

Governing the Metropolis: The evolution of cooperative metropolitan governance in Mexico City's public transportation

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Abstract

What enables cooperation at the metropolitan scale? This thesis explores public transportation planning in the Mexico City metropolitan area (MCMA) for empirical evidence to better understand what institutional, financial, and political conditions encourage and deter cooperative metropolitan governance. The MCMA, made up of several state-level jurisdictions, predominantly the Federal District (DF) and the State of Mexico (Edomex), continues to expand rapidly, surpassing their jurisdictional capacities and putting pressure on infrastructure like public transit, which carries almost two-thirds of daily traffic. Unhindered and even instigated by transportation and land use decisions, growth has spilled over from the historic downtown area, concentrated in the northern half of the DF, into Edomex, complicating the development, implementation, and enforcement of policies across the two jurisdictions. Using three cases of recent metropolitan-scale transit projects – Linea B, the Tren Suburbano, and Méxibus Línea 4 – as a lens, this thesis investigates how institutions and actors approach the jurisdictional and functional divides between the states, and how they have done so in the past. By examining the interactions of the various actors and institutions around the planning and implementation of each case, this thesis argues that the broadening of the transportation policy network reflects a more effective approach to metropolitan governance, auguring a future in which cooperation and competition in fact coexist at this scale not only within the realm of public transportation but also as part of overall urban dynamics.

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Chapter 1 – Introduction and Literature Review

What enables cooperation at the metropolitan scale? This thesis explores public transportation planning in the Mexico City metropolitan area (MCMA) for empirical evidence to better understand what institutional, financial, and political conditions encourage and deter cooperative metropolitan governance. The MCMA, made up of several state-level jurisdictions,¹ predominantly the Federal District (DF) and the State of Mexico (Edomex), continues to expand rapidly, surpassing their jurisdictional capacities and putting pressure on infrastructure like public transit, which carries almost two-thirds of daily traffic.² Unhindered and even instigated by transportation and land use decisions, growth has spilled over from the historic downtown area, concentrated in the northern half of the DF, into Edomex (Figure 1), complicating the development, implementation, and enforcement of policies across the two jurisdictions. Because transportation and especially transit implementation has proven to be a semi-successful mechanism to gain and exert political power at multiple scales,³ the planning and implementation process of new public transportation corridors crossing between these states provides an intriguing lens to learn how institutions and actors are bridging – or not – the jurisdictional and functional divides between the states, and reexamine how they have done so in the past. How do local state entities negotiate the physical extension of the current transit system across jurisdictions? What institutional conditions enable (or not) metropolitan governance of transportation planning in Mexico City? How have these institutions evolved over time in order to address the needs of metropolitan governance?

¹ Although the Federal District is a federal entity within the nation, it has steadily received a greater degree of political autonomy, when they first elected its head of government and members of the Legislative Assembly in 1997. However, because this elected government is situated as an intermediary between federal and local levels, this thesis refers to the DF as a state for the sake of simplicity. For more information on the legal status of the DF, see Javier Hurtado González and Alberto Arellano Ríos, “LA CIUDAD DE MÉXICO Y EL DISTRITO FEDERAL: UN ANÁLISIS POLÍTICO-CONSTITUCIONAL,” *Estudios Constitucionales* 7, no. 2 (January 2009): 207–39.

² Instituto Nacional de Estadística Geografía e Informática (INEGI), *Encuesta 2007 Origen-Destino* (Mexico, DF, December 2007).

³ Diane Davis, *Urban Leviathan: Mexico City in the Twentieth Century* (Temple University Press, 2010); Onesimo A. Flores Dewey, “Expanding Transportation Planning Capacity in Cities of the Global South: Public-Private Collaboration and Conflict in Chile and Mexico” (Massachusetts Institute of Technology, September 2013).

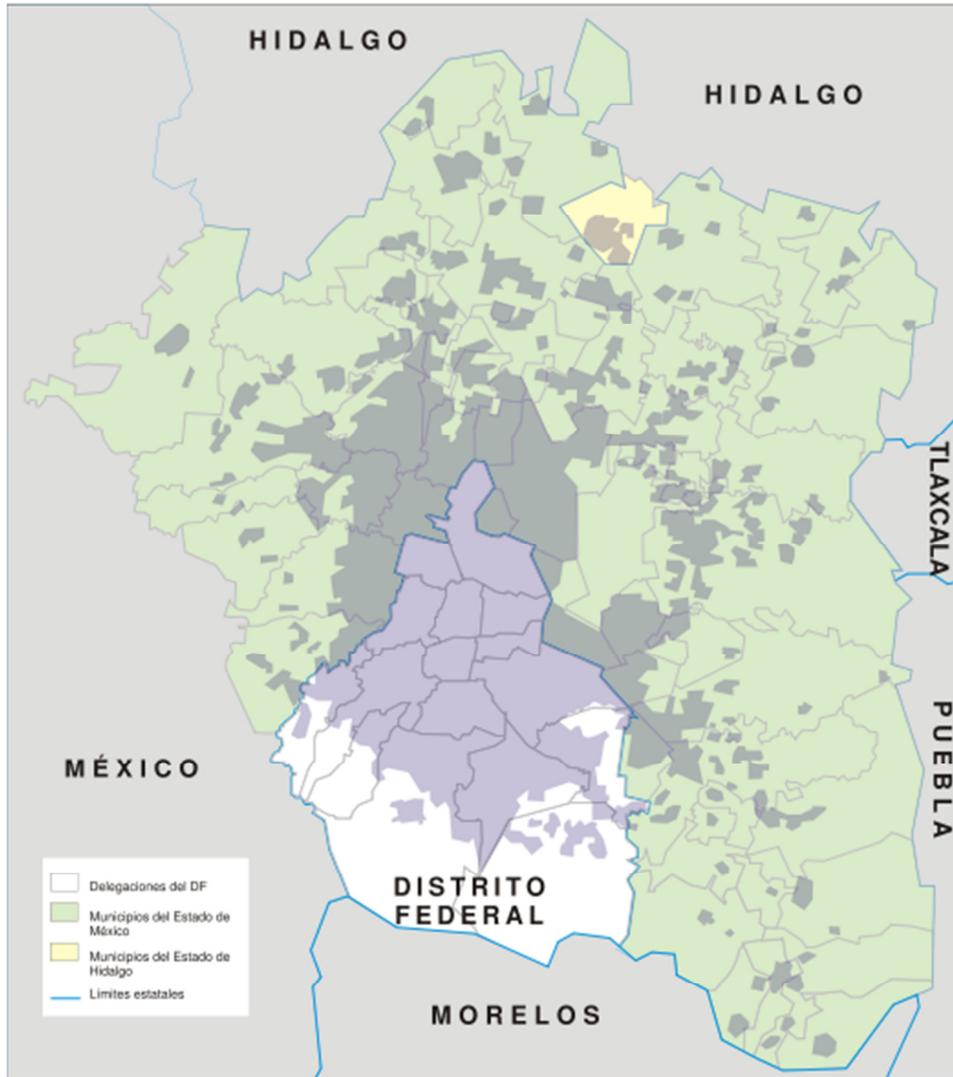


Figure 1 - Mexico City metropolitan area, showing the disconnect between physical development and administrative jurisdictions⁴

These questions form the core of this research, which seeks to analyze the historical and current organizations, regulations, and informal norms (i.e. institutions) shaping the governance of public transportation in the MCMA, especially in light of the fact that there is currently no formal metropolitan government entity in Mexico City, much less one dedicated to transportation. As my analysis unfolds, I find that these institutional conditions for metropolitan governance have evolved

⁴ Photo from “Greater Mexico City,” *Wikipedia, the Free Encyclopedia*, September 4, 2014, http://en.wikipedia.org/w/index.php?title=Greater_Mexico_City&oldid=617548096.

over time, resulting in different technical and political outcomes associated with public transportation. These “formal institutional and informal linkages between governmental and other actors structured around shared if endlessly negotiated beliefs and interests in public policymaking and implementation”⁵ establish what is known as a policy network, which engages with the process of institutional formation. The emergence and incorporation of new actors drives the development of institutions forward to configure new previously unimagined systems and structures, which reshapes the roles of all actors involved, in turn renewing the cycle of institutional evolution. Interpreted as formal and informal systems of rule that guide action among actors and agencies, institutions are not “frozen residue of critical junctures;” rather “institutional survival often involves active political renegotiation and heavy doses of institutional adaptation, in order to bring institutions inherited from the past into line with changes in the social and political context.”⁶ In other words, policy planning and project implementation simultaneously build upon and engage with past institutional frameworks. Yet conversely, the specific institutional and political contexts of metropolitan-scale projects have clear implications for the projects’ planning and implementation.

Transportation in particular is a prime example for examining the conditions of metropolitan governance. As public transportation carries very real importance in terms of access to economic and social opportunities for its users, its physical impacts are not easily constrained by administrative boundaries or agency divisions. Moreover, addressing questions of mobility is inherently a cooperative effort, calling upon agencies across multiple scales and sectors; yet that dynamic goes both ways, as interactions among diverse set of actors manifest themselves in the space of transportation, sometimes in contradictory ways. Cooperation is not necessarily a willing partnership, yet it sometimes leads to outcomes that are more effective; in this way, this thesis

⁵ Rod AW Rhodes, *Policy Network Analysis* (Oxford, 2006), http://120.126.122.251/ntpu_dep/user_file/000553.doc. 2.

⁶ Kathleen Thelen, *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan* (Cambridge University Press, 2004). 7-8.

examines the institutional conditions around three cases of metropolitan-scale public transportation in the MCMA for this relationship. By examining the interactions of the various actors and institutions around the planning and implementation of each case, this thesis argues that the broadening of the transportation policy network reflects a more effective approach to metropolitan governance, auguring a future in which cooperation and competition in fact coexist at this scale not only within the realm of public transportation but also as part of overall urban dynamics.

Thesis Structure

This thesis is organized into the following structure. Chapter 1 introduces the existing literature comparing and contrasting government and governance at the metropolitan level, focusing on their relevance for public transportation service delivery in a developing context. Looking beyond the narrow frame of government, interpretations of governance through policy networks enable a more complete examination of not only the actors but also the rules – the institutions – that govern those actors' interactions.

Chapter 2 presents key contextual elements that frame the conditions of cooperative metropolitan governance in recent Mexico City public transportation projects. This chapter looks at socio-spatial disparities within the MCMA, and the shortcomings of past attempts to address them at a metropolitan level, particularly as they pertain to transportation. This fractured institutionality of metropolitan governance coalesces into dual processes of democratization and decentralization beginning in 1996, when the DF obtained the ability to elect their own head of government instead of having it appointed by the federal government. These processes underpin trends in cooperative metropolitan governance, which are reflected in the changes in the transportation policy network.

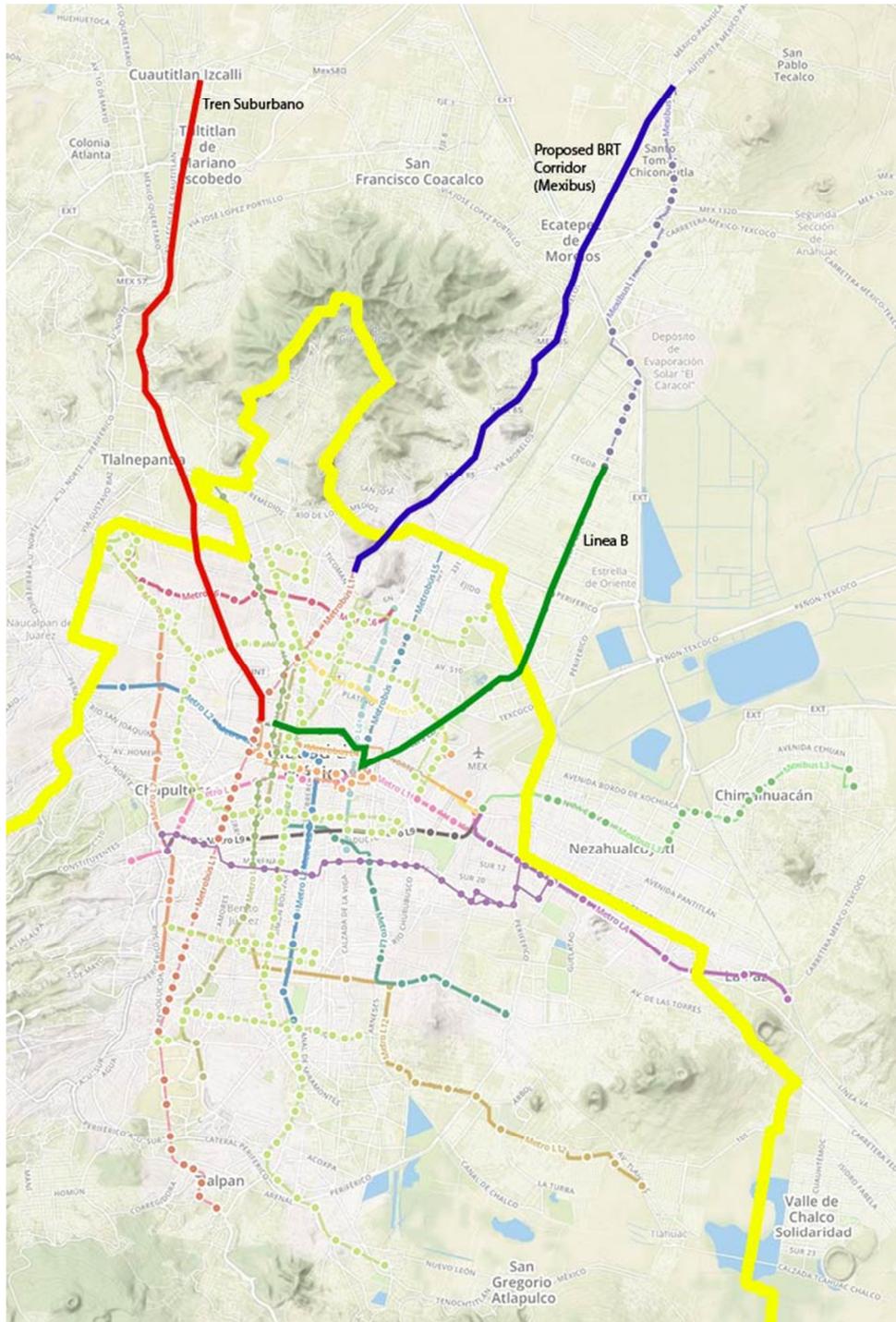


Figure 2 - The three metropolitan-scale public transit projects that will serve as the cases reflecting cooperative governance

Chapter 3 presents and analyzes three cases of metropolitan-scale public transportation, which demonstrate the varying conditions of cooperative metropolitan governance. The first case of a subway line, Linea B, illustrates a more forceful approach to cooperation, in which the

consolidated authority of the federal government and strong political party institutions advanced the planning and implementation process; however, the inflexibility of this policy network hindered the development of enduring institutions, effectively crippling decision-makers once governance structures shifted. The second case of the commuter rail line, the Tren Suburbano, demonstrates the importance of including new non-state actors as well as informal institutions in order to effectively implement metropolitan public transportation. The third case is Méxibus Línea 4, which will establish a metropolitan bus rapid-transit (BRT) corridor by connecting with Línea 1 of the DF's Metrobús at the intermodal hub Indios Verdes. The institutional conditions around the planning and implementation of this future BRT corridor highlights how the transportation policy network has evolved towards a more effective structure of metropolitan governance.

Chapter 4 concludes with a discussion of what these cases show about the overall conditions of cooperative metropolitan governance. The broadening of transportation policy networks is nuanced, going beyond the mere inclusion of more actors to reveal other overarching trends. The changes in the transportation policy networks also reflect how the process of democratization and decentralization affected the ways in which financial and political priorities were arranged. This chapter also explores what this research means for the implementation of future metropolitan-scale planning and project development moving forward in Mexico City, and touches on areas for possible future research.

Methodology

To begin to answer my research question regarding the institutional conditions of cooperative metropolitan governance around public transportation in the MCMA, I required not only secondary research drawn from document review but also primary research via observation and interviews. I began with a larger investigation of the actors, the institutions, and the overall

landscape of metropolitan transportation planning as reflected in past research, government policies and plans, and newspaper articles. From June to August 2014, I worked with a well-connected non-profit organization, the Center for Sustainable Transportation (CTS), which serves as the Mexican branch of Embarq, the sustainable mobility arm of the World Resources Institute. Although my work for them was not related to this research, collaborating with CTS enabled me a substantial level of access to historical knowledge and institutional memory about transportation in the MCMA. Not only did they have experience working with the federal and state governments and other non-state actors around the implementation of public transit, but also they themselves reflected a key perspective within the policy network. When talking with my colleagues about metropolitan-scale planning, there seemed to be multiple levels of disconnect; on one hand, there were not only discrepancies between what was written down in policy and legal documents and what was occurring in the implementation of transportation, but there was even some disagreement and contradiction regarding what those occurrences actually were. Some would complain about the lack of a centralized metropolitan authority to regulate transportation, but then when probed more deeply, they seemed to imply that there were other mechanisms at work that fostered the execution of metropolitan-scale transportation. These differences in perception also raised questions about what makes a successful transit project, as “success” was qualified in multiple ways.

These observations, along with a greater review of the literature on metropolitan government and governance, I started to develop a framework of analysis based around the policy networks to understand how transit planning was accomplished in the MCMA. I started to see how the transportation policy network was an evolving organism: changing, reacting, reshaping, and engaging with the actors and institutions that comprise it. Metropolitan transit projects and their respective policy networks could only be understood in relation to one another to fully understand the context. I needed to look at what had come before in order to comprehend the current struggles

facing public transportation expansion across the MCMA, requiring more specific primary and secondary source collection.

For three weeks in January 2015, I returned to Mexico City to interview relevant actors about their experiences as well as their own perceptions about the process of planning and implementing public transit projects in the past and today. There were some initial informants whom I had identified during my time with CTS, but others were found through personal contacts within the transportation field; they in turn put me in touch with other contacts along the lines of the “snowball” method. Overall, I held fourteen interviews with members of the following:

- Federal Ministry of Communications and Transportation (SCT)
- National Bank of Public Works and Services (Banobras), Federal Program to Support Urban Mass Transit (Protram)
- DF Ministry of Mobility, Planning Office (Setravi/Semovi)
- Corredor Insurgentes, S.A. (CISA, the private company in charge of key Metrobús lines)
- Academic institutions
 - Autonomous University of Mexico (UAM)
 - National Polytechnic University (UPIICSA)
 - College of Mexico (Colmex)
- Private companies and consultants
 - Grupo Prodi
 - Ustran
- Non-governmental organizations (NGOs)
 - Institute of Transportation and Development Policy (ITDP)
 - Center of Sustainable Transportation (CTS-Embarq)
- Multinational organizations
 - World Bank
 - Interamerican Development Bank

Each of the interviews lasted approximately one hour, and were semi-structured around questions of their understanding of metropolitan planning and coordination around public transportation in the MCMA, and their knowledge of the three cases and associated technical and institutional outcomes. I also asked about their own experiences and perceptions regarding coordination and how they felt the field had changed, if at any; this was especially valuable to understand from different vantage

points, because many of the informants had previously worked in other sectors of the industry, with former government officials having found places in academia, research, or the private sector. I was given permission to record and take notes during our interviews. Confidentiality was paramount, with informants expressing concern over potential impacts on job security or on their reputation within the industry. Because of this, I have tried to avoid attributing any one reference to any specific interviewee; however, many of the opinions and perceptions were similar across multiple interviews.

