steering committee and ad hoc task forces. The original OGL steering committee consisted of higher level management from KDOT, MoDOT, and MARC representatives as well as Public Works Directors and City Managers from OGL-involved cities, who were high-level program visionaries. Before OGL was implemented, the steering committee dedicated a generous portion of its time to developing a procedure for resolving internal disagreements, convening focus groups, and conducting strategic planning exercises prior to securing new procurements. Over time, the steering committee has evolved, and now, most committee members are traffic engineers who oversee operation and maintenance of the

[3] U.S.C. Title 23 §110(c)

OGL system. The group met monthly while developing and establishing the initiative, but now meets quarterly.

Ad hoc task forces have also evolved since the inception of OGL. Initially, ad hoc task forces were established with contracted engineering firms for design plans, hardware, software and traffic signal timing or for procurement. Since then, task forces have become less formalized and task force groups are created for specific projects and dissolved when the task is complete and recommendations have been made to the steering committee.

To support the five-person work unit which operates the entire OGL system, MARC receives annual funds from each partner rather than relying on individual cities to help with operations. Cost is allocated using a formula that was developed based on the amount of signals an agency owns within the system. The agreement documents are connected through MARC on an individual basis, rather than a group MOU, which would require city attorneys to negotiate. This agreement system outlines how much each partner contributes, the process for retiming signals on a corridor, and what to do if two partners disagree on signal timing changes.

MARC uses traffic flow, air quality, and operational metrics to measure the performance of OGL. Because of the project's goal to improve air quality, MARC focuses on reducing idling time, which in turn reduces fuel consumption and VOC and NOX emissions. Before and after retiming each corridor, MARC conducts and publishes travel time studies to document the project's impact on traffic flow and air quality. Internally, MARC also tracks operational metrics for its member agencies. These metrics include how often MARC responds to maintenance issues, the number of intersections on which MARC collects data, and the uptime of various links in the communications network.

Collaboration Accomplishments

The improvement of regional traffic flow and air quality are two significant accomplishments of OGL. MARC's studies show that OGL has reduced delay on the system's corridors up to 80 percent. These analyses also showed a benefit-to-cost ratio of at least 7 to 1 and as high as 60 to 1, depending on the corridor.[4] MARC also documents air quality and has produced public ozone summaries annually since 2011. The ozone summaries show that the Kansas City region has a decreasing trend of air pollutant concentrations between 1999 and 2015. Demonstrating the system's tangible benefits, these reports encourage agencies to continue participating in the group and enabled OGL to retain full membership even during the 2008 financial crisis.

OGL has also strengthened MARC's relationships with many different stakeholder groups. MARC has worked with law enforcement agencies to use the traffic signal communications network as a tool to improve safety and emergency response time. In addition, MARC has built stronger ties to

[4] OGL Traffic Signal Coordination studies

outlying suburban communities. For example, suburban communities along the K-7 corridor approached MARC for involvement in OGL. Though this initially presented a challenge because of the limitations of the OGL radio system, MARC was able to use fiber-optic cables to connect these communities to the system. The cities involved in this process have strong relationships with MARC, because their funding agreements are tied through the MPO, rather than a multi-party MOU. These funding agreements require strong communication and trust between MARC and the communities and demand the jurisdictions to be knowledgeable of the newer traffic signal technology. Finally, MARC has created direct relationships with KC Scout and local government traffic operators, which has led to emergency response improvements and fiber optic developments.

Challenges and Lessons Learned

In spite of the strong relationships between the OGL partners, staff turnover has posed challenges in retaining institutional knowledge and maintaining interest in the initiative. As top officials leave, MARC must re-convince their replacements that OGL is worth the investment. When MARC negotiates new funding agreements for OGL, agencies must decide whether to continue committing funds to the initiative. A program champion is a necessary element to the OGL program to maintain program momentum and stakeholder interest. To address this challenge, MARC is updating its strategic plan to include methods to educate high-level decisionmakers and the public in each of its members' jurisdictions about the traffic flow and air quality benefits stemming from OGL.

Figure 20. Roadway congestion motivates stakeholders to collaborate on OGL. Source: Volpe Center

Value changes in the community have also challenged the perception and relevancy of OGL. In the late 1990s, when planning for OGL began, the goal of reducing air pollution by reducing unnecessary traffic signal delay was self-evident to regional stakeholders. With improved vehicle fuel-efficiency and changing land uses along many OGL corridors, the project partners have had to adapt their approach to managing the system to focus more on impacts to pedestrian accessibility, bus-transit operations, and other multi-modal needs in addition to their original traffic flow performance measures.

MARC uses funding incentives as one strategy to encourage member agencies' participation. When cities participate in OGL and/or apply for funding for projects related to OGL, they receive points in the application review process and are more likely to receive KDOT, MoDOT, and MARC funding. These incentives help to ensure that existing partners remain committed to funding OGL.

In the future, MARC may see the need for OGL to evolve with new vehicle technologies, such as autonomous motor vehicles. In addition, MARC

foresees a demand to exchange data using the OGL communications infrastructure. This communications infrastructure may be strained under high usage, which could indicate an avenue for opportunity.

Through OGL, MARC has significantly improved traffic flow and air quality in its members' jurisdictions. Sharing funds, data, and equipment has enabled the 26 cities and two State DOTs to coordinate traffic signal timing across city and State borders in response to changing traffic patterns, thereby providing time savings and improved quality of life to residents throughout the Kansas City region.

Additional Resources

- U.S.C. Title 23 §110(c)
- OGL Traffic Signal Coordination studies
- OGL Concept of Operations: Roles and Responsibilities
- OGL Traffic Signal Coordination Measures of Effectiveness Methodology (see Appendix p. 28)
- OGL Brochure

Mid-Atlantic Regional Planning Roundtables: MPO Coordination on Efforts Across States

Quick Information

Organization(s): Wilmington Area Planning Council (WILMAPCO), Delaware Valley Regional Planning Commission (DVRCP), Baltimore Metropolitan Commission (BMC)
Contact(s): Tigist Zegeye, Wilmington Area Planning Council
Website: http://www.wilmapco.org/mid-atlantic/
Cooperation Topic(s): Multi-State Planning
Cooperation Practice(s): Forums for Communication and Idea Sharing
Cost Information: The American Planning Association (APA) and regional science and consulting organizations have funded roundtables. The recent roundtables have been funded through the host's MPO UPWP funds and sponsorships, who have typically provided the meals.

The Mid-Atlantic region shares many planning challenges as part of a dense network of cities that stretch from Virginia to Pennsylvania. From commuting patterns to weather vulnerabilities, local agencies realized they could share best practices across MPO and State boundaries to improve the effectiveness of their plans. Between 2005 and 2012, the MPOs and regional commissions as well as local American Planning Association (APA) chapters held eight Mid-Atlantic regional planning roundtables and have built lasting interagency relationships that continue to enable collaborative planning efforts at the regional level. More recently, the area MPOs took the lead to rekindle the effort, with the Wilmington Area Planning Council (WILMAPCO) hosting a roundtable in October 2015 and the group planning to host one every other year.

Figure 21. Areas represented by the Mid-Atlantic Regional Planning Roundtables. Source: WILMAPCO

Motivation for Establishing the Collaboration

In 2005, the Metropolitan Washington Council of Governments' (MWCOG's) 2030 growth projections showed that the Northern Shenandoah Valley and surrounding regions would continue providing housing for jobs in the Metro Washington region for the next 25 years. To address the challenges of providing labor and housing in a region with local labor shortages caused by rising housing costs, MWCOG and the Northern Shenandoah Valley Regional Commission (NSVRC) held the first Mid-Atlantic regional planning roundtable in October 2005. Other organizations joined the annual roundtables, recognizing the benefits of establishing connections with nearby agencies and sharing best practices related to regional issues such as air and water quality, freight, and long-distance commuting.

Collaboration Structure

The following partners have hosted roundtables: MWCOG, NSVRC, Baltimore Metropolitan Council (BMC), the George Washington Regional Commission (GWRC), Delaware Valley Regional Planning Commission (DVRPC), WILMAPCO, the Maryland Department of Planning (MDP), and the Northern Virginia Regional Commission (NVRC). The National Association of Regional Councils (NARC), National Association of Development Organizations (NADO), and Association of Metropolitan Planning Organizations (AMPO) have provided sponsorship to eliminate participant registration fees and increase attendance. The APA's Regional and Intergovernmental Planning Division assumed responsibility for organizing and sponsoring the event in 2007. This APA Division funded the roundtables with help from Delaware, Maryland, the National Capital Area, New Jersey, Pennsylvania, Virginia, and West Virginia APA Chapters. Later, the roundtables also received funding from regional science and consulting organizations, including the North American Regional Science Council (NARSC), the Regional Science Association International (RSAI), and the Regional Studies Association (RSA). NARC, NADO, and AMPO continued to publicize the roundtables, while regional commissions and MPOs hosted the events.

Takeaways

- Roundtables began through organization with the local APA Chapter and included participation from area MPOs, environmental organizations, and other planning agencies.
- The daylong event gathers more than 100 participants to discuss key issues affecting transportation and other planning in the region.
- More recently, three area MPOs (DVRPC, WILMAPCO, and BMC) refocused the roundtables to narrow the scope and emphasize directly solving regional issues.
- The agencies rotate the location of the roundtables and shifted the occurrence to once every two years.
- Flexibility in changing the structure and schedule of the event is key to ensuring that it provides for relevant discussions and includes key participants.

In the past, the APA Division and the host regional commission or MPO collaborated to plan the roundtable agendas via conference call. They chose national, regional, and local topics relevant to agencies from Virginia to Pennsylvania, aiming to host approximately 100 attendees at a one-day event. The topics included linking land-use and transportation, the ways in which rural and small metro regions could achieve smart and sustainable growth, and intermodal regional planning. In 2007, the attendees proposed strategies to establish an official mechanism for public officials and transportation practitioners to use University research; in 2008, they discussed authorization issues, needs, and goals for the new surface transportation authorization; and in 2012, they shared best practices related to energy efficiency and coastal mitigation. Mainly senior staff from local and State agencies attended the roundtables, which acted as a forum for more technical information exchange than the policy-oriented NARC and AMPO meetings attended by MPO directors. After the roundtables started offering APA credits, many APA members also began participating. Finally, many universities, as well as national organizations like the U.S. Environmental Protection Agency's Smart Growth Program, provided speakers for and led panels at the events.

In recent years, the region's three largest MPOs led the planning process for the roundtables. The MPOs determined that the previous roundtables had

lost focus, as they brought together a multitude of partners with broad perspectives and therefore did not easily allow for directed discussions on important planning topics. The MPOs refocused the event to include more specific discussions on issues and potential collaborative initiatives. With this shift, involvement in the roundtable has shifted to include more technical staff, particularly in more technical sessions. The sessions focus on the recent initiatives of the host agency, as well as on upcoming national requirements.

The recent roundtables have been funded through the hosts MPO's UPWP funds and sponsorships, who have typically provided the meals. As they are hosted at the MPO offices, the host agency does not have to rent space for the event. However, capacity constraints of the different agencies can limit participation. For example, the roundtable hosted by DVRPC was limited to 80 participants due to space constraints.

The MPOs also determined to host the event every other year, as they have numerous other methods of communication and collaboration, and organizing the event requires a large amount of staff time and funding. The MPOs are regularly in touch informally and have conducted other initiatives together.

Collaboration Accomplishments

In 2008, the roundtables received the APA Division Education Excellence Award for their success in promoting and sharing planning-related research and best practices between many levels of government in the Mid-Atlantic.

The roundtables also inspired, supported, and facilitated several large collaboration efforts within the Mid-Atlantic region. For instance, NJDOT began hosting coordination meetings with its three MPOs, DVRPC, a bi-state MPO on the southern New Jersey and Pennsylvania border, continued quarterly coordination meetings that rotated among the Pennsylvania MPOs, and addressed more local topics than the Mid-Atlantic roundtables. DVRPC and WILMAPCO, a bi-state MPO for the northern Delaware and Maryland region which borders DVRPC, continued to cooperate through planning for the multi-region, 18-county air quality non-attainment area, while also collaborating on freight and air transportation via DVRPC's Goods Movement and Airports Task Forces. The MPOs also coordinate on commenting on Notices of Proposed Rulemakings. MPOs of the Mid-Atlantic Roundtables plan to coordinate on system performance measures as a part of FAST Act.

Many of the MPOs have carried interregional coordination beyond the roundtables and into their UPWPs by producing technical documents that surpass Federal requirements in considering jurisdictions outside the MPOs' own planning borders. For example, the 2015 Roundtable provided a space for DVRPC to learn about PennDOT's freight plan and incorporate the relevant information into their own freight work.

Most importantly, the agencies regularly communicate through informal challenges, having developed strong relationships among their staff and embraced a culture of collaboration—working together and communicating has become part of their planning mindset.

Challenges and Lessons Learned

The agencies learned that, for a large regional conference to succeed, it requires dedicated staff and leadership to organize the events. Although the MPOs reshaped the roundtables to narrow the focus and scope of participants, the event still requires staff time and funding.

The MPOs found that retaining flexibility in the goals and structure of the collaboration has allowed for better participation in the roundtable. The MPOs do not adhere to a strict schedule for hosting the event, which recently shifted from annual to every two years, nor do they strictly preordain the agenda. Allowing the schedule and agenda to develop organically helps them to better address important issues and ensure participation.

From the roundtables, the participating agencies realized the benefits of working with established non-governmental organizations to facilitate communication, encourage participation, and share information on multi-jurisdictional planning processes.

By providing a forum for cross-agency planning discussions, the Mid-Atlantic roundtables facilitate regional relationships and enable the information exchange necessary to strengthen multi-jurisdictional collaboration.

North Carolina Research Triangle Area Cooperative Long-Range Planning

Quick Information

Organization(s): North Carolina Capital Area Metropolitan Planning Organization (CAMPO) and Durham Chapel Hill Carrboro Metropolitan Planning Organization (DCHC MPO)
Contact(s): Chris Lukasina, CAMPO
Website: http://www.campo-nc.us/adopted-2040-mtp
Cooperation Topic(s): Air Quality and Environmental Planning; Regional Planning
Cooperation Practice(s): Joint Planning Products
Cost Information: CAMPO and DCHC MPO jointly fund the MTP initiative. Data collection efforts are proportionally split; one MPO will independently buy an urgently-needed dataset, and this is eventually offset by the other MPO.

Air quality and congestion issues are concerns for MPOs across the country, and they do not fit neatly within jurisdictional boundaries. With guidance from previous collaborations between North Carolina Capital Area Metropolitan Planning Organization (CAMPO) and the Durham Chapel Hill Carrboro Metropolitan Planning Organization (DCHC MPO), these agencies agreed that working together to solve these issues would be better than working separately. After years of staff level coordination on various processes and projects, the idea to develop a plan together was approved and the *2035 Long Range Transportation Plan and Air Quality Analysis and Conformity Determination Report* (2035 LRTP) and *2040 Metropolitan Transportation Plan* (2040 MTP) were adopted in 2009 and 2013, respectively. These plans have provided the region with a cohesive framework for the future of transportation in the Raleigh-Durham region of North Carolina.

Motivation for Establishing the Collaboration

The busiest freeway link in the Raleigh-Durham region lies along the boundary that separates CAMPO's jurisdiction from DCHC MPO's jurisdiction, essentially connecting the two MPOs and the areas that they serve. The freeway is one example of how the two jurisdictions unite in planning processes. Coordination between the MPOs also extends to travel demand modeling and air quality management. As the staff at each MPO began working together on various projects and programs that spanned the combined areas of the MPOs, they realized that planning together could also be beneficial for the region.

CAMPO and DCHC MPO presented the idea to develop a joint metropolitan transportation plan to their local policy boards. Upon receiving approval, they kicked off an extensive, coordinated effort to produce the 2035 LRTP in 2009. Collaboration on the 2035 LRTP was considered to be a success, which led to the development of the 2040 MTP, which was adopted in April of 2013.

Collaboration Structure

Collaboration at all levels was essential to the success of both the 2035 LRTP and the 2040 MTP—the MPOs' leadership and staff consistently worked together through both formalized agreements and informal communications where information, processes, and data were shared.

Before this particular effort began, the MPOs signed an MOA that defined which MPO was responsible for jurisdictions that crossed over MPO boundaries. This included an advisory committee, called the Triangle Metropolitan Planning Organizations Coordinating Council (TMPOCC), with representatives from each MPO's Transportation Advisory Committee. Other MOA and MOUs have been established to clarify planning responsibilities, but the efforts related to the joint plan do not have an MOA or MOU since the agencies have grown habituated to working together informally. With the collaborative framework established by the previous MOAs and MOUs, these agencies now do not need such formal processes of collaboration. MPOs work together on regional transportation planning, which have included the 2040 MTP in addition to other transportation planning activities for the region. As the workload increases for the development of MTP, meeting frequency increases as needed.

Takeaways

- As the staff at CAMPO and DCHC MPO began working together on various projects and programs that spanned the combined areas of the MPOs, they realized that planning together could also be beneficial for the region and developed the intention for a joint metropolitan transportation plan.
- Through a general MOA, the MPOs established an advisory committee called the Triangle Metropolitan Planning Organizations Coordinating Council that included representatives from each MPO's Transportation Advisory Committee.
- The agencies saved resources by sharing staff and funding to achieve their goals – between the two MPOs, there are around four staff members working on the 2040 MTP initiatives, which was funded 25 percent by the State, 25 percent by the regional transit authority, and 50 percent was proportionally split between the MPOs based on population.
- The MPOs worked together to develop the joint 2040 MTP, and retained a measure of flexibility with regard to developing certain performance measures, including target goals and metrics.

Different aspects of the plan lent themselves to various types of coordination. At the staff level, many informal discussions took place throughout the process in order to advance the technical portions of various modeling, GIS, and planning projects. During an MTP year, staff from each MPO meet regularly (sometimes multiple times per week and sometimes biweekly) at Triangle J, the region's COG, to discuss mutual interests and issues. During non-MTP years, the technical staff continue collaborative efforts. Fortunately, Triangle J initiated interagency coordination for air quality conformity in the region years ago, so CAMPO and DCHC MPO trusted the COG to facilitate discussions for the 2035 LRTP and 2040 MTP as well.

Though they worked together to develop the joint 2040 MTP, each MPO retained a measure of flexibility with regard to developing certain performance measures. This flexibility includes different target goals for each MPO. For instance, DCHC MPO had aspirational performance measure targets established, while CAMPO simply had a goal to monitor and record performance measures, such as vehicle miles traveled (VMT). As of now, both MPOs have the same general goals and the same measures, but this may change in the future. The MPOs aim to use the same measures as much as

possible, but if they decide to measure goals and targets differently, they aim to make the measures compatible. Furthermore each MPO preserves its individuality and autonomy by having the authority to propose amendments to the 2040 MTP.

Joint planning between these MPOs includes regular coordination meetings, a shared regional model, a cosponsored regional travel demand modeling and forecasting center at North Carolina State University with a contract to the University, and MPO modeling staff at the model team offices. Often, one planner may be staffed to different tasks across MPOs, including population forecasting or updating Environmental Justice and Title VI for the counties. Outside of the MTP, there are special joint planning studies, including one joint study this year and three next year. For these studies, a scope will be jointly developed to determine which MPO staff is a better position to administer that study and processes are developed to ensure cooperation.

Collaboration Accomplishments

The agencies saved resources by sharing staff and funding to achieve their goals. Between the two organizations, there are about four staff members working on the 2040 MTP initiatives. CAMPO and DCHC MPO estimate that if each MPO were to work separately, each agency would require three to five staff members to complete the work. The agencies jointly fund the MTP initiative. Often, data collection efforts are proportionally split, but if one MPO wants a dataset urgently, that MPO will buy the entire dataset; the other MPO often buys the next shared dataset to offset these costs.

The 2040 MTP planning process also introduced the MPOs to innovative technology that supports collaboration. For instance, a new project required the collaboration of CAMPO and DCHC MPO through the tool, CommunityViz, a GIS-based scenario development and analysis software that was first used in the 2040 MTP. Learning the capabilities of CommunityViz during the 2040 MTP process enabled the MPOs to begin analyzing future growth scenarios and helping their over 30 cities and towns with local land use control to develop consistent and transparent forecasts, which improves the region's transportation modelling and planning.

Most importantly, the region's residents experience the greatest benefits from cooperation between CAMPO and DCHC MPO. Many residents travel from their homes in one jurisdiction to work in the other, so they rely on coordinated services to improve their commutes and overall quality of life. Improved demographic and socioeconomic forecasts, as well as travel behavior models, help the MPOs to plan and coordinate better services for residents. Furthermore, the chambers of commerce created a business coalition, called Regional Transportation Alliance (RTA), which provides a unified voice from the business community for transportation efforts. The RTA contributes to the efforts of Raleigh and Durham to attract mutual investments in economic development, rather than competing for projects that could go to other cities instead of one of them.

Challenges and Lessons Learned

Staff and leadership from CAMPO and DCHC MPO have long recognized the importance of working together when they can, but as separate entities, they also have competing interests. To address this issue, the MPOs work with Triangle J to facilitate discussions between them. Triangle J acts as a neutral party that has no vested interest in the conclusions that the MPOs reach. This provides CAMPO and DCHC MPO with a forum that is not biased towards one MPO or the other, improving cooperation between them.

While Raleigh and Durham have a number of common transportation goals, the cities and their corresponding MPOs have different cultures, political leanings, and demographics. In spite of that, they have realized over time that cooperating on planning efforts saves time and money, and improves the quality of life in both their jurisdictions. As a result of their expanding portfolio of collaborative work over the past few years, CAMPO and DCHC MPO anticipate that they will continue to develop join transportation planning products for years to come.

Additional Resources

- Memorandum of Agreement (see Appendix p. 32)
- 2035 Long Range Transportation Plan and Air Quality Analysis and Conformity Determination Report
- 2040 Metropolitan Transportation Plan
- Triangle J
- Regional Transportation Alliance (RTA)

Northern Minnesota and Northwest Wisconsin's Regional Freight Planning

Quick Information

Organization(s): Duluth-Superior Metropolitan Interstate Council (MIC)
Contact(s): Ron Chicka and Rondi Watson, MIC
Website: http://www.dsmic.org/
Cooperation Topic(s): Economic Development; Freight Planning
Cooperation Practice(s): Forums for Communication and Idea Sharing, Joint Planning Products
Cost Information: MIC staff are employed by the Arrowhead Regional Development Commission (ARDC) and the Northwest Regional Planning Commission (NWRPC). The Harbor Technical Advisory Committee is funded through FHWA, WisDOT, MnDOT, and a local match. MIC and WisDOT contributed funding to the 2009 Regional Freight Plan.

The Duluth-Superior Metropolitan Interstate Council (MIC), a bi-state MPO on the Minnesota-Wisconsin border, works to address the challenge of moving freight efficiently across borders and within a shared harbor. The MPO collaborates with the Minnesota and Wisconsin DOTs (MnDOT and WisDOT) as well as other regional agencies and freight operators to address shared freight issues in the region.

Figure 22. Image of freight train and motor carriers serving the Port of Duluth-Superior. Source: MIC

Motivation for Establishing the Collaboration

Freight movements play a significant economic role in the Duluth-Superior region, due both to the existence of paper mills in Northern Minnesota that require lumber from throughout the bi-state area, and to shipping and trucking activities associated with the Port of Duluth-Superior, the largest port on the Great Lakes. The Port of Duluth-Superior directly accounts for about 3,000 jobs and handles approximately 40 million tons of freight each year, making the Duluth-Superior area the hub of freight activities in the region. To maximize these resources, MIC often works with MnDOT and WisDOT to gain data to support its planning efforts and gain a better understanding of the freight movements and needs on both sides of the State border. Hence, when MnDOT approached MIC about creating a regional freight plan, MIC immediately sought to include its Wisconsin partners as well. MIC's initiative turned MnDOT's proposed plan into the first Northern Minnesota/Northwest Wisconsin Regional Freight Plan and led to years of active bi-state collaboration on freight work in the region.

Collaboration Structure and Process

MIC staff are employed by the Arrowhead Regional Development Commission (ARDC) in Duluth, Minnesota and the Northwest Regional Planning Commission (NWRPC) in Spooner, Wisconsin, which created MIC through a joint agreement in 1975. While the Minnesota area of MIC's planning jurisdiction is larger than its Wisconsin side, the agencies agreed to elect nine members from each State to staff the MIC Policy Board, which oversees the MPO's main decisions, goals, and objectives. The Policy Board meets monthly and includes representatives from three cities and St. Louis County in Minnesota, the City of Superior and Douglas County in Wisconsin, and suburban townships in both States. MIC records the issues discussed at meetings and members are encouraged to suggest topics to bring forward to the group by email. Generally, the agendas are very full and topics discussed are dependent on the mission of the member, who suggested the particular topic.

Takeaways

- MIC often works with MnDOT and WisDOT to gain data to support its planning efforts and gain a better understanding of the freight movements and needs on both sides of the State border.
- MIC has 3 technical advisory committees that focus on specific aspects of this collaboration, including a transportation advisory committee (TAC), a bicycle and pedestrian advisory committee (BPAC), and a harbor technical advisory committee (HTAC).
- HTAC is one of the most active and diverse harbor groups in the country and provides a valuable network of relationships to guide MIC's bi-state freight planning.
- MIC collaboration accomplishments include the 2009 Regional Freight Plan, the initiation of the Northwest Douglas County Freight Movement Study, and strong private sector partnerships related to the harbor.
- MIC helped the Duluth Seaway Port Authority win a $10 million TIGER grant to expedite cargo loading and unloading in the port by renovating an old dock and connecting it to existing roads and rail infrastructure.

