

Transforming the T

By: Transit Policy Reform Group (TPRG)



**Massachusetts Bay
Transportation Authority**

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1. Introduction

The Massachusetts Bay Transportation Authority (MBTA), widely known as the "T," has been a cornerstone of public transportation in the greater Boston area since its establishment in 1964, significantly influencing national standards for operational and architectural designs in public transit. Boston's subway system began with the opening of Tremont Street in 1897, a pivotal event in urban transit development. This milestone laid the foundation for what would become America's first major integrated regional transit system. Since then, the MBTA has consistently embraced new technologies, demonstrating its adaptability through its ongoing integration of advancements. It has evolved from America's "first combined regional transit system serving 78 municipalities in the Greater Boston area" to significantly enhancing its infrastructure for an improved rider experience.

1.1 The Issue with the T

Despite its historical significance and crucial role in Boston's public transportation network, the MBTA struggles with several operational challenges that impact its efficiency and the overall rider experience. The most apparent issues are frequent delays, aging infrastructure, and inconsistent service across its lines. The subway system is affected mainly by outdated signaling systems and tracks that have not been sufficiently maintained or upgraded to meet the increasing population's increasing demands. Daily reports of power outages, broken escalators, and violations of safety protocols contribute to increasing rider dissatisfaction. In a radio interview, Mayor Michelle Wu addressed these issues, admitting the severity of the situation. "What used to be a 'stress-free' experience now has people leaving it altogether because of its unreliability. 'We are in a very, very dire place, just in terms of service delivery.'" When asked to

rate her sense of urgency, "she rated it as a 4.8 on a scale of 0 to 5".¹ The current state of the MBTA undermines its foundational goals of providing a safe, reliable, and accessible service to all residents of the Greater Boston area. Due to the additional challenges posed by the COVID-19 pandemic, the MBTA has suffered a significant decline in efficiency and is still struggling to recover.

Our group, Transit Policy Reform Group (TPRG), commissioned by the MBTA division of MassDOT, is dedicated to redesigning the T. Recognizing the critical role of public transportation in Boston's urban infrastructure, our comprehensive analysis has identified operational mismanagement and inadequate funding as the root cause of the MBTA's shortcomings. In light of previous attempts to address these issues, our proposal advocates for reforming the Board of Directors, implementing HR management software, creating a "firewall agency," and remodeling financial strategies. This model is designed to systematically tackle the fundamental issues within the MBTA by rolling out our policies over five years, complete with a detailed first-year financial breakdown. Our policy recommendation seeks to deliver an improved public transportation system that supports all Boston residents, ensuring long-term improvements in service delivery and stable ridership levels.

1.2 The T Map

The T is structured in a "radial" design, with transit lines that extend outward from downtown Boston, connecting this central area to the suburbs and other key urban areas.² Rather than grouping the transit lines into zones, they decided to group the lines with colors that were

¹ Marc Fortier, "Mayor Wu on the MBTA: 'We Are in a Very, Very Dire Place,'" NBC Boston, September 25, 2023, <https://www.nbcboston.com/news/local/mayor-wu-on-the-mbta-we-are-in-a-very-very-dire-place/3144297/>.

² Levy, Alon. "Radial Metro Networks for Portions of Cities." Pedestrian Observations, August 7, 2018. <https://pedestrianobservations.com/2018/08/07/radial-metro-networks-for-portions-of-cities/>

easily distinguishable from each other. After the T was established in 1965, a local consulting firm was hired to create the transit map. Rather than grouping the transit lines into zones, they decided to group the lines with colors that were easily distinguishable from each other. Boston's present-day subway network consists of the Green, Blue, Orange, and Red lines, with 125 stops across the region. All routes operate seven days a week and converge near Boston Common downtown as seen in Appendix A.³

1.3 History of the T

The MBTA began as the Boston Elevated Railway Company (BERy) in 1894, as trolleys that operated through Brookline and the West End. In 1887, BERy merged with its counterpart streetcar line, West End Street Railway. Three years later, BERy opened Boston's first subway line, which appeared under Tremont Street, as the precursor to the modern-day Green Line. By the 19th century, a surge in automobiles had caused major financial problems for BERy. Shortly after, the MTA took over BERy in 1947, purchasing all outstanding stock and stopping shareholder compensation. As Boston's business districts grew throughout the 50s and 60s, so did the city's congestion. Legislators and urban planners came together for a comprehensive study to integrate all existing railroads within the greater Boston. In 1964, this comprehensive public transit system and the MBTA came to fruition.

The newly formed Urban Mass Transportation Administration (UMTA) initially funded this new agency in 1965. Modernization projects that are still in operation today, such as the Government Center and Kenmore station, all began construction during this time. The UMTA soon transitioned into the present-day Federal Transit Administration (FTA), dedicating half a

³ Authority, Massachusetts Bay Transportation. n.d. "Beginner's Guide to the Subway | MBTA User Guides | MBTA." <https://www.mbta.com/guides/subway-guide>.

billion towards improving the MBTA through funding projects. During the 70s, public concerns about gas shortages and air pollution from individual automobiles led to an increase in ridership.

The MBTA continued to be a reliable source of public transportation for the city of Boston. Although the agency has faced multiple roadblocks, especially with the advent of COVID-19, the MBTA is still the lifeline of many citizens' daily lives. With 200 cities and towns and over one million daily commuters under its belt, issues within the T's systems are echoed throughout Boston's community. Hence, as complications begin to stack for the MBTA, a solution for their many intertwining and complex problems is a necessity for the well-being of Boston.

1.4 Significance of the T

The MBTA is at the forefront of shaping Massachusetts' urban landscapes, influencing both ecological sustainability and social equity. The T actively reduces its environmental impact by incorporating renewable energy sources and innovative practices to reduce emissions, demonstrating an overarching commitment to a cleaner transportation system.⁴ Additionally, the MBTA promotes social equity by connecting underprivileged communities to essential services and opportunities, thereby addressing socioeconomic disparities within the Boston area. These efforts establish the T not just as a mere transit system but as a key driver in the pursuit of a more sustainable and equitable future for Boston.

⁴ Energy Management." Massachusetts Bay Transportation Authority.
<https://www.mbtta.com/sustainability/energy-management>

1.4.1 Influence on Environmental Factors

In 2017, the public and private transportation sector combined accounted for "42 percent of greenhouse gas emissions" within the entire state.⁵ In response to these environmental concerns, the MBTA is actively promoting sustainable practices and emphasizing clean transportation within its operations, attempting to reduce the effect of personal vehicles. Studies have shown that public transit systems produce "76% less in greenhouse gas emissions per passenger mile compared to an average single-occupancy vehicle".⁶ As of 2021, the T has been named America's largest transit agency to run entirely on renewable sources. In July 2024, the MBTA Board of Directors approved a "Request for Qualifications for an up-to-\$120 million wholesale renewable electricity supply contract." By securing a substantial amount of renewable energy, the MBTA ensures its operations contribute positively towards climate action, aligning with its goal to reduce greenhouse gas emissions and reinforce their reputation as a leader in clean transportation systems.

1.4.2 Socioeconomic factors

The positive impacts of the MBTA climate initiatives are amplified by the socioeconomic benefits they bring. Public transportation like the MBTA is vital for social equity, providing essential services to lower socioeconomic groups who depend heavily on it. This accessibility is crucial for connecting residents of lower economic brackets to employment opportunities, educational resources, and healthcare services without the financial burden of owning a car.

⁵ Baxandall, Phineas. "The Three E's: Greater Transportation Funding Can Improve the Economy, Equity, and Environment." Mass. Budget and Policy Center, May 5, 2022.

<https://massbudget.org/2022/03/28/transportation-three-es/>.

⁶ Stacker, "Transportation Is the Largest Source of Carbon Emissions in the US. Here's How It Breaks down by State," KTVZ, June 17, 2023,

<https://ktvz.com/stacker-science/2023/06/16/transportation-is-the-largest-source-of-carbon-emissions-in-the-us-heres-how-it-breaks-down-by-state/>.

An experiment called "How Low-income Transit Riders in Boston Respond to Discounted Fares: A Randomized Controlled Evaluation" conducted by the Massachusetts Institute of Technology illustrates the significant impact of access to public transportation on the lives of low-income individuals. In this study, recipients of Supplemental Nutritional Assistance Program benefits were provided with MBTA cards that reduced their transit fare in half, leading to "almost 30 percent more transit trips than a control group, increasing trips for work, medical appointments, and other travel".⁷ The fare adjustment allowed easier access to necessary services for lower-income individuals, underscoring the significance of affordable public transit.

The COVID-19 pandemic exacerbated existing socioeconomic disparities, further emphasizing the importance of the MBTA as an essential resource for those unable to work from home. The majority of riders who continued to use public transportation were "disproportionately those who could not work from home and did not own a car." This population consisted of healthcare workers, service industry employees, residents of lower-income and racially diverse neighborhoods, and others who utilized the T as an important necessity of daily life. In return, these groups served a vital role in the MBTA's survival from the financial strains the system faced during the pandemic. MBTA general manager Steve Poftak acknowledges this, saying how "it's really a tribute to our workforce that they have continued to come to work."⁸ Although the disproportionate use of the MBTA emphasizes the issue of social inequalities, the MBTA ultimately works to balance the inequalities between socioeconomic

⁷ Baxandall, Phineas. "The Three E's: Greater Transportation Funding Can Improve the Economy, Equity, and Environment." Mass. Budget and Policy Center, May 5, 2022. <https://massbudget.org/2022/03/28/transportation-three-es/>.

⁸ Enwemeka, Zeninor. "The MBTA Expects to Lose \$231 Million Due to Coronavirus." WBUR News, April 13, 2020. <https://www.wbur.org/news/2020/04/13/mbta-revenue-loss-coronavirus>.

classes by providing affordable transportation alternatives. This function is crucial not only for individual mobility but also for the broader economic health of the region.

1.5 The Internal Structure

The current MBTA structure is overseen by the Massachusetts Department of Transportation (MassDOT) Board, which consists of MBTA General Manager and CEO Philip Eng, MassDOT Secretary and CEO Monica Tibbits-Nutt, and MBTA Deputy General Manager Jeff Gonneville. The entirety of the MassDOT board's responsibilities includes "all transportation issues in Massachusetts, including highways, mass transit, vehicle licensing, aeronautics, and more."⁹ Since their duties are broad and have a larger scope, the board is specifically in charge of the governance of the MBTA. The current MBTA Board of Directors consists of seven members, six of whom are appointed by Governor Baker. The members of the board serve four years, with their term ending according to whenever they are appointed.¹⁰ Within the MBTA are multiple departments that govern the specific functions of the MBTA. While there are many sections within the agency, some of the more notable areas include safety and security, customer service and operations, maintenance and engineering, and support services.

⁹ Massachusetts Bay Transportation Authority, "MBTA Board of Directors," MBTA, accessed April 25, 2024, <https://www.mbta.com/leadership/mbta-board-directors>.

