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Metropolitan Transportation Planning: A Case Study

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ABSTRACT

More than 50,000 people live in a metro area. Government leaders from the city and county, as well as state, regional and municipal transportation agencies are all represented on the MPO board, which gives final approval to regionally important and federally funded transportation upgrades. More than a billion dollars is spent each year by MPOs, yet many outside transportation and those they serve have little idea what MPOs are or how they work.

Planners and academics highlight the importance of metro areas as economic entities and the appropriate scale for tackling wicked issues like transportation. It is common for MPOs to adhere to the three C's of continuous, cooperative, and comprehensive operations (3C). Goals for the long term are established and given high emphasis by state DOTs, local governments and public transit providers. In spite of this, contemporary MPOs face a wide range of obstacles in their day-to-day activities. Various agencies and local governments have to approve regional plans and investments that are subject to their approval as a group. However, MPOs are increasingly advocating for more pedestrian- and bicycle-friendly neighborhoods, but they have little say in the decisions that must be made about land use in order to achieve this goal.

In the 21st century, MPOs may be a more strong driving factor for regional development. Before looking at the issue of MPOs, it is important to understand their purpose and history as well as transportation planning previous to the founding of most MPOs. This paper conducts a critical meta-review of the literature on MPOs and regional transportation planning. I am pursuing three goals: Urban planning in the United States has a long history, starting with its earliest days in the 1960s and ending now. As far as I can determine, no one has linked the dots. Second, I am curious in the connection between this past and the present MPO issues. It is my third goal in this essay to examine several approaches for improving urban transportation planning.

Introduction

For regional transportation planning, the contemporary equivalent of an MPO is a reasonably well-developed organization. However, their constraints are genuine and span from outdated membership structures to a lack of technological capability. There are not many MPOs that are able to overcome these obstacles without strong leadership, knowledgeable and enthusiastic personnel, the ability to make the most of limited resources, and the active participation of member jurisdictions (Transportation for America, 2014). There are some long-buried seeds of regional transportation planning difficulties that I uncover in this research. Today's planning, despite its flaws, gives regional transportation planners significantly more guidance than they had before federal law imposed 3C planning. The legislation and administrative procedures that govern metro transportation planning have evolved over time and might serve as a foundation for future revisions of MPO representation and regional transportation funding.

To learn more about how contemporary MPOs work and what is expected of them, continue reading this article. After that, I will discuss the development of regional transportation planning in the US. When I talk about the early 20th-century transportation planning, I explain the circumstances that pushed Congress to approve the 1962 Highway Act, which enforced 3C planning in metropolitan areas. First and foremost, I will discuss the concerns of policymakers about contemporary MPOs, such as the lack of a strong regional voice on investments. As a last point, I will touch on possible modifications to MPO representation and finance.

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"What Are MPOs, and What Do They Do"?

An MPO is an umbrella body responsible for transportation planning and decision-making in metropolitan areas throughout the United States and its territories. MPOs, on the other hand, are mostly unknown outside of the transportation sector, and as a result, only a small amount of research has been done on them.The Highway Act of 1962 put in motion measures that have shaped modern MPOs. Urban engagement in regional transportation choices over federal highway monies, which are mostly controlled by state highway departments, was a goal of the bill. An ongoing, cooperative, and comprehensive planning process (the 3Cs) was needed as a prerequisite for federal assistance in metropolitan areas.

Many federal rules and regulations as well as city-specific norms regulate the growth of cities. Nevertheless, each MPO is established by agreement between the governor of the state and the local governments that represent 75% or more of the population in the region. It is only possible to implement MPO board rules after obtaining state permission under federal law, which govern all MPO memberships, voting rights, decision-making procedures, and advisory committees. A single town or county serves as home to a large number of MPOs. Other MPOs are part of councils of government (COGs) that deal with regional schedules' implementation expenses. In the TIP, only projects may be included.

problems such as land use and economic development in addition to transportation. Some MPOs with a focus on transportation are categorized as independent organizations.