MIC has three technical advisory committees that concentrate on specific aspects of this collaboration, including a transportation advisory committee (TAC), a bicycle and pedestrian advisory committee (BPAC), and a harbor technical advisory committee (HTAC). HTAC, which focuses in part on the Port of Duluth-Superior and thus contributes to several of MIC's freight planning initiatives, meets quarterly and is funded through FHWA, WisDOT, MnDOT, and a local match. HTAC has approximately 30 members that include harbor stakeholders from the Cities of Duluth and Superior; St. Louis and Douglas Counties; the Duluth Seaway Port Authority; the Minnesota and Wisconsin DOTs and Departments of Natural Resources; the U.S. Army Corps of Engineers, Coast Guard Marine Safety Unit, and Fish and Wildlife Service; as well as several regional agencies, three citizen groups, and multiple industry sectors, such as coal, grain, and ore. The mission of HTAC is to provide a forum for the discussion of harbor related issues/concerns, promote the harbor's economic and environmental importance to the community, and provide sound planning and management recommendations to MIC. This advisory group is one of the most active and diverse harbor groups in the country and provides a valuable network of relationships to guide MIC's bi-state freight planning.

MIC and MnDOT acted as equal partners in creating the 2009 Regional Freight Plan. While MnDOT held the contract with the project consultant, MIC used its relationships with agencies and interest groups on both sides of the border to facilitate the public involvement process. MIC also contributed funding, led efforts to include WisDOT on the Steering Committee, and

helped coordinate monthly meetings for a technical team and policy team. The technical team examined details and assumptions of the partners' analyses and models, and the policy team examined the plans' practical implications and recommendations. Furthermore, an asset management workgroup was established between both State DOTs to share data. This workgroup will only exist until the next update of the LRTP and then dissolve. In addition to participating on the Steering Committee, WisDOT contributed data and funding to help with the plan. The Duluth Seaway Port Authority and the University of Wisconsin-Superior's Transportation Logistics Program also provided research and support.

Collaboration Accomplishments

The 2009 Regional Freight Plan cemented freight improvements as a priority for the region. Since the plan's publication, MIC helped the Duluth Seaway Port Authority win a $10 million TIGER grant to expedite cargo loading and unloading in the port by renovating an old dock and connecting it to existing roads and rail infrastructure. MIC also began designating a fixed amount in its budget for freight planning to address issues as they arise during the year. Moreover, the collaborative planning process strengthened MIC's relationships with the freight community, which has allowed MIC to maximize its government partners' renewed commitment to improving freight movements in the region. In 2016, an update to this plan was proposed to gain better insight into shippers' needs for the transportation system. For this effort, MnDOT plans to hire a consultant for the project work with local information provided by MIC to gain insight into "small fixes" for the freight system.

MIC's work to sustain a bi-state focus on freight improvements also led to recent efforts to address conflicts created by each State allowing higher weight limits for forest products than is allowed on the Interstate Highway System. This disparity has caused trucks destined for a Cloquet, Minnesota paper mill to use local roads instead of Interstate 35. MIC initiated the Northwest Douglas County Freight Movement Study to examine freight movements in northwest Wisconsin, paying special attention to forest products movements. In related work, MIC staff has engaged U.S. Congressional staff to seek an exemption for I-35 so that trucks currently driving on the brick-lined roads in Duluth's central business district and other area roads can use the Interstate.

These freight planning efforts have also translated into the redesign of an interchange that facilitates freight movements to the port. This major freeway interchange in Duluth involves I-35, I-535, and US Hwy 53. MnDOT submitted an application for the Federal FASTLANE Act Freight funding component of the recent Federal bill to fully reconstruct this inadequate and antiquated interchange to allow for much improved trucking for access to the port facilities. The weight restrictions on many of the interchange ramps and bridges cause shippers to lose time and money as goods are moved in this key area of the land adjacent to the harbor/port facilities. MIC and its many partners provided support letters for the DOT, which was accomplished

easily and quickly due to the MICs standing with its HTAC members. Furthermore, the DOT is looking to MIC to conduct freight analysis needs for the city and county network outside the scope of their application. MIC may use its resources for this follow-up study in 2017, which will likely be supported by all of MICs partners.

MIC has also developed strong relationships with the private sector. A former Coast Guard commander of Duluth's Marine Safety Unit led the effort to encourage private sector involvement in meetings; several harbor-based industries, including coal, iron ore, and recreation, are represented at MIC forums. Furthermore, these private interests are updated with current harbor information and high-level Federal policies. MIC emphasized that this was a networking forum and opportunity for the private sector to interface with the public sector and gain a new understanding of Federal policies and the public sector perspective.

Challenges and Lessons Learned

As a small MPO, MIC often lacks funding to collect detailed data on freight movements, which makes conducting analysis for supporting its regional freight plans a challenge. To address this, MIC partners with universities, MnDOT, and WisDOT, which allows the agency to pool resources to collect and share this data. Staff turnover in the State DOTs occasionally creates a problem for MIC's bi-state freight work, because the MPO relies on its relationships with State DOT staff to secure freight data. MIC continues to address this issue by regularly communicating with MnDOT and WisDOT staff about the Duluth-Superior freight system and its needs.

The proprietary nature of data from private freight companies also makes the collection of sufficient information difficult. Many companies do not want to disclose detailed data about their movements for fear of losing a competitive advantage. MIC has worked to establish trust with these companies and communicate the benefits of freight data sharing, such as the ability to more accurately understand freight patterns and problems. In turn, they have created plans that allow more efficient freight movements that can better address the companies' needs.

As an MPO, MIC is in a unique opportunity to use its mandate for public participation to provide a setting for freight stakeholders from a variety of organizations to grow relationships. Dialogue among these groups has improved as a result. MIC leverages its role as a bi-state MPO to promote collaborative freight planning with regional, State, and private transportation entities in Minnesota and Wisconsin. Its work has enabled cross-border initiatives that increase the efficiency of freight movements.

Additional Resources

- Duluth-Superior MIC Website
- Harbor Technical Advisory Committee Meeting Agenda (p. 37)

Oregon Modeling Steering Committee: Collaborative Transportation and Land Use Modeling

Quick Information

Organization(s): Oregon Department of Transportation (ODOT); Oregon Metro; Oregon Metropolitan Planning Organizations (MPOs)
Contact(s): Richard Walker, Oregon Metro
Website: https://www.oregon.gov/ODOT/TD/TP/pages/omsc.aspx
Cooperation Topic(s): Statewide Planning
Cooperation Practice(s): Data Sharing and Developing Common Modeling and Forecasting Tools
Cost Information: ODOT staff coded JEMnR into language R. The group used a population-based formula to determine how much each agency would contribute to the cost. ODOT financed the survey for the rural, non-MPO areas across the State.

The Oregon Modeling Steering Committee (OMSC) serves as a forum for MPOs, Oregon Department of Transportation (ODOT), and other agencies to improve current transportation and land use modeling and promote state-of-the-art practices in Oregon. OMSC's collaboration has led to many successes, including the implementation of similar modeling protocols and a consistent statewide household travel survey, as well as technical support and training.

Motivation for Establishing the Collaboration

In the 1990s, ODOT and the State's MPOs faced new Federal mandates in the form of Clean Air Act Amendments and the Transportation Equity Act for the 21st Century, in addition to the National Environmental Policy Act (NEPA) and related laws and regulations. To meet these mandates, ODOT created the Oregon Modeling Improvement Program (OMIP) in 1994 and began to identify data and resources needed for outreach, model development, and implementation. In 1996, ODOT created OMSC to oversee OMIP and provide technical support to MPOs with little funding and limited or no modeling staff. ODOT drew upon lessons learned from the successful modeling practices developed by Metro, the Portland MPO, which had invested in building and updating travel models for years. Though ODOT was not new to the concept of modeling, the State DOT was using a variety of models to serve different geographic areas of the State, and it was difficult to manage and meaningfully compare the data between models. After OMSC determined that incorporating elements of

OMSC Partners

- Port of Portland
- Oregon Housing and Community Services
- Oregon Health Authority
- FHWA Oregon Division Office
- Oregon Departments of Transportation
- Land Conservation and Development, Energy, and Environmental Quality
- Oregon Transportation Research and Education Consortium (OTREC), a USDOT University Transportation Center based at Portland State University

Metro's model into the smaller MPOs' models improved accuracy, the group developed the Joint-Estimated Model in R code (JEMnR) to serve as a template for all Oregon MPO models. ODOT staff were responsible for coding the model framework into R. The collaborative approach used by OMSC enables participating agencies to find common policy and analysis areas and efficiently share data, information, and resources, increasing the return on public resources.

Collaboration Structure and Process

Originally, OMSC consisted of modelers and planners from ODOT and the State's four MPOs, including Metro, who worked together to develop JEMnR. Four additional MPOs in Oregon joined OMSC when they were created after the 2000 and 2010 Census. The Southwest Washington Regional Transportation Council, the MPO from Vancouver, Washington, also participates in OMSC because of its proximity to the Portland area. When possible, ODOT provides resources to facilitate and administer the group.

In addition to MPOs, other agencies joined as formal or informal partners to provide expertise on critical emerging needs, such as air quality, greenhouse gas emissions, housing, energy consumption, and health. OMSC attempts to make decisions on a consensus basis, and even in contentious situations the committee has never failed to reach consensus after talking through an issue.

OMSC includes several standing subcommittees assigned to cover specific topics. Subcommittees meet several times a year and report to the full group during biannual meetings held in Salem, Oregon. The Long-Range Steering Committee includes senior staff from participating agencies and acts as OMSC's visioning body through considering topics to discuss, where the group focuses resources, and how to keep the partnership motivated and relevant over multi-year timeframes. The Long-Range Steering Committee also sets the agenda for OMSC meetings. The Modeling Program Coordination Subcommittee discusses technical information, such as how to improve transit choice modeling and incorporate analytical air quality measures. The Oregon Modeling Users Group serves as an educational forum in which participants discuss tools, methods, and findings from their individual, multi-modal projects. OMSC also includes short term ad-hoc committees, such as the recent Freight Subcommittee and the Health Subcommittee.

Takeaways

- OMSC serves as a forum for MPOs, ODOT, and other agencies to improve transportation and land use modeling and promote state-of-the-art practices in Oregon.
- OMSC consists of one modeler and one policy representative from each of the eight Oregon MPOs, ODOT, other State resource agencies, Oregon universities, and the Southwest Washington Regional Transportation Council in Vancouver, Washington.
- OMSC developed the Joint-Estimated Model in R code (JEMnR) to serve as a template for all Oregon MPO models.
- The JEMnR approach reduced new model development time significantly, increased the robustness of small MPO travel demand models, and offers the opportunity for cross-regional comparison on different parameters of travel demand.
- OMSC maintains standing subcommittees to cover specific topics and short-term ad hoc committees.
- Maintaining a culture of helpfulness and appreciation of mutual benefit has been a building block of OMSC's success.

Collaboration Accomplishments

The JEMnR model framework represents one of OMSC's most significant accomplishments. The partners developed trip generation and mode choice elasticities that apply across all MPOs, but tailored destination choice to individual communities. Smaller MPOs can turn off JEMnR features, such as modal alternatives that are not available in their area. The JEMnR approach has reduced new model development time significantly and increased the robustness of small MPO travel demand models. The tool also offers the opportunity for cross-regional comparison of different travel demand parameters.

Another significant benefit is the ability to identify projects that are of mutual interest to multiple agencies within the committee. OMSC played a vital role in funding, staffing, and scoping the statewide household travel survey, which is an important asset for identifying travel characteristics and initiating model enhancements. In 2007, when the State sought new household travel data, ODOT served as the project facilitator for its OMSC partners. Through a subcommittee devoted to the effort, OMSC created a core survey that enabled the group to pool data from the entire State, while individual MPOs were allowed to add their own unique questions to the survey. The group also shared financing based on available resources to complete the project, which created cost efficiencies for each agency. Some MPOs traded funding for services while others received direct assistance from ODOT or other agencies. The group used a population-based formula to determine how much each agency would contribute to the cost of development of the survey instrument, and each agency was responsible for funding its own data collection efforts to account for differences in sample size. ODOT financed the survey for the rural, non-MPO areas across the State. As partners, all OMSC members have access to the full statewide survey database.

OMSC plans to conduct another statewide household travel survey in 2020. In addition to the materials and strategies developed for the 2009 survey, OMSC will explore the use of enhanced technological mechanisms for data collection, such as smart phones and web applications.

Challenges and Lessons Learned

One challenge OMSC faces is that, because the group meets voluntarily and not by State mandate, the group lacks dedicated funding for its daily work. To address this gap, ODOT provides resources to facilitate and administer the group. To the extent possible, partner agencies contribute staff time, meeting facilities, and committee participation in OMSC activities. OMSC members are in the process of updating the OMIP to ensure its member organizations are meeting the current needs of Oregon decision makers. OMSC staff would also like to strengthen relationships with other entities, such as statewide policymakers, in order to better collaborate on projects of shared interest.

OMSC maintains a culture of helpfulness and thorough attention to detail, and because of this, the group has had a tendency to take on too much work and spread its efforts too thin. The group has since realized that setting clear goals, tightening its focus areas, and conducting evaluations to determine the appropriateness of taking on new projects will be essential to completing meaningful work moving forward.

OMSC has also learned to leverage the group's university resources and connections. The partnership itself plays an educational role by convening researchers from different backgrounds who help each other address new challenges. Portland State University (PSU), University of Oregon, Oregon Institute of Technology, and Oregon State University enhance this educational role through coordination with OMSC and the Oregon Transportation Research and Education Consortium (OTREC).

Staff turnover poses another challenge. While the partnership includes people who have participated since its inception and provide the knowledge and motivation to champion the work, some have started to retire. To address this challenge, OMSC recommends meeting in person to strengthen relationships, assist with identifying common ground, and learn fellow agencies' priorities firsthand. In-person meetings are held semi-annually in Salem, a central location, to reduce the burden on smaller MPOs, and all meetings have phone- and web-based remote access options. Because the group does not vote on its actions, but rather openly discusses potential options for future action, members often respectfully pursue different paths while continuing to work together on areas of shared interest.

By collaborating through a common forum, OMSC has achieved two decades of cost efficiencies and improved performance. These benefits will continue as the partners begin to analyze and apply the pooled data from the statewide household travel survey and undertake common projects in the future.

Additional Resources

- Oregon Modeling Steering Committee
- Oregon Modeling Improvement Program
- OMCS Meeting Agenda
- OMSC Meeting Minutes
- OMSC 2013 Operating Procedures

Partners Using Archived Operations Data: Congestion Management on the I-95 Corridor

Quick Information

Organization(s): Delaware Valley Regional Planning Commission (DVRPC), I-95 Corridor Coalition
Contact(s): Zoe Neaderland, DVRPC
Website: http://www.dvrpc.org/
Cooperation Topic(s): Congestion Management
Cooperation Practice(s): Forums for Communication and Idea Sharing; Data Sharing and Developing Common Modeling and Forecasting Tools
Cost Information: FHWA initially funded VPP Suite access to all members of the I-95 Corridor Coalition, and now, individual MPOs (or hosting States) must cover the cost.

Traffic congestion on interstates and major arterials has plagued many East Coast cities for decades, but a simple solution has been elusive. In an effort to create a more efficient commuting experience for residents in the Delaware Valley, Delaware Valley Regional Planning Commission (DVRPC), the MPO for the Greater Philadelphia region, established Partners Using Archived Operations Data (the Partners). The Partners convene transportation planning organizations along the East Coast to share information and establish a uniform set of congestion management performance measures. States in the region, particularly Pennsylvania and New Jersey, have used the operations data to evaluate the success of past congestion management projects and make the case for funding transit projects that alleviate congestion problems during and after major roadway construction projects.

Motivation for Establishing the Collaboration

Effective congestion management has been a growing concern among transportation planners across the United States for decades, particularly in densely populated, urbanized areas that span regional and oftentimes State boundaries. The Greater Philadelphia region—which is comprised of Bucks, Chester, Delaware, Montgomery, and Philadelphia counties in Pennsylvania and Burlington, Camden, Gloucester, and Mercer counties in New Jersey—is no stranger to congestion, and DVRPC has been working to solve mounting traffic delays on freeways throughout the region for years.

After several informal discussions with neighboring MPOs and State DOTs, DVRPC realized there was a need for collaboration and consensus regarding which performance measures to use and how to communicate about them. Robust new data sources were available, but consistent performance measures did not exist among the various MPOs and DOTs. The agencies had not yet come to consensus on what methodologies for measuring performance were most appropriate and how results should be communicated to stakeholders and other members of the public. Congestion in the region was negatively impacting the effectiveness of public and local

leadership, but coherent messaging around the issues did not exist, and planning staff were overwhelmed by the range of different measures available to them.

Collaboration Structure

In 2011, DVRPC invited neighboring members of the I-95 Corridor Coalition—an alliance of transportation agencies, toll authorities, and related organizations from Maine to Florida—to meet for a structured discussion about congestion management and the use of archived operations data. The agencies wanted to answer the same questions: which measures should be used, how should they be calculated, and how should they be communicated?

The I-95 Corridor Coalition had already been collecting data on speed and travel time for years. The Coalition's Vehicle Probe Project (VPP) was launched in 2008 to provide Coalition members with reliable travel time and speed data for their roadways without the need for sensors and other hardware, so the forum participants had experience with performance measures and indexes derived using archived traffic speed data provided by the Coalition. While the Coalition began as an I-95-focused forum to discuss freeway congestion, it has evolved into a much wider effort that incorporates arterial roads and smaller intersections throughout the participating regions. The I-95 Corridor Coalition has always been deeply supportive of the data sharing effort, but the Partners consciously remained separated from the Coalition in order to keep their data-sharing efforts focused to the specific needs of forum participants.

Takeaways

- To collaboratively reduce traffic congestion in the Greater Philadelphia Region, DVPRC established the Partners to share information and establish a uniform set of congestion management performance measures.
- Though data sources were available, consistent performance measures did not exist.
- The I-95 Corridor Coalition's participation was critical to the success of the collaboration.
- The Partners leveraged the I-95 Corridor Coalition's strong relationship with the University of Maryland's Vehicle Probe Project (VPP) Suite, a collection of data visualization and retrieval tools.
- The Partners were able to better anticipate Federal performance measure requirements and collectively respond to a Federal NPRM.

The Partners established annual meetings to discuss how to best apply operations data to shared measures. In the early years of the collaboration, the Partners held in-person meetings, which they supplemented with additional webinars, email conversations, and web-based surveys. It was critical to hold both in-person meetings and webinars so that members who could not travel to in-person meetings would have an opportunity to participate. The meetings have thus far included organizations from Massachusetts, New York, New Jersey, Pennsylvania, Delaware, Virginia, North Carolina, South Carolina, and Florida.

Through the annual meetings, the Partners established four high-level performance measures that its members agreed to use: (1) annual person-hours of delay; (2) travel times (including free flow, usual, and worst day of the month conditions); (3) a reliability index; and (4) the duration of congestion.

DVRPC has taken the lead on developing communications templates for the Partners, with assistance from the I-95 Corridor Coalition's graphics

professionals (see Appendix). These brochures and presentation templates—which are shared in PowerPoint format to ensure greater accessibility—save staff time and money and help the Partners more effectively communicate congestion management information to the public and local officials.

Collaboration Accomplishments

In addition to opening lines of communication among MPOs and DOTs along the I-95 corridor, the Partners were able to leverage the I-95 Corridor Coalition's strong relationship with the University of Maryland's Center for Advanced Transportation Technology (CATT) Laboratory to access and analyze archived data. The Coalition's archived operations data is comprised of billions of individual records, requiring vast amounts of storage as well as sophisticated software for processing and analysis. The University of Maryland developed the Vehicle Probe Project (VPP) Suite, a collection of data visualization and retrieval tools that allow users to download reports, visualize data on maps and in graphic forms, and download data for off-line analysis. Developing such a tool in-house at each MPO would have been costly and time-consuming, so support from the Coalition and the University of Maryland was crucial. A VPP Suite user group staffed by representatives from the University of Maryland and I-95 Corridor Coalition solicits input from different users of the tool and develops and revises new features accordingly. Before the Partners began using the VPP Suite, they had to download huge amounts of traffic data and analyze it manually. Using the VPP Suite, what used to take months now takes minutes.

DVRPC continually uses results synthesized from the data to support a number of construction projects in the greater Philadelphia area. For instance, an ongoing reconstruction and bottleneck removal project along the I-95 corridor in Philadelphia has dramatically increased congestion. Using archived operations data from the VPP Suite, DVRPC was able to demonstrate the need for investments in local transit and, as a result, Pennsylvania DOT (PennDOT) flexed $41 million to the Southeastern Pennsylvania Transportation Authority to improve parallel transit services and offset congestion.

The New Jersey DOT and DVRPC have used regression analyses to evaluate completed projects, and PennDOT incorporated the data into its statewide advanced traffic management system. Using archived data going back as far as 2008 and 2009, planners have been able to quantify congestion improvements resulting from previous projects. They plan to use the data in both transportation improvement plans (TIPs) and long-range transportation plans (LRTPs).

This effort has allowed the Partners to better prepare for Federal requirements on the use of performance measures for planning and programming. Because of the strong relationships formed by the partnership, the Partners were able to review Federal Rulemakings and submit comments to FHWA as a collective unit. As a result of the extensive operations data

application effort, many requirements of the new Federal measures are reflected in the Partners' current operations.

Challenges and Lessons Learned

This collaboration has revealed that when each State, region, and organization collects different traffic and operations data and uses different methods to measure results, making comparisons across jurisdictions is difficult, if not impossible. This is even a challenge when analyzing intra-agency operations data, because supporting pieces of data are often collected using different platforms and stored on different networks within an agency. The partnership has offered the opportunity for knowledge exchange and consistent performance management across agencies.

Performance measures are only as good as the data that informs them, and the Partners benefited greatly from the I-95 Corridor Coalition's high-quality data dating back several years. When the I-95 Corridor Coalition first hired a vendor to collect operations data, the organization used validation exercises to evaluate the quality of the data, and the vendor was compensated proportionately to the quality of data collected. Challenges regarding data accuracy still remain; for example, it is more difficult to measure speed when vehicles are moving slowly and when there are complicating factors such as driveways and traffic signals, so congestion data on arterial roads is sometimes less accurate. The I-95 Corridor Coalition is working to improve its data collection practices for non-freeway roads using enhanced analysis tools and better understanding the nuances of different road types.

The Partners learned that while it may prove challenging, it is essential for planning and operations staff within the same agency to communicate and work together on data-intensive efforts. As efforts to increase national use of congestion performance measures move forward, planning and operations staff across the entire transportation industry will need to work together to establish performance targets and determine how to best implement performance measures.

Since the partnership began in 2011, data collection and analysis techniques have changed, which can put a strain on staff resources. Originally, FHWA covered the cost of making the VPP Suite available to all members of the I-95 Corridor Coalition. Future funding of the VPP Suite is never certain, and though the I-95 Corridor Coalition's membership has access to the tool, individual MPOs must pay for it themselves. Some State DOTs, such as PennDOT, fund VPP Suite access for the MPOs in their service areas.

Despite these few drawbacks, the Partners have experienced many benefits. Working toward a common performance goal, providing each other with modeling and methodology improvements, and sharing communications and messaging templates has led to improved project evaluation, strong justifications for better demand management strategies, and investment in transportation alternatives.

Additional Resources

- Delaware Valley Regional Planning Commission
- I-95 Corridor Coalition
- Communications Brochures (see Appendix p. 41)

San Diego Association of Governments Borders Committee: Cross Border Cooperative Planning

Quick Information

Agency: San Diego Association of Governments (SANDAG)
Contact: Elisa Arias, SANDAG
Website: http://www.sandag.org/index.asp?committeeid=54&fuseaction=committees.detail
Cooperation Topic(s): Congestion Management; Economic Development; Regional Planning
Cooperation Practice(s): Project Partnerships
Cost Information: Partner agencies share funds and staff for joint projects; SANDAG dedicates funds for staff positions

The San Diego Association of Governments (SANDAG) Borders Committee acts as a forum for collaboration with Mexico; Imperial, Riverside, and Orange Counties; and 18 Federally-recognized Tribes. In a time when agencies are expected to do more work, more quickly with scarce time and resources, the Borders Committee and its partner agencies have managed to share funds and staff to jointly plan projects of mutual interest.

Figure 23. Bridge on the South Bay Expressway, a 10-mile toll road that helps link San Diego's highway network with Otay Mesa, the region's main commercial Port of Entry. Source: SANDAG

Motivation for Establishing the Collaboration

SANDAG's focus on cross-border planning stems in part from its unique location. In addition to sharing borders with three economically important counties, San Diego County borders with Mexico and includes 18 cities, the County government, and 18 Federally-recognized Tribes. Close proximity to diverse neighbors with whom the San Diego region shares water and energy resources and cross-border commuting patterns requires coordination on planning projects. Mexico's long-standing representation as an advisory member on the SANDAG Board of Directors since the 1970s reflects this history of cooperation. SANDAG has long collaborated with its neighbors, but in 2001, it recognized the need to better address cross-border challenges and established the Borders Committee, a body of elected officials that represent the SANDAG region. To focus its coordination efforts, the Borders Committee oversees the Borders Program, which categorizes collaboration into binational, interregional, and government-to-government relations with Tribal Nations in San Diego County.