¹⁰ Gov, Massachuseets. "Governor Healey Appoints New Members to the MBTA Board of Directors." Mass.gov. Accessed April 25, 2024. <https://www.mass.gov/news/governor-healey-appoints-new-members-to-the-mbta-board-of-directors>

1.6 Pre-Pandemic Issues

Long before the COVID-19 pandemic, the MBTA was already grappling with significant challenges that threatened its operations. One of the main contributors to the MBTA's financial issues lies in the construction of the nation's most expensive highway project, which began in 1991 and led to what is known as the "Big Dig Debt." Projections show that "the Big Dig debt is growing faster than we can pay it off. By the time the debt is paid off, which is projected to be in 2040, the MBTA is expected to have paid more than \$8 billion in debt and interest payments". The project was an attempt to alleviate Boston's "record-high traffic," but was "notorious for going wildly over budget and years behind schedule," ultimately resulting in major financial setbacks for the MBTA.¹¹

Fast forward to 2015, Boston experienced a harsh winter, receiving over 100 inches of snow that tested its resilience and capacity to rebound from natural disasters. This period was described as "a snow-packed winter that left the MBTA buried in criticisms and complaints as the harsh conditions proved too much for the nation's oldest subway system." As a result, the system had undergone significant administrative changes, including the resignation of its general manager, Beverly Scott, amidst the disastrous events. During his final moments at the MBTA, Scott attributed the system failures to "outdated equipment that had been patched into service repeatedly because of historically inadequate funding for the agency."¹² These events triggered a broader discussion about the need for systemic reform within the MBTA.

¹¹ Mascoll, Sydney. "The MBTA's Failing Funding Structure and Its Origins: Act on Mass." ActOnMass, 2024. <https://actonmass.org/post/2024/02/15/nobodys-favorite-public-transit-what-went-wrong-with-the-mbta/>.

¹² Christina Pazzanese, "Tough Days for MBTA," Harvard Gazette, May 2, 2019, <https://news.harvard.edu/gazette/story/2015/02/tough-days-for-mbta/>.

1.6.1 Escalating Issues during COVID-19

Unfortunately, like many other vital agencies, the issues faced by the MBTA were exacerbated by the effects of the COVID-19 pandemic. According to the Federal Reserve Bank of Boston, the MBTA faced a 73 percent decline in ridership from March 2020-June 2020 relative to March 2019-June 2019 as seen in Appendix B.¹³ Unlike most public transit agencies, the T has remained at a plateau since the emergence of the pandemic. This underscores the subway system's inefficiency, and as Brian Kane, executive director of the independent MBTA Advisory Board, points out, when people recognize that they have the option to use the T or not, they now choose to avoid it.¹⁴ The pandemic not only worsened the system's already unstable state but highlighted an urgent need to restore confidence and efficiency in Boston's public transit system.

1.7 A Deeper Dive

These smaller inconveniences are the product of the deeper issues within the MBTA: mismanagement, operational inefficiencies, and insufficient funding. In order to fix its operational issues and improve the rider experience, the MBTA must first address these internal operations and financial challenges to isolate and dissect its core issues. This involves a strategic approach focusing on three critical areas: securing adequate funding, management of debts, and restructuring of the MBTA Board of Directors.

¹³ Sullivan, Riley. "The COVID-19 Pandemic's Impact on Public Transportation Ridership and Revenues across New England." Federal Reserve Bank of Boston, September 27, 2021.

<https://www.bostonfed.org/publications/new-england-public-policy-center-regional-briefs/2021/the-covid-19-pandemic-impact-on-public-transportation-ridership-and-revenues-across-new-england.aspx>

¹⁴ Lisinski, Chris. "MBTA Trails Other Major Transit Agencies in Bringing Back Riders, Data Shows." NBC Boston, April 4, 2023.

<https://www.nbcboston.com/news/local/mbta-trails-other-major-transit-agencies-in-bringing-back-riders-data-shows/3013493/>.

Securing adequate funding is crucial for the MBTA to undertake necessary upgrades and expansions. Investments need to be allocated not only for routine maintenance and repairs but also for modernizing the aging infrastructure to meet current and future demands. The governance structure of the MBTA Board of Directors plays a crucial role in shaping the organization's priorities and strategies. By reforming the internal structure of the MBTA, we can lay a strong foundation for implementing our proposed solutions, which are designed to address the systemic issues that have long plagued the system. Without properly addressing these fundamental issues, the MBTA will struggle to tackle any major issues, let alone be able to improve the rider experience. If these issues are left unaddressed, the predictable decrease in ridership will lead to a reduction in fare revenue, which in turn could trigger a dangerous cycle of service cuts and further declines in user satisfaction. This reduction in ridership can exacerbate congestion and pollution as more residents are likely to revert to personal vehicles, thereby undermining the city's environmental goals and efforts to promote a sustainable transportation system.

2. Discussion and Development of the Problem

As discussed previously, the T plays a vital role in the transportation infrastructure of the Greater Boston area. However, beneath the surface of train routes lies a web of systemic issues that have been impacting its operations for years. At the heart of these challenges lies a narrative of mismanagement, where organizational instability and an inefficient work environment have undermined the agency's ability to run effectively. Compounded with misfunded operations and projects, the MBTA is projected to spiral deeper into financial instability.

In our comprehensive analysis, we will explore the root causes of the MBTA's struggles, focusing primarily on four critical areas of concern: management issues, organizational inefficiencies, underfunding, and misallocation of funds. Through an examination of historical data and contemporary reports, we aim to shed light on the complexities surrounding the MBTA's operations and finances.

2.1 Management Issues

The first facet of the MBTA's challenges stems from a pervasive sense of instability within its organizational hierarchy. Historically, the MBTA has experienced frequent changes in its top management. According to the Safety Management Inspection Report for MBTA and DPU by the Federal Transit Administration (August 2022), the MBTA has had nine General Managers since 1981, including three interim GMs in the last decade alone. Since the 2015 report, eight more general managers have served at the MBTA, with Phillip Eng assuming the role in early 2024.¹⁵ The MBTA's extremely high turnover rate undermines strategic planning and operational stability, impacting the maintenance of momentum on long-term projects due to inconsistent leadership. Furthermore, these shifts in leadership can lead to differences in priorities and strategies. This complicates efforts to implement effective solutions, contributing to employee uncertainty and lower worker morale.

Furthermore, there is an alarming vacancy rate in senior positions, with over 10% of these roles either unfilled or temporarily covered. This lack of stable leadership contributes to inconsistencies in policy implementation and strategic planning, exacerbating the MBTA's

¹⁵ Wikipedia Contributors, "Massachusetts Bay Transportation Authority," *Wikipedia, The Free Encyclopedia*, Wikimedia Foundation, last modified April 20, 2024, https://en.wikipedia.org/wiki/Massachusetts_Bay_Transportation_Authority.

challenges in managing its operations efficiently. In addition, the impending retirement of approximately 45% of MBTA employees within the next five years poses a severe risk to the continuity and retention of institutional knowledge.¹⁶ This demographic shift threatens to deplete the agency of experienced workers, potentially leading to a decline in operational proficiency and safety standards.

The current management of the MBTA has faced criticism for its geographical distance from the system, as highlighted in a Boston Globe article. Many senior managers do not reside in Boston, with one living as far as Florida. This has intensified leadership complications within an organization that already struggles with high turnover and difficulty filling jobs. Employees have expressed that the absence of key managers, particularly in capital projects leadership, has negatively impacted morale and hindered efforts to modernize the aging transit system.¹⁷

2.1.1 Flawed Appointment System

As listed on the MBTA website, "The MBTA Board of Directors consists of nine members, including the Secretary of Transportation and one member with municipal government experience. The rest are appointed by the Governor, and they include a rider and resident of an environmental justice population and a person recommended by the President of the AFL-CIO."¹⁸ As seen, seven out of the nine members of the MBTA Board of Directors are elected by the governor.

¹⁶ Massachusetts Department of Transportation. Back on Track: Action Plan for Reforming the Transportation System (April 8, 2015). Massachusetts Bay Transportation Authority, 2015.

¹⁷ "Boston Globe. 'Distant Crisis: Top MBTA Managers Live Hundreds or Thousands of Miles from Troubled System They're Trying to Fix.' The Boston Globe, 22 Apr. 2023, <https://www.bostonglobe.com/2023/04/22/metro/distant-crisis-top-mbta-managers-live-hundreds-or-thousands-miles-troubled-system-theyre-trying-fix/>."

¹⁸Ibid

In 2021, Governor Charlie Baker appointed Betsy Taylor, Scott Darling, and Mary Beth Mello to the MBTA Board of Directors, during which the MBTA faced severe workforce shortages and major service disruptions, and underwent unprecedented federal safety audits. To address these issues, Governor Healey replaced these directors in 2023, reflecting a critical flaw in the system: the lack of a predictable or standardized method to ensure the qualifications of appointees, given the governors' broad discretion to make such appointments. This practice has raised concerns about the effectiveness and suitability of appointed board members.¹⁹

2.1.2 Communication Efficacy

Communication about safety within the MBTA is another huge area of critique. Explicit and formal provisions to ensure safety information leads to actionable results are currently nonexistent. Furthermore, frontline employees are not adequately integrated into the safety communication process, and the guidelines for safety reporting through avenues such as the Safety Hotline lack clarity. This information gap hinders the MBTA's ability to capture and respond to safety concerns effectively. The MBTA has established various safety committees to facilitate safety communication, but they lack formal processes to ensure that discussions lead to actionable outcomes. Despite having committees like the Executive Safety Committee and Safety Management Review Committee, there is no consistent documentation of meeting outcomes, which undermines the effectiveness of these meetings. As a result, the structures currently in place are failing to support the Safety Management System (SMS) effectively. Furthermore, executive leadership is not receiving prioritized and actionable information on

¹⁹ Christian Milneil, "Gov. Healey Shakes up MBTA Board, Replacing Three Baker Nominees," Streetsblog Massachusetts, June 12, 2023, <https://mass.streetsblog.org/2023/04/21/gov-healey-shakes-up-mbta-board-replacing-three-baker-nominees>

safety risks, and decisions are often not based on documented safety data analysis. The investigation and assurance processes in place overlook important precursor factors to safety events, which is a critical lapse in proactively identifying and mitigating risks.

The Federal Transit Administration (FTA) also found that safety information from committee meetings is often not formally captured or followed up on, which is a significant flaw. The report also points out that the MBTA's documented operating and maintenance rules and procedures are not consistently put into practice. The lack of an adequate monitoring system to understand deviations from established standards further exacerbates the problem, leaving the organization vulnerable to unaddressed safety risks.

2.2 Inefficient Work Environment/Company Culture

The Federal Transit Administration's recent findings on the MBTA unveil a troubling insight into the operational inefficiencies and safety compromises littered in the company, largely due to workforce issues. The FTA's review indicates that the MBTA is grappling with substantial staffing shortages, inadequate training, worker fatigue, and insufficient workforce support; such challenges undermine the efficiency of MBTA operations.