It is the responsibility of the MPO or the host organization to appoint members of the executive and technical staff who serve on the MPO's board of directors. The board includes elected leaders from the region's towns and counties, as well as transportation authorities from the state and regional levels. Figure 1 indicates that some MPO boards include seats for tribal governments, local school boards, or people; others have no seats at all. MPO boards range in size from 20 to 70, with the smallest having little more than eight members. The MPO's bylaws stipulate who may vote. The majority of MPOs do not weight votes based on population density, however a few provide more members to bigger areas. Most MPOs assign one vote to each seat and count votes equally.

The MPO determines which transportation projects are needed in the area. There should be a long-range transport strategy and a TIP that lists short-term investments to carry out that plan. Keeping the plan updated every four to five years is a key part of the organization's long-term strategy. As a capital program, the TIP outlines the four-year implementation schedule for agencies and local governments, as well as the federal, state, and other funding sources that will be used to pay for those

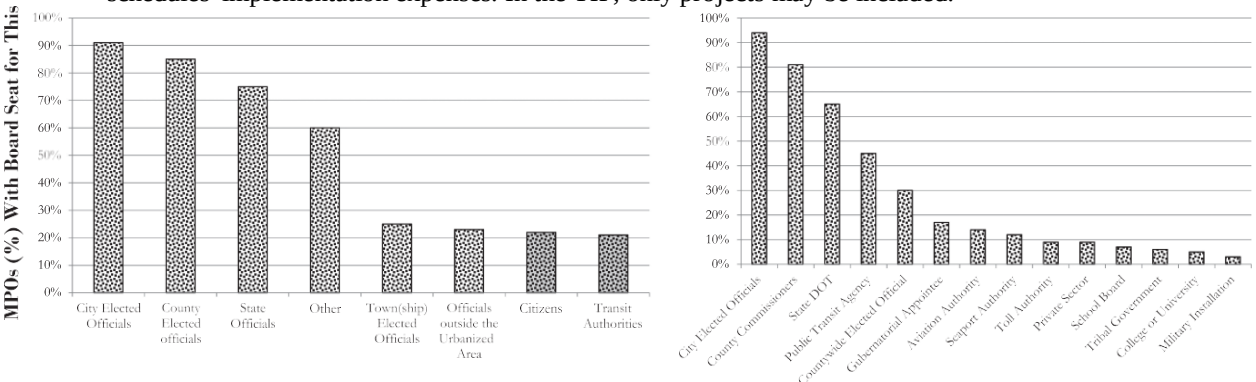

Figure 1 depicts the development of MPO voting board members from 1977 to 2010 throughout this time period. The MPO stands for the Metropolitan Planning Organization, while the DOT stands for the Department of Transportation. Based on data from the U.S. Department of Transportation from 1977 as well as Bond, Kramer, and Seggerman (2010). (LRP). To get federal funds or to be considered regionally important, a project must be included in the MPO's Transportation Investment Plan.Additionally, this procedure is subject to a variety of federal and state regulations and policies.1 Table 1 indicates that comprehensive long-range planning must take into account all forms of transportation as well as other legally stipulated planning considerations, such as safety, system efficiency, and environmental quality. It is also important for the MPO to facilitate public engagement in its planning process and the creation of the TIP. In order to meet fiscal constraints, the plan and TIP initiatives must get enough money from other sources. The plan and the TIP are no longer wish lists, although they were once."MPO planning takes into account future travel demand, transportation system conditions, performance, and repercussions. As a rule, the MPO's technical team, hired consultants, or a partnering agency develops the mathematical models that predict the future demand and predicted changes in the population and urban development, and also the mobility and air quality consequences of planned investments.

"SearchingforRegionalOrganizationsintheEarly20thCentury"

It was difficult to plan transportation and other needs for metropolitan America in the early 20th century since there were no strong regional organizations to aid in the process.