Collaboration Structure and Process

The Borders Committee is one of five policy committees that provides input and recommendations to the SANDAG Board of Directors. The Borders Committee, which includes representatives outside SANDAG, meets monthly and receives input from the Committee on Binational Regional Opportunities and the Tribal Transportation Working Group. These technical working groups focus on topics of common interest, including transportation, economic development, housing, environment, and land use.

The Borders Committee has also created ad hoc committees to facilitate the development and implementation of specific projects in response to emerging needs. For instance, in 2001 it established the I-15 Interregional Partnership with the Western Riverside Council of Governments (WRCOG) and other Riverside County agencies. The I-15 Partnership worked until 2010 to address congestion issues between the two counties and work-related trips on I-15 by promoting job creation in the more residential Riverside County and housing development in the San Diego job center. While this ad hoc group is no longer active, its legacy continues to inform the way in which SANDAG works with neighboring organizations, especially Tribal Nations.

When designating tasks, the agency that secures grants generally leads the work, while partnering agencies contribute staff time and data analysis support. For instance, Riverside County and SANDAG alternated leading three phases of the I-15 project. SANDAG funds dedicated staff positions to support Borders Committee activities.

SANDAG uses performance measures that encourage and track the effectiveness of cross-border collaboration. In the 2015 San Diego Forward Regional Plan, SANDAG included average travel times to and from Mexico, neighboring counties, and Tribal lands as performance measures for the region's economic health. These efforts stemmed from 2004, when the agency began tracking similar metrics for its Regional Comprehensive Plan (RCP) Performance Monitoring Report.

Imperial County is a voting member of the Borders Committee, and representatives from Orange and Riverside Counties, Mexico, and the tribes serve as advisory members. SANDAG staff coordinate regular quarterly meetings with staff from partner agencies to exchange information about key planning projects and studies as well as identify opportunities for future interregional collaboration.

Takeaways

- The SANDAG Borders Committee acts as a forum for collaboration with Mexico; Imperial, Riverside, and Orange Counties; and 18 federally-recognized tribes.
- In 2001, SANDAG established the Borders Committee to better address cross-border challenges.
- The Borders Committee meets monthly to receive input from the Committee on Binational Regional Opportunities and the Tribal Transportation Working Group, its two technical work groups.
- SANDAG uses performance measures that encourage and track the effectiveness of cross-border collaboration, such as average travel times to and from cross-border regions.
- SANDAG has completed many border access studies and projects in recent years across multiple modes of transportation.
- SANDAG is the only COG in the United States with representatives from a foreign body on its governing board.
- It is a constant challenge to maintain active communication, but SANDAG's monthly meetings and the colocation of staff from stakeholder groups facilitate consistent communication.

Following mandates of the 1953 Ralph M. Brown Act of California, the State law that governs open meetings for local government bodies, the Borders Committee only meets in the San Diego region, but holds Ad Hoc Committee meetings—with less than a majority of the members—with its neighboring partners. Annual meetings with counterparts in Mexico are always held in San Diego.

Representatives from Mexico are official Borders Committee advisory members, which makes SANDAG the only COG in the United States with representatives from a foreign body on its governing board.

Collaboration Accomplishments

The Otay Mesa-Mesa de Otay Binational Corridor Strategic Plan represents one of SANDAG's most significant binational joint planning efforts. SANDAG provided funds and the city of Tijuana in the Mexican State of Baja California contributed staff support to develop the strategic plan. One of the actions in this plan is to advance the implementation of a new border crossing at Otay Mesa East to relieve congestion and long wait times at what is currently the largest commercial California-Mexico border crossing, Otay Mesa-Mesa de Otay. Additionally, SANDAG worked with Caltrans, the California Department of Transportation, to develop the State Route 11/Otay Mesa East Port of Entry Project, which will provide fast and secure crossings via tolled roads serving both commercial and personal vehicles. The first segment of State Route 11 opened to traffic in March 2016.

SANDAG completed the San Diego and Imperial Valley Comprehensive Freight Gateway Study in 2010. This study forecasts regional freight traffic in San Diego and Imperial Counties through 2050, providing updated freight information to stakeholders to support a more manageable and sustainable freight network. The agency is now working to develop an update to that study, which is expected to be completed in 2016.

In 2015, SANDAG supported the Pedestrian and Bicycle Transportation Access Study of the California/Baja California Land Ports of Entry (POE) Study, an effort led by the Imperial County Transportation Commission (ICTC) in partnership with Caltrans, SANDAG, and the State of Baja California. The study compiled ideas for improvement from border travelers, community groups, and public agencies from the U.S. and Mexico. ICTC applied for and was awarded funding for the project, which was completed in February 2015.

In addition to its cross-border initiatives and planning with neighboring agencies, SANDAG has also promoted collaboration at the State level by leading efforts to establish statewide performance monitoring. The agency collaborated with other MPOs to review over 200 potential transportation indicators and select nine metrics that could be monitored through clear, consistent methods. Draft measures include: total and congested vehicle mile traveled (VMT) per capita, commute mode share, state of good repair, highway buffer index, fatalities and serious injuries per capita and per VMT,

transit accessibility, travel time to jobs, change in agricultural land area, and CO_2 emissions per capita.

Challenges and Lessons Learned

Building and maintaining relationships across agencies and borders can be challenging due to different goals and priorities, decisionmaking levels and processes, and staff turnover. While it is possible to maintain minimal levels of communication, maintaining active and productive communication is more difficult. The Borders Committee and its partner agencies have learned to address these challenges by treating each other with patience and respect, establishing timeframes that take into account anticipated staffing changes and different planning processes, and publishing regular progress reports to keep all stakeholders informed. Staff from the City of Tijuana and the State of Baja California share space in the SANDAG offices, which facilitates communication and identifying opportunities for collaboration. Additionally, SANDAG has found that having representatives from Mexico on its governing board has been mutually beneficial.

One of the most important contributors to SANDAG's success in cross-border collaboration is that the agency funds dedicated staff positions for the effort. Regular funding and staff time allow the Borders Committee to follow through on its policy objectives to build strong relationships with partner agencies and take the lead on collaborative projects. For instance, the Borders Committee had sufficient resources to take its I-15 commuting project with Riverside County a step further by proactively researching commuting trends between San Diego and Imperial County, Orange County, and Tijuana, Mexico to identify and address any potential problems.

The Borders Committee has also found that focusing its efforts on a few areas of opportunity makes collaboration more effective and easier to communicate to the public. These areas could be geographic areas, like Otay Mesa, or issue areas, such as housing, land use, environment, and transportation. In all cases, these areas of opportunity relate to common goals among the partner agencies.

Collaboration efforts by the Borders Committee and its partner agencies have led to more effective, extensive project development and implementation than any individual agency could achieve on its own. Moreover, the dedication of these agencies' members has enabled multi-jurisdictional planning to become the norm throughout the San Diego region.

Additional Resources

- 2014 San Diego Forward Regional Plan
- Otay Mesa-Mesa de Otay Binational Corridor Strategic Plan
- I-15 Interregional Partnership
- Regional Comprehensive Plan (RCP) Performance Monitoring Report
- 2015 Pedestrian and Bicycle Transportation Access Study
- 2015 Freight Study Update
  State Route 11/Otay Mesa East Port of Entry Project

San Joaquin Valley Blueprint Planning Process

Quick Information

Agency: The eight San Joaquin Valley Regional Planning Agencies; California State University at Fresno (Fresno State)
Contact: Jenna Chilingerian, Fresno State; Rob Terry, Fresno Council of Governments
Website: http://www.valleyblueprint.org/
Cooperation Topic(s): Regional Planning
Cooperation Practice(s): Joint Planning Products
Cost Information: State and Federal grants are distributed among the partner agencies and programs; organizations house the grants throughout the duration of different programs.

The San Joaquin Valley faced many challenges in the early 2000s, including population growth, rising poverty, poor air quality, and aging infrastructure. Local agencies determined the best way to manage these issues was to approach them as a region, rather than a series of isolated communities. As a result of a region-wide vision and tailored, community-focused implementation programs, the San Joaquin Valley secured funding and implemented programs that are managing for population changes, rebuilding infrastructure, and improving health outcomes.

Motivation for Establishing the Collaboration

In the early 2000s, the planning agencies of the San Joaquin Valley in California were faced with the challenge of combatting air quality issues. Understanding that air basins do not stop at jurisdictional lines, the regional agencies embarked on a valley-wide effort to develop a long range vision for the region's future growth between 2006 and 2014, called the San Joaquin Valley Blueprint Planning Process. The eight Valley planning organizations—one regional transportation planning authority (RTPA) and seven COGs—formed the San Joaquin Valley Regional Policy Council (SJVRPC) partnership and worked together to create and oversee valley-wide projects that resulted from this process.

Figure 24. Initiative logos. Source: San Joaquin Valley Blueprint

Addressing air quality issues quickly morphed into addressing health overall, which led the agencies to then embark on addressing transportation, housing, and land use issues. Following the discussions that stemmed from a common interest to collaboratively tackle these challenges, the SJVRPC adopted a planning scenario and 12 Smart Growth principles for the region in 2009. The SJVRPC realized that the region's diverse communities could not implement the new planning scenario and principles using only a single strategy—some areas in the region had populations of under 25,000 people, while others had populations of over 500,000. The SJVRPC established a two-pronged approach: the Blueprint Integration Project (BIP), which helped rural and agricultural Valley communities with 50,000 or fewer residents implement the Blueprint Planning Process goals and objectives, and the

Smart Valley Places (SVP) program, which helped urbanized metropolitan areas with more than 50,000 residents do the same.

Collaboration Structure and Process

Before the Blueprint Planning Process, there had been no valley-wide body of elected representatives to address collective issues throughout the region, so the SJVRPC was created. This Council was representative of the boards of all eight of the regional planning agencies and provided standard outreach and decisionmaking processes to the Valley agency representatives. The SJVRPC directed staff to further collaborate with local planners by creating the Valley Planners Network, which is a body of Valley planners who meet quarterly to discuss issues ranging from local agencies' common challenges to implementing State legislation.

Each program worked toward the same regional vision established by the 12 Smart Growth principles of the Blueprint Planning Process, and staff on each project consistently worked together on processes and products to support implementation. Funding management has shifted throughout the duration of the programs; the Merced County Association of Governments originally housed the program equipment and managed the grant, since 2009, the Fresno Council of Governments has taken on main administrative responsibilities such as housing the grant and monitoring the website.

Takeaways

- In 2006, the regional planning agencies in the San Joaquin Valley embarked on a valley-wide visioning and planning effort called the San Joaquin Valley Blueprint Planning Process.
- The eight planning organizations in the valley formed SJVRPC to oversee the projects that resulted from the Blueprint process.
- The Valley Planners Network, a collection of local planning professionals from throughout the Valley, was organized to address a wide range of challenges and topics associated with the Blueprint.
- The SJVRPC established the Blueprint Integration Project (BIP) to help rural and agricultural communities and the Smart Valley Places (SVP) program to help urbanized metropolitan areas.
- The SVP and BIP grants concluded in 2014, but their names and activities continue to impact Valley communities.
- Ongoing communications with elected officials, the public, and non-governmental organizations has built name recognition for the Blueprint Planning Process and created goodwill towards the resulting collaborative work.

Each program's funding sources and organizational structures differed in several ways. SVP received a $4 million regional planning grant from the Federal Partnership for Sustainable Communities program in 2010 and distributed $200,000 to each of its 14 cities to implement projects centered on the Blueprint smart growth principles, such as creating a climate action plan or conducting a watershed study. A group of non-governmental organizations (NGOs) received funding to conduct outreach and leadership programs among traditionally marginalized communities, and a portion of funding was set aside for outreach to elected officials, to develop a regional hub online, and to host regional quarterly meetings.

Instead of distributing money for specific community-level projects, BIP worked with its 46 communities to provide general planning assistance. Using $500,000 in State funding, BIP worked with each local agency to determine which planning resources were most needed among the communities and then worked with each individual agency to implement the needed processes and services within their jurisdiction. The process also developed the Blueprint Planner's Toolkit, an online "educational guide and

reference source for communities who want to translate the 12 Blueprint Smart Growth Principles into action." The Toolkit includes resources and templates to help small communities update their general plans, change zoning ordinances to allow for mixed-use developments, and implement new design criteria. The templates, products, guides and services provided through the BPI project were placed within this toolkit, as well.

Though SVP and BIP were ultimately separate programs, they have worked together toward the same regional goals established by the Blueprint Planning Process. To ensure that everyone in the region was aligned on the ultimate objectives, SVP hosted a regional planning convention where both urban and rural projects in the region were showcased and discussed. Both programs also conducted quarterly calls and several forums throughout the year where communities shared planning best practices and lessons learned. The annual SJVRPC Policy Conference promotes this collaborative work through the popular Blueprint Awards Program.

In 2014, the group decided to transition the responsibility of hosting the program grants to California State University at Fresno (Fresno State), which turned out to be a advantageous for the San Joaquin Valley agencies. At the conclusion of the SVP and BIP programs, there was concern that equity issues could arise if any one of the Valley agencies owned the grant and took lead responsibility for continuing to implement the programs. By allowing Fresno State to serve as the grant administrator and current program manager, the Valley agencies can remain assured that program actions will remain transparent and fairly distributed among the agencies.

Collaboration Accomplishments

The SVP and BIP grants concluded in 2014, but their names and activities continue to impact Valley communities. Communities throughout the Valley have realized the benefits of sharing ideas and strategies for solving problems encountered by other Valley communities. Through the Blueprint Planning Process, Valley agencies have also been able to strengthen ties with regional nonprofit partners, such as the Sacramento County Child Obesity Prevention Council and the Sacramento Housing and Redevelopment Agency. These relationships have facilitated the progression of various projects and programs throughout the region.

As a result of the Blueprint Planning Process, agencies provide feedback on needs as they arise and leverage shared resources available through the partnership. For instance, the BIP organized a group of circuit planners who traveled throughout the Valley to create planning guides and templates for communities that lack the staff and resources to produce such items themselves. This roving planner program has become so popular that some of the regional agencies have contracted with individuals that now fill these roles annually.

In accordance with California Senate Bill 375 in 2008, legislation required metropolitan planning organizations to prepare a Sustainable Communities

Strategy (SCS) as part of their regional transportation plans. In many areas in California, this requirement forced planning agencies to have regional conversations about cross-jurisdictional topics like land use, transportation, and health for the first time. However, because of the Blueprint Planning Process, the Valley agencies were ahead of the game and had already strengthened the relationships necessary to develop strong SCSs within each region.

Ongoing communications with elected officials, the public, and non-governmental organizations builds name recognition for the Blueprint Planning Process and creates goodwill towards the resulting collaborative work. Easy-to-understand, consumer-facing documents, such as the San Joaquin Valley Blueprint Roadmap, are popular not only in the Valley but also with planning organizations in other regions throughout the U.S.

Challenges and Lessons Learned

The San Joaquin Valley includes 8 counties, with a 4-hour drive from end to end. The urban and rural differences within such a large area, as well as sheer size of the region, posed challenges to the Blueprint Planning Process. For instance, project support was based at Fresno State, which some communities felt was too far away. The partners addressed this challenge by taking all communities' perspectives and situations into account and hosting region-wide events and conference calls, which helped individuals build trust with one another and collaborate on similar problems across agencies and jurisdictional boundaries.

Despite the distance, partnering with a university also helped unite and facilitate collaboration among many organizations. Fresno State served as a regional convener for SVP during implementation, and it continues to host the Blueprint Planner's Toolkit and work as an active partner to seek new funding sources for future regional planning programs.

Flexibility with funding improved the Blueprint Planning Process as well. By designating money during the grant application and planning phases to respond to new situations and priorities during the implementation phase, the partners successfully adapted the Blueprint programs to changing needs while still meeting program goals.

The products and relationships created by this collaboration have continued and will continue in future regional efforts. Through patience, trust, and open dialogue, the results of this collaboration proved that a geographically large, diverse, and populous area can successfully identify, work toward, and achieve common goals.

Additional Resources

- San Joaquin Valley Blueprint Planning Process
- San Joaquin Valley Regional Policy Council
- Blueprint Integration Project
- Smart Valley Places
- Blueprint Planner's Toolkit
- Blueprint Awards Program
- 2015 Blueprint Awards Press Release (see Appendix p. 44)
- 2015 SJV Partnership Annual Report

SB 375 MPO Working Group: California MPOs Team Up to Address Climate Change

Quick Information

Organization(s): California Council of Governments (CALCOG), San Diego Association of Governments (SANDAG), Los Angeles' Southern California Association of Governments (SCAG), the Sacramento Area Council of Governments (SACOG), and San Francisco's Metropolitan Transportation Commission (MTC)
Contact(s): David Ory, MTC; Bill Higgins, CALCOG; Tanisha Taylor, CALCOG
Website: http://www.calcog.org/index.aspx?nid=107
Cooperation Topic(s): Air Quality and Environmental Planning
Cooperation Practice(s): Forums for Communication and Idea Sharing
Cost Information: Each member of the SB 375 MPO Working Group pays dues to fund CALCOG.

Faced with legislative requirements to develop greenhouse gas (GHG) emissions targets and transportation, housing, and land use strategies to achieve GHG reductions, California MPOs began meeting regularly to coordinate methods for fulfilling these requirements. The meetings resulted in not only a consistent method for developing the MPOs' emissions targets—almost all of which the California Air Resources Board (ARB) accepted—but also a forum for discussing numerous other statewide initiatives, including California's new Cap-and-Trade Program.

Motivation for Establishing the Collaboration

In 2008, the California State Legislature passed the Sustainable Communities and Climate Protection Act (SB 375), which required each of the State's MPOs to propose regional targets for passenger vehicle GHG emissions reductions to the ARB separately through a formal board action. SB 375 also required MPOs to develop and adopt a "sustainable communities strategy" (SCS) that outlines transportation, housing, and land use plans to achieve their regional targets. Collectively, the MPOs, who recognized the need to develop consistent methods for determining these targets and facilitating this goal, created the SB 375 MPO Working Group.

Collaboration Structure

Originally, the SB 375 MPO Working Group meetings provided a relatively informal way for MPOs to share their strategies for conducting required planning efforts. California's largest urban MPOs— San Diego Association of Governments (SANDAG), Los Angeles' Southern California Association of Governments (SCAG), the Sacramento Area Council of Governments (SACOG), and San Francisco's Metropolitan Transportation Commission (MTC)—led these efforts along with representatives from the eight Central Valley MPOs and six smaller MPOs. The MPOs took turns hosting the

meetings and planning the agendas, as the agency leaders and staff saw the value of sharing ideas and coordinating on a regular basis. After initial GHG targets were set, the responsibility for planning and organizing shifted to the California Association of Governments (CALCOG), an organization, which encompasses all of the State's MPOs and COGs. The shift to CALCOG was natural, as CALCOG already encompassed and collected dues from the State's MPOs and COGs. The SB 375 MPO Working Group is a technical, non-policy group that focuses on improving government-to-government lines of communication. Each member agency pays dues to fund CALCOG, which the MPOs and COGs have found to be an effective entity for not only facilitating the SB 375 meetings but also communicating their ideas to State government representatives.

Takeaways

- California MPOs created the SB 375 MPO Working Group to develop consistent methods for determining GHG emission targets.
- The MPOs took turns organizing and hosting the meetings and planning the agendas, because the agency leaders and staff saw the value of sharing ideas and coordinating on a regular basis.
- The SB 375 MPO Working Group proposed GHG emissions targets for each region, almost all of which were adopted by the ARB.
- The meetings increased the MPOs' capacity for measuring emissions and addressing the targets by sharing staff support and expertise, thereby decreasing overall costs.
- SB 375 meetings allow the MPOs to establish consensus and work with State agencies to understand various legislative proposals, which lends the MPOs a stronger voice that carries more weight in the State Legislature's decisions.

Currently, the MPOs' Planning Directors meet quarterly to discuss SB 375 implementation activities and related planning developments, and specific task groups meet at different intervals depending on what is most appropriate for the group. Meetings are held on the same day as meetings about other statewide initiatives, such as the California Transportation Plan (CTP) 2040, in order to increase attendance. The meetings are often held in Sacramento, which makes it easier for key State agencies to attend. The meetings begin with a discussion between the MPOs, after which they are joined by their State partners, including the ARB and Caltrans. By providing a forum for sharing information and lessons learned, the meetings allow the MPOs and State agencies to learn from each other and receive feedback.

CALCOG also hosts bi-monthly meetings for the Executives of its membership, which includes all 18 MPO directors. These meetings focus on policy-level decisions and allow the executive directors to set goals for the Planning Director meetings, discuss implementation of State and Federal policies and programs, and identify legislative initiatives to promote. The Planning Directors provide recommendations after discussing the technical aspects of issues identified by the executive directors.

Collaboration Accomplishments

The first and largest accomplishment of the Working Group meetings was to provide a framework that helped the State and the public discuss how high to set the GHG emissions targets for each MPO. The group reached consensus that each target should be both "ambitious" and "achievable", meaning that each agency would have to make an effort to meet its target. Through these first meetings, MPOs staff began to develop a common language and assumptions to measure GHG emissions. For example, MPOs started using

consistent assumptions—like the price of fuel—which allowed for the ARB to take a more consistent approach in setting targets across the State. Previously, each MPO had made its own assumptions about such variables. In addition, the MPOs share data and try to coordinate efforts between their staff (when possible) in order to efficiently work toward common goals.

The SB 375 meetings also benefited a number of other statewide initiatives and facilitated integrated planning processes that traverse multiple area, including transportation, public health, land use, housing, water, and energy. While the meetings initially focused on GHG emissions targets and SCS plans, other State agencies, like the Department of Public Health, soon saw the value of participating and began using the forum to receive input from the MPOs. The Strategic Growth Council has also sought MPO feedback to help develop and implement elements of the Cap-and-Trade Program that apply to sustainable communities and transportation. Thus, the SB 375 meetings have allowed the California MPOs to better address the interrelated nature of the GHG emissions targets, SCS plans, CTP 2040, and the new Cap-and-Trade Program.

Collaborating on many related programs not only allows the MPOs to make better informed decisions about various initiatives, but also strengthens their influence on legislative matters. The SB 375 meetings allow the MPOs to establish consensus and work with State agencies to more fully understand various legislative proposals. Together, these processes lend the MPOs a stronger voice that carries more weight in the State Legislature's decisions.

SCAG, MTC, SACOG, and SANDAG are working to coordinate a household survey in an ongoing collaborative effort. In order to sustain this effort, a formal MOA was established in 2014. The MPOs aim to build the household survey collectively but maintain data for each of their service areas individually.

Challenges and Lessons Learned

Reaching consensus at SB 375 meetings requires more perseverance than the MPOs originally anticipated due in part to the differences among them, particularly between urban and rural areas. However, the MPOs maintain their motivation to collaborate by continuously reaffirming the importance of sharing information and strategies related to their GHG targets, SCS plans, and other statewide initiatives. When developing statewide performance measures in 2013, the MPOs overcame the struggle for consensus by agreeing that certain regions could adopt slightly different measures, recognizing the unique attributes of those regions.

SB 375 coordination has spurred continual reassessment of performance measures and the assumptions associated with these measures. For example, different MPOs may have the same goal of reducing traffic congestion, but each agency may measure congestion based on different regional characteristics. The MPOs work together to develop more comparable performance measures and processes across the State. CALCOG coordinated

with other California MPOs to help develop the 2013 SANDAG Statewide Performance Monitoring Indicators for Transportation Planning report, which aimed to universalize statewide performance data based on available datasets.

The SB 375 MPO Coordination Meetings present an impressive example of multi-jurisdictional collaboration to address a pressing challenge—climate change. The global scale of this issue will require coordination at every level, and California's MPOs provide a model through their efforts to jointly develop and implement strategies to reduce GHG emissions.

Additional Resources

- CALCOG Website
- SANDAG Statewide Performance Monitoring Indicators for Transportation Planning Final Report

Southeast Florida Transportation Council: Miami MPOs Develop Joint Plan

Quick Information

Organization(s): Miami-Dade MPO; Broward MPO; Palm Beach MPO; Florida DOT District 4; Florida DOT District 6

Contact(s): Greg Stuart, Yvonne Arens, Nick Uhren, David Lee, Wilson Fernandez

Website: http://seftc.org/

Cooperation Topic(s): Congestion Management; Economic Development; Freight Planning; Transit Planning; Regional Planning

Cooperation Practice(s): Forums for Communication and Idea Sharing, Project Partnerships, Joint Planning Products

Cost Information: One MPO establishes the contract for consultants; participating agencies share costs of consulting service.

Effective transportation provision by multiple agencies for a single metropolitan area requires close collaboration. For the three MPOs in the Miami Urbanized Area, the Southeast Florida Transportation Council (SEFTC) provides a forum to create shared transportation plans and initiatives. The Miami-Dade, Broward, and Palm Beach MPOs serve the three most populous counties in Florida. In the past decade, the MPOs have collaborated on multiple aspects of the planning process, including long-range and freight planning, public involvement, project prioritization and selection, regional modeling, and the implementation of highly-used express bus lanes.

Motivation for Establishing the Collaboration

The Miami-Dade, Broward, and Palm Beach MPOs informally collaborated on transportation efforts for many years before the Florida Department of Transportation (FDOT) suggested combining the three agencies into one MPO. However, because each MPO is located in its own county and has different styles of development—Broward has the highest population density, Miami-Dade is highly transit-based, and Palm Beach has the lowest population density and the least traffic—the agencies elected to remain independent to more effectively address their unique contexts. The MPOs proposed formalizing their coordination efforts as a way of further integrating their planning processes. In 2006, Chapter 339 Section 175 of the Florida Statutes established SEFTC to address regional transportation challenges through coordinated planning. Over the past ten years the SEFTC MPOs have worked together through a process of trial and error to continually improve their cooperative planning framework.

