

# The Role of Interregional Issues in Multi-MPO Collaboration

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## Introduction

The metropolitan transportation planning process is designed, primarily, to improve transportation policy making and investment decisions across a single metropolitan planning area. Federal law assigns principal responsibility for this process to metropolitan planning organizations (MPOs).

In concept, each MPO is responsible for planning on behalf of the local jurisdictions in a single urbanized area. The MPO planning area includes both the census-defined urbanized area and a contiguous area expected to become urbanized over the next 20 years.

Areas with clusters of neighboring or proximate MPOs have distinct challenges and opportunities that affect metropolitan transportation planning. These areas often share transportation infrastructure and environmental conditions. Furthermore, they are typically economically interdependent.

These connections between or among MPO planning areas give rise to “interregional issues,” which are recurring transportation topics related to systems or conditions that transcend metropolitan area boundaries. Traffic congestion, air quality, and economic development are examples of interregional issues for many neighboring or proximate MPOs. When one MPO acts in response to one of these issues, its actions affect conditions in neighboring or proximate MPO planning areas. Consequently, MPOs cannot efficiently address interregional issues working in isolation.

This paper explores how specific issues and conditions motivate long-range planning collaboration between or among multiple neighboring or proximate MPOs. The first section provides a summary analysis of the state of the practice. The next section discusses specific issue areas that seem the most likely to motivate collaboration between or among MPOs. The paper concludes with profiles of three areas of the country where multiple MPOs have sustained collaborative planning efforts for more than a decade.

### Key Points

Interregional issues are recurring transportation topics related to systems or conditions that transcend metropolitan area boundaries. MPOs cannot efficiently address interregional issues working in isolation.

Federal statutes and regulations governing the metropolitan transportation planning process emphasize coordination between and among neighboring or proximate MPOs. This emphasis creates opportunities for collaborative planning and decision making.

Each MPO has its own set of priority issues that motivate planning action. While federal and state requirements define some of these issues, MPOs prioritize other issues based on the interests of their governing boards, access to funding, and staff capacities.

A variety of issues have motivated groups of neighboring or proximate MPOs to plan collaboratively. These issues may flow naturally from the federal statutory requirements for the metropolitan transportation planning process, or they may emerge as MPOs deepen their collaborative relationships.

Researchers from the American Planning Association and the Georgia Institute of Technology's Center for Quality Growth and Regional Development conducted qualitative case study research to learn more about how and why neighboring and proximate MPOs in three distinct areas of the country are coordinating their long-range planning efforts. The research team, in consultation with Federal Highway Administration staff, selected these three "multi-MPO coordination areas" based on their reputations for sustained coordination and collaboration over many years.

Eight MPOs in California's San Joaquin Valley have used federal requirements to coordinate their transportation conformity processes as a springboard for collaborative efforts focusing on goods movement, greenhouse gas emissions reductions, and growth management. The MPOs formed a joint policy board to guide their interregional initiatives.

Ten MPOs in a four-state area around New York City have established a forum to improve information sharing and collaborative decision-making related to federally mandated transportation planning processes and work products. This forum has also provided opportunities to discuss shifting freight patterns, transformative technologies, extreme weather resilience, and economic development priorities.

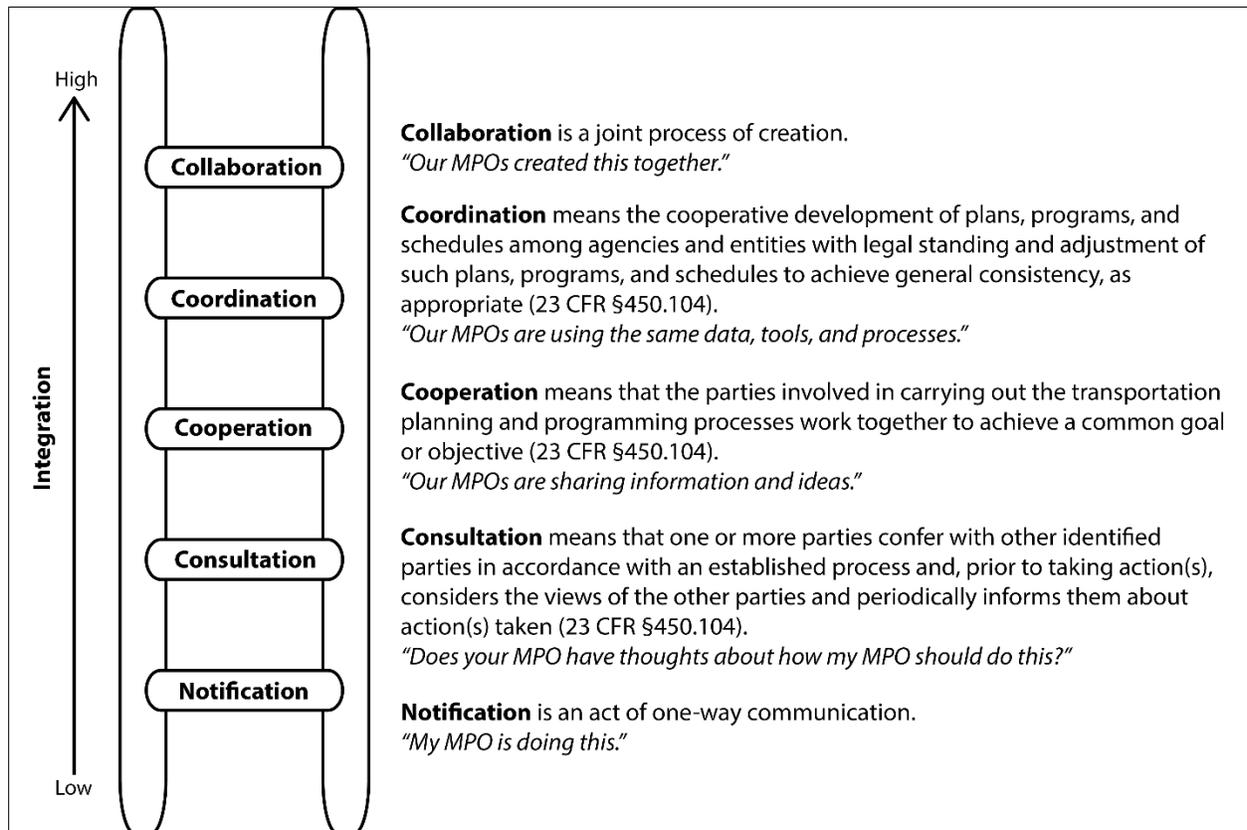
Three MPOs in Southeast Florida have taken advantage of state statutes that encourage MPOs to enter into interlocal agreements for collaborative planning. These MPOs have joined forces to produce plans and studies and convene stakeholders to address shared transportation, environmental, and economic priorities.

## State of the Practice

Cooperation and coordination between or among multiple MPOs on long-range planning processes or activities is common. However, the level of cooperation and coordination is deeper in some areas of the U.S. than in others, and it naturally changes over time, as conditions and priorities shift. In some cases, cooperation or coordination between or among MPOs leads to collaboration, that is, working jointly on new activities or work products. Figure 1 illustrates how cooperation, coordination, and collaboration between or among MPOs fit on a continuum of integration.

Both legal requirements and organizational priorities and capacities affect the timing and extent of multi-MPO collaboration. In many cases legal requirements foster collaboration. However, in select instances, these requirements can present a barrier to collaboration. Additionally, limited capacities force MPOs to prioritize collaborative actions that have clear local benefits.

Figure 1. A ladder of multi-MPO participation, adapted from Arnstein (1969).



## Legal Requirements Affect Collaboration

Federal statutes and regulations governing the metropolitan transportation planning process emphasize coordination between and among neighboring or proximate MPOs. This emphasis creates opportunities for collaborative planning and decision making. Furthermore, many states have statutes or regulations that affect opportunities for collaboration between or among MPOs.