A concern highlighted by the FTA is the significant gap in staffing levels. According to the FTA's report, MBTA's Transit Workforce Staffing Report by Department (budgeted vs. actual) for the fiscal year 2022 (beginning July 1, 2021) shows 5,554 active employees for 6,349 budgeted positions - a staffing gap of 795 positions or 12.5 percent.²⁰ This deficit is not just a

²⁰ Federal Transit Administration. Safety Management Inspection Report for MBTA and DPU. August 2022, https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-08/FTA-Safety-Management-Inspection-Report-for-MBTA-and-DPU_0.pdf. Pg 34

numerical shortfall but also a critical bottleneck that severely impacts the MBTA's capacity to maintain and operate effectively.

Deficiencies in the MBTA's training program further compound this situation. The report notes that "repairers on the Red Line have not yet attended training on the new CRRC railcars," a gap that directly affects the ability of workers to maintain the machinery properly to ensure operational safety.²¹ The lack of adequate training is a glaring oversight that poses risks not only to the effectiveness of maintenance work but also to the safety of both workers and passengers.

Moreover, the workforce is stretched thin across multiple demands, leading to significant overstretch and fatigue. Interviews revealed that "budgeted positions, which have increased under MBTA's current leadership team, do not reflect the true measure of required staff levels because they do not consider the additional responsibilities associated with capital project delivery."²² Furthermore, reliance on overtime to cover staff shortages, as noted in the report—"In some instances, required staff levels are calculated to rely on overtime to cover staff vacations and training"—suggests a precarious balancing act that may compromise safety and operational integrity.

The broader impact of these workforce issues on MBTA's safety culture is profound. The FTA warns, "Emphasizing capital project demands above passenger operations and preventive maintenance can negatively impact the safety culture of the agency."²³ This situation indicates a misalignment of priorities where critical maintenance and safety practices are sidelined in favor of advancing capital projects.

²¹ Ibid, p.35

²² Ibid, p.35

²³ Ibid, p.36

To add to the MBTA's operational shortcomings, Appendix C presents a stark visualization of the financial impact due to inefficient workplace practices. The trend of escalating overtime costs, as detailed in the "Back on Track" plan issued by Governor Baker in 2015, reveals a climb from \$37 million to an anticipated \$45 million over a three-year period.²⁴ This pattern not only reflects poor allocation of resources but also underscores a broader organizational malaise where essential training is neglected—such as the overdue training for Red Line repairers on new CRRC railcars. The resulting strain on the workforce leads to overstretch and fatigue, conditions that are further compounded by an over-reliance on overtime to compensate for their insufficient staffing levels. These issues are reflective of deep-seated misalignment of MBTA's priorities, where the push for capital project advancement overshadows the critical need for maintenance and safety.

The MBTA's operational challenges are further exacerbated by a high rate of absenteeism among its employees. The 'Back on Track' plan reveals that during the 2015 winter storm recovery period, 15% of all MBTA employees took at least one day of paid leave, and unplanned absences led to tens of thousands of bus trip cancellations.²⁵ Notably, the absence of a mandatory overtime policy, where overtime is voluntarily chosen by employees, results in a shortfall of workers, subsequently causing a reduction in service reliability and customer satisfaction. This trend of absenteeism not only affects daily operations but also incurs significant overtime costs, with 30% of the workforce—65% of which comprises heavy rail operators—taking unscheduled intermittent Family and Medical Leave, leading to disruptions in productivity. These absences

²⁴ Massachusetts Department of Transportation, Back on Track: Action Plan for Reforming the Transportation System, (April 8, 2015), Massachusetts Bay Transportation Authority, 2015.

²⁵ Ibid

highlight a critical management issue within the MBTA that extends beyond the financial implications to affect the overall service quality and reliability.

In line with the recommendations from the 'Back on Track' report, it is imperative for the MBTA to devise and implement strategies aimed at markedly reducing absenteeism rates. The report suggests combating abuses of the Family and Medical Leave Act (FMLA), worker's compensation, and other types of leave practices that contribute to the organization's liability. Benchmarking against other private and public-sector employers, the MBTA should also consider engaging third-party assistance to better manage this issue. The absence rates from the fiscal year 2014 data illuminate the scope of this problem: MBTA employees, on average, missed 57 working days per year, including vacation days, which is nearly three months of work or equivalent to working only four days a week. In extreme cases, this figure rose to as high as 74 days.²⁶ This level of absenteeism not only undermines the efficiency of the MBTA's operations but also places it in a stark contrast to the industry standard reported by the Bureau of Labor Statistics, which stands at about 3%, and the 5-6% reported by peer agencies. This data necessitates an urgent response to reconcile the gaps in attendance and productivity that are critical to the revitalization of the MBTA's workplace practices.

The "Safety Management Inspection – Final Report" on the MBTA, conducted by the Massachusetts Department of Public Utilities from April 14 to June 30, 2022, surfaced several critical issues within MBTA's operations that span across various facets of the organization. These issues are not isolated problems but interlinked deficiencies that collectively impact the MBTA's ability to provide safe, reliable, and efficient service.

²⁶ Ibid

A significant concern identified in the report relates to workforce and staffing. The MBTA has been operating with a workforce that is not proportionate to the demands of its operations, maintenance, and the additional workload imposed by capital project activities. The shortfall in staffing is compounded by the MBTA's insufficient organizational capacity to recruit and hire personnel, leaving critical positions unfilled and adding strain to the existing workforce. Moreover, the MBTA's safety engineering and safety certification process for capital projects is inadequately resourced, while the oversight of contractor work sites is insufficient, raising concerns about the quality and safety of the projects being conducted.

2.2.1 Union Local 589

The MBTA's tentative agreement with The Boston Carmen's Union Local 589, the largest labor organization in the United States, representing over 6,000 MBTA Union transit professionals, marks a progressive step toward resolving long-standing workforce issues. This new contract represents an assertive strategy by the Healey-Driscoll Administration, led by Governor Healey and Lieutenant Governor Driscoll, to counter the MBTA's staffing shortages and boost retention and recruitment. "These are opportunities that current T workers deserve and they will help us bring more workers into the workforce to meet the needs of our system now and going forward," Healey said.²⁷ It addresses past concerns such as fast worker turnover and competitive pay scales with wage increases, bonuses for long-term workers, and targeted adjustments for specific positions. Additionally, the contract includes improvements in parental leave, health benefits, and measures for worker protection, aiming to create a more robust support system for the workforce. These enhancements are poised to position the MBTA as an

²⁷ Andrea Perdomo-Hernandez, "The MBTA Reaches Agreement with Its Largest Workers' Union," WBUR News, August 3, 2023, <https://www.wbur.org/news/2023/08/02/mbta-labor-agreement>.

employer of choice within the transit industry, contributing to the goal of providing a safe and reliable public transit system and higher-quality service to all riders.

2.3 Misallocation of Funds

As the internal management within the MBTA encounters increasing sync issues, the agency's financial state echoes the instability of the entire organization. Since implementing the Forward Funding Initiative (2000), the MBTA has faced challenges trying to maintain and manage its funds effectively.²⁸ While fare revenues are falling short of covering the T's operational expenses, a significant portion of their operating budget is being used to pay off their debt. Furthermore, funds allocated for capital projects are being diverted towards filling in gaps in the operating budget. This current approach to financing operations is unsustainable, as the MBTA now relies on government subsidies as a fiscal backup. Despite these financial hardships, the MBTA continues to plan half-baked capital projects that widen the revenue-cost difference even further.²⁹ With the MBTA's reserves depleting at an alarming rate, this essential public transportation agency is in dire need of a long-term solution.

2.3.1 An Unsustainable Operating Budget

In 2000, the Massachusetts State Legislature made the decision to implement the "Forward Funding Initiative" to the T's funding structure. Before this policy was in place, the MBTA was primarily funded by the arrears of the state legislature. In other words, the T would operate to meet the demand needed to provide service, and the state would pay their expenses at

²⁸ Forward funding scenario - bureau of the fiscal service. Accessed April 26, 2024.
https://www.fiscal.treasury.gov/files/ussgl/approved_scenarios/forward-funding.pdf

²⁹ Ibid

the end of the year. However, with the new "Forward Funding Initiative," the agency would have to operate within the means of one penny from every state's sales tax. This new fiscal implementation required the T to more acutely balance their budgeting by assessing all their income and expense sources.³⁰ The policy was intended to make the MBTA more "lean and efficient"; however, projected sales tax revenue was severely miscalculated, falling short by 2% each year.³¹ Now, the MBTA faces a structural gap in the T's budget, and the agency has been desperately struggling to finance a growing debt and widening revenue gap.

2.3.2 The Failing Forward Funding Initiative

In addition to funding from sales tax, the "Forward Funding" deal shifted \$3.3 billion of government debt from previous public transit projects, such as the "Big Dig," onto the MBTA's debt books. Since then, the T has barely managed to sufficiently fund each fiscal year, taking any measures necessary to cut costs. Despite the T "selling off non essential assets and [refinancing] its debt," the agencies' actions continue to fall short of remedying their financial situation. Even with the Governor passing the "Transportation Reform," a policy that handed the state transportation agencies into MassDOT's hands, and increasing the sales tax to give the T an additional \$160 million each year, the T continues to face an uphill battle against their growing deficits.

³⁰ "History Lesson," A Better City, accessed April 25, 2024, <https://www.abettercity.org/news-and-events/blog/history-lesson>.

³¹ Ibid.

2.3.3 The Growing Revenue and Cost Disparity

As mentioned previously, prior to the "Forward Funding" deal, the state covered the bulk of MBTA's funding requests. Thirteen years after the initiative, the state returned to "[assuming] responsibility for funding MBTA operating deficits."³² The MBTA's reliance on state subsidies is an unreliable long-term predicament for the state of Massachusetts, yet the "MBTA would be insolvent" if not for these funds. Mounting operating costs are at the heart of the MBTA's growing expense gap, growing at twice the rate of inflation at a staggering 5.25% growth rate in 2015. That same year, revenue, not including contract assistance, fell short from covering expenses by \$295 million. In 2024, that gap is projected to expand to around \$531 million as seen in Appendix C.³³

When compared to other peer transit systems, the MBTA's operating costs are significantly higher due to a multitude of reasons. The National Transit Database has narrowed the issue into three categories: limited cost control, low labor productivity, and high maintenance costs. As one of the oldest operating systems in the country, the T's maintenance expense for its fleet is more expensive than every other transit system in the country, apart from Washington DC's metro system. The Red Line has undergone multiple maintenance efforts in the past, with the line still unable to function in "a state of good repair" as of mid-2024.³⁴ On the other hand, San Francisco's Bay Area Rapid Transit (BART) only encounters half of the total maintenance expense per vehicle compared to the MBTA. Although much of these maintenance costs can be

³² Massachusetts Department of Transportation, Back on Track: Action Plan for Reforming the Transportation System, (April 8, 2015), Massachusetts Bay Transportation Authority, 2015.