Collaboration Structure

SEFTC receives staff support and recommendations about technical decisions from the Regional Transportation Technical Advisory Committee (RTTAC), which includes staff from the three MPOs, FDOT Districts 4 and 6, the Florida Turnpike Enterprise, the Miami-Dade Expressway Authority, the South Florida Regional Transportation Authority, the four local transit agencies, and the two area Regional Planning Councils. The MPOs also take turns leading the SEFTC subcommittees, which address issues including travel demand modeling, public involvement, and freight planning.

The three MPOs rotate hosting duties for the quarterly RTTAC meetings so their membership has the opportunity to travel throughout the whole region and each agency achieves adequate representation. Developing an initial method for determining how to share costs was a critical part of the collaborative structure. As an example of cost sharing, the Palm Beach MPO established a contract with a consultant to compile agendas and minutes for RTTAC meetings, and all three MPOs contribute funding for the service. The regular meetings help MPO staff to establish stronger relationships and enhance the frequency and level of communication with each other. This allows them to tackle day-to-day planning challenges quickly (by phone) rather than waiting for the next official meeting to bring up issues.

To identify their shared goals and objectives, the MPOs created a Regional Transportation Network Map that shows key corridors on which to focus SEFTC's efforts and resources. Over the course of three years, the MPOs refined the map to ensure it represented each agency's interests and values, and it now serves as a shared framework to guide their plans and meetings.

Miami-Dade, Broward, and Palm Beach MPOs complete their own, separate cost-feasible transportation plans in addition to the SEFTC combined regional transportation plan (RTP). The MPOs recognized the potential benefit in evaluating the projects that did not make it into each MPO's cost-feasible plan through a collaborative, prioritization process. SEFTC designed its prioritization process to be as quantitative as possible by using a benefit-cost analysis and evaluation criteria agreed upon by all three MPOs. The purpose of this process is to lend a "common ground" perspective to guide future transportation investment prioritization across the greater Miami metropolitan area.

The MPOs measure the success of their initiatives by compiling monthly reports on factors like ridership and by soliciting feedback from the public on a regional scale. For instance, the partners encourage individuals in the

Takeaways

- SEFTC's successes are the results of over 10 years of continuous improvement in collaborative planning.
- SEFTC produces a regional LRTP and freight plan every five years.
- Each MPO maintains its own LRTP in addition to the SEFTC LRTP.
- Rotating hosting duties for meetings allows SEFTC's membership to travel throughout the region and achieve adequate representation.
- One of SEFTC's greatest accomplishments was the implementation of the 95 Express Lanes project.
- SEFTC jointly owns the Southeast Regional Planning Model, which is housed by FDOT District 4; moving forward, they will work to improve MPOs access to the tool via a cloud-based system.

Miami Urbanized Area to provide comments on transportation infrastructure and services in all three MPOs, as the region's residents often travel between MPO jurisdictions for work and recreation and thus understand the transportation system on the regional scale. SEFTC's consultant attends public meetings in each MPO to document these cross-jurisdictional comments for incorporation in SEFTC's next regional transportation plan.

Collaboration Accomplishments

SEFTC develops a new RTP every five years, and in October 2015, it published and adopted the 2040 Regional Plan. This plan reflects the shared vision and goals of the three MPOs in the Miami Urbanized Area. Many of the projects included in the RTP will advance into each MPO's Transportation Improvement Program (TIP), a five-year program of prioritized transportation projects in each MPO region that is updated annually. The MPOs rotate the lead role for plan development each five-year cycle.

SEFTC devoted a great deal of energy to engaging the residents in its service areas in identifying their transportation wants and needs, and their involvement proved a critical component of the 2040 Regional Plan. Each county conducted public outreach and incorporated materials from its outreach efforts in its individual 2040 LRTP, and these materials were cross-referenced when the RTP was developed. Additionally, in November 2015, SEFTC conducted outreach on a regional level through an online survey to inform the 2040 RTP.

Additionally, SEFTC produces a regional freight plan every five years. Miami-Dade MPO was the first MPO in Florida to complete a freight plan, and after the other MPOs developed individual freight plans in subsequent years, the three came together with FDOT to produce SEFTC's first regional freight plan in 2010. The Southeast Florida Regional Freight Plan 2014 update highlights successes and challenges to paint a more complete picture of SEFTC's freight experience. Recent accomplishments include the completion of the Port Miami Tunnel and the development of Intermodal Container Transfer Facilities at Port Miami and Port Everglades.

In 2010 and 2011, Miami-Dade MPO and Broward MPO introduced the first two express bus routes on Interstate 95 (I-95), a high occupancy toll (HOT) road. Express buses are operated by Broward County Transit and Miami-Dade Transit. After three years, monthly ridership in Miami-Dade and Broward counties increased by over 400 percent and overall transit ridership increased by 145 percent. Recent studies show that, since 95 Express service began, travel speeds on I-95 have increased by 200 percent on local lanes and 300 percent on the express lanes. Tracking monthly ridership data and travel speeds has enabled the MPOs to demonstrate the benefits of 95 Express and promote the creation of more managed lanes in the region. Phase 2 of 95 Express began construction in November 2011 and continued through spring 2016; the project extends the 95 Express lanes through Broward County by converting existing high occupancy vehicle lanes into two express lanes in each direction. In October 2016, tolling began on a new segment between

Miami-Dade County and Broward County. The project's success has also encouraged many other major metropolitan areas in Florida to begin implementing managed lanes.

Another significant benefit of SEFTC's collaboration is the ability to quickly address regional issues through established means of communication and decisionmaking. For example, the partner MPOs settled a joint contract for a new activity-based transportation model, the Southeast Regional Planning Model (SERPM), within 90 days after deciding to adopt the model. SEFTC formally recognized the SERPM as the region's travel demand modeling tool during the development of its 2035 RTP. The three MPOs and FDOT Regions 4 and 6 developed a memorandum of understanding (MOU; see Appendix) in November 2014 to define future roles and responsibilities for the tool, including a funding breakdown. The MPOs recently upgraded the SERPM to feature a much more data-intensive model which required more advanced equipment, so the MOU made the FDOT Region 4 office responsible for developing and maintaining the current version. The activity-based model has allowed SEFTC to more accurately predict the regional effects of proposed projects.

Challenges and Lessons Learned

The success of SEFTC is the result of over a decade of continuous improvement in collaborative planning. The lines demarcating FDOT Districts pose a challenge to successful collaboration, as Miami-Dade MPO is in FDOT District 6, while Broward MPO and Palm Beach MPO are both in District 4. This boundary requires the MPOs to establish cooperative relationships with multiple partners at both the State and MPO levels. The MPOs have begun to address the challenge of working across FDOT District boundaries by proactively communicating with each district about their plans and priorities.

SEFTC is still working out challenges associated with ownership of shared tools. The FDOT Region 4 office develops and maintains the current version of SEFTC's travel demand modeling tool, SERPM. While this structure provides several benefits—namely, the FDOT Region 4 office houses the sophisticated equipment necessary to develop the tool—the MPOs no longer have immediate, in-house access to the model. They plan to address this issue as they move into the next generation. Ideally, the MPOs would all have access to the model at any given time; they are currently considering a cloud-based platform that would allow for improved access and collaboration.

The SEFTC MPOs plan to further improve cross-jurisdictional cooperation by developing metrics to quantify the benefits of working together on a regional scale. The partners know intuitively that they accomplish more through collaboration than they could separately, both because they can complete larger projects at lower cost than several smaller projects and because jointly applying for grants gives them a greater likelihood of success. However, they want to be able to more precisely communicate to the public and FDOT these cost savings and benefits of the SEFTC partnership.

SEFTC presents an intriguing example of collaboration across three counties and several MPO and State DOT district boundaries. Through joint transportation planning, the three Miami area MPOs provide more efficient and effective multimodal service for their region.

Additional Resources

- SEFTC 2040 Regional Plan
- SEFTC Regional Freight Plan 2014 update
- SEFTC Memorandum of Understanding for Rail Link Project
- SEFTC Memorandum of Understanding for Travel Demand Modeling (see Appendix p. 45)
- Southeast Regional Planning Model (SEPRM)
- 95 Express Bus Service Website

Association of Texas Metropolitan Planning Organizations: Texas MPOs Share Information and Financial Modeling

Quick Information

Organization(s): Association of Texas Metropolitan Planning Organizations (TEMPO); 25 Texas MPOs; Texas Department of Transportation (TxDOT)
Contact(s): Ashby Johnson, Capital Area Metropolitan Planning Organization
Website: http://www.texasmpos.org/
Cooperation Topic(s): Statewide Planning
Cooperation Practice(s): Forums for Communication and Idea Sharing, Data Sharing and Developing Common Modeling and Forecasting Tools
Cost Information: MPOs contribute staff time through participation; executive director provides staff time for meeting coordination; MPOs volunteer to host meetings.

Collaboration becomes especially valuable, as well as more challenging, in a State as large and diverse as Texas. The Association of Texas Metropolitan Planning Organizations (TEMPO) provides a forum for Texas' 25 MPOs to discuss shared challenges and collectively interact with Texas Department of Transportation (TxDOT) and FHWA. In addition to more efficient and effective communication and problem-solving, TEMPO has led to a shared financial forecasting model for the State.

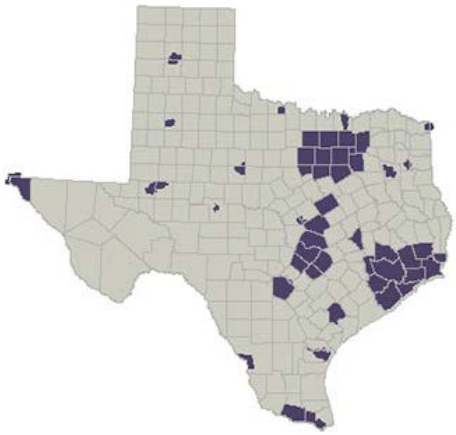


Figure 25. Map of MPOs and counties in Texas. Source: TEMPO

Motivation for Establishing the Collaboration

In the early 1990s, the Texas MPOs began meeting as a way to share information and best practices. The meetings enabled the MPOs to capitalize on their diversity and collective knowledge. The group minimized the challenges associated with new regulations and staff turnover by acting as a forum in which agencies could brainstorm strategies for meeting any new requirements and novice staff could quickly learn the roles of and relationships between agencies within the State. While the group began with informal meetings, TxDOT and FHWA soon recognized the value of formally presenting information to all of the MPOs simultaneously as well as the value of introducing organizational structure. In response to encouragement from these State and Federal agencies, the Texas MPOs established bylaws for TEMPO in the late 1990s. These bylaws outline general guidelines of the organization—such as executive committee positions, membership, dues and meetings—but are not extensive and still allow for flexibility. When a TEMPO member identifies an

issue in the terms, the executive director and assistant executive director of the organization draft an amendment and present it to the organization body for review.

Collaboration Structure

TEMPO holds quarterly meetings for representatives from the MPOs as well as the 25 TxDOT districts, FHWA, and other agencies that want to share information with the MPOs. Meeting agendas are developed from member suggestions, and agencies will send TEMPO items they want to brief MPOs on. For instance, staff from the U.S. Environmental Protection Agency (EPA) attended a TEMPO meeting to teach the MPOs how to use EPA's new Geographic Information System Screening Tool (GISST), while TxDOT presented ways to access and use data from its Crash Records Information System (CRIS). TEMPO also organizes subcommittees to address specific topics, such as strategies for meeting new Federal legislation requirements.

Takeaways

- TEMPO provides a forum for Texas' 25 MPOs to discuss shared challenges and collectively interact with TxDOT and FHWA.
- Bylaws outline the general guidelines of the organization, such as executive committee positions, membership, dues and meetings, but are not extensive.
- MPOs and TxDOT created the Transportation Revenue Estimator and Needs Determination System (TRENDS) to forecast future financial constraints, develop their Transportation Improvement Programs, and communicate needs to the legislature.
- TEMPO plans to provide MPOs with a "MPO 101" class that will disseminate institutional knowledge to incoming MPO staff and may be extended to TxDOT district engineers.

The MPOs each choose one official representative for any voting matters related to TEMPO, including selecting the executive director and executive committee members. The executive committee members hold two-year terms, but there is no official term limit, so some members have remained on the committee for several years and have been able to maintain substantial institutional knowledge. The executive committee determines the agenda for each meeting. Agendas include topics relevant to the MPOs and designated time for TxDOT and FHWA to present information. The MPOs also use the meetings as a forum to present challenges, ask questions, and identify other MPOs who have addressed similar problems.

The MPOs who volunteer to host the meetings seek to plan them around other events, which saves money and allows the group to tour new areas of the State and learn more about each MPO. Staff from the executive director's MPO provide services like coordinating room reservations and taking minutes at the meetings.

Collaboration Accomplishments

One of TEMPO's most significant accomplishments was the development of a shared, statewide financial model. The MPOs worked with TxDOT to create the Transportation Revenue Estimator and Needs Determination System (TRENDS) in the mid-2000s. Since then, the web-based interface has enabled MPOs to enter their own data, such as population growth assumptions, to forecast future financial constraints and develop their Transportation Improvement Programs (TIPs) through a consistent method.

By generating various revenue forecast scenarios that correspond to different legislative proposals, TRENDS also allows the MPOs to better communicate to the legislature the transportation benefits they could deliver with additional tax revenue. TEMPO and TxDOT continue to update the TRENDS model by working with Texas A&M Transportation Institute (TTI) to reflect new information or regulations. For instance, TEMPO recently met with TTI to discuss updating the future trend-line for fuel efficiency, which impacts expected gas tax revenue. TxDOT also completes a new revenue plan each year to keep the model up to date.

Challenges and Lessons Learned

One of TEMPO's current challenges includes the lack of paid staff support. Currently, staff from the executive director's MPO is responsible for organizing TEMPO meetings, and smaller MPOs may not have the necessary resources to support TEMPO's staffing needs. While the larger MPOs have offered to volunteer their staff on a temporary basis if TEMPO elects an executive director from a small MPO, the organization has also considered using metropolitan planning (PL) funds to pay a staff person to organize meetings.

The sheer size of Texas also poses a challenge for TEMPO, as some MPOs regularly need to fly to the quarterly meetings. In addition to rotating the meeting location among MPOs, TEMPO tries to accommodate all members through webinars and conference calls. However, the organization seeks to maximize face-to-face meetings to facilitate conversations about shared challenges or ideas identified during the main discussion. TEMPO encourages attendance by combining its meetings with other statewide conferences, a strategy that also reduces the cost of room reservations.

In the future, TEMPO plans develop an "MPO 101" class that will disseminate institutional knowledge to incoming MPO staff and may also be extended to TxDOT district engineers. While the content and structure of this program has not yet been determined, the "MPO 101" program is meant to enrich the knowledge base of these agencies and foster stronger relationships between MPOs and TxDOT. Experienced leaders within TEMPO as well as TTI staff will serve as facilitators for these classes.

TEMPO is a volunteer organization, and all of Texas' 25 MPOs have chosen to participate. To maximize participation, the executive committee works to ensure that meeting topics are relevant to the MPOs by soliciting feedback from their colleagues after each meeting. Their efforts have led to 80 percent of the State's MPOs continuing to use TEMPO as a forum to discuss common interests and collectively communicate with TxDOT, FHWA, and other agencies.

By consistently meeting and sharing information across several levels of government and most of Texas' MPOs, TEMPO has enabled its members to more effectively address shared challenges and also improve the State's transportation planning by establishing a shared financial forecasting model.

Additional Resources

- TEMPO Website
- Transportation Revenue Estimator and Needs Determination System

Utah's Unified Transportation Plan: Joint Planning Improves Support for Investment in Transportation

Quick Information

Agency: Wasatch Front Regional Council (WFRC); Mountainland Association of Governments (MAG); Utah Department of Transportation (UDOT); Utah Transit Authority (UTA); Cache Metropolitan Planning Organization (CMPO); Dixie Metropolitan Planning Organization (DMPO)
Contact: Andrew Gruber, WFRC; Jeff Harris, Utah DOT; Shawn Seager, MAG
Website: http://www.utahunifiedplan.org/
Cooperation Topic(s): Statewide Planning
Coordination Practice(s): Joint Planning Products
Cost Information: Agencies designate funding in budgets to support collaborative efforts; one agency hires the contractor; UTA contributes annual funding for joint corridor studies.

Competition between MPOs, State DOTs and transit agencies can create inefficiencies in transportation planning, project prioritization, and funding. Conversely, collaboration between these agencies increases efficiency, encourages effective planning, and streamlines project delivery. Utah's four MPOs understand the value of collaboration. These MPOs know that planning and implementing transportation improvements cannot happen in a vacuum. In partnership with Utah Department of Transportation (UDOT) and Utah Transit Authority (UTA), Utah's MPOs integrated their Regional Transportation Plans (RTPs) into a Unified Transportation Plan for the entire State of Utah. They completed the first Unified Plan in 2007, the second in 2011, and the most recent plan in 2015. The agencies adopted this collaborative approach to serve the public more effectively and efficiently. All of the partners recognize that the success of one transportation mode benefits all modes and the success of each individual MPO region benefits the entire State.

Motivation for Establishing the Collaboration

The four Utah MPOs have built strong relationships with UDOT and UTA over the years. Prior to the first Unified Plan in 2007, however, each had operated on different planning cycles, used different assumptions in their travel modeling, and did not have shared priorities for how to fund projects. The State Legislature requested that the MPOs work together to identify the highest priority projects, when they should be built, and how much it would cost. Wasatch Front Regional Council (WFRC); Mountainland Association of Governments (MAG), UDOT, and UTA entered into a Memorandum of Understanding (MOU) to create a Joint Policy Advisory Committee (JPAC) in response to the Legislature's request. JPAC provided a statewide forum for policymakers to discuss issues, resolve inconsistencies, and build consensus between the agencies. In 2007, the agencies updated the MOU to include the

other MPOs in Utah, Cache Metropolitan Planning Organization (CMPO); Dixie Metropolitan Planning Organization (DMPO). The MPOs began aligning their planning cycles, financial assumptions and modeling approaches through these cooperative efforts. They integrated their RTPs into the first Unified Transportation Plan in 2007. This enabled the partners to communicate the multi-modal transportation needs of the State in a consistent and unified way, helping to ensure taxpayer dollars are being used efficiently in meeting Utah's priority transportation needs.

Collaboration Structure and Process

To create the Unified Plan, JPAC formed a policy committee, a technical coordinating committee, and subcommittees on topics such as finance, safety, and data. These committees meet regularly to ensure that the agencies agree on the content of the Unified Plan. In addition to these formal committees, members of the participating agencies regularly and informally discuss issues that arise day-to-day.

The agencies share responsibility for coordinating the Unified Plan. UDOT organized meetings and led development of the 2011 Unified Plan, while WFRC coordinated the 2015 Unified Plan. To help with the 2011 Unified Plan, the partners hired a consultant to edit and design the document. For the 2015 update, the partners hired a financial consultant to further refine their joint financial model and a consultant to facilitate the establishment of shared performance measures.

WFRC maintains a joint travel demand model for the Ogden-Layton, Salt Lake-West Valley, and Provo-Orem Metropolitan areas. This model enables WFRC, MAG, UDOT, and UTA to use common assumptions and analytical platforms in their planning processes for the Wasatch Front region. UDOT coordinates the statewide transportation demand model and transportation forecasting model that integrates seamlessly with the MPOs' model.

The participating agencies designate funding in their respective budgets to support collaborative efforts like the Unified Plan. The partners jointly fund many planning projects, regardless of which agency hires the contractor. For example, UDOT, WFRC, and MAG helped to fund UTA's First/Last Mile Strategy Study because they understand that more efficient transit also relieves road traffic. Likewise, UTA contributes annual funding for joint corridor studies because of the benefits these studies provide to transit.

Takeaways

- Utah's four MPOs partnered with UDOT and UTA to integrate their RTPs into a Unified Transportation Plan for the entire State of Utah.
- UDOT, UTA, and four Utah MPOs formed JPAC, a statewide forum for the policy makers to discuss issues, resolve inconsistencies, and build the level of cooperation between the agencies.
- The agencies entered into a memorandum of agreement in 2014 to develop a Unified Transportation Plan Funding Model Update.
- Developing the Unified Plan has not only enabled each of the Utah MPOs to create better, more coordinated plans, but has also generated support for significant investment in transportation projects.
- The agencies put increased focus on (1) developing shared performance measures to evaluate the impacts and benefits of the plan and (2) enhancing financial analysis processes to evaluate the application of financial constraints and availability of revenues for their 2015 Unified Plan.
- A mix of formal and informal collaboration helps the partnership to be successful.

Collaboration Accomplishments

One of the most significant accomplishments of the Unified Plan has been that it clearly communicates to policymakers the transportation funding needs statewide. All of the transportation agencies agree on which projects are needed and are able to clearly articulate the benefits of implementing such projects to stakeholders. This has resulted in significant investment in transportation projects. Elected officials, businesses and community leaders feel more confident that transportation plans and projects have been analyzed and prudently prioritized. This effectively changed the conversation from one in which stakeholders ask, "Should this project be funded?" to one in which they ask, "*How* should this project be funded?" Over the past fifteen years, Utah has had the highest per-capita investment in public transportation of any State in the Nation. Utah has also recently completed a multi-billion dollar interstate reconstruction project that was funded entirely with State and local funding.

In addition to billions of dollars of investment, the collaborative partnership cultivated by Utah's transportation agencies has allowed them to implement more active transportation projects. The Unified Plan provided the agencies in Utah with a network that transcends jurisdictional boundaries and allowed for the collaborative development of active transportation priorities. Now that they have reached agreement on priorities, there is an improved understanding regarding how to best incorporate active transportation facilities into current and future projects. UDOT and UTA have implemented policies that require staff to consider active transportation features in every stage of project delivery, from planning to implementation. Because providing active modes of transportation is seen as a public health benefit that can improve quality of life, elected officials and other community leaders have been very supportive of active transportation projects.

The transportation agencies in Utah were among the first in the country to develop SAFETEA-LU-compliant RTPs, leading to the development of the 2007 Unified Plan. By collaborating—even in instances in which it was not required—significant efficiencies and system performance improvements have been achieved. For example, the MPOs provided funding for UTA park and ride lots not only to reduce their own traffic volumes, but also to create efficiencies for UDOT and improve the flow of the overall transportation system. The MPOs also work simultaneously with UDOT and UTA on local corridor projects, rather than receiving input from each agency separately.

For its 2015 Unified Plan, the agencies increased their focus on two areas: (1) developing shared performance measures to evaluate the impacts and benefits of the plan and (2) enhancing financial analysis processes to evaluate the application of financial constraints and availability of revenues. The Utah MPOs wanted to set appropriate goals and measure progress toward achieving those goals. They identified key factors that cut across modes so that they could measure progress collectively for the entire system and not just for each mode separately. With the help of a consultant, they developed goals and objectives in light of Federal requirements and eventually

identified a set of performance measures that would be applicable to all agencies.

To enhance financial analysis and modeling processes, the Utah MPOs hired a municipal finance firm to evaluate revenue and expenditure projections over 25 years using sophisticated modeling techniques. Hiring financial experts to develop the funding model gave the product additional reliability and allowed policymakers to make more informed comparisons between potential projects in order to identify, prioritize, and fund needs. In 2014, they developed an MOA for a Unified Transportation Plan Funding Model Update (See Appendix).

In conjunction with the development of the 2015 Unified Plan, Utah's transportation agencies launched a Unified Plan website, utahunifiedplan.org. The website is compatible with mobile devices so anyone with a smartphone or tablet can find all of the projects planned in the State through the year 2040. The website has features such as an interactive map and searchable project database to increase transparency and accountability to the public. In addition, the website has allowed the MPOs to reflect amendments to their RTPs in real-time and allows features such as a public comment layer on the interactive map during public comment periods so stakeholders can add their voice to the process and selected projects.

The process behind the Unified Plan has strengthened relationships between the participating agencies at every level from design to engineering to construction and in both urban and rural jurisdictions. The agencies communicate frequently, through formal Unified Plan meetings that coincide with semi-monthly JPAC meetings as well as informally through a steady stream of phone calls and emails. The agencies have established a level of trust and developed a framework for collaborating on day-to-day work, which allows them to quickly address any multi-jurisdictional problems that arise, saving time and money for the State.

Challenges and Lessons Learned

The partners emphasize that they do not seek consensus on every point, but rather collaborate on shared goals and objectives. For instance, the MPOs decided to choose key performance measures, which include safety, economic vitality, state of good repair, air quality, and mobility and accessibility. All agencies agreed that these were measurable and useful, but they also maintained separate performance measures in their individual RTPs. This strategy allows each agency to retain individual autonomy while accommodating the unique needs posed by urban and rural jurisdictions.

The partner agencies acknowledge that creating the Unified Plan is made easier because the MPOs represent over 85 percent of the State's population, which reduces the complexity involved with interagency communication and cooperation. However, they have also learned that even in areas with a small number of agencies, successful collaboration requires each agency to relinquish the desire to lead and instead trust one another as equal partners

with shared credit for their accomplishments. Additionally, because of Utah's rapidly growing population (Utah is projected to nearly double in population by 2050) but geographically constrained landscape, developing a transportation system in which different modes complement and facilitate each other will be crucial to meeting the transportation needs of Utah's residents. The Utah MPOs will focus heavily on developing an integrated transportation system in their next Unified Plan, which will span from 2019 to 2050.