### Federal Statutes and Regulations

Federal statutes and regulations detail the requirements for a "continuous, cooperative, and comprehensive" (3-C) metropolitan multimodal transportation planning process ([23 USC §134](#); [49 USC §5303](#); [23 CFR §450.300](#) et seq.). Because all MPOs share the same fundamental responsibility to carry out this 3-C process, these requirements provide a basis for a wide range of collaborative efforts between and among MPOs. Additionally, there are four circumstances in which federal laws or rules require neighboring or proximate MPOs to coordinate their long-range transportation planning efforts:

1. Multiple MPOs share authority for planning within a single urbanized area ([23 CFR §450.310\(e\)](#)).
2. Multiple MPOs share authority for planning within an air quality control region designated as a nonattainment area for ozone or carbon monoxide under the Clean Air Act ([42 USC §7407\(c\)](#); [23 USC §134\(g\)\(1\)](#); [49 USC §5303\(g\)\(1\)](#)).
3. An urbanized area principally located in one MPO planning area extends into another MPO planning area ([23 CFR §450.312\(h\)](#); [23 CFR §450.314\(g\)](#)).

4. A proposed federally funded transportation investment is located within multiple MPO planning areas ([23 USC §134\(g\)\(1\)](#); [49 USC §5303\(g\)\(2\)](#); [23 CFR §450.314\(e\)](#)).

In each circumstance, federal requirements encourage coordination between or among MPOs (as well as other state, regional, and local agencies) on data collection and analysis, planning assumptions, performance measurement, and public participation. These activity areas provide ample opportunities for collaborative events, studies, and outreach.

### State Statutes and Regulations

While federal statutes and regulations establish a baseline for MPO planning processes and work products, many states have statutes or regulations that provide supplemental requirements for their MPOs. In some cases, these state laws or rules specify additional opportunities for collaboration between or among MPOs.

For example, Florida authorizes any MPO to establish an interlocal agreement for collaborative planning with any other MPO in the state, requires MPOs that share planning authority for an urbanized area to prepare a joint list of regionally significant project priorities, and requires MPOs to coordinate plans regarding any transportation project that crosses MPO planning area boundaries (Florida Statutes [§339.175\(6\)\(j\)](#); [§339.175\(8\)\(b\)](#); [§339.175\(8\)\(c\)7](#)). Meanwhile, Utah requires all MPOs that share a planning area boundary to collaborate on joint transportation plans, TIPs, and project priorities (Utah Code [§72-1-208.5\(3\)](#)).

Meanwhile, some states have separate statutes or regulations governing other regional planning processes, such as water resource management, solid waste management, or economic development. These laws or rules do not typically specify any role for the MPO in the planning process and may give entities other than MPOs access to new sources of funding or specialized tools to develop and implement plans. When this happens, state statutes or regulations can, unintentionally, discourage neighboring or proximate MPOs from collaborating around related interregional issues. Without an explicit invitation to participate from the designated planning authority, MPOs may be reluctant to use limited resources on collaborative planning efforts that state and local officials could view as duplicative or redundant.

For example, many states delegate responsibilities for regional water supply planning to water agencies or districts. Similarly, some delegate regional solid waste planning responsibilities to solid waste districts. However, few, if any, states explicitly require or recommend these agencies or districts to consult with MPOs about how water supply or solid waste recycling or disposal strategies affect transportation infrastructure and demand. In these cases, MPOs may not see a clear opportunity to collaborate around interregional water resource or solid waste management issues, unless the water agency or solid waste district invites them to participate in their official planning processes.

### Priorities and Capacities Affect Collaboration

Each MPO has its own set of priority issues that motivate planning action. While federal and state requirements define some of these issues, MPOs prioritize other issues based on the interests of their governing boards, access to funding, and staff capacities. MPOs seldom have the political will or adequate financial or staff resources to address every issue that may surface during a local or regional planning process.

The composition of MPO governing boards varies considerably across the country, but most governing boards consist predominantly of elected officials from the constituent municipalities and counties that comprise the MPO's planning area (Kramer et al. 2017).

Consequently, MPOs typically prioritize local and regional issues, where the MPO has clear authority and responsibility to act, over interregional issues, where MPO authority and responsibilities are often more limited. This is especially true for interregional issues where ownership is diffuse and there is no clear governance structure.

Meanwhile, funding and staff capacity ultimately determine the total number of issues on an MPO's planning agenda. Generally, MPO funding, staff sizes, and staff specializations increase as the MPO planning area size and population increase (Kramer et al. 2017). Higher capacity MPOs, in terms of funding and staffing, typically have more issues on their planning agenda than lower capacity MPOs.

Multiple neighboring or proximate MPOs are more likely to plan collaboratively in response to an interregional issue if their respective governing boards have identified and prioritized that issue. Furthermore, they are more likely to plan collaboratively in response to an interregional issue when that collaboration offers clear local or MPO benefits (Peckett et al. 2014). These benefits may be increased efficiency in carrying out mandatory planning tasks, transportation system or quality-of-life improvements for residents, economic growth, or access to additional funding.

Finally, MPOs will only choose to collaborate if they have compatible perspectives on an issue. Usually, this means a similar perspective, such as when multiple neighboring MPOs identify freight congestion on a shared highway as a priority issue. In some cases, though, MPOs can have different perspectives without those perspectives being incompatible. For example, one MPO may be interested in land conservation as way to focus regional growth in areas with existing urban services, while another may see land conservation as a tool to protect air and water quality. In this example, collaborative land conservation strategies can serve both goals equally.

## Issues Motivating Collaboration

There are three broad categories of issues that motivate neighboring or proximate MPOs to collaborate on long-range planning activities or work products. First, there are transportation issues that flow naturally from the federal statutory requirements for the metropolitan transportation planning process. Second, there are environmental issues that are either central to multimodal transportation planning or naturally emerge as MPOs deepen their collaborative relationships. Third, there are economic issues that may transcend statutory requirements but have clear connections to transportation system performance.

### Transportation Issues

Highways and rail corridors routinely cross MPO planning area boundaries. Furthermore, transportation system conditions in one MPO planning area often affect system performance in neighboring or proximate MPO planning areas.

Federal and state statutes and regulations recognize this interdependence and establish baseline requirements for cooperation and coordination between and among MPOs, transit providers, state transportation agencies, and local governments. In many instances, MPOs have built off these baseline requirements to collaborate on planning for highway investments, goods movement, transit service, safety, congestion management, or transformative technologies.

## Highway Investments

Coordinating highway investments across MPO planning area boundaries is essential to maintaining transportation system performance. While state transportation agencies lead this coordination, MPOs can collaborate on project prioritization to increase the efficiency of this coordination process and improve outcomes.

For example, North Carolina Capital Area MPO and Durham-Chapel-Carrboro Hill MPO list fiscally constrained highway projects in their jointly adopted *Connect 2045 Metropolitan Transportation Plan* ([CAMPO and DCHC MPO 2018](#)). The financial chapter of the plan details shared assumptions and specifies how each MPO intends to finance roadway projects. The MPOs also partnered with their state department of transportation on a corridor study for North Carolina Route 98, which includes recommendations for short- and long-term improvements and provides implementation guidelines (CAMPO et al. 2018).

Similarly, the eight MPOs of California's San Joaquin Valley (see the San Joaquin Valley Regional Policy Council section below) collaborated with their state's department of transportation on a business plan for California State Route 99 (SR 99) (Caltrans 2013). This business plan prioritized projects of valley-wide significance and helped convince voters to approve a bond measure with a dedicated fund for SR 99 investments ([California Government Code §8879.23\(b\)](#)).

## Goods Movement

The U.S. economy depends on efficient interregional goods movement. Each MPO planning area contains a mix of land uses that generate and receive freight as well as transportation infrastructure that accommodates trucks and trains passing through with shipments originating and terminating in other MPO planning areas.