Limitations

My research efforts were significantly limited by time and amount of resources available to me. In the time that I did have, I was able to reach out to a relatively broad cross-section of actors involved in public transportation planning in the MCMA. However, there were multiple important actors that I was unable to reach, including the public agency that runs the subway system (Metro), the private firms responsible for constructing and operating various public transit corridors, the municipal governments, other federal agencies such as the Ministry of Urban, Territorial and Agrarian Development and the Ministry of Environment and Natural Resources, and other DF governmental departments such as the Ministry of Urban Development and Housing.

Moreover, the greatest shortcoming was my inability to get in touch with anyone from Edomex, in spite of repeated attempts to solicit information from the State of Mexico via multiple channels, from direct contact to personal referrals. Because of this, my information regarding Edomex is wholly secondhand. However, the transportation field is generally an insular one, with often the same people moving between agencies and levels and jurisdictions. As previously mentioned, some of my interview subjects had held various posts within the DF government before moving to the private sector, and vice versa. This is a benefit and a limitation, as the subjects would

possess a more panoramic perspective, but would also potentially be carrying over bias from one perspective to another. Other limitations included the language and cultural barrier; I am neither a native Spanish speaker nor a member of this tight-knit industry, so as an outsider I was viewed often initially with suspicion.

There were some limitations to my qualitative research method of interviews due to access and willingness on the part of the subject to be open and honest, and the subject's own limitations of access and knowledge. This in turn contributes to the greater limitation of being unable to adequately explore alternative hypotheses to the policy network argument explaining the changes in conditions of metropolitan governance. Without sufficient time, access, and resources, I was unable to definitively determine whether or not there are other dynamics at work, or if cooperative governance is merely evolving on its own. Regardless, in spite of all the limitations, I am confident of my argument to the best of my ability.

Review of Literature

Much of the international development literature has yet to agree on the role of planning at the metropolitan scale, yet the need to do so is becoming more urgent as growth – within cities and beyond – rapidly occurs around the globe. According to the World Health Organization, 70% of the world's population will live in urban areas by 2050.⁷ Issues of scale and jurisdiction arise when governments and decision-makers are faced with urbanization, sprawl, and ensuing inequities. Cities are growing faster than the organizations and mechanisms that govern them can adapt and expand. Oftentimes the existing levels of government are too localized and thus without far-reaching power and resources to address larger-scale disparities, or too aggregate and thus unable to respond

⁷ “WHO | Urban Population Growth,” *WHO*, accessed May 10, 2014, http://www.who.int/gho/urban_health/situation_trends/urban_population_growth_text/en/.

adequately to issues on a physically expanding local level. Moreover, these urban areas are surpassing existing administrative boundaries, exerting additional stress on already overtaxed infrastructure and public resources. The demands of population growth, industrialization, and social and economic agglomeration on infrastructure and public resources also places strain on social and political resources. Organizations and entities in urban areas continually face choices on how to negotiate the multiple interests at play, and call upon a variety of strategies at their disposal, some through formal governmental channels and some operating at a wider-reaching and more tenuous level. The following section will delve more into the literature discussing these structures and strategies and their implications for metropolitan scale planning.

The importance of the metropolitan scale

Regardless of whether through the channels of official government or something larger and more participatory via strategies of governance, there are two primary justifications for metropolitan-scale thinking – economics and equity. The economic argument focuses on the powers of urban agglomeration and economies of scale, that the consolidation of networks and flows of goods, services, and people generate greater overall economic benefits.⁸ The equity perspective follows on the footsteps of the economic one in that there are often negative externalities resulting from the trends of agglomeration; metropolitan-scale planning is better positioned to understand the overall distribution of benefits and burdens than city-scale planning and ultimately work towards a more equitable distribution of service delivery and resources.⁹ Nevertheless, finding this balance between economic efficiency and social and political equity is complicated in the context of Latin American history. Terms like economies of scale and the spillover effect are politicized by their

⁸ Vincent Ostrom, Charles M. Tiebout, and Robert Warren, “The Organization of Government in Metropolitan Areas: A Theoretical Inquiry,” *The American Political Science Review* 55, no. 4 (December 1961): 831, doi:10.2307/1952530.

⁹ Karel1, k.martens@fm.ru.nl Martens, “Justice in Transport as Justice in Accessibility: Applying Walzer’s ‘Spheres of Justice’ to the Transport Sector,” *Transportation* 39, no. 6 (November 2012): 1035–53, doi:10.1007/s11116-012-9388-7.

introduction under authoritarian regimes, and thus considered mutually exclusive from the goals of democratization and accountability.¹⁰ This historical baggage is a major obstacle to the development of a successful metropolitan strategy, regardless of whether it comes in the form of government or governance.

As urban systems such as transportation, sanitation, and utilities grow to keep up with the increasingly complex and diverse needs of the urban population, city governments have largely turned to two administrative and political strategies to manage these systems effectively. Some advocate for the elevation of their city agencies to new metropolitan-level entities above adjacent municipal governments, consolidating power and authority over sectors or enforce certain policies. This strategy of metropolitan centralization is often favored by higher levels of government, such as state and national entities who prioritize efficiency and equity through economies of scale and centralized redistribution, but which tends to conceal underlying motivations for the greater control and ensuing power that can come with the metropolitan-scale mantle. Conversely, some city governments, fearing the interference of new or higher institutions and an associated loss of power and resources, attempt to resolve the challenges of metropolitan planning without new levels of bureaucracy by reinforcing social, economic, and political linkages to enhance cooperation and competition.¹¹

A metropolitan area and its spatial footprint differ in that one is intentionally constructed with some jurisdictional entity in mind, and the other is structured primarily around physical linkages and economic and political incentives drawing together groups of people. As much as these two spaces often overlap, they also can deviate from one another, especially by how they have been shaped by the past political landscape. The processes, political and otherwise, that determine the

¹⁰ Juan R. Cuadrado-Roura, Fernández Güell, and Eduardo Rojas, eds., *Governing the Metropolis: Principles and Cases* (Inter-American Development Bank, 2005), <http://publications.iadb.org/handle/11319/445>.

¹¹ Ibid.

administrative boundary of an urban area can have differing and often contradictory effects on the actual physical development of the metropolitan area. For instance, the administrative physical boundary between the DF and Edomex was established long before growth superseded its applicability, and although the definition of the metropolitan area is adjusted regularly, that has no impact on the jurisdictional separation between the two.¹² Public and private investment in the areas immediately around the historic downtown was rebuffed by the unavailability of the *ejido* lands (communally held agrarian lands) in the south and thus expanded northward across the state border.¹³ Unequal policies regarding land development and their enforcement augmented the trend of urban agglomeration between the DF and Edomex, forming the bulk of the MCMA. In spite of the growing travel demand across these jurisdictions, transit investments over the past 20 years have been more intrastate, with the DF and Edomex concentrating on implementing and improving transit service areas in corridors with less need but also less political and institutional complexity than interstate transit demands. As such, policy and decision-making play out in the metropolitan space in coinciding and conflicting ways; which ways coincide and which ways conflict matter, especially when relationships of power and authority are in play. The ways in which city officials attempt to address interstate public transportation has changed over time, from unilateral megaprojects to the currently proposed incremental integration of BRT systems, implying a potential change in political winds showing that institutions are now more conducive to metropolitan cooperation. This thesis shows how they have changed and what that means for cooperation and other indicators of metropolitan governance. However, before parsing the past and current conditions in the Mexico City's plans for public transportation, a more in-depth understanding of the theory behind who argues for what approach to metropolitan planning, and why, is necessary.

¹² Secretaria de Desarrollo Social, *Delimitacion de las zonas metropolitanas de Mexico 2010* (Conapo, INEGI, June 2012), http://www.conapo.gob.mx/en/CONAPO/Zonas_metropolitanas_2010.

¹³ Peter M. Ward, *Mexico City* (J. Wiley, 1998). 37.

While theory posits metropolitan planning as important (Ostrom et. al. 1961, Castells 1977, Lefevre 1998, Brenner 2003, Sellers 2008), it is seldom formally practiced in developing countries as much as in developed ones. The formation of clear bureaucratic structures can be viewed as a key step on the “path of development,” which lends credence to why metropolitan planning strategies without a metropolitan authority and outside of a centralized governmental institution are often viewed with skepticism. More specifically, scholars like Ostrom, Tiebout, and Warren (1961), and Martens and Golub (2012) reiterate the importance of metropolitan-scale planning as a more effective mechanism to align benefits and burdens than city-level planning, so that some neighborhoods are not being served at the cost of denying service to others.¹⁴ This is especially important for public transit, which is essential for access to social and economic opportunities. Other major metropolitan areas around the world – New York, Washington, D.C., Shanghai, Delhi, and Sao Paulo –all have transit systems serving multiple municipal jurisdictions while being owned or managed in some way by a unitary public agency with metropolitan authority. However, not all of these systems are to be modeled; even long-standing agencies like New York’s Port Authority are continually hamstrung by political obligations and lack of funding, and Sao Paulo struggles with conflict between transit institutions at different scales.¹⁵ In light of these challenges, the case of public transportation in Mexico City presents how metropolitan-scale transportation is implemented without this formal, central authority. The Mexico City transit network manages to serve millions of people across multiple jurisdictions; many of the millions of the MCMA residents live in Edomex and commute daily to the DF, enduring long travel times and transfers between multiple modes without major crisis. The case of public transportation in the MCMA provides an alternative

¹⁴ Ostrom, Tiebout, and Warren, “The Organization of Government in Metropolitan Areas”; Martens, “Justice in Transport as Justice in Accessibility.”

¹⁵ “It’s Cuomo vs. Transit Experts on MTA Funding | Streetsblog New York City,” accessed December 18, 2014, <http://www.streetsblog.org/2014/10/08/its-cuomo-vs-transit-experts-on-mta-funding/>; Eduardo Alcantara de Vasconcellos, “Urban Change, Mobility and Transport in São Paulo: Three Decades, Three Cities,” *Transport Policy* 12, no. 2 (March 2005): 91–104, doi:10.1016/j.tranpol.2004.12.001.

perspective to the theoretical and empirical argument for metropolitan government by demonstrating how a large and complex transit system manages to bridge the socio-spatial divide across administrative jurisdictions.

Metropolitan governance over government

As cities grow and develop, the evolving discourse in urban planning theory (Ostrom 1961, Ward 1999, Lefevre 2001, Cuadrado-Roura 2005) has explored what strategies and tools can better equip governments to deal with the emerging issues of rapid urbanization, globalization, and decentralization. Lefevre's definition of metropolitan government by four key characteristics – strong political legitimacy, meaningful autonomy from levels of government above and below, wide-ranging jurisdiction, and relevant coverage of the functional urban area¹⁶ – no longer explains the full decision-making structure. Metropolitan-scale planning initiatives often result in the construction of new non-state as well as state institutions; even in the cases where a new level of government created, its strength and legitimacy is derived by the non-state institutions upon which it is founded, making a stronger case for governance rather than government.¹⁷ In this way, governance allows a greater inclusion of the ways in which non-governmental actors – the private sector, civil society – engage with one another and the government (at local, state, and national scales) in the policy and planning decision-making process, and how this shapes development outcomes. In particular, Stoker structures governance around five key propositions that form the foundation of this thesis's definition of governance, in that governance:

...refers to a set of institutions and actors that are drawn from by beyond government.

¹⁶ Christian Lefèvre, "Metropolitan Government and Governance in Western Countries: A Critical Review," *International Journal of Urban and Regional Research* 22, no. 1 (1998): 9–25.

¹⁷ Peter Spink, Peter M. Ward, and Robert Hines Wilson, *Metropolitan Governance in the Federalist Americas: Strategies for Equitable and Integrated Development* (University of Notre Dame Press, 2012). 20.

- ...identifies the blurring of boundaries and responsibilities for tackling social and economic issues.
- ...identifies the power dependence involved in the relationships between institutions involved in collective action.
- ...is about autonomous self-governing networks of actors.
- ...recognizes the capacity to get things done which does not rest on the power of government to command or use its authority. It sees government as able to use new tools and techniques to steer and guide.¹⁸

Examinations of governance attempt to complete the partial picture of solely governmental decision-making by emphasizing that the relations of power do not necessarily align with the formal structures of government, and are thus complicated. Lefevre's characteristics still hold true when applied to governance. Political legitimacy is especially relevant in the derivation of authority and power; when political legitimacy is based upon a questionable foundation, such as the instigation of an authoritarian government, and/or lack of recognition by constituents (local governments, interest groups, and the general population), the metropolitan government – or the metropolitan structure for governance – is generally less effective. In a similar vein, the case studies discussed in Chapter 3 illustrate the implication of the conditions of metropolitan governance for public transportation implementation, touching on questions of authority and power.

Accounting for how political institutions engage in governmental processes is essential to how they play out at the metropolitan scale, and the quality of said institutions is key to governance. Wilson, Ward and Spink's summary and analyses of multiple metropolitan areas indicate their opinion that it is likely more governance and not more government that is needed; more bureaucracy and rules bury the process and ends with the means, whereas the inclusion of a more diverse set of actors and recognition of their respective interests and influences is more likely to effectively balance efficiency with equity. Improved metropolitan institutions and experiences establish better governance practices; they deliver more and better-quality goods and services to a

¹⁸ Gerry Stoker, "Governance as Theory: Five Propositions," *International Social Science Journal* 50, no. 155 (March 1, 1998): 17–28, doi:10.1111/1468-2451.00106.

public, which increases satisfaction and political legitimacy, which reinforces democratic principles.¹⁹ A federalist context presents a unique obstacle to implementing metropolitan government, which is potentially why federalist countries, such as Mexico, have developed ways to attain metropolitan cooperation that does not rely on creating new agencies or organizations. Overall, “the constraints and opportunities within which institutional and organizational actors function may offer space for local leadership to innovate without necessarily changing the institutional and organizational status quo.”²⁰ In other words, the mechanisms of governance enable actors to supersede the channels of federalist government and tackle the problems of trans-jurisdictional transportation. This thesis will show that this is what is happening in the theatre of transit service in Mexico City; it is the conditions of governance and not government that frame the currently evolving metropolitan coordination.

Past empirical research focusing on the management of the Mexico City metropolitan area has been more oriented towards government through a centralized metropolitan entity, rather than through a governance lens. Peter Ward’s years of work on Mexico City leads the field in this point of view, arguing for greater metropolitan autonomy from higher levels of government “so they can get on with the job of running the city.”²¹ As seen in the history of public transportation in Mexico City, the federal government has played a dominant role in directing political and financial resources, to the point of interfering in effective management.²² However, Ward’s research brings up the important and sometimes overlooked role of political parties in the process of governing; although he argues in favor of a more centralized formal government authority separate from party politics, he acknowledges that its legitimacy is derived from the influence of political parties and other private

¹⁹ Spink, Ward, and Wilson, *Metropolitan Governance in the Federalist Americas*. 21

²⁰ Ibid. 28

²¹ Peter M. Ward, “Creating a Metropolitan Tier of Government in Federal Systems: Getting ‘There’ from ‘Here’ in Mexico City and in Other Latin American Megacities,” *South Texas Law Review* 40 (July 1, 1999): 603.

²² Davis, *Urban Leviathan*.

interests. In the case of Mexico City, the confluence of party politics and metropolitan policy has played a significant role in the planning and development of the transit system. Especially in the case of the Mexico City subway system and its overseeing agency, conflicts within and between political parties were the chief factors in determining the outcomes of transportation projects.²³ In spite of the theoretical clarity that a centralized authority lends to metropolitan-scale oversight, the reality of politics and institutions cannot be ignored.

Although the argument for informal metropolitan cooperation as a strategy of governance is more often grounded in a political-economy context of developed nations such as the United States, which has a remarkable unique political history that emphasizes citizen participation and democratic decision-making at the local level.²⁴ In the case of Mexico City, there are distinct discrepancies in political and financial power between the DF and the Edomex such that, at first glance, finding a level foundation to build interdependency would be difficult. Nevertheless, Mexico's own historical relationship with democracy and participation does not necessarily prevent cooperation from occurring but rather reframes the manner in which cooperation can emerge.

The policy network as a form of metropolitan governance

Governance revolves around interpreting and analyzing government through the lens of greater overarching themes such as democratization and decentralization, and extrapolating institutions and interactions beyond the narrow framework of governmental bureaucracy to take into consideration non-state actors.²⁵ As an extension to this concept, Rhodes introduces the term of “policy networks,” which refers to the “sets of formal and informal institutional linkages between governmental and other actors structured around shared interests in public policymaking and

²³ Víctor Islas Rivera, *Llegando tarde al compromiso: la crisis del transporte en la ciudad de México* (El Colegio de México, Centro de Estudios Demográficos y de Desarrollo Urbano, Programa sobre Ciencia, Tecnología y Desarrollo, 2000).

²⁴ Richard C. Feiock, *Metropolitan Governance: Conflict, Competition, and Cooperation* (Georgetown University Press, 2004). 22.

²⁵ Lefèvre, “Metropolitan Government and Governance in Western Countries: A Critical Review.”

implementation.”²⁶ In the context of Mexico City’s management of mass transit, the state government heavily relies on the policy network that it has developed with non-governmental actors such as private multinational corporations, smaller private bus operator organizations, and non-profit policy-entrepreneurs in order to adequately respond to civil society’s mobility needs, while still drawing upon more traditional channels of power connecting the DF and the federal government. This devolution and fragmentation of responsibility spreads power – both real and perceived – between direct and indirect channels, which has implications for the efficacy of governance. These networks are dependent on trust and diplomacy, making the roles of the actors involved in the transportation planning process more difficult to discern. Power is not positional but rather contingent and relational, reinforcing the need for navigating the different levels of governances as well as within each level.

In order to appropriately measure the quality of a policy network, we need to look not only at the characteristics of the actors composing the policy network but also on the properties of the network itself, the rules of the game that govern and give meaning to the interactions of the actors – in other words, the institutions.²⁷ To understand the actors, we see a continuum of types of policy networks, from the issue network to the policy community differing along qualities of membership, integration, and amount of resources.²⁸ The policy network properties that link these actors and organizations depend on levels of interdependency and resource exchange (resources can include knowledge or information, legitimate authority, unconditional and conditional incentives, and reputation²⁹), which are shaped by the institutions of the dominant coalition at the time.³⁰ A policy

²⁶ R.A.W. Rhodes, “Understanding Governance: Ten Years On,” *Organization Studies* 28, no. 8 (August 1, 2007): 1243–64, doi:10.1177/0170840607076586. Pg. 1244.

²⁷ Erik Hans Klijn, “Analyzing and Managing Policy Processes in Complex Networks A Theoretical Examination of the Concept Policy Network and Its Problems,” *Administration & Society* 28, no. 1 (May 1, 1996): 90–119, doi:10.1177/009539979602800104.

²⁸ Keith Dowding, “Model or Metaphor? A Critical Review of the Policy Network Approach,” *Political Studies* 43, no. 1 (March 1, 1995): 136–58, doi:10.1111/j.1467-9248.1995.tb01705.x.

²⁹ Ibid.

network perspective makes understanding and analyzing governance and coordination more applicable in an international developing context, because of the increased emphasis on horizontal, coordinated decision-making.³¹

TABLE 1. Types of Policy Networks: Characteristics of Policy Communities and Issue Networks

Dimension	Policy Community	Issue Network
	<i>Membership</i>	
Number of participants	Very limited number, some groups consciously excluded	Large
Type of interest	Economic and/or professional interest domains	Encompasses range of affected interests
	<i>Integration</i>	
Frequency of interaction	Frequent, high-quality, interaction of all groups on all matters related to policy issues	Contacts fluctuate in frequency and intensity
Continuity	Membership, values, and outcomes persistent over time	Access fluctuates significantly
Consensus	All participants share basic values and accept the legitimacy of the outcome	Some agreement exists, but conflict is ever present
	<i>Resources</i>	
Distribution of resources (in network)	All participants have resources basic relationship is an exchange relationship	Some participants may have resources, but they are limited basic relationship consultative
Internal distribution	Hierarchical; leaders can deliver members	Varied, variable distribution and capacity to regulate members
Power	There is a balance of power among members. Although one group may dominate, it must be a positive-sum game if community is to persist	Unequal powers, reflecting unequal resources and unequal access – zero-sum game

Source: D. Marsh and R. A. W. Rhodes (eds), *Policy Networks in British Government* (Oxford: Oxford University Press, 1992), p. 251.