Viewing the transportation system as a whole that benefits from the improvement of each mode and region has enabled Utah's transportation agencies to create a single vision for the State's transportation infrastructure. Utah's Unified Transportation Plan has strengthened community trust (the public, business community, and elected officials) in the partner agencies' recommendations and led to unprecedented consensus on and investment in transportation projects across the State.

Additional Resources

- http://www.utahunifiedplan.org/
- 2014 MOA for Unified Transportation Plan Funding Model Update (see Appendix p. 59)
- 2004 MOU for Joint Policy Advisory Committee

Vermont, New Hampshire, and Maine Asset Management: Tristate Data Sharing Improves Efficiency

Quick Information

Organization(s): Vermont Department of Transportation (VTrans); New Hampshire DOT (NHDOT); and Maine DOT (MaineDOT)
Contact(s): Betsy Ross-Mobbs and Robert White, VTrans
Website: http://vtrans.vermont.gov/
Cooperation Topic(s): Asset Management; Multi-State Planning
Cooperation Practice(s): Data Sharing and Developing Common Modeling and Forecasting Tools
Cost Information: Partners are developing an MOU as a tool to allocate funding.

Developing new software to manage transportation assets within a State can be a daunting task. Recognizing the potential for saving costs and benefiting from peer experiences, the Operations Divisions of the Vermont Department of Transportation (VTrans); New Hampshire DOT (NHDOT); and Maine DOT (MaineDOT), respectively came together to develop Managing Assets for Transportation System (MATS), a customized software system for maintenance operations tracking and reporting. The States' collaboration in the development and maintenance of MATS has resulted in significant improvements in asset performance monitoring, as well as cost efficiencies from being able to access shared software without having to duplicate software development efforts. Additionally, the group has collaborated to develop common performance measures and develops annual reports on each State's performance.

Motivation for Establishing the Collaboration

VTrans, NHDOT, and MaineDOT have collaborated since the early 1990s as members of the Tristate Partnership. This consortium meets quarterly to improve each agency's maintenance and asset management through such strategies as sharing contracts to maximize purchasing power, purchasing bulk materials together, and utilizing common resources. Because of their close proximity, common location in New England, and relatively small sizes, the States often face similar maintenance challenges.

In the late 1990s, staff from VTrans presented a pilot version of an asset management tool to improve its operations reporting process at an American Association

Annual Tristate Partnership Performance Measures

- **Asset Performance Measures**
  - Bridge and Pavement Condition
  - Safety
  - Traffic Signs
- **Business Process Performance Measures**
  - Annual bid advertisement percent on time
  - Annual dollar amount advertised vs. planned
  - Engineers' estimate vs. low-bid result

of State Highway and Transportation Officials (AASHTO) conference. Representatives from NHDOT and MaineDOT saw the presentation and quickly recognized the potential benefits of sharing costs to develop a tool that all three States could use. By jointly adopting and improving a new MATS tool designed for all three States, the partners more efficiently monitor labor and equipment, costs, operation activities, and reporting deadlines.

Takeaways

- VTrans, NHDOT, and MaineDOT had collaborated since the 1990s as members of the Tristate Partnership.
- Joint use and development of MATS allows the agencies to more efficiently monitor labor and equipment, cost, operation activities, and reporting deadlines.
- The three agencies are equal partners in consultation and decisionmaking; the MATS group conducts bi-weekly conference calls to discuss contractor-related issues.
- The cost savings realized from developing MATS are a huge benefit.
- Working out the legal fine lines in a shared contract has proven a challenge for the agencies.

Collaboration Structure

VTrans, NHDOT, and MaineDOT agreed to maintain three individual databases to allow each State to meet its own budget and management requirements, but nonetheless aimed to leverage MATS for tristate asset performance monitoring in the future. The partners use the same application interface, with identical data fields that can be turned on and off depending on an individual State's reporting requirements. These data fields include daily work reporting, equipment use, materials and stockpile management, expenditure reporting, budgeting, and planning.

While VTrans technically leads the collaboration because it holds the contract with the vendor, the three State agencies are equal partners in consultation and decisionmaking. The MATS group conducts bi-weekly conference calls to discuss contractor-related issues. It also convenes staff quarterly to discuss and resolve technical issues without paying the contractor to solve them, a strategy which has significantly reduced costs for all three agencies. The MATS partners are also developing an MOU to formalize their organization, a document they are adapting from the Tristate Partnership MOU. This MOU will serve as a tool to help the agencies allocate necessary funding to developing and updating the system.

To document meetings and facilitate data sharing and communication, the States use a SharePoint site with issue-tracking and version control software to document the problems with and development of the MATS interface. To further aid in collaboration, the MOU documents that the agencies will rotate lead responsibility for rolling out future generations of the tool.

Collaboration Accomplishment

The biggest benefit the agencies have been able to realize from jointly developing MATS is cost savings. In order to have this type of tool without the collaborative structure, each State would have had to spend the total cost of developing it. Because of the MATS collaboration, they are able to share what's common—such as tools to address similar maintenance activities—and customize what's not. For example, because the States have different approaches to planning and budgeting, they plan and input them into MATS

in unique ways. Each State can independently add enhancements to the tool as desired, and once complete the other States can also access these enhancement at no extra cost. Because the agencies used Federal funds to develop the tool initially, MATS makes the tool available to other States free of charge; any State DOT can use it and only pay the cost of entering its own asset information.

The Tristate Partnership is currently refining multi-state asset management by finalizing shared objectives for the agencies' Operations Divisions. After the partners adopt common asset management objectives, the shared interface developed by the MATS group will enable the agencies to track progress individually and then easily compare across the three States. By developing common asset management objectives and strategies, the States can build upon and improve common core performance metrics.

By providing information for future measures, MATS is set to support the significant progress the three DOTs have already made in their goal to implement tristate asset performance monitoring. In 2010, the Tristate Partnership entered into an MOU to develop Standard Performance Measures for asset conditions, business processes, and safety (see Appendix). The Tristate Partnership also developed its own asset performance measure, which documents the percentage of structurally deficient bridges by deck area. The Partnership also worked with the AASHTO Subcommittee on Bridges and Structures (SCOBS) to test a new asset performance measure on bridge condition. Rather than the traditional good-to-critical rating, SCOBS wanted to try measuring bridge condition by maintenance requirement, from routine to major rehabilitation. The Partnership reported on these measures in the 2014 Annual Report on Tristate Performance Measures.

Challenges and Lessons Learned

Developing a shared contract for MATS presented the most significant challenge for the group because VTrans, NHDOT, and MaineDOT each have different contracting procedures. For two years, the partners have been working with each agency's attorneys to reach an agreement on a new contract, and they've found the issue of intellectual property rights to be more challenging than anticipated. The code used in MATS was originally developed by a vendor hired by VTrans, so the Tristate Partnership maintains ownership of the source code. However, the current MATS vendor has greatly enhanced the code, so the agencies are working to determine where to draw the legal lines regarding the intellectual property rights of components that have been developed recently. The partners learned that it was wise to clarify each State's requirements and seek legal review early on in the process.

Because the agencies worked together to develop MATS, they are also able to help each other deal with challenges. When one State encounters a problem with the interface, the others brainstorm solutions or provide tips based on their experience with a similar problem in the past. This process not only helps the partners solve problems more quickly, but often yields more effective and efficient solutions than the agencies would have identified on

their own, thereby saving each agency time and money. The partners are currently working to update MATS to run on a web-based platform to improve its flexibility of use. Additionally, to keep up with current legislative requirements, the partners are developing a means to enter real-time data on construction projects electronically, which will allow for more precise tracking of future project expenditures.

Overall, the MATS agencies not only improved their individual operations tracking procedures, they also achieved cost efficiencies, facilitated collaboration on maintaining shared assets, and laid the groundwork for cooperative goal-setting and performance management. For VTrans, NHDOT, and MaineDOT, MATS data-sharing helped leverage existing collaboration on contract agreements into cutting-edge coordination to strengthen the infrastructure and economy of the entire region.

Additional Resources

- Tristate Partnership Memorandum of Understanding
- 2014 Annual Report on Tristate Performance Measures

Acknowledgements

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Regional Models of Cooperation Handbook

Appendix: Resources

U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

FHWA-HEP-17-030

Appendix: Resources

This appendix provides a variety of resources referenced in the Regional Models of Cooperation Handbook case studies. The appendix is organized by case study. The list below details the resources associated with each case study. When possible, hyperlinks to web-based resources are provided. When not available online, resources are included in the appendix document at the page shown.

- **Atlanta's Regional Transit Survey**
  - Memorandum of Agreement (p. 6)
  - Regional On-Board Transit Survey Final Report
  - Cities & Towns 2010 Yearbook of Growth and Change
- **Building a Quality Arizona: State and Local Agencies Create a Common Vision**
  - What Moves You Arizona LRTP (2011)
  - Joint Planning Advisory Council website
  - Work Plan Template for bqAZ Framework Studies
  - Proposal for bqAZ: Statewide Intrastate Mobility Reconnaissance Study
- **Chicago Region Environmental and Transportation Efficiency Program: Public-Private Collaboration on Rail Projects**
  - CREATE Website
  - CREATE Final Feasibility Plan
  - CREATE Project Status Map
  - Englewood Flyover Project
- **Florida Department of Transportation's Collaboration on Performance Measures**
  - FDOT Performance Resources
  - www.fdotperforms.org
- **Granite State Future: New Hampshire Planning Commissions Develop Statewide Strategy**
  - Granite State Future Website
  - Granite State Future Regional Plan Framework
  - Granite State Future Core Metrics Methodologies
  - Granite State Future Statewide Snapshot

- **Indiana MPO Council: Informal Collaboration Yields Successes**
  - Indiana MPO Council Website
  - 2015 Indiana MPO Conference Website
  - Indiana MPO Council Cooperative Operations Manual
- **Metropolitan Area Planning Forum: Enhancing Tri-State Planning**
  - MAP Forum Memorandum of Understanding (p. 13)
  - New York Best Practice Model 2010/2011 Regional Household Travel Survey
  - 2015 Annual MAP Forum Meeting Agenda
- **Mid-America Regional Council: Bi-State Planning for Operations Improves Traffic Flow and Air Quality**
  - U.S.C. Title 23 §110(c)
  - Operation Green Light (OGL) Traffic Signal Coordination Studies
  - OGL Concept of Operations: Roles and Responsibilities
  - OGL Traffic Signal Coordination Measures of Effectiveness Methodology (p. 28)
  - OGL Brochure
- **Mid-Atlantic Regional Planning Roundtables: MPO Coordination on Efforts across States**
  - 2015 Mid-Atlantic Regional Planning Roundtable Conference Website
- **North Carolina Capital Area MPO and Durham Chapel Hill Carrboro MPO's Joint Metropolitan Planning**
  - Memorandum of Agreement (p. 32)
  - 2035 Long Range Transportation Plan
  - 2040 Metropolitan Transportation Plan
  - Triangle J
  - Regional Transportation Alliance
- **Northern Minnesota and Northwest Wisconsin Regional Freight Planning**
  - Duluth-Superior Metropolitan Interstate Council (MIC) Website
  - Harbor Technical Advisory Committee Meeting Agenda (p. 37)
- **Oregon Modeling Steering Committee: Collaborative Transportation and Land Use Modeling**
  - Oregon Modeling Steering Committee Website
  - Oregon Modeling Improvement Program
  - OMSC Meeting Agenda
  - OMSC Meeting Minutes
  - OMSC 2013 Operating Procedures (p. 38)

- **Partners Using Archived Operations Data: Congestion Management on I-95 Corridor**
    - Delaware Valley Regional Planning Commission Website
    - I-95 Corridor Coalition Website
    - Partners Communications Brochure (p. 41)
- **San Diego Association of Governments Borders Committee: Cross Border Cooperative Planning**
    - 2014 San Diego Forward Regional Plan
    - Otay Mesa-Mesa de Otay Binational Corridor Strategic Plan
    - I-15 Interregional Partnership
    - Regional Comprehensive Plan (RCP) Performance Monitoring Report
    - 2015 Pedestrian and Bicycle Transportation Access Study
    - 2015 Freight Study Update State Route 11/Otay Mesa East Port of Entry Project
- **San Joaquin Valley Blueprint Planning Process**
    - San Joaquin Valley Blueprint Planning Process
    - San Joaquin Valley Regional Policy Council
    - Blueprint Integration Project (BIP)
    - Smart Valley Places (SVP)
    - Blueprint Planner's Toolkit
    - Blueprint Awards Program
    - 2015 Blueprint Awards Press Release (p. 44)
    - 2015 San Joaquin Valley Partnership Annual Report
- **SB 375 MPO Working Group: California MPOs Team Up to Address Climate Change**
    - CALCOG – SB 375 Implementation
    - SANDAG Statewide Performance Monitoring Indicators for Transportation Planning Final Report
- **Southeast Florida Transportation Council: Miami MPOs Develop Joint Plan**
    - SEFTC Memorandum of Understanding for Rail Link Project
    - SEFTC Memorandum of Understanding for Travel Demand Modeling (p. 45)
    - SEFTC 2040 Regional Plan
    - SEFTC Regional Freight Plan 2014 update
    - Southeast Regional Planning Model (SEPRM)
    - 95 Express Bus Service Website

- **Association of Texas Metropolitan Planning Organizations: Texas MPOs Share Information and Financial Modeling**
    - TEMPO Website
    - Transportation Revenue Estimator and Needs Determination System
- **Utah's Unified Transportation Plan: Joint Planning Improves Support for Investment in Transportation**
    - Unified Transportation Plan
    - 2014 MOA for Unified Transportation Plan Funding Model Update (p. 59)
    - 2004 MOU for Joint Policy Advisory Committee
- **Vermont, New Hampshire, and Maine Asset Management: Tristate Data Sharing Improves Efficiency**
    - Tristate Partnership MOU
    - 2014 Annual Report on Tristate Performance Measures

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Memorandum of Agreement
for
The Atlanta Region Transit On-Board Survey
Between
The Atlanta Regional Commission, the Georgia Department of Transportation, the Georgia Regional Transportation Authority and the Metropolitan Atlanta Rapid Transit Authority

WITNESSETH:

WHEREAS, the Atlanta Regional Commission (ARC) is the Metropolitan Area Planning and Development Commission for the Atlanta Metropolitan Transportation Planning Area; and

WHEREAS, in accordance with O.C.G.A. 50-8-93 (e), ARC has the power and authority to undertake such other planning functions within its area as may be assigned or delegated to the commission by other agencies or boards, public or private, and for which the commission accepts responsibility; and

WHEREAS, the Georgia Department of Transportation (GDOT), the Georgia Regional Transportation Authority (GRTA) and the Metropolitan Atlanta Rapid Transit Authority (MARTA) (hereinafter referred to as the Participants) have requested that ARC manage a regional transit on-board survey (hereinafter referred to as the "the On-Board Survey").

NOW, THEREFORE, for and in consideration of the premises, the parties hereby agree as follows:

SECTION 1: PURPOSE

This Memorandum of Agreement (MOA) is intended to provide a framework for continuing, cooperative and comprehensive planning and conduct of the On-Board Survey. The purpose of the On-Board Survey is to provide travel information about transit riders to be used in developing and calibrating the Atlanta Regional Commission Travel Demand Model. The On-Board Survey is estimated to cost approximately $2,084,000 and will require up to 24 months to complete.

SECTION 2: ORGANIZATIONAL ROLES AND RESPONSIBILITIES

A. ARC

ARC shall be responsible for the following:

1. Provide overall coordination and management of the survey.

2. Be the recipient of any federal, state or local funding for all planning activities associated with the survey.
3. Award and manage any contracts necessary to perform the survey and any associated tasks.
4. Manage the survey in accordance with all applicable state and federal laws and regulations.
5. Provide funding in the amount of $725,000 ($580,000 Section 5307 + $145,000 local match).
6. Provide periodic financial status reports to the Participants showing the obligation and expenditure of funds.

B. The Participants

The Participants shall be responsible for the following:

1. Assist ARC in the development of a scope of work for the survey.
2. Provide funding, in equal shares of $453,000 each for the survey. Payment of each Participant's share will be made to ARC upon execution of this agreement. Any funds paid in advance for which ARC does not actually incur the estimated costs will be refunded to the Participants once the survey is complete.
3. Serve on the Survey Steering Committee.
4. Provide other assistance as mutually agreed upon.

SECTION 3: POLICY DEVELOPMENT AND COORDINATION

A Survey Steering Committee will be formed to make policy decisions regarding the survey. The Survey Steering Committee will be made up of representatives from ARC and the Participants.

SECTION 4: COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS

All parties shall comply with all applicable local, state, and federal laws and regulations. Nothing in this MOA alters, or seeks to alter, the existing statutory authority of either party under state or federal law. If any of the provisions of this MOA are held to be illegal, invalid or unenforceable, the remaining provisions shall remain in full force and effect.

SECTION 5: TIME OF PERFORMANCE, AMENDMENTS AND MODIFICATIONS

This agreement shall become effective upon execution by all parties and remain in effect until the completion of the survey.

Any party may request changes to this MOA at any time by written notice to the other parties signatory of this agreement. Such changes as are mutually agreed upon by and between the parties shall be incorporated in written amendments to this MOA executed in the same manner as original MOA approval. This Agreement may only be modified by an instrument in writing executed by the Participants and ARC. Notwithstanding the foregoing, the Participants and ARC acknowledge that this Agreement may be revised or refined from time to time during its term. The Participants and ARC agree to cooperate with each other by executing such documents as may be necessary to evidence such mutually agreeable modifications and refinements.

SECTION 6: NOTIFICATION

Any official notifications between the parties to this MOA that would substantially affect the terms or conditions of this MOA shall be directed to the office of the signatories to this agreement.

The parties hereto understand and agree that this Memorandum of Agreement may be executed in counterparts.

In witness whereof, the parties hereto have executed this Memorandum of Agreement, this 15th *day of* September, *2008.*

Counterpart 1 of 4 to this Memorandum of Agreement regarding the Transit On-Board Survey.

Attest:

_____

Georgia Department of Transportation

_____

Commissioner

Counterpart 2 of 4 to this Memorandum of Agreement regarding the Transit On-Board Survey.

Attest:

Georgia Regional Transportation Authority

Executive Director

Walter M. Deriso, Jr., Chairman
GRTA Board of Directors

Date: 7/2/08

Counterpart 3 of 4 to this Memorandum of Agreement regarding the Transit On-Board Survey.

Metropolitan Atlanta Rapid Transit Authority

Attest:

General Manager/CEO

Counterpart 4 of 4 to this Memorandum of Agreement regarding the Transit On-Board Survey

Atlanta Regional Commission

Attest:

Director

Chair

New York Metropolitan Transportation Council
North Jersey Transportation Planning Authority
South Western Region Metropolitan Planning Organization
Greater Bridgeport / Valley Metropolitan Planning Organization
Housatonic Valley Council of Elected Officials

DRAFT MEMORANDUM OF UNDERSTANDING (MOU) FOR COORDINATION OF TRANSPORTATION PLANNING ACTIVITIES IN THE THREE STATE NEW YORK-NEW JERSEY-CONNECTICUT METROPOLITAN REGION

This Memorandum of Understanding (MOU) is made and entered into by and among the New York Metropolitan Transportation Council (NYMTC), the North Jersey Transportation Planning Authority (NJTPA), South Western Region Metropolitan Planning Organization (SWRMPO), the Greater Bridgeport / Valley MPO (GB/VMPO), and the Housatonic Valley Council of Elected Officials (HVCEO), collectively referred to hereinafter as "the PARTIES".

WHEREAS, the PARTIES acknowledge that portions of the three state New York-New Jersey-Connecticut metropolitan region are characterized by socio-economic and environmental interdependence, as evidenced through shared ecosystems, interconnected transportation systems and inter-related patterns of employment and population; and,

WHEREAS, NYMTC and NJTPA are part of a federally-designated Transportation Management Area (TMA) that, when combined with SWRMPO, GB/VMPO, and HVCEO, constitute one of the nation's largest commuter-sheds; and,

WHEREAS, 23 U.S.C. 134 and Section 8 of the Federal Transit Act require that Metropolitan Planning Organizations (MPOs) be designated for metropolitan regions and that they maintain a continuing, cooperative and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals; and,

WHEREAS, a key role for MPOs is to serve as forums for cooperative transportation planning and decision-making in metropolitan areas; and,

WHEREAS, 23 CFR 450.314(d) states that, where more than one MPO has authority within a metropolitan planning area or a nonattainment or maintenance area, there shall be an agreement between the state department(s) of transportation and the MPOs describing how their planning processes will be coordinated to assure the development of an overall transportation plan for the metropolitan planning area, and that in nonattainment or maintenance areas, the agreement shall include State and local air quality agencies; and,

WHEREAS, the FHWA/FTA Transportation Planning Certification Review for NYMTC (January 2007) and NJTPA (January 2006) had required that an agreement be fashioned which identifies how the above referenced five MPOs located in the New York, New Jersey and Connecticut commuter-shed would coordinate the development of transportation planning documents and would coordinate to meet the attainment of National Ambient Air Quality Standards (NAAQS); and,

WHEREAS, it was subsequently determined that, because of census boundary changes, participation in this agreement by the non-TMA MPOs (SWRMPO, GB/VMPO, and HVCEO) was not mandatory, but would be advisable as consistent with good planning principles; and,

WHEREAS, SWRMPO, GB/VMPO, and HVCEO are voluntary participants in this MOU; and,

WHEREAS, this MOU constitutes the aforementioned agreement in order to address the requirements of 23 CFR 450.314(d) for the PARTIES and the recommendations of the federal certification reviews of NYMTC and NJTPA; and,

WHEREAS, the PARTIES agree to follow this MOU in order to ensure coordination in the development of the mandated products of the metropolitan transportation planning process including the process for meeting attainment of NAAQS ; and,

WHEREAS, this MOU is intended to ensure that the products of each respective MPO transportation planning process takes into account the impacts of the plans and programs developed by the other MPOs; helps avoid duplication of effort; reflects consistency of approaches where possible; and ensures the consideration of the interests of all five MPOs;

NOW, THEREFORE, BE IT RESOLVED that the PARTIES hereto agree to perform in good faith the activities of voluntary coordination, cooperation and consultation amongst themselves, as follows:

General

1. Hold an annual meeting of the Executive Directors and appropriate key managers of the five MPOs which are PARTIES to this agreement, as well as interested policy board member agency representatives, including but not limited to, the public transit operating agencies and the Port Authority of New York and New Jersey, to discuss and review the areas of coordination, cooperation and consultation as outlined in this MOU. Representatives of the State Departments of Transportation and Environmental Protection/Conservation and other resource agencies in the three states will also be invited and encouraged to participate. The purpose of the annual meeting will be to engage in discussions of mutual interest with a focus on the development of the respective Unified Planning Work Programs (UPWPs) for the coming year. The annual meeting will also serve as a mechanism for assessing this MOU and for discussing further expectations and approaches, as appropriate.
2. Cooperate in efforts toward achieving, wherever possible, general consistency of plans through informal communication and document exchange.
3. Participate, to the extent practicable, in the transportation planning process of the other PARTIES through such activities, as are deemed appropriate, as technical committee memberships and/or meeting participation, including the use of the PARTIES' public participation processes and involvement in regional studies, as well as through informal and ongoing communications regarding same.

Unified Planning Work Program (UPWP)

1. As individual MPOs, make available UPWP products as appropriate to the other PARTIES.
2. Exchange information, including DRAFT copies of the UPWP, and maintain communication among the PARTIES regarding how best to achieve coordination and consistency among the Plans.
3. Discuss opportunities for collaborative activities that could be incorporated as tasks and/or products and thereby included in the Work Programs of the PARTIES, as appropriate, for the upcoming year.
4. Consider that the five MPOs will not necessarily be at the same stage of UPWP development at the same time, and that coordination will be tempered by the schedule of each MPO's planning process.

Modeling

1. Exchange modeling information at appropriate levels of geography, attempting where possible to relate the data to the MPOs' existing, respective Traffic Analysis Zone systems.
2. Share modeling as appropriate, including socio-economic, census, forecast and survey data and results; trip tables and travel demand model assumptions; and model validation data, state line traffic volumes and traffic volumes at the external boundaries of the other agencies' models.
3. Consult in the development of enhanced travel demand models.
4. Examine and utilize opportunities for joint development of TMA new modeling applications for the region as appropriate.

Transportation Plan

1. During the development of the Long-Range Transportation Plan, consult as appropriate all parties regarding key elements of the plan such as principles, scenarios, strategies, major project assumptions and key issues.
2. Exchange information, including DRAFT copies of the Long Range Plans and proposed amendments, and maintain communication among the PARTIES, including affording each other the opportunity to review and comment on projects proposed in the Long Range Plan, especially on projects that border, or have a significant impact upon, other PARTIES' MOU jurisdictions.

3. Consider that the five MPOs will not necessarily be at the same stage of plan development at the same time, and that coordination will be tempered by the schedule of each MPO's planning process.

Transportation Improvement Program

1. Consult in the development of TIPs.
2. Exchange information, including DRAFT copies of the TIP and proposed amendments, and maintain communication among the PARTIES, including affording each other the opportunity to review and comment on draft projects proposed in the TIP, especially on projects that border, or have a significant impact upon, other PARTIES' MOU jurisdictions.
3. Consider that the five MPOs will not necessarily be at the same stage of TIP development at the same time, and that coordination will be tempered by the schedule of each MPO's planning process.

