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The Journey Towards Creating a Regional Transportation Coordinator in the Bay Area

By

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ABSTRACT

With public transportation ridership declining throughout California and the United States for the past decade and further impacted by the COVID-19 pandemic, legislators and citizen groups in the San Francisco Bay Area are exploring various methods to reform how public transportation is governed to attract more passengers to unify fragmented transit systems. Among these solutions is the creation of a “regional transportation coordinator” which would be tasked with uniting the region’s many fragmented public transit systems into a single, interconnected network. This study examines current transit ridership trends in the Bay Area, proposals for transit integration in the Bay Area, and comparative case studies from developed countries.

The findings of this study show that the Metropolitan Transportation Commission is already becoming a regional transportation coordinator but faces structural challenges such as conflicting mandates with transit agencies and the proliferation of work-from-home options for white-collar workers. Proposed solutions include consolidating the Association of Bay Area Governments (ABAG) with the Metropolitan Transportation Commission (MTC) and restructuring the MTC to give transportation providers and professionals a larger voice in policy decisions. While the discussion on what a regional transportation coordinator would look like and what the future relationship between ABAG and MTC will look like is ongoing, additional research is encouraged.

Keywords: transit governance, regionalism, transit coordination, fare integration

TABLE OF CONTENTS

ABSTRACT.....	ii
INTRODUCTION	1
CHAPTER I – HISTORY OF REGIONAL TRANSIT COORDINATION EFFORTS	8
CHAPTER II – THE BEGINNINGS OF POST-COVID TRANSIT INTEGRATION	20
CHAPTER III – CHALLENGES FACING THE MTC AND TRANSIT AGENCIES	29
<i>Funding Shortfalls</i>	29
<i>Self-Help Counties and Tax Incentive Structures</i>	33
<i>Board Structure and Their Members’ Local Responsibilities</i>	35
<i>Institutional Deference to Large Local Transit Agencies</i>	37
CHAPTER IV – RECENT EFFORTS TO REFORM THE MTC	40
<i>Functional Consolidation of the MTC and ABAG (2017)</i>	40
<i>AB 2057 (Chiu, 2020) and AB 629 (Chiu, 2021)</i>	41
<i>Seamless Transit Transformation Act (SB 917, 2022)</i>	42
<i>Transit Transformation Task Force (SB 125 & AB 761, 2023-2024)</i>	43
CHAPTER V – EXAMPLES OF TRANSIT INTEGRATION	45
<i>Seattle, WA</i>	45
<i>London, United Kingdom</i>	49
<i>Hamburg, Germany</i>	50
<i>Vienna, Austria</i>	52
<i>Zürich, Switzerland</i>	53
<i>Vancouver, Canada</i>	55
<i>Lyon and the Rhône Province, France</i>	57
<i>Copenhagen, Denmark</i>	58
DISCUSSION.....	62
RECOMMENDATIONS.....	70
<i>Synchronized Regional Timetabling</i>	70
<i>Incentivized Integration Through Funding</i>	71
<i>Functional Consolidation for Transit Agencies</i>	72
APPENDICES	74
REFERENCES	77

INTRODUCTION

The San Francisco Bay Area, renowned for its technological innovation and San Francisco's iconic streetcars, faces a critical challenge that impacts the millions of people who call the region their home or workplace: how to coordinate the region's 27 transit agencies as one interconnected regional system. Despite having a dense network of transit options, ranging from buses and trains to ferries, the Bay Area's public transportation system suffers from a lack of effective coordination, leading to inefficiencies that affect daily commuters and occasional travelers alike.

At the core of this issue lies a fragmented transit landscape, characterized by a multitude of independent agencies operating in a polycentric geographical region without a unified or integrated approach. Each agency, governed by its distinct set of policies and priorities, caters to a specific segment of the region, often leading to overlapping services, inconsistent scheduling, and confusing fare structures. This disjointed system not only hinders the ease of movement across the Bay Area but also poses significant challenges in terms of resource allocation, operational efficiency, and environmental impact.

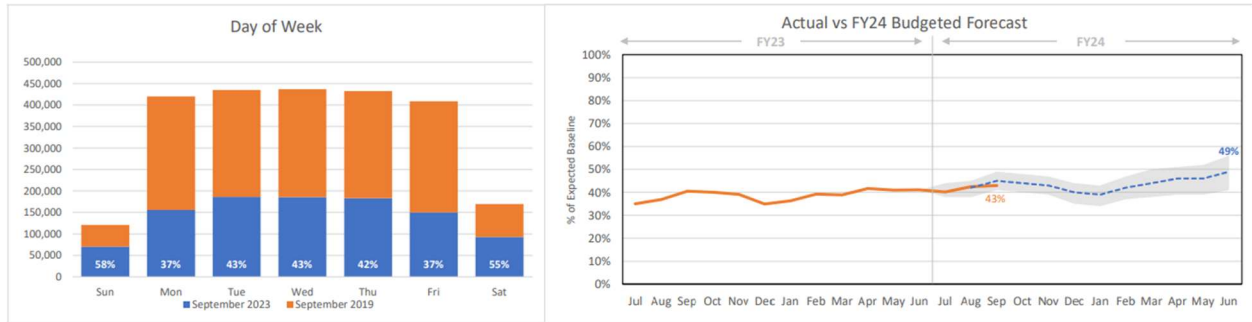
The significance of this coordination problem extends beyond the boundaries of inconvenience and inefficiency. It directly influences the Bay Area's broader goals of sustainable urban development, economic growth, and social equity. An effectively coordinated transit system is not just a convenience; it is a crucial component of urban life, impacting everything from individual commuting experiences to the overall carbon footprint of the region. The onset of the COVID-19 pandemic in 2020 brought these issues into sharper focus, revealing the vulnerabilities and critical importance of a well-integrated transit system.

In the initial days of the pandemic, transit agencies saw their ridership levels plummet as stay-at-home orders restricted all non-essential travel. While numbers varied by transit agency, ridership levels in the first half of 2020 ranged between 6 and 50% of pre-pandemic levels. In order to alleviate the loss of fare revenues caused by severely low ridership, the federal government passed the Coronavirus Aid, Relief and Economic Security (CARES) Act, providing \$25 billion to transit agencies. Subsequent federal legislation—such as the American Rescue Plan—added \$44.5 billion in funding to help with the slowly recovering transit agencies (Sfroza, 2022). Most recently, the Infrastructure Investment and Jobs Act (IIJA) gave a \$33.5 billion boost to urbanized area formula grants, which go towards funding transit capital and operating assistance in urban areas (Federal Transit Administration, 2022). Today, transit agencies have yet to reach pre-pandemic ridership levels as public safety, cleanliness, and convenience issues have reduced the public’s willingness to use public transport (Bay Area Council, 2023).

This is especially true for the San Francisco Bay Area, where the Bay Area Rapid Transit (BART) system serves only 40% of its pre-pandemic weekday ridership, as of September 2023, while other large transit agencies in the state have seen ridership recovery levels as high as 83% (Bay Area Rapid Transit, 2023). Furthermore, a combination of the widespread adoption of work-from-home and hybrid work options for white-collar workers, massive layoffs from Bay Area tech companies, and the departure of 54,813 people from San Francisco (or 6.3% of its population) between 2020 and 2021 means that the transit agencies now have a smaller pool of people from which they can provide service to (Cano, 2021; Parker & Feingold, 2022; Pietsch, 2022).

Figure 1

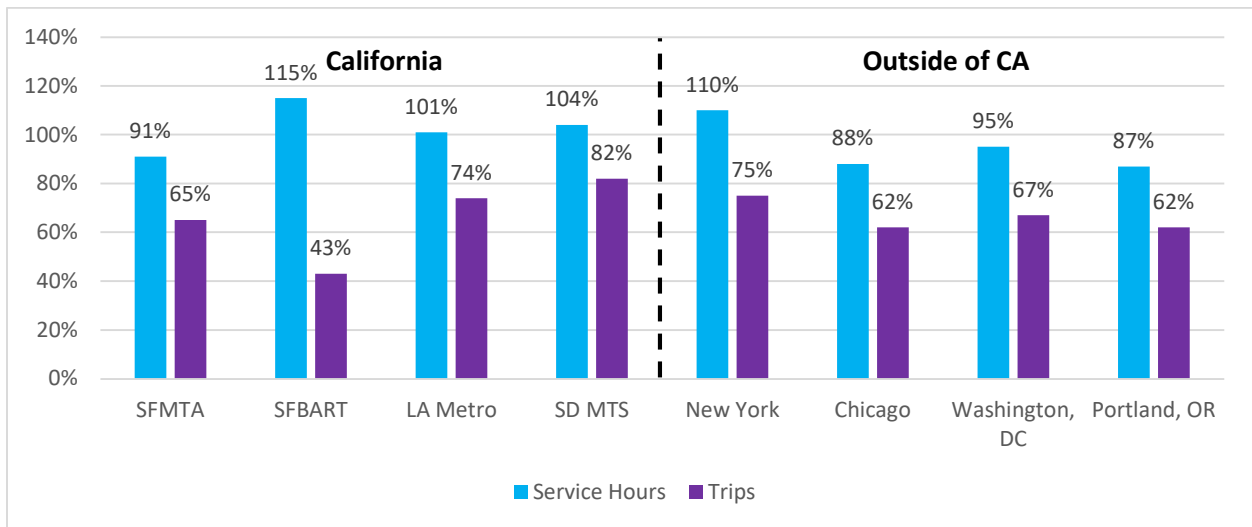
Systemwide Daily Ridership Levels at BART and FY24 Projections, September 2023



Note. Chart source: BART, 2023.

Figure 2

Service and Ridership Levels Compared to Before the COVID-19 Pandemic, March 2023

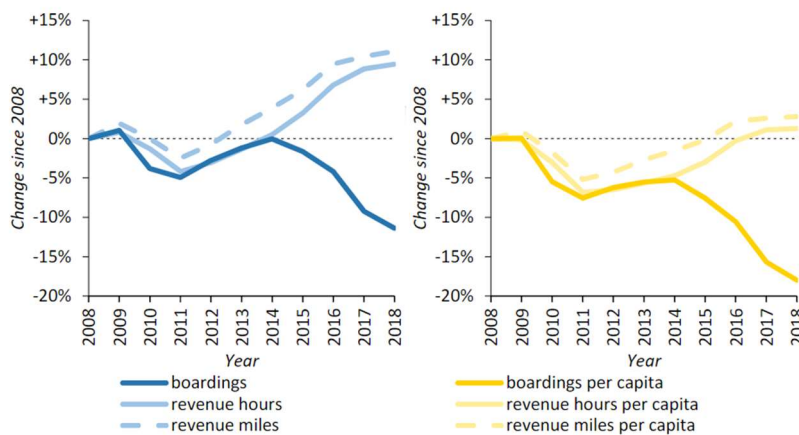


Note. Data source: Arvin & Siegal, 2023. Original data from the Federal Transit Administration’s National Transit Database. “Before the pandemic” refers to the average of transit service or ridership in January and February 2020. SFMTA = San Francisco Municipal Transportation Agency; SFBART = San Francisco Bay Area Rapid Transit; SD MTS = San Diego Metropolitan Transit System; New York = New York Metropolitan Transportation Authority; Chicago = Chicago Transit Authority; Washington, DC = Washington Metropolitan Area Transit Authority; Portland = Tri-County Metropolitan Transportation District of Oregon

Even before the COVID-19 pandemic, transit ridership has been falling not just across the state, but throughout the entire nation since 2014 (Wasserman & Taylor, 2022). This is despite increasing public transit service supply overall, as shown in Figure 2 with the statewide trends of revenue hours and miles. At the same time, private vehicle sales have increased substantially in the past two decades. Between 2010 and 2018, the state registered 2.6 million vehicles and the percentage of California households without a motor vehicle has dropped by 16% (Wasserman & Taylor, 2022).

Figure 3

Trends in Boardings versus Trends in Service Supply in California



Note. Source: FTA, 2019 and U.S. Census Bureau, 2019

To make matters worse, with federal funds soon drying up for Bay Area transit agencies – as early as the 2024 fiscal year for Caltrain and the San Francisco Bay Ferry, and by 2025 for BART – the region’s public transportation agencies face dangerous fiscal cliffs that can trigger significant service cuts (Cano, 2021). Scenario plans drafted by Bay Area transit agencies in a series of federally mandated planning documents in 2022 suggest that the region’s transit services could be running skeleton service levels in the near future until more funding can be secured from either local taxpayers or the state government. This could mean that BART

terminates two of its five train lines, Muni returns to pandemic-era levels of bus frequency reductions, and ferries slashing midday and weekend services (Kamisher, 2022).

The possibility of transit cuts should be troubling for leaders at every level of government in California as frequent public transportation service results in lower vehicle-miles traveled (VMT) and thus lower greenhouse gas (GHG) emissions. The state government has already set climate goals aimed at reducing the level of GHG emissions; the most notable of which is Executive Order S-3-05, which set deadlines for the state to reduce its GHG emissions to 40% below its 1990 levels by 2030 and 80% below its 1990 levels by 2050 (Schwarzenegger, 2005). To achieve the state's own GHG emissions reduction goals, state leaders are looking to cut back on GHG emissions from the transportation sector, the state's largest GHG emissions contributor—responsible for around 40% of the state's emissions, most of which come from light-duty vehicles (Kerlin, 2021). However, the current downward trend in public transportation ridership, coupled with increased private car ownership, will make it harder for the state to reach its climate goals by its 2030 and 2050 deadlines.

One potential solution to reverse this trend is to create regional transportation coordinators (RTCs), sometimes referred to as “transport associations” or “regional network managers,” a type of organization that aims to coordinate and integrate the various forms of public transportation in a given region. This can include buses, trains, trams, and even ferries and cable cars, with the goal of providing a seamless and convenient experience for passengers. These organizations help to plan transit services within an urban area that is shared by multiple transit agencies so that routes, headways, timetables, fares, and ticketing are standardized and carefully planned to optimize the transit user experience (Rivasplata et al., 2012). Previous studies, mentioned by Rivasplata (2012), have shown that coordinating transit in this way

enhances both mobility and access, allowing for transit users to use public transport for a much wider range of trip purposes. They also show that the practice saves time and money as well as lowering urban traffic congestion and pollution (Rivasplata et al., 2012). If ensuring that transit agencies are coordinated in a way that allows for ease of travel, RTCs might have the potential to revitalize transit ridership in the region and thus lower per capita GHG emissions. An RTC established for the Bay Area would shift the planning of routes between multiple transit service areas from the local transit agencies to a regional organization that oversees the local agencies.

Given the grim reality of the impending fiscal cliffs threatening Bay Area transit agencies, coupled with the imperative to meet GHG emissions reduction goals, the Bay Area is at a crossroads. This research aims to first investigate the historical evolution of transit integration in the Bay Area, then discern patterns, pivotal moments, and the impact of policy decisions on the current state of transit services in the region. Secondly, this thesis investigates the governance framework of the MTC, evaluating its strengths and weaknesses in steering transit decision-making as well as how the MTC interacts with external stakeholders. Finally, this study examines eight examples of RTCs from North America and Europe to evaluate what features a future Bay Area RTC may have. With a comprehensive analysis, the study endeavors to propose pragmatic steps to enhance the MTC's ability to effectively coordinate the region's 27 transit agency, ensuring resilience and efficacy in transit governance.

This study combines publicly available data with interviews with former transit agency staff and legislative staff members. Initially, interview participants were selected using purposive selection based on their expertise and experience with Bay Area transportation policy and operations; however, snowball selection was implemented if interviewees or others who are familiar with the topic area refer the author to another individual. Interviews were semi-

structured, asking both pre-prepared questions and follow-up questions as the conversation went along. Notes were taken by hand if participants gave consent, and those notes were obtained for analysis.