Federal regulations require all MPOs to establish performance targets for freight movement on the Interstate System using the Truck Travel Time Reliability Index as a performance measure, or to adopt their state's target ([23 CFR §490.105\(d\)\(1\)\(vi\)](#)). MPOs must also include this target and the corresponding performance measure in their LRTPs and TIPs ([23 CFR §450.324\(e\)\(3\)](#) and [23 CFR §450.326\(d\)](#)). This shared requirement provides an opportunity for MPOs to set targets collaboratively. Furthermore, freight issues such as congestion, bottlenecks, and truck parking have motivated neighboring or proximate MPOs to collaborate on interregional goods movement plans or studies.

For example, the eight MPOs of California's San Joaquin Valley have jointly developed multiple goods movement plans and studies. These include a valley-wide Goods Movement Plan, which prioritizes projects, programs, and policies that impact goods movement in the region (Cambridge Systematics 2013). This plan is followed by a Goods Movement Sustainable Implementation Plan, which identifies truck system issues and needs and identifies policies or programs in regional transportation plans related to freight, and a goods movement study for two major truck corridors that focuses on demand management, efficiency improvements, and alternative methods to move goods (Cambridge Systematics 2017b; 2017a).

Meanwhile, the Maricopa Association of Governments (the MPO for the Phoenix-Mesa and Avondale-Goodyear urbanized areas), Pima Association of Governments (the MPO for the Tucson urbanized area), and Central Arizona Council of Governments conducted a freight study to identify opportunities to improve interregional goods movement in Arizona's Sun Corridor. The study recommended coordinating freight economic development efforts, creating a funding program to support improvements, and protecting land uses to support freight uses throughout the corridor (ASC JPAC 2013).

## Transit Service

Federal regulations require all MPOs to establish regional targets for the Federal Transit Administration's "state of good repair" performance measures ([49 USC §5326\(c\)](#) and [49 CFR §625.41–45](#)). MPOs must also include these targets and the corresponding performance measures in their LRTPs and TIPs ([23 CFR §450.324\(e\)\(3\)](#) and [23 CFR §450.326\(d\)](#)). This shared requirement provides an opportunity for neighboring or proximate MPOs to set targets collaboratively.

Furthermore, most MPO planning areas are served by interregional passenger rail or bus services, such as Amtrak or Greyhound. Some metropolitan areas also have regional transit services that cross MPO planning area boundaries. In areas where multiple MPOs share boundaries, or are otherwise located near one another, workers may routinely commute from one MPO planning area to another. For these reasons, many neighboring or proximate MPOs have collaborated to identify opportunities to create or improve transit connections between or among MPO planning areas.

For example, six MPOs in Central Florida (Lake-Sumter MPO, MetroPlan Orlando, Ocala/Marion Transportation Planning Organization, Polk Transportation Planning Organization, River to Sea Transportation Planning Organization, and Space Coast Transportation Planning Organization) collaborated with their state department of transportation on a transit study that identified and prioritized cross-jurisdictional transit projects (FDOT and Central Florida MPO Alliance 2018). The study analyzed transit recommendations from the MPOs most recent long-range transportation plans and presented a unified vision for transit service across the MPOs planning areas.

Meanwhile, the eight MPOs of California's San Joaquin Valley have jointly studied unmet transit needs and service alternatives in rural areas throughout the valley (SJVRPC 2017b). They have also joined with other agencies to form a joint powers authority to manage Amtrak service through the valley (SJJPA JEPA 2013).

## Safety

All MPOs place a high value on ensuring the safety of transportation system users, and all MPOs face similar challenges related to minimizing the frequency and severity of traffic accidents. Furthermore, federal regulations require MPOs to establish performance targets for a defined set of safety measures related to fatalities and serious injuries, or to adopt their state's targets ([23 CFR §490.105\(b\)](#)). MPOs must also include these targets and the corresponding performance measures in their LRTPs and TIPs ([23 CFR §450.324\(e\)\(3\)](#) and [23 CFR §450.326\(d\)](#)).

This shared requirement provides an opportunity for neighboring or proximate MPOs to set targets collaboratively. Additionally, some neighboring or proximate MPOs have collaborated on communication systems and local outreach to increase system safety across their planning areas.

For example, in 2005 three MPOs in Pennsylvania and New Jersey (Delaware Valley Regional Planning Commission, North Jersey Transportation Authority, and South Jersey Transportation Planning Organization) teamed with a wide range of public and private transportation planning partners to establish a Regional Safety Task Force (DVRPC 2019). The task force meets quarterly and has developed a joint statement with a goal, objectives, and measurements to enhance transportation safety across the Delaware Valley. It also provides guidance on the Delaware Valley Regional Planning Commission's *Transportation Safety Action Plan*.

Meanwhile, three MPOs in Southeast Florida (see the Southeast Florida Transportation Council section below) have held a jointly organized Safe Streets Summit each year since 2014 (SEFTC 2019). This event brings together local and regional agencies to discuss improving travel safety on local streets by planning and implementing street networks that accommodate multiple travel modes to balance the needs of all users.

### Congestion Management

Federal requirements mandate each MPO whose planning area population exceeds 200,000 must systematically address traffic congestion and produce a Congestion Management Process (CMP) ([23 CFR §450.322](#)). In areas where multiple MPOs share boundaries, congested corridors often span portions of multiple planning areas. Areas that share resources and information are more likely to identify common congestion management objectives and strategies. Consequently, some neighboring and proximate MPOs have collaborated to develop shared travel models or congestion management processes.

For example, three MPOs in New York's Mid-Hudson Valley (the Orange County Transportation Council, Poughkeepsie-Dutchess County Transportation Council, and Ulster County Transportation Council) have maintained a joint CMP since 2005 (OCTC 2011). The latest version of the CMP incorporates data from the National Performance Management Research Data Set and establishes new performance measures for highway congestion, freight congestion, and transit congestion (DCTC et al. 2019).

Similarly, the eight MPOs of California's San Joaquin Valley have jointly updated their travel demand models (Fehr & Peers 2012; SJVRPC 2018a). The updated models provide a valley-wide framework for estimating and forecasting trips and include a tool to help the MPOs evaluate the effectiveness of transportation demand management techniques.

### Transformative Technologies

Connected and autonomous vehicles, unmanned aerial systems, Internet-connected infrastructure, and other emerging technologies are poised to transform multimodal transportation systems. Future federal or state policy decisions are likely to have a significant effect on the implications of these technologies for multimodal transportation planning. In the interim, neighboring and proximate MPOs have opportunities to share information and collaborate on studies or planning activities, such as scenario planning exercises, to evaluate the effects of potential alternatives.

For example, the New York State Association of Metropolitan Planning Organizations, a coalition of fourteen MPOs, developed a white paper with recommendations to help MPOs address connected and autonomous vehicles through their long-range transportation planning processes (NYSAMPO 2017).

Meanwhile, the Florida Metropolitan Planning Organization Council (MPOAC), a group that represents the collective interests of all 27 MPOs in Florida, identified innovative transportation mobility solutions, including autonomous vehicles, as a legislative priority in 2019. The MPOAC has developed a joint policy position that supports legislation to advance the use of new mobility technologies and protect the public from malicious and intentional interference with these technologies (FMPOAC 2019).

### Environmental Issues

Multimodal transportation policies and investments affect travel behavior, land use, and economic activity. These changes to metropolitan area characteristics have direct and indirect effects on the natural environment. Furthermore, policies and investments in one

MPO planning area can affect environmental quality in neighboring or proximate MPO planning areas.

Federal and state statutes and regulations recognize this interdependence and establish baseline requirements for cooperation and coordination between and among MPOs, air quality agencies, transit providers, state transportation agencies, and local governments. In many instances, MPOs have built off these baseline requirements to collaborate on planning for air quality improvements, land and water resource management, and extreme weather resilience.

### Air Quality

Air pollution from mobile sources, such as cars and trucks, generated in one MPO planning area can negatively affect air quality in neighboring or proximate MPO planning areas. That is, air pollution often travels between MPO planning areas.