Air Quality State Implementation Plan Conformity

1. Exchange information on the design concept and the design scope of projects that should be included in the regional emissions analysis.
2. Consult on the assumptions used in the mobile emissions model in each state.
3. Exchange information, including DRAFT copies of the Conformity Analysis, and maintain communication among the PARTIES.
4. Consider that the five MPOs will not necessarily be at the same stage of Conformity determination at the same time, and that coordination will be tempered by the schedule of each MPO's planning process.

Adopted:

New York Metropolitan Transportation Council:
Adopted Resolution # 249, January 17, 2008

North Jersey Transportation Planning Authority

Adopted Resolution # x, January 14, 2008

South Western Region Metropolitan Planning Organization

Adopted Resolution # x, January xx, 2008

Greater Bridgeport / Valley Metropolitan Planning Organization

Adopted Resolution # x, January xx, 2008

Housatonic Valley Council of Elected Officials

Adopted Resolution # x, January xx, 2008

GREATER BRIDGEPORT AND VALLEY METROPOLITAN PLANNING ORGANIZATION

Ansonia●Bridgeport●Derby●Easton●Fairfield●Monroe●Seymour●Shelton●Stratford●Trumbull

RESOLUTION 2008-4

AUTHORIZATION TO SIGN THE MEMORANDUM OF UNDERSTANDING (MOU) FOR CORRIDANATION OF TRANSPORTATION PLANNING ACTIVITIES IN THE THREE STATE NEW YORK-NEW JERSEY-CONNECTICUT METROPOLITAN REGION

WHEREAS, the 23 CFR 450.314(d) states, that, where more than one MPO has authority within a metropolitan planning area or a non-attainment area, there shall be an agreement between the state departments of transportation and the metropolitan planning organizations describing how their planning processes will be coordinated; and

WHEREAS, the Greater Bridgeport and Valley Metropolitan Planning Organization is a part of the larger New York metropolitan transportation management area and included in the New York-Northern New Jersey-Connecticut non-attainment area and acknowledges the environmental, economic and transportation systems interdependencies and interconnections with portions of the three state New York-New Jersey-Connecticut metropolitan region; and

WHEREAS, the New York Metropolitan Transportation Council has drafted an MOU for the three state region that effectively complies with federal guidelines and the MPO is a voluntary participant in the MOU.

NOW, THEREFORE BE IT RESOLVED that the Greater Bridgeport and Valley MPO has reviewed the MOU and authorizes the Chairman to sign the MOU on behalf of the MPO and directs the Executive Directors of the Greater Bridgeport Regional Planning Agency and the Valley Council of Governments to perform in good faith the activities listed in the MOU..

This resolution shall become effective as of January 30, 2008.

We, the undersigned co-secretaries of Greater Bridgeport and Valley Metropolitan Planning Organization (MPO), Connecticut, do hereby certify that the resolution adopted by the MPO at a public meeting held on January 30, 2008, at which a quorum was present and that the same is a correct and true transcript from the original thereof.

James T. Wang, Executive Director
GBRPA – MPO Co-Secretary

Richard T. Dunne, Executive Director
VCOG – MPO Co-Secretary

Date: 1/30/08

Responsible Metropolitan Transportation Planning Agencies

GREATER BRIDGEPORT REGIONAL PLANNING AGENCY
525 Water Street, Transportation Center, Suite 1
Bridgeport, Connecticut 06604-4902
Phone: (203) 366-5405 Fax: 366-8437
E-mail: jtw@gbrpa.org

VALLEY COUNCIL OF GOVERNMENTS
12 Main Street, Derby Train Station
Derby, Connecticut 06418
Phone: (203) 735-8688 Fax: 735-8680
E-mail: rdunne@valleycog.org

RESOLUTION # A-504: APPROVAL OF A MULTI-PARTY PLANNING COORDINATION MEMORANDUM OF UNDERSTANDING (MOU)

WHEREAS, the North Jersey Transportation Planning Authority, Inc. (NJTPA) has been designated by the Governor as the Metropolitan Planning Organization (MPO) for the northern New Jersey region; and

WHEREAS, a key role for MPOs is to serve as a forum for cooperative transportation planning and decision-making in metropolitan areas; and

WHEREAS, portions of the three state New York-New Jersey-Connecticut metropolitan region constitute one of the nation's largest commuter-sheds; and

WHEREAS, the FHWA/FTA Transportation Planning Certification Reports for the NJTPA (January 2006) and NYMTC (January 2007) required that an agreement be fashioned which identifies how the five MPOs located in the New York, New Jersey and Connecticut commuter-shed would coordinate on the development of transportation planning documents and in meeting the attainment of National Ambient Air Quality Standards (NAAQS); and

WHEREAS, the five MPOs include:

- **North Jersey Transportation Planning Authority** (NJTPA) – which covers the 13 counties of northern New Jersey;
- **New York Metropolitan Transportation Council** (NYMTC) – which covers New York City, Long Island (Nassau and Suffolk Counties), and the lower Hudson Valley (Putnam, Rockland and Westchester Counties);
- **Southwestern Region Metropolitan Planning Organization** (SWRMPO) - which covers the Fairfield County, Connecticut cities of Norwalk and Stamford and the towns of Darien, Greenwich, New Canaan, Weston, Westport and Wilton;
- **Housatonic Valley Council of Elected Officials** (HVCEO) – which covers ten municipalities in western Connecticut (Fairfield and Litchfield Counties), including Bethel, Bridgewater, Brookfield, Danbury, New Fairfield, New Milford, Newtown, Redding, Ridgefield and Sherman;
- **Greater Bridgeport / Valley Metropolitan Planning Organization** (GB/VMPO) – which covers the Fairfield County towns of Bridgeport, Easton, Fairfield, Monroe, Stratford and Trumbull; and

WHEREAS, the above referenced five MPOs have collaborated to prepare this draft Memorandum of Understanding (MOU) for the coordination of transportation planning activities in the three-state New York, New Jersey and Connecticut metropolitan region; and

WHEREAS, the attached MOU is intended to ensure that the products of each respective MPO transportation planning process takes into account the impacts of the plans and programs developed by the other MPOs; and

WHEREAS, any material additions, deletions or changes to the attached MOU as adopted by the NJTPA will require the action of the NJTPA Board of Trustees, as well as that of the other four MPOs.

NOW, THEREFORE, BE IT RESOLVED that the NJTPA hereby approves the attached Multi-Party Planning Coordination MOU involving the NJTPA, NYMTC, SWRMPO, GB/VMPO, and HVCEO, whereby the parties agree to perform in good faith various activities of voluntary coordination, cooperation and consultation amongst themselves, with regard to the metropolitan transportation planning process.

BE IT FURTHER RESOLVED, that a copy of this resolution along with the attached documentation be forwarded to the New Jersey Department of Transportation; Federal Highway Administration ; Federal Transit Administration; NYMTC; SWRMPO; GB/VMPO; and HVCEO.

This Resolution shall take effect this 14th day of January, 2008

Certification

I hereby certify that the above is a true copy of a resolution adopted by the North Jersey Transportation Planning Authority at its scheduled meeting held on January 14, 2008.

Cliff Sobel
Deputy Executive Director, NJTPA

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HOUSATONIC VALLEY
COUNCIL OF ELECTED OFFICIALS
OLD BROOKFIELD TOWN HALL
162 WHISCONIER ROAD, BROOKFIELD, CT 06804
203-775-6256 FAX 203-740-9167 HVCEO.ORG

RESOLUTION ADOPTING A

MEMORANDUM OF UNDERSTANDING

FOR COORDINATION OF TRANSPORTATION PLANNING ACTIVITIES

IN THE NY - NJ - CT METROPOLITAN REGION

JANUARY 18, 2008

The Housatonic Valley Council of Elected Officials (HVCEO) is the state and federally designated Metropolitan Planning Organization for the conduct of transportation planning in the Housatonic Valley Planning Region of Connecticut.

HVCEO hereby certifies that the federally defined urban transportation planning process, conducted in accordance with the terms of metropolitan planning provisions of SAFETEA-LU, will be further conducted in accordance with the attached Memorandum of Understanding for Coordination of Transportation Planning Activities in the NY–NJ-CT Region.

The above mentioned Memorandum of Understanding for Coordination of Transportation Planning is hereby adopted as the policy of the HVCEO.

Andrea O'Connor, HVCEO Secretary
And First Selectman of Sherman, CT

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MEMORANDUM OF UNDERSTANDING FOR COORDINATION OF TRANSPORTATION PLANNING ACTIVITIES IN THE THREE STATE NY-NJ-CT METROPOLITAN REGION

New York Metropolitan Transportation Council
North Jersey Transportation Planning Authority
South Western Region Metropolitan Planning Organization
Greater Bridgeport / Valley Metropolitan Planning Organization
Housatonic Valley Council of Elected Officials

This Memorandum of Understanding (MOU) is made and entered into by and among the New York Metropolitan Transportation Council (NYMTC), the North Jersey Transportation Planning Authority (NJTPA), South Western Region Metropolitan Planning Organization (SWRMPO), the Greater Bridgeport / Valley MPO (GB/VMPO), and the Housatonic Valley Council of Elected Officials (HVCEO), collectively referred to hereinafter as "the PARTIES".

WHEREAS, the PARTIES acknowledge that portions of the three state New York-New Jersey-Connecticut metropolitan region are characterized by socio-economic and environmental interdependence, as evidenced through shared ecosystems, interconnected transportation systems and inter-related patterns of employment and population; and,

WHEREAS, NYMTC and NJTPA are part of a federally-designated Transportation Management Area (TMA) that, when combined with SWRMPO, GB/VMPO, and HVCEO, constitute one of the nation's largest commuter-sheds; and,

WHEREAS, 23 U.S.C. 134 and Section 8 of the Federal Transit Act require that Metropolitan Planning Organizations (MPOs) be designated for metropolitan regions and that they maintain a continuing, cooperative and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals; and,

WHEREAS, a key role for MPOs is to serve as forums for cooperative transportation planning and decision-making in metropolitan areas; and,

WHEREAS, 23 CFR 450.314(d) states that, where more than one MPO has authority within a metropolitan planning area or a nonattainment or maintenance area, there shall be an agreement between the state department(s) of transportation and the MPOs describing how their planning processes will be coordinated to assure the development of an overall transportation plan for the metropolitan planning area, and that in nonattainment or maintenance areas, the agreement shall include State and local air quality agencies; and,

WHEREAS, the FHWA/FTA Transportation Planning Certification Review for NYMTC (January 2007) and NJTPA (January 2006) had required that an agreement be fashioned which identifies how the above referenced five MPOs located in the New York, New Jersey and Connecticut commuter-shed would coordinate the development of transportation planning documents and would coordinate to meet the attainment of National Ambient Air Quality Standards (NAAQS); and,

WHEREAS, it was subsequently determined that, because of census boundary changes, participation in this agreement by the non-TMA MPOs (SWRMPO, GB/VMPO, and HVCEO) was not mandatory, but would be advisable as consistent with good planning principles; and,

WHEREAS, SWRMPO, GB/VMPO, and HVCEO are voluntary participants in this MOU; and,

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WHEREAS, this MOU constitutes the aforementioned agreement in order to address the requirements of 23 CFR 450.314(d) for the PARTIES and the recommendations of the federal certification reviews of NYMTC and NJTPA; and,

WHEREAS, the PARTIES agree to follow this MOU in order to ensure coordination in the development of the mandated products of the metropolitan transportation planning process including the process for meeting attainment of NAAQS ; and,

WHEREAS, this MOU is intended to ensure that the products of each respective MPO transportation planning process takes into account the impacts of the plans and programs developed by the other MPOs; helps avoid duplication of effort; reflects consistency of approaches where possible; and ensures the consideration of the interests of all five MPOs;

NOW, THEREFORE, BE IT RESOLVED that the PARTIES hereto agree to perform in good faith the activities of voluntary coordination, cooperation and consultation amongst themselves, as follows:

GENERAL

1. Hold an annual meeting of the Executive Directors and appropriate key managers of the five MPOs which are PARTIES to this agreement, as well as interested policy board member agency representatives, including but not limited to, the public transit operating agencies and the Port Authority of New York and New Jersey, to discuss and review the areas of coordination, cooperation and consultation as outlined in this MOU.

Representatives of the State Departments of Transportation and Environmental Protection/Conservation and other resource agencies in the three states will also be invited and encouraged to participate. The purpose of the annual meeting will be to engage in discussions of mutual interest with a focus on the development of the respective Unified Planning Work Programs (UPWPs) for the coming year.

The annual meeting will also serve as a mechanism for assessing this MOU and for discussing further expectations and approaches, as appropriate.

2. Cooperate in efforts toward achieving, wherever possible, general consistency of plans through informal communication and document exchange.

3. Participate, to the extent practicable, in the transportation planning process of the other PARTIES through such activities, as are deemed appropriate, as technical committee memberships and/or meeting participation, including the use of the PARTIES' public participation processes and involvement in regional studies, as well as through informal and ongoing communications regarding same.

UNIFIED PLANNING WORK PROGRAM (UPWP)

1. As individual MPOs, make available UPWP products as appropriate to the other PARTIES.

2. Exchange information, including DRAFT copies of the UPWP, and maintain communication among the PARTIES regarding how best to achieve coordination and consistency among the Plans.

3. Discuss opportunities for collaborative activities that could be incorporated as tasks and/or products and thereby included in the Work Programs of the PARTIES, as appropriate, for the upcoming year.

4. Consider that the five MPOs will not necessarily be at the same stage of UPWP development at the same time, and that coordination will be tempered by the schedule of each MPO's planning process.

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MODELING

1. Exchange modeling information at appropriate levels of geography, attempting where possible to relate the data to the MPOs' existing, respective Traffic Analysis Zone systems.

2. Share modeling as appropriate, including socio-economic, census, forecast and survey data and results; trip tables and travel demand model assumptions; and model validation data, state line traffic volumes and traffic volumes at the external boundaries of the other agencies' models.

3. Consult in the development of enhanced travel demand models.

4. Examine and utilize opportunities for joint development of TMA new modeling applications for the region as appropriate.

TRANSPORTATION PLAN

1. During the development of the Long-Range Transportation Plan, consult as appropriate all parties regarding key elements of the plan such as principles, scenarios, strategies, major project assumptions and key issues.

2. Exchange information, including DRAFT copies of the Long Range Plans and proposed amendments, and maintain communication among the PARTIES, including affording each other the opportunity to review and comment on projects proposed in the Long Range Plan, especially on projects that border, or have a significant impact upon, other PARTIES' MOU jurisdictions.

3. Consider that the five MPOs will not necessarily be at the same stage of plan development at the same time, and that coordination will be tempered by the schedule of each MPO's planning process.

TRANSPORTATION IMPROVEMENT PROGRAM

1. Consult in the development of TIPs.

2. Exchange information, including DRAFT copies of the TIP and proposed amendments, and maintain communication among the PARTIES, including affording each other the opportunity to review and comment on draft projects proposed in the TIP, especially on projects that border, or have a significant impact upon, other PARTIES' MOU jurisdictions.

3. Consider that the five MPOs will not necessarily be at the same stage of TIP development at the same time, and that coordination will be tempered by the schedule of each MPO's planning process.

AIR QUALITY STATE IMPLEMENTATION PLAN CONFORMITY

1. Exchange information on the design concept and the design scope of projects that should be included in the regional emissions analysis.

2. Consult on the assumptions used in the mobile emissions model in each state.

3. Exchange information, including DRAFT copies of the Conformity Analysis, and maintain communication among the PARTIES.

4. Consider that the five MPOs will not necessarily be at the same stage of Conformity determination at the same time, and that coordination will be tempered by the schedule of each MPO's planning process.

SOUTH WESTERN REGION METROPOLITAN PLANNING ORGANIZATION

DARIEN • GREENWICH • NEW CANAAN • NORWALK • STAMFORD • WESTON • WESTPORT • WILTON
888 WASHINGTON BOULEVARD • STAMFORD, CT 06901 • (203) 316-5190 • FAX (203) 316-4995

RESOLUTION #2008-003 Endorsement of Memorandum of Understanding for Metro-New York Transportation Planning and Coordination

WHEREAS: NYMTC, NJTPA, SWRMPO, GB/VMPO, and HVCEO are part of a federally-designated Transportation Management Area (TMA) that constitutes one of the nation's largest commuter-sheds; and,

WHEREAS: 23 U.S.C. 134 and Section 8 of the Federal Transit Act require that Metropolitan Planning Organizations (MPOs) be designated for metropolitan regions and that they maintain a continuing, cooperative and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals; and,

WHEREAS: A key role for MPOs is to serve as forums for cooperative transportation planning and decision-making in metropolitan areas; and,

WHEREAS: 23 CFR 450.310(g) states that, where more than one MPO has authority within a metropolitan planning area or a nonattainment or maintenance area, there shall be an agreement between the state department(s) of transportation and the MPOs describing how their planning processes will be coordinated to assure the development of an overall transportation plan for the metropolitan planning area, and that in nonattainment or maintenance areas, the agreement shall include State and local air quality agencies; and,

WHEREAS: The MPOs agree to follow this MOU in order to ensure coordination in the development of the mandated products of the metropolitan transportation planning process including the process for meeting attainment of NAAQS; and,

WHEREAS: The MPOs agree to perform in good faith the activities of voluntary coordination, cooperation and consultation as spelled out in the MOU.

Now therefore, be it resolved, that the South Western Metropolitan Planning Organization hereby:

Endorses the Memorandum of Understanding for Coordination of Transportation Planning Activities in the Three State New York-New Jersey-CT Metropolitan Region.

This resolution is effective January 28, 2008.

Date: January 28, 2008. **By:** Woody Bliss

Woody Bliss,
Chairman

S:\MPO_TTAG\Resolutions\Resolutions2008\res08-003 Endorsement of Metro-New York MOU for TransPlanning_Coordination.doc

NEW YORK METROPOLITAN TRANSPORTATION COUNCIL

Joel P. Ettinger
Executive Director

PROGRAM, FINANCE AND ADMINISTRATION COMMITTEE (PFAC)

RESOLUTION #249: MEMORANDUM OF UNDERSTANDING BETWEEN ADJOINING METROPOLITAN PLANNING ORGANIZATIONS IN NEW YORK, NEW JERSEY AND CONNECTICUT

WHEREAS, the New York Metropolitan Transportation Council (NYMTC) is a regional council of governments which is the metropolitan planning organization for New York City, Long Island and the lower Hudson Valley; and

WHEREAS, in order to enhance the scope and quality of its regional transportation planning, NYMTC wishes to formalize its involvement with the other metropolitan planning organizations (MPOs) in the New York-New Jersey-Connecticut region through a Memorandum of Understanding between participating MPOs; and

WHEREAS, the participants in this Memorandum of Understanding will include the North Jersey Transportation Planning Authority, South Western Region Metropolitan Planning Organization, Greater Bridgeport /Valley Metropolitan Planning Organization, and Housatonic Valley Council of Elected Officials, and

WHEREAS, this Memorandum of Understanding will formalize mechanisms for coordinated planning which are now undertaken informally for metropolitan transportation planning.

NOW, THEREFORE, BE IT RESOLVED that the Program, Finance and Administration Committee hereby adopts the attached Memorandum of Understanding between participating MPOs.

This resolution shall take effect on the seventeenth day of January, two thousand and eight.

ADOPTED: January 17, 2008

Motion made by: Niaomi Klein, representing the Mid-Hudson South Transportation Coordinating Committee

Seconded by: Robert Shinnick, representing the Nassau/Suffolk Transportation Coordinating Committee

"I hereby certify that the above is a true copy of Resolution #249, Memorandum of Understanding Between Adjoining Metropolitan Planning Organizations in New York, New Jersey and Connecticut, and was adopted unanimously by the Program, Finance, and Administration Committee members on the above mentioned date."

Robert Zerrillo, PFAC Chair

Operation Green Light Traffic Signal Coordination
Measures of Effectiveness Methodology

Introduction

Operation Green Light (OGL) is a regional effort to improve traffic flow and reduce vehicle emissions. Managed by the Mid-America Regional Council (MARC), Operation Green Light works with federal, state and local agencies to develop and implement a system that will coordinate traffic signal timing plans and communication between traffic signal equipment across jurisdictional boundaries.

This document is intended to describe the methodologies used by MARC staff to measure the effectiveness of coordination plan changes made to individual corridors that are part of the project.

Data Collection

One of the most common measures of effectiveness (MOE) for signal retiming projects is to perform main-line travel time and delay studies with visual observations of queue lengths on the side street approaches.[1] MARC staff perform travel time runs using the floating car method, to the extent possible.[2] Travel time runs on corridors first collected prior to spring of 2010 were completed starting from the beginning of the green interval at the first signal. Runs on new corridors following this time were completed using a random arrival technique, with the beginning of the run being upstream of the first signal. All runs, before and after, for a given corridor and signal timing cycle are collected using the same technique.

The runs are only completed on Tuesdays, Wednesdays, and Thursdays, with additional restrictions around holidays and school breaks where appropriate. The turning movement counts, which are used in the production of the signal timing plans and when estimating net benefits, are also collected with the same restrictions.

The travel data is collected in a vehicle equipped with a speed sensor and traffic data collector (TDC-8 by JAMAR Technologies Inc.), so as to take a recording of vehicle speed as a function of time. Several runs, (usually between six and eight in each direction of the corridor) are collected before the timing changes, and then again after the changes have been made to the signal timing. The respective speed profiles are then analyzed using software (PC Travel by Ridge Engineering Inc.) The software uses a mathematical model to estimate the fuel consumption and some harmful emissions based on second by second speed and acceleration data.

Raw Travel Time Data Description

The results of the travel time studies (as output from the analysis software) are the changes in travel time, number of stops, speed, fuel consumed, and harmful emissions for a single vehicle driving the length of the corridor once. In addition, a value for Travel Delay is calculated manually as the measured travel time minus the ideal travel time at speed limit.

It is important to remember that the magnitude of the benefits seen is directly related to how efficient the signal operation was before the changes were made. See the Perspectives section below for additional considerations to keep in mind.

The relative change of each MOE can be weighted by directional traffic volumes to give a volume-weighted-average improvement of each MOE, which is often more meaningful for corridors with uneven directional split.

[1] http://ops.fhwa.dot.gov/publications/fhwahop08024/index.htm

[2] The floating car method may not be reasonable or even possible in all situations, for example, when there are lanes with un-even utilization. Floating car method, if followed strictly, may also result in overly aggressive driving style on signalized arterials, due to the relatively low and variable speeds as compared to freeway studies. Overly aggressive driving would result in un-realistic fuel consumption and emissions figures and should be avoided.

The effects of the timing changes for coordinated main-line travelers can be seen in the raw travel time data. The effects on the side street approaches and other non-coordinated movements is not measured in the field, except via visual inspection to ensure commensurate level of service as compared to pre-existing conditions and main-street operation. However, some non-coordinated movements are modeled with traffic signal coordination software (Synchro® by Trafficware®), as detailed in the following section, in order to capture changes in approach delay that may be significant as compared to changes in coordinated travel delay.

Calculating Net Benefits

The raw data from the travel time studies only tells the effects on one car, driving along one route, at one time. The benefits to that one route DO NOT apply to every vehicle on the corridor. In order to estimate the net benefits of the timing project to the entire travelling public, some additional calculations and extrapolations are made.

When quantifying these benefits several considerations must be remembered:

- The impact of the coordination changes on any particular trip with a unique origin and destination is not known, other than the trip that was measured.
- It is not known how many vehicles drive the entire length of the corridor.
- The origin and destination of each vehicle is not known.
- The changes made to the corridor will impact vehicles utilizing non-coordinated movements including side streets and main-street left turns. Some of these movements will perform better with the changes; others may perform worse than before.

Given the above considerations, the following describes the methods MARC staff use to quantify the results and give an approximate net change for each measure of effectiveness:

1. For each period (time of day which was analyzed):
    a. For each direction of coordinated main-line travel and for each link:
        i. Turning movement counts are used to calculate what percentage of vehicles continue, leave, and join the coordinated direction. Additionally, judgment and knowledge of the corridor are used to approximate what percentage will continue through each link's non-signalized intersections. This will vary, perhaps link by link, depending on circumstances, and can be adjusted to better match what the actual counts show downstream.
        ii. The above figures and the turning movement counts are then used to approximate how many vehicles continue through this entire link and did NOT join the corridor at midblock or the previous intersection. (Those who just joined the corridor will likely not be in the coordinated platoon). Due to variations in traffic on the days when the turning movement counts were collected, the raw counts will not balance exactly between intersections. The counts are adjusted to closer match what would be a balanced set of counts to achieve more reasonable approximations.
        iii. The per-link MOE results are then applied to the adjusted number of vehicles that are estimated to have continued in the platoon at this link.
    b. Synchro® traffic signal coordination software is used to model some intersections (those likely to have significant changes in delay on non-coordinated movements) with before and after conditions. The net change in delay and the associated fuel usage and emissions

at these movements is combined with the main-line results from step a. to find the net results.[3]

2. Steps a. and b. are repeated for each other period during the day that is analyzed.

The output of the above steps is an estimate of the total change in travel time, stops, fuel consumed and harmful emissions from before to after the timing changes were made, for a single business day. If an off-peak plan was affected, more off-peak times will receive a benefit beyond that estimated here; however, since actual count data was not collected for all times of day, the reports do not attempt to quantify all those benefits. These steps may be altered slightly and/or the data tweaked in order to accommodate the specific corridor being analyzed.