CHAPTER I – HISTORY OF REGIONAL TRANSIT COORDINATION EFFORTS

The Metropolitan Transportation Commission (MTC) is a metropolitan planning organization (MPO) in the Bay Area that was created by the State Legislature “to tackle the region’s often disorganized and competitive transportation network, and to lay the foundation for future public transit development in a rapidly growing region” (Metropolitan Transportation Commission, 2021e, 2015b). The foundations of the organization started when Assemblymember John Foran—nicknamed the “Father of MTC”—drafted AB 363 in 1970, which was passed that same year (Metropolitan Transportation Commission, 2021e). It is governed by a 21-member commission, which consists of representatives from each of the nine Bay Area counties, as well as representatives from the cities, the Association of Bay Area Governments (ABAG), the Bay Conservation and Development Commission, and 3 non-voting members from CalSTA, USDOT, and US HUD (Metropolitan Transportation Commission, 2021c). The Commission is responsible for setting the policies and priorities of the MTC, and for allocating funding for transportation projects and programs. To support them is a staff of 290 professionals who they share with ABAG that work on a variety of transportation-related issues, including land use and transportation planning, congestion management, transit operations, environmental review, and funding (Metropolitan Transportation Commission, 2021e). Together with ABAG, the MTC drafts the region’s state-required Sustainable Communities Strategies documents and federally-required long-range regional transportation plans.

Formal Responsibilities of the MTC as an MPO

The MTC, like other metropolitan planning organizations, is in charge of administering many federal, state, and regional funding programs, such as the federal Congestion Management

and Air Quality Improvement Program, the state Transportation Development Act funding and the region’s One Bay Area Grant programs.

Figure 4

Main Responsibilities of a California Metropolitan Planning Organization

Responsibility	Origin	Details/Notes
Allocation and Distribution of Funding	Federal & State	Formula and grant funding distributed to transit agencies
Regional Transportation Plan (RTP) Development and Implementation	Federal	A long-range 20-year vision plan updated every 4 years, also called a Metropolitan Transportation Plan (MTP)
Transportation Improvement Plan (TIP) Development	Federal	A short-term planning document that lists all federally funded projects and is updated at least every 2 years
Unified Planning Work Program (UPWP) Development	Federal	Outlines planning activities and studies to be conducted at least every 2 years, called Overall Work Program (OWP) in CA
Public Participation Plan (PPP) Development	Federal	A plan to demonstrate how MPOs incorporate public input into planning
Prepare the Sustainable Communities Strategy (SCS)	State	The SCS integrates RTP with land-use and housing goals to meet GHG emission reduction targets
Administration of Statewide Transportation Improvement Program (STIP) Funds	State	STIP is a 5-year investment fund, split into the Regional TIP and Interregional TIP, to go towards regional projects
Assign Regional Housing Needs Allocation (RHNA) to cities and counties	State	Determines the share of the state’s housing needs for each jurisdiction within the region

Note. Sources: (Champaign County Regional Planning Commission, 2010; Metropolitan Transportation Commission, 2021e, 2021f)

In addition to its transportation planning and funding responsibilities, the MTC also manages several regional transportation programs and initiatives. For example, it operates the 511 phone and web service, which provides real-time traffic and transit information to Bay Area residents and visitors (Metropolitan Transportation Commission, 2021a). Additionally, the MTC manages the Bay Area Toll Authority (BATA), which collects toll funds from the region’s many

toll bridges and uses it to fund the Bay Area's bridges and roads (Metropolitan Transportation Commission, 2021a). The MTC also oversees the Bay Area Climate Initiatives Program, which offers money for transportation-related initiatives that reduce greenhouse gas emissions (Metropolitan Transportation Commission, 2021e).

The initial responsibilities of the MTC were relatively modest with the State Legislature assigning it with several key responsibilities; these included the approval of the establishment and functioning of public multi-county transit systems on exclusive right-of-way, the evaluation of funding applications to federal or state governments from local governments and transport districts in the region, and the provision of financial support to transit systems that offer feeder services to intercounty rapid transit. The Transit Development Act, enacted by the state legislature in 1971, expanded the authority of the MTC to include the distribution of financial resources among various transit operators (Innes & Gruber, 2001).

The region's transit agencies, who have long been engaged in intense competition with each other over funding, perceived the authority granted to MTC by the State Legislature in the mid-1970s, which encompassed fund programming and coordination powers, as a significant challenge to their autonomy in operational matters (Innes & Gruber, 2001). The magnitude of this threat was so significant that the major operators set aside their differences and established the Regional Transit Association (RTA) with the aim of obstructing the efforts of MTC. Over time, however, the RTA became "a forum for [the general managers] to get together and plan their golf games" (Innes & Gruber, 2001). In addition to being an exclusive social club, the primary function of the RTA evolved into collaborative marketing and procurement efforts aimed at achieving cost savings.

When the Legislature passed AB 1107 in 1977, it created a half-cent sales tax to fund BART construction and gave the MTC the authority to allocate 25% of the generated tax revenue between BART, Muni, and AC Transit to fund service improvements. It also mandated the creation of MTC's Transportation Operators Coordinating Council (TOCC), in which transit agencies were required to participate in order to qualify for MTC programmed funds and required transit agencies to maintain a farebox recovery ratio of 33% (Innes & Gruber, 2001). In 1978, MTC would go on to form the TOCC, with the initial membership being just Muni, AC Transit, and BART, which were the operators entitled to receive funding from the BART sales tax. However, both Muni and AC Transit were unable to meet the farebox recovery ratios specified by the legislation. In addition, the transit service enhancements were hindered by the financial crisis that ensued following the enactment of California Proposition 13 in 1978, as operators prioritized obtaining essential operational funding. As a consequence, the MTC encountered a predicament where it was unable to release funds that had been allocated for Muni, AC Transit, and BART (Innes & Gruber, 2001).

In response, the MTC campaigned for a legislative reform (AB 842) in 1979 to free up BART sales tax monies that it was responsible for allocating by changing farebox recovery criteria and abolishing the service improvement earmark. Its efforts were successful, and the MTC was given the right to disperse these moneys based on its own discretion. Furthermore, Assembly Bill 842 charged the MTC with developing a financial management plan for the operators and establishing a transit policy committee comprised of MTC commissioners. The MTC appeared to have finally secured the requisite authority to facilitate the coordination of BART feeder services, a role that the legislature had originally intended for MTC when it was established over ten years previously. However, former MTC Executive Director Larry Dahms

argues that the MTC effectively relinquished a portion of its discretionary power by consenting to allocate the funding towards "backfilling" the requirements of transit agencies, rather than directing it towards enhancements (Innes & Gruber, 2001).

In 1981, two significant legislative acts, AB 620 and SB 215, were passed in Sacramento which played a pivotal role in shaping the authority of the Metropolitan Transportation Commission (MTC) until the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 came into effect. These acts granted MTC control over a surplus of \$53.8 million in revenue, generated from the BART half-cent sales tax, thanks to an unforeseen and substantial increase in gasoline prices. Furthermore, in 1982, MTC was officially designated as the recipient of federal Section 9 transit funds allocated to the cities of San Francisco, Oakland, and San Jose. This designation marked the implementation of a new transit formula block grant program outlined in the Federal Public Transportation Act of 1982. The Section 9 program aimed to allocate funds for both capital improvement projects and operating assistance in the public transportation sector, replacing its predecessor, Section 5, with a larger proportion of federal transit funding at its disposal (Innes & Gruber, 2001).

The first attempt to give the MTC the authority to coordinate regional transit happened in 1988, when Assemblymember Dominic Cortese—the father of current State Senator Dave Cortese—introduced Assembly Bill 3972. The bill would have empowered the MTC to identify transit service vacancies, choose a transit operator to fill the void, and fund the service if MTC-designed performance standards were met. Furthermore, the measure authorizes the MTC to establish common fare pricing rules for all interoperator tickets, passes, and transfers; act as an arbiter in disputes between operators over duplicative services; and require operator function consolidation. In an earlier version of the bill, AB 3972, also gave the MTC the power to set

uniform contract language for purchases, construction, and technical specifications as long as it is used to consolidate transit services (California Legislature). Although this bill died, many of its key ideas did make it into SB 602 in 1989—of which Assemblymember Cortese was a co-author for—which mandated the MTC, in coordination with its TOCC, to develop rules that promote fare and schedule coordination among transit agencies under its purview. It also mandated that all transit systems in the TOCC enter into a joint fare revenue sharing agreement with connecting systems (Bion, 1989). This bill passed and set the foundations for SB 1474 (1996), later discussed in this chapter.

In 1992, MTC persuaded its own TOCC and the RTA to merge, forming the Regional Transit Coordinating Council (RTCC). The newly established entity was intended to serve in an advisory capacity to the MTC (Innes & Gruber, 2001). The RTCC consisted of the general managers of the main transport providers in the region—being AC Transit; BART; Contra Costa County Transit; Golden Gate Bridge, Highway and Transportation District; Livermore Amador Valley Transit Authority; SamTrans; and Santa Clara County Transit District—along with the Transportation Director of the City of Santa Rosa, the City Manager of the City of Vallejo, the Assistant General Manager for Finance of San Francisco Public Utilities Commission, the Deputy Director of Caltrans District 4, and the Executive Director of MTC. The goal of this new council was intended to establish a partnership between operators and MTC to develop joint strategies for improving the financial position, inter-operator coordination, and legislative advocacy of the region's transit operators. In practice, however, the RTCC was used primarily to make judgments regarding the distribution of federal transit funds (Innes & Gruber, 2021). When Innes & Gruber (2001) did a closer review of the RTCC membership list, they concluded that, despite its declared goals, the RTCC was essentially just a fund programming organization. Of

the three standing committees that the RTCC had—Finance, Coordination, and Legislation—only the Finance Committee would become the only active component of the RTCC. Seeing as the RTCC accomplished little, the RTCC was abolished and replaced by the Partnership Transit Coordination Committee (PTCC), which has not met since Resolution 3866 was updated in 2015 (Innes & Gruber, 2021; Metropolitan Transportation Commission, 2021d).

The most significant change came in the form of SB 1474 (1996) which gave the MTC more power over coordinating routes, schedules, fares and transfers, and to condition the disbursement of both revenue-based and population-based State Transit Assistance (STA) funds on compliance with transit coordination requirements. Specifically, the bill required the MTC to create regulations designed to promote fare and schedule coordination for all public transit systems in its jurisdiction. Furthermore, transit agencies are required to enter into joint revenue-sharing agreements with connecting agencies (SB 1474, 1996; Metropolitan Transportation Commission, 2021b). The bill also gave the MTC the ability to identify areas where transit agencies can consolidate on and improve transit corridors through coordination. But given that this additional ability is optional to enforce, the MTC is not required to pursue functional consolidation or transit corridor coordination options even if they identified areas they could pass new policies regarding consolidation (SB 1474, 1996).

This started to change when, in 1999, a senior staffer in State Senator Don Perata's office, Ezra Rapport, suggested to Perata that the Bay Area should hold a regional vote to address the growing traffic pains during the "Dot.Com" economic bubble. As there was no state authorization in place for regional agencies to hold multi-jurisdictional initiative processes, Perata and Rapport first worked to develop "good government bills" to improve coordination between agencies, then conducted a poll which showed that Bay Area voters supported a toll

increase (Weinreich, 2015). Using the “good government bills” as the foundation and the poll as justification, Perata introduced SB 916 in 2003 which legally separated BATA from the MTC (although it is still governed by the MTC) and authorized BATA to distribute the funds from a regional toll increase measure. It also required the MTC to adopt a regional transit connectivity plan that addresses connectivity to regional rapid transit services, physical infrastructure upgrades to improve service reliability, and regional standards aimed at minimizing transfer times at key transit hubs (SB 916, 2003; Weinreich, 2015).

With the authorization for BATA to increase its tolls secured, Regional Measure 2 (RM2) was approved by Bay Area voters in 2004. This measure approved a \$1 toll increase on all Bay Area bridges, excluding the Golden Gate Bridge. The revenues from this toll increase would be used to “expand and extend BART, a new transbay commuter rail crossing south of [the] San Francisco-Oakland Bay Bridge, a Comprehensive Regional Express bus network, new expanded ferry services, and better connections between BART, buses, ferry and rail” (Metropolitan Transportation Commission, 2004). Among the regionwide improvements listed in the measure, the measure directed \$42 million towards TransLink implementation for all transit operators, \$20 million towards real-time transit information, \$6.5 million towards the development of the Regional Rail Plan, \$0.5 million towards the development of the SB 916-mandated regional Transit Connectivity Plan, and \$1.5 million towards the development of the TransLink Integrated Fare Study as the basis for introducing a zonal monthly transit pass that covers all regional rapid transit trips (Metropolitan Transportation Commission, 2004).

When they were completed, the three regionalist transit studies funded by RM2 each presented different visions for what regional transit coordination should look like in the Bay Area due to differences in methodology. In the Regional Rail Plan, the authors hosted two

workshops of general managers and board members of Bay Area regional passenger rail providers, and found that improved customer service and schedule coordination were requested the most by participants (Metropolitan Transportation Commission, 2008a).

Similarly, the authors of the TransLink Integrated Fare Study used an unspecified methodology to identify four concepts, three of which were based on the idea of a unified system of fare zones and one being a monthly pass valid for trips up to a certain fare amount. Yet, they noted that these concepts were designed in response to a constraint imposed by the study's task force and the TransLink Management Group to make sure that any integrated fare system recommended by the study is "revenue neutral." This essentially made the concept of using a monthly pass based on cash fares and not zones unviable. Had the constraint not be in place, they argued, it would have been the easiest to implement due to its flexibility for transit operators and would not require the creation of geographic fare zones. Ultimately, they concluded, "the creation of a *revenue neutral* integrated fare in and of itself is not likely to increase ridership" (Booz Allen Hamilton Holding Corporation, 2008).

The MTC's Transit Connectivity Report was significantly different from the other two reports in that it came with a set of detailed technical memoranda, created using a blend of site visits, document reviews, interviews, and customer outreach. In its analysis of schedule coordination, the authors explored various forms of schedule coordination (including the Swiss Railway's *Taktfahrplan*, discussed in the Zürich example) discovered that transit operators a) update their schedules quarterly, and b) currently coordinate their schedules solely on an as-needed basis per route (Wilbur Smith Associates et al., 2006). The report also called for a series of actions to develop a regional wayfinding signage and information program, a regional transit

trip-planning system, and complete the rollout of TransLink, among other things (Wilbur Smith Associates et al., 2006).

Building on the momentum of RM2, the MTC recognized the need for further regional investment in its transportation infrastructure. This recognition led to the authorization of Regional Measure 3 (RM3) by the State Legislature in 2017 and its place on the June 2018 ballot. Like its predecessor, RM3 sought to address the region's growing transportation needs, but with an acute focus on infrastructure improvements, congestion relief, and indexing the bridge tolls to inflation (SPUR, 2020). But unlike RM2, RM3 did not include any funding for projects related to regional coordination.

So far, MTC has implemented the transit coordination standards set in SB 1474 through Resolution 3866 (2010), otherwise known as the Transit Coordination Implementation Plan, which was most recently modified in 2015, and defines the transit coordination rules that operators must follow in order to receive any MTC discretionary money. It has three main components: (1) transit coordination implementation requirements for 511 traveler information, regional transit hub signs, Clipper® implementation, coordination service maintenance, and transit passenger surveys; (2) fare and schedule requirements to require revenue sharing agreements with connecting agencies, as detailed in SB 602; and (3) requiring transit operators to disseminate transit information for free (Metropolitan Transportation Commission, 2010, 2015a).