³³ Massachusetts Bay Transportation Authority FY24 Preliminary Itemized Budget, 2024.
<https://cdn.mbtta.com/sites/default/files/2023-06/FY24%20Itemized%20Budget.pdf>

³⁴ "2024 MBTA Red Line Closures," City Seal of Cambridge, accessed April 25, 2024,
<https://www.cambridgema.gov/streetsandtransportation/redlineclosures2024>.

attributed to Boston's harsh weather conditions, BART's strategic investments in modernization of infrastructure is also a crucial factor in minimizing operation costs.³⁵

While the MBTA's operating expenses build up, their revenue stagnates at an insufficient level. Due to legal restrictions, the MBTA revenue streams are capped at a level that severely suppresses their ability to generate money.³⁶ Under the mandates of "General Law - Part I, Title XXII, Chapter 161A, Section 9," municipalities within the MBTA jurisdiction are required to contribute a base amount to the State and Local Assistance Fund. The law states:

"Notwithstanding the provisions of any general or special law to the contrary, all cities and towns of the authority shall contribute to the Massachusetts Bay Transportation Authority State and Local Assistance Fund an amount in the aggregate not less than \$136,026,868 which, after fiscal year 2006, shall be adjusted each July 1 by the growth rate of the inflation index over the preceding 12 months; provided, that, after said fiscal year, in no case shall said assessment exceed 102.5 percent of the previous year's assessment."³⁷

The current legislative framework provides a stable foundation for budgeting through inflation adjustments, but prevents the MBTA from securing additional funding during times of significant economic growth. This limitation may restrict the agency's capacity to enhance and expand services in line with rising demands. Analysis indicates that under the existing model, the MBTA potentially missed out on approximately \$132.03 million in revenue from 2006 to 2022.

³⁵ Massachusetts Bay Transportation Authority, "MBTA Back on Track," MBTA, accessed April 23, 2024, <https://www.mbta.com/mbta-back-on-track>.

³⁶ Ibid

³⁷ Massachusetts General Laws, "The Massachusetts Bay Transportation Authority," Part I, Title XXII, Chapter 161A, Section 9, accessed April 25, 2024, <https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXXII/Chapter161A/Section9>.

A more responsive model to economic conditions will allow this captured revenue to be reinvested into MBTA infrastructure.

The coronavirus outbreak significantly tanked MBTA's growth rate in the subsequent years after 2020, with the agency struggling to reach back pre-pandemic revenue levels. In 2020, the MBTA had an operating revenue of \$808 million, but by 2024, that number shrunk to an inadequate \$500 million. Since then, the MBTA has struggled to stay afloat, slashing their capital budget in half and raising money through the issuance of parking revenue bonds.³⁸

Another concerning issue for the MBTA's fare revenue budget is their projections, which have been significantly overshot in the past years suggesting either out of touch or overly optimistic analysts. In 2023, the fare revenue was budgeted at \$474.3 million, but by the end of February 2023, the actual fare revenue was \$243.7 million.³⁹ A possible explanation for these inflated revenue projections are predicted ridership returns back to pre-pandemic levels. Unfortunately, ridership has plateaued as of fall 2021, and is projected to continue this way if MBTA authorities fail to address this issue of lacking ridership numbers.⁴⁰

One revenue stream that the MBTA should be able to depend on are passenger fares. But as of the 2024 fiscal year (FY 2024), the projected fare recovery ratio sat at an unimpressive 18.7%, a longshot from the 42.8% in FY 2018 and 42.7% in FY 2019. Although additional fare hikes were implemented throughout the years, every additional cent added to fares fluctuates ridership levels. Andrew Bagely, the vice president of policy and research at the Massachusetts Taxpayers Foundation stated, "Fare hikes are so unpopular that we would see five to seven years

³⁸ "History Lesson," A Better City, accessed April 25, 2024, <https://www.abettercity.org/news-and-events/blog/history-lesson>.

³⁹ Ibid

⁴⁰ MBTA Advisory Board Operating Budget Oversight Committee, MBTA FY24 Operating Budget Oversight Report, published May 16, 2023, p. 14

transpire before there was agreement on the fare hikes, and some of those were substantial." With that said, the MBTA's reliance on subsidies to cover for an inadequate fare recovery ratio remains a pressing issue, with Bagley stating that "the state needs to find a revenue stream for the MBTA that is substantial and grows at least 3 percent a year."⁴¹ In light of this, metrics concerning the fare recovery ratio also suggest a potential solution that would involve altering the passenger fares system.

2.3.4 The Debt Issue

In 2000, the state shifted \$3.3 billion of debt onto the T's records. Since then, the MBTA has taken multiple actions to mitigate this ballooning debt, from shrinking their workforce to moving administrative workers around. However, these moves were incapable of preventing further inflation of the total debt, reaching \$5.36 billion in 2022. At the same time, a portion of this debt is attributed to the state's Big Dig Debt from their "Forward Funding" initiative, most of this debt is accumulated from loans needed to fund capital necessities. The MBTA is currently paying off 21.9% of this debt through operating budgets and plans to do so in the following years. However the frequent restructuring of their debt payment methods has made it hard for the MBTA to borrow money from the government. With that said, the MBTA has recently decided to continue borrowing additional funds despite the fact that it will continue escalating their debt into an uncontrollable amount. Even more concerning, "if the MBTA [does] not borrow another dollar from the end of June 2022 until 2053, the interest on this debt would cost it an estimated \$2.26 billion in interest, for a total cost of \$7.62 billion."

⁴¹ Bruce Mohl, "MBTA: What Went Wrong and How to Fix It," Commonwealth Beacon, October 19, 2022, <https://commonwealthbeacon.org/transportation/mbta-what-went-wrong-and-how-to-fix-it/>.

2.4 Misfunded Capital Programs

As funds are being drawn from operating expenses to cover the MBTA's increasing debt, funds are also being siphoned from capital programs to cover the gap in their operating budget. Since the "Forward Funding" initiative, there has been chronic underinvestment in MBTA infrastructure, ranging from the subway fleets to their internal systems. Funds intended for these capital projects are going elsewhere, such as \$66.5 million being reallocated to 444 salaries in 2015. Despite the already crippled capital funds, estimated costs for projected plans are still being unrealistically budgeted. Inexperience in public transportation projects and poor financial planning caused several million-dollar projects to veer off into multi-billion-dollar ventures. These plans either end up depleting most of the MBTA's capital funds or snowball into a shutdown, both of which are undesirable results.

2.4.1 Misallocated Funds for Operation Expenses

Between 2020 and 2024, only around half of the planned capital funding pool was actually spent. With funds reallocated from the capital budget towards other sources, the quality of maintenance and construction has significantly deteriorated. From an already alarming \$6.7 billion in outstanding maintenance and modernization in 2015 to \$10 billion in 2019 to now nearly \$25 billion in 2024, the MBTA faces a hefty price tag to reach a state of good repair. Furthermore, undocumented incidents and failures potentially hide the fact that this number is even larger than reported. Due to years of chronic underinvestment, infrastructure is "aging faster than they're being replaced," ramping up the potential cost of maintenance repairs in the future.

Although capital funds are being drawn to fund operating expenses, the MBTA occasionally reverses this relationship, creating a complex web of mismanaged funds. In FY 2024, a decision was made to "transfer \$181 million from the operating budget to the capital budget." In order to cover this amount, the state had to transfer another \$261 million in subsidies towards the operating budget. MBTA advisories have continued to pressure the agency to separate these budgets and ensure they stay independent from one another.

2.4.2 Poor Financial Planning and Execution

Not only has the MBTA struggled to finance its capital projects, but these projects continue to overshoot past their intended budget limit. Inexperience with proper infrastructure development is often the blame for over-expenditure on capital projects. The Green Line Extension (GLX) is a perfect example of the MBTA's inefficient project development. Originally beginning construction in 2012, the project aimed to extend light rails from Cambridge to Boston's northern suburbs. Although the original estimated cost was \$500 million, the project was temporarily canceled in 2015 due to an estimated final price tag of \$3 billion. Research points to multiple confluence of factors that caused this inflation in price. Eric Goldwyn, a researcher for New York University transportation and land use, defined the situation as a "death by a thousand paper cuts." The GLX's failures can be narrowed into three categories: over-design, inefficient project management, and misaligned politics. In hindsight, one of the project managers stated, "We could have been stronger at holding the line on some stuff." As of December 2022, the project has been completed with an estimated cost of \$2.3 billion, including the sunk costs that came as a byproduct of the MBTA's inexperience.⁴²

⁴² Bruce Mohl, "MBTA: What Went Wrong and How to Fix It," Commonwealth Beacon, October 19, 2022, <https://commonwealthbeacon.org/transportation/mbta-what-went-wrong-and-how-to-fix-it/>.

2.5 Past Attempts at Rectifying the MBTA

The winter of 2015 exposed major technical issues within the MBTA: chronic underinvestment in infrastructure, unsustainable operating budget, project delivery bottlenecks, ineffective workplace practices, and a lack of long-term vision and accountability. The MBTA holds the responsibility of serving millions of residents in the Greater Boston area, and its failures feed into the MBTA's struggle to meet the evolving needs of its ridership. In light of these failures, the Massachusetts State Legislature introduced two new transportation bills: H.3347 and H.3613. These bills were aimed at reforming the MBTA's operations in response to the severe disruptions experienced during the winter of that year. Back on Track, written with Governor Baker, stated that the MBTA "was never designed or constructed to withstand extreme weather events." In response, Governor Charlie Baker started his plan to form a transit-reform commission.⁴³ After gathering a special panel to review the finances and operations of the organization, they concluded that the MBTA suffered from "deep-rooted problems" that must be addressed urgently. The Panel's report highlighted some key findings: the MBTA's operating budget is not balanced, the subsidies it receives are not sustainable, and there is a need for over \$6.7 billion in maintenance and modernization projects. It emphasized the importance of addressing governance issues and organizational inefficiencies to ensure the MBTA's long-term sustainability.⁴⁴

⁴³Ibid

⁴⁴Fiscal & Management Control Board, 2015.