Figure 3 - Description of the characteristics of the different types of policy networks

Yet the theory on policy networks say that a larger group, broader group weakens accountability, undermines coordination, and makes the respective goals of the actors more elusive,³² which resonates with the earlier discussion on whether centralization or devolution is the best way

³⁰ Rhodes, *Policy Network Analysis*.

³¹ William D. Coleman and Anthony Perl, "Internationalized Policy Environments and Policy Network Analysis," *Political Studies* 47, no. 4 (September 2, 1999): 691.

³² Rhodes, *Policy Network Analysis*.

to approach metropolitan planning; however, the case of the evolving transportation policy network in Mexico City tells a different story. I argue that the broadening of the policy network is associated with more effective cooperative governance at the metropolitan scale; not only does the addition of more actors across multiple scales engenders a more nuanced form of cooperation, but also the strengthening of informal institutions with formal ones reinforces the cooperative governance structure. It is a messier and more complex network to be sure, but the incremental approach to transportation is largely proving more effective at metropolitan governance than top-down massive changes.

So what is the way forward for a city as complex as Mexico City? A city of this magnitude in size and needs manages to serve transit riders adequately without a centralized authority as implied by some theory (Lefevre 2002, Ward 1999). Are there perhaps other processes at work? In light of the recent past history of democratization, political fragmentation between federal, state, and local levels of government, and rising pressure from burgeoning economic agglomeration, how are the DF and the Edomex negotiating metropolitan space shaped by public transportation? The examination of this socio-spatial urban condition is not only a way to reinterpret theoretical concepts that have predominantly focused on developed countries but also to demonstrate that strategies of governance such as cooperation can exist at a metropolitan scale in a developing urban environment. Moreover, it will show how the realm of governance in Mexico City has shifted, engaging with the existing institutional design, and perhaps prompting the formation of new institutions. These changes are embodied in the evolution of the transportation policy network across the metropolitan area.

Chapter 2 - Context and primary drivers of institutional evolution in Mexico City

Mexico City is a misnomer; the name is traditionally associated with the quasi-state entity of the Federal District (DF), the political and economic federal seat of power, yet the physical footprint of the city has run over into the adjacent states, predominantly the State of Mexico (Edomex) to the north. Although the most recent population count at the metropolitan level is from 2010, the overall population of the Mexico City metropolitan area (MCMA) is estimated around 21 million people, with 10 million of those people living outside of the DF.³³ Those 10 million make up approximately 70% of the population of Edomex, which surrounds the DF on three sides, demonstrating the powerful urban agglomeration taking place.³⁴ This travel demand exerts significant strain on the minimal infrastructure existing between the two districts; almost two-thirds of the 22 million daily trips in the Mexico City metropolitan area (MCMA) are carried by public transportation, and in spite of the minimal formal transit infrastructure connecting the two jurisdictions, approximately one-fourth of those transit trips originate from the Edomex into the DF.³⁵ In other words, one out of every six trips that occur daily in the MCMA is someone taking public transit from Edomex into the DF. As the MCMA continues to expand rapidly, the population's mobility needs grow as well, often outpacing the governmental structures intended to address them.

Due to historical trends in policy and urban expansion, unmistakable socio-spatial distinctions emerged between the DF and Edomex, with negative implications for patterns of development, employment, and travel. These historic patterns of growth in the MCMA in conjunction with past transportation policy approaches created the primary stumbling blocks for the evolution of formal institutions to effectively govern transportation at the metropolitan scale.

³³ Secretaria de Desarrollo Social, *Delimitacion de las zonas metropolitanas de Mexico 2010*.

³⁴ Ibid. and INEGI 2010 Census statistics, <http://cuentame.inegi.org.mx/monografias/informacion/mex/poblacion>.

³⁵ Instituto Nacional de Estadística Geografía e Informática (INEGI), *Encuesta 2007 Origen-Destino*.

Beginning in the 1970's, there was a surge of formal metropolitan coordination attempts, manifested by the formation of several commissions and creation of other agreements and decision-making bodies, yet they were overall ineffective without any financial, regulatory, or decision-making authority. With the advent of the development of the first metropolitan-scale transportation projects, Mexico City concurrently saw significant legal reforms that culminated with changes to the national constitution passed in 1996 that allowed the DF to directly elect their own government, as opposed to its appointment by the President, in the following year.³⁶ The political fragmentation that engendered these legal reforms then became explicit in the DF's first elections in 1997, disrupting the consolidated authority over the MCMA under a singular political party, the Institutional Revolutionary Party (PRI), which had ruled multiple levels of government for decades. Organizations and agencies then had to learn to negotiate through this rearranged political landscape by formulating and strengthening their policy networks, evident in the three cases of metropolitan-scale public transportation to follow in the next chapter.

This chapter discusses the context for the changing conditions for cooperative governance in the MCMA, especially as it pertained to public transportation. Even when transportation was not metropolitan in nature, such as the establishment of the subway system wholly within the DF, it was an important political tool to manipulate and negotiate alliances within and outside of government between and within levels of the network, sometimes to differing levels of success. The processes of democratization and decentralization subsequent to the legal reforms of 1996 rearranged the structures of governance, altering existing institutions and prompting the formation of new ones – a process to play out on the stage of public transportation in the following decades. This past institutional and political context frames the ensuing attempts at planning and implementing public transportation at the metropolitan level in Mexico City, which in turn builds on and spurs the

³⁶ Hurtado González and Arellano Ríos, “LA CIUDAD DE MÉXICO Y EL DISTRITO FEDERAL.”

evolution of said institutions. This chapter provides a greater understanding of the key elements and themes encapsulated in the policy network approach to cooperative metropolitan governance in Mexico City's public transportation.

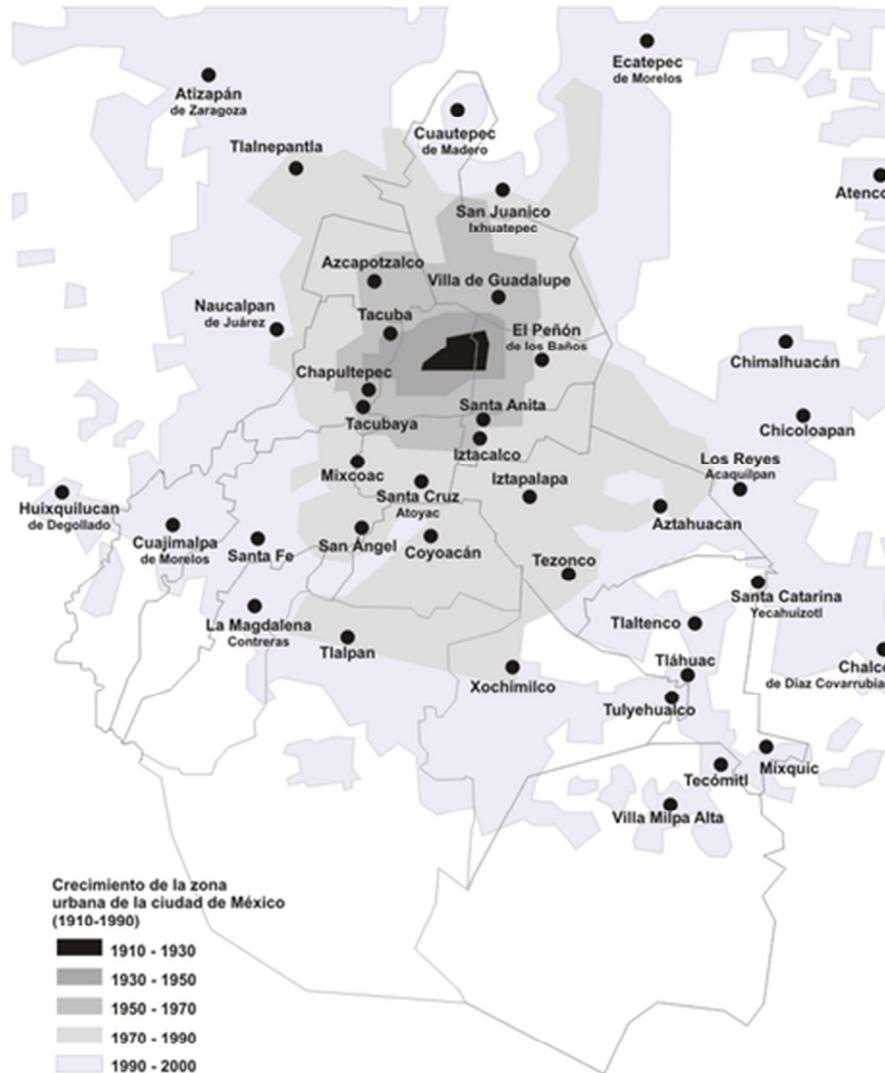


Figure 4- Historical Growth of Mexico City showing how it began in the historical center of the DF and began encroaching on Edomex in the 1970's³⁷

³⁷ <http://www.newgeography.com/content/002088-the-evolving-urban-form-the-valley-mexico>

Metropolitan institutional inequality in the MCMA

Mexico City is divided politically and economically, leading to the evolution of different and oftentimes clashing policies and norms. Nevertheless, the shared economic, social, and political linkages between the DF and Edomex require organizations to negotiate among themselves in order to perpetuate their own existence. The two entities have different political, legal, and economic trajectories; Edomex is overall poorer, with fewer resources stretched more thinly, with less capacity to exert influence over non-state actors such as the private bus operators, called *transportistas*. Edomex also has its own political conflicts between the pull of population into the MCMA and the urgent priorities within the Edomex capital and power center is in Toluca, approximately 40 miles to the southwest of the DF, in the opposite direction from the sprawl of the MCMA.³⁸ Yet a significant portion of Edomex residents travel daily into the DF, enduring long commutes encumbered with multiple transfers and opportunities for delay and potential problems of safety, security, and loss of income. Compared with Edomex, the DF's organizations and respective institutions have benefited from years of status as organs of the federal government.³⁹ However, with that power comes responsibility and obligations at the metropolitan level, which the DF is generally ill equipped to handle; internally strong policies and norms do not necessarily convey the ability to exert similar influence beyond its administrative jurisdiction. Overall, the physical and political dynamics within the metropolitan area become syncretized, with the spatial disparities between the DF and Edomex reinforced by the social and political ones, and vice versa.

As Mexico City began to surpass the confines of the DF as part of the general pattern of urban agglomeration, the lax land use regulations in Edomex as compared to in the DF permitted a distinctly different pattern of development between the two sides of the border. Peter Ward discusses the trend of population growth overflowing from the DF into Edomex, and how the core

³⁸ Interview with a high-ranking academic and former DF chief official in the transportation department. January 2015.

³⁹ Interviews with academics, current and former high-ranking officials in the DF ministry of mobility. January 2015.

delegations in the DF absorbed most of the population increase until drivers of suburbanization moved residents outwards. A ban on low-income residential subdivisions imposed in 1954 in the DF accelerated that movement of people into the adjacent suburbs in Edomex, where the ban did not apply.⁴⁰ The waves of population growth occurred in earnest from the 1960's onwards to today, and have not slowed.⁴¹ In general, opportunities for physical expansion in the DF rapidly became limited, and populations turned to the adjacent Edomex with less strict regulations and laxer enforcement. The northeastern and western borders between the DF and Edomex also housed some of the largest industrial sites, drawing population and emphasizing the land use differential between the two jurisdictions.⁴² “The first wave of wealthy suburbanites moved west and south towards areas with the greater positive externalities... Thus a broad pattern of social differentiation was entrained between south and west (richer) and north and east (poorer).”⁴³ In this way, government policy regarding land for low-income settlement differed between the DF and Edomex, leading to even greater levels of uneven development and socioeconomic inequality between the two states.⁴⁴

In spite of this visibly uneven pattern of growth between the two states, the national legal structure concerning planning and coordination was not (and still is not) conducive to metropolitan scale interactions. Although the Mexican National Constitution allows for the coordination of states and municipalities around urban development issues, the legal language is general and open to interpretation, even sometimes contradictory. Article 115 reserves states with the right to make decisions regarding transportation (roads and mass transit), yet municipalities have authority over

⁴⁰ Ward, *Mexico City*. 34.

⁴¹ Secretaria de Desarrollo Social, *Delimitacion de las zonas metropolitanas de Mexico 2010*. It is important to note that although the overall growth rate of the MCMA's population has slowed, this is more a factor of the continued decentralization and sprawl of the urban area, with people migrating outside of the formal demarcation of the metropolitan area.

⁴² Ward, *Mexico City*. 56.

⁴³ *Ibid.* 56.

⁴⁴ *Ibid.* 148.

land use, zoning, and other key urban development management mechanisms. However, it also states that two or more municipalities and their respective states are able to take the initiative to formally create a conurbation commission, in that “when two or more urban centers situated in municipal territories of two or more federal entities [states] have formed a demographic continuity, the Federation, the federal entities, and the municipalities will plan and regulate the development of said urban centers in a joint and coordinated manner.”⁴⁵ Article 122 applies this process specifically to the Mexico City area, stating that the DF must cooperate with its neighboring municipalities in multiple areas, including that of transportation.⁴⁶ This inherent contradiction of legal authority reserving certain powers for specific levels of government, yet still leaving the door open for coordination does not seem to encourage the use of the latter. This contradiction is also reflected in branches of the regulations for the federal budget, where the federal government retains the prerogative to determine priorities and allocate funding every year regardless of prior budget, yet it also attempts to strengthen state and local institutions by tasking them with funds for projects related to poverty alleviation, sanitation, education, public health, housing, but not specifically transportation.⁴⁷ The legal disparity within the metropolitan area is further reflected in the state-level rules that deal with metropolitan planning. The regulatory framework established in DF was a carryover from when it was under federal control, due to the formation of policies such as the Government Statute of the DF in 1994 and the Law of Urban Development of the DF in 1996,

⁴⁵ *Political Constitution of the United Mexican States*, 1917. Article 115, Section VI. “CUANDO DOS O MAS CENTROS URBANOS SITUADOS EN TERRITORIOS MUNICIPALES DE DOS O MAS ENTIDADES FEDERATIVAS FORMEN O TIENDAN A FORMAR UNA CONTINUIDAD DEMOGRAFICA, LA FEDERACION, LAS ENTIDADES FEDERATIVAS Y LOS MUNICIPIOS RESPECTIVOS, EN EL AMBITO DE SUS COMPETENCIAS, PLANEARAN Y REGULARAN DE MANERA CONJUNTA Y COORDINADA EL DESARROLLO DE DICHS CENTROS.”

⁴⁶ *Ibid.* Article 112.

⁴⁷ Mtra Jaqueline Esperanza Meza Urías, “La Coordinación Intergubernamental Para El Desarrollo Metropolitano En El Estado de México: El Caso de La Zona Metropolitana Del Valle de México,” accessed March 26, 2015, <http://www.ordenjuridico.gob.mx/Publicaciones/CDs2010/CDMetropolitano/pdf/DOC19.pdf>. Ramo 26 and 33 of the PEF.

which clearly recognize the need for coordination with peri-urban municipalities around the DF.⁴⁸ However, Edomex did not mention the need for or recognize the ability to coordinate horizontally with the DF via any formal legislation until 2001 with the creation of the Ministry of Metropolitan Development. Although they acknowledge metropolitan considerations within their own jurisdictions, they do not specify that they are involved in the metropolitan aspects beyond their borders.⁴⁹

Ward also analyzes the planning-related legislature in Mexico City over the 20th century and illustrates the vast difference in the development and advancement of planning expertise embedded in legal institutions of the DF and Edomex. Due to its preferred status as the nation's capital, the DF passed multiple pieces of relevant planning legislature over an 80-year period, including the Organic Laws (*leyes orgánicas*) that essentially created the bureaucracy of state and local entities (*delegaciones*) and their oversight, and also the creation of dedicated planning offices charged with making Master Plans. Conversely, Edomex was implicitly excluded from being part of the Master Plan development, as the legislature specifies only the DF, in spite of the clear metropolitan population already present crossing the border between the two states. Yet this population growth is just as clearly acknowledged in the 1990-era legislature, stating population projections for the metropolitan area likely reaching 21.3 million by 2000, with only 14 million to be accommodated within the DF.⁵⁰ This implies that the federal government, then almost entirely in control of the DF, saw that there were metropolitan-scale needs but chose not to consider the complete metropolitan area in the creation of the Master Plan.

The intersection of spatial and social inequity at the regional level is reinforced by the differences in policy between the DF and Edomex; in this way, regional inequality is connected with

⁴⁸ Melesio Rivero Hernández and Alejandro Aguilar Miranda, "Organizaciones Gubernamentales Para La Planeación Urbana En La Zona Metropolitana Del Valle de México (ZMVM)," *Espacios Públicos* 12, no. 26 (2009): 243–60.

⁴⁹ *Ibid.*

⁵⁰ Ward, *Mexico City*. 124.

policy design, ultimately implying the presence of institutionally embedded inequality – another layer of obstacles that metropolitan planning of transportation needs to overcome. In a study of the connection between land use and transportation in the Mexico City metropolitan area, Gilat summarizes how transportation and land use policies differ between the two states, having a hand in the uneven pattern of growth.⁵¹ Population growth and similar demographic trends that are influenced by positive and negative geographic externalities do not stop at jurisdictional boundaries, yet the regulations, their enforcement, and the organizations that shape them manifest a physical demarcation, a border area.⁵² These general metropolitan characteristics argue for the need for coordination across jurisdictions, yet the policies like those mentioned continue to – inadvertently or not – widen the disparities between the DF and Edomex, making it even more difficult for such coordination to occur. Different socioeconomic and institutional conditions created an atmosphere more of competition rather than cooperation between Edomex and the DF, a serious obstacle to bringing out metropolitan cooperation in the ensuing transportation projects.

Prior attempts at forming institutions of metropolitan planning in the MCMA

In the face of the institutionally entrenched differences between the DF and Edomex and the associated disconnect between emerging metropolitan needs and the lack of metropolitan organizations or policies, the subsequent attempts to establish a framework of metropolitan coordination in the MCMA were superficial at best. Ward's general skepticism of these attempts at metropolitan cooperation appears founded, because the efforts to build these norms and policies lacked political and financial teeth. Metropolitan-scale planning efforts such as these can be interpreted as the government's attempts to appease the public and show movement on important

⁵¹ Michael Gilat, "Coordinated Transportation and Land Use Planning in the Developing World - The Case of Mexico City" (Massachusetts Institute of Technology, 2002).

⁵² María E. Negrete Salas, "El centro de México : evolución, límites y oportunidades para el desarrollo regional," 2008.

issues, giving the illusion of activity while costing very little money.⁵³ Metropolitan coordination in the Mexico City area is not a new topic; attempts at forming agreements and commissions have been popping up for decades especially with the acceleration of urbanization and sprawl. However, it is not so much about the existence or even the structure of these commissions, but as Ward implies, how they figure into the greater network of actors and the institutions that govern their interactions. As the following analysis of prior attempts at metropolitan-scale planning in general and in transportation in particular show, there were no substantive outcomes connected with their formation. The lack of noted successful cooperation between the DF and Edomex in the past as part of these metropolitan efforts is perhaps because centralized planning is not capable of overcoming institutional differences such as those between the DF and Edomex; rather, there are alternative channels and mechanisms through which negotiation and planning can occur.