Additionally, before the onset of the pandemic, transit operator coordination by the MTC was primarily focused on a few areas. According to a former employee at a small Bay Area transit agency, the MTC organizes annual earthquake drills, regular phone calls to plan regionwide responses to large events such as the Super Bowl 50, and mutual aid between all 27 agencies to ensure readiness and swift response during crises. The MTC also plays a pivotal role

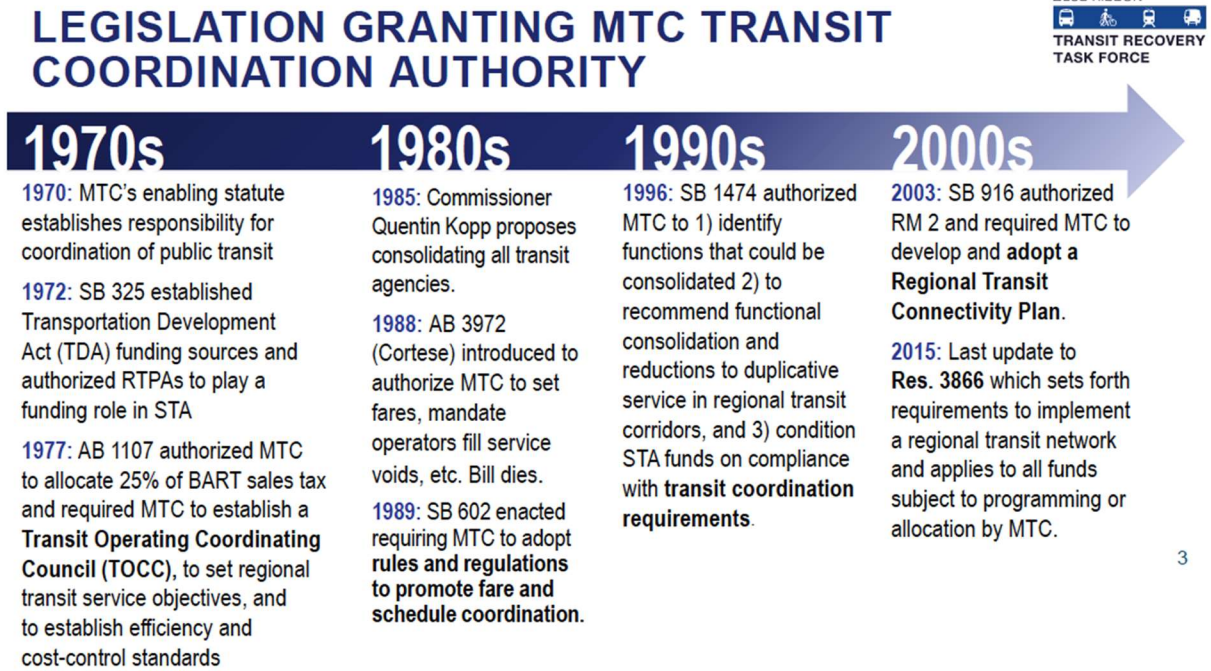
in fleet planning coordination, where they not only mandate fleet replacements across all transit agencies but also determine which agencies would receive funding for these replacements based on factors such as the age of their fleets. However, the MTC does not engage in joint procurement as this is facilitated through the Department of General Services (DGS) and the California Association for Coordinated Transportation (CalACT), in addition to individual collaborations between transit agencies. Beyond these formalized efforts, many agencies have chosen to pursue interagency collaborations independently.

Yet, there were exceptions that showcased the potential of coordinated efforts. The CATS group, comprising of the Livermore/Amador Valley Transit Authority (LAVTA), County Connection, WestCAT, and Tri-Delta, was one such example. A former LAVTA manager recounted that they not only synchronized their schedules but also represent a united voice at MTC meetings. In 1997, the four operators collectively established a funding mechanism with BART to support feeder bus operators using BART's own STA and TDA funds. This agreement was revisited in February 2023 to reduce some of this funding to address BART's fiscal cliff issues, but otherwise the agreement remains intact (Metropolitan Transportation Commission, 2023a).

Despite its role in transportation planning, the MTC has taken on a very limited coordination role in the planning of the Bay Area's transit system beyond the confines of Resolution 3866, despite previous legislation giving the MTC the authority to take that role. A report by SPUR, a local nonprofit focused on transportation policy has stated that "the Bay Area is not the only region with many different transit operators, but it does stand apart because it has not created an institution empowered [in practice] to coordinate transit operations into a cohesive network" (Tolkoff & Kass, 2020). In short, the Bay Area does not currently have a regional

transit coordinator as the MTC’s responsibilities do not include multijurisdictional transit coordination between transit agencies.

Figure 5
Timeline of MTC’s Growing Coordination Authority



3

Note. Source: Blue Ribbon Transit Recovery Task Force (2021)

CHAPTER II – THE BEGINNINGS OF POST-COVID TRANSIT INTEGRATION

The onset of the pandemic necessitated a more intensive and structured collaboration among transit operators. The challenges posed by the pandemic catalyzed an unprecedented gathering of agencies, all aiming to share information and find solutions. Weekly coordination meetings became the norm, drawing participation from a diverse set of regional stakeholders, including teams of general managers, small transit operators, and staff members working on issue-specific areas. These meetings covered a wide range of topics, including planning, operations, communications, funding, and government affairs and were done in coordination with MTC staff (Golden Gate Bridge Highway & Transportation District, 2022). The results of this intensified coordination were both immediate and far-reaching; communication improved dramatically, especially concerning mutual interests and challenges. Agencies refocused their services to cater to essential workers and those who rely heavily on public transit. Initiatives like the Healthy Transit Plan—the regionwide initiative to limit the spread of COVID-19—were born out of the agencies’ collaborative efforts, and operational gaps were filled through coordinated service adjustments at major hubs. Moreover, the groundwork was laid for major service changes to occur twice a year, streamlining the transit experience for the public. Mutual aid extended beyond emergency scenarios, with Golden Gate Transit allowing local riders within San Francisco and coordinating with Marin Transit to alleviate local capacity issues. Perhaps most significantly, the beginnings of a regional transit network started to appear, exemplified by GGT's renumbering of routes to avoid duplication at a regional level (Golden Gate Bridge Highway & Transportation District, 2022). The continuity of these meetings, even as the pandemic wanes, testifies to their effectiveness and the value of sustained collaboration.

In May 2020, to combat the decline in transit ridership in the Bay Area, the MTC established the Blue Ribbon Transit Recovery Task Force to reform the region’s transit network (Elkind et al., 2022). The Task Force included local elected officials, advocates for people with disabilities, members from the State Legislature, the California State Transportation Agency (CalSTA), transit operators, business and labor groups, and transportation and social justice advocates (Blue Ribbon Transit Recovery Task Force, 2021). A year and a half later, in September 2021, The Task Force released its finalized Bay Area Transformation Action Plan—a series of 27 near-term initiatives to change the region’s transportation networks into one that was more user-friendly, interconnected, and efficient. Of those near-term initiatives, one of them was a suggestion to fund, develop, and adopt a Bay Area Connected Network Plan which would serve as the MTC’s strategic plan to ensure that the Bay Area’s dozens of transit agencies provide seamless travel for passengers. Other notable recommendations include creating regional wayfinding standards, funding a network management business case analysis, and identifying steps for Americans with Disabilities Act (ADA) paratransit integration with the Clipper card system (Blue Ribbon Transit Recovery Task Force, 2021).

The recommendations of the Bay Area Transformation Action Plan supplement the findings of the Regional Fare Coordination and Integration Study (FCIS), which was put together by the Fare Integration Task Force between 2020 and 2021. This task force was a collaboration between the general managers of various public transportation agencies in the region and the MTC Executive Director (City of Berkeley, 2022; Metropolitan Transportation Commission, 2021b). Together, they developed business case evaluations for six fare integration alternatives and categorized each scenario into four tiers. Tier 1 overlays the current pricing structure with a cap on the cost of public transit travel; Tier 2 offers free and reduced transfers between transit

agencies; Tier 3 consolidates regional transit services under a single fare system; and Tier 4 centralizes all transit services' fare structures into one distance-based or zone-based fare system (Metropolitan Transportation Commission, 2021b). The report recommended a gradual shift towards Tier 3 integration, beginning with a pilot project for Tier 1 integration that provides employer and institutional passes in addition to an individual monthly pass system modeled after Seattle's PugetPass. The new monthly pass scheme would cover users for every ride up to a specific amount before requiring them to withdraw funds from their e-purse. The amount covered every trip varies depending on how much the user pays for the monthly pass (Metropolitan Transportation Commission, 2021b). The Clipper BayPass trial program began on August 25, 2022 and will last until 2024. Clipper BayPasses will be distributed initially to a random distribution of college students around the region, and afterwards to residents of certain affordable housing units. The data collected from this pilot program will then be used to adjust the development, pricing, and implementation strategies for a wider release of the system (Metropolitan Transportation Commission, 2022a).

With these recommendations, the Blue Ribbon Transit Recovery Task Force not only called on MTC to act on the FCIS's recommendation in its Bay Area Transformation Action Plan, but that it also called on state legislators to propose legislation to ensure the uniform and timely implementation of the FCIS recommendations, if needed. It also recommended that "an independent assessment of network management alternatives be completed prior to the sunset of the [Blue Ribbon] Task Force to serve as the foundation for a more in-depth business case evaluation of these alternatives" (Blue Ribbon Transit Recovery Task Force, 2021).

For this independent assessment, the Task Force engaged a group of consultants in May 2021 to evaluate what a regional network management structure could look like in the Bay Area.

The consultants developed a summary report over the course of the summer, looking into structure options; examples of transit coordination in Seattle, London, and Toronto; and how a business case could be applied to a potential regional network manager structure. The resulting report was released in September of that year and contained four distinct options: a status quo option, an MTC-managed regional network manager option, an independent regional network manager option, and a BATA-inspired regional network manager option (Sharpe, 2021).

Following the release of the report, general managers from the region’s transit agencies crafted an alternative proposal. They contend that this new proposal acknowledges the current authority and responsibilities of the operators’ transit boards, the technical proficiency of transit operator personnel, and the significance of stakeholder engagement and feedback.

Figure 6
General Managers’ Preferred Transit Network Manager Structure



Note. Source: (Marin Transit, 2022)

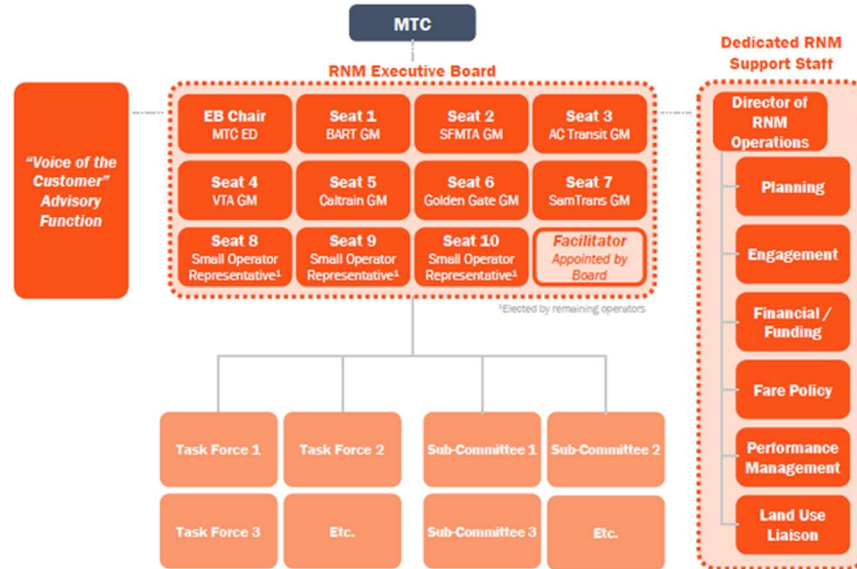
Although they offered the proposal to the MTC’s Business Case Advisory Group, shortly before its March 7th, 2022 meeting, the consultants stated that they would take in their proposal

as input (Marin Transit, 2022; Metropolitan Transportation Commission, 2022b). While it's unclear to what degree the consultants' recommended structure was inspired by the general managers' proposal, all of the proposal's elements have carried over into the final structure in some manner.

On the December 12th, 2022 MTC board meeting, after much deliberation about what a Bay Area regional network manager would look like, the MTC-hired consultants presented their vision for a updated version of the “preliminary, near-term regional network management structure.” Early in 2022, the study made a good amount of progress, but by June, transit general managers expressed confusion over the study appearing to be evaluating new governance structures and had doubts that reformed governance would provide value to the region. They were then successful in changing the scope of the study to include more analysis and refrain from recommending a permanent network management structure, instead advocating for a preliminary structure (Griffiths, 2022a, 2022b). The first draft of this structure, showcased in November, used a format similar to that of the Clipper Executive Board, which oversees the regionwide implementation of the Clipper card (Griffiths, 2022b). After complaints from groups such as Seamless Bay Area—a nonprofit dedicated to promoting the creation of an RTC in the Bay Area—that the original structure would be ineffective, does not represent the interests of riders, and was not well defined, the original proposal was modified to incorporate additional members, as shown in Figure 7.

Figure 7
Original Regional Network Manager Structure Proposal

Preliminary Short / Near-Term RNM Structure

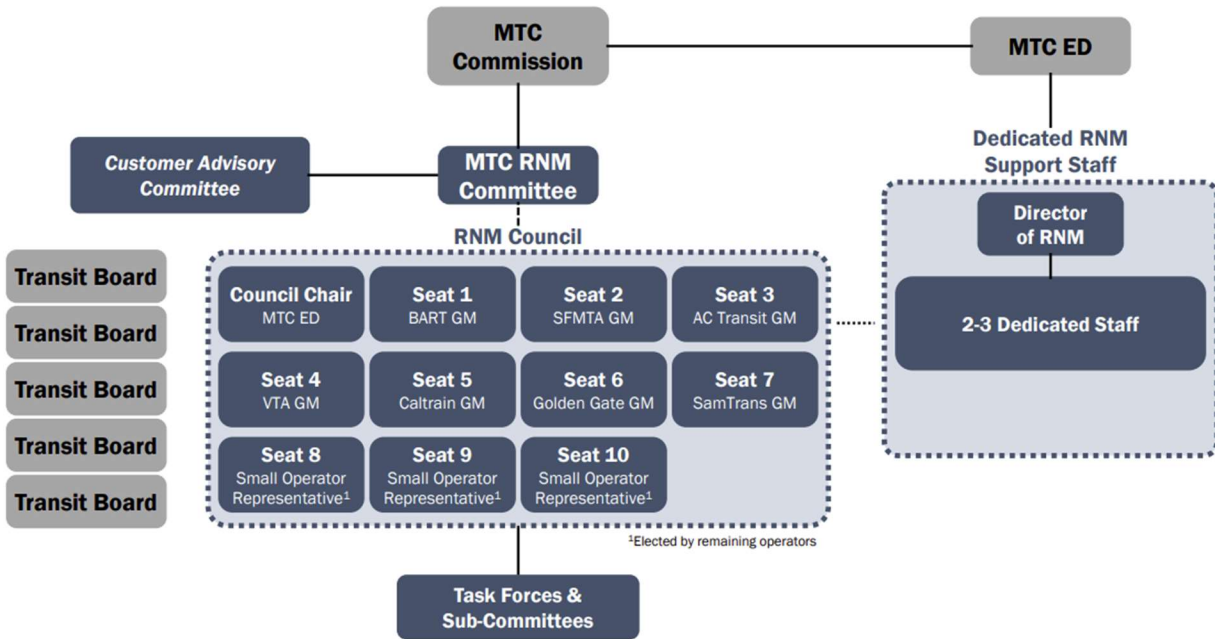


Note. Source: Management Partners (2022)

The revised proposal, adopted as Resolution 4564 on February 22nd, 2023, now consists of a regional visioning body that oversees the steering component of the regional network management system. In the adopted system, the MTC RNM Committee—which consists of 8 voting seats for MTC members, 1 non-voting seat for a state appointee, and 2 non-voting transit agency board member seats—would be responsible for overseeing the regional transit vision and approving policies proposed by the RNM Council, as well as approving funding and the annual RNM budget. The RNM Council would be the main policymaking body of the RNM structure, tasked with developing consensus on policies that will be approved by MTC or transit operators, implementing regional policies and initiatives, and establishing task forces and subcommittees to develop policy proposals. The MTC Executive Director decides who will be on the RNM Council, which will allegedly consist of a mixture of general managers of transit operators and

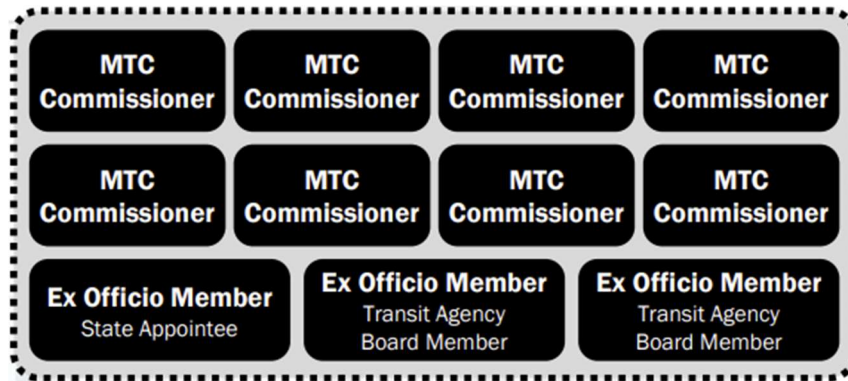
MTC members, although currently this is occupied by the Executive Director and the general managers of various transit operators. Finally, an advisory committee—formally called the “Voice of the Customer” Advisory Committee, now called the Customer Advisory Committee—made up of 8 members from MTC’s own Policy Advisory Council and 9 representatives from various stakeholder groups, with a total of 17 members, would provide suggestions for areas where the RNM Committee could focus and present reports to ensure that customers have a say in decision-making processes. Initially, this committee would elevate the existing Transit Transformation Action Plan (TAP) Subcommittee but is expected to have its membership change as time goes on. To support all these boards, a dedicated RNM staff team will be created to conduct research and analysis into policy proposals, track key performance indicators, and manage programs (Management Partners, 2022; Metropolitan Transportation Commission, 2023b).