<https://cdn.mbtta.com/sites/default/files/2019-12/2019-12-09-fmcb-B-safety-review-panel-final-report-accessible.pdf>

2.5.1 Bill H.3347: An Act for a Reliable, Sustainable Massachusetts Bay Transit Authority

Bill H.3347, subtitled "An Act for a Reliable, Sustainable Massachusetts Bay Transit Authority," included a "comprehensive overhaul of the MBTA system, including the creation of a Fiscal and Management Control Board (FMCB) for the MBTA recovery and reform." The FMCB would consist of five appointees by the Governor to "establish fiscal stability" and "improve management" for the MBTA. It sought to balance financial inequities by separating operating and capital budgets (the FMCB would prepare 1 and 5-year operating budgets and 5 and 20-year capital plans). This gave the FMCB the power to impose demanding performance standards, reorganize departments, review and amend service contracts, and adjust fares or fees as needed. This bill inherently bolstered governance by making it clear that the MBTA's board was ultimately responsible to the executive branch and legislature – since taxpayers fund more than half of the authority's operating budget.⁴⁵

2.5.2 Bill H.3613: Complementing Bill H.3347

Bill H.3613 is a complementary bill to H.3347, aiming more specifically at the MBTA's governance structure. It would expand the powers of the FMCB over MBTA's governance and management to foster higher levels of transparency and accountability. More specifically, the bill would have authorized the creation of an Enterprise Fund that could allow the MBTA to generate additional revenues if specific projects are approved to support the construction and maintenance of the transit system and, thus, a more sustainable source of income.⁴⁶ Additionally, the bill provided MassDOT's board of directors with a structure that included more members to ensure

⁴⁵ Massachusetts House of Representatives, "H.3347, An Act to Establish a Fiscal and Management Control Board," 2015.

⁴⁶ Massachusetts House of Representatives, "H.3613, An Act for a Reliable, Sustainable Massachusetts Bay Transportation Authority," 2015.

greater diversity and expertise so that more voices and knowledge could be applied to MBTA governance, contributing to better decision-making and strategic planning.⁴⁷

2.5.3 Anticipated Outcomes and Impact

These initiatives focused on long-term planning, performance metrics, and transparency to provide the MBTA with a more definitive answer for the public and stakeholders. With new governance and organizational structures, it would improve service quality, lower costs, and more customer-oriented public transit. The Special Panel clarified to the public that the MBTA suffers from deep structural problems that require urgent reforms. Collectively, the two bills represent a necessary first step toward restoring public confidence in the MBTA and actively delivering a reliable and sustainable transit system for the people of Massachusetts.

2.5.4 The Fiscal and Management Control Board (FMCB) and Board of Directors

Diving deeper into the FMCB's reports reveals one of their key commitments: establishing the Safety Review Panel to examine the safety culture at the MBTA. Composed of three nationally recognized safety experts, the panel was tasked with offering recommendations, complete with cost estimates and projected timelines for full implementation.⁴⁸ During FMCB's term, significant strides were made in addressing key issues and taking action. The core issues the FMCB sought to address were as listed:

⁴⁷Massachusetts House of Representatives, "H.3613, An Act for a Reliable, Sustainable Massachusetts Bay Transportation Authority," 2015.

⁴⁸ Mitchell, Jack, and Amy Gorel. "Timeline: Safety Incidents on the MBTA." WBUR News, September 26, 2022. <https://www.wbur.org/news/2022/08/09/mbta-timeline-safety-incidents>.

Unsustainable operating budget, Underinvestment in infrastructure, Difficulty completing projects, Ineffective workplace practices, Lack of long-term vision and strategy, Leadership changes and staffing issues, Lack of customer focus, Inefficient contracting, Lack of accountability to the Governor and Legislature.⁴⁹

After exploring FMCB's initiatives, we have found that they have made moderate progress for almost all initiatives, especially on the new Green Line vehicles. In the first two years of FMCB overseeing the T, they were able to reduce the forecast operating deficit by \$300 million. They made smart investments for the T's future and started major projects during their term to improve customer experience. This includes \$100 million in winter resiliency improvements, replacement of Red Line cars, and a reset of operations for the Green Line Extension project through \$600 million in value engineering with a new management team. Keep the MBTA On Track is another testament of FMCB's attitude on addressing the issues that the MBTA faces. The following report states:

Status updates on key FMCB initiatives and offers recommendations for making continued progress toward implementing some of the FMCB's most consequential commitments. This analysis is designed to be a useful resource for the MBTA Board of Directors, T leadership, and city and regional stakeholders, with the goal of keeping the MBTA on track. If the current Board and staff take action to follow through on the work of the FMCB, the MBTA will be better positioned to serve the needs of current and future riders and to support equitable economic growth.⁵⁰

⁴⁹ Fiscal & Management Control Board, 2015. <https://cdn.mbtta.com/sites/default/files/2019-12/2019-12-09-fmcb-B-safety-review-panel-final-report-accessible.pdf>

⁵⁰ A Better City. Keeping the MBTA on track:, April 2022. <https://www.abettercity.org/assets/images/Keeping-MBTA-On-Track-Final.pdf>.

This included stabilizing the MBTA's finances, initiating infrastructure investments, improving project management, and enhancing operational efficiency. They achieved financial stabilization through reducing the forecast operating deficit by \$300 million and modernization efforts by introducing innovative pilot programs like the first-in-nation paratransit on-demand service with Uber and Lyft. However, their work is still not done, including incomplete infrastructure upgrades, ongoing workplace issues, and the need for sustained long-term vision and accountability.

The FMCB's term expired in 2021, resulting in the necessary action of appointing new leadership. Their progress to keep the MBTA on track, still serves as a guide for leadership within the MBTA Board. During October 2021, a new MBTA Board of Directors took office consisting of 9 members. They, inheriting the initiatives set forth by the FMCB, also inherited previous Vice-Chair: Monica Tibbits-Nutt who now serves as MassDOT Secretary and CEO. With the rest of the board of directors, they work together to enforce these specific practices:

Workplace Practices: Despite improvements, ongoing efforts are required to sustain effective workplace practices and address any lingering issues with absenteeism or inefficiency. Customer Focus: ensuring a customer-oriented approach in all aspects of operations remains critical to improving rider satisfaction and loyalty. Accountability and Governance: continued efforts are necessary to enhance accountability to stakeholders and ensure effective governance structures are in place.⁵¹

The transition was bumpy, leading to a delayed start in finishing previous initiatives. Projects consistently ran late and over budget, while the MBTA failed to meet service reliability and safety benchmarks. This rough start has prevented the board from gaining the respect of the

⁵¹ MBTA. "Financial Management and Control Board (FMCB)." Massachusetts Bay Transportation Authority. Accessed 24 April, 2024 <https://www.mbta.com/leadership/fmcb>

governor and legislature, who remain frustrated by the board's apparent lack of capacity or will to solve critical issues that continue to hinder MBTA performance. Despite these challenges, their dedication remains visible as they stay committed to focusing on the principles of safety, service, and customer experience.

2.5.5 Bill H.3452 - Straus and Railway

Bill H.3452, sponsored by Representative William M. Straus of Mattapoisett, proposes transportation safety reform within the MBTA. The bill, titled "An Act relative to transportation safety reform within the MBTA," mandates the transfer of commuter rail operations, assets, and exclusive operator status from the MBTA to the rail and transit division of the Massachusetts Department of Transportation, thereby relieving the MBTA of this responsibility. The bill clearly distinguishes between passenger rail and commuter rail, separating commuter rail operations from the MBTA.⁵² The following from Bill H.3452 reads:

"Passenger rail", transportation of passengers by rail between metropolitan areas within the commonwealth, not including commuter rail. Passenger rail shall not include heavy rail and light rail rapid transit services provided by the Massachusetts Bay Transportation Authority. (b) The Massachusetts Bay Transportation Authority shall assign and transfer to the rail and transit division of the Massachusetts Department of Transportation all rights, title, interests, and obligations in the operating agreement with Keolis Commuter Services to provide commuter rail service.

⁵²Massachusetts House of Representatives. "Bill H.3452, An Act to Promote and Advance the Careers of Environmental Professionals." 193rd General Court, 2023. Accessed April 23, 2024. <https://malegislature.gov/Bills/193/HD3315>.

By transferring all rights of the Commuter Rail from the MBTA to MassDOT, Bill H.3452 is in favor of MBTA, for it reduces the burden and responsibility of managing commuter rail operations. This transfer of authority allows the MBTA to focus more efficiently on its core functions, specifically subway services while ensuring that commuter rail services continue to operate effectively under the oversight of the rail and transit division of MassDOT. Additionally, the bill clarifies the distinction between passenger rail and commuter rail, clearly delineating responsibilities and operations within the transportation system. Overall, Bill H.3452 aims to streamline operations, enhance safety measures, and improve the overall efficiency of the MBTA. Bill H.3452 also mentions transferring Keolis, a private French company, offering a variety of services and transferring operations under the oversight of the rail and transit division of MassDOT. Keolis has full control over the operations of the commuter rail. However, it has also cost the MBTA millions each year to maintain their partnership, even though Keolis is only meant for commuter railways. To reiterate the previous statement: MBTA will give up all operations regarding Keolis and commuter rail, relieving many financial burdens. The Senate has concurred that the bill should proceed to the next stage of the legislative process or be sent to the governor for approval.⁵³

2.6 MBTA's History with Privatization

When faced with financial difficulties, many public companies, including transportation agencies like the MBTA, often explore and consider privatization as a solution. The idea of privatization may seem perfect at first glance. However, many fail to consider the fundamental difference between public and private. Initially, privatization may seem like an appealing

⁵³IbidMassachusetts House of Representatives. "Bill H.3452, An Act to Promote and Advance the Careers of Environmental Professionals." 193rd General Court, 2023. Accessed April 23, 2024. <https://malegislature.gov/Bills/193/HD3315>.

alternative, with advocates suggesting it would relieve public administrators from daily operational tasks, providing them more time to focus on core functions and future planning. Proponents also argue that privatization will bring in new systems to renew existing programs while securing long-term funding.⁵⁴ However, what remains to be unaddressed is the substantial cost differentials, reductions in workers' wages and benefits, and a tendency to cut corners to maximize profits. This can manifest in various ways,"— perhaps hiring inexperienced workers at low wages and benefits, providing inadequate training and supervision, or skimping on services."⁵⁵ Moreover, privatization efforts frequently target unions, aiming to weaken their influence and bargaining power.

The Massachusetts Bay Transportation Authority (MBTA) encountered significant hurdles again in its attempt to involve private companies in the Green Line Extension project in 2017. Initially seeking private partners to assist with financing and construction, the MBTA faced resistance from labor unions and concerns about accountability and transparency. Ultimately, the privatization effort failed to materialize, highlighting the difficulties of implementing public-private partnerships (PPPs) in the transportation sector. The MBTA's experience underscores the importance of carefully evaluating the tradeoffs associated with privatization and considering alternative financing and procurement models.

Profit is an essential motivation, these companies will operate with a primary goal of profitability, which may not always align with the public interest. Advocates against privatization believe that public goods and services should remain primarily in the hands of the government to ensure equal access for everyone. Privatization, in essence, risks turning a blind eye to the

⁵⁴ Brownsberger, Will. "Privatization and the MBTA." Will Brownsberger State Senator, July 13, 2015. <https://willbrownsberger.com/privatization-and-the-mbta/>

⁵⁵ Powers, Martine. "French Firm Keolis Wins Commuter Rail Contract - The Boston Globe." BostonGlobe.com, January 8, 2014.

public's needs in favor of profit-driven agendas. The MBTA, especially as a public transportation service, is designed to serve the needs of the community, prioritizing accessibility and quality of service over profit margins. The decision to privatize should not be based solely on financial considerations; it is crucial to also take into account the social and environmental consequences.