As previously mentioned, Articles 115 and 122 of the Mexican National Constitution allow for metropolitan coordination, yet there were (and still are) no mechanisms to ensure compliance or enforcement or incentives for such coordination, making these policies mere rubber stamps. In terms of actual policymaking, the first references to the need for metropolitan considerations emerge in 1976 with the creation of the Commission for the Conurbation of the Center of the Country (*Comisión de Conurbación del Centro del País*), which had a general decentralized approach focusing on specific peri-urban hubs between the DF and the Edomex; it became more streamlined in 1988 by focusing on coordinating actions and conveying them between the federal authority and the respective state entities. Yet the lack of state and local involvement in the process demonstrated the ineffectiveness of this Commission.⁵⁴ In 1988, President Salinas, Regent Camacho of the DF, and the Edomex Governor Beteta created an ad hoc Metropolitan Area Council (*el Consejo del Área*

⁵³ Ward, *Mexico City*. 129.

⁵⁴ Alfonso X. Iracheta C., *Planeación y desarrollo: una visión del futuro : problemas y perspectivas del desarrollo y la urbanización en México y el Estado de México* (Plaza y Valdes, 1997). 85-86.

Metropolitana) of their closest advisers but focused only on troubleshooting and highly visible mini-projects.⁵⁵ The respective states made their own ministries and committees intended to integrate local and state authorities in coordinated urban development and management, with middling outcomes; whereas the Ministry of Coordination in the DF constituted an effective organization setting up coordination (at least within its own jurisdiction), the Edomex Committee was overall ineffective with no visible outcomes.⁵⁶

The growing need for more sector-specific mechanisms at the metropolitan level were discussed in March 1989, when the representative assembly of the DF held a forum on public transportation in the city and concluded that they need to create an integrated metropolitan transit system that allowed a unified examination and operation of transit in both the DF and Edomex.⁵⁷ This led to the creation of the Council of Metropolitan Area Transportation (*Consejo del Transporte del Área Metropolitana*) that year, supported by additional accords signed in 1992, with the intention of planning and coordinating actions related to major works, such as the Mexico City subway. However, there did not appear to any clear achievements directly attributed to the formation of this Council.⁵⁸

However, the urgency of metropolitan coordination continued to assert itself and require political attention. Between 1994 and 1996, the government convened several metropolitan commissions, including one regarding transportation and roadways (*Comisión Metropolitana de Transporte y Vialidad*, Cometravi, established on June 27, 1994).⁵⁹ Cometravi was intended to ensure coordination of efforts on transportation throughout the metropolitan zone of Mexico City. According to their bylaws, Cometravi follows in the footsteps of other metropolitan transit planning

⁵⁵ Ward, *Mexico City*. 128.

⁵⁶ Iracheta C., *Planeación y desarrollo*. 86.

⁵⁷ Rivera, *Llegando tarde al compromiso*. 500.

⁵⁸ Iracheta C., *Planeación y desarrollo*. 86.

⁵⁹ Urías, “La Coordinación Intergubernamental Para El Desarrollo Metropolitano En El Estado de México.”

efforts, such as the Agreement of Adjacent Zones (*Convenio de Zonas Aledañas*) signed in 1993 between the federal government, the DF and Edomex to coordinate cargo transportation, and the Agreement of Pact of Actions for Service Regulation for Awarding Metropolitan Licenses and Authorizations (*Convenio de Concertación de Acciones para la Regulación de Servicios para el Otorgamiento de las Autorizaciones y Placas Metropolitanas*).⁶⁰ In spite of the multiple accords and agreements signed between the relevant parties, there were no obvious changes in the execution of metropolitan planning or decision-making, positive or negative, stemming from the existence of this body. Cometravi led a major study of transportation and air quality in the MCMA in 1999 (*Estudio integral de transporte y calidad del aire en la Zona Metropolitana del Valle de México*),⁶¹ yet this supremely useful source of data about travel patterns and transportation needs was not referenced or incorporated into the policy at the time.

In 1997, Edomex created the General Coordination of Metropolitan Issues (*Coordinación General de Asuntos Metropolitanos*), intended to carry out the work programs developed by the metropolitan commissions in 1994; this entity existed until 2001 when the Organic Laws of the Public Administration of the Edomex (*Ley Orgánica de la Administración Pública del Estado de México*) was modified to include a Ministry of Metropolitan Development (*Secretaría de Desarrollo Metropolitano*).⁶² Although the policy speaks to the need for metropolitan coordination across multiple sectors within Edomex, it only briefly mentions the need to strengthen the mechanisms of coordination with the federal government and the DF to “address issues of a metropolitan character in an integrated manner.”⁶³ Without any sort of specificity of what constitutes a metropolitan issue, and how that integration should be carried out, this policy has little strength or imperative behind it.

⁶⁰ Interview with lawyer who worked closely on the legal arrangements for Cometravi, January 2015.

⁶¹ Unable to obtain actual report, but its contents have been referenced in other documents.

⁶² Urías, “La Coordinación Intergubernamental Para El Desarrollo Metropolitano En El Estado de México.”

⁶³ *Ley Organica de La Administración Pública Del Estado de México*, 1981.

In 1998, the first elected mayor of the DF Cuauhtémoc Cardenas installed an Executive Commission of Metropolitan Coordination, which met similarly ineffective ends after several years; it was reconvened in 2005 in order to reconsider the boundaries of metropolitan areas across the country.⁶⁴ As the first elected mayor of Mexico City, Cuauhtémoc Cardenas was responsible for the first official steps towards a formal system of metropolitan planning by signing an agreement that created this Commission; therefore, although the organization itself may have not been effective, its existence could indicate attempts to lay the groundwork for a more effective policy network in a post-urban reform political landscape. This led to the establishment of the Program for Classification of the Valley of Mexico's Metropolitan Zone (*Programa de Ordenación de la Zona Metropolitana del Valle de México*), which continues to exist today.⁶⁵

The timing of more of these metropolitan agreements and accords with the emergence of the legal reforms in the late 1990's was not a coincidence; as Ward had commented on past efforts, the references to metropolitan issues would be interpreted as a way to generate public support and quell any sort of public discontent. Immediately following the establishment of the DF as its own entity as opposed to a department of the federal government, there was a sustained level of activity involving metropolitan planning that attempted to include local representation of the DF delegations and the peri-urban municipalities in Edomex, spanning a period of time from the creation of the Executive Commission of Metropolitan Coordination in 1998, jointly presided by the newly instituted mayor of the DF and the Edomex governor, up to 2000. However, there continued to be a disconnect between the stated intentions of the metropolitan bodies and what was actually being executed in the respective state entities.⁶⁶ As such, in spite of the institutional linkages elaborated in

⁶⁴ Juan Manuel Barrera, "Concretan hoy convenio metropolitano," *El Universal*, December 22, 2005, <http://www.eluniversal.com.mx/ciudad/72994.html>.

⁶⁵ Diane Davis and Arturo Alvarado, "Mexico City: The Challenge of Political Transition," in *The Left in the City: Participatory Local Governments in Latin America* (Latin American Bureau, 2004).

⁶⁶ Emilio Pradilla Cobos, *Zona Metropolitana Del Valle de Mexico: Avances Y Limites de La Coordinacion Metropolitana*. (Coloquio del Observatorio de la transicion en el Distrito Federal, February 2001). 10.

these plans, it is unclear what if anything they have given rise to, as these multilateral commissions are often without any financial backing or legal authority.

In spite of the multiple iterations of attempted metropolitan planning and coordination between the DF and Edomex, there were no positive steps taken because of these commissions: no metropolitan-scale projects, coherent metropolitan policies, or even similar policies enacted by the respective states came directly from any of these metropolitan accords. The institutional differences stemming from the socio-spatial disparities across the MCMA were seemingly too great for token policies to overcome without any sort of financial or regulatory authority to carry them forward, or adequate channels through which authority could be exerted. During this period of the late twentieth century, although the political discourse attempted to tackle metropolitan coordination, these formal organizational efforts were not an effective structure of governance. Nevertheless, metropolitan coordination was occurring through different albeit more forceful channels that viewed transportation as merely another political tool to gain votes.⁶⁷ In the following chapter, the three public transportation case studies will show how the transportation policy network in each case reflects how the conditions of cooperative metropolitan governance have evolved from this historical standpoint of overall ineffective formal coordination.

Transit planning and implementation as a political tool

As has been discussed in the previous chapter, the physicality of transportation makes it a useful lens of metropolitan governance by requiring coordination across jurisdictions and sectors. Its physical impacts also reverberate along multiple dimensions, affecting everything from property values to quality of life and public space. In this way, transportation projects in Mexico, much like in other Latin American countries, were used as larger levers for political engagement because of their

⁶⁷ Interview with former DF ministry of transportation official, now private transportation consultant. January 2015.

value, electorally and financially. With so many political interests connected to the transportation field – from the construction industry to the local transit operators to the political real-estate interests – decisions made affecting transportation investments were inherently political. In this way, major transportation projects, such as the construction of the subway system, the Metro, or the more recent implementation of the bus rapid-transit lines, reflected the greater conflicts in larger institutions and organizations at the time. Despite the implications of its name, the Metro was not a metropolitan authority. In the 1960's, the DF had created a specific commission for roadways and urban transportation, COVITUR (*Comisión de Vialidad y Transporte Urbano*), as the governmental transportation authority formed to oversee the construction of the subway.⁶⁸ Although it was touted as “metropolitan,” it actually only dealt with intramunicipality coordination as the subway was predominantly confined by the DF until 1991, further reinforcing the differences between the DF and Edomex. The discrepancy in transit investment between the DF and Edomex generated more uneven travel of patterns from Edomex into the DF, contributing to larger patterns of sprawl.⁶⁹ Moreover, subway construction in the DF also provided an avenue for politicians and other elites to assert political authority within the DF, generating stronger institutions internal to the DF while leaving those with Edomex weak. As such, its implementation had serious implications not only for the dynamics between the Edomex and the DF, but also for the larger network of organizations and institutions constituting metropolitan transportation governance.

As previously discussed, the existence of metropolitan governance in the MCMA was indicative at best, with lip service paid to its importance without any kind of legal obligation or financial resources to incentivize its implementation.⁷⁰ Beyond the short-lived existence and ineffectuality of Cometravi, there were little transportation-specific coordination efforts between the

⁶⁸ Davis, *Urban Leviathan*.

⁶⁹ Negrete Salas, “El centro de México.”

⁷⁰ Chapter by Peter Ward and Hector Robles, ed. Spink, Ward, and Wilson, *Metropolitan Governance in the Federalist Americas*.

DF and Edomex around the construction of the subway and other public transit works. The Edomex had developed a similar transportation commission counterpart, COTREM (*Comisión de Transporte del Estado de México*), in 1982 in order to tackle transportation problems and liaise with COVITUR and the DF.⁷¹ However, it faced significant limitations on achieving its functions due to the power and complexity of the private transit companies operating in Edomex.⁷² In 1992, COTREM was eventually folded into what is now today the Ministry of Communications and Transportation, SCT-Edomex (*Ministeria de Comunicaciones y Transporte*).

The construction of the transportation network, especially the subway, had been a political tool for decades, a lightning rod for overarching political interests in the DF.⁷³ Mexico's president during the initial stages of the subway planning and construction, Gustavo Díaz Ordaz (PRI), had connections to the financial and real estate interests connected to developing the subway system, and saw it as a chance to prop up his own political image. Moreover, the original subway plan in 1977 indicated its intention to remove and replace the private surface transportation modes and shift this powerful sector of society under governmental control.⁷⁴ "Subway supporters were a formidable force... because of their power in the national economy and national politics... [They] saw the city more as a machine to generate profit than as a space that embodies a social identity."⁷⁵ In this way, transportation was a way for actors and organizations from greater scales – national, state – to attain their political goals for power and profit on a local scale. These cross-scalar interactions generated even more conflict; the proposed subway "pitted national and local politicians against each other at the same time as it generated antagonisms within and between the two separate corporatist sectors

⁷¹ Ward, *Mexico City*. 110.

⁷² Jorge Legorreta and Angeles Flores, *Transporte Y Contaminacion En La Ciudad de Mexico*, First Ed. (Mexico, DF: Centro De Ecodesarrollo, 1989). 144.

⁷³ Davis, *Urban Leviathan*.

⁷⁴ Flores Dewey, "Expanding Transportation Planning Capacity in Cities of the Global South: Public-Private Collaboration and Conflict in Chile and Mexico." 64.

⁷⁵ Davis, *Urban Leviathan*. 301.

representing working classes, middle classes, and urban poor.”⁷⁶ Thus, the struggle over the implementation of the subway system was not only about negotiating between public governmental authorities and the private transportation industry but also within the government itself.

Beyond political machinations, there were significant financial and economic ramifications of these large-scale transportation projects that would frame the government’s concerns about transit planning in the future. Subway construction was a serious financial undertaking, requiring seemingly interminably growing subsidies just to continue to exist. The Metro was a gigantic financial black hole, sucking down subsidies faster than the tracks could be laid. It made a huge dent in state finances, as the DF (via COVITUR) took on a lot of the debt involved in constructing the Metro; in 1978 the president had the national finance ministry absorb the City’s debt, which was primarily due to the loans taken out to construct the subway. He also committed a yearly subsidy to the Metro from the federal government, therein beginning the financial commitment to transit in the DF from the federal government, yet at the time it made sense with the political and governmental integration of the two entities. However, the institutional changes due to the reforms complicated the financial relationship between the two. Funding was often a way to persuade cooperation when it was aligned with policy and politics, which was not always the case, which we will see in the following cases in Chapter 3.

The implementation of the subway system exemplified the centralized, authoritarian approach to cooperation around transportation planning in the MCMA during the late 20th century. The vertical and horizontal integration of political influence by the nationally dominant political party at the time, the PRI, enabled a consolidation of authority that pushed through massive public works projects like the Metro. Yet that consolidation of authority was not necessarily strong at the metropolitan scale; although subway construction began in the 1960s, the first metropolitan lines

⁷⁶ Ibid. 301.

were not undertaken until the '90s, in spite of the fact that the urban footprint had already begun to spill over into the adjacent Edomex by then. These trends of suburbanization and conurbation in the MCMA then required the physical and political involvement of Edomex, a state with its own political complications but without the resources of the DF. Furthermore, the consolidation of authority established by the PRI and the federal government had begun to fragment as the country, and particularly the MCMA, underwent changes of democratization and decentralization. As such, subsequent metropolitan-scale transportation projects between the DF and Edomex called upon a different structure of governance, with disparate institutional strengths between the two entities, than the one used to construct the bulk of the subway system, which was primarily confined to the DF.

Incipient democratization and decentralization: 1996 to the present

In spite of the democratic trappings, the PRI's one-party rule of Mexico has sometimes been referred to as "the perfect dictatorship."⁷⁷ An entire thesis could be dedicated to unpacking the implication of the one-party rule by the PRI for all ensuing policy decisions; suffice to say, prior to 1997 not only were all the relevant entities in the MCMA belonging to same party, but the DF was a de jure extension of the federal government, without much of the powers accorded to the rest of the Mexican states.⁷⁸ In this way, much of the national political machinations were often reflected and magnified more evidently in the Mexico City area. The PRI was able to maintain its stranglehold on national and local politics through legal and political channels; however, due to greater changes in the Mexican social structure and economic trends, such as the decline of the working class in the organized labor movement and the electoral shift away from the agrarian areas towards urban ones,

⁷⁷ "Mexico's Perfect Dictatorship?," *Foreign Affairs*, accessed May 1, 2015, <https://www.foreignaffairs.com/articles/mexico/2015-02-04/mexicos-perfect-dictatorship>.

⁷⁸ Hurtado González and Arellano Ríos, "LA CIUDAD DE MÉXICO Y EL DISTRITO FEDERAL."

the PRI's power steadily declined. In response, the political machine fought to avoid making any true reforms, instead depending on more superficial changes in representation in order to give the appearance of reform.⁷⁹ The decay of the PRI's political power was reinforced by the legal reforms of 1996 in which the DF was ceded the power of directly elect its own head of government; consequently in the elections the following year, the Party of the Democratic Revolution (PRD) was elected to head the government of the DF. Furthermore, the PRI's one-party rule of the national government ended with the election of Vicente Fox of the National Action Party (PAN) in the presidential elections of 2000. The PRI only recently regained national control with the election of the current president, Enrique Peña Nieto, in 2012. This alignment of political party with certain levels of government therefore played out in different spheres of policy and planning, affecting the conditions of cooperative governance and thus the formation of policy networks. The extent of the influence of one-party rule cannot be understated; it is the backdrop against which all subsequent political negotiations, transportation-related or otherwise, perform. The cases to be discussed in the following chapter are no different, in that the changes in the policy networks capture and reflect these overarching themes of democratization and decentralization, which underpin the trajectory of cooperative governance around public transportation in the MCMA.

Ultimately, we see how metropolitan-scale disparities in space and policy between the DF and Edomex set up uneven institutions (organizational and otherwise) to such an extent that earlier attempts at formal metropolitan planning were unsuccessful. Since transportation implementation was used as a political tool, the process of planning and implementation aligned and divided actors and entities, causing fractures but also consolidating power and authority in certain organizations

⁷⁹ Joseph L. Klesner, "Electoral Reform in Mexico's Hegemonic Party System: Perpetuation of Privilege or Democratic Advance?" (Annual Meeting of the American Political Science Association, Washington DC, August 1997), http://www2.kenyon.edu/Depts/PSci/Fac/klesner/Electoral_Reform_in_Mexico.htm.

more than others do. The institutions of the political party embedded at national, state, and local levels became weakened and frayed, in part due to the added stress of pushing through the construction of the Mexico City subway system. The extensive use of transportation as a political lever contributed to the undoing of the political structure it had been used to shape, generating waves of political crisis that culminated in the legal reforms of 1996. From that point on, the DF as a newly founded political entity lacked clear definition and purpose within the scheme of governance, and required new or updated institutions through which to engage actors across all scales. With the realm of public transportation having already served as an adequate stage for reworking institutions, it continued to function in such a manner for further explorations of metropolitan governance strategies. As the three transportation case studies in the following chapter will demonstrate, certain aspects of the policy network have changed over time, reflecting the different ways in which cooperative metropolitan governance has manifested in the MCMA.

Chapter 3 – The evolution of metropolitan governance in three cases of public transportation

As discussed in the previous chapter, transportation in the Mexico City metropolitan area (MCMA) manifests greater spatial, social and political tensions across multiple scales. As transportation is also representative of how institutions interact and play out in space, the implementation of public transportation also functions as a way to understand how these institutions of governance have changed – or not – over time. As previously mentioned, policy networks can be measured by the composition of the network – the actors and agencies, and their respective characteristics loosely defined by the membership involved, the level of integration and amount of resources possessed – as well as the qualities of the network connections. Those connections are the institutions, both formal and informal, that regulate interactions among the components of the policy network.⁸⁰ In this way, the qualities of the policy network reflect the conditions of metropolitan cooperation by framing the actors involved, their priorities and resources, and the channels through which they interact. The three transportation cases discussed in this chapter are each a snapshot in time, presenting a cross-section of the policy network that existed as a function of and in response to the conditions of metropolitan governance in the MCMA.

The first case of a subway line, Linea B, illustrates a more forceful approach to cooperation, in which the consolidated authority of the federal government and strong political party institutions advanced the planning and implementation process; however, the inflexibility of this policy network hindered the development of enduring institutions, effectively crippling decision-makers once governance structures shifted. The second case of the commuter rail line, the Tren Suburbano, demonstrates the importance of including new non-state actors as well as informal institutions in order to effectively implement metropolitan public transportation. The third case is Méxibus Linea

⁸⁰ Rhodes, *Policy Network Analysis*.