Figure 8
Final Regional Network Manager Structure



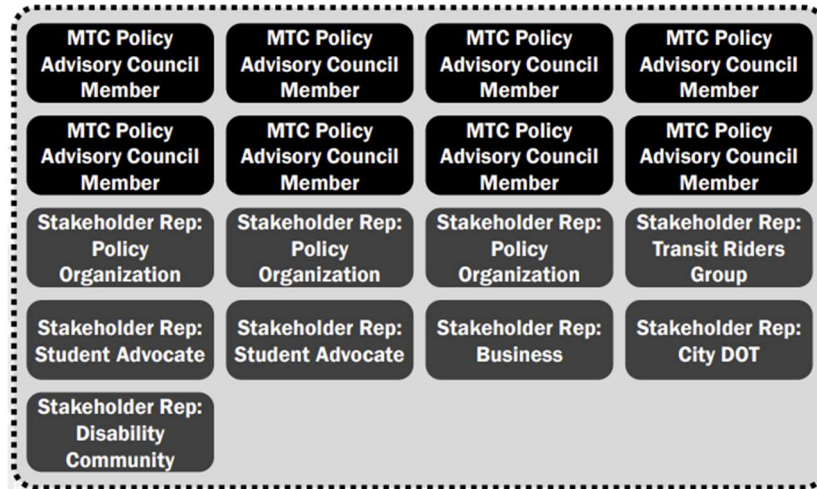
Note. Source: (Metropolitan Transportation Commission, 2023c)

Figure 9
Final RNM Committee Composition



Note. Source: (Metropolitan Transportation Commission, 2023c)

Figure 10
Final Customer Advisory Committee Composition



Note. Source: (Metropolitan Transportation Commission, 2023c)

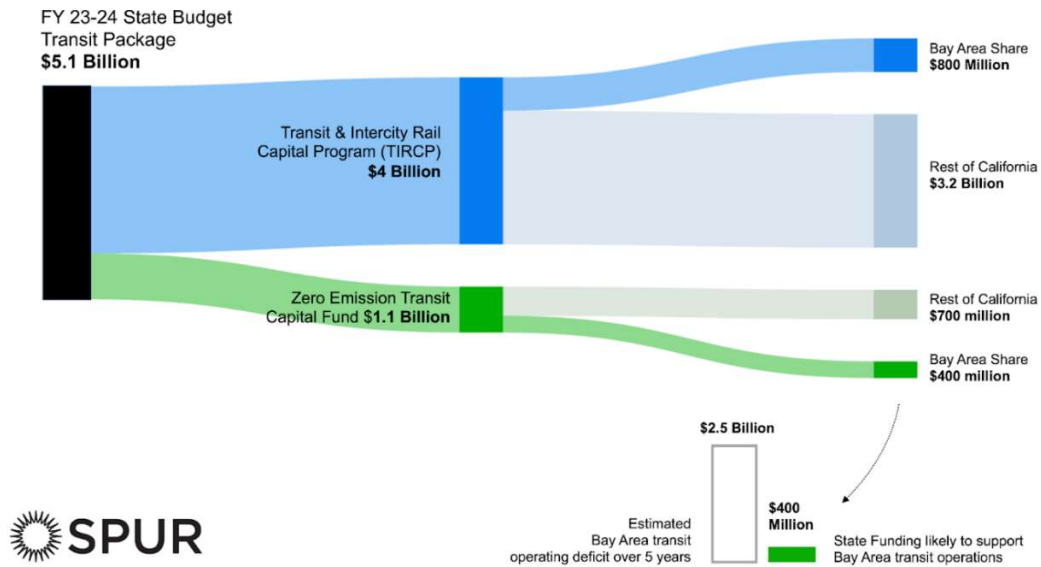
CHAPTER III – CHALLENGES FACING THE MTC AND TRANSIT AGENCIES

The MTC faces several key challenges in its efforts to coordinate and integrate the Bay Area's fragmented transit systems. This chapter will examine four central issues: funding shortfalls threatening service cuts, conflicting incentives created by self-help counties, the parochial structure of the MTC's board, and institutional deference toward major transit operators like BART. Exploring these obstacles provides crucial context for evaluating the MTC's capacity to effectively transform into a regional transportation coordinator. Understanding these systemic barriers is the first step toward dismantling them through governance and structural reforms.

Funding Shortfalls

On July 10, 2023, the Governor approved a \$5.1 billion one-time multi-year package in the fiscal year 2023-24 budget, with \$4 billion going to the Transit & Intercity Rail Capital Program (TIRCP) for distribution through 2025 and \$1.1 billion going to the new Zero-Emission Transit Capital Program (ZETC). The budget bill allows these programs to be used for either capital projects or transit operations (SB 125, 2023). As a result, Petty and Tolkoff (2023) speculate that because the ZETC is a new initiative, it is more likely to be flexed to cover transit operational costs. If this were the case, the Bay Area would only have \$400 million to avoid service cuts, far below the \$2.5 billion deficit that would be required to close the operational deficit. Meanwhile, the Bay Area's portion of the TIRCP—\$800 million—will most likely be used towards matching billions of dollars in federal capital funding for key BART infrastructure projects, such as an extension from Berryessa to Santa Clara (La, 2023; Petty & Tolkoff, 2023).

Figure 11
Funding Breakdown of the Transit Funding Package



Note. Source: Petty and Tolkoﬀ, 2023

But this funding comes with strings attached. The trailer bill—a bill that specifies how the budget gets implemented—accompanying this funding requires that if MPOs and transit agencies want to receive their portion of either the TIRCP or ZETC funding, they must submit a short-term financial plan and a long-term financial plan that has to be approved by the California State Transportation Authority (CalSTA).

Specifically, regional transportation planning agencies, such as the MTC, looking to receive allocations for the 2023-24 fiscal year are mandated to submit a short-term financial plan, along with relevant transit operator data, by December 31, 2023. Notably, they need to demonstrate how the region intends to address any operational deficits based on a 2022 service baseline. Furthermore, the plans need to provide clear justification for funding allocations, especially concerning capital and operational expenses. This is presumably to ensure that funds are allocated efficiently, and that a careful balance between immediate operational needs and

long-term capital investments is achieved. Additionally, the short-term plan needs to show how the funding will be distributed among different transit operators and projects and must outline mitigation strategies against service cuts, fare increases, or layoffs.

Like the short-term financial plan, regional agencies are also mandated to provide transit operator data. This encompasses a wide array of details from fleet and asset management plans to service changes and security expenses. Particularly pertinent for this thesis is the inclusion of “opportunities for service restructuring, eliminating service redundancies, and improving coordination amongst transit operators, including, but not limited to, [the] consolidation of [transit] agencies or reevaluation of network management and governance structure” (SB 125, 2023).^a

For the longer term, regional agencies are required to submit a long-term financial plan by June 30, 2026. This plan would focus on what their strategies to retain and expand the rider base look like, coupled with a five-year operational funding forecast that includes new local and regional funding sources being pursued (SB 125, 2023).

While it is not clear yet what the effect of these provisions will have on the MTC, and Bay Area transit agencies as a whole, the statewide nature of this bill has already caused some friction in the Los Angeles area, according to a committee consultant in the Assembly, where they have approved a series of local transit packages and are faring much better than the Bay Area, as shown in Figure 2. Even in the Bay Area, Senator Steve Glazer has opposed any additional state funding for transit agencies due to an Alameda County Grand Jury report from June 2022 that found that BART’s board of directors and management repeatedly impeded its Inspector General’s efforts to conduct independent oversight (Glazer, 2023).

Given that there is still a gap of around \$2.1 billion in operational costs over the next 5 years, Senator Scott Wiener and a coalition of Bay Area legislators, except for Senator Steve Glazer, co-authored Senate Bill 532, which would increase tolls on seven Bay Area bridges by \$1.50 for five years towards Bay Area transit agencies. This is estimated to generate around \$180 million per year, the majority of which would have to be utilized to maintain present service levels, with the remaining 10% going toward upgrades (Koseff, 2023; SB 532, 2023). However, this bill was met with opposition from the Bay Area Council, seven Bay Area congressmembers, and several Bay Area state lawmakers as drivers from the East Bay would be most affected by the toll increase with very little benefit to the transit agencies in those areas (Brekke, 2023). On August 21, 2023, Wiener announced that the bill is officially “paused” and said in an interview with KQED that he would be working with Assemblymember Lori Wilson to “co-facilitate a process over the fall recess to try to come up with a solution” (Brekke, 2023).

Another potential source of funding that was discussed was the creation of a Regional Measure 4 (RM4). Spearheaded by Faster Bay Area, a coalition of the Bay Area Council (BAC), Silicon Valley Leadership Group, and SPUR, the group aimed to get an unspecified sales tax on the ballot to fund better transit services in the region, inspired by the successes of sales tax measure victories for LA Metro. Another group, Voices for Public Transportation, argue that an RM4 should “spread the burden across the wealthy, businesses, and residents,” but did not specify outline a plan either (Newton, 2020). A source who has worked closely with the BAC said that neither of these ideas will likely become a measure until 2026, as polling has suggested that a measure involving transportation will not perform well right now. Rather, due to the intensity of the housing crisis in the Bay Area, a regional measure based around the Bay Area Housing Finance Authority (BAHFA), is a more feasible possibility for the 2024 ballot.

Self-Help Counties and Tax Incentive Structures

At the core of the MTC's challenges is its relationship with the counties it serves to represent. While the MTC is expected to administer most transportation funding handed down from the State Legislature and Congress to individual transit agencies, counties have the freedom to create their own funding sources. This autonomy often leads to conflicts with the MTC's overarching coordination responsibilities.

On the state funding side, the Transportation Development Act (TDA) has long been established as one of the most important laws regarding transit funding in California, introducing the Local Transportation Fund (LTF) and the State Transit Assistance Fund (STA) as cornerstone sources for public transportation; the former being replenished by a quarter-cent of the statewide general sales tax which then circulates back to its county of origin, and the latter drawing from a statewide diesel fuel sales tax, the distribution of which is determined by a formula of population size and transit operator revenues. As both the LTF and STA are formula funding sources that are administered by the MTC to the counties, it is the counties that decide how to distribute the funds rather than the MTC itself (Caltrans, n.d.; Census Bureau, 1973; Transportation Development Act, 1971).

Up until the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, which granted more authority to MPOs, Caltrans was the predominant authority over most transportation funding decisions. Due to limitations set by Proposition 13 on statewide general taxation as well as challenges with Caltrans' management policies surrounding funding distribution and project delivery, local governments soon viewed the sales tax as a valuable avenue to tackle local shortfalls (Crabbe et al., 2002). Realizing its potential, ever since the Legislature started creating—or enabling the creation of—county transportation authorities

(CTAs) in 1976, counties across the state became inclined to place measures on ballots for new local option sales taxes (LOSTs) to be dedicated towards local transportation projects and creating CTAs to administer the funds (Leginfo, n.d.-a). Counties that successfully passed their own LOSTs earned the designation of “self-help counties.”

In the case of the Bay Area, in 1986, the Legislature tied the creation of CTAs to the voter approval process for LOST ballot measures (Leginfo, n.d.-b). For instance, in 1989, San Francisco voters approved the city-county’s first LOST, Proposition B, which created a 0.5% sales tax dedicated to transportation projects. The measure also led to the creation of the San Francisco County Transportation Authority (SFCTA), which was charged with overseeing the proceeds from this new tax (San Francisco County Transportation Authority, 2021).

The county transportation authorities not only took on the responsibility of managing the sales tax revenues but also ushered in a new era of decentralized transportation decision-making, shifting from the previously centralized Caltrans model to a collection of new county-level authorities with LOST funding. Under this system, county-level agencies were now better prepared to plan and deliver transportation projects, and CTAs began to develop their own strategic and expenditure plans, responsibilities that previously were exclusively in Caltrans’ domain (Crabbe et al., 2002; Lewis, 2001).

Despite ISTEA's sweeping mandates designed to bolster MPOs, the rise of county-level decision-making through these transportation authorities often overshadowed the efforts of MPOs to plan regionally. This was particularly evident in the Bay Area where county transportation authorities did not rely exclusively on the MTC's Regional Transportation Plan when crafting their expenditure plans and making project decisions. These counties instead defined "regional" projects as larger projects that happened to be contained within their county

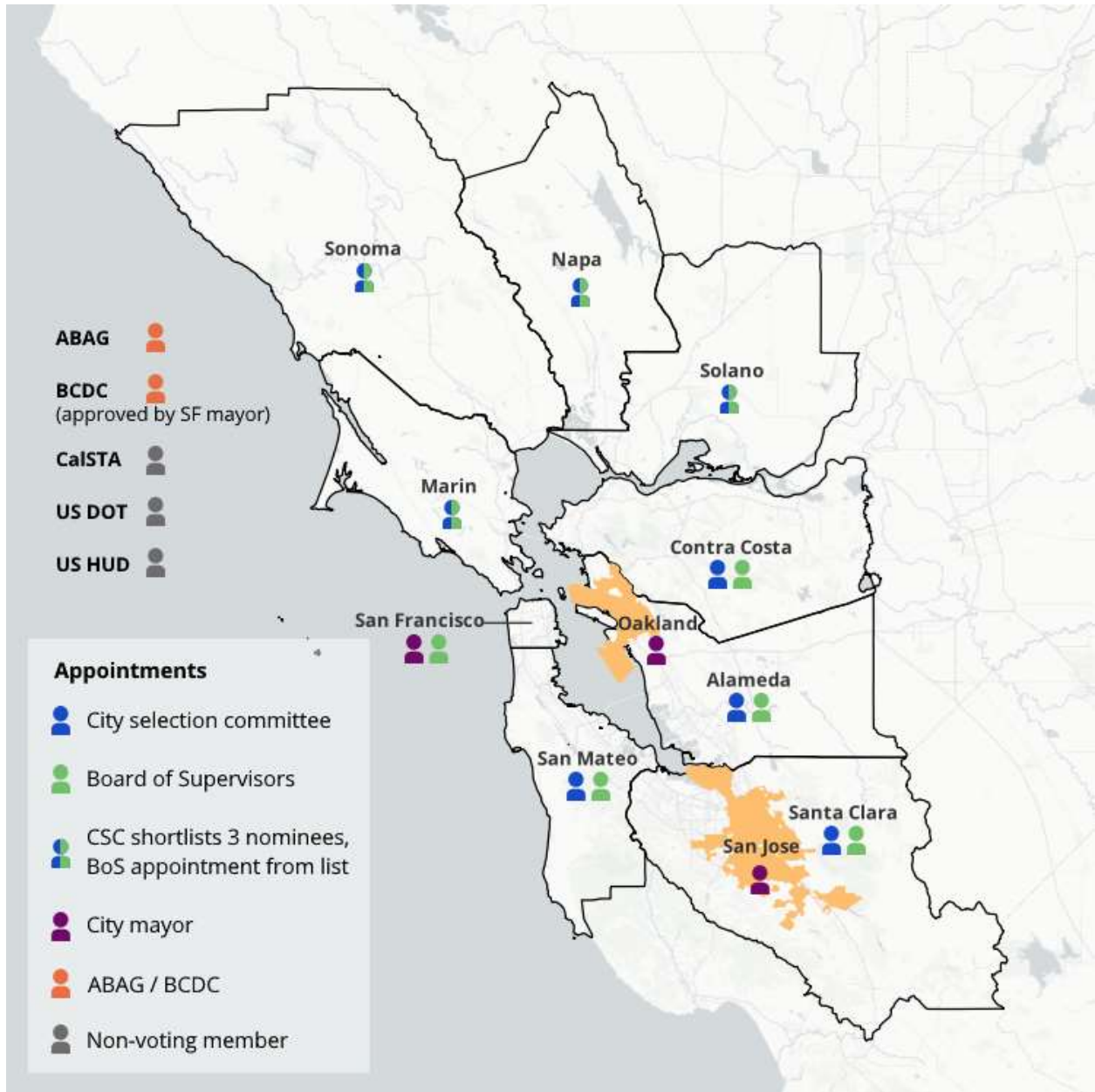
(Crabbe et al., 2002). According to staff working in the MTC who Crabbe et al. (2002) interviewed, counties frequently repurposed regional funds—from both state and federal sources—to supplement local sales tax revenues for county funding packages rather than fund projects prioritized by the MTC.