MPOs operating in nonattainment or maintenance areas, which are geographic areas that do not meet federal air quality standards or failed to meet those standards in the past, must identify strategies and projects that align with air quality goals as identified in state implementation plans. Furthermore, when multiple MPOs share authority for planning within the same nonattainment area for ozone or carbon monoxide, federal statutes require these MPOs to coordinate their transportation planning processes.

Federal regulations require MPOs operating in nonattainment or maintenance areas to establish performance targets for traffic congestion and on-road mobile source emissions if their urbanized area has a population in excess of one million before January 1, 2022 or in excess of 200,000 after January 1, 2022 and includes National Highway System mileage ([23 CFR §490.105\(c\)\(7\) & \(8\)](#) and [23 CFR §490.703](#)). MPOs must also include these targets and the corresponding performance measures in their LRTPs and TIPs ([23 CFR §450.324\(e\)\(3\)](#) and [23 CFR §450.326\(d\)](#)). This shared requirement provides an opportunity for these MPOs to set targets collaboratively.

In response to air pollution's ability to travel across planning area boundaries and federal performance measurement and coordination requirements, many neighboring or proximate MPOs have collaborated on air quality improvement strategies and projects.

For example, the eight MPOs of California's San Joaquin Valley operate within the same nonattainment area for ozone and particulate matter (U.S. EPA 2019). In response, these MPOs have executed multiple memoranda of understanding and synchronized their planning schedules, underlying assumptions, and methodologies to maximize their efficiency in complying with air quality attainment plans (SJVRPC 2018b).

Similarly, two MPOs in Tennessee have partnered with a regional development organization to better integrate their air quality planning efforts (NADO and AMPO 2009). In 2004, the U.S. EPA designated the Knoxville region a nonattainment area for ozone and particulate matter. The ozone nonattainment area included most of the Knoxville Regional Transportation Planning Organization's metropolitan planning area, a portion of the Lakeway Area Metropolitan Transportation Organization, and nonmetropolitan areas in surrounding counties (KRTPO 2018). The Knoxville and Lakeway Area MPOs and the state department of transportation have a memorandum of agreement to cooperatively address transportation conformity requirements for ozone (TDOT-KRTPO-LAMPTO MOA 2004). Staff members from the East Tennessee Development District (the regional development organization responsible for rural transportation planning in the area) serve on both of the MPOs technical committees (KRTPO 2019; LAMTPO 2019). By August 2017, the Knoxville region's air quality had improved enough to meet all air quality standards (KRTPO 2018).

## Land and Water Resource Management

Wildlands and sensitive environmental features, such as wetlands, provide benefits to humans—by filtering pollutants out of air and water—and habitat for wildlife. Additionally, lakes, rivers, and aquifers supply drinking water for metropolitan areas. In many cases, large natural or rural landscapes, as well as water bodies and sensitive environmental features, cross MPO planning area boundaries. Consequently, many neighboring or proximate MPOs have collaborated on studies or plans to conserve landscapes and habitat or protect water supplies and quality.

For example, in 2002, three MPOs serving the metropolitan areas of Southern Lake Michigan in Wisconsin, Illinois, and Indiana (Southeastern Wisconsin Regional Planning Commission, Chicago Area Transportation Study, and Northwestern Indiana Regional Planning Commission) and the Northeastern Illinois Planning Commission signed the Wingspread Regional Accord. This agreement acknowledged the tri-state area's socioeconomic and environmental interdependence and stated a commitment to coordinate their planning on issues that transcend jurisdictional boundaries. Shortly thereafter, these agencies created the Southern Lake Michigan Water Supply Consortium (Jaffe 2009). In 2005, the consortium held a water supply conference in Chicago to build support for integrated water supply planning across Southern Lake Michigan (NIRPC 2005). In 2009, the original wingspread agencies (including the Chicago Metropolitan Agency for Planning as the successor to both the Chicago Area Transportation Study and the Northeastern Illinois Planning Commission) and an additional MPO, the Southwest Michigan Planning Commission, signed an updated Wingspread Regional Accord to continue coordinated planning efforts in a four-state area serving Southern Lake Michigan.

Meanwhile, the eight MPOs of California's San Joaquin Valley jointly studied environmental resources valley-wide. This effort led to shared data products that local and regional agencies can use to inform growth management and conservation planning efforts at multiple scales (Thorne et al. 2014; SJVRPC 2017a).

## Extreme Weather Resilience

As global temperatures rise, many areas of the U.S. face severe multimodal transportation planning challenges associated with rising sea levels or increasingly frequent and severe storms, wildfires, or drought. Furthermore, any transportation system failures associated with these challenges are likely to have ripple effects across multiple MPO planning areas. Consequently, many neighboring or proximate MPOs have begun collaborating on extreme weather resilience studies and strategies.

For example, following Hurricane Sandy, four MPOs in the New York City metropolitan area collaborated with the Federal Highway Administration and other partners on a report called *Post Hurricane Sandy Transportation Resilience Study in NY, NJ, and CT*. This study identified transportation system vulnerabilities as well as opportunities to integrate extreme weather resilience into transportation decision-making (ten Siethoff et al. 2017).

Meanwhile, three MPOs in Southeast Florida have developed a joint long-range transportation plan with a shared goal to "provide a resilient and adaptable transportation system" (SEFTC 2015). The objectives under this goal include providing and promoting coordination among regional partners to enhance resiliency and adaptability.

## Economic Issues

Metropolitan economies do not operate in isolation. In areas of the country with multiple neighboring or proximate MPO jurisdictions, it is not uncommon for residents to live and

work in different MPO planning areas. In these areas, multimodal transportation policies and investments affect the distribution of jobs and housing, as well as the efficiency of interregional economic activity.

Federal and state statutes and regulations recognize the importance of multimodal transportation planning to regional, interregional, and national economic health. And they establish baseline requirements for cooperation and coordination between and among MPOs, regional economic development agencies, transit providers, state transportation agencies, and local governments. In many instances, MPOs have built off these baseline requirements to collaborate on planning for economic development, housing choice and affordability, and port facilities.

### Economic Development

In many areas of the country, highways and rail corridors link multiple neighboring or proximate MPO planning areas. In these areas, employers consider access to skilled workers, related businesses, and reliable transportation options when weighing location or expansion decisions. Similarly, skilled workers consider cost of living and quality of life when making decisions to relocate for a job. In both cases, local political boundaries typically matter more than MPO jurisdictional boundaries. Consequently, some neighboring or proximate MPOs have collaborated on studies or strategies to support business and workforce development.

For example, three MPOs (Metropolitan Transportation Commission, Sacramento Council of Governments, and San Joaquin Council of Governments) in Northern California collaborated on an economic development study with an economic policy think tank, educational institutions, economic development organizations, and other partner transportation agencies (Bay Area Council Economic Institute 2016). The study looks at economic interdependencies and provides policy recommendations for a 21-county area encompassing eight MPO jurisdictions, including Northern San Joaquin Valley related to freight, land use, transportation and more.

Meanwhile, three MPOs (Northwestern Indiana Regional Planning Committee, Chicago Metropolitan Agency for Planning, and Southeastern Wisconsin Regional Planning Commission) in a three-state area around Chicago, in collaboration with a wide range of private-sector and institutional partners, developed a transportation agenda (Alliance for Regional Development 2016). It includes principles and objectives to foster better integration of passenger rail and freight systems across the MPO planning areas.

### Housing Choice

In some areas of the country with multiple neighboring or proximate MPO jurisdictions, a lack of affordable housing near employment centers is causing an increase in long-distance commuting. This can lead to economic inefficiencies as employers struggle to attract skilled workers and lower-income households struggle to access employment opportunities. Consequently, some neighboring or proximate MPOs have collaborated on studies and strategies to support housing choice and affordability.

For example, the eight MPOs of California's San Joaquin Valley collaborated on multiple studies evaluating valley-wide market potential for higher-density housing and infill residential development (Concord Group 2012; Economic and Planning Systems, Inc. 2014). These studies have helped the MPOs coordinate the housing forecast methodologies they use in their long-range planning processes.