4, which will establish a metropolitan bus rapid-transit (BRT) corridor by connecting with Linea 1 of the DF's Metrobús at the intermodal hub Indios Verdes. The institutional conditions around the planning and implementation of this future BRT corridor highlights the current conditions of metropolitan cooperation, and how the transportation policy network has changed in comparison to the prior two cases. The policy outcomes associated with these projects can be measured not only by technical indicators, such as ridership, cost, and connectivity with other modes of transportation, but also by indicators of governance, like accountability and coordination.

Overall, these cases demonstrate the conditions of cooperative metropolitan governance as reflected by the aspects of the policy network involved in the planning and implementation of public transportation projects. Several key trends, such as the formal inclusion and recognition of non-state actors and a formalization of institutions, emerge over time; I argue that these trends indicate a broadening of the policy network, and that broadening indicates a more effective approach to cooperative metropolitan governance. Broadening is not only about possessing greater numbers of actors, but more importantly refers to an overall strengthening of the institutions involved in their interactions. Although formalization is a factor, a strong institution does not necessarily connote a formal one, and vice versa. The policy network structure in each of the cases that follow reflects these dynamics of institutional formalization as well as the overall context of democratization and decentralization occurring in the MCMA.

Linea B

The first case study, Linea B, takes place during a pivotal moment in the history of the MCMA. Not only was it one of the first metropolitan-scale public transportation projects, but its planning and implementation occurred simultaneously with growing political fragmentation within

the dominant PRI coalition at the time, demonstrating how cooperative metropolitan governance in public transportation was approached leading up to and immediately following the legal reforms of 1996. This project was emblematic not only of a centralized, top-down approach to governance in which the federal government forced cooperation through direct intervention in the metropolitan scale, but also of how that more narrow governance structure inhibited the development of supplemental institutions to facilitate metropolitan cooperation of their own accord. As such, in the wake of the fragmentation within the dominant political party coalition (PRI) and the realization of the DF's autonomy in 1997, the fragmented entities and their socio-spatial disparities were laid bare, with no one institution strong enough to overcome them.

Background

Línea B is the tenth subway line in the MCMA, running from the historic center of the Federal District (DF) to the northeast into the State of Mexico (Edomex). The first section of the line, which is in the DF, was inaugurated December 15, 1999. The second phase of the project, the part of the line in Edomex, was inaugurated November 30, 2000. The physical length of the line is almost entirely split between the two states, with approximately 12,000 kilometers in the DF and 11,500 kilometers in Edomex. The studies for Línea B began at the end of 1993, with the construction of the first segments connecting three stations in the historic center of the DF following soon after. The completion of Línea B at the end of 2000 contributed to the subway network's growth by 13%, achieving a system-wide coverage of 201.7 kilometers.⁸¹ It cost approximately 280 million pesos (approximately \$29.4 million USD at the time) to construct.⁸²

⁸¹ TRANSPORTE COLECTIVO METRO, ING MARLEN GÁMEZ ROJAS, and DR JAIME REYNALDO SANTOS REYES, "SECCIÓN DE ESTUDIOS DE POSGRADO E INVESTIGACIÓN.," accessed March 26, 2015, <http://www.sepi.esimez.ipn.mx/msistemas/archivos/Gamez%20Rojas%20Marlen.pdf>. 14.

⁸² Eduardo Granados García, "Patrones de movilidad y tren suburbano," November 11, 2009, <http://repositorio.flacsoandes.edu.ec/handle/10469/1181>. 79.

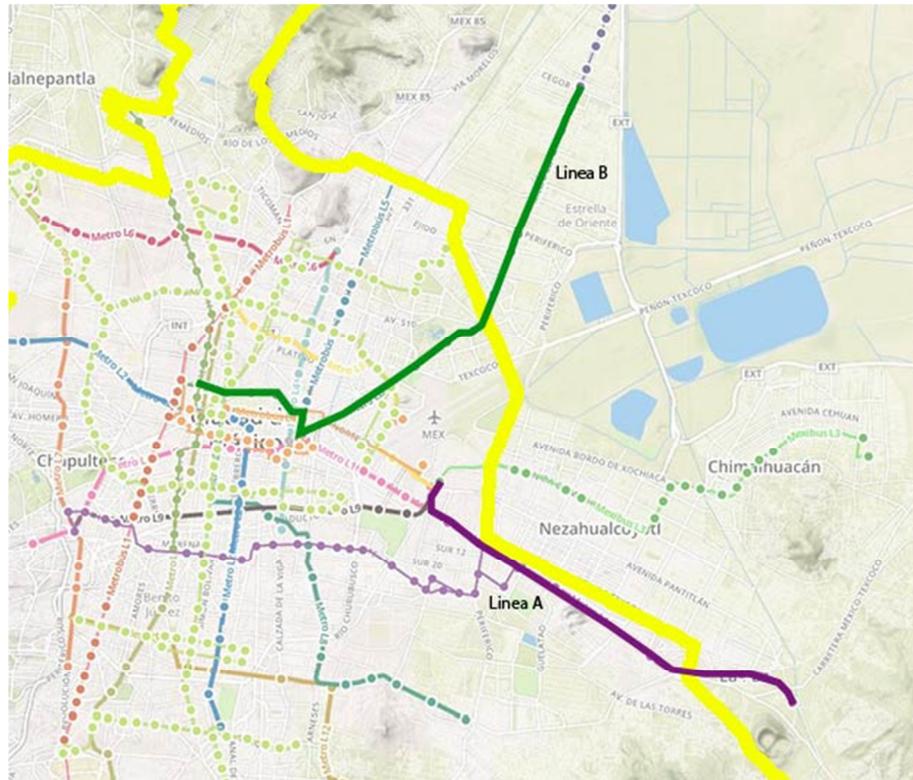


Figure 5 - Map of the MCMA transit system showing the location of Linea B (green) and Linea A (purple), with yellow demarcating the border between the DF and Edomex

However, it is important to note that Linea B was not technically the first metropolitan transit project to take place in the MCMA. The first public transportation project to run between the DF and Edomex was Linea A, which opened in 1991, running from the intersection of four major subway lines at the Pantitlán station in the east of the DF to La Raza in the southeastern part of Edomex. Both lines A and B had been identified as future subway corridors in the master subway plan of 1986 (*Plan Maestro del Metro*), and were considered a different type of railway due to the use of iron wheels as opposed to pneumatic tires. However, Linea A was conceived and treated as a separate transit system, requiring a different fare to transfer between the line and the rest of the system and preventing it from being truly integrated into the metropolitan transportation system until December 13, 2013. In spite of the fact that the line is predominantly in the DF, and the fact that it connects Edomex with four different lines of the DF subway system, its manner of operation

continues to hinder its full incorporation into the metropolitan transit system. The line habitually possesses one of the lowest ridership levels of all the subway lines due to the low frequency of trains running along the route. Yet Linea A's planning and implementation process was carried out under the same governance structure under which Linea B was conceived.⁸³ Furthermore, Linea B, with its geographic significance at the northern border with the greater level of population density and the most notable discrepancy in land use and development pattern between the two states, serves as a better embodiment of the institutions that shape governance at the metropolitan scale.

The dominance of the federal government and PRI in Linea B's planning

At first glance, the policy network involved in the planning and implementation of Linea B is composed of three primary actors: the federal government, represented by the Ministry of Communications and Transportation (SCT) and the Ministry of Revenue and Public Credit (SHCP); the DF, represented by the Commission for Roadways and Urban Transport (COVITUR)⁸⁴ and the General Coordination of Transport (CGT); and Edomex, represented by their state-level Ministry for Communications and Transportation (Edomex-SCT) and the municipal representatives of the neighborhoods affected, Ecatepec and Nezahualcóyotl.⁸⁵ However, as discussed in the previous chapter, during the years of planning that began in the early 1990's up until 1997, the DF was formally a department of the federal government, and therefore was literally a state- and city-level embodiment of the federal government.⁸⁶ Furthermore, Edomex's government also belonged to the same political party as the federal government and DF, the Institutional Revolutionary Party (PRI),

⁸³ Interview with respected academic who formerly worked for the DF ministry of transportation during this time, January 2015.

⁸⁴ In 1995, COVITUR became the Dirección General de Construcción de Obras para el Sistema de Transporte Colectivo, now known more or less as STC-Metro. COVITUR had been created in 1977 specifically to take on the planning and construction of the Metro system, and was responsible for the first origin-destination studies of the MCMA and the master plans for the Metro and other surface transportation projects. (Rivera 2000).

⁸⁵ Rivera, *Llegando tarde al compromiso*. 229.

⁸⁶ Legorreta and Flores, *Transporte Y Contaminacion En La Ciudad de Mexico*. 122.

which had dominated the political scene in Mexico for multiple decades, further contributing to the one-sided nature of the policy network's composition. In this way, the three actors could potentially be imagined as three prongs of the dominant institution, the PRI, exerted at different scales. The unity provided by the political party was crucial to metropolitan cooperation at this time, but once this one-party rule was broken up, "there was no commonality among them, because politics determines everything."⁸⁷

As such, the legal reforms in 1996 that culminated in the election in 1997 of the DF's own head of government from the opposing political party, the Party of the Democratic Revolution (PRD), caught the Linea B project half-complete and without clear direction. As a nascent political party formed primarily of ex-PRIistas, the PRD wanted to demonstrate its ability to at least do as well as its predecessor, if not better, but did not fully understand the profound level of commitment and capacity needed to implement metropolitan-scale projects.⁸⁸ However, since the federal government could no longer appoint the head of the DF government, and that newly elected DF head of government now belonged to different political parties, the federal government was without the direct governmental or political way to manage the DF. In fact, the differences between the PRD and the PRI interfered with policymaking coordination between the DF and the federal government, who withdrew federal funding and political support by not participating in any discussions about how to manage Linea B.⁸⁹ As such, the federal government became less involved in the project until the project's delays threatened what little political capital they had left. Therefore, it seems no coincidence that Linea B was inaugurated by the president – despite not being fully operational – on the last day the PRI held the presidential office.⁹⁰ This reflects the way in which the

⁸⁷ Interview with former high-ranking official from the DF ministry of transportation, January 2015.

⁸⁸ Ibid.

⁸⁹ Ibid.

⁹⁰ Metro Website, "Facts about Linea B," n.d., <http://www.metro.df.gob.mx/red/lineab.html>.

federal government exerted influence in the metropolitan scale through direct intervention in Linea B, at least when it suited their own interests – which did not align with those of the DF after 1997.

Although there was a multiplicity of commissions and agreements intended to facilitate metropolitan coordination between the DF and Edomex, they were not involved from Linea B's planning process; instead, the federal government took the lead and relied on political connections to disseminate information to the entities involved, rather than truly empower the other actors to participate fully in the process. Cometravi, created in 1994, was intended to be a metropolitan body but was adapted by the PRI into a more pragmatic political tool, giving the appearance of collaboration whereas instead the federal government would set priorities and the states would follow suit.⁹¹ Similarly, the CGT had been created in 1984 through major legislation (*ley orgánica*) to carry out transportation policy in the DF, and was supposedly promoted in authority and power when it was converted to the Ministry of Transportation and Roadways (Setravi) in 1995. Yet that was not the case; the Ministry had neither money nor authority to regulate the local private transit operators who were responsible for the majority of transit service at the time, and were being incorporated or displaced by the subway construction.⁹² Moreover, Setravi at this time did not have a budget for planning or research; it was handicapped in the way that it could potentially guide a more efficient and successful management at metropolitan level. As such, even though there did exist formal institutions available for metropolitan coordination, the actual conditions of governance was structured around the direct invention of the federal government and the political machine of the PRI, constituting the framework of the transportation policy network present in Linea B's planning process

⁹¹ Interview with academic and former high-ranking official from the DF Ministry of Transportation, January 2015.

⁹² Interview with private consultant and former high-ranking official from the DF Ministry of Transportation, January 2015.

In part related to the dominance of the federal government and the PRI, no full consideration was given to elaborating and refining responsibilities for the implementation of the Linea B project. An agreement signed in 1997 established responsibilities for the three primary actors; the federal government would be responsible for financing, especially since they had already assumed the debt stemming from the rest of the subway construction. The DF (via COVITUR) would construct the subway line up to the final station, Ciudad Azteca, in Edomex and would carry out the design, planning, contracting work⁹³ alongside the CGT, with both entities intended to coordinate transportation across all modes and their respective operations and management.⁹⁴ The Edomex-SCT and respective local governments would hand over the facilities and necessary right-of-way, determine the location of stations and bridges, the revision and authorization of executive projects in weekly meetings.⁹⁵ This agreement focused wholly on construction without any thought or reference given to the planning and regulatory issues that would eventually rise to the surface once the federal government was no longer directly involved. In spite of the fact that this agreement would have been the primary vehicle to establish or formalize mechanisms for these stakeholders to coordinate, the apparent omission of these institutions was a serious shortfall.

The urban reforms' consequences for metropolitan governance of public transportation

The change in political power also shifted financial priorities, which had a strong influence on how the DF and Edomex did or did not manage to cooperate. When the primary members of the transportation policy network all pertained to the same political party and the federal government was footing the bill, the states were eager to cooperate in order to benefit from the flow of investment. However, the growing crisis within the PRI challenging that federal power came at

⁹³ Urías, “La Coordinación Intergubernamental Para El Desarrollo Metropolitano En El Estado de México.”

⁹⁴ Rivera, *Llegando tarde al compromiso*. 230.

⁹⁵ Urías, “La Coordinación Intergubernamental Para El Desarrollo Metropolitano En El Estado de México.”

the same time of greater financial uncertainty, since the massive push of subway construction had already burdened them with a mountain of debt. In 1994, the federal subsidy of the subway constituted approximately 60% of the expenditures for the STC. That dropped to almost 30% in 1996, due to a jump in ridership from the construction of new metro lines and associated fare increases.⁹⁶ In other words, the federal government was looking for ways to relieve themselves of the financial burden of the Mexico City subway; leading up to the construction of Linea B, subway expansion had slowed, primarily due to financial limitations. As such, the federal government felt it was more advisable to construct only lines that they felt would guarantee a positive outcome, in terms of technical and institutional feasibility. The two first metropolitan-scale public transportation lines, A and B, represented a “search for a new policy of investment in transportation: a cheaper investment policy, or at least, investments that minimized the need for governmental debt.”⁹⁷ In a way, suburban rail was cheaper to build because of lower land values and fewer property owners to negotiate with.

Yet without the financial and political support of the federal government after 1997, concerns about the financial and political costs that the states would now have to assume trumped any trappings of the metropolitan coordination that had been compelled by the federal government. After gaining political autonomy and losing federal support, the DF officials had to continually renegotiate directly with Edomex over how the project was implemented; there were repeated delays and problems with funding, and confusion on which entity – the DF or Edomex – was responsible for certain aspects of the project’s construction; as the inauguration of the line continued to be delayed, the respective entities publicly blamed the other for failing to advance the project in a timely

⁹⁶ Rivera, *Llegando tarde al compromiso*. 294-295.

⁹⁷ Priscilla Connolly, “Evaluación Económico Financiera Del Metro de La Ciudad de México 1988-1994,” *Investigaciones Recientes Sobre La Ciudad de México*, n.d., 115, accessed March 26, 2015. 13.

fashion.⁹⁸ Yet these negotiations over implementation were resolved outside of the formal institutions that had never truly served their purpose in the first place. For instance, one informant who used to be a high-ranking official in the DF ministry of transportation at the time recounted an incident in which the Edomex governor complained to the head of STC-Metro, the DF entity in charge of the subway system, that the vehicles being sent along Linea B were in horrible condition. The STC-Metro head retorted that the DF was essentially subsidizing public transportation service to Edomex and therefore should not be complaining. However, they were able to work out directly between them compromises about the quality and frequency of transit service that suited them pragmatically.⁹⁹ Regardless, this was not a sustainable form of governance, wholly dependent on individual relationships and apt to disappear as new leadership takes over. There were no enduring institutions that would incentivize cooperation between the DF and Edomex at this point in time.

Another point of contention between the DF and Edomex was regarding who was responsible for providing amenities and utilities to the stations, and general oversight of the security of the subway line. For example, because of the legal uncertainty regarding metropolitan jurisdiction stemming from the vague language in the National Constitution, the presence of the STC-Metro, a DF organism, operating in Edomex territory was a point of legal dispute. As such, once the states were taking on more and more of the financial responsibilities for the subway construction, Edomex authorities began to drag their heels on ponying up the costs for things such as providing water connections to the subway worker facilities in the stations, claiming that STC-Metro had no legal authority to compel them to do anything.¹⁰⁰ Similarly, there was confusion over which state's police and security regulations applied in different sections of the subway line; since the laws regarding

⁹⁸ Elizabeth Tinoco, "Debe GDF Culminar Linea B En Edomex," *El Universal*, December 16, 1999, sec. Metropoli, <http://www.eluniversal.com.mx/ciudad/5603.html>; Ella Grajeda, "Abriran En Tres Dias La Linea B?," *El Universal*, November 27, 2000, sec. Metropoli, <http://www.eluniversal.com.mx/ciudad/20017.html>; Laura Cardoso and Jose Luis Flores, "Rechazan Criticas a La Linea B," *El Universal*, November 30, 2000, sec. Metropoli, <http://www.eluniversal.com.mx/ciudad/20238.html>.

⁹⁹ Interview with academic and former high-ranking official from the DF ministry of transportation, January 2015.

¹⁰⁰ *Ibid.*

criminal punishments differed between the DF and Edomex, it was unclear whether that legal jurisdiction was extended by the STC-Metro's operations in Edomex, or capped by the geographic border between the states.¹⁰¹ Neither the DF nor Edomex were willing to expend more than was necessary to construct a project that had growing financial and political costs, resulting in a disconnect between their own interests and the benefits to the end user – the transit riders. This again had serious implications for users, yet concern for them never appeared to factor into the discussion.

Overall, we see how the conditions of cooperative governance – dominated by the federal government and informal political channels, which inhibited the adoption or development of lasting institutions, leading to confusion and antagonism over authority and responsibility in the MCMA – had serious implications for how this metropolitan public transportation project was carried out. The reliance on the political machine and party politics was no mistake; this constricted vertical policy network appeared to be the most reliably effective way of getting things done, especially in light of historic approaches to accomplishing transit projects like the subway. However, the Linea B case provokes questions about the effectiveness about this narrow consolidated approach to governance, because of its inability to evolve and persist in response to changes in the political landscape. Over-reliance on individual relationships mean for serious delays in implementation and thus worse policy outcomes after those key figures are gone. These informal mechanisms only go on to perpetuate greater institutional differences and even antagonism among the actors involved; the DF and Edomex became much more voluble about one subsidizing or taking advantage of the other after the federal government withdrew its support.¹⁰² The Linea B project limped to its inauguration with the final intermodal station at the end still partially constructed and the concerns over amenities and policing along the line still unclear, but it served the purpose of establishing fixed transit along

¹⁰¹ Interview with private consultant with experience working with agencies in DF and Edomex, January 2015.

¹⁰² Tinoco, “Debe GDF Culminar Linea B En Edomex.”

one of the most congested corridors in the MCMA.¹⁰³ Moreover, it finalized the stage upon which the conditions of metropolitan governance would develop in the ensuing years, grappling with these oppositional dynamics, set up by political differences and uneven resources while striving to provide transit service across an ever-growing metropolitan area.