Economic Impact

The daily net savings in travel time and fuel consumed are now easily assigned an economic value. The travel time savings is multiplied by $15.47, the hourly rate suggested by the Texas Transportation Institute's Urban Mobility report[4]. The total savings in fuel is multiplied by the average price of a gallon of gas at the time the coordination changes were made.[5] These daily economic benefits can be multiplied by 250 typical business days in a year to estimate a yearly benefit of the coordination plan changes. Non-business days may also receive significant benefit if, for example, an off-peak plan is utilized on these days, but without count data the reports do not attempt to quantify those benefits. OGL does not attempt to assign an economic value to pollutant emissions, travel time reliability, or any other benefits that could be quantified, other than travel time and fuel costs.

Benefit to Cost Ratio

Having quantified the benefits of the coordination project, it is important to compare this with the costs involved. In order to estimate a benefit to cost ratio, staff utilize the operations cost that OGL charges to member agencies. This will result in a conservative ratio, as those costs pay for more than just signal timing efforts, but since the signal timing is the primary source of quantifiable benefit from the OGL project, these reports ignore the other benefits and consider the entire project costs as going towards signal timing only.

Perspectives

- As time passes traffic patterns will change that could alter the travel profile along each corridor. The price of gasoline also can change dramatically. These changes will result in variations to the actual benefits to the travelling public.
- The benefits estimated are only meaningful from the perspective of comparing conditions before the timing changes were made to those after. Therefore the MOE reports attempt to document exactly what the before-conditions were.
- MARC staff sometimes "clean-up" existing signal timing prior to doing studies. This benefit is not measured.
- MARC staff attempt to retain only a reasonable number of significant figures in the results shown in the reports, however, staff do not perform formal propagation of error calculations, and do not know the amount of error in the output of the travel time data analysis software.

[3] It is assumed that the change in delay is time that the vehicle is stopped, and thus idling. The rates for fuel consumption and emissions for an idling vehicle are obtained from the formulas used by PC-Travel. Synchro® does not track stops in a way that is comparable to the stops measured by PC-Travel, thus change in stops is not measured for non-coordinated movements.

[4] http://mobility.tamu.edu/.

[5] For one source of this data see http://www.kcgasprices.com/retail_price_chart.aspx.

Conclusion

The methods outlined in this document are not perfect. These are the procedures used by MARC staff to collect, model, and analyze traffic data in order to measure and quantify the effectiveness of individual corridor retiming projects. The resulting benefits should reasonably reflect the benefits to the travelling public in the absence of more exhaustive data and more labor-intensive studies.

For more information please see:

www.marc.org/transportation/ogl

MEMORANDUM OF AGREEMENT

Between

THE CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

AND THE

DURHAM –CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

Approved

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MEMORANDUM OF AGREEMENT
Between
THE CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION AND THE DURHAM –CHAPEL HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

It is hereby agreed that the Capital Area Metropolitan Planning Organization (CAMPO) and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) shall participate in a continuing, cooperative and comprehensive (3-C) transportation planning process in an entity known as the Triangle Metropolitan Planning Organizations Coordinating Council (TMPOCC). The TMPOCC shall be an advisory group to the two MPOs that will encourage cooperation and joint work efforts while recognizing and allowing the MPOs to remain autonomous and thus able to concentrate as needed on issues and projects of local interest which have profound impacts on the overall transportation systems. As stated in 23 U.S.C. 134, metropolitan planning organizations shall engage in a 3-C planning process to "provide for the development of transportation facilities…which will function as an intermodal transportation system for the State, the metropolitan areas, and the Nation." The role of TMPOCC shall be to integrate the 3-C concept into the transportation planning process for those projects and programs of a regional scope. The parties to this agreement shall endeavor to ensure that regional transportation planning in the Triangle region is conducted in such a manner that is beneficial to the public good. Participation of a metropolitan planning organization shall commence upon the signature of this document by its designated representative.

Section 1 Executive Committee

The primary governing board of TMPOCC shall consist of the following members, or their designees:

a. The Chair of the Transportation Advisory Committee of CAMPO;
b. The Chair of the Transportation Advisory Committee of DCHC MPO;
c. The Vice-Chair of the Transportation Advisory Committee of CAMPO;
d. The Vice-Chair of the Transportation Advisory Committee of DCHC MPO;
e. An at-large elected official representative of the TAC of CAMPO;
f. An at-large elected official representative of the TAC of DCHC MPO;
g. Up to two members of the North Carolina Board of Transportation who also serve on the TAC of CAMPO and DCHC MPO;
h. One "non-voting" representative from the Triangle Transit Authority Board of Trustees.

This governing board shall be known as the Executive Committee. A Chair and Vice-Chair shall be elected from among the Chairs and Vice-Chairs of the individual MPO policy boards as listed above in items a through d, with the Chair from one MPO and the Vice-Chair from the other MPO. The Chair and Vice-Chair shall hold office for no more than two (2) consecutive years. The presence of four (4) members including at least one elected official member of each MPO shall constitute a quorum of the Executive Committee. The designees of each elected

official representative on the Executive Committee shall also be an elected official serving on the Transportation Advisory Committee on each metropolitan planning organization. The Executive Committee shall meet no less than three times during the calendar year. A joint meeting of the Transportation Advisory Committee of the two MPOs may substitute for meetings of the Executive Committee.

Section 2 Executive Committee Responsibilities

The primary task of the Executive Committee shall be to consider matters of regional importance previously or to be discussed individually by the two MPOs and provide information on decisions reached by the Executive Committee to the two MPOs for MPO action. Prior to action by the Executive Committee, all matters requiring action shall be placed on the agendas of the Transportation Advisory Committee of CAMPO and DCHC MPO. On matters that require a vote of the Executive Committee, the Executive Committee members shall consult with the policy board they represent. The North Carolina Board of Transportation member(s) shall vote in a manner consistent with the policies of the Department of Transportation. If in the event an individual Executive Committee member has not had a reasonable opportunity to consult with the policy board he/she represents, that member shall be permitted to exercise judgment on the matter at hand. In the spirit of cooperation, every effort will be made to reach consensus on matters coming before the Executive Committee.

Section 3 Executive Committee Meetings

All meetings of the Executive Committee shall be open to all members of the Transportation Advisory Committees of CAMPO and DCHC MPO. These members shall have an opportunity to address the Executive Committee, at the discretion of the presiding officer. Also, members of the Technical Committee (addressed in Section 5 of this document) and staff shall be permitted to attend meetings of the Executive Committee. Meeting locations shall be determined by the Executive Committee. The inaugural meeting of the Executive Committee shall set the times, dates, and locations for the meetings to be held during the remainder of the year. During the final meeting of the Executive Committee during a given year, a calendar that sets forth the times, dates, and locations of meetings for the following year shall be approved.

Section 4 General Meetings

A joint meeting of the Transportation Advisory Committees of CAMPO and DCHC MPO may be called at the discretion of the Executive Committee and may substitute for a meeting of the Executive Committee. The purpose of the joint meetings shall be to provide a forum for the discussion of transportation and related issues that affect the region.

Section 5 Technical Committee

In addition to the Executive Committee, there shall be established a Technical Committee. The responsibility of the Technical Committee shall be to provide general review, guidance and coordination of the transportation planning process in the Triangle region, and to make recommendations to the Executive Committee.

The Technical Committee shall consist of, but not limited to, the following members, or their designees:

* Senior staff member of the lead planning agency of each metropolitan planning organization;
* NCDOT local area coordinators;
* The Chairs and Vice-Chairs of the Technical Coordinating Committees of CAMPO and DCHC-MPO;
* A representative of the Public Transportation Division of NCDOT;
* A representative of the bicycle and pedestrian planning staff of NCDOT;
* The Executive Director of the Raleigh-Durham Airport Authority;
* A representative of North Carolina's Department of Natural and Environmental Resources, Division of Air Quality
* A representative of the Triangle Transit Authority

The Technical Committee shall meet no less than three times a year. The meetings shall be scheduled at least three weeks prior to meetings of the Executive Committee (or joint TAC meetings) so as to allow for sufficient time for members of the Executive Committee to adequately review the findings and recommendations of the Technical Committee. Meeting locations shall rotate between CAMPO and DCHC MPO. At the inaugural meeting of the Technical Committee, a Chair and a Vice-Chair shall be selected with the Chair from one MPO and the Vice-Chair from the other MPO. The term of office shall not exceed two (2) years.

Section 6 Amendment

This Memorandum of Agreement may be amended by mutual agreement of the two MPOs. To amend the agreement, either MPO may propose an amendment in writing at least 30 days prior to each Transportation Advisory Committee meeting at which the amendment is to be discussed. Then the procedure specified in Section 2 for Executive Committee action shall be followed.

Section 7 Termination

This Memorandum of Agreement may be terminated by either MPO by providing written notice to the other MPO at least 30 days prior to the date of termination.

Joe Bryan
Capital Area Metropolitan Planning Organization

Alex Zaffron
Durham-Chapel Hill-Carrboro Metropolitan Planning Organization

HTAC Meeting Notice – Revised Agenda 12/03/14

HARBOR TECHNICAL ADVISORY COMMITTEE

Wednesday, December 3, 2014
9:00 am to 11:40 am

Inn on Lake Superior ♦ 350 Canal Park Dr ♦ Duluth, MN
(See map on reverse for directions and parking information)

AGENDA

9:00 AM	**Introductions / Agenda Review / Committee Business** • Revised Agenda *(for approval)* • September 3, 2014 Meeting Summary *(for approval)* • HTAC 2015 Meeting Calendar
9:05 AM	**Subcommittee Updates**
9:20 AM	**Minnesota State Freight and Rail Plans** *Dave Christianson, Minnesota Department of Transportation*
9:45 AM	**Wisconsin State Freight Planning** *Tom Beekman, Wisconsin Department of Transportation*
10:10 AM	**Break**
10:25 AM	**St. Louis River Corridor Coalition** *Noah Hobbs*
10:50 AM	**Habitat Blueprint: a New NOAA Initiative in the St. Louis River Estuary** *Lizzie Condon, National Oceanic and Atmospheric Administration*
11:05 AM	**Management of Dredged Material: Soil Reference Values Revisions** *Emily Schnick, Minnesota Pollution Control Agency*
11:30 AM	**Roundtable Discussion of Local Issues / Legislative Issues**
11:40 AM	**Adjourn**

The Harbor Technical Advisory Committee (HTAC) is an advisory group to the Duluth-Superior Metropolitan Interstate Council on port and harbor issues.

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Email: rchicka@ardc.org

Andy McDonald, Principal Planner
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Barb Peterson, Admin Assistant
Phone: 218-529-7541
Email: **bpeterson**@ardc.org

OREGON MODELING STEERINGCOMMITTEE
2013 Operating Procedures

MEMBERSHIP CRITERIA

- Oregon agencies responsible for transportation/land use modeling and that receive and administer federal transportation funds.
- Oregon metropolitan planning organizations (MPO).
- Non-Oregon MPOs who share OR transportation or air sheds.
- State agencies who share base assumptions or who use modeling results to support statewide forecasts or programs.
- Other agencies/quasi-agencies that have a significant role in transportation modeling as agreed upon by OMSC membership
- To accommodate both technical and policy interests, member agencies can appoint two representatives.

MEMBERSHIP

- The chair will receive requests for membership on the Committee, will notify new members of acceptance to the OMSC in writing, and will provide them a copy of the mission, goals and objectives, operating procedures, and current membership list.
- ODOT will maintain the Committee membership list, will maintain the list on the ODOT website, and will update the list periodically.

DELIBERATIONS

- The Committee will coordinate modeling guidelines and applications.
- The Committee will make recommendations to decision-makers on policy issues.
- The Committee works toward consensus.
- Deliberations and recommendations will be recorded in the minutes of the meeting, including differing opinions raised by Committee members.
- Changes in membership or operating procedures will be by consensus of existing membership.
- The Committee is not a mediation forum nor is it an advocate for specific policy actions. Open discussion regarding policy issues is encouraged, but no formal policy recommendation will be made on behalf of the Committee.

STRUCTURE

Meetings

- The OMSC will meet as a full Committee twice a year, in October and April, or as adjusted to meet committee requirements, on the 4th Wednesday of the month.
- A meeting to engage policy-makers may be held annually to identify long-range issues or opportunities that would benefit from modeling and analysis, or to share information. The schedule and format of this meeting will be determined by the Long-Range Strategy Subcommittee.
- Meetings will occur in Salem unless by special arrangement.
- Meetings will be a maximum of a half-day, except for special workshops or presentations.

- Meetings will be held in the afternoon to accommodate those that travel except as agreed otherwise.
- Telecommunication opportunities will be explored.
- A chair and vice-chair will be selected every two years to coordinate and facilitate the Committee activities.
    - Because of the technical mission and purpose of the Committee, the chair will have a technical background.
    - The chair will be responsible for developing and circulating meeting agendas, ensuring that minutes are taken and posted, and for overall operation and coordination of the Committee.
    - The vice-chair assumes the responsibilities of the chair when s/he is unable to perform his/her duties.

Meeting Documentation

- OMSC Agendas will be circulated at least two weeks before the meeting to solicit modifications or new items.
- If changes are significant, a final agenda will be circulated at least one week before the meeting and will include:
    - Clear description of the agenda topic
    - Agenda topic leader
    - Purpose and time allocated for each agenda item
    - Background information as appropriate to ensure full member participation
- An agenda item for the 1st meeting of the year will be to set priorities for the year, to guide the activities of the Committee and provide information for agency budget preparation.
- Minutes will be kept for each meeting of the Committee and will include key items discussed, decisions/recommendations/action items, and who to contact for further information.
- OMSC Minutes will be circulated to all members and will be posted on the ODOT website.

Subcommittees

- A Long-Range Strategy Subcommittee, composed of OMSC chair, vice-chair, standing subcommittee chairs, and Metro, ODOT and a small MPO representative, will meet prior to the regular OMSC meetings to review the agenda, recommend policy or procedural items to the full OMSC, provide guidance to OMSC deliberations, and to communicate clearly OMSC member roles and responsibilities.
- As Hoc Subcommittees will be established as needed to address specific projects or programs. They will be disbanded when their work is complete.
- The purpose, authority, anticipated product, and membership of each subcommittee will be clearly defined.
- The subcommittee chair will be an OMSC member, appointed to coordinate the subcommittee and to interface with the full Committee.
- Non-members as well as Committee members can serve on a subcommittee.
- Unless specifically requested or required, minutes of subcommittees will be for subcommittee members and interested parties only and will not be posted on the ODOT website.

COMMITTEE MEMBER RESPONSIBILITIES

- MPOs are responsible for sharing information and assistance to cities and counties within their jurisdiction and for bringing their issues to the full Committee.
- ODOT OMSC members will represent areas of the state not represented by an MPO.
- Committee members will focus at a high, conceptual level and will set aside detailed technical discussions for subcommittees or the Users Group.
- Members will make an effort to engage other members, i.e., acronyms will be kept to a minimum and discussions will stay to the agenda topic.
- Members will be encouraged to challenge ideas in a positive and constructive manner.
- Members will all be responsible for managing the agenda and time to ensure meaningful and productive meetings.

Updated 10/30/2013

Sitting in traffic again?

We all have better things to do...

Inside:

New tools *and* what you can do to reduce congestion

This Edition:

I-295 in the vicinity of I-76 & NJ 42

Congestion costs each traveler in this three-mile section $1,000 per year!

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

September, 2013

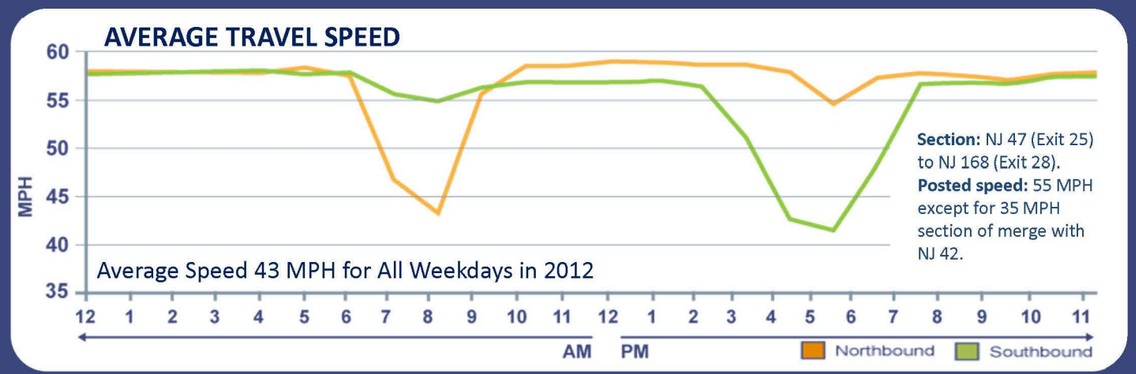
Managing congestion is hard in the 21st century – insufficient funding and ever-increasing traffic pose a challenge to providing an efficient transportation system for all. Fortunately, we now have a new generation of analytic tools, enhanced strategies, and better cooperation among organizations. Here is one of the many stories that illustrate the new era in managing congestion.

The Story of One Corridor: I-295 in the Vicinity of I-76 and NJ 42

I-295 carries over 100,000 vehicles a day and is somewhat congested on an average morning, but things frequently go very wrong. Investments that improve reliability would help in this situation.

Recurring Congestion

On average weekdays in 2012, northbound travel speeds on the three-mile section between NJ 47 and NJ 168 drop from approximately 60 MPH to 46 MPH during the morning peak hour (see below). This is the average of faster and slower days. The average, though, doesn't tell the whole story.



Reliability

On a calm morning it takes about **3 minutes** to drive through this segment. However, travel **frequently** slows down due to factors such as crashes, construction, and weather. To almost surely be on time you would need to budget almost **11 minutes--triple** the time!

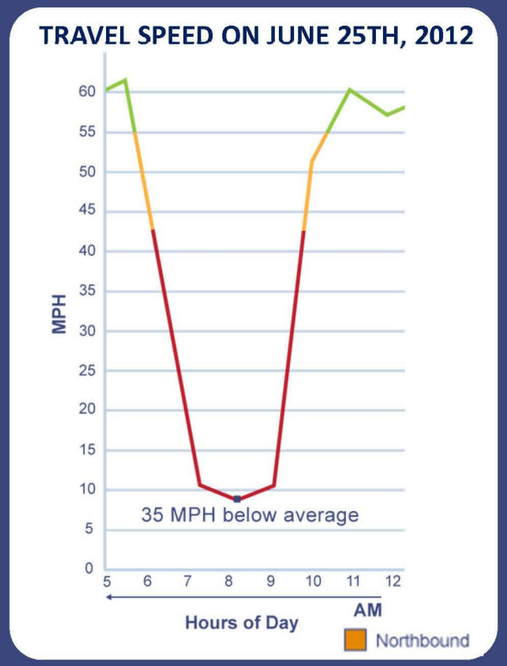
Non-Recurring Congestion

Crashes, construction, and weather are among the reasons for frustrating non-recurring congestion. For example, on June 25th, 2012, a crash in a northbound lane in this section at 6:30 AM caused a traffic jam for at least 2 ½ hours. Improving safety protects you and your family while reducing non-recurring congestion.

Most of this section of highway has a high* crash rate. In 2012, crashes directly affected over 900 people. Specifically:

- 1 person died in a crash;
- 97 people were injured; and
- 434 crashes were reported to police, though many more occurred.

*Compared to similar roads (DVRPC *Congestion Mgmt. Process*)



Effective, Low-Cost Strategies

Current and Potential Use on I-295

Recurring Congestion

Traffic signal optimization reduces traffic on I-295 by making it more attractive for local trips to be made on local roads. The New Jersey Department of Transportation (NJDOT) optimized 211 signals between September, 2011 and March 2013, resulting in:

- Average reduction in travel time is 5-15% per vehicle during the peak period at the relatively low average cost per signal of $10,000 to $15,000
- Benefit to Cost (B/C) ratios range between 4 and 56 per dollar invested
- Reductions in emissions: 3 to16%
- $147,400 saved for road users during peak periods due to reduced time in traffic

Non-Recurring Congestion

NJDOT's **Safety Service Patrol (SSP)** helps reduce congestion on I-295 by getting crashes, broken-down cars, and debris off the travel way quickly. Statewide, the 52 SSP trucks cover 225 miles of highway to provide:

- Benefit to Cost (B/C) ratio of 33 to 1
- Upwards of 100,000 assists per year within a budget of approximately $6 million
- Help for emergency responders at incidents
- DVRPC's *Transportation Operations Master Plan* recommends increasing to all-day coverage on I-295

One source of more strategies is:
http://ops.fhwa.dot.gov/travel/plan2op.htm

The source of most of the data and analysis in this brochure is the **I-95 Corridor Coalition Vehicle Probe Project (VPP) Suite.** For information, see www.i95coalition.org.

What Can We Do?

Decision-Makers

We can no longer just build our way out of congestion. Transportation investments must be spent on maintaining the existing system and improving operations to reduce congestion. When possible, find dedicated, additional funding for transportation.

Planners, Engineers, and Other Partners

- Consider operations strategies, such as Safety Service Patrol, incident management task forces, traffic signal coordination, and intersection improvements.
- Incorporate Transportation Demand Management (TDM), for example, by making it more desirable to live near jobs and more convenient to walk, bicycle, and take transit; we need to address demand as well as supply of transportation.
- In addition to reducing congestion, review other ways to help freight move reliably.

All of Us

- Check conditions before departing to consider mode (such as taking transit), route, and least-congested time to travel if you have flexibility.
- Don't cause crashes—drive safely.
- Learn about and participate in transportation planning and funding decisions.

Agencies at Work

Delaware Valley Regional Planning Commission (DVRPC) builds consensus among transportation agencies in the Philadelphia metropolitan region of New Jersey and Pennsylvania. www.dvrpc.org

NJDOT uses its Capital Investment Strategy (CIS) to evaluate efficient ways to invest the limited funds it has available. The current Direct Connect project will help the I-295 corridor. www.state.nj.us/transportation

New Jersey Transit uses surveys, real-time data, and traffic signal prioritization to get people where they want to go. www.njtransit.com

Everyday Resources

511

SAFETRIPNJ

STOP and stay STOPPED

NJ 511 - www.511nj.org

NJ Turnpike Safe Trip NJ App - http://www.state.nj.us/turnpike/safetripnj_info.html

Hang up! Just drive! - www.njsaferoads.com

NJ Pedestrian Safety - www.nj.gov/lps/hts/pedestrian.html

Abstract: *Congestion is getting harder to manage, but tools to analyze it and cost-effective measures are getting better. This is the first in a series of brochures using archived operations data to understand the causes of congestion and what can be done about it. The focus corridor for this edition is I-295 in the vicinity of I-76 and NJ 42, however the emphasis on operations, multimodal approaches, and partnerships as realistic approaches to congestion are widely applicable.*

The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with the common vision of making a great region even greater. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.

Photo Credits: Front cover image with dog, Keith Heffintrayer, Lansdale, PA; Others, DVRPC

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dvrpc

FRESNO STATE
Community and Regional Planning Center

For Immediate Release: September 24, 2015

Contact:
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559-278-6119

2015 San Joaquin Valley Blueprint Awards

Honoring Valley Projects and People that reflect the "Blueprint" Principles

Merced- The following San Joaquin Valley Blueprint awards will be presented by the Community & Regional Planning Center at the 11th Annual San Joaquin Valley Fall Policy Conference on October 8, 2015, to be held at the Tenaya Lodge at Yosemite.

The purpose of the San Joaquin Valley Blueprint Awards program is to encourage quality in planning and development by recognizing outstanding achievements and practices in the built environment. In recognizing and celebrating projects that reflect the Blueprint Principles, we hope to provide visual examples of attractive, functional and environmentally friendly projects that could have relevance throughout the Valley.

Nominations were solicited from throughout the San Joaquin Valley. A selection committee reviewed the nominations and selected submittals for recognition. We are pleased to announce the following 2015 Blueprint Awards recipients:

MIXED USE PROJECTS
Award of Excellence – The City of Bakersfield, Community Development Department | 1612 City Lofts (Bakersfield, CA)

RESIDENTIAL PROJECTS
Award of Excellence – The City of Turlock and EAH Housing | Avena Bella (Turlock, CA)
Award of Merit – The California State University, Bakersfield | Student Housing Complex (Bakersfield, CA)

DOWNTOWN REVITALIZATION PROJECTS
Award of Excellence – Granville Homes | Brio on Broadway (Fresno, CA)
Award of Merit – The Newberry Building | Ten Space (Stockton, CA)

TRANSPORTATION ENHANCEMENT PROJECT
Award of Excellence – The City of Clovis | Dry Creek Trailhead (Clovis, CA)
Award of Merit – Caltrans | Bradley Overhead on Highway 140 (Merced, CA)

DARREL HILDEBRAND BLUEPRINT LEADERSHIP AWARD
San Joaquin Sustainable Communities Coalition (San Joaquin County)

Office of Community & Economic Development
California State University, Fresno
Student Recreation Center • Lyles Center for Innovation & Entrepreneurship
5010 N. Woodrow Avenue Suite 200, M/S WC142 • Fresno, California 93740
P 559.294.6021 **F** 559.294.6024 ***www.FresnoState.edu/oced***

ADMINISTERED BY
FRESNO STATE
Community and Economic Development

MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN THE BROWARD METROPOLITAN PLANNING ORGANIZATION, THE MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION, THE PALM BEACH METROPOLITAN PLANNING ORGANIZATION, THE FLORIDA DEPARTMENT OF TRANSPORTATION DISTRICT FOUR AND DISTRICT SIX FOR COORDINATION OF THE SOUTHEAST REGIONAL PLANNING MODEL (SERPM) RELATED ACTIVITIES

1. PURPOSE

This Memorandum of Understanding (MOU) is entered into jointly by the following five (5) entities which form key transportation planning agencies within Broward, Miami-Dade, and Palm Beach counties: Florida Department of Transportation, District 6 (FDOT-D6) - an agency of the State of Florida; the Florida Department of Transportation, District 4 (FDOT-D4) - an agency of the State of Florida; the Broward Metropolitan Planning Organization (MPO); the Miami-Dade Metropolitan Planning Organization; and the Palm Beach Metropolitan Planning Organization, (hereafter these public sector transportation agencies are called PARTNERS and the aforementioned Counties will be called the Tri-County Region). The PARTNERS are committed to developing an effective travel demand modeling tool and transportation data collection methods for transportation planning in the Tri-County Region.