Meanwhile, four MPOs in Northeast Ohio collaborated with a wide range of public- and private-sector partners to produce a fair housing study (NEOSCC 2014). The study

evaluates impediments to fair housing and recommends actions to improve housing choice and affordability across the MPO planning areas.

### Port Facilities

Airports and seaports serve as major intermodal transportation hubs. In areas of the country with multiple neighboring or proximate MPO jurisdictions, multimodal transportation planning can have far-reaching effects on port facility operations and related economic activity. Consequently, some neighboring or proximate MPOs are collaborating on coordinated land-use and transportation planning to support port growth.

For example, three MPOs in Southeast Florida have developed a joint long-range transportation plan that acknowledge the importance of enhancing connections to their three major international airports and three seaports (SEFTC 2015). The plan includes projects aimed at accommodating increased shipping demand from the Panama Canal and improving transit connections to port-related employers.

## Multi-MPO Coordination Area Experiences

Researchers from the American Planning Association (APA) and the Georgia Institute of Technology's Center for Quality Growth and Regional Development (CQGRD) conducted qualitative case study research to learn more about how and why neighboring and proximate MPOs in three distinct areas of the country are coordinating their long-range planning efforts (see figure 2).

*Figure 2. Multi-MPO Coordination Areas*



The research team, in consultation with Federal Highway Administration staff, selected these three “multi-MPO coordination areas” based on their reputations for sustained coordination and collaboration over many years. Through this process, APA and CQGRD staff

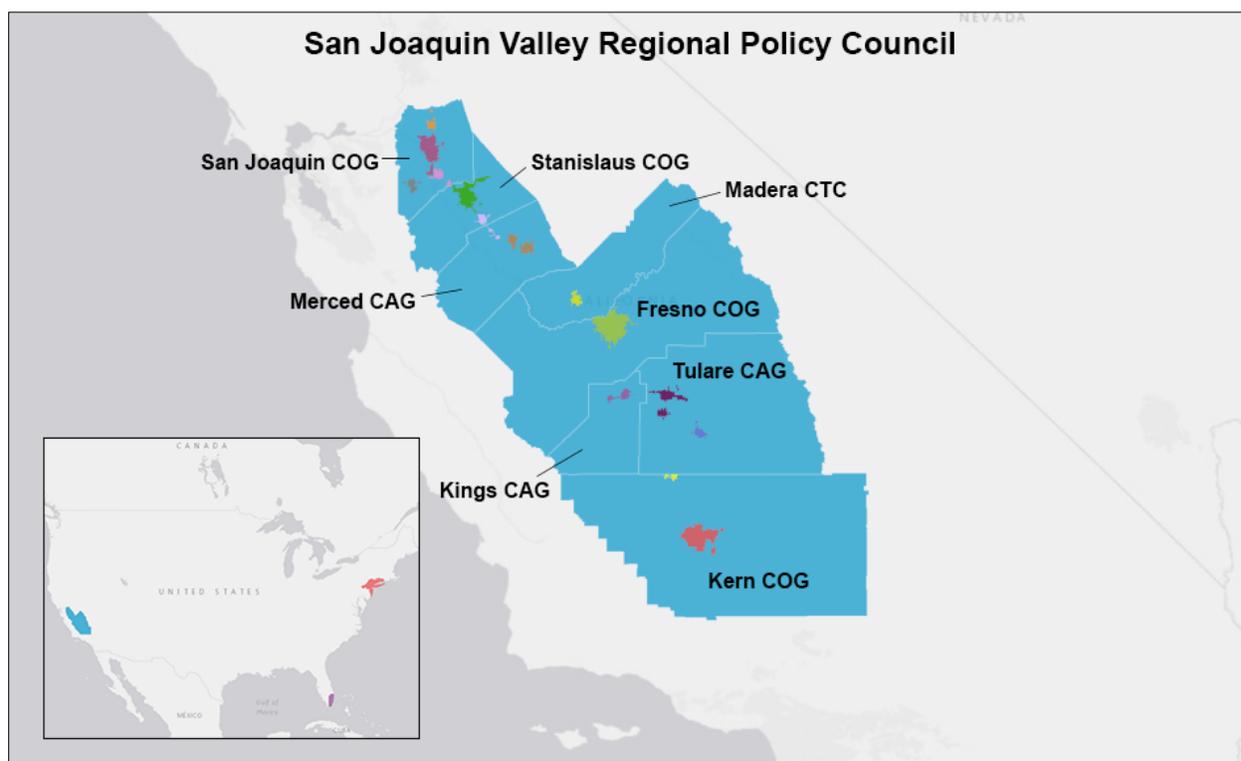
reviewed MPO and partner plans, improvement and work programs, studies, formal agreements, meeting records, and websites. The team also interviewed senior MPO and local government staff members in each coordination area.

The following sections provide brief snapshots of each coordination area and explain how specific issues have motivated and sustained collaboration among MPOs (and their partners) in these areas.

## San Joaquin Valley Regional Policy Council

The San Joaquin Valley Regional Policy Council (SJVRPC) coordination area comprises the southern half of California's Central Valley, with a contiguous combined planning area of more than 27,000 square miles and an estimated population of more than four million residents. The coordination area name refers to a joint policy board established through a memorandum of understanding among eight MPOs (SJVRPC MOU 2006). Since 1992, a wide range of transportation, environmental, and economic issues have motivated these MPOs and their partners to collaborate on long-range transportation planning.

*Figure 3. Constituent MPO planning areas and urbanized areas of the San Joaquin Valley Regional Policy Council coordination area (Sources: HEPGIS, Esri, HERE, NPS, Garmin, NGA, USGS, NPS)*



### Transportation Issues

The SJV is among the most productive agricultural regions in the world, and efficient goods movement from farm to market is a high priority throughout the valley. Furthermore, the SJVs position between the major population centers of Southern California and the San Francisco Bay Area, combined with its relatively low land prices, makes it an attractive location for logistics and distribution facilities (SJVRPC 2018b).

California State Route 99 (SR 99) passes through seven of the eight SJV counties and intersects with all major east-west corridors in the valley. Consequently, SR 99 serves as the key to moving freight by truck throughout and through the SJV. In 2014, an average of 12,457 trucks travelled each day along a sample of nine SR 99 segments throughout the valley (Cambridge Systematics 2017a). Cambridge Systematics projects truck traffic to increase 58 percent along these segments by 2040, reaching an average of 19,667 daily truck trips (2017a). Increasing demand for truck transportation, in combination with a growing population, have led to increased congestion and emissions. The SJV MPOs recognize that they need to work collaboratively to balance potentially competing priorities (SJVRPC 2018b).

## Environmental Issues

The San Joaquin Valley (SJV) has among the worst air quality in the country. Surrounding mountains block airflow and trap pollution, and stagnant weather systems cause nighttime temperature inversions that prevent the dispersion of pollutants. A growing population in the valley, growing demand for goods movement through the valley, and pollution transport from neighboring metropolitan areas as well as international destinations have contributed to the valley's air quality issues (SJVUAPCD 2018).

The eight SJV counties (excluding eastern Kern County) constitute a single air quality nonattainment area for ozone and particulate matter. This requires the eight SJV MPOs to coordinate their Clean Air Act compliance efforts. The MPOs must demonstrate transportation conformity with air quality attainment plans for each iteration of their respective long-range transportation plans (LRTPs) and transportation improvement programs (TIPs) and any associated amendments. Consequently, the MPOs have synchronized their planning schedules, underlying assumptions, and methodologies to align with the federal air quality conformity process (SJVRPC 2018b).

Under California's Sustainable Communities and Climate Protection Act of 2008 (SB 375), each MPO in the state must prepare a Sustainable Communities Strategy (SCS) as a component of its long-range transportation plan. The SCS details a strategy for reducing greenhouse gas (GHG) emissions through coordinated transportation and land-use planning (SJVRPC 2018a). A lack of technical data led the California Air Resources Board (CARB) to establish the same placeholder GHG targets for each SJV MPO in 2010 (CARB 2018).