This began to change with the adoption of RM2 in 2004 and the MTC's Transit-Oriented Development (TOD) Policy in 2005, which meant that funds would specifically be targeted towards regional transit projects (Metropolitan Transportation Commission, 2008b). Later on, RM3 in 2018 provided funds for more regional transit projects, and the new Transit-Oriented Communities (TOC) Policy on September 2022 conditioned regional funding based on zoning standards, housing and commercial space affordability, and station access metrics (Kass & Pinto, 2023). While the TOC Policy is the most comprehensive framework for regional development that the MTC has ever enacted, using funding to guide a more integrated approach to transportation and land use planning, decisions about transit operations still remain with local governments.

Board Structure and Their Members' Local Responsibilities

When it comes to getting 27 transit agencies to do the same thing, MTC commissioners must weigh their desire for regional cooperation against their responsibilities on their local transit agency board. Many matters before the MTC, however, are seen through a local lens rather than a regional one. Seventeen out of MTC's 18 voting members are locally elected officials with main responsibilities in one of the Bay Area's nine counties or 101 cities.

Figure 12
MTC Membership Composition



Note. Base map source: CartoDB. Source for membership composition is from Government Code, section 66503. ABAG = Association of Bay Area Governments; BCDC = Bay Conservation and Development Commission

Most of these commission members are appointed by a single city or county, further narrowing their local emphasis. The at-large area is represented by only one voting member, who is nominated by the Bay Conservation and Development Commission. On-the-ground observations by Griffiths (2021) suggest that the three non-voting MTC Commissioners who represent broader statewide or national interests have tended to be among the less vocal members of MTC, which only adds weight to the voices of county- and city-appointed MTC members. Furthermore, Griffiths (2021) finds that many of the elected official MTC commissioners also serve on one or more local transportation agency boards, which are more closely related to the districts to which these members were elected. While there are usually a few outspoken “regionalist” proponents on MTC, they have generally been in the minority. Local elected officials have also sometimes been disciplined in certain situations for voting for initiatives that they believe are in the best interests of the region but encounter local resistance (Fixler, 2019). In totality, the structure and culture of the MTC is one that discourages regional-minded decision-making and encourages commission members to focus only on their county’s needs.

Institutional Deference to Large Local Transit Agencies

The Metropolitan Transportation Commission (MTC) holds a unique position within the transit landscape of the Bay Area. While vested with regionwide jurisdiction over fare coordination, transit agency consolidation, and the conditioning of funds to ensure compliance with regional standards, the MTC has often been reticent to exercise its statutory abilities. This reluctance is evident despite the mandates of SB 1474 and SB 602, which explicitly grant the MTC the authority to coordinate the region’s transit agencies.

A notable exception to this pattern was the MTC's decision to leverage its authority under SB 1474 to withhold transportation funding as a means to persuade BART to adopt the Clipper

payment system. After prolonged discussions and negotiations, BART committed to a schedule for Clipper adoption and the phase-out of paper tickets in 2010. When BART missed a deadline, a mere warning letter from the MTC sufficed to bring BART back to the negotiation table for an improved timeframe. Once BART complied, the MTC promptly disbursed the withheld funds (Metropolitan Transportation Commission, 2021d).

However, outside of this singular instance, collaboration between agencies before the COVID-19 pandemic, particularly the "Big 7"—Muni, BART, AC Transit, Golden Gate Transit, SamTrans, VTA, and Caltrain—has been sporadic and largely ad-hoc. SFMTA, for example, has historically operated with a high degree of autonomy, viewing itself as “the big gorilla” in San Francisco, according to a former manager there. The SFMTA's relatively frequent transit service has further bolstered its belief in its independence, deeming coordination with other agencies unnecessary. This self-perception has led to many unilateral decisions, such as dictating terms to SamTrans regarding bus stop locations. Even its relationship with regional operators like BART has resulted in physical barriers between the two services. Riders in the city transferring between BART trains and SFMTA-operated Muni trains must ride an escalator up to the concourse level, tag out of one operator, tag in for the other, then ride another escalator down to a separate platform. This has started to change, with the introduction of platform-level fare gates for elevators at the Montgomery and Embarcadero stations in 2019 and 2021, respectively, although there no publicly-announced plans for this to happen with the Powell and Civic Center stations (Rudick, 2022).

The MTC's reluctance to enforce a unified fare system or to mandate agency coordination is indicative of what it sees as its diplomatic role between the State Legislature and local transit agencies. During the drafting of AB 2057, which aimed to create a transit coordination task force

and is discussed in the next chapter, Assemblymember David Chiu's office sought feedback from SFMTA. According to a former staffer working there, the agency had a tepid response to the bill, citing that they were looking into ongoing governance issues. This sentiment was further echoed during the Blue Ribbon Transit Recovery Task Force, where consultants ran focus groups and found that general managers of transit agencies felt that transit integration was premature and emphasized that they needed to secure funding first before integration is possible.

Former MTC Executive Director Therese McMillan encapsulated this sentiment by stating that there was no pressing need for transit integration until "COVID changed everything" (SPUR, 2021). This crisis-driven shift aligns with the MTC's preference for a rules-based consensus approach, rather than employing a "blunt instrument" to enforce integration. However, public sentiment seems to lean heavily towards integration. Chiu's staffer said that the Assemblymember has confided with them that of all the bills that that he has introduced, his seamless transit bills were by far the most popular among regular people, with many constituents voicing their approval.

While the MTC possesses the statutory authority to drive transit integration and coordination, its deference to large local transit agencies, especially the "Big 7", has often led to a fragmented and ad-hoc approach. The pandemic, however, may serve as a catalyst for a more unified and integrated transit system in the Bay Area.

CHAPTER IV – RECENT EFFORTS TO REFORM THE MTC

In the last 5 years, the push for transit integration in the Bay Area has come mainly from Seamless Bay Area in the form of 3 legislative bills introduced between 2020 and 2022. However, the MTC has pursued the functional integration of MTC and ABAG staff in 2017, a significant move intended to combine resources and expertise. By analyzing these various proposals and legislative actions, this chapter seeks to provide a comprehensive understanding of the dynamic efforts to restructure the MTC, all aimed at crafting an integrated transit network that reflects the growth, innovation, and sustainability goals of the Bay Area.

Functional Consolidation of the MTC and ABAG (2017)

Since 2017, the MTC and ABAG have been working under one roof with a staff of 290 people in an effort to promote better collaboration, avoid duplicative work, and achieve operational efficiencies (Metropolitan Transportation Commission, 2020). With a shared building close to the San Francisco waterfront, and with a shared digital presence in the form of a website, the functional consolidation of the MTC and ABAG has led to increased collaboration on certain projects, such as Plan Bay Area 2040 and Plan Bay Area 2050—the region’s combined Regional Transportation Plan and Sustainable Communities Strategy document (Metropolitan Transportation Commission, 2020; Plan Bay Area, n.d.).

Spearheaded by Santa Clara County Supervisor Dave Cortese, the move to merge the two staffs of the MTC and ABAG was not an easy one. For one, ABAG staff were unionized under SEIU 1021 while MTC employees are part of an employee association (Bronstein, 2016; Hansen, 2017). At the same time, MTC had planned to withdraw \$4 million from ABAG which would have gone to funding the pensions of current and retired ABAG employees, causing concerns that the merge would lead to the ABAG employees losing their union membership and

retirement benefits. After a series of conversations about union benefits, Cortese created Resolution 4210 which outlined the process of functional consolidation while protecting the unionized employees' benefits by directing transition funding to the ABAG employees' pension funds and by maintaining recognition of their union memberships (Bronstein, 2016).

AB 2057 (Chiu, 2020) and AB 629 (Chiu, 2021)

SB 917's predecessor bills, AB 2057 (2020) and AB 629 (2021), were attempts by Assemblymember Chiu's office to create a more integrated Bay Area transit network. AB 2057 would have established a 19-member task force to recommend the structure, governance, and funding of the transportation network manager and reforms to the Bay Area's public agencies to maximize the effectiveness of the public transit system. The bill also requires the MTC to implement fare discount programs and a pilot program for an accumulator pass (which provides free rides after a passenger has spent up to certain threshold), and to deploy the Clipper card payment system on the Capitol Corridor and Altamont Corridor Express (California Legislative Information, 2020).

Due to the pandemic, and the subsequent streamlining of legislative activities that forced legislators to drop much of their non-pandemic-related bills, AB 2057 died while in the Assembly Transportation Committee (California Legislative Information, 2020). Despite this, the bill likely resulted in Assemblymember Chiu getting invited to become part of the Blue Ribbon Transit Recovery Task Force (Griffiths et al., 2022).

On the other hand, AB 629 was a more successful attempt at achieving many of the same goals as SB 2057, although there are some key differences between the two bills. In AB 629, the MTC would be put in charge of consulting with transit agencies and other entities to establish a

transit priority network, submit a copy of a specific transit fare study to the Legislature, create a pilot program for an accumulator pass, and develop a standardized regional transit mapping and wayfinding system. The bill would also require the commission to work with Caltrans and regional operators of managed lanes to support seamless high-capacity transit.

The bill was eventually held in the Assembly Appropriations Committee, supposedly because the Blue Ribbon Task Force was still in the process of creating its report. When the task force released its Transformation Action Plan later that year, months after the bill stalled, the plan included specific deadlines for each of these initiatives contained in AB 629 (Griffiths et al., 2022).

Seamless Transit Transformation Act (SB 917, 2022)

To answer the Blue Ribbon Recovery Task Force's call for state legislation, State Senator Becker introduced SB 917 on February 3rd, 2022, which would 1) require the MTC to develop a Connected Network Plan by 2026 that identifies regional and local corridors that require service-level standards and improvements; 2) form a standardized regional transit mapping and wayfinding system by 2026; 3) develop plans for funding, implementation, and maintenance; and 4) establish open data standards (California Legislative Information, 2022). If a transit agency fails to adopt any of those four items, the law would make that agency ineligible to receive State Transit Assistance funds unless it would create a financial burden that will necessitate service cuts. Earlier versions of the bill included provisions to put in place an integrated transportation fare structure that incorporated no-cost transfers across all agencies but were scrapped in favor of creating a regional transportation coordination council (RTCC) that would operate concurrently with the MTC to establish and enforce a new integrated fare structure (Becker, 2022; California Legislative Information, 2022; Griffiths, 2022a).

SB 917 encountered no formal opposition from advocacy organizations, government agencies, or Bay Area politicians. After numerous revisions to address agency concerns and make its deadlines more achievable, and to minimize the appearance of unfunded mandates, the MTC and BART took “support” stances for the bill (Griffiths et al., 2022). Ultimately, the bill was placed in the Senate Appropriations Committee’s suspense file and was stored there until it died in committee (Rudick et al., 2022). According to a former staffer in Senator Becker’s office, the bill was never heard in committee due to AC Transit having strong reservations about certain amendments BART added to the bill and the Santa Clara Valley Transportation Authority (VTA) citing a statistic about how most of their riders’ origins and destinations are within San Jose, thus the perceived lack of need to integrate with other transit agencies. However, VTA’s opposition stemmed from their concerns over the bill’s motives, arguing that it was not solutions-oriented, after Assemblymember Berman introduced AB 2181 that year that would have changed their board structure following a 2019 Civil Grand Jury report regarding VTA’s poor performance due to its poor governance structure (Berman, 2022; AB 2181, 2022). AB 2181 died in committee, but its effects still linger on as in March 2023, the Joint Legislative Audit Committee approved Assemblymember Berman’s request to audit the VTA in areas of governance structure, project planning and management, financial viability, and fiscal oversight (Berman, 2023).

Transit Transformation Task Force (SB 125 & AB 761, 2023-2024)

In an effort to reimagine and reshape the future of public transit in California, CalSTA will establish the Transit Transformation Task Force by January 1, 2024, as directed by SB 125. Drawing members from various transit operators—ranging from those offering bus-only services to multimodal services, and those operating in urban areas as well as rural areas—the task force will also include members from academic institutions, labor organizations, local governments,

and transportation advocacy groups. Their recommendations will be primarily targeted at boosting transit ridership; coordinating scheduling, mapping, and wayfinding between transit agencies; improving customers' transit experiences; enhancing first- and last-mile access to transit; as well as meeting fleet and asset management goals and needs.

Beyond making transit more accessible for riders, the task force will also investigate potential changes to land use, housing, and pricing policies to encourage transit usage, which may result in reforms designed to encourage transit-oriented development and land value capture financing; reforming the TDA; and creating new options to fund both operational and capital costs for transit (SB 125, 2023).

The resulting report, encompassing these findings and suggestions, will be presented to the Legislature by October 31, 2025 (SB 125, 2023).

CHAPTER V – EXAMPLES OF TRANSIT INTEGRATION

As the MTC takes the first steps toward regional coordination by establishing the foundations of an RNM system, this is only a temporary arrangement that will be altered over time until a more permanent arrangement can be made to address the complexities of transit integration in the Bay Area post-COVID era. Examining established models of RTCs from both domestic and foreign contexts can provide useful insights in this regard. Eight diverse examples of successful transit coordinators, drawn from cities in the United States and other industrialized countries, serve as prospective models for the MTC's long-term strategy. These cities are linked by a post-World War II suburbanization and subsequent expansion of automobile-centric urban planning. By looking at these models, we can gain actionable insights into reducing vehicle dependency and moving towards a more integrated transit system. The selected case studies offer a broad spectrum of geographic settings and encompass various thematic issues, providing the MTC with a well-rounded basis to inform its evolution from an organization that focuses on providing a forum for ad-hoc collaboration to one that takes the lead on strategic, long-term coordination between transit agencies.

Seattle, WA

Faced with a funding crisis caused by declines in sales tax revenues from the Great Recession, public transit agencies in the central Puget Sound region faced billions of dollars in revenue shortfalls. In 2012, Pierce Transit—which serves Tacoma and its surrounding areas—saw a defeat of a much-needed funding measure and other agencies made significant service cuts around this time (Constantine, 2014). With no action coming from the Washington State Legislature to create a statewide transportation package with local funding authority, and the impending end of a temporary \$20 congestion charge, King County Metro (which serves Seattle,

Bellevue, and the rest of King County) needed \$75 million in annual revenue to maintain existing service levels. Without it, King County's proposed that it would cut 74 bus routes and reduce service for 107 routes, which would bring ridership levels down to 1997 levels (King County, 2014a).

So, local leaders in King County resorted to proposing the creation of a King County Transportation District, a transportation benefit district which is funded by a permanent \$60 vehicle fee plus a one-tenth of a cent sales tax that sunsets after 10 years. They hoped that this would generate \$130 million to be used for King County Metro bus services, as well as for road and transit needs (King County, 2014a). But when the measure was put up for a public vote on April 2014, King County voters rejected it with only 46% voting to approve it (King County Elections, 2014). As a final attempt to mitigate transit service cuts, King County Executive Dow Constantine created a program for cities to purchase additional King County transit beyond what was offered at a countywide level, shifting all capital and operational costs for additional service to these cities. He also called for a peer review of the transit agency's operating costs, a financial audit that focused on its reserves and capital programs, and an examination of its key performance indicators by industry leaders (King County, 2014b).

On June 12th, 2014, Constantine signed an executive order that directed the King County Department of Transportation—which was then the county's public transit authority before being separated into a local services department and King County Metro—to work with Sound Transit, the Puget Sound regional public transit authority (King County, n.d., 2014c). Using his position as Chair of the Sound Transit Board, he also filed a companion motion 2 weeks after signing the executive order. With these policies, Constantine aimed to create “efficiency dividends” through joint planning and integration between local and regional transit agencies in order to enable

future service expansion without increasing costs. The measures include integrating bus and rail service to make full use of the benefits offered by rail and RapidRide (King County Metro’s bus rapid transit system), putting the savings into improving local service and regional connections, maximizing efficiency through coordination of various aspects of transit operations, focusing on equity and serving transit-dependent populations, optimizing planning for major transit hubs, integrating rider information tools, and coordinating planning with other modes of transportation such as state highways and ferries (King County, n.d., 2014c).