The inability to link the regional total to its component parts was due to a structural flaw. As a result of regional planners like Patrick Geddes and Lewis Mumford, water management and traffic congestion were all addressed. For example, they formed the Regional Planning Association of America to advocate for regional surveys and plans that addressed the issues of the industrial metropolis. There was a strong push for a more metropolitan government, including annexation and

merging of cities with their surrounding suburbs.

Regional planning is limited today by the same reasons that plagued early regional organizations, such as economic competition among jurisdictions, opposition to centralized planning, and resource limitations. Conflicting regional freight interests delayed the capacity of the Port of New York Authority to fully fulfill its goals for a publicly managed freight system when it was founded in 1921 to unite the previously disconnected facilities in New York Harbor. New York (NY) subway tunnel and trackage rights were handled by the Board of Estimate during this time period, which represented the mayor, comptroller, five borough presidents, and the city council president." Due to competition, local autonomy, and suspicions of central planning by the board, subway operators and planners were unable to work together. "It was difficult to carry out large-scale regional planning during the Depression and World War II because of a lack of funding from regional bodies like Chicago's Metropolitan Housing & Planning Council (MHPPC).

"EarlyPatternsofSeparateCityandStateTransportationPlanning"

State highway design and engineering had little to do with urban mobility in the early twentieth century, complicating regional transportation planning. Rather, states focused on the poor drainage, mud, bumps, and holes that plagued rural roads in America's agricultural districts, making them almost impassable to farm vehicles."Improved access to urban markets for farmers, as well as improved ties between rural communities and their religious institutions, were among the goals of the project.

State highway agencies' financial and organizational structures further distanced them from urban concerns and set precedents that were difficult to change. There was a gradual shift from property taxes and bonds toward fuel taxes and vehicle fees to pay rural highway repairs in the 1920s. Rather than imposing financial burdens on the states, the Federal Aid Road Act of 1916 encouraged the states to take the lead on rural road construction projects. As a condition of receiving federal subsidies, states had to establish a highway department in 1916, which was mandated by law at the time. For the purpose of connecting interstates and connecting rural areas to metropolitan centers, the predecessor of today's FHWA, the U.S. Bureau of Public Roads, built a national main road network in 1925 in conjunction with state highway agencies.

"These early laws established state highway departments as rural road-building agencies and fostered federalist tendencies in US highway finance. 50% of federal funds would match state investments in the primary system, and state transportation agencies would own, place, and construct roads to federal standards as part of that process.. Planning, surveys, and economic analyses that are not directly related to building new roads may not be paid using federal funds, either. The 1934 Highway Act finally allowed states to use 1.5% of annual construction funding for planning, but these efforts remained focused on rural transportation."These measures sent more cars to American cities, but they did little to improve traffic flow inside the cities themselves.

American cities, on the other hand, faced a distinct set of transportation challenges. Crowded downtown streets become even more congested with an increasing number of autos. Architects, engineers, and planners, as well as local and state government officials and chambers of commerce, discussed possible solutions. To "stran- gling" traffic congestion, Boston (MA) stakeholders debated whether parking restrictions or a circular roadway would be the best option. It was a joint effort by municipal engineers and corporate interests to create traffic planning and parking laws that would enhance vehicle flow, and the city issued bonds to pay for street improvements. There were ideas for a regional express-way and transportation system financed by the civic leaders of Los Angeles. The absence of state and federal funding hampered the implementation of many of the ambitious rehabilitation plans developed in cities throughout the country in the late 1930s and early 1940s.City transportation services declined as the number of car owners and travelers rose. Transit began to develop in the 1920s

"SearchingforRegionalOrganizationsintheEarly20thCentury"

It was difficult to plan transportation and other requirements for urban America in the early 20th century since there were no strong regional organizations to help.

It was a fundamental institutional problem to connect the regional total to its constituent components. "As a result of regional planners like Patrick Geddes and Lewis Mumford, water management and traffic congestion were all addressed. For example, they formed the Regional Planning Association of America to advocate for regional surveys and plans that addressed the issues of the industrial metropolis. There was a strong push for a more metropolitan government, including annexation and merging of cities with their surrounding suburbs.