The SJV MPOs recognize the relationships among GHG emissions reduction goals and shared priorities related to air quality, goods movement, and growth management. This recognition has motivated them to work collaboratively on transportation model improvements, community engagement efforts, and responses to CARB requests (SJVRPC 2018a & SJVRPC 2018b).

## Economic Issues

The SJV is among the most economically distressed regions in the country. In 2017, the average unemployment rate for the valley was 8.5 percent, compared to 4.8 percent for California and 4.4 for the U.S. (BLS 2018). Meanwhile, only 16.8 percent of valley residents age 25 or older have a bachelor's degree or higher, compared to 32.6 percent for California and 30.9 percent for the U.S. (USCB 2019). Median household income in the valley is \$50,982, compared to \$67,169 for California and \$57,652 for the U.S. (USCB 2019).

Between 1970 and 2010, the share of California residents living in the SJV increased from 8.2 percent to 10.7 percent. Because the valley has few physical impediments to urban expansion and relatively low land prices, the valley's urbanized areas have primarily been spreading out from city centers, rather than densifying through infill development. A large

majority of valley residents live in detached single-family homes, and a high percentage of these residents commute long distances to work (Kantor 2010).

The SJV MPOs recognize that unchecked urban expansion and an acute imbalance of jobs and housing threatens the agricultural economy, the natural environment, and quality of life across the valley (Mintier Harnish 2010). This recognition has motivated them to work collaboratively on a series of projects aimed at promoting more compact development patterns and protecting rural economies (SJVRPC 2018b).

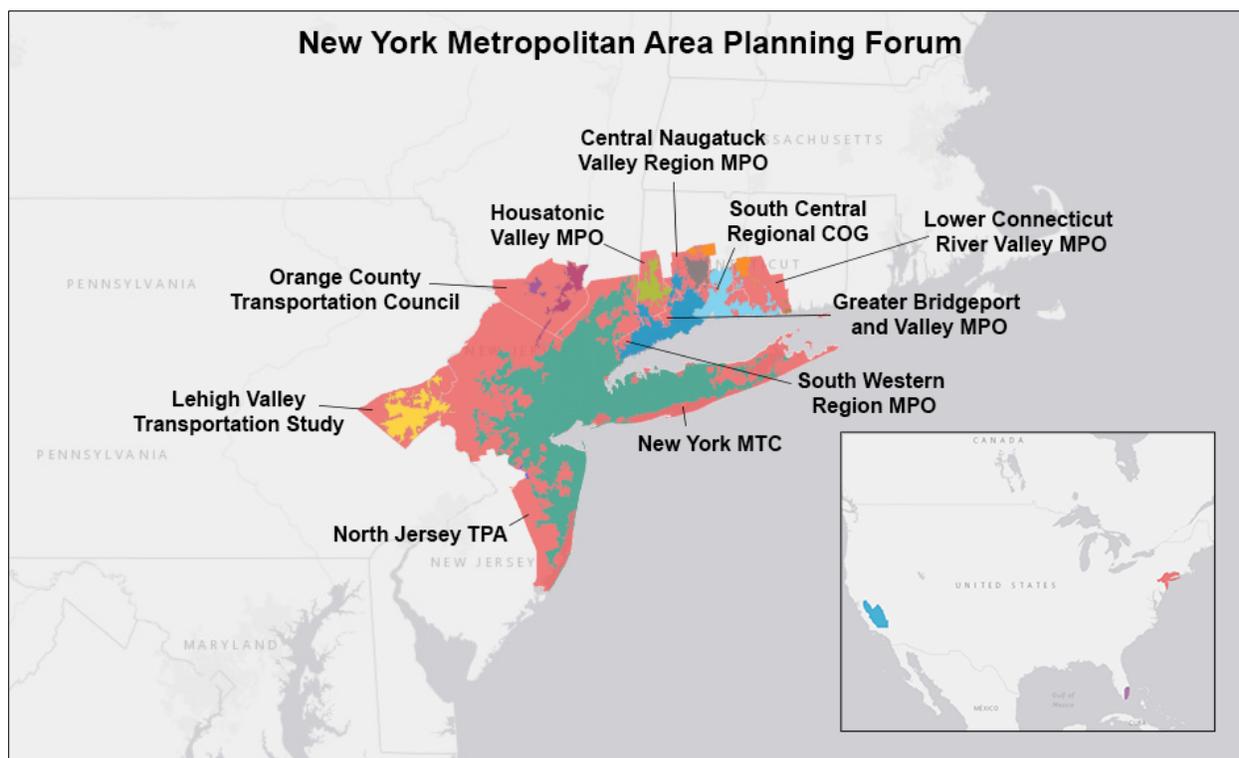
*Table 1. Key components of the San Joaquin Valley Regional Policy Council coordination area*

<b>MPO</b>	<b>Counties</b>	<b>Planning Area Extent (sq. mi.)</b>	<b>2017 Pop. Est.</b>	<b>UZAs</b>
San Joaquin COG	San Joaquin	1,425	745,424	Stockton; Tracy; Manteca; Lodi
Stanislaus COG	Stanislaus	1,514	547,899	Modesto; Turlock (partial)
Merced CAG	Merced	1,971	272,673	Merced; Turlock (partial)
Madera CTC	Madera	2,152	156,890	Madera
Fresno COG	Fresno	6,016	989,255	Fresno
Kings CAG	Kings	1,391	150,101	Hanford
Tulare CAG	Tulare	4,838	464,493	Visalia; Porterville
Kern COG	Kern	8,161	893,119	Bakersfield; Delano

## New York Metropolitan Area Planning Forum

The New York Metropolitan Area Planning (MAP) Forum coordination area comprises parts of New York, New Jersey, Connecticut, and Pennsylvania, with a contiguous combined planning area of more than 10,000 square miles and an estimated population of nearly 23 million residents. The coordination area name refers to a consortium of nine agencies, representing a total of 10 MPOs, committed to cooperative transportation planning and decision-making. This consortium began in 2008 with five MPOs in the New York City metropolitan area and expanded in 2017 to include five additional MPOs.

Figure 4. Constituent MPO planning areas and urbanized areas of the New York Metropolitan Area Planning Forum coordination area (Sources: HEPGIS, Esri, HERE, NPS, Garmin, NGA, USGS, NPS)



## Transportation Issues

A collective desire to improve their federally mandated metropolitan transportation planning processes ultimately motivates the MAP Forum's collaborative efforts. The MPOs formalized their relationship in response to the Federal Highway Administration and Federal Transit Administration recommendations provided during the New York Metropolitan Transportation Council's 2006/2007 Transportation Management Area (TMA) Certification Review required under [23 CFR §450.336\(b\)](#). The combined planning area of these MPOs functions as a single commuter shed, and it includes multiple urbanized areas that cross MPO jurisdictional boundaries. The 2017 expansion of the consortium reflects an even broader understanding of the multimodal transportation system interdependencies in the four-state area.

The MAP Forum operates under an MOU that states a commitment among the MPOs to coordinate planning activities in the following areas (MAP Forum MOU 2008; 2017):

- Unified planning work program (UPWP)
- Travel demand modeling
- Long-range transportation plan (LRTP)
- Transportation improvement program (TIP)
- Air quality state implementation plan (SIP) conformity

MAP Forum members recognize that commuting patterns, shared transportation infrastructure, and economic relationships mean that their respective plans and programs affect neighboring and proximate MPOs throughout the coordination area. Consequently, the MPOs include projects that cross jurisdictional boundaries and projects in areas immediately adjoining but outside their jurisdictional boundaries in their long-range transportation plans (NYMTC 2017).

Historically, planning for efficient goods movement across the Hudson River and through the I-95 corridor has been a challenge for the MAP Forum members. In 2012, Hurricane Sandy damaged freight facility infrastructure and goods in New York and New Jersey. Subsequently, many freight facilities, such as grocery distribution centers, relocated to areas further inland, including the Lehigh Valley area in Pennsylvania. Meanwhile, dramatic growth in e-commerce has dramatically altered freight operations across the coordination area.