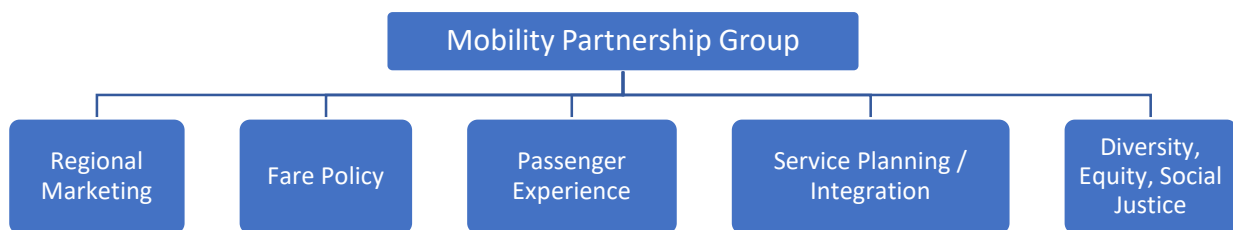
However, this major step towards transit integration was preceded by years of collaboration between the two agencies. In 1999, the two agencies—plus Community Transit, Everett Transit, and Pierce Transit—created the PugetPass as a common fare card (The Seattle Times, 1999). In 2009, these agencies were joined by Kitsap Transit and the Washington State Ferry system to launch the ORCA smart card system that is in widespread use today (Sound Transit & King County Metro Transit, 2014).

Additionally, Sound Transit and King County Metro have been working together as partners to make their networks as efficient as possible. For example, as Sound Transit was about to open their light rail service between downtown Seattle and the Sea-Tac airport, King County Metro rearranged their services to provide more connections to the light rail. Likewise, when King County Metro was about to launch the RapidRide B Line that connects the cities of Redmond and Bellevue, Sound Transit restructured their bus services to eliminate duplicate routes and instead provide connections to the new line (Sound Transit & King County Metro Transit, 2014). On top of this, both agencies work together jointly procure new buses, align rider fares, and operate a system of over 100 park-and-ride facilities in King County. The most intriguing part of these collaboration efforts is that the region’s agencies all share a Good

Neighbor policy, which stipulates that each agency covers the costs of its own facilities even if other agencies use those facilities. This practice encourages the further integration of transit in the region as transit agencies no longer have to enter into cost-sharing arrangements when planning routes, with the exception of certain types of facilities (Pierce Transit & Sound Transit, 2021).

Although the region’s transit executives have been meeting on a regular basis for decades, eight transit agency executives, the Washington State Department of Transportation (WSDOT), and the Puget Sound Regional Council (PSRC) formalized their ongoing coordination efforts as the Mobility Partnership in 2019. In 2021, they identified areas where collaboration was happening on an interagency staff basis and created a staff-level committee structure where relevant staff representatives from each agency are invited to participate in. Each committee is assigned a staff lead to organize meetings, report to the executive-level partnership, and ensure that no single agency was dominating leadership roles (Washington State Department of Transportation, 2022).

Figure 13
The Mobility Partnership Structure



The Washington State Legislature has supported these efforts through the Puget Sound Transit Coordination Grant program, which has provided funds in recent years—such as a \$2 million grant in 2023—to transit agencies in the central Puget Sound region to integrate their

marketing, align fare structures, integrate service planning, coordinate long-range plans, integrate administrative functions, and integrate customer-facing tools (Washington State Department of Transportation, 2023). In other times, the Mobility Partnership Group works to adapt to the State Legislature's priorities. When the State Legislature passed the Move Ahead WA transportation funding package in March 2022, they conditioned around half of the \$3 billion in funds allocated to transit agencies over a period of 16 years such that transit agencies were only eligible if they adopted a zero-fare policy for youth by October 1, 2022. To meet the less than 6-month deadline, the Mobility Partnership Fare Policy and Marketing committees met frequently to coordinate marketing and messaging, implementation timelines, and operational adjustments. Despite having to coordinate across multiple agencies, all of the Mobility Partnership agencies rolled out their fare-free youth policies on time (Washington State Department of Transportation, 2022).

London, United Kingdom

Formed in 2000, Transport for London (TfL) serves as London's integrated transport authority and is responsible for managing the region's various transportation networks which cover transit options ranging from trains and buses to bicycles and ferries. These services are provided by a blend of TfL-owned subsidiary companies such as the London Underground; private-sector franchisees who cover the remaining rail services, trams, and most buses; and licensees who operate taxis, river transport, and some buses (Massachusetts Institute of Technology, n.d.). As TfL has direct control over some transportation services and not others, TfL's main role in transit coordination is that it sets standards for service frequency, performance, and fare standardization, among other metrics (Transport for London, n.d.). It also has the ability to influence land use as a department of the Mayor of London's office; it provides input into London's regional growth strategy and gives advice to the region's 33 boroughs to reduce GHG emissions, among other

goals. On design projects, TfL can recommend adjustments, such as reducing the amount of car parking (Tolkoff & Kass, 2020).

Its wayfinding program, Legible London, aids the agency’s transit coordination efforts by providing wayfinding maps and signs near transit stops to help visitors and residents get to their destination without the need for internet service. By viewing walking and cycling as a complement to public transportation, TfL was able to produce a well-functioning public transportation system that helps transit users get to their final destination (Tolkoff & Kass, 2020).

Hamburg, Germany

Throughout Germany, nearly all public transportation networks are integrated into associations called *Verkehrsverbund*, or “transportation association.”¹ The main concept behind the transportation alliance system is that the alliance shares not just a unified fare system and sets performance standards, but it provides coordinated organization of both the transportation network and its timetables (Verband Deutscher Verkehrsunternehmen e.V [VDV], 2010). Since the founding of the first *Verkehrsverbund* in 1965 in Hamburg, the concept soon spread to other German-speaking countries like Austria and Switzerland (VDV, p. 1). Each *Verkehrsverbund* in the country has a different structure, but typically all of them will fit into one of three categories:

Figure 14
Different types of Verkehrsverbünde in Germany

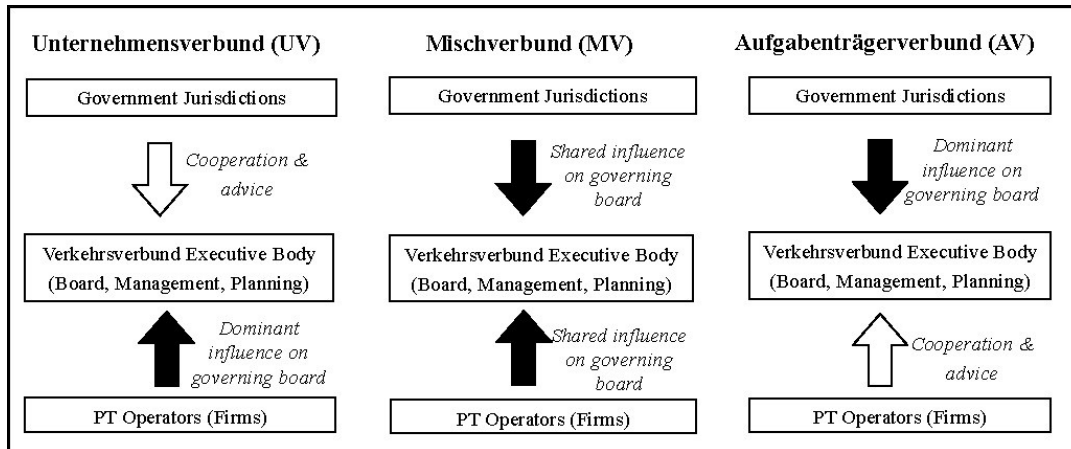
Company alliance (<i>Unternehmensverbund</i>)	An alliance of transportation companies that operate in a region and are governed by organizational bylaws
Mixed alliance (<i>Mischverbund</i>)	An alliance of transport companies and transportation agencies
Authority alliance (<i>Aufgabenträgerverbund</i>)	An alliance of public transportation agencies

¹ The plural version of *Verkehrsverbund* is *Verkehrsverbünde*

As illustrated in Figure 15 below, the responsibilities of the transit alliance and the transit authorities and companies change significantly, depending on the type of organization structure a transit alliance uses. Political, local, and traffic circumstances can also contribute to the many variations of *Verkehrsverbände* as there are no standardized organizational structure for these alliances. Generally, though, each *Verkehrsverbund* is governed by a board of directors, which consists of representatives from the various transportation companies and local governments. The board is responsible for setting policies and strategies for the *Verkehrsverbände*, as well as for overseeing its operations and finances.

In the Hamburg system, which now follows the authority alliance system, the Hamburger *Verkehrsverbände* (HVV) created a system of three types of contracts that transportation services must abide by: 1) a cooperation contract between the HVV and the transit operator, 2) contracts between operators, and 3) contracts between transportation agencies and operators (Hamburger Verkehrsverbund GmbH [HVV], 2021). These contracts allow the HVV to provide services to all operators in the alliance. These services include the implementation of integrated fare systems, cashless payment systems, a HVV Passenger Information Service, unified advertising strategies, printed timetables, and standardized compensation structures. (HVV, p. 16)

Figure 15
Organizational Structures of *Verkehrsverbände* in Germany



Note. Source: Buehler et al., 2018

Vienna, Austria

Like in Hamburg, Vienna’s public transportation system is coordinated through the *Verkehrsverbünd Ost-Region* (VOR) which is a transportation alliance that uses the authority alliance model. As with the HVV, the VOR coordinates fares, timetables, network routes, and public transportation information in and around the Viennese metropolitan area.

The main difference between the two cities is that the VOR is governed by the three Austrian states it serves, whereas the HVV is governed by a combination of federal, state, and local governments. This is probably due to the Austrian government mandating in 1999 that every state have a *Verkehrsverbünd* and therefore gave the states more of a stake in transportation affairs (Buehler et al., 2018).

Another key difference between the two cities is that in Vienna, a single operator is responsible for most of the city’s public transportation—Wiener Linien. Due to this, there is an interesting dynamic where in the city of Vienna, Wiener Linien is responsible for providing

customer information while in the surrounding areas, VOR is responsible (NEA Transport Research & Training, 2003). Despite the differences in communications and governing structure, the interaction between VOR and Wiener Linien—where one transportation operator serves the urban core while the transportation alliance is mostly focuses on coordinating transit providers outside of the urban core—allows for Wiener Linien to adapt its network any time as it does not need to negotiate with another urban transport provider, allowing it to change parts of the network without severely affecting service to the other providers under the VOR umbrella.

Zürich, Switzerland

Nestled in the heart of Europe, Switzerland has mastered the art of seamlessly connecting various modes of transportation to create a comprehensive network that is the envy of many. At the core of Switzerland's transit success lies the concept of *Taktfahrplan*, the integrated fixed-interval timetable, where timetables are meticulously crafted to a rhythm of regular intervals between departures such that trains all depart at the same time.

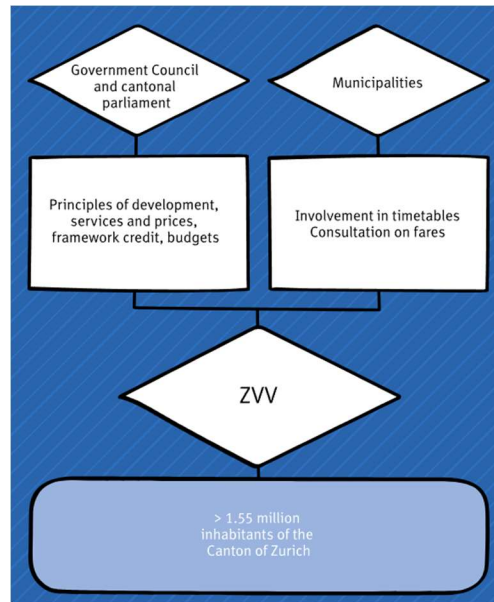
This groundbreaking approach, created by Samuel Stähli in 1972, and rolled out by the Swiss Federal Railways (SBB) in 1982, the Swiss philosophy behind *Taktfahrplan* was that rail travel should “not [be] as fast as possible, but as quick as necessary” (Hürlimann, 2005). In other words, moderate-speed travel with quick connections is preferable to high-speed travel with long wait times. With this in mind, the Federal Office of Transport sets the national timetable, based on existing growth plans. At the local level, as transit operators legally required to create a timetable, they synchronize their own schedules around the national timetable to minimize wait times and provide a seamless connection between transit modes (Bundesgesetz Über Die Personenbeförderung, 2019). Additionally, all operators are required to integrate their fares with Alliance SwissPass (the national tariff association), who then issues national fare passes to

customers. On a local level, although local transit operators in Switzerland are not required to coordinate schedules with one another, operators must prove that they accomplish both tasks in order to be competitive for the national “Agglomeration” fund, which serves as the country’s main source of new capital funding (Griffiths, 2023; Bundesgesetz Über Die Personenbeförderung, 2019).

While Swiss cities and regions typically adhere to a *Tarifverbund* or tariff association system, where operators share a common fare system, Zürich has adopted a *Verkehrsverbund* system much like the ones seen in Germany and Austria. The Zürcher Verkehrsverbund (ZVV) collaborates with its 37 member public transport companies to provide service at pre-negotiated prices, volumes, and quality standards; 8 of the largest companies in the region are responsible for leading transit service planning in their specific sub-regional market and are also responsible for public transportation marketing in the Canton of Zürich (Buehler et al., 2016; Zürcher Verkehrsverbund, 2022).

While local providers plan public transport service and timetables, they do so within the framework of an integrated regional timetable developed jointly by the companies. ZVV spearheads strategic marketing for ZVV services, financing, and transport planning, including infrastructure development and long-term strategic planning for public transit service. Farebox revenue collected by the public transport providers, along with subsidies from federal, state, and local governments, flow into ZVV's coffers. The amount of subsidy provided by local governments depends on the level of public transport service, measured by the number of departures, and the wealth of the jurisdiction in terms of tax revenue per inhabitant (Buehler et al., 2016).

Figure 16
Governance Structure of the ZVV



Source: ZVV, 2022

Governing the ZVV is the Transport Council, a nine-member body entrusted with the critical task of overseeing business and budget management for the ZVV. It consists of one member of the Cantonal Council as president, another representative from the canton, one representative each from the federal government, SBB, the city of Zurich, the city of Winterthur, and three representatives from other municipalities in the canton (Geschäftsreglement des Verkehrsverbundes des Kantons Zürich (GR-ZVV), 1990). Equally important in the governance structure of the ZVV are the twelve regional transport conferences (RTCs) that operate within the canton. These conferences, representing the 162 municipalities, play a vital role in coordinating the planning of services and timetable changes. Convened around twice a year, the RTCs address concerns of the municipalities they represent and provide information about timetable changes (Zürcher Verkehrsverbund, n.d.)

Vancouver, Canada

TransLink, the world's first multi-modal regional transportation authority, services communities all around the Vancouver metropolitan area. Its history is similar to that of the Bay Area, where both areas grew quickly after the Second World War and were dependent on automobiles as a means of travel. By the time Translink was created in 1999, the Greater Vancouver area had the highest per-capita automobile ownership in Canada, with 3 new cars being registered every hour (Wales, 2008). Transportation quickly became the top issue for Vancouverites in the 1990s, and the provincial government approved the creation of the Greater Vancouver Transportation Authority, now called TransLink (Wales, 2008).

In current times, TransLink oversees 92% of all public transportation in the Greater Vancouver area, it is also responsible for the construction and maintenance of major roads and bridges as well as creating a transportation demand management program (Tolkoff & Kass, 2020). It also operates programs to encourage cycling, perform vehicle emissions testing, and research transportation issues (Pabillano, 2013). In an agency that is responsible for the planning and operation of virtually all modes of transportation in a city, TransLink is an organization that is designed to integrate transit as both an MPO and a transit authority combined.

Despite its direct control over transportation management, it does not have much direct power to affect land use decisions. Instead, a different agency—Metro Vancouver—creates the region's growth strategy that MetroLink must implement into its regional transportation plan. What TransLink can do is to request zoning and land use changes to support more transit users around stations; municipalities are strongly incentivized to follow through on these requests as they would lose out on future transit investments if they do not.