Regional planning is limited today by the same reasons that plagued early regional organizations, such as economic competition among jurisdictions, opposition to centralized planning, and resource limitations. There were too many competing freight interests in the area for the Port of New York Authority, which was set up in 1921 to bring together New York Harbor's many port facilities and create a publicly run freight system, to live up to its full potential (Doig, 1993; Revell, 2003). New York (NY) subway tunnel and trackage rights were handled by the Board of Estimate during this time period, which represented the mayor, comptroller, five borough presidents, and the city council president. Due to competition, local autonomy, and suspicions of central planning by the board, subway operators and planners were unable to work together. It was difficult to carry out large-scale regional planning during the Depression and World War II because of a lack of funding from regional bodies like Chicago's Metropolitan Housing & Planning Council (MHPPC)."

"EarlyPatternsofSeparateCityandStateTransportationPlanning"

"In the early twentieth century, regional transportation planning was challenging since state highway engineering and planning had little to do with urban mobility. States instead focused on the poor drainage, mud, bumps, and holes in rural roads that rendered them impassable in rural sections of the United States of America." Rural economy and social cohesiveness have

benefited from improved access to city markets for farmers and improved motorways connecting rural areas to churches and schools.

State highway agencies were more disconnected from urban issues due to financial and organizational arrangements that were difficult to modify. There was a gradual shift from property taxes and bonds to fuel taxes and vehicle fees in the 1920s to pay rural highway upgrades, which began in the early 1900s. “The 1916 Federal Aid Road Act allowed the federal government to begin paying state-initiated rural road building, overturning its previous requirement that states pay for roads and other so-called internal improvements.”State highway departments were mandated by the 1916 law in order for federal funds not to be "squan- dered by local politicians" who were uninformed about "scientific road-building." Through collaboration with state transportation departments, a national primary road network was established in 1925 by the forerunner of the Federal Highway Administration (FHWA), the United States Bureau of Public Roads (BPR), to connect interstate highways and rural communities.

“Those early acts established state highway departments as rural road-building entities, and they developed federalist tendencies in the United States' highway investment policies. Using the primary approach, the federal government would match state contributions 50% of the time, and the state transportation agencies would own and develop roads to federal standards in accordance with their jurisdictions. Federal funds cannot be used to pay non-road construction activities like planning, surveys, or economic analyses. This includes any urban expansions of the system.” States were authorized to utilize 1.5 percent of yearly construction funds for planning under the 1934 Highway Act, but those efforts remained concentrated on rural travel. Rather of addressing traffic congestion in U.S. cities, these strategies instead directed more automobiles to the metropolitan cores.

Cities in the United States had a separate set of transportation problems. There were already a lot of carts, carriages, pedestrians and streetcars in the downtown area. Architects, engineers, and planners, as well as local and state government officials and chambers of commerce, discussed possible solutions. As a result of the "stran- gling" of congestion, Boston (MA) stakeholders debated whether parking restrictions or a loop roadway were the best solutions. The city of Chicago collaborated with engineers and corporate interests to develop traffic planning and parking rules, and the city issued bonds to pay street improvements. There were proposals for a regional express-way and transportation system financed by the civic leaders of Los Angeles, as well as a major traffic street layout. A number of communities created ambitious revitalization plans in the late 1930s and early 1940s, including new expressways and airports, but none received state or federal money.

City transportation services declined as the number of car owners and travelers grew. Beginning in the early 1920s, public transportation began to develop.

“How Metropolitan TransportationPlanningandMPOsCametoBe”

As seen from a historical perspective, the procedures and institutions recognizable to today's transportation planners were formed relatively recently. Separate transportation planning was carried out by the cities at the beginning of the 20th century and the states thereafter. Midcentury cities' early optimism about automobility shifted to frustration with interstate-era urban highways as the absence of institutions to manage regional mobility become increasingly troublesome. Prominent urban groups argued for less car-centric transportation planning and a greater role for the state highway department in the allocation of federal monies.