In general, the MAP Forum provides a platform to monitor changes in freight patterns in constituent MPO planning areas and to understand how these changes affect local land-use planning decisions. The MAP Forum created a Multi-State Freight Working Group to share information and formulate freight planning strategies. For example, Connecticut and Eastern Pennsylvania are both considering inland ports. Through its participation in the MAP Forum, the Lehigh Valley Planning Commission can learn from Connecticut's inland port feasibility study.

Transformative technologies are also motivating collaboration in the coordination area. The mass deployment of electric and autonomous vehicles may transform transportation infrastructure needs. Meanwhile, new data collection, analysis, sharing, and visualization technologies have the potential to improve transportation information and decision-making systems. The MAP Forum created a Transformative Technologies Working Group to consider the potential effects of emerging technologies on travel demand modeling, land-use patterns, and transit use, and to consider collaborations with utility companies or other nontraditional partners.

### Environmental Issues

Hurricane Sandy exposed transportation system vulnerabilities across the coordination area. Following the storm, the Federal Highway Administration commissioned the *Post Hurricane Sandy Transportation Resilience Study in NY, NJ, and CT*. This study brought together the departments of transportation from New York, New Jersey, and Connecticut and four MAP Forum MPOs to analyze transportation system vulnerabilities to extreme weather events across the tri-state metropolitan area (ten Sietfhoff et al. 2017). At its annual meeting in December 2018, MAP Forum members discussed conducting subarea analyses within the coordination area and identifying adaptation strategies for vulnerable transportation corridors or areas where rainfall can be disruptive.

During this same meeting, the MPOs discussed extreme weather modeling and scenario development. The MAP Forum members recognize a need for standardized extreme weather modeling methods across the coordination area. Currently, several agencies and universities maintain separate models. They also discussed green infrastructure planning, using data and modeling to develop mitigation and adaptation strategies, and new technologies and modeling methods to reflect the latest developments in the field.

### Economic Issues

Two sustainability planning initiatives continue to inform MAP Forum discussions. The U.S. Department of Housing and Urban Development funded both initiatives through its Sustainable Communities Regional Grant Program. Both initiatives operated under formal consortium agreements for the length of the four-year grant period (NY-CT SCC MOA 2011; Together North Jersey 2015). Collectively, five of the 10 MAP Forum members participated in these consortiums, along with a wide variety of other regional planning, transportation, and local governmental partners. Primary strategies for both initiatives include promoting economic development, housing, and transit-oriented development at select locations in the

region. Both initiatives are in the implementation phase, and participants presented updates at the MAP Forum annual meeting in December 2018.

*Table 2. Key components of the New York Metropolitan Area Planning Forum coordination area*

<b>State</b>	<b>MPO</b>	<b>Counties</b>	<b>Planning Area Extent (sq. mi.)</b>	<b>2017 Pop. Est.</b>	<b>UZAs</b>
New York	Orange County Transportation Council	Orange	837	382,226	Middletown, NY; Poughkeepsie-Newburgh, NY-NJ (partial)
New York	New York Metropolitan Transportation Council	Nassau; Suffolk; Bronx; Kings (Brooklyn); New York (Manhattan); Queens; Richmond (Staten Island); Putnam; Rockland; Westchester	2,726	12,893,600	New York-Newark, NY-NJ-CT (partial); Bridgeport-Stamford, CT-NY (partial); Danbury, CT-NY (partial)
New Jersey	North Jersey Transportation Planning Authority	Bergen; Hudson; Passaic; Middlesex; Monmouth; Ocean; Somerset; Union County; Essex; Hunterdon; Morris; Sussex; Warren	4,410	6,800,589	New York-Newark, NY-NJ-CT (partial); Allentown, PA-NJ (partial); Philadelphia, PA-NJ-DE-MD (partial); Twin Rivers-Hightstown, NJ (partial); Trenton, NJ (partial)
Pennsylvania	Lehigh Valley Transportation Study (hosted by Lehigh Valley Planning Commission)	Lehigh; Northampton	725	669,899	Allentown, PA-NJ (partial)
Connecticut	Housatonic Valley MPO (hosted by Western Connecticut COG)	Fairfield (partial); Litchfield (partial)	337	230,969	Danbury, CT-NY (partial); Bridgeport-Stamford (partial)

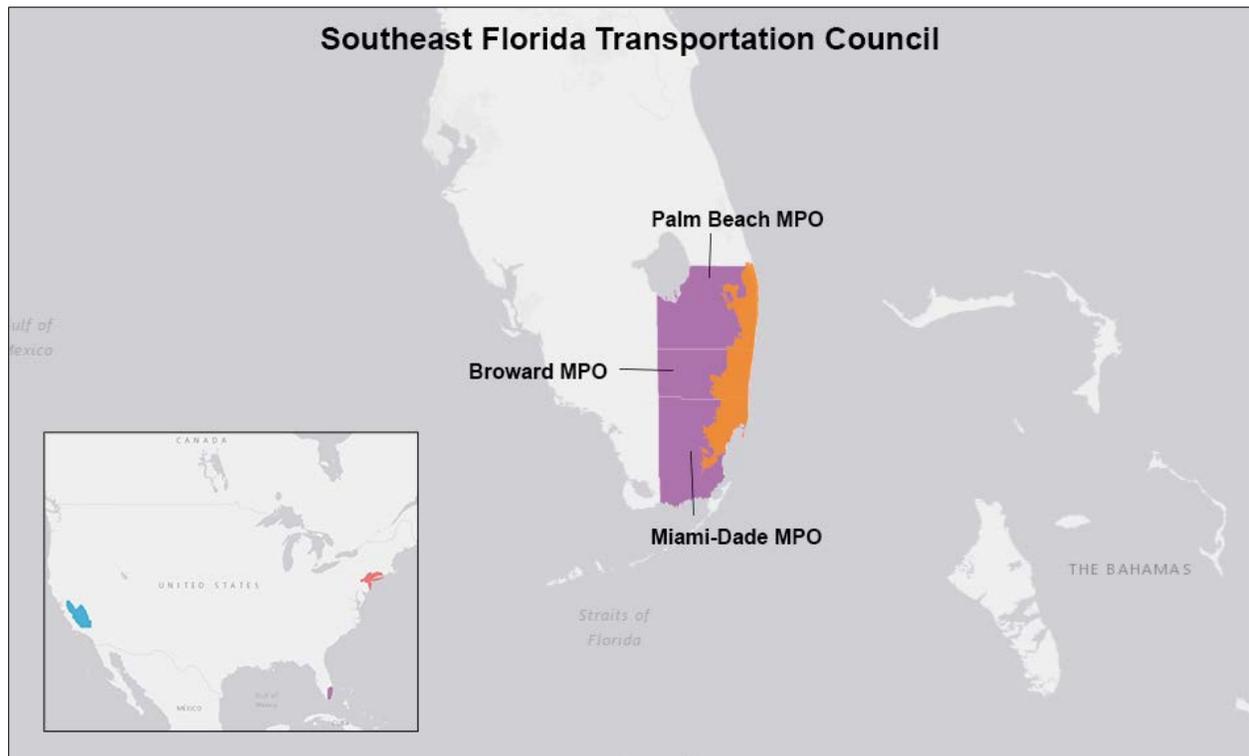
State	MPO	Counties	Planning Area Extent (sq. mi.)	2017 Pop. Est.	UZAs
Connecticut	South Western Region MPO (hosted by Western Connecticut COG)	Fairfield (partial)	216	381,901	Bridgeport-Stamford, CT-NY (partial)
Connecticut	Greater Bridgeport and Valley MPO (co-hosted by Connecticut Metropolitan COG and Naugatuck Valley COG)	Fairfield (partial); New Haven (partial)	203	413,771	Bridgeport-Stamford, CT-NY (partial)
Connecticut	Central Naugatuck Valley Region MPO (hosted by Naugatuck Valley COG)	Litchfield (partial); New Haven (partial); Hartford (partial)	363	284,726	Waterbury, CT (partial); Bridgeport-Stamford, CT-NY (partial); Hartford, CT (partial); New Haven, CT (partial)
Connecticut	South Central Regional COG	New Haven (partial)	377	596,467	New Haven, CT (partial); Hartford, CT (partial); Bridgeport-Stamford, CT-NY (partial)
Connecticut	Lower Connecticut River Valley MPO (hosted by Lower Connecticut River Valley COG)	Middlesex; New London (partial)	444	173,196	Hartford, CT (partial); New Haven, CT (partial); Norwich-New London, CT-RI