The purpose of this MOU is to assign roles and responsibilities to PARTNERS and create a decision-making framework for future travel demand modeling tasks related to Southeast Florida Regional Planning Model (SERPM). The MOU covers activities related the on-going travel demand modeling efforts related to SERPM 7 and the future tasks to support the next generation of SERPM (hereafter referred to as SERPM 8). Furthermore, this MOU is entered into to ensure mutual compliance and adherence with the statutory federal, state and local requirements, and other related policies and procedures in procurement and production.

2. BACKGROUND

Beginning with the 2035 Long Range Transportation Plan (LRTP) effort, the Tri-County Region formally recognized SERPM as the region's travel demand model tool. SERPM was supported by a Tri-County Regional Household Travel Survey conducted in 1999. This shared and coordinated approach led to an effective and efficient use of transportation planning funds among the PARTNERS. Prior to this, each of the MPOs supported their respective county-wide models.

2.1. Southeast Florida Transportation Council (SEFTC)

After several years of ad hoc cooperation, the Southeast Florida Transportation Council was created, under Florida Statutes Chapter 339. 175, to serve as a formal forum for policy coordination and communication to carry out these regional initiatives agreed upon by the MPOs from Miami-Dade, Broward, and Palm Beach Counties. An Interlocal Agreement between the three parties was completed in

2005 paving the way for the first SEFTC meeting in January 2006. SEFTC is the primary policy coordinating body for regional matters.

2.2. Regional Transportation Technical Advisory Committee (RTTAC)

Pursuant to, the RTTAC and RTTAC-MS structure, membership and roles will follow those identified in the Interlocal Agreement creating SEFTC dated January 9, 2006 and subsequent amendments between the MPOs in the Tri-County Region.

The RTTAC is a staff-level working group tasked to address many of the issues brought before the SEFTC. The RTTAC is comprised of numerous agencies within the region including the following:

- FDOT-D4
- FDOT-D6
- Miami-Dade MPO
- Broward MPO
- Palm Beach MPOs
- Palm Tran
- Miami-Dade Transit
- Broward County Transit
- South Florida Regional Planning Council
- Treasure Coast Regional Planning Council
- Miami-Dade Expressway Authority
- South Florida Regional Transportation Authority
- Florida Turnpike Enterprise

2.3.Regional Transportation Technical Advisory Committee - Model Subcommittee (RTTAC-MS)

The Regional Transportation Technical Advisory Committee - Model Subcommittee (RTTAC-MS) was created in 2008 to provide a forum for coordination of modeling activities. The RTTAC-MS is a staff-level working group tasked to address many of the issues brought before the SEFTC. The RTTAC-MS is made up of five voting representatives: one each from FDOT-D4, FDOT-D6, Broward MPO, Miami-Dade MPO and Palm Beach MPO. As such, the RTTAC-MS has overseen the model development and maintenance efforts as part of the 2035 and 2040 LRTP cycles.

The RTTAC-MS provided major input into coordination of funding for model related activities and decision to transition into an Activity Based Model (ABM). Though the RTTAC-MS has served its original purpose well, it has handled issues on an ad hoc basis and lacked the clarity required for developing a cohesive vision for model development. These shortcomings have led to various administrative and technical issues during the SERPM 7 development process that need to be addressed moving forward within the framework established under this MOU.

3. ROLES AND RESPONSIBILITIES

All PARTNERS shall abide by the defined roles and responsibilities in the following section. Each PARTNER plays a critical role in the successful implementation of regional efforts such as SERPM. Awareness and appreciation of each other's roles is essential for effective co-operation. Joint coordination should extend across the planning, management, and delivery of major products.

3.1. SERPM 7 Development, Maintenance and Updates

PARTNERS agree that FDOT-D4 will continue to oversee and administer SERPM 7 development, maintenance and update tasks through December 31, 2019. FDOT-D4 will be guided by Regional Transportation Technical Advisory Committee Model Subcommittee (RTTAC-MS). PARTNERS agree that FDOT-D4 may receive support from private sector consultant teams in identification of SERPM 7 deficiencies and continue SERPM 7 updates through December 31, 2019.

FDOT-D4 will consult and seek approval of PARTNERS prior to assigning specific SERPM maintenance and update tasks to private sector consultant teams. The PARTNERS may request FDOT-D4 to address specific SERPM deficiencies through RTTAC-MS. PARTNERS will receive periodic updates from FDOT-D4 and any private sector consultant teams on all specific SERPM maintenance and update tasks through a cooperative decision-making process guided by the RTTAC-MS.

The following is a list of key responsibilities of the PARTNERS towards SERPM 7 development, maintenance and update tasks that all PARTNERS shall abide by:

1. Each party to this MOU will designate and maintain a representative and alternate who has the authority to speak for their respective agency on the RTTAC-MS. The representatives will be available, upon adequate notice, to attend and participate in the RTTAC-MS meetings or otherwise provide timely input into the preparation, coordination, and review of SERPM 7 development, maintenance, and update tasks. Prompt requests for input will be forwarded to the appropriate contact person(s) to allow for a timely review and comment period.

2. PARTNERS make available to FDOT-D4, at no cost to PARTNERS, relevant, readily available, resources such as data and information systems to the extent achievable for use and share their knowledge of local conditions relevant to the project to the extent possible.

3. FDOT-D4 will have the responsibility of disseminating and maintaining up-to-date SERPM 7 networks to the PARTNERS and other users.

4. All proposed SERPM 7 changes shall be transmitted to FDOT-D4 from PARTNERS and other users. These changes shall be evaluated and transmitted from FDOT-D4 to the RTTAC-MS for consideration to be formally accepted. Upon acceptance, FDOT-D4 shall notify the availability of a revised model version to the PARTNERS and other users. There shall be no more than four (4) version releases during a calendar year.

5. FDOT-D4 shall maintain a tracking log of all model version changes and model releases to users.

6. All PARTNERS will have ownership rights to the model under the procedures identified in the MOU and will be guaranteed access to the model, at any stage during its development and upon completion, within their agency roles and responsibilities.

7. PARTNERS to provide full and open communication.

8. PARTNERS will bear in-kind contribution in their respective capacities for consultant contract selection or administration.

3.2. SERPM 8 Activities

In anticipation of the next round of LRTP updates for the Tri-County Region, the MOU will guide the development and maintenance of the SERPM 8 from begin to end of its use. It is expected that the LRTPs will be adopted by December 2019.

3.2.1.Data Collection

Travel behavior is an ever evolving matter, but these changes have been accelerated since the year 2000 with the technological advances in general and urban infill trends within the Tri-County Region. As such, the PARTNERS recognize the need for a robust and multi-dimensional data collection effort to primarily enhance the SERPM 8 product by understanding the Tri-County Region's travel characteristics. The PARTNERS also recognize that the data collected can serve to support activities other non-transportation-related functions. The cornerstone of the data collection task is Southeast Florida Regional Household Travel Study (hereafter is referred to as the STUDY). Such studies typically involve compiling household characteristics and travel activity on systematically selected sample households that are representative of the Tri-County Region. The findings from the sampled households depict why and how the residents are making their trips activities – the fundamental information needed by transportation decision-makers to formulate investment policies, plan new facilities and managing existing ones.

PARTNERS agree to use innovative techniques for data collection or utilization of the existing data as one of the criteria for consultant selection for the STUDY. Innovative techniques refer to methods such as usage of mobile phone data for anonymously identifying origin-destinations or usage of existing National Household Travel Survey (NHTS) data to supplement traditional methods of identifying household travel characteristics.

The following is a list of key responsibilities of the PARTNERS towards preparation for and development of SERPM 8 that all PARTNERS shall abide by:

1. The PARTNERS agree that Miami-Dade MPO will serve as the lead agency for the completion of the STUDY. In close coordination and direction from the PARTNERS through RTTAC-MS, the Miami-Dade MPO will be responsible for coordination of the STUDY on consultant contract development, consultant selection and services performed under the STUDY work. The Miami-

Dade MPO will also coordinate the STUDY with federal agencies, state agencies, and other private and public entities.

2. Miami-Dade MPO will request the support of a private sector consultant team to assist in providing the required services to this STUDY. All the PARTNERS of this MOU will participate in the selection of the consultant team by following the Miami-Dade MPO's consultant selection process. All the PARTNERS will participate in the management of the consultant through a cooperative decision-making process guided by the RTTAC-MS.

3. PARTNERS agree that the RTTAC-MS will serve as the primary oversight and coordination mechanism for the STUDY. As under Section 3.1, each party to this MOU will designate a representative and alternate who has the authority to speak for their respective agency on the RTTAC-MS. The representatives will be available, upon adequate notice, to attend and participate in the RTTAC-MS meetings or otherwise provide timely input into the preparation, coordination and review of the STUDY interim and final products. Prompt requests for input will be forwarded to the appropriate contact person(s) for a timely review and comment period.

4. Miami-Dade MPO agrees to meet or exceed the following schedule unless otherwise modified by the PARTNERS. Miami-Dade MPO will inform all of the PARTNERS through RTTAC-MS if there is any delay or changes in consultant fees.

    - Delivery of draft scope of services: November 30, 2014
    - Delivery of final scope of services: to be provided after the Model Peer review in late 2014 or early 2015
    - Advertisement for Procurement of consultant: February 28, 2015
    - Notice-to-proceed to selected consultant: May 31, 2015
    - Draft Southeast Florida Regional Household Travel Study Report: June 30, 2016
    - Final Southeast Florida Regional Household Travel Study Report: September 30, 2016

5. RTTAC-MS cooperatively will develop selection criteria for STUDY consultant. PARTNERS agree to use innovative techniques for data collection or utilization of the existing data as one of the criteria for consultant selection for the STUDY. Innovative techniques refer to methods such as usage of mobile phone data for anonymously identifying origin-destinations or usage of existing National Household Travel Survey (NHTS) data to supplement traditional methods of identifying household travel characteristics.

6. PARTNERS agree to make available to the Miami-Dade MPO and the Consultant, at no cost to the PARTNERS, relevant, readily available, resources such as data and information systems to the extent achievable for use in the proposed STUDY.

7. PARTNERS will bear in-kind contribution in their respective capacities for consultant contract selection or administration. SERPM 8 Development, Maintenance and Update

3.2.2.Model Development

Given that the SERPM 7 model development effort focused mainly on the transition from the trip-based model to the activity-based model to produce a satisfactory systems tool to support the 2040 LRTP efforts. The PARTNERS agree that the SERPM 8 development will be focused on greatly enhancing the model forecasting capabilities to support not only system-wide analyzes, but also serve as a viable tool for corridor level, area-wide, and multimodal analyses. The following procedures are being put in place to ensure achievement of these goals.

1. Upon satisfactory completion of the STUDY, PARTNERS agree that RTTAC-MS will select and assign the responsibility for preparation, development, maintenance and updates of SERPM 8 to one of the PARTNER agencies (referred herein as to the AGENCY).

2. Because preparation, development, maintenance and updates of SERPM 8 will require concurrence from all PARTNERS, each PARTNER will be responsible for identifying the issues that must be addressed in the process to satisfy its respective requirements and needs.

3. PARTNERS agree that the AGENCY may request the support of a private sector consultant team to assist in developing SERPM8 during fiscal years 2017 and 2018. FY16-17 through FY19-20. All the PARTNERS of this MOU will participate in the selection of the consultant team. All the PARTNERS will participate in the management of the consultant through a cooperative decision-making process guided by the RTTAC-MS, as established or amended under Section 3.1.

4. SERPM 8 will incorporate travel patterns and trip characteristics identified as part of the STUDY. The AGENCY will be responsible for ensuring that results of the STUDY are accurately reflected in SERPM 8.

5. All PARTNERS will have ownership rights to the model under the procedures identified in the MOU and will be guaranteed access to the model, at any stage during its development and upon completion, within their agency roles and responsibilities.

6. PARTNERS will bear in-kind contribution in their respective capacities for consultant contract selection or administration.

3.2.3.Socio-economic (SE) Data Development

The Broward, Miami-Dade, and Palm Beach MPOs shall prepare the population and employment datasets for the base year (2015) and future year forecasts (2045) in a timely basis and consistent format with the SERPM 8 structure. The base year dataset (2015) should be prepared to support the model development tasks. Future year dataset (2045) are to be utilized during the LRTP update phases. The RTTAC-MS shall serve as the coordination forum to review, set timetables and ensure consistency in key SE data development assumptions. The MPOs will have the sole discretion in deciding suitable modifications or corrections to their respective datasets.

3.2.4. Review of SERPM 8 Activities

RTTAC will perform an annual review of SERPM development, maintenance, and update activities. Based upon the results of this assessment, the RTTAC shall provide a recommendation to confirm funding for future activities. RTTAC will provide recommendations to Southeast Florida Transportation Council (SEFTC).

In addition, the RTTAC will address any policy issues (funding, formal agreements, etc.) emerging from the SERPM development, maintenance and update efforts, but will allow the RTTAC-MS to be the decision-making body for all technical modeling issues.

4. DURATION OF MEMORANDUM OF UNDERSTANDING

This MOU shall have a term of five (5) years from its execution. At the end of the five-year term, the PARTNERS will examine the terms hereof and agree to either reaffirm the same, amend provisions or discontinue MOU arrangement. However, the failure to amend or to reaffirm the terms of this MOU shall not invalidate the decisions rendered among the PARTNERS during the term of this MOU.

It is recognized that continued coordination will be necessary to ensure the utility of SERPM 8 products beyond 2019. Future coordination may lead to the development of new MOU's or Joint Participation Agreements (JPA) among the various PARTNERS and federal, state, and/or regional agencies.

The following is a general schedule of the major work elements related to the SERPM support. Detailed schedules and timetables will set by the PARTNERS through the RTTAC-MS.

Calendar Year / Task	2014	2015	2016	2017	2018	2019
SERPM 7 Maintenance and Update						
Data Collection / Household Survey						
SE Data Development						
SERPM 8 Model Development						
SERPM 8 Maintenance and Updates						

5. FUNDING

Because the proposals may involve funding, concurrence, or permitting actions from several of the PARTNERS, each PARTNER will be responsible for identifying the issues that must be addressed in the process to satisfy its respective statutory requirements. Each of the signatories to this MOU agree to the following

5.1. Funding for the SERPM 7 Maintenance and Update

FDOT-D4 will continue to serve as the lead agency and provide technical assistance for all issues related to the maintenance and updates of SERPM 7. The SERPM 7 model development and update work was jointly funded by the Tri-County Region MPOs and FDOT. This funding was coordinated and included as part of the MPO's respective Unified Planning Work Programs (UPWP). No additional funding will assigned by the PARTNERS for this task.

5.2. Funding for the SERPM 8 Data Collection

The PARTNERS agree to jointly fund this regional task with the specific shares listed below. The total projected cost is not to exceed $1.5 million and shall be administered by the Miami-Dade MPO, in coordination and agreement with the PARTNERS, as part of the data collection task. Given that the data collection level of effort is largely based on the population distribution, The MPO's contributions represent a per capita distribution of funding.

1. FDOT-D4 and FDOT-D6 agree to contribute a total of up to $750,000 or 50 percent of the total project cost for the STUDY during fiscal years (FY) 2015 and 2016. FDOT-D4 and FDOT-D6 will provide technical assistance for all issues related to advancing the STUDY services within their jurisdiction and provide general support for the STUDY development. FDOT-D4 and FDOT-D6 reserve the right to discontinue funding beyond FY 2015 pursuant to MOU Section 7.0.

2. The Palm Beach MPO agrees to contribute a total of up to $175,000 to the STUDY; broken out in $87,500 increments for each fiscal year starting FY 2015 through FY 2016. This funding allocation shall be reflected in the Unified Planning Work Program (UPWP) following delivery of the final scope of services specified in section 3.2.1.4. The Palm Beach MPO reserves the right to discontinue funding beyond FY 2015 pursuant to MOU Section 7.0.

3. The Broward MPO agrees to contribute a total of up to $225,000 to the STUDY; broken out in $112,500 increments for each fiscal year starting FY 2015 through FY 2016. This funding allocation shall be reflected in the UPWP following delivery of the final scope of services specified in section 3.2.1.4. The Broward MPO reserves the right to discontinue funding beyond FY 2015 pursuant to MOU Section 7.0.

4. The Miami-Dade MPO agrees to contribute a total of up to $350,000 to the STUDY; broken out in $175,000 increments for each fiscal year starting FY2015 through FY2016. This funding allocation shall be reflected in the UPWP following delivery of the final scope of services specified in section 3.2.1.4. The Miami-Dade MPO reserves the right to discontinue funding beyond FY 2015 pursuant to MOU Section 7.0.

5.3. SERPM 8 Development, Maintenance and Updates

No specific budget estimate has been developed for this task given its projected start date in FY 2017. Therefore the following section provides a funding framework to be followed by specific amounts as the better understanding of the scope of services is developed.

1. The MPOs of Miami-Dade, Broward, and Palm Beach agree to fund 50 percent in equal contributions towards the total cost and fees for the SERPM 8 model development, network coding, maintenance and updates. It is scheduled that these funds be distributed within a two-year timeframe beginning in FY 2017. The MPOs reserve the right to discontinue funding pursuant to MOU Section 7.0 for the remainder of the effort.

2. The FDOT-D4 and FDOT-D6 agree to fund 50 percent in combined fashion towards the total cost and fees for the SERPM 8 model development, network coding, maintenance and updates. It is scheduled that these funds be distributed within a two-year timeframe beginning in FY 2017. The FDOT reserves the right to discontinue funding pursuant to MOU Section 7.0 for the remainder of the effort.

5.4. Socio-economic (SE) Data Development

The Broward, Miami-Dade and Palm Beach MPOs agree to fully fund the cost of socio-economic data development and updates of their respective jurisdictions.

6. AMENDMENTS

PARTNERS may only modify this MOU by unanimous agreement of the parties to the MOU. This MOU and any amendments or modifications to the MOU shall become effective upon execution.

7. SEVERABILITY

Any PARTNER may terminate its participation in this MOU upon thirty (30) days written notice. The 30-day notice requirement shall commence upon giving of the notice. Notice of intent to terminate shall be given in writing to the RTTAC Chair and RTTAC-MS Chair. Said notice transmitted to the official office of the RTTAC Chair and RTTAC-MS Chair by certified mailed, return receipt requested.

8. CONCLUSIONS

In signing this MOU, the undersigned understands and accept the roles and responsibilities assigned to each of the parties. Each of the parties agrees to pursue maximum cooperation and communication to ensure that the project fully complies with applicable Federal, State and County requirements and results in a minimum duplication of effort and is performed in a cost effective manner.

SIGNATURE OF PARTICIPATING PARTNERS

For the Florida Department of Transportation FDOT - District 6

Date 1/14/2015

Witness

For the Florida Department of Transportation FDOT - District 4

Date 1/14/2015

Witness

For the Broward Metropolitan Planning Organization

Date

Witness

For the Florida Department of Transportation FDOT - District 6

_____

Date

_____

Witness

For the Florida Department of Transportation FDOT - District 4

_____

Date

_____

Witness

For the Broward Metropolitan Planning Organization

_____ Richard Blattner

Date 5-14-15

_____ Kathy Singer

Witness

FOR MIAMI-DADE MPO:

By: _____
Jesus Guerra, Interim Executive Director

Date: 12/29/14

ATTEST:

Miami-Dade MPO Clerk of the Board

By: Zainab Salim
Zainab Salim

Date: 12/23/2014

Approved as to Form and Legal Sufficiency

By: Bruce Tiktaber
Assistant County Attorney

Date: December 23, 2014

For the Palm Beach Metropolitan Planning Organization

_____

Date

_____

Witness

For the Miami-Dade Metropolitan Planning Organization

_____

Date

_____

Witness

For the Palm Beach Metropolitan Planning Organization

Date

Witness

MEMORANDUM OF AGREEMENT
between
Wasatch Front Regional Council, The Utah Department of Transportation and Mountainland Association of Governments
for
UNIFIED TRANSPORTATION PLAN FUNDING MODEL UPDATE

WHEREAS, the Wasatch Front Regional Council (WFRC), the Utah Department of Transportation (UDOT) and the Mountainland Association of Governments (MAG) desire to improve the financial assumptions and projections of the individual Transportation Plans and the collective "Utah's Unified Transportation Plan"; and

WHEREAS, WFRC, UDOT and MAG wish to enter into an AGREEMENT for this purpose, and they are the sole PARTIES to this AGREEMENT; and

WHEREAS, the PARTIES wish to commit additional resources to a financial advisory and consulting firm, recognize the importance of financial assumptions in developing long-range plans, advising policy makers, and ensuring Utah's competitive advantage of an excellent transportation system and for other purposes important to the PARTIES; and

WHEREAS, the PARTIES recognize and acknowledge that a consultant with an in-depth understanding of funding, finance, accounting, statistics and experience in this sector would greatly increase the capabilities of the PARTIES;

NOW, therefore, the PARTIES hereby AGREE to the following:

- The PARTIES, together, pledge to increase funding model capabilities through commitment of $51,500 to be used to retain a financial advisory and consulting firm through completion of the Scope of Services in Attachment A; and

- The PARTIES will share the $51,500 cost as outlined in the Budget in Attachment B, providing funds in the following proportions: MAG $11,500, WFRC $20,000 and UDOT $20,000; and

- That this agreement is for the period April 20, 2014 through December 31, 2014 and may be terminated by either of the PARTIES with at least three months written notice.

IN WITNESS WHEREOF, WFRC and MAG have executed this AGREEMENT on this date: _____

Andrew S. Gruber	Andrew K. Jackson	Jeff Harris
Executive Director	Executive Director	Planning Director
Wasatch Front Regional Council	Mountainland Assoc. of Governments	Utah Department of Transportation

Attachment A

Proposed
Scope of Services

Objective 1 Unified Transportation Model and Key Assumptions Orientation
Task 1.1 Review of the Unified Transportation Plan Model
Task 1.2 Coordination with MAG , UDOT & WFRC to Review Key Assumptions of Model

Objective 2 Ensure Accuracy and Reliability of the Unified Transportation Model by Meeting with UDOT and MPOs
Task 2.1 Coordination with UDOT & MPOs
Task 2.2 Facilitation of Eight Meetings with UDOT and MPOs to Review Model, Key Assumptions, Future Funding Options, and Possible Scenarios

Objective 3 Update the Unified Transportation Model with Revised Revenue/Cost Data and Assumptions, Evaluate Various Funding
Options
Task 3.1 Research and Gather Revised Revenue & Cost Data
Task 3.2 Update Unified Transportation Model - with revised revenue/cost data and assumptions that create a dynamic and user friendly model that will allow for integration of transit assumptions. LYRB will work with UTA through a separate scope of work to develop the transit assumptions.
Task 3.3 Funding Analysis - Review Options to Monetize or Leverage Assets
Task 3.4 Model Revision to Allow for Scenario Analysis, Creation of "Dashboard" to Provide Summary

Objective 4 Provide Final Updated Unified Transportation Model and Final Presentation Detailing Results, Observations, and Recommendations
Task 4.1 Prepare Final Presentation Detailing Model Results, Observations, and Recommendations
Task 4.2 Presentation of Results, Observations, and Recommendations to UDOT and MPOs

Attachment B

Proposed Budget

TASK	DESCRIPTION	*TOTAL*
Objective 1	**Unified Transportation Model and Key Assumptions Orientation**	
Task 1.1	Review of the Unified Transportation Plan Model	$1,550
Task 1.2	Coordination with MAG , UDOT & WFRC to Review Key Assumptions of Model	$1,775
Objective 2	**Ensure Accuracy and Reliability of the Unified Transportation Model by Meeting with UDOT and MPOs**	
Task 2.1	Coordination with UDOT & MPOs	$5,450
Task 2.2	Facilitation of Eight Meetings with UDOT and MPOs to Review Model, Key Assumptions, Future Funding Options, and Possible Scenarios	$9,450
Objective 3	**Update the Unified Transportation Model with Revised Revenue/Cost Data and Assumptions, Evaluate Various Funding**	
Task 3.1	Research and Gather Revised Revenue & Cost Data	$9,200
Task 3.2	Update Unified Transportation Model with Revised Revenue/Cost Data and Assumptions	$9,500
Task 3.3	Funding Analysis - Review Options to Monetize or Leverage Assets	$6,500
Task 3.4	Model Revision to Allow for Scenario Analysis, Creation of "Dashboard" to Provide Summary	$3,225
Objective 4	**Provide Final Updated Unified Transportation Model and Final Presentation Detailing Results, Observations, and Recommendations**	
Task 4.1	Prepare Final Presentation Detailing Model Results, Observations, and Recommendations	$3,500
Task 4.2	Presentation of Results, Observations, and Recommendations to UDOT and MPOs	$1,350
	TOTAL PROPOSED BUDGET COST	**$51,500**

FHWA Office of Planning

December 2016

For More Information Visit:
http://www.fhwa.dot.gov/planning/regional_models/