2.6.1 Pacheco Law: Restrictions on Privatization

Enacted in 1977, the Pacheco Law, also known as the Massachusetts Taxpayer Protection Act, mandated a rigorous assessment of privatization proposals by the Office of the State Auditor (OSA). These proposals, made by state agencies and applicable state authorities, sought to privatize services that are traditionally run and performed by public employees.⁵⁶ To gain approval, state agencies, including the MBTA, had to demonstrate that turning private would anticipate cost savings while maintaining or enhancing service quality. Furthermore, State agencies had to verify that the selected private contractor would adhere to state regulations and ensure adequate wages and benefits for employees. Following operational setbacks in 2015, the MBTA faced mounting pressure to improve performance and cost efficiency.⁵⁷ A recommendation was proposed to exempt the MBTA from the Pacheco Law to enable partial privatization. However, after assessing the MBTA's financial status, subsequent analysis revealed that the MBTA was unable to meet the requirements listed by the Pacheco Law. The Pacheco Law and the MBTA's operations have been proven to be incompatible, leading to challenges in implementing privatization efforts, eventually resulting in its failure to privatize.

⁵⁶ Sullivan, Greg. Adverse effects of the Pacheco Law on the MBTA - Pioneer Institute, 2014.
https://pioneerinstitute.org/wp-content/uploads/dlm_uploads/Pacheco-Report.pdf

⁵⁷ Sullivan, Greg. "The Pacheco Law Has Cost the MBTA More than \$450 Million - Here's the Evidence.: Better Government Latest News." Pioneer Institute, July 1, 2020.
<https://pioneerinstitute.org/pioneer-research/better-government/the-pacheco-law-has-cost-the-mbta-more-than-450-million-heres-the-evidence/>

2.6.2 Keolis: Privitization's Effect on Labor Wages

Nevertheless, the idea of going private to secure financial stability still lingers. The theme here is believing that relying on the private sector to control operations and finances for public services will help with efficiency and budget squeezes.⁵⁸ In 2014, MBTA General Manager Beverly Scott endorsed Keolis as the winning bidder following a two-hour public comment session. State officials later disclosed the contract's cost: \$2.68 billion over eight years with the potential for an additional two two-year extensions, bringing the total to \$4.3 billion. The Massachusetts Department of Transportation's board of directors unanimously voted to accept the T's recommendation allowing Keolis, a French rail company, to take over the operation of the state's commuter rail system — winning the state's largest operating contract in history.⁵⁹ Currently Keolis, after working for the MBTA commuter rail for years, is on its way to be governed under new management by the Massachusetts Department of Transportation.

On March 28th, 2024, during the MBTA's Board of Directors meeting, Jonathan Clark, the president of Local 318 Boston, once again raised concerns regarding labor conditions and wages of the workers employed by Keolis. Representing the employees and a coalition of unions, Clark emphasized the urgent need for better wages and improved employee benefits.⁶⁰ He pointed out the distressing reality that current wages are so insufficient, that many workers qualify for government assistance programs like SNAP benefits and government housing. Clark's remarks highlighted that despite being employed, workers are struggling to make ends meet. He brought these concerns directly with Keolis to bargain and negotiate for higher wages and better

⁵⁸ Gurley, Gabrielle. "Charlie and the MBTA." The American Prospect, July 19, 2017.

<https://prospect.org/labor/charlie-mbta/>

⁵⁹Ibid

⁶⁰ MBTA Board of Directors, "Minutes from the March 28th Board Meeting," MBTA, 2024.

employee benefits.⁶¹ His comment drew attention to a core issue with private companies: prioritizing profits over the well-being of workers, where wages are relegated to a secondary concern.

Additionally, Tom Ryan, representing A Better City, echoed Clark's concerns by emphasizing the broader financial challenges facing the MBTA: increased government funding and how the MBTA is facing significant challenges in operating and capital. Working with Governor Baker, Tom informed the board of Governor Baker's proposal to increase state funding for the MBTA budget. Without sustainable funding, their ability to provide quality service and invest in necessary infrastructure upgrades is interrupted. Keolis's contract, scheduled to expire in June 2026, has prompted the Board of Directors to consider specific requirements when selecting a new company to manage the commuter rail system. Keolis served as an example of how partial privatization has also failed, highlighting the limitations of relying solely on the operations of a private company. Seeing Keolis in action, we can conclude that the MBTA's expectations of turning to privatization alone won't address the authority's persistent issues.⁶²

2.6.3 Brink's Incorporated: Privatization's Effect on the Public

The constant push for privatization has left the public far from speechless. In 2016, The MBTA Fiscal and Management Control Board (FMCB) approved yet another contract with a private company: a two-year, \$7.7 million contract to Brink's Incorporated to outsource its cash collection and money-counting operations which had previously been handled internally by the MBTA. While projected to save the agency around \$5.4 million annually, concerns are arising regarding repercussions for workers, particularly their wages and benefits: viewing it as a threat

⁶¹ MBTA Board of Directors, "Minutes from the March 28th Board Meeting," MBTA, 2024.

⁶² Ibid

to worker rights and advocating for legislative intervention. State, Federal, and Boston Lawmakers rallied along with union leaders at Faneuil Hall to demand legislative action against privatization.⁶³ In October 2016, the public expressed opposition to outsourcing the MBTA operations to private entities like Brink's. Historical precedents also illustrate the pitfalls of privatization for the MBT. For instance, the collapse of private railway companies in the 1930s and 1940s resulted in the establishment of publicly funded organizations, such as the Metropolitan Transit Authority in Boston. From history, we've learned that public cooperation in transportation infrastructure is necessary for success. The challenge of modern transportation lies in finding a balance between the convenience of private vehicles and the efficiency of shared transportation. Again, despite potential short-term financial benefits, privatization for public transportation carries inherent risks, not only compromising the public's interests but also leaving behind bigger problems.

2.7 International and Domestic Case Studies

In past decades, many cities have experienced significant challenges in improving the quality and efficiency of their transit systems, turning to privatization. This section explores some of these ventures and analyzes the success of privatizing transit systems overseas using the case studies of Hong Kong and Stockholm. We will also examine the challenges and drawbacks associated with privatization, focusing specifically on the DC Circulator in Washington, D.C. By analyzing these cases, we aim to shed light on the complexities and risks involved in privatizing essential public services, particularly in the realm of transportation.

⁶³ Vantuono, William C. "MBTA Cashes in with Brink's." *Railway Age*, February 9, 2018. <https://www.railwayage.com/passenger/commuterregional/mbta-2/>

2.7.1 Hong Kong: The Mass Transit Railway (MTR)

One of the best examples of successful privatization is the Mass Transit Railway (MTR) in Hong Kong. The Hong Kong government has a 75% stake, while the MTR Corporation privately owns the rest.⁶⁴ Ever since it began operations in the early 1980s, the MTR has been profitable, becoming one of the leading passenger railway operators in the world. As a transport infrastructure, it has won worldwide acclaim for its high level of efficiency, reliability, and the quality of customer service it provides.

As passenger demands have risen and the system needs expansion, more investment capital is required. The MTR Corporation innovated the "Rail Plus Property" business model, meaning they are involved in residential and commercial development projects above and around MTR stations to create revenue streams.⁶⁵ "The model gives us the incentive to make good use of the land. If we design well, plan well and build well, then we get that increase in value," says Jacob Kam, CEO of MTR Corporation.⁶⁶ The government-backed corporation tied the subway system with urban development by building on the land value. In this way, the quasi-public relationship has funded ongoing system expansion and improvement on its account.

2.7.2 Sweden: The Stockholm Metro

Another successful case is the Stockholm Metro, a metro administration provided with a public-private partnership. The Stockholm County Council owns the well-developed infrastructure, whereas the MTR Corporation manages the operations and maintenance. The Stockholm Metro has proved successful thanks to the synergy between the public and private

⁶⁴ Matthew Keegan, "How Public Transport Actually Turns a Profit in Hong Kong," The Guardian, March 19, 2019, <https://www.theguardian.com/cities/2019/mar/19/how-public-transport-actually-turns-a-profit-in-hong-kong>.

⁶⁵ Ibid

⁶⁶ Ibid

sectors. It benefits from a 100-station infrastructure, of which 47% are underground and 53% aboveground, with a massive investment in maintenance and expansion.⁶⁷ At the same time, service quality and operational efficiency have been improving because of the private operator.

Despite the Stockholm Metro's popularity, expanding its network and capacity to accommodate growing demand took a lot of work. To overcome these problems, the Swedish government incentivized private investment in the system. The national government and the state-owned MTR Corporation overcome these challenges by establishing a clear goal direction and open communication.

Privatization of transit systems has been successful overseas in many different continents, as demonstrated by case studies from Hong Kong and Stockholm. The transition to private management has brought about the synergy between the two spheres and has maintained or improved service quality and operational efficiency, which also allowed for capital expansion and development. Although these systems are successful in these cities, they are not perfect. They all encounter challenges that can be resolved with an adequate communications channel and proper regulatory frameworks. The case studies offer models for dealing with large transit projects and for cities to consider before privatizing their transit systems.

2.7.3 Washington, DC: The Washington Metro

Despite instances of successful privatization efforts overseas, the implementation of similar strategies in the United States has faced substantial criticism and opposition. In Washington, D.C. The DC Circulator has grappled with the consequences of privatization

⁶⁷ Soumela Peftitsi, Erik Jenelius, and Oded Cats, "Determinants of Passengers' Metro Car Choice Revealed through Automated Data Sources: A Stockholm Case Study," *Transportmetrica A: Transport Science* 16, no. 3 (January 1, 2020): 529–49, <https://doi.org/10.1080/23249935.2020.1720040>.

initiatives.⁶⁸ Efforts to privatize certain services, such as bus maintenance and paratransit operations, have resulted in increased costs, reduced efficiency, and worsened service quality for commuters.⁶⁹ The shift towards privatization has been criticized by stakeholders, including transit advocates and labor unions, who have raised concerns about accountability, transparency, and prioritizing profit over public service. The challenges faced by the Washington, D.C. transit system serve as a cautionary tale about the potential pitfalls of privatization in the context of the United States.

The example of Washington, D.C. illustrates why privatizing public transit could be a non-starter in the United States. Privatization, though touted for its potential to reduce costs and enhance efficiency, more often leads to issues such as deteriorating service quality, infringement of worker rights, and escalating financial instability. These prevalent outcomes underscore that the risks of privatizing public transit far exceed any potential benefits. Therefore, it is imperative for policymakers and transit agencies to acknowledge that the American context—with its unique socio-economic and regulatory environments—renders privatization a fundamentally flawed strategy. Protecting the long-term interests of commuters, workers, and the broader public should be the guiding principle, firmly ruling out privatization as a viable approach in the U.S.