## Southeast Florida Transportation Council

The Southeast Florida Transportation Council (SJVRPC) coordination area is comprised of the three southernmost mainland counties in Southeast Florida, with a contiguous combined planning area of more than 5,000 square miles and an estimated population of more than six million residents. The coordination area name refers to a joint policy board established through an interlocal agreement among the three MPOs responsible for planning in the

Miami urbanized area (SEFTC ILA 2006). Since 2006, various transportation, environmental, and economic issues have motivated these MPOs and their partners to collaborate on long-range multimodal transportation planning.

Figure 5. Constituent MPO planning areas and the urbanized area of the Southeast Florida Transportation Council coordination area (Sources: HEPGIS, Esri, HERE, NPS, Garmin, NGA, USGS, NPS)



### Transportation Issues

Broward, Miami-Dade, and Palm Beach counties are united by conditions that transcend MPO boundaries. Low density development patterns and historically auto-centric transportation investments present challenges for mobility and transportation improvements. These conditions are further reinforced by a growing population: the tri-county area is projected to increase by 1.4 million residents between 2010 and 2040 (SEFTC 2015).

Southeast Florida has an opportunity to improve multimodal travel options, including a non-motorized transportation system. In 2014, Transportation for America classified the region the fourth most dangerous metro area in the U.S. for pedestrians because of the high rate of pedestrian deaths per capita (SEFTC 2015). Consequently, SEFTC's MPOs recognize that investments in multimodal transportation are necessary to improve safety for all road users, encourage residents to consider alternatives to car trips, and reduce first mile/last mile challenges. In response, the MPOs are collaborating on complete streets initiatives and recurring training opportunities for local partners. Additionally, SEFTC's MPOs have collaborated with other regional partners to produce a regional greenways and trails plan for a seven-county area (Palm Beach TPA 2015).

Because of its geographic location, Southeast Florida is considered "the gateway to the Americas," serving as a space where goods are moved between the U.S., Central, and

South America (SEFTC 2015). The region processes about 40 percent of total U.S. exports to Latin America. Recent projects, including the Panama Canal expansion, have resulted in projects that increase regional capacity to transport freight, including the Port of Miami Tunnel project and the Deep Harbor Dredge (SEFTC 2015).

An increase in imports and exports in the region will place greater demand on existing infrastructure to move goods, including highways, seaports, airports, and rail systems (SEFTC 2015). Consequently, the coordination area MPOs recognize that the region needs to update existing systems to accommodate a greater volume of shipments. Interregional collaboration is key to ensuring complementary system improvements. SEFTC is addressing freight challenges proactively through its ongoing joint *Regional Transportation Plan* process and implementation of a regional freight plan (SEFTC 2018, Cambridge Systematics 2014).

### Environmental Issues

The coordination area MPOs recognize that they will need to collaborate to implement consistent strategies that will protect transportation investments from the impacts of extreme weather events. As such events continue to impact the region, water management becomes increasingly important in implementing resilient and adaptable transportation investments. SEFTC identifies protection of environmental and natural resource areas as a regional priority (SEFTC 2015). In 2015, the coordination area MPOs along with other regional partners, including the Monroe County Planning and Environmental Resources Department, partnered with FHWA to create the *South Florida Climate Change Vulnerability Assessment and Adaption Pilot Project*, which investigates the impacts of more rainfall, sea level rise, and salt water intrusion on existing infrastructure.

In addition to collaborating through the SFETC, the three MPOs constituent county governments are part the Southeast Florida Regional Climate Compact, a voluntary partnership to protect the region, including the tri-county area and Monroe County located south of the Miami urbanized area (SEFTC 2015). The coordination area’s most recently adopted joint *Regional Transportation Plan* stipulates that projects must meet performance measures that support the regional environmental goal, which is to “protect the region’s environment, promote energy conservation, and provide a resilient and adaptable transportation system (SEFTC 2015).

### Economic Issues

More than one-quarter of all households in the coordination area have annual incomes of less than \$25,000 (SEFTC 2015). Furthermore, the economy of Southeast Florida is overly dependent on industries tied to population growth, which leads to dramatic boom-and-bust cycles (SEFRPC 2013). The top three industries are retail trade, health care and social assistance, and accommodation and food service (SEFTC 2015). SEFTC’s MPOs are interested in addressing these challenges by increasing capacity for trade, which requires regional investments in infrastructure that supports greater capacity for travel and movement of goods. Furthermore, the MPOs and a wide range of public- and private-sector partners have identified multiple objectives for growing the economy and encourage economic competitiveness, including growing Southeast Florida’s capacity to serve as a global hub, supporting innovation clusters, and encouraging an entrepreneurial culture (SFRPC 2013).

*Table 3. Key components of the Southeast Florida Transportation Council coordination area*

MPO	Counties	Planning Area Extent (sq. mi.)	2017 Pop. Est.	UZA
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Broward MPO	Broward	1,225	1,935,878	Miami
Miami-Dade TPO	Miami-Dade	2,020	2,751,796	Miami
Palm Beach TPA	Palm Beach	1,980	1,471,150	Miami

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## Glossary

**Agreement:** A document signed by official representatives of two more MPOs specifying roles and responsibilities for their respective organizations. This agreement may be a legally binding compact or contract or it may be a non-legally binding memorandum of understanding (MOU), memorandum of agreement (MOA), or letter of intent.

**Collaboration:** A joint process of creation.

**Consultation:** A process in which 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 ([23 CFR §450.104](#)).

**Cooperation:** A process in which two or more parties involved in carrying out the transportation planning and programming processes work together to achieve a common goal or objective ([23 CFR §450.104](#)).

**Coordination:** 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 ([23 CFR §450.104](#)).

**Interregional:** Pertaining to two or more overlapping, adjacent, or proximate metropolitan areas, or MPO planning areas.

**Joint Policy Board or Coordinating Committee:** A body created to discuss, coordinate, or decide policy of mutual interest to two or more MPOs. A joint policy board or coordinating committee does not replace the statutorily required policy board of any constituent MPO.

**Multi-MPO Coordination Area:** Two or more adjacent or proximate MPO planning areas with a history of sustained coordination or collaboration between or among MPOs.

**Collaborative Planning Events:** Joint or cosponsored workshops, seminars, summits, visioning exercises, open houses, or other activities that bring together stakeholders beyond policy board or coordinating committee members to discuss interregional issues or to formulate or refine interregional strategies.

**Statutorily Defined MPO Work Products or Processes:** Federal statutes define the long-range transportation plan (LRTP, also known as the metropolitan transportation plan (MTP) or regional transportation plan (RTP)), the public participation plan (PPP), the transportation improvement program (TIP), and the unified planning work program (UPWP) as essential components of metropolitan multimodal transportation planning. MPOs must develop each of these products through statutorily defined processes. Additionally, MPOs in Transportation Management Areas must develop a congestion management process (CMP). See [23 USC §134](#) and [23 CFR §450.308](#).

**Shared Data Product:** A shared data product is an interregional data set intended to provide a uniform basis for analysis for multiple MPOs. Examples include interregional GIS products, interregional demographic data sets, and interregional economic data sets.

**Urbanized Area (UZA):** A densely settled area with a population of 50,000 or more, as designated by the U.S. Census Bureau. These boundaries can be adjusted per 23 CFR §470.105.