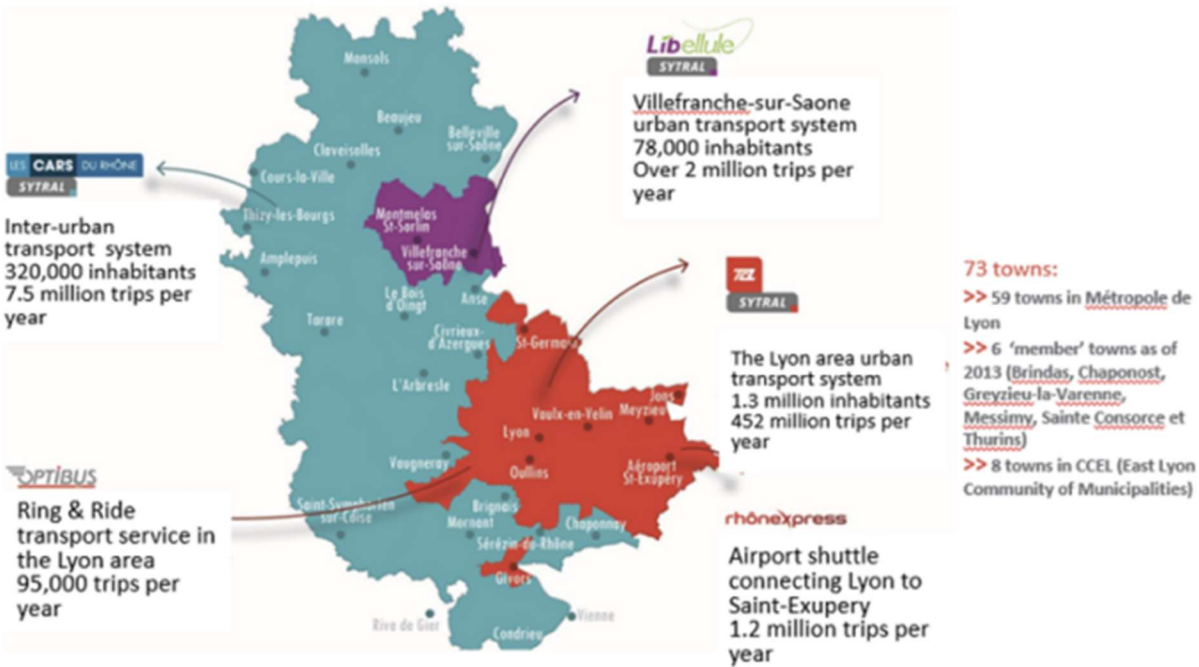
TransLink is unique among MPOs in Canada and the United States: it features a two-tier governance system where the TransLink Board of Directors (mostly comprised of transit

professionals) performs much of the organization's business duties and the Mayors' Council on Regional Transportation performs much of the strategic planning and policy work. Both the Mayors' Council and the Regional Transportation Commissioner have oversight over the Board of Directors, providing accountability while allowing the Board to have its independence.

Lyon and the Rhône Province, France

As the only institution that manages the transportation networks of multiple urban areas in France, the *Syndicat des Transports de l'Agglomération Lyonnaise* (SYTRAL) serves the residents of Lyon, along with the entire Rhône province. From its start in 1985, the task of SYTRAL was to organize and link all public transportation networks in several urban areas in the Rhône province. It does so through contracting out the servicing of transit networks to private transit operators; deciding on the routes and frequency of lines; deciding on where stations and stops should be located; set and enforce standards of service quality; standardize fares throughout the system; and developing a regional Urban Transport Plan (DeRobertis et al., 2020).

Figure 16
Operating Area of SYTRAL



Source: European Metropolitan Transport Authorities

The organization of SYTRAL is comparable to that of a North American MPO. The governing body, made up of 16 councilors from the Lyon Urban Community (which includes towns surrounding Lyon) and 10 councilors from the Rhône provincial council sit at the SYTRAL Supervisory Board, which votes on strategic decisions. Among them, 8 sit on the Executive Board where they make business-related decisions (European Metropolitan Transport Authorities, n.d.). Together, they form the region's transportation policies and make investments towards various transportation-related goals (Eolas, n.d.).

Copenhagen, Denmark

Copenhagen is widely considered as an example for sustainable urban growth, thanks in part to the work of *Din Offentlige Transport* (DOT) which oversees organizing and improving public

transportation services in the Danish Capital Region and most of the Zealand region. DOT was formed in 2007 amongst a massive nationwide municipal reform which shrunk the number of Danish municipalities from 275 to 98, and replaced the country's 14 counties with 5 newly drawn regions (Andersen, 2008). As part of the reforms, six *trafiksekskaber* (or passenger transport authorities) were established to oversee all bus transportation, local private rail transportation, and demand-responsive flexible transportation in their respective regions. The main role of the *trafiksekskabet* is to tender out bus and flexible transportation services out to private operators who then operate on a timetable that the *trafiksekskabet* sets. Funding for the *trafiksekskaber* comes from the regions and municipalities themselves, who order and pay for transit services in their jurisdiction (Rye et al., 2017; Sørensen, 2018).

Figure 17

Map of the Six Trafiksekskaber in Denmark



Note. Source: Rye et al., 2017

For the Greater Copenhagen area, transit cooperation is more complicated as the state-owned DSB operates all of Copenhagen’s intercity, regional, and S-trains, and the *Metroselskabet* (Metro Company)—jointly owned by the Danish state, City of Copenhagen, and Frederiksberg Municipality—operates the Copenhagen subway system. To ensure that the *trafikselkabet* for the Copenhagen and Zealand areas, Movia, can integrate their services with DSB and the Copenhagen Metro, the 2007 reform created DOT to ensure that these three bodies collaborate on “customer-facing activities, including ticket sales, customer service, lost property management, travel rules, traffic information, marketing, [and] communication (Bekendtgørelse Af Lov Om Trafikselkaber, 2023).

As a coordinating entity, DOT is a partnership co-owned by the three agencies and administered by their respective CEOs. Underneath the partnership group is the Board of Directors, consisting of directors from each of the three agencies, which handles most of the decision-making for DOT’s day-to-day operations (DOT, n.d.-b, n.d.-a). The Secretariat, who handles all daily functions of DOT, is a team of eight people who track key performance indicators (KPIs), operate and maintain DOT’s digital platforms, and perform secretarial duties for the various committees within DOT. These committees are groups of employees from all the agencies who use their domain-specific expertise to work together on the planning, organizing and implementation of DOT’s benchmark goals to improve traffic information, ensure seamless intermodal transfers, improve transfer coordination between buses and trains, simplify ticketing processes, and aligning pricing and service offerings with customer demand. They accomplish this by triaging possible activities, forming project groups across agencies, and ensuring that individual projects are completed within the agreed-upon time and budget. Once projects are

completed, they get transferred to the Secretariat, who then handles the projects' day-to-day operation (DOT, n.d.-b, n.d.-a).

DISCUSSION

The history of regional transit coordination efforts in the Bay Area reveals a long and complex relationship between the MTC, its nine constituent counties, and 27 transit agencies. While the MTC has possessed statutory authority since the 1990s to coordinate and integrate the region's fractured transit networks, it has often been reluctant to fully exercise these powers. Several factors contribute to this hesitancy.

First, the MTC is fundamentally an organization of local interests rather than regional ones. With 17 of its 18 voting commissioners being locally elected officials representing cities and counties, most MTC decisions reflect primarily local considerations rather than a wider regional perspective. Commissioners' dual responsibilities to their localities and the MTC can foster conflicting priorities that impede regional coordination efforts.

Second, the MTC exhibits substantial deference to major transit agencies like BART, AC Transit and Muni, allowing them to retain autonomy in operational decisions. While agencies have collaborated sporadically on initiatives like joint procurement, the MTC has rarely compelled integration or restructuring, except in isolated cases like enforcing BART's adoption of the Clipper payment system. This deference stems partly from the MTC's self-perceived diplomatic role between the State and local agencies.

Third, the rise of county transportation authorities since the 1980s has decentralized transportation decision-making and planning. These county authorities often utilize MTC-allocated funds for local projects instead of region-wide initiatives prioritized by the MTC. Their autonomy from MTC oversight limits the MTC's capability to coordinate transit infrastructure projects effectively across county lines.

However, the COVID-19 pandemic has catalyzed unprecedented coordination among Bay Area transit agencies. Compelled by funding shortfalls and drastically reduced ridership, agencies collaborated intensely on planning, operations, communications, and other areas. While driven by crisis, this cooperation demonstrates the potential for greater ongoing integration. It has already fostered improved interagency communication, service adjustments benefiting essential workers, development of regional health initiatives like the Healthy Transit Plan, and mutual aid during capacity constraints. The MTC's COVID-era efforts, like the Blue Ribbon Transit Recovery Task Force, suggest a growing understanding of the need for decisive regional transit leadership. While past initiatives like the failed AB 3972 in 1988 sought to grant the MTC greater integrating authority, recent proposals have focused extensively on network management structures. However, opposing forces continue to be formidable impediments to effective progress. Competing mandates and provincial thinking among commissioners, the insular-minded culture of large transit agencies, and the power of independent county authorities will continue to stymie regionalization until fundamental governance improvements are implemented.

The experiences of regions like Seattle, London, and Vancouver highlight some potential pathways for how the Bay Area can adapt. For example, in the London case study, TfL uses its authority as a city department to organize public and private transportation operators by setting common standards that every operator must follow. As the Bay Area does not have one central city that it could derive its authority from, it could use its regional scope to influence land use and the design of proposed projects throughout the region. Additionally, as TfL is a department of the London Mayor's office rather than an independent body, the Mayor has the absolute power to set fares which can lead to politically-motivated decision making if fare prices are a topic of public concern (Tolkoff & Kass, 2020). Another problem that TfL faces is that it does

not have control over the London Overground or the parts of the national rail service that service London; these rail lines service the hundreds of suburban communities that surround London and bring in thousands of commuters into London's city center every day. Not being able to manage the London Overground makes it more difficult for TfL to influence these suburban areas to adopt land use policies that encourage transit use and decrease GHG emissions levels.

In the Hamburg, Vienna, and Copenhagen examples, the *Verkehrsverbände* model of transit integration allows transportation authorities to set not just common practices and standards, but they also co-develop each operator's timetables which help reduce waiting times for transit users and therefore make transportation more appealing. They also unify marketing strategies, which helps to reduce some of the information overload that visitors to the area may experience as they try to navigate the transit network. Even in the Vienna case, where Wien Linien produces its own marketing for within city boundaries and VOR uses its own information for rural areas, the reduction of transit agencies providing the same information reduces costs for everyone as economies of scale ensure that the price of providing information goes down.

Switzerland takes the German and Austrian approaches and has adopted an entire national philosophy that revolves around tiered transit coordination, as opposed to simply a collection of independent *Verkehrsverbände*. Local providers retain autonomy over operations and service delivery, but the ZVV coordinates fares, strategic planning, and critically, scheduling via the national timetable—the *Taktfahrplan*. This dual approach allows local flexibility within a regional framework optimizing connections. Zurich also illustrates the value of integration incentives as operators must demonstrate effective scheduling coordination to access crucial national transit funding. As the MTC already has a similar statutory authority, it should similarly

incentive integration through STA funding requirements, while respecting local control over service delivery.

The ubiquity of TransLink's influence throughout the Vancouver is astounding when compared to other RTCs across Europe and North America. Having direct control over virtually every mode of transport in an area has allowed TransLink to make large, sweeping policy reforms that may address suburb growth around Vancouver. As it controls the region's roads and public transport, it has a large amount of political capital at its disposal to use when municipalities refuse to adopt recommended land use changes. To create buy-in from the municipalities, the governance structure of TransLink is set up so that the mayors of all the cities in the Greater Vancouver area are members of the Mayors' Council on Regional Transportation and actively contribute to the organization's strategic direction. In theory, having the buy-in creates a carrot for mayors to go along with the TransLink staff's recommended land use changes, and the potential to withhold transportation investment serves as a stick. Another clever part of how TransLink is organized is that it separates out transportation professionals from politicians; as city leaders are mostly likely not going to have a background in urban planning or transportation policy, most of the business planning work is performed by TransLink Board of Directors who are comprised of appointees from the Mayors' Council that are screened by a Screening Panel (TransLink, n.d.). These appointees are most likely going to be transit professionals or those who have a strong passion for transit policy, creating what is essentially a technocratic body in TransLink. Combining the vision of leaders from across the region with the technical know-how of professionals work well to ensure that the organization's leadership is consistently competent. As a result of this governance structure and TransLink's large scope,

Vancouver has seen consistent increases in transit ridership while cities in California and the U.S. saw them decrease. (Tolkoff & Kass, 2020).

Seattle's journey towards greater transit integration also provides important lessons for the Bay Area's efforts as it takes the complete opposite approach to Vancouver. There, it was a combined effort by County Executive Dow Constantine and transit agencies in the Puget Sound region—not the Puget Sound Regional Council, the Seattle region's MPO—who first collaborated on customer-facing elements like branding and fare payment systems through the 1990s PugetPass and 2000s ORCA card. Over the decades, this built relationships and trust while improving the rider experience as Seattle became the fastest-growing city in the nation, in large part due to Amazon's arrival in the city (Bliss, 2018). Formalization came later through the 2019 Mobility Partnership among agencies to coordinate planning and operations. This is not too dissimilar with what Bay Area transit agencies have been trying to accomplish during the pandemic, however Seattle's transit agencies collaborated voluntarily over decades to integrate elements like branding, fares, and eventually planning through the Mobility Partnership. In contrast, the Bay Area's pandemic collaboration was more sudden and crisis-driven. Additionally, Seattle's compact geography enables simpler integration versus the Bay Area's expansive scale, requiring localized flexibility. Sustaining these collaborations post-pandemic can organically foster relationships and trust vital for future integration. As the famous management consultant Peter Drucker said, "Culture eats strategy for breakfast." No amount of technocratic integration strategizing or policymaking can succeed without the careful cultural foundation-building Seattle exemplified.

SYTRAL takes an approach that most MPOs in the United States use and combines it with the leadership format of TransLink: the equivalent of the Mayors' Council—the

Supervisory Board—is solely comprised of 26 local city and provincial councilors. The Executive Board of SYTRAL is comprised of 8 of the councilors on the Supervisory Board. Instead of having the mixed elected official-professional leadership structure that Vancouver uses, Lyon has elected officials have positions in every leadership position except for those occupied by staff. This system is the most likely to work well with the MTC as most of its current commissioners are elected officials from across the Bay Area (Metropolitan Transportation Commission, 2021d). Transitioning to a Lyon-style RTC would require the least amount of organizational restructuring within MTC but might not have the same level of technocratic operational knowledge that comes with a board of urban planning and transportation professionals.

One aspect that deserves further analysis is if some of the findings made here can be extrapolated to other MPOs. While the Legislature has continuously expanded the MTC's statutory powers over time through bills like SB 1474, the MTC has been reticent to fully utilize these authorities. This stems in part from the MTC's reluctance to be seen as a “state-controlled” entity dictating terms to local transit agencies. The MTC likely fears that aggressive wielding of its integration powers could provoke a backlash from counties and major agencies like BART.

However, it is not clear whether this dynamic exists for other MPOs, such as SCAG and SANDAG. There are signs that the Sacramento Area Council of Governments (SACOG), according to a senior Northern California transit official, is currently facing governance problems that stem from the lack of an overarching vision for regional transit. Sacramento Regional Transit (SacRT) has been taking the initiative in bringing the region’s transit operators together to work on regional issues, although it does so through the SACOG Transit Coordinating Committee, an advisory committee that meets every 2 months. Meanwhile,

SACOG itself has not adopted many of the collaboration mechanisms that the MTC has developed over the years; it has only been recently that SACOG has started exploring the idea of mutual aid during emergencies. Also, in stark contrast to the MTC, SACOG has instituted a competitive approach to fleet replacement funding, wherein the region's 10 transit agencies vie against each other for funding. This suggests that integration challenges may not be unique to the MTC and the Bay Area and could carry over into other regions.

Examining dynamics at other major MPOs could reveal useful parallels and contrasts to inform tailored governance solutions at the regional and state level. MPOs with expansive geographies like SCAG may face different obstacles than compact regions like SANDAG. Major transit operators like LA Metro and San Diego MTS may play unique counterbalancing roles vis-à-vis their MPOs. Evaluating integration capacities and constraints across California's many MPOs would provide invaluable perspectives for the integration predicament confronting the MTC.