⁶⁸Michael Sainato, “Public Transit System in Washington DC Struggles with Privatization,” The Guardian, December 15, 2018, <https://www.theguardian.com/us-news/2018/dec/15/public-transit-system-in-washington-dc-struggles-with-privatization>.

⁶⁹ Ibid

3. The Recommendation: The "Transforming the T" Policy

Finding a “one-size fits all solution” for an agency the size of the MBTA is nearly impossible.⁷⁰ As Brian Kane, a Budget and Policy Analyst at the MBTA, described, “the MBTA has been born-broke.”⁷¹ As a public transportation agency in a car-centric country, many previously proposed solutions are either ineffective or unrealistic due to the agency being capped by a multitude of laws.

The Transit Policy Reform Group proposes a holistic approach to reforming the MBTA’s management, technology and finance, aiming to enhance service and operations. A core component of this proposal is to reform the Board of Directors by establishing a detailed set of criteria for board membership. Additionally, the group also recommends the implementation of Kronos HR management software to modernize human resources capabilities to support hiring, performance management, and attendance monitoring. In order to eliminate financial and operational inefficiencies, the creation of a "firewall agency" is another recommendation to separate capital and operational budgets. This would prevent the misallocation of funds and ensure that the financial resources necessary to make long-term investments is not compromised by operational needs. Furthermore, the proposal calls for creative financial strategies such as dynamic pricing to make the system more affordable while maintaining revenue adequacy, and a reallocation of debt to reduce the burden on the MBTA’s operating budget. Together, these measures would help the city develop a more dependable, pleasant, and fiscally sound public transportation system for Boston.

⁷⁰ MBTA Advisory Board, *Born Broke*, March 2009. Draft report, p 16

⁷¹ Ibid

3.1 Regulating the Board of Directors

As of 2024, although significant progress has been made, challenges still remain for the new Board of Directors to address. Phillip Eng has already begun fixing long standing issues including building trust with riders and fixing infrastructure.⁷² While the efficacy of the MBTA's Board of Directors may look promising in the following years, backed by our own group's visits to recent Board meetings, a progressive Board of Directors may not always be in authority. As mentioned earlier, previous Board of Director members have slowed or even regressed progress within the agency. The success of the MBTA hinges on their ability to overcome obstacles with a collective working mindset; hence, we hope to address these challenges with a newly proposed solution for regulating Board of Director members.

The issue with the Board of Directors lies in the system through which they are appointed. There are no definitive measures in place for the Governor to properly assess the qualifications of the individuals he appoints. Apart from recommendations about candidates, a Governor has no basis to appoint the most powerful people in the MBTA. A future Governor may be coerced to appointing an ill-intentioned robber baron. With that said, although Governor Baker does seem to have the best intentions in mind for the MBTA, our following regulations will help streamline the appointing process of Board members to be more efficient and effective.

We, Transit Policy Reform Group (TPRG), have come up with specific regulations and criteria to assess potential candidates to mirror the level of expertise that the current Board of Directors already have. These requirements include:

⁷² "Philip Eng." MBTA. Accessed April 25, 2024. <https://www.mbta.com/people/philip-eng>.

Professional Experience: The candidate must have a minimum of 10 years of relevant experience in fields such as transportation, finance, engineering, public administration, or law. They must demonstrate expertise in areas critical to the MBTA's operations and governance.

Educational Background: The candidate must have attained an advanced degree in a relevant field. Preferred fields include, business administration, public policy, transportation planning, or engineering. They must have a proven track record of effective leadership and management in large organizations or public agencies, such as overseeing complex projects, budgets, and personnel.

Recommendation from the Advisory Board: The candidate must be recommended by the MBTA Advisory Board. As the Advisory Board is an independent agency from the MBTA, how the Advisory Board chooses to recommend candidates is at their discretion. We believe that the Advisory Board should approve each candidate within each of their committees to ensure a well-rounded and accountable potential board member.

Recommendation from the Board: The candidate must be recommended by at least one current MBTA Board of Directors member. This recommendation will work to ensure continuation of progress, an issue that the MBTA has faced multiple times in the past.

These regulations should be implemented after the terms of the current board of directors. The Governor will begin looking for potential candidates 1.5 years before a member's term ends. The appointment process will take approximately half a year, with new board members being selected a year before their term begins. During this time, the future board members will shadow currently appointed board members, equipping them with a general understanding of the tasks and responsibilities of being a MBTA Board of Director.

3.2 Implementing a HR Management Software: Kronos

The Federal Transit Administration (FTA) conducted a Safety Management Inspection of the MBTA from April 14 to June 30, 2022. This inspection aimed to analyze different aspects of safety and operations within the MBTA. The FTA identified a few key issues, including staffing shortages, a lack of a culture of performance management and accountability, a backlog of maintenance work, and delayed track maintenance.⁷³

Implementing HR management software to oversee and track employees can significantly mitigate staffing shortages, enhance performance management, and curb excessive absenteeism within the MBTA. By utilizing this software, HR departments gain access to comprehensive data and analytics, enabling them to proactively identify staffing gaps. Streamlined recruitment and onboarding processes facilitated by the software expedite the hiring of qualified candidates, ensuring optimal staffing levels. Moreover, performance management functionalities enable supervisors to set clear objectives, provide consistent feedback, and monitor employee progress effectively, thus improving overall productivity. Additionally, the software's attendance tracking features help HR teams identify patterns of absenteeism and promptly address underlying issues, whether through accommodations or interventions. Overall, leveraging HR management software empowers organizations to optimize workforce management practices, fostering a more efficient and productive work environment.

The price of implementing software such as Kronos or UKG Workforce Ready is broken down into time clock rental costs of \$100 per month, a one-time setup cost of \$500 and \$4 per employee, a monthly cost of \$40 and \$3.80 per employee, and \$25 per month for additional

⁷³ Federal Transit Administration (FTA). Safety Management Inspection: Final Report for Massachusetts Bay Transportation Authority and Massachusetts Department of Public Utilities (April 14 to June 30, 2022). U.S. Department of Transportation, August 31, 2022.

features (prices may vary from seller to seller). The MBTA currently has around 7800 employees, meaning it will cost them approximately \$64,000.

3.3 Removing Local Assessments Regulations

To better align municipal contributions with their economic realities, a proposed hybrid model provides a responsive solution to the revenue limitations faced by the MBTA, which are currently restricted by a cap that prevents initial contributions from increasing by more than 2.5% annually. This model retains the initial contribution of \$136,026,868, adjusted for inflation as a baseline. It further introduces a mechanism to increase contributions based on real GDP growth, addressing periods of economic prosperity more effectively. Specifically, if real GDP growth exceeds the inflation-adjusted baseline, municipal contributions could rise by an additional percentage—half of the excess GDP growth—capped at a total annual increase of no more than 5%. This proposed model ensures that contributions keep pace with inflation and dynamically respond to genuine economic growth, thus reflecting more accurately the financial health of the municipalities as seen in Appendix D.

3.4 The Firewall System: Separating the Operating and Capital Budget

The MBTA has been chronically underinvesting in capital. In response, creating a "firewall" agency between operating and capital budgets should prevent the continuation of underinvested capital. Among numerous potentially helpful reforms, the firewall separates funds in a clear and meaningful manner, making sure money for long-term capital investment is not used for daily operations, and that funds for expansion and renewal investments are not diluted by the need to pay for basic operations. Another critical role this agency will be tasked with is

imposing a limitation on capital project budgets. More often than not, T projects exceed their budgets due to poor management, a trend that this new measure aims to correct.

Additionally, the MBTA should conduct a fresh review of its seven-year capital and rolling stock plans based on data from 2016, to determine more precisely what its most urgent needs are, for prioritizing which assets to fund and when to fix the deteriorated or obsolete plants, equipment and systems that threaten service delivery. The idea is that linking capital accounts directly to clear funding needs and committing to spend the appropriation in full will serve as a powerful incentive to stay on task and complete projects within the projected time period. Between 2009-15, for instance, the MBTA spent only \$2.3 billion out of the \$4.5 billion it had planned to spend on capital construction during those years. The unspent capital has only served to backlog the ever-growing fleet, facility, systems and infrastructure needs.

Longer-term reforms include proposals to adopt a 5-year capital plan, and a 20-year program, key to preparing for the ongoing system restoration and addressing existing shortcomings of the capital program. These reform packages would bolster forecasting, budgeting and project management abilities, instrumental to future system improvements. The recommendation to the Legislature to establish a new, protected capital fund specifically for the MBTA's modernization and rehabilitation program would ensure a reliable funding stream for future capital improvements. Systemwide improvements would follow with a legislative commitment to new capital funding. As part of the plan, the MBTA would introduce enhanced controls and reporting for future spending and utilization of new and existing capital funds. Over time, these reforms should contribute to making the MBTA's fiscal structure more sustainable, so as to responsibly manage all available funds, and allow the system to access necessary capital for future system challenges and infrastructure investments. This would be necessary because, even

though the MBTA will eventually require more capital spending from the state, it has for years struggled to use the available capital dollars – adding to the chronic underinvestment the system has historically endured.

3.5 Moving Back the Debt onto the State's Records

As mentioned previously, the ongoing burden of debt service, which constitutes about 21.9% of its operating budget, continues to strain resources that could otherwise enhance service and infrastructure. The magnitude of this debt necessitates not just skilled management but also innovative solutions to alleviate financial pressure. An insightful proposal by James Aloisi, a former Massachusetts Secretary of Transportation, suggests that if the state were to assume the full costs of paratransit, totaling \$152.4 million, along with half of all debt service payments, approximately \$258.45 million, it would significantly relieve the MBTA's operational budget. This shift would free up funds, allowing the MBTA to focus on essential aspects like hiring, training, and maintenance—areas crucial for improving service quality and system reliability.

Further, earmarking a portion of the state's annual operating assistance specifically for MBTA's debt repayment could provide a structured and predictable flow of funds dedicated to reducing the debt burden. This could be set as either a fixed percentage or a variable amount tied to fiscal benchmarks or transportation performance metrics. Such a strategy would ensure that debt repayment remains a priority without sacrificing the quality of transportation services.

Regular reviews of this funding mechanism would also be essential. These reviews would assess the effectiveness of the allocated funds in reducing debt and their impact on the overall financial health and operational capabilities of the MBTA. Adjustments might be necessary to

respond to changing economic conditions or shifts in transportation needs, ensuring that the approach remains both sustainable and responsive.