Tren Suburbano

Almost a decade after Linea B took place, another long-planned expansion of the metropolitan transit system was attempted in the form of the Tren Suburbano, the first of four proposed heavy-rail transit corridors spanning the DF and Edomex. The Tren Suburbano is often touted as a major success of metropolitan planning,¹⁰⁴ and it succeeds in the fact that it provides reliable transit service that reduces travel times by approximately 70%.¹⁰⁵ However, an examination of the composition and structure of the policy network indicates that this project reflects a more complicated picture of metropolitan governance. Key technical indicators such as the overestimated demand and subpar ridership, uncertain financial sustainability, and lack of integration with other transportation networks show where the project falls short; these technical issues are symptomatic of overarching issues of metropolitan cooperation

Without the centralized albeit narrow policy network integration that had carried through the Linea B's implementation, the primary players of the federal and respective state governments were now even more divided by their oppositional political party affiliations: the federal government under the National Action Party (PAN) as of 2000, the DF under the PRD as of 1997, and Edomex

¹⁰³ Cardoso and Flores, "Rechazan Criticas a La Linea B."

¹⁰⁴ Multiple interview subjects when asked directly for an example of successful metropolitan transit project, would usually mention the Tren Suburbano. Yet upon further probing, the actual lack of metropolitan coordination and the fragmented, oppositional, dysfunctional policy network was uncovered.

¹⁰⁵ CAF, "Suburbano: la via rapida al bienestar," April 20, 2010, http://www.fsuburbanos.com/pdf/la_empresa/presentacion_suburbano.pdf.

still with the PRI. These political differences and the lack of consolidated political power originating from the federal government established the challenges to effective metropolitan governance during the planning and implementation of the Tren Suburbano. The history of metropolitan inequality reinforced by inadequate policies gone unaddressed continued to be embedded in the structure of the policy network, which shows a disconnect in priorities and intentions behind the project. This inability to adequately align goals with mechanisms is also represented in the internal institutional struggles of the primary state actors, especially Edomex, which opened the door for the inclusion of a non-state actor through a public-private partnership. This project exemplifies how the conditions of governance affect the planning and implementation of metropolitan public transportation; in spite of the trappings of formal metropolitan governmental institutions and the formal inclusion of non-state actors, the deficient institutional capacity within the policy network had significant consequences for the Tren Suburbano.

Background

The Tren Suburbano runs from Buenavista, a multimodal transit hub connecting with the DF subway (Metro) and bus rapid-transit (Metrobús) systems near the historic downtown center of Mexico City, to the north terminating in Cuautitlán, Edomex. A corridor of 27 kilometers, it claims to currently carry 100 million annual riders after commencing service in 2008; it cost approximately 6.7 billion pesos, or a little over \$600 million USD at the time, to construct.¹⁰⁶ In terms of ridership, it is capable of serving over 300,000 person-trips daily, but now the highest registered passenger levels hover around 178,000 daily users.¹⁰⁷ In comparison, the subway line with the lowest level of

¹⁰⁶ Granados García, “Patrones de movilidad y tren suburbano.” 75.

¹⁰⁷ “Implementarán Siete Rutas Piloto Para Elevar Aforo Del Tren Suburbano,” *Excelsior*, accessed April 7, 2015, <http://www.excelsior.com.mx/comunidad/2015/01/27/1005078>.

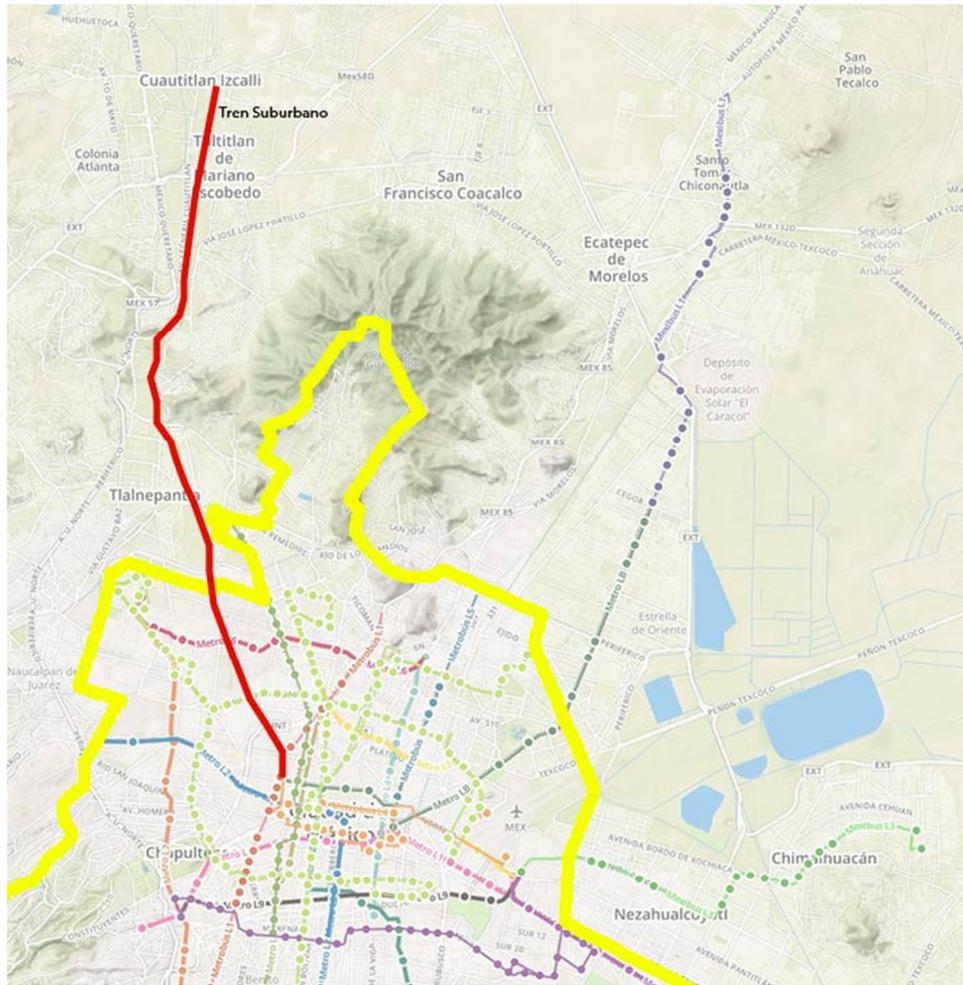


Figure 6 - Map of the MCMA showing the location of the Tren Suburbano, with yellow demarcating the DF and Edomex border

ridership has approximately 250,000 daily users.¹⁰⁸ References to this corridor exist as early as the 1985 master plan for the subway, where it was identified as a future line of the subway system.¹⁰⁹ Budgetary planning and other technical discussions began in 2000, with the initial intention of the train becoming operational in 2005.¹¹⁰ The official request for bids began around the same time, yet the contract for the construction and operation of the system was not signed until 2005, delaying operations for several years. Although the project was and still is initially intended to travel farther

¹⁰⁸ STC-Metro, *Cifras de Operacion* (STC-Metro., January 15, 2015), <http://www.metro.df.gob.mx/operacion2/cifrasoperacion.html>.

¹⁰⁹ Legorreta and Flores, *Transporte Y Contaminacion En La Ciudad de Mexico*.

¹¹⁰ Claudia Hidalgo, "Iniciaran en 6 meses tren suburbano," *El Universal*, December 31, 1999, sec. Metropoli, <http://www.eluniversal.com.mx/estados/5113.html>.

into Edomex to Huehuetoca, the initial phase from Buenavista to Cuautitlán has been functioning as the full breadth of the project while bids for this new extension are presently underway.¹¹¹

Deviating project purposes and priorities of actors

As previously mentioned, the chief technical success attributed to the Tren Suburbano is the decrease in commuting time between Edomex and the DF, but that is outweighed by multiple other technical and institutional shortcomings associated with the project. Although the corridor was originally conceived as another subway corridor in the Master Plan of the subway in 1985, the project was ultimately implemented as a federal initiative through a public-private partnership; the federal government paid out 130 million pesos and the remainder of the 6.7 billion pesos was put up by CAF, the Spanish railway firm that won the competitive bid in August 2005 to construct, operate, and provide vehicles and railway materials for the project.¹¹² This change in responsibility during the planning of the project indicates several major conditions of governance at the time. On one hand, the DF was more averse to acquiring more regional responsibility without a proportional level of financial or political compensation – very similar to their perspective during the final years of the Linea B project.¹¹³ On the other, the federal government appeared disinclined to support a potential amplification of a DF organism’s power, the STC-Metro, by allowing them to operate another major metropolitan transit corridor – or even doubted the capacity within the public sector to carry out the necessary work.¹¹⁴ Without the institutional alignment afforded by the legal and political control that had overseen the prior metropolitan corridors, lines A and B, the federal government no longer had the same channels available to ensure that their financial and political capital expended to implement the project would suit their interests. By bringing in a private firm on its own terms, the federal

¹¹¹ Alberto Cuenca, “Por etapas, construcción del Tren Suburbano,” *El Universal*, March 10, 2000, sec. Metropoli, <http://www.eluniversal.com.mx/ciudad/8373.html>.

¹¹² CAF, “Suburbano: la vía rápida al bienestar.”

¹¹³ Interviews with academics and private consultants, former high-ranking officials in the DF ministry of transportation, January 2015.

¹¹⁴ Interview with private consultant, with considerable experience with the DF and federal government transportation ministries, January 2015.

government could shape the project to its own liking, at the expense of the effectiveness of the project.

Establishing a national commuter rail held electoral appeal for the federal government, which did not necessarily mean that the project was grounded in the actual needs of the people living and working in the area. The Tren Suburbano's corridor does not actually travel by the areas where people live and thus require transit service, as it runs in the federal government-owned right-of-way of a former train between DF and Querétaro; the right-of-way possession is clearly cited in Tren Suburbano planning documents as a reason to advance the project.¹¹⁵ However, the former train was previously a point-to-point connection rather than one focused on opening up the corridor in-between. When solely interested in connecting the two cities, the right-of-way was through the land that would cost the least and impact people the least: industrial sites, empty land, areas situated far from key residential centers. Since then the train tracks have been predominantly used for freight transport, which also did not encourage population growth and development along the corridor. All of these aspects made it difficult for the corridor reimagined as passenger rail to appeal to the transit users traveling between the more immediately adjacent municipalities and the DF.

Given the dominance of short and medium-distance trips in transit service area, and that most of those trips are usually within the immediately adjacent neighborhoods in Edomex and not in the DF, the structure of the service operations as it currently stands is too high to appeal to the travel preference of these users. For instance, in 2009 approximately 787,000 daily person-trips from the transit service area were estimated to be traveling to destinations within their own municipality, and 702,000 more to the immediately adjacent zones, compared with less than half that number

¹¹⁵ “Convenio Específico de Coordinación que celebran la Secretaría de Comunicaciones y Transportes y el Estado de México, que tiene por objeto formular e instrumentar los planes y programas para apoyar el desarrollo del proyecto del ferrocarril suburbano de la zona metropolitana del Valle de México, en la línea Cuautitlán-Buenavista.,” January 9, 2004.

traveling the longer distance into the DF.¹¹⁶ This clearly shows the disconnect between the transportation need of the population and the target of the government's investment; in spite of these figures, the service was still designed with fewer stops farther apart from one another, which does not meet the needs of the thousands of people trying to travel more locally. Yet the federal government still proceeded with the project, despite the general lack of cooperation of their state counterparts and the underwhelming public demand for this type of project: "The Tren Suburbano was done to gain votes, but the cost of doing it well was too high."¹¹⁷

To add insult to injury so to speak, even if the operations of the Tren Suburbano corridor was better in line with the travel patterns of the people whom it was intended to serve, its fare structure far exceeded the willingness to pay of its potential users. The fare of the Tren was already equal to or higher than the estimate fare of collective taxis to arrive at similar destinations, but then when one considers the lack of intermodal connection and the distance of the right-of-way requiring a collective taxi ride to arrive at the Tren, then the price becomes more excessive.¹¹⁸ This led to serious questions on the long-term financial sustainability of the project, and the need to either step up the integration of the Tren with the rest of transit in order to drive up ridership (difficult on an institutional level) or extend the train's corridor, which would be likely very costly and would still run into the same projects that currently exist.

Due to the oppositional relationship between the DF and the federal government and other political issues at hand, the Tren Suburbano embodied federal priorities at the expense of the transit users it was supposedly benefiting. Reliance on existing right-of-way made the corridor less appealing to users, which was already low because there was a disconnect between the structure of the service and the patterns of travel demand. This was even further exacerbated by the fare

¹¹⁶ Granados García, "Patrones de movilidad y tren suburbano." 2.

¹¹⁷ Interview with academic and former high-ranking official of the DF ministry of transportation, January 2015.

¹¹⁸ Granados García, "Patrones de movilidad y tren suburbano." 62.

structure of the service, making it even less appealing to users. Despite the potential reasons for the public-private partnership with CAF, the inclusion of a new non-state actor not only introduced new sources of capital but also unfamiliar norms and practices. Although the private sector's presence is attributed for the positive qualities of the project by bringing standards of safety, security, and reliability, the lack of adequately robust institutions relating this new player to the other metropolitan actors beyond the federal government was considered a factor in the financial and operational issues that the project encountered.¹¹⁹ Even with the benefits that the private firm brought, the disconnect between federal priorities and the demands of the project had a serious impact on the Tren Suburbano's successful implementation.

Incapacity of state actors and formal institutions, especially those of Edomex

Similar to Linea B, there were agreements signed among the governmental entities involved – the federal government, the DF, and Edomex – but there was no acknowledgment or reference to the metropolitan organizations that existed at the time supposedly to facilitate coordination of this very type of project. In December 2004, an agreement was signed between the federal government's Ministry of Communication and Transportation (SCT) and Edomex to elaborate their respective responsibilities regarding the development of the Tren Suburbano project. It is important to acknowledge that there did exist a metropolitan coordinating entity at this time, called the Conurbation Commission of the Metropolitan Zone (*Comisión de Conurbación de la Zona Metropolitana*), but it had no involvement whatsoever in the planning of this major transportation investment, despite its explicit intentions to accommodate the significant daily flows of traffic and commuters

¹¹⁹ Secretaría de Transporte y Comunicaciones, *White Paper on the Tren Suburbano*, September 30, 2012.

moving between Edomex and the DF.¹²⁰ In the documents regarding the responsibilities of the various governmental partners involved in the Tren Suburbano project, there are no references to the metropolitan parties that exist at the time, including the previously created Cometravi, or any non-transportation-specific planning commission.

Again, much like in the case of Linea B, the agreements laid out responsibilities, which were uncoordinated with the institutional capabilities of the entities involved. The agreement stated that the federal government had the responsibility of working with the railways that owned and operated within the pertinent right-of-way to gain access, while Edomex had the more complex responsibility of covering the costs of design and engineering work, procuring the necessary permits and licenses for said work, and more importantly, reorganizing the local transit services into routes that would feed into the Tren Suburbano corridor.¹²¹ Yet Edomex was incapable or more likely unwilling to exert power over the private transit operators, the transportistas, to accommodate the integration of the Tren Suburbano. The state's minimal capacity to regulate local transportation paled in comparison to the power of the transportistas, who were widely acknowledged as a mafiaesque monopoly in Edomex, with their own entrenched policy network at the state and local levels.¹²² One informant narrated an episode in which the Edomex-SCT, encountering issues with the transportistas, called their DF equivalents in a failed attempt to curb the behavior of private transit regarding traffic regulations, but was told it was outside the DF jurisdiction.¹²³ In spite of the expansion of formal public transportation services in the MCMA, the numbers of private transit operated by these transportistas continued to grow (Figure 6), reflecting the incapability of bringing these competing transit services under control. Since the competing collective taxi and local bus

¹²⁰ Diana R. Villarreal, "Sistema de Transporte Público Y Desplazamientos Al Trabajo En La Zona Metropolitana Del Valle de México 1994-2007," *Revista Transporte Y Territorio*, no. 1 (2009): 112–43. 128.

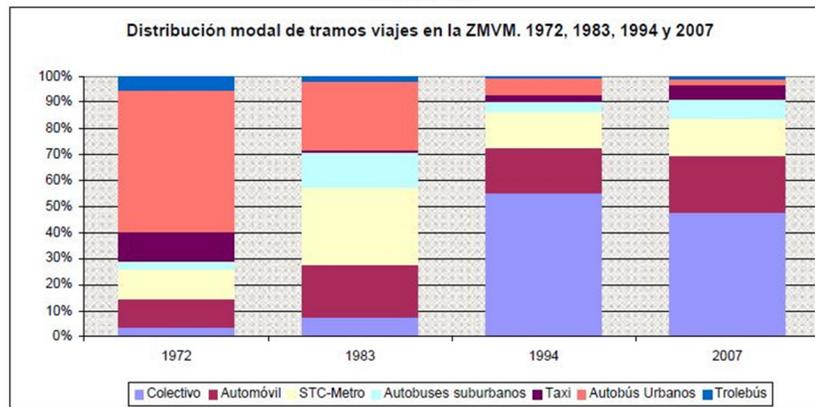
¹²¹ "Convenio Específico de Coordinación que celebran la Secretaría de Comunicaciones y Transportes y el Estado de México, que tiene por objeto formular e instrumentar los planes y programas para apoyar el desarrollo del proyecto del ferrocarril suburbano de la zona metropolitana del Valle de México, en la línea Cuautitlán-Buenavista."

¹²² Interview with current high-ranking official in the DF government related to transportation, January 2015.

¹²³ *Ibid.*

network served the populated areas much more effectively and affordably, there was hardly any incentive on the part of the user or transit operator to coordinate with the Tren Suburbano corridor, and the Edomex government lacked any form of legitimate authority to force the transportistas to comply. In the case of the Tren Suburbano, approximately 59 private transit operators were concessioned to provide alimentary routes, but the process was overall insufficient, neither meeting the actual needs of the riders in terms of adequate connections nor satisfying the economic priorities of the transportistas.¹²⁴ In this way, the uneven amount of capacity across the actors, particularly Edomex compared to the transportistas, within this policy network had significant implications for the outcome of the project.

Gráfico 4.1



Elaboración propia con base en los datos obtenidos del texto: Islas, V., Hernández, S. y Blancas S (2004). *El transporte en la región centro de México. Vol. 1, Diagnostico General*, IMT y STC, y la Encuesta Origen-Destino 2007, INEGI.

Figure 7 - Graph showing the transportation mode distribution within the MCMA over time, specifically showing that private bus service increased despite the growing mileage of the subway system

In light of the Edomex’s institutional incapacity, the direct intervention of the federal government, and the inclusion of the private sector, there is a remarkable lack of information concerning the DF’s participation in this process, even though the DF as a major hub for jobs and opportunities is the primary trip generator in the MCMA. There was an agreement signed between the federal government and the DF regarding the responsibilities regarding the Tren Suburbano but

¹²⁴ Granados García, “Patrones de movilidad y tren suburbano.” 83.

it was not published.¹²⁵ The DF's governmental organizations involved in this project debated internally about how and whether they should support the project, with the sense of resentment of its northern neighbor for making them pay for infrastructure that they did not feel actually benefited them.¹²⁶ At the same time as this project, the DF was focusing very much on strengthening its own institutional capacity through the formalization of its own transportistas by launching the first bus rapid-transit corridor, Línea 1 of Metrobús.¹²⁷ Attention was concentrated elsewhere, on projects that were considered more urgent and potentially more politically feasible because they were within their own jurisdiction. Overall, the DF took on a more passive role in the development of this project; for example, even though the Tren Suburbano connects with two of the major public transit services in the DF, only just recently are the agencies addressing better intermodal connections between them at Buenavista station, the Tren Suburbano terminal, even though this was acknowledged as a serious problem during the development of the project.¹²⁸ In this way, although the DF generally possessed stronger formal institutions and capacity to plan and implement transit projects, it was not integrated into the process of metropolitan coordination; moreover, stronger internal informal institutions do not necessarily make for a more effective policy network at the metropolitan level.