Regional transportation planning and MPOs evolved from the 1962 Highway Act, which set the foundation. State transportation agencies first used 3C planning as an informal exercise in state-local engagement. As a result of federal laws and regulations in urban areas, the decision making process has been gradually changed from an atomistic, highway-focused approach to a formal but flexible structure that has broadened stakeholder engagement and included new and emerging issues.

From the early 20th century to the present day, I will be tracing this growth. Conflicts in transportation planning often center on who should be involved in the process, who should have control over the location, scope, and timing of projects, as well as what issues should be addressed. It was difficult to come up with satisfactory replies on a regular basis. The limits of modern metropolis planning mirror classic conflicts.

“FormalizingPlanningInstitutionsandProducts:MPOs, LRPs,andTIPs”

In some respects, federal policy in the 1970s helped to clarify and codify urban planning. First, Congress made it clear that local elected officials would be participating in 3C planning, which was a huge step forward. "Responsible public officials" were urged under the Federal-Aid Highway Act of 1970 to assess which expenditures "best serve the purposes and objectives of [urbanized area] communities," according to the law.

“Broadening,Bolstering,andMeasuring3CInstitutions:TheIntermodalSurfaceTransportationEfficiencyAct(ISTEA)andBeyond”

As a result of 1970s policy, many MPOs remained weak institutions despite their formalization. “A important MPO tool, the TIP was mostly used to develop wish lists of projects that member local governments and transportation agencies wanted (whether or not available money could pay for them), and state and local politicians controlled which projects were taken forward.”Federal and state monies were available to state transportation agencies, allowing them to undertake projects and have great control over metro spending.

Initially, the federal transportation bill of 1991, known as ISTEA, boosted MPO project

selection power. Fiscal constraints forced MPOs to demonstrate how proposed initiatives would be paid, preventing wish lists and resulting in more credible MPO decision-making. “3C planning had to meet federal air quality criteria, and areas that planned transportation projects that would aggravate pollution risked losing federal funding. As a result, metropolitan planning organizations (MPOs) in cities like Los Angeles, Denver (CO), and Charlotte (NC) have been working to encourage denser land use and transit, cycling, and pedestrian enhancements.” During the 1990s and early 2000s, MPOs used budgetary restraint and compliance to trash earmarks for undesired legislative pet projects.

ConclusionsandImplicationsforPractice

Effective institutions are needed to maintain and improve regional transportation networks that span municipal, county, and even state lines. Modern city planning and MPOs are not always up to the challenge. Their flaws are part of a bigger, lengthier history of regional transportation planning agencies that have been partially documented. This article directly adds to the understanding of current metropolitan planning and MPOs among practitioners and academics by tracing their growth.

Three lessons may be drawn from a comparison of present criticisms with those of the past. When it comes to 3C planning, gradual development is seen as more of a glass half full rather than half empty by planners and politicians. Metropolitan planning has grown significantly throughout the years when seen in context. In the early twentieth century, regionalists yearned for planning agencies that would take a comprehensive approach to transportation.

“City transportation programs and highway-focused state planning seldom interacted before the mid-century; once they did, metropolitan impacts may be disastrous.”

This policy, first implemented in the 1960s, gave local governments more influence over state transportation agencies while simultaneously boosting MPOs' scope, involvement and effect. These levers have been employed by planners, authorities, and stakeholders in many metro regions to construct proactive MPOs.

Second, MPOs' ongoing issues are placed into perspective by looking back at the past. Since the early 20th century, regional planning disputes have been on the increase. For example, if MPOs are unable to meet local needs without restraining task seekers, interlocal disagreement, organizing and government cynics, or offices built up according to personal situation, how may organizers and chiefs work on the prospects of MPOs managing such factors?

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