In the State Legislature, a pivotal question looming over integration is whether funding shortfalls or governance reforms should come first. Transit agencies have argued that with transit agencies facing fiscal cliffs, stabilization must precede integration. Others contend that reform is impossible without the external catalyst of crisis. But both viewpoints can be true at the same time. Securing funding to maintain services is imperative, as cuts would be counterproductive, yet complacency could also delay needed restructuring. Rather than choosing strictly between the two options, funding and reform may best be done synergistically. Pursuing incrementalist reforms like fare coordination, even amid the worst transit funding crisis the Bay has seen in its history, can create a positive feedback loop that fundamentally changes how transit operators see their relationship with other operators and the MTC. And crises can force hard choices that those

in MTC's leadership often avoid otherwise. With sustained culture-building, the Bay Area can adapt Seattle's incremental model to align interests. But successful integration ultimately hinges on the hard work of trust-building so that the culture is able to support the strategy. The MTC must nourish the roots of collaboration before harvesting the fruits of integration.

Another notable dynamic is the influence of labor unions representing MTC and transit agency staff. While unions were not addressed extensively in this study, they likely exert significant policy influence behind the scenes. The MTC may fear that regional consolidation of certain functions could face opposition from unions fearing job losses for their members. As one of the interviewees noted, while labor unions tend to stay out of transit integration discussions, transit agency general managers could rope the Teamsters and the Amalgamated Transit Union (ATU) into the fray.

Only by consistently working to transform its institutional culture away from parochialism and unwarranted deference can the MTC finally achieve the coordinated regional transportation network sought by state legislators since its inception. The MTC possesses the statutory tools for integration but now needs the political will to proactively employ them. The pandemic's disruption of transit services and funding offers a rare opening for the MTC to aggressively redefine its purpose around effecting coordination, not just presiding over a fragmented transit network. Seizing this opportunity will require greatly enhanced regional leadership commitment from the MTC, but it presents the chance to finally build a world-class integrated transit system befitting the Bay Area's innovative spirit.

RECOMMENDATIONS

As the Bay Area continues to evolve and grow, the need for an efficient, seamless, and integrated regional transit system has never been more pressing. A well-coordinated transit network is not only an essential pillar for economic development but also a crucial element in improving the quality of life for residents. Each of the recommendations made in this section is designed to be actionable, grounded in proven models and practices, and accompanied by methods for measurement and accountability.

Synchronized Regional Timetabling

To enable seamless transfers across the region's complex web of operators, the MTC should spearhead the development of a single integrated regional timetable, modeled after the Swiss *Taktfahrplan*. Initially, these efforts should focus on a 6-month pilot program to coordinate schedules during peak-hour times between the Big 7 operators and potentially Amtrak's Capitol Corridor and the Altamont Corridor Express (ACE). Given the difficulty of coordinating transfers across multiple routes and transit operators, optimization algorithms and models, such as Optibus or ArcGIS, can be used to strategically coordinate departure times to minimize transfer wait times. After refining the synchronized scheduling through the pilot program, the coordinated timetable concept could be expanded to full day coverage across all 27 operators.

With the central foundation of regional timetabling in place, smaller operators could subsequently be incorporated, drawing on Zurich's approach of sub-regional coordination leadership. Operators like County Connection and Tri Delta Transit could be clustered into sub-regions that are drawn based on existing commute patterns, the MTC's travel model super-districts, and current operator routes. Appendices A and B illustrate what a hypothetical sub-regional system would look like. The largest operators in each sub-region, by ridership, could

lead synchronization discussions with smaller local providers, as shown in Appendix C. This staged rollout would allow manageable scaling of the intricate timetabling process. Once implemented across all 27 Bay Area operators, the regional schedule could form the backbone of a future statewide timetable integrating intercity rail networks like the California High Speed Rail.

Incentivized Integration Through Funding

To catalyze regional integration initiatives, the MTC should establish a dedicated Regional Integration Incentive Fund fueled by both new and existing resources. This fund would support collaborative integration pilot projects between operators through competitive grants. Providers would then propose initiatives based on clear public benefit metrics around ridership, customer experience, and on-time performance. Examples of potential eligible activities include integrating IT systems, employee exchange and transfer programs, and free transfer programs.

New funding could come from the region's share of the Bradley-Burns uniform sales tax, as suggested by Lewis (2001). Even a 0.1% diversion would provide substantial resources that the MTC could use to incentivize integration progress and regionalism. However, barring this, the MTC's General Fund—or perhaps the state's General Fund—could be used to fund such a program. The MTC could also mirror Switzerland's model by leveraging its statutory authority under SB 1474 to tie STA funding eligibility for operators to integration with the regional timetable. However, flexibility is essential—some operators like VTA might require incremental inclusion or partial funding incentives initially.

By balancing funding carrots with integration accountability, the MTC could guide the 27 Bay Area operators towards a more integrated network. Like what the MTC is experimenting

with its new TOC Policy, maintaining local autonomy while providing resources to incentivize regional goals will likely be a centerpiece of how the MTC will accomplish this task.

Functional Consolidation for Transit Agencies

As the MTC seeks to unify the Bay Area's fragmented transit networks, targeted consolidation of duplicative functions across Bay Area transit providers is a promising pathway to improved efficiency and service quality. When done correctly, functional consolidation can yield cost savings in the long-term that can be reinvested in additional transit services. For this reason, the MTC, along with transit advocacy groups and transit operators, have included this suggestion in its 2023 report titled “Survive & Thrive: Roadmap to a Sustainable Business Model for Bay Area Public Transit,” albeit a more limited version of functional consolidation than is discussed here.

Initial efforts should focus on identifying administrative and support functions that can be standardized across agencies without negative impacts on frontline operations. While the MTC already provides a joint call center service through the 511 program, additional areas where consolidation could occur are in payroll processing/human resources, public safety operations, and IT infrastructure. For example, consolidating payroll processing into a unified HR/payroll system could eliminate redundancy and leverage economies of scale. Likewise, integrating IT systems and infrastructure regionally could improve cybersecurity, system reliability, and data sharing. Exploring joint procurement and training for transit police could boost safety presence in a cost-effective manner. Coordinated, multi-agency response to security incidents would also be enabled, just as the MTC currently coordinates regionwide earthquake drills.

Clear key performance indicators should track cost savings, operational efficiency and customer satisfaction to ensure consolidation improves service delivery. A portion of the cost

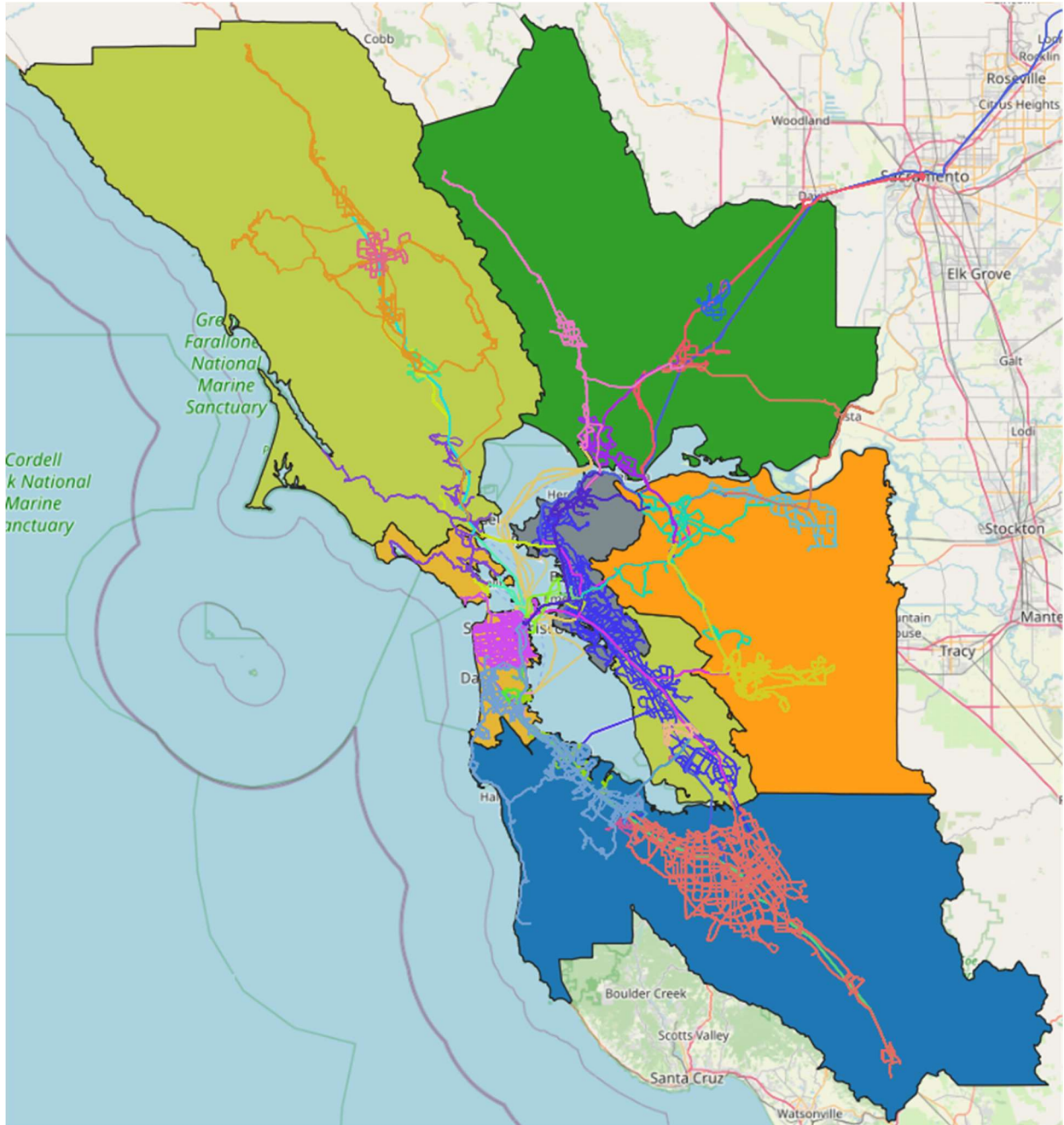
savings should be then reinvested in staff through retention bonuses, wage increases and training to ease the transition.

This strategic, limited consolidation approach leaves customer-facing services like drivers and routes in local control while improving integration behind the scenes. It also opens the doors for the MTC to build up its own internal technical expertise which could be used to make large-scale transit projects more cost-effective. Areas where MTC expertise could drive major capital project success include project management, budget oversight, risk analysis, contracting, procurement, and the California Environmental Quality Act (CEQA) review process. By serving as a regionwide resource for specialized capabilities, MTC can strengthen project delivery across Bay Area transit agencies by providing technical assistance where it is needed and reducing the number of consultants required for a project, translating plans into high-quality infrastructure for riders at a lower cost.

APPENDICES

Appendix A

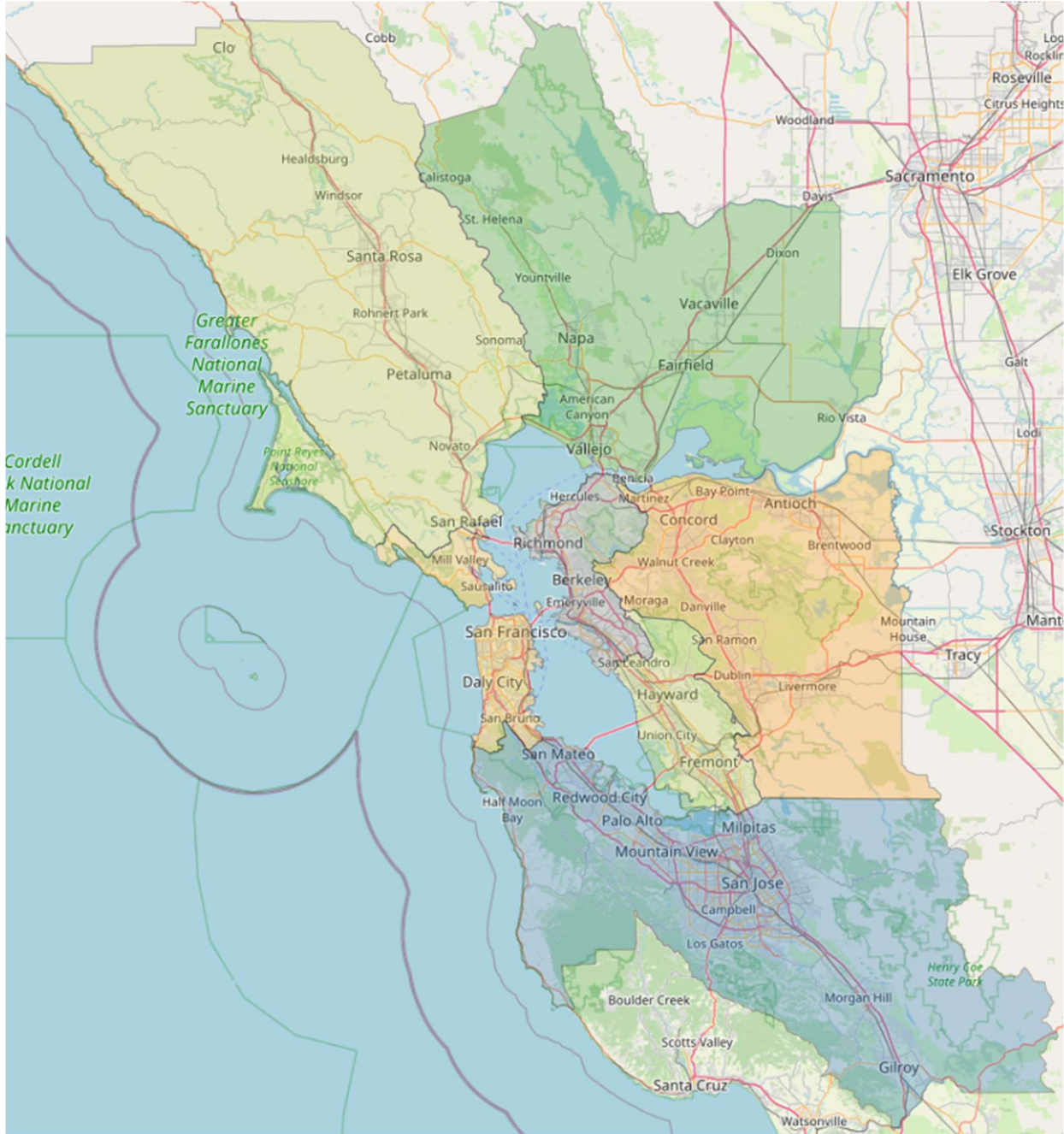
Recommended Sub-Regions of the Bay Area, with Route Lines



Note. Map source: OpenStreetMap; Data sources: 511.org, MTC

Appendix B

Recommended Sub-Regions of the Bay Area, without Route Lines



Note. Map source: OpenStreetMap; Data sources: 511.org, MTC

Appendix C

Sub-Region	Transit Agencies
North Bay	Marin Transit*, Golden Gate Transit, Petaluma Transit, Santa Rosa CityBus, Sonoma County Transit, SMART
North East Bay	AC Transit*, BART, County Connection, Emery Go-Round, FAST, Golden Gate Transit, San Francisco Bay Ferry, SolTrans, VINE Transit, WestCat
Outer East Bay	County Connection*, AC Transit, BART, FAST, LAVTA, Rio Vista Delta Breeze, SolTrans, Tri Delta Transit, WestCat
Napa-Solano	SolTrans*, FAST, Rio Vista Delta Breeze, San Francisco Bay Ferry, Vacaville City Coach, VINE Transit
San Francisco	SFMTA Muni*, AC Transit, BART, Caltrain, Golden Gate Ferry, Golden Gate Transit, Marin Transit, SamTrans, San Francisco Bay Ferry, SolTrans, SMART, WestCat
Silicon Valley	VTA*, AC Transit, Caltrain, Dumbarton Express, SamTrans
South East Bay	AC Transit*, BART, Dumbarton Express, Union City Transit, VTA

- a) Transit agencies with an asterisk would be the most likely to lead timetabling discussions, if a Zurich-style coordination system were adopted
- b) Amtrak, ACE, and the California High Speed Rail Authority are not included as they are currently not involved with the MTC's coordinating efforts

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