Although this project did not seem to rank high in the priorities of the DF, that is not to say it did not resonate with the residents of the DF themselves. In 2007, someone had filed a petition for information from the federal SCT about the transparency of information regarding the decision-making processes of this project, and particularly how it was going to affect the neighborhood of

¹²⁵ Could not be located, but its existence and similar difficulty of procurement was cited in a governmental response to a freedom of information request submitted by the delegación of Azcapotzalco in 2007 regarding the Tren Suburbano.

¹²⁶ Interview with academic and former high-ranking official in the DF ministry of transportation, January 2015.

¹²⁷ Flores Dewey, "Expanding Transportation Planning Capacity in Cities of the Global South: Public-Private Collaboration and Conflict in Chile and Mexico."

¹²⁸ Villarreal, "Sistema de Transporte Público Y Desplazamientos Al Trabajo En La Zona Metropolitana Del Valle de México 1994-2007"; "Inauguran Acceso Norte de Estacion Buenavista Del Metrobus," *La Cronica de Hoy*, April 1, 2015, <http://www.cronica.com.mx/notas/2015/891714.html>.

Azcapotzalco, in the northwestern corner of the DF through which the Tren Suburbano traveled. Compiled by a department of the National Autonomous University of Mexico (UNAM), the document highlights the lack of clarity around the decision-making process, with the government first refusing to provide any documentation, and then only issuing blanket obtuse statements to cover their bases depending on the project would come out: “The documents and plans that compose the project are found subject to revision and modification at any time on the part of the authorities involved in said project, and hence are undergoing deliberative process of public servants, as such that final opinions have not yet been issued on the matter; that is to say, they are constantly under revision so there is not yet final approval of both the project and all the information inherent therein.”¹²⁹ This type of obfuscation reinforces the lack of accountability within the structure of governance as mirrored in the transportation policy network overseeing the Tren Suburbano.

Overall, in spite of the existence of formal metropolitan-level coordinating bodies as well as formal regulations and accords delineating the interactions and responsibilities of the state and non-state actors involved in the project implementation, the Tren Suburbano’s planning and implementation still encountered multiple challenges. This project reinforces that there is something beyond the institutions of government that is essential to successful project outcomes: governance. The transportation policy network of this project captures multiple dimensions of the cooperative metropolitan governance at the time, which in this case was politically divided and oppositional, economically and electorally self-interested, and overall disconnected between formal and informal institutions. There was a general disconnect in the discourse surrounding the project, with the intentions of the project out of sync with the way in which it was implemented. The federal

¹²⁹ Universidad Nacional Autonoma de Mexico Direccion General de Evaluation Institucional, “Informe Sobre La Petición de Información Por Medio Del Sistema de Solicitudes de Información (SISI) a La Cual Correspondió El Folio 0000900093407, Requiriendo Información Sobre El Tren Suburbano,” 2007.

government seemed keen on using their pre-existing right-of-way and on contracting a private firm to run the service, rather than try to make it work with existing public agencies. The weak points within Edomex were a serious obstacle in the 'Tren Suburbano's effective implementation that even private sector strengths could not overcome. Although the network could be considered broader in the fact that more actors were included in the process, the institutions – especially the informal ones – remained lean and more ineffective in general.

Méxibus Línea 4

Since the 'Tren Suburbano's inauguration in 2008, there have not been any other metropolitan-scale transit projects in Mexico City – until recent discussions of the integration of the two BRT systems belonging to the DF and the Edomex, reflecting a different set of conditions of cooperative metropolitan governance. In September 2014, President Enrique Peña Nieto referred to metropolitan-scale transit projects multiple times in his second-year state of the union report, including this BRT project as well as the expansion of several lines of the subway system such as Line 4, from the Martín Carrera station in the DF to the north into the heart of Ecatepec, Edomex.¹³⁰ This proposed BRT project highlights the more recent evolution of key formal institutions, such as new financial mechanisms and forward-thinking policies, as well as a greater inclusion and recognition of the contribution from non-state actors, especially from the private sector. In contrast to the argument against wider policy networks, we see that the broadening of the transportation policy network in this case implies a more effective approach to metropolitan cooperation, bringing out improvements of technical operations as well as in accountability and coordination. As this project is still ongoing, it is difficult to assess its planning and implementation

¹³⁰ "Será 2015 Año de Megaobras En El DF | 24 Horas," accessed December 31, 2014, <http://www.24-horas.mx/sera-2015-ano-de-megaobras-en-el-df/>.

process; however, an assessment of the current conditions of metropolitan governance helps project a possible future trajectory for the project. The crafting of new formal institutions alongside the adaptation and reimagination of existing ones and the introduction and connection of new actors across scales reshapes the policy network charged with advancing this metropolitan public transit project, presenting a generally more optimistic outlook.

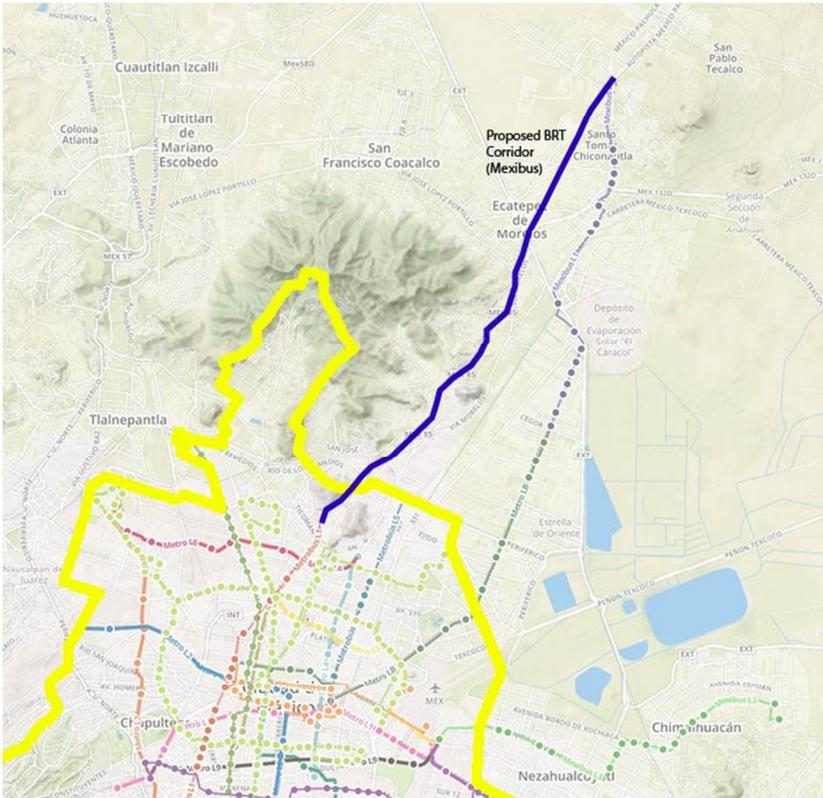


Figure 8 - the existing mass transit network of the MCMA with the boundary between DF and Edomex marked in yellow, and the proposed new BRT line in blue

Background

In November 2013, the Federal Ministry of Communications and Transportation (SCT), in conjunction with the Edomex government, announced their intentions to construct a new line of the Edomex BRT system, Méxibus, which would formalize one of the most heavily traveled transit

corridors between Edomex and the DF.¹³¹ Studies for this new BRT line, termed Méxibus Línea 4, were completed in 2012; initially conceived as a new subway line, the studies showed that BRT would be more feasible and cost-effective.¹³² The project has an estimated cost of \$2.3 billion pesos and will run from Tecamac to Ecatepec, both in Edomex, and then connecting with the major intermodal hub Indios Verdes in the northern section of the DF, a length of 24.4 kilometers to include 29 stations overall. At Indios Verdes riders will be able to connect with Línea 3 of the DF subway and Línea 1 of the DF BRT system, Metrobús, two of the most heavily traveled transit corridors in the MCMA. The line is projected to have approximately 178,000 daily riders.¹³³

Funding is coming primarily from the federal government's various departments, including housing and SCT via their national fund for infrastructure (Fonadin). Although the 2015 budget that included funds for these improvements was just recently approved by the state and federal Congress, the planning and implementation process has only just begun.¹³⁴ Construction began in the summer of 2014 and continues in fits and starts to this day, with slow-moving progress; the official opening of the line is unknown. Nevertheless, the mere presence of these metropolitan-specific projects in a national directive calls to mind the federal government's style of direct intervention in metropolitan-scale transportation in the past, as the prior cases show. Years later, however, the conditions of governance have changed, and with it, the implications for the planning and implementation of this metropolitan public transportation project. In the case of Méxibus Línea 4, the policy network of governance has broadened in response to the growing presence of new actors, such as local private companies and international organizations, carrying with them different standards, practices, and expectations. Moreover, the institutions structuring the policy network itself appear to be more

¹³¹ "Obras de 'Méxibus', DF a Tecamac, Iniciarán En 2014," *El Universal Edomex*, accessed December 31, 2014, <http://www.eluniversalEdomex.mx/home/obras-de-mexibus-df-a-tecamac-iniciaran-en-2014.html>.

¹³² "Ecatepec Podría Tener Línea de Méxibus a Indios Verdes," *El Universal Edomex*, accessed April 11, 2015, <http://www.eluniversalEdomex.mx/home/nota34236.html>.

¹³³ Monitoreo de Medios, "Proyectan Méxibus Línea 4 | AGU - Síntesis Informativa," accessed April 11, 2015, <http://www.agu.df.gob.mx/sintesis/index.php/proyectan-mexibus-linea-4/>.

¹³⁴ "Será 2015 Año de Megaobras En El DF | 24 Horas."

robust, with alignment of policies with funding and relative authority to encourage cooperation and compliance.

In spite of the tantalizing positive benefits from the integration of these two separate transit systems, there are some challenges. Integrating these BRT corridors could worsen already problematic levels of congestion and lack of capacity. Connecting this new project to two major existing transit corridors in the DF would facilitate a higher rate of transfers to some of the most highly utilized and thus congested public transit lines in the city. The existing system physically and operationally cannot support more vehicles or shorter headways, which poses problems if more riders are channeled into these corridors. There are multiple complications of expanding the physical infrastructure of new transit lines: rights-of-way to be procured and cleared, power and service to be expanded, the determination of headways and capacity along the corridor, and intermodal transfers to be coordinated. In addition to these technical issues, there are multiple overt and implicit political challenges as the prior cases of Linea B and the Tren Suburbano have showed, such as political party opposition and competition for votes, and insufficient incentives to induce cooperation at the metropolitan scale instead of catering to internal demands and priorities.

This type of political negotiations for space and access are occurring at multiple levels, including the local one, with the private bus operators pushing back against Méxibus' opaque integration and formalization process.¹³⁵ Throughout all of these political machinations are the transit users and peripheral economies and communities existing in this liminal space, who concerned that they are likely to bear the burdens of more expensive service with sparser coverage being implemented in the name of benefiting them. In short, the expansion of the transit system must navigate the maze crafted by years of political infighting and manipulation by stakeholders at multiple scales for it to succeed. Yet in spite of these circumstances, the structures of governance are

¹³⁵ Flores Dewey, "Expanding Transportation Planning Capacity in Cities of the Global South: Public-Private Collaboration and Conflict in Chile and Mexico."

much more complex and more robust, portending that these issues will be better handled in the future. The presence of more actors with more nuanced interests and resources as well as stronger relationships governing their interactions and exchanges supports a more optimistic outlook for effective metropolitan cooperation in the MCMA's public transportation system.

Formal inclusion of non-state actors across scales

Although this project is still very much in its preliminary stages, the diverse and varied composition of the actors involved in its planning and implementation reflect a hesitantly positive outcome. Beyond the same three general actors that were involved in the past projects – the federal government's Ministry of Communications and Transportation (SCT), Edomex's own Ministry of Communications and Transportation (Edomex-SCT), and the DF's Ministry of Transportation and Roadways, now the Ministry of Mobility (Setravi turned Semovi) – we see multiple actors new to the policy network emerging and generating ideas that are being considered in the decision-making process. For instance, a few informants from outside the public sector who had expressed concern about Méxibus Línea 4 overwhelming the already at-capacity Metro Línea 3 and Metrobús Línea 1 suggested consideration of extending the BRT line past Indios Verdes to also connect with Metro Línea 4, one of the subway lines consistently under-capacity. A recent announcement by the DF government about the next steps of the Méxibus Línea 4 project reflected conversations about a similar topic with ITDP, demonstrating a greater acknowledgement of these non-state actors and their contributions to the planning and implementation process.¹³⁶

Furthermore, the global popularity of BRT as a transportation best practice provides an avenue along which international firms and organizations are engaging with transportation decisions on much more local level, crossing scales to generate better metropolitan coordination. For instance,

¹³⁶ Medios, "Proyectan Mexibús Línea 4 | AGU - Síntesis Informativa."

the Sustainable Urban Transport Project, a joint effort by the German national ministry for economic cooperation and development and German private firms, and the British Embassy in Mexico has collaborated on research efforts of local NGOs such as ITDP and CTS-Embarq regarding metropolitan development, public transportation, and financing.¹³⁷ In this way, contributions in the way of research and best practices draw on local academics and non-governmental organizations with their own international connections. Several members of the policy network chalked the emerging coordination up to the developing group of researchers, investigators, policymakers who have gone abroad to study, research, and learn, and then bring them back to try to ground these new ideas in the context of Mexico City.¹³⁸ This change in the approach to transportation planning has introduced actors such as non-profit advocacy organizations with their own skill sets and different dimensions of the policy networks. Not only is the government's political grasp diluted by the growing presence and recognition of new actors, but these non-state actors are have leveraged a wider range of knowledge and skills to craft more enduring institutions, broadening the policy network of governance.

New institutions reframing the role of the federal government

Associated with the broader range of actors involved in the arena of transportation planning at this time, the federal government has modified its previous approach to intervention into a more cooperative guise. Since the current president of Mexico (2012-present), Peña Nieto, had been previously governor of Edomex (2005-2012), he has been vocal in supporting projects that will benefit Edomex. However, the channels through which that support is occurring are more nuanced

¹³⁷ "ITDP México » Search Results » GIZ," *ITDP México*, accessed May 17, 2015, <http://mexico.itdp.org/?s=GIZ&x=0&y=0>; Javier Garduno Arredondo, *Diagnostic of Federal Funds for Transport and Urban Accessibility - how we spent our resources in Mexico in 2011* (Institute for Transportation and Development Policy, October 2012).

¹³⁸ Interview with private consultant and former high-ranking official in the DF ministry of transportation, January 2015.

and circuitous; instead of just driving funds into Edomex directly, they are flowing through more formalized channels that also support overall metropolitan cooperation. The realignment of policies with financial mechanisms is cultivating a framework to better reinforce incentives for metropolitan coordination around projects such as Méxibus Línea 4.

Within the last five years, the federal government has moved towards a more targeted method of motivating coordination among project proponents with financial incentives, especially at the metropolitan level; this is in contrast to taking sole responsibility financially and policy-wise for projects, as they have done in the past. The Metropolitan Fund (FM, *Fondo Metropolitano*) was established in 2006 as part of the Branch 23 of the Budget of Income of the Federation (*Presupuesto de Ingresos de la Federación*) in order to subsidize state and municipal efforts towards sustainable urban development – a formal recognition of the process of decentralization that has been unfolding since the legal reforms of 1996. As the urban footprint of cities grew, so did the amount available in the Metropolitan Fund. Initially established for the MCMA, there are FMs totaling over \$8 billion pesos for almost 50 metropolitan areas around the country. In particular, the entities constituting the MCMA received upwards of 5 billion pesos for projects, including Méxibus Línea 4, from the 2014 budget of the Fondo Metropolitano.¹³⁹ In order to receive the funds, states must convene an administering body (*Consejo de Desarrollo Metropolitano*) that oversees the disbursement of funds and ensures the spending is in line with the priorities of sustainable urban development. The Board determines the allotment of funding and facilitates discussion between the metropolitan area's municipalities and states. Moreover, since 2011, the efforts funded by FMs need to be in line with the National Development Plan and with the State and Municipal Development Plans. Bylaws also

¹³⁹ “ENTERATE Mexicable Y Mexibus van Para 2014,” *El Universal EdoMex*, accessed May 17, 2015, <http://www.eluniversaledomex.mx/home/enterate-mexicable-y-mexibus-van-para-2014.html>.

cite a process for citizen participation.¹⁴⁰ Overall, the establishment of the FMs is a formalization and incorporation of trends already at work in the MCMA that has previously derailed attempts to plan and implement metropolitan-scale transit projects.

Although the FM is predominantly a federal tool, the decision-making and ultimate implementation of the funds rests in the hands of its recipients, granting them a level of autonomy and responsibility. In the case of the MCMA, both the DF and Edomex each receive a separate apportionment from the FM. In 2011, the DF spent a smaller portion of its FM funds on public transit investments compared to Edomex, 35% versus 48%.¹⁴¹ As allotments seem to be related to population, employment, and economic generation, one can assume that the DF receives a greater quantity of funds than Edomex. Since the majority of Edomex's public transit serves access into and around the DF, this information at first glance implies that Edomex is spending a greater proportion of its funds to serve metropolitan transit access.¹⁴² This seemingly contradicts the past perception that the Edomex is uninterested or unwilling to support sustainable mobility as part of the overall well-being of the metropolitan area. It could also be interpreted that Edomex is finally rising to the same level of institutional capacity as the DF and committing to improvements in transit service that will ultimately benefit the entire MCMA, boding well for the implementation of *Méxibus* Línea 4.

Even with the broadening of the policy network, the federal government's role as the primary source of funding is not to be overplayed. However, what is interesting is the orientation of institutions in relation to the financial mechanisms. This new BRT corridor is cited in the *Plan de Ordenamiento* of 2012, as well as the corridor that is now Línea 2 of *Méxibus*.¹⁴³ This plan was

¹⁴⁰ Mariana Orozco and Alejandro Palmerin, *Report on the Management of the Metropolitan Fund* (Institute for Transportation and Development Policy, 2011).

¹⁴¹ In absolute numbers, the DF spent approximately 208.8 million pesos, compared to 610.5 million pesos spent by the Edomex. These funds go to state and municipal government offices, but the breakdown by office or level is unknown.

¹⁴² Garduno Arredondo, *Diagnostic of Federal Funds for Transport and Urban Accessibility - how we spent our resources in Mexico in 2011*.

¹⁴³ Universidad Nacional Autónoma de México Programa Universitario de Estudios de la Ciudad, *Programa de Ordenación de La Zona Metropolitana Del Valle de México*, December 2011. 380.

developed in concert with the overall FM, so that the planning and policy recommendation and analyses elaborated in this program can then be implemented with the funding from the FM.¹⁴⁴ The creation of Protram, a program of the federal public works bank (Banobras) intended to distribute federal support of public transit projects, in 2009 is another important step signifying the way in which the federal government is facilitating the development of transit projects. Protram draws down on the national fund for infrastructure, Fonadin. Although metropolitan coordination is not explicitly stated, the projects that have received funding in recent years are those that cross jurisdictions.¹⁴⁵ Moreover, Protram does involve a certain level of standardization and best practices that draw on the previously discussed growing cast of characters, giving at the very least the appearance of adequate justification for these federal financial investments.¹⁴⁶

Caveats and potential red flags to metropolitan cooperation

The ongoing development of Méxibus Línea 4 appears to be taking place alongside a broadening of the policy network, signified by the inclusion of more, stronger actors, but also indicated by the strength of the institutions that guide their interactions. These institutions, in this case especially the formal ones, became accordingly more complex in order to accommodate a larger more diverse set of actors. However, multiple actors involved in the policy network cited the importance of *voluntad*, or willingness; personal interactions that shape these informal institutions should not be underrated. This is particularly relevant to the performance of the Fondo Metropolitano, which many stakeholders feel oftentimes still serves as a rubber stamp in the likeness of all the metropolitan commissions that came before. Although it is considered a metropolitan-scale decision-making body, the funding is divided and then decisions are made according to local, not

¹⁴⁴ “Aprueban Plan de Ordenamiento Metropolitano Del Valle de México,” *El Universal Edomex*, accessed April 4, 2015, <http://www.eluniversalEdomex.mx/home/nota32886.html>.

¹⁴⁵ Garduno Arredondo, *Diagnostic of Federal Funds for Transport and Urban Accessibility - how we spent our resources in Mexico in 2011*.

¹⁴⁶ Interview with current employee of Banobras working on Protram, January 2015.

regional, priorities. Although the FM is not always regarded as an effective mechanism of metropolitan coordination, it opens the door to next steps, such as granting implementation authority to the FM body itself so it can reinforce its policy recommendations.¹⁴⁷

Since the project has yet to be constructed, and there is little knowledge available about the current status of construction, it is yet to be seen whether the technical questions about Méxibus Línea 4 will be fully addressed. There are definite concerns about the feasibility of the project, in spite of the research and other reports that say otherwise. As previously mentioned, the capacity constraints of the major connections between Méxibus Línea 4 and Metro Línea 3 and Metrobús Línea 1 should not be discounted. Several of the policy analysts in the field, having examined the project, feel like Metro Línea 3 of the subway is already at full capacity, that the line cannot not support more vehicles nor more frequent service, and the trains it does carry are regularly full. Metrobús Línea 1 already provides supplemental transit service along a near-parallel corridor of Metro Línea 3 and is also suffering from problems of overcrowding at peak hours, in spite of its frequency of service.¹⁴⁸ Yet it seems like these concerns are being taken into consideration, with negotiations including the potential for Méxibus Línea 4 to continue on to Martín Carrera, with connections to other, less full subway lines. The problems of capacity are well-acknowledged and it is heartening to hear that they are at least being considered as part of the planning process.¹⁴⁹

Overall, although Méxibus Línea 4 is nascent, the conditions of metropolitan cooperation appear more favorable to the planning and implementation of this metropolitan public transportation project. The policy network is broader in terms of recognizing and incorporating more actors beyond the tripartite framework of federal, DF, and Edomex governments. In addition,

¹⁴⁷ Interviews with academics, private consultants and NGOs who have worked with the MCMA government for cumulative decades, January 2015.

¹⁴⁸ Interviews with researchers and academics, January 2015. Institute for Transportation and Development Policy, *Proyecciones de Demanda de Transporte Público Masivo En La Zona Metropolitana Del Valle de México Al 2024*, April 2014.

¹⁴⁹ Medios, “Proyectan Mexibús Línea 4 | AGU - Síntesis Informativa.”

these actors are fleshing out a more multidimensional structure of governance by crossing scales, in contrast to the top-down verticality that characterized earlier transportation projects. Indeed, this appears to have also influenced the institutions through which the federal government is intervening in the metropolitan scale, making them more formal in line with global standards and practices.

In conclusion, these three cases demonstrate the conditions of cooperative metropolitan governance at their respective times, as evidenced by the structure and functioning of the policy network involved in each project. The effective planning and implementation of the projects are influenced not only by the composition of the network – the actors involved and their respective capabilities – but also by the type and quality of institutions shaping their exchanges and interactions. Whereas Linea B stemmed from a more constrained cooperation instigated by the federal government that concealed the larger institutional weaknesses, Tren Suburbano turned to an international private company to introduce standards and practices that were still unable to overcome the deficiencies in the public sector. Yet current conditions surrounding the development of Méxibus Linea 4 have changed, with more formalized institutions bringing in non-state actors in a way that tacitly supports cooperation. As such, there is a broadening of the policy network, not only in terms of more actors but also in the quality of their contributions and of the institutions structuring them.

It is hard to say whether it is the forum of transportation in the MCMA that is compelling these institutional advancements, or the adapting and evolving institutions are creating more integrated coordinated approach to transportation planning in the Mexico City metropolitan area. In the end, we are left with a tentatively optimistic picture of the trajectory of transportation policy, especially as a strategy of governance. In these three cases, we see how transportation acts as a

reflection of those greater political and economic trends, but is also in turn shaped by and interacts with those trends, prompting the ongoing evolution of institutions.

Chapter 4 – Conclusions, larger trends, and thoughts for the future

This thesis began by questioning what enables cooperation at the metropolitan scale. How do local state entities negotiate the physical extension of the current transit system across jurisdictions? What institutional conditions enable metropolitan governance of transportation planning in Mexico City? Finally, how have these institutions evolved over time in order to address the needs of metropolitan governance? A closer examination of three cases of metropolitan public transportation in the MCMA reveals the importance of the policy network to the effectiveness of these projects' planning and implementation, functioning as a greater reflection of the conditions of cooperative metropolitan governance. These three case studies call upon the some of the same actors, especially the governmental ones, and seem to repeatedly approach the same spatial and social problem: bridging the metropolitan divide in Mexico City between the DF and Edomex. In spite of a lack of formal centralized authority empowered to plan and regulate transportation at the metropolitan level, the actors, organizations, and associated institutions involved reflect something far larger, more amorphous but potentially more powerful than mere government – a framework for governance. Yet that power is not necessarily always “for good,” matching our naïve altruistic goal of universal good governance by benefiting the people it was intended to represent, in this case especially the transit user, through collaboration and equality.

As Chapter 2 discussed, the MCMA has a rich history of regional inequity that has been reinforced through policy decisions, accidentally as well as overtly. Previous attempts to address those inequities through the channels of governance mostly failed; the continued power held by the federal government in the area made formal direct coordination between the DF and Edomex seemingly redundant. The Linea B case had illustrated a key point in evolution of cooperative metropolitan governance, shifting from a relatively effective consolidation of power by the federal

government to a more ineffective fragmentation of authority at the metropolitan level. The subsequent cases of metropolitan-scale public transportation picked up where Linea B ended, fumbling to find a foothold within a rearranged political landscape with as-of-yet unclear structures of governance.

In the case of Linea B, the narrow policy network constricted by the federal government and its political party dominated the landscape to the point that the actors and their governing institutions were unable to evolve and adapt, leaving them more or less woefully unprepared for when the political landscape completely changed under the legal reforms of 1996. The case of the Tren Suburbano shows a few changes in conditions of governance, such as through the inclusion of an international private firm with greater capacity for execution. Yet the institutions shaping the policy network was still overall weak, due in part to the disconnect between the instigator of the project and the project's own demands, and insufficient mechanisms for enforcement, particularly those within Edomex with regards to the transportistas.

The integration of the two states' respective BRT systems that will be joined at the intermodal station Indios Verdes reflects a more optimistic future for metropolitan governance. Not only is the policy network composition more horizontal, more diverse, the actors themselves are more robust in terms of their resources and commitment to the project. Integration and interdependency is reinforced by the alignment of formal institutions, specifically between the planning policies and financial resources dedicated to metropolitan transportation. Nevertheless, there are still some concerns over the technical aspects of the project and the difficulty of harnessing informal institutional power.

Trends of the three cases

The three cases – Linea B, the Tren Suburbano, and Méxibus Linea 4 – show how different structures of governance affect the planning and implementation of metropolitan public transit, illustrating several overarching trends of changes among the actors, institutions, incentives, and mechanisms involved in each of the cases. These trends have roots in the major drivers of change in the MCMA: the democratization and decentralization following the legal reforms of the 1996 that allowed the DF to elect its own head of government in the following year. However, the lens of the policy network also encapsulates the ways in which these processes influenced these cases. Overall, these trends not only show a broadening of the policy network, but also enhance and enrich what broadening means.

The role and positioning of non-state actors held an important function in the overall policy network. In the case of Linea B, they were formally excluded from the process of planning and implementation, even though non-state actors such as the local transit operators displaced by the new transit line and the private engineering and construction firms hired to build the subway itself were most certainly affected by the process of planning and implementation. Similar non-state actors played a more prominent formal role in the Tren Suburbano, coinciding and conflicting in the implementation process; the private firm CAF was brought in to make up for the shortcomings of state government capacity, but was still unable to surmount the intransigence of the Edomex transportistas who resisted the project. In the Méxibus Linea 4 project development, non-state actors now include a wide variety of roles, ranging from international governments to local advocacy organizations, involved in the process of planning and implementation through both formal and informal channels.

The three projects also indicate how different approaches to fostering cooperation varied depending on the level of financial and political resources available to the key actors. Following the

urban reforms of 1996, the federal government was no longer a reliable funding source for metropolitan public transportation projects, so the DF in particular withdrew involvement from capital-heavy projects such as the Tren Suburbano and instead turned to less capital-intensive strategies such as bus rapid-transit. The shift in focus towards BRT also facilitated, perhaps indirectly, a more incremental approach of governance, which resulted in a more effective planning, implementation, and management process, especially regarding working with the local transit operators.¹⁵⁰ In the case of Linea B, once political capital was endangered, the federal government reinserted itself to inaugurate the project regardless of its status. At the opposite end of the spectrum, resources are so spread among the variety of actors involved in Méxibus Linea 4 that if they did not cooperate, the project would most likely not advance.¹⁵¹ In this way, we see how capital, financial and otherwise, structured the ways in which the policy network came together, reflecting cooperative metropolitan governance.

The modification of formal institutions to better respond to the ongoing informal process of priority development and decision-making also emerged as an overall trend within the three projects. Similar to the impacts of changing resource levels, the process of decentralization redistributed fiscal and political power, which meant an altering of the institutions, formal and informal, to access that power. However, leading up to the legal reforms of 1996, those channels stemmed primarily from direct federal intervention, political party structures of the PRI, and other informal mechanisms; regardless, they were decidedly not part of the metropolitan planning process, as indicated by the seeming ineffectuality of the metropolitan commissions. As such, the metropolitan agreement related to Linea B held a very narrow focus on construction obligations, which portended trouble and confusion once the consolidated authority of the federal government and PRI evaporated. The

¹⁵⁰ Onesimo Flores-Dewey and Chris Zegras, “The Costs of Inclusion: Incorporating Existing Bus Operators into Mexico City’s Emerging Bus Rapid Transit System,” accessed May 17, 2015, http://www.brt.cl/wp-content/uploads/2012/12/Flores_Dewey_and_Zegras_Metrobus_FinalDraft.pdf.

¹⁵¹ Interview with current high-ranking official of the DF ministry of transportation, January 2015.

Tren Suburbano's formal agreements did try to incorporate the informal interactions working with the local transit operators by citing Edomex's responsibility to bring the transportistas into compliance as part of their responsibilities for planning and implementation. However, they neglected to consider that the process of compelling compliance far exceeded any authority bestowed by this formal agreement; assigning the task did not mean they were up to fulfilling it. This is an important lesson for Méxibus Línea 4 as decisionmakers develop and formalize agreements of responsibility: to bear in mind the broader duties of the policy network that covers all the dimensions that go into planning and implementation of public transportation, including the informal ones.

But how to formalize the informal? The conditions of governance around Méxibus Línea 4 have already started to endeavor to accomplish this through the alignment of economic incentives, that policy goals are reinforced financially. In light of the insufficiency of former institutions, such as the political unity afforded by the PRI, the federal government developed other manners of intervention that guided political development. For the Tren Suburbano, they stepped forward to form a public-private partnership directly when the DF was incapable or unwilling to participate actively in the project. More importantly, the policy instruments of recent years, such as Protram and the Fondo Metropolitano, do not require as much direct federal intervention, but rather incentivizes coordination around key goals of sustainable regional mobility by requiring certain standards be met in order to access the funds. Although there is still a lot of uncertainty about whether or not those goals are actually being met, the growing use of incentives in this manner is bringing some element of accountability to informal institutions present in public transportation.

These trends touch upon the various ways in which the policy network changes over time, reflecting the conditions of cooperative governance in Mexico City's public transportation. The broadening of the policy much more nuanced than the mere inclusion of more actors, but also takes

into account the institutions, resources, and incentives present, grounded by the dual drivers of democratization and decentralization.

Situating the broadening policy network in time

Although this thesis focuses primarily on how the planning and implementation of public transportation represent the conditions of cooperative metropolitan governance, it is impossible to decouple the changes in the policy networks from the context-specific or temporal aspect of those changes. But do these conditions of cooperation persist after planning and implementation? Are they conditions different under operations and management? This is worth more profound research and study, but in the limited knowledge of the specific cases discussed in this thesis, the projects hint at the possibility that they become more effective with time. For instance, since Linea B was constructed, its intermodal hub at Ciudad Azteca has been transformed into a platform for private development with strong oversight of connections with local transit and another line of Edomex's BRT, Linea 1. Perhaps there is about the evolving structure of governance enables a retroactive improvement of project operations, but regardless this indicates that there is likely a temporal aspect to the broadening of the policy network.

The Tren Suburbano shows the most promise in terms of improving over time since its implementation. Perhaps due to some institutional fortitude gained through the process of planning and implementing its own BRT system, Méxibus, Edomex appears to have overcome at least some of its internal institutional barriers. The recent inauguration of Linea 2 of Méxibus, as delayed as it might be, is a major linkage between local users in Edomex and the Tren Suburbano; in a way, this project can potentially be seen as an indication that Edomex is finally capable of fulfilling its commitment to coordination and compliance promised in the Tren Suburbano plans. The reimagined federal policy instruments also played a more indirect role in improving the project

during operations, in that Protram invested a significant amount in Line 2 of the Méxibus line. In a way, the federal government had found a mechanism to facilitate Edomex's efforts to comply with their obligations to the Tren Suburbano, in contrast to their previous shortcomings.

As part of the presidential announcement of Méxibus Línea 4 and other metropolitan transit expansions, the vision of these expansions appear to have shifted, potentially in recognition of what the new conditions for governance mean for planning and implementation. For example, the Tren Suburbano was intended to be the first of four commuter rail lines connecting Edomex with the DF in a similar fashion; however, progress on the planning of these projects slowly dissipated. As of 2014, the proposals for two more lines of the Tren Suburbano were killed, with governmental focus shifting towards expanding currently existing lines of the subway, and considering BRT as well.¹⁵² This could potentially represent the federal government adapting their tactics to work with the policy network of the time, such as the strong institutions of the DF, and move away from implementation decisions that did not work so well in the past.

These comments on the temporal aspect of the broadening of the policy network are extremely preliminary and require further investigation. However, this thesis could potentially serve as a foundation to explore how the conditions of cooperation persist or evolve into operations and management of a metropolitan transportation system. This would be especially relevant in light of a new metropolitan-level initiative titled the Environmental Commission of the Megalopolis (*Comisión Ambiental de la Megalópolis*). The president announced the formation of this commission in August 2013, as a coordinated effort was deemed necessary to plan and develop an articulated environmental policy based on successful international best practices. This Commission draws on representation from the DF and five states surrounding it: Edomex, Hidalgo, Morelos, Puebla, and

¹⁵² "Licitarán Ampliación Del Suburbano En Julio," accessed April 30, 2015, <http://www.elfinanciero.com.mx/empresas/licitaran-ampliacion-del-suburbano-en-julio.html>.

Tlaxcala.¹⁵³ One of the primary issues the Commission has been dealing with is the policy of Hoy No Circula, (No driving today), in which vehicles are prohibited from driving on certain days of the week based on certain numbers in their license plate. Although the various entities of the Commission initially agreed to a more stringent revision of the policy, the Edomex government announced that they would relax some of the fines in certain cases, fracturing the unanimous commitment of the group to the new measures.¹⁵⁴ In this way, the efficacy of the Commission's efforts could shed some light on the temporal aspect of policy network changes and what they signify about cooperative governance and the likelihood for success of more formal metropolitan authorities.

Takeaways for current policymakers in the MCMA and elsewhere

This thesis' discussion of how transportation policy networks manifest the institutions that make up metropolitan governance leads to the greater question of whether the inverse relationship is true: can transportation projects, especially those at the metropolitan level, be used to generate greater institutional capacity? This still remains to be seen; these metropolitan transit projects show how different conditions are associated with different indicators of governance, but that does not prove causality. Indeed, multiple informants did not believe that transportation had the power to foster institutional capacity; rather, they saw new transportation planning strategies such as the growing prevalence of BRT as just a mechanism, a tool wielded by the greater political forces at play. The causal relationship between transportation and metropolitan governance would be difficult to prove, but would be a fascinating avenue for future study. Nevertheless, policymakers should be

¹⁵³ "Comisión Ambiental de La Megalópolis », accessed September 4, 2014, <http://www.presidencia.gob.mx/comision-ambiental-de-la-megalopolis/>.

¹⁵⁴ Alicia Rivera y José Antonio Belmont, "Siempre Sí Relajará Edomex El Hoy No Circula Sabatino," *Milenio*, accessed September 4, 2014, http://www.milenio.com/estados/Hoy_No_Circula_sabatino-carros_viejos-circulacion_de_carros-Edomex_0_334166601.html.

wary of looking to strategies of transportation planning as the solution to greater institutional issues of governance.

Looking at the trends discussed earlier on, policymakers can learn much from the strategies and institutions that the MCMA policy network materialized in response to the conditions of governance; they should aim to acknowledge and match appropriately resources and capacity with responsibility, and be aware of how they can include non-state actors in relation to where power and resources lie within the policy network. Obviously, the broadening of the policy network is contextual, but it is possible that it could be taken too far. In the specific circumstances of these recent public transportation projects in the MCMA, a broader policy network generally signified a more effective structure of metropolitan governance as well as better technical and operational outcomes; but there is likely such a thing as too broad a policy network, in which power and resources become too diffuse and decentralized. This is especially relevant for metropolitan areas that continue to sprawl and urbanize and subsume adjacent areas, where some centralization may be more useful than a broad policy network.

It is unclear the long-term feasibility of the policy network approach to metropolitan governance. What is clear is that the Mexico City metropolitan area has some deeply entrenched and institutionalized disparities between states, actors, organizations, communities that informal channels may not be able to handle in the long terms. It is also clear that some formal institutions of government in the MCMA are seemingly obsolete, and can be updated to better incorporate understandings of actors, institutions, power, and resources so that coordination at the metropolitan level is appropriately incentivized. Planners need to get over the general tendency to assign value to certain structures of governance over others; understanding things through the policy network in these particular cases instead of just pushing for the establishment of a centralized governmental

agency was beneficial, but it cannot be claimed suitable for every circumstance of metropolitan transportation, much less governance overall. The interaction between institutions and events is a complex one, with them simultaneously acting upon one another. Institutions are not static entities, and the context surrounding events are so highly relevant and case-specific that there are no two alike, in spite of superficial appearances to the contrary. Policymakers should take heed to keep this in mind when translating these structures of governance from one metropolitan area to another.

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Members of a local non-profit organization, Mexico City, January 13, 2015.

Professor at the Autonomous University of Mexico, Mexico City, January 14, 2015.

Professor at the National Polytechnic University, Mexico City, January 19, 2015.

High-ranking official from the National Bank of Public Works and Services, Federal Program to Support Urban Mass Transit, Mexico City, January 19, 2015.

High-ranking employee of Ustran, Mexico City, January 20, 2015.

Professor at the College of Mexico, Mexico City, January 20, 2015.

Independent transportation consultant, Mexico City, January 21, 2015.

High-ranking official of the DF Ministry of Mobility, Mexico City, January 22, 2015.

High-ranking employee of Grupo Prodi, Mexico City, January 26, 2015.

High-ranking employee of Corredors Insurgentes S.A., Mexico City, January 27, 2015.

Employee of the Interamerican Development Bank, Mexico City, January 28, 2015.

Independent legal consultant on transportation matters, Mexico City, January 28, 2015.

High-ranking official with the federal Ministry for Communications and Transportation, Mexico City, January 29, 2015.