3.6 Dynamic Pricing: Charging Fares Based on Socioeconomic Factors

In March of 2024, the MBTA announced that it will be expanding reduced fares for low-income riders, lowering all one-way fares by 50% and making the discount available to all modes of transport. From summer 2024, adults between the ages of 26 and 64, with incomes below 200% of the federal poverty level, will be eligible to apply for the discount through an online application. As reported by WBUR, "Transit officials said 62,000 riders will be eligible for discounted fares under the new program." Meanwhile, the MBTA estimates that expanded eligibility will result in 8.1 million additional trips on the transit system. However, "T officials also said they expect the program will cost about \$25 million in the first year."⁷⁴

Although we support this program because it creates more equitable fares for lower-income groups, we are concerned about the mounting costs of the program that will undoubtedly contribute to the existing MBTA debt crisis. We thus, as with other experts such as Charles Chieppo, a research fellow at Harvard University, recommend increasing the fare prices for those who are non-eligible.

While some may have reservations about our proposal, let's examine a compelling comparison. Both London and Boston boast some of the world's largest public transportation networks. Yet, in the 2023/24 fiscal year, Transport for London (TfL) not only covered its £7.9bn operating costs but also achieved a surplus of £79m, a financial feat the MBTA could only envision. Chief Financial Officer Mary Ann O'Hara highlighted a stark contrast at an MBTA

⁷⁴ Enwemeka, Zeninjo. "MBTA Will Offer Half-Price Fares to Low-Income Riders. Here's How the Program Would Work." WBUR News, March 28, 2024. <https://www.wbur.org/news/2024/03/28/mbta-low-income-fare-program>

Board meeting, noting that "fare revenue now supports less than one quarter of our operating expenses." So, what drives the success of London's transit system? A key factor is its fare structure, which ranks among the highest globally, allowing TfL to maintain remarkable self-sufficiency.⁷⁵

3.6.1 Dynamic Pricing: Cost Breakdown

In order to figure out if we can provide discounted fares to lower income groups while increasing fares for the general public, we will use a simplistic model to quantify the data. Since the MBTA's financial departments have already calculated an estimated revenue loss from this discount as \$25,000,000 in the first year, we can use their metrics to estimate the amount earned from increasing revenue from non-eligible riders.

The calculations presented below do not account for existing price discounts available to students, the elderly, and other eligible groups. However, for this estimated calculation, we will make this a base assumption for both calculating current revenue and projected revenue with the implementation of Dynamic Pricing (According to MBTA's FY24 Financial Statement, the MBTA made \$418.5 million in fares alone).⁷⁶

Data provided by the MBTA:

Ridership/day = 760,000

Eligible rides/day = 62,000

Non-eligible riders = 698,000

⁷⁵ Ibid

⁷⁶ Massachusetts Bay Transportation Authority FY24 Preliminary Itemized Budget, 2024, <https://cdn.mbta.com/sites/default/files/2023-06/FY24%20Itemized%20Budget.pdf>.

Proposal: increase the Fare to \$3/ride for all non-eligible riders⁷⁷

Calculating the Decrease in Ridership from Fare Increase

Assuming the same proportionality as the increase in 8.1million ridership due to the fare decrease, we can estimate the decrease in ridership.

Decreased percent change for eligible riders = - 50%

Increased percent change for non-eligible riders = + 25%

If a 50% price reduction leads to an 8.1 million increase in ridership, a 50% price increase should, in theory, decrease ridership by the same amount. However, for a 25% price increase, the estimated decrease in ridership would be approximately 4.05 million riders per year, assuming ridership elasticity is the same for both an increase and decrease in fare prices.

Current Revenue for Ridership

$$760,000 * \$2.4 = \$665,760,000$$

Projected Revenue from Increasing Fares

Decrease in revenue from decreased fares for eligible riders = \$25 million

Ridership adjusted for loss due to fare increase:

Loss riders per day:

$$4.05 \text{ million loss riders per year} / 365 \text{ days a year} = \sim -11,000 \text{ rides a day}$$

⁷⁷ Ibid

Ridership per day:

698,000 previous non-eligible rides a day - 11,000 of loss rides = 687,000 rides a day

Revenue from increased fare:

687,000 non-eligible rides * \$3 per ride * 365 days a year = +\$752,265,000

Total Revenue from Dynamic Pricing:

\$752,265,000 from fare increase - \$25,000,000 from fare decrease =

NET PROFIT OF \$727,265,000

*Note: these calculations are for the first year only.

This adjustment would increase the fare recovery ratio to ~33% , an increase in fare recovery ratio by 14% from the previous 18.9% in FY 2024. This recommendation will also support lower-income families to improve their mobility.

3.6.2 Next Steps in Increasing Ridership

To mitigate the potential concern for the effect of fare prices on ridership on the T in the long-run, we recommend that the MBTA expand the range of payment options available as this improvement will make the service more accessible and not only improve the overall convenience of users, but also potentially offset any ill effects from fare raises. The MBTA has already started to make efforts to implement this approach with their system set to be operational by 2025. The MBTA is calling the system "Fare Transformation", which shares many similarities with the OMNY fare system used by New York City's Metropolitan Transportation Authority (MTA). Since the MTA first introduced OMNY in 2019, ridership has increased significantly.

The 2022 Metro-North Railroad Annual Ridership Report states that the MTA's ridership increased by 59.0 percent from 2021 to approximately 48.9 million in 2022.⁷⁸

Moreover, it is widely recognized that excellent customer service can boost public transportation ridership. For example, the Metropolitan Transportation Authority (MTA) in New York acknowledges the link between improved customer satisfaction and its financial health. The MTA aims to raise customer satisfaction by 10 percent by June 2024, using direct feedback from riders combined with operational performance data to pinpoint problem areas. These improvements have successfully heightened customer satisfaction and drawn more passengers to its subways, buses, and paratransit systems. The MTA benefits from a robust review system for customer satisfaction, gathering a large volume of data through online surveys where customers can evaluate up to two services they utilize, taking less than 15 minutes per service. Participants in these surveys can opt into a draw to win \$50 transit credit. In contrast, the MBTA primarily gathers feedback through a customer opinion panel of approximately 6,500 riders, focusing on specific aspects like overall MBTA performance, communication effectiveness, their most recent trip, and service reliability. To enhance customer satisfaction and subsequently increase ridership, we recommend that the MBTA consider adopting a broader and more comprehensive system similar to the MTA's.

3.7 The Implementation Plan

Initial Setup and Planning (0-6 months)

This phase focuses on laying the groundwork for future improvements. It begins with the reform of the Board of Directors by establishing criteria for board membership with an emphasis

⁷⁸ Authority, Massachusetts Bay Transportation. "Fair Transformation." MBTA, 2017. <https://www.mbta.com/fares/fare-transformation>

on expertise in public transportation management, finance, and customer service, and implementing a transparent selection process for new members. Secondly, the implementation of HR management software, Kronos, involves procurement, setup, and integration with existing systems, plus training for HR staff. Concurrently, a new 'firewall' agency will be established to segregate capital and operational budgets, preventing the misallocation of funds. Additionally, customer service-focused performance metrics such as on-time performance and the passenger comfort index will be developed and published.

Implementation and Roll-out (6-12 months)

This is the phase in which the full implementation of the HR software takes place, where it goes live with recruitment, onboarding, performance, and attendance tools. Financial restructuring, such as payment reallocation and performance-linked funding, will be introduced. A fare pricing model will also be launched, designed to maximize revenue through dynamic pricing strategies as well as fare discounts for low-income riders.

Expansion and Enhancement (1-2 years)

Based on initial feedback and metrics, customer service programs will be updated and expanded. The firewall agency will analyze and prioritize capital spending based on the needs of each month and will allocate resources monthly. This entails finishing new fare equipment systems, such as OMNY, enhancing accessibility and convenience for all riders.

Evaluation and Long-term Planning (2-5 years)

A comprehensive review will assess the impacts of the new HR software on staffing, the effectiveness of new customer service metrics, and the financial restructuring on the overall health of the MBTA. Adjustments to the performance-linked funding model may be made based

on actual outcomes. Additionally, the MBTA's long-term capital strategy will be solidified, focusing on both 5-year and 20-year plans based on data from successful pilot projects.

Ongoing Optimization and Expansion (5+ years)

Customer service initiatives will continuously improve in response to evolving technology and changing rider expectations. The MBTA will also regularly update its capital and operational plans to remain responsive to emerging needs and technological advancements. Sustainable financial management practices will be maintained to avoid the previous pitfalls of underinvestment and misallocation.

4. Why Does Our Policy Work?

"Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody." ⁷⁹

- Jane Jacobs, world-renowned urban planner

Our "Transforming the T" policy is designed to address the root issues affecting the MBTA. Given the MBTA's complex financial and operational challenges, a one-size-fits-all solution is impractical. Our policy, however, offers a comprehensive and achievable plan that targets the root causes of these issues, promising to revitalize and enhance the MBTA's service delivery and financial stability.

Firstly, the proposed reforms to the Board of Directors are crucial. By setting rigorous criteria for board membership, emphasizing expertise in public transportation management,

⁷⁹ "Jane Jacobs," Project for Public Spaces , accessed April 25, 2024, <https://www.pps.org/article/jjacobs-2>.

finance, and customer service, and enforcing a transparent selection process, we ensure that the governance of the MBTA aligns with the highest standards of competence and accountability. This will mitigate past issues where board members may not have had the necessary qualifications, directly influencing the MBTA's strategic direction and operational efficiency.

The introduction of Kronos HR management software is another pivotal aspect of our strategy. This technology will modernize the MBTA's human resources capabilities, thus addressing staffing shortages, enhancing performance management, and reducing absenteeism. With better HR tools, the MBTA can optimize its workforce management, aligning staff skills and roles with the agency's operational needs and goals.

Furthermore, our policy proposes the creation of a "firewall agency" to segregate capital and operational budgets. This structural reform is designed to prevent the past misallocation of funds, ensuring that capital investments are protected and used as intended. This will support long-term projects and maintenance, crucial for the MBTA's sustainability and service improvement. Additionally, implementing specific performance metrics will allow for continuous monitoring and public reporting of the MBTA's service quality. Metrics like on-time performance and passenger comfort indexes will provide clear, quantifiable targets for the agency, fostering transparency and accountability.

Our financial strategies, including dynamic pricing and debt reallocation, are tailored to make the MBTA's funding more robust and equitable. Dynamic pricing will help manage demand and generate necessary revenue without overburdening any single user group, while debt reallocation will ease the financial burden on the operating budget, freeing up resources for essential improvements and maintenance.

In summary, the "Transforming the T" policy is not merely a patchwork of quick fixes but a strategic overhaul designed to address systemic issues within the MBTA. By improving governance, investing in technology, restructuring finances, and enforcing accountability, this policy sets the stage for a more reliable, efficient, and customer-focused public transit system. This comprehensive approach ensures that the MBTA can serve the city of Boston more effectively, making public transportation a more attractive option for all, thereby increasing ridership and community support. These measures will guide the MBTA towards a future where it can sustainably meet the needs of its users and the community it serves, proving that significant, well-planned reform is not only necessary but entirely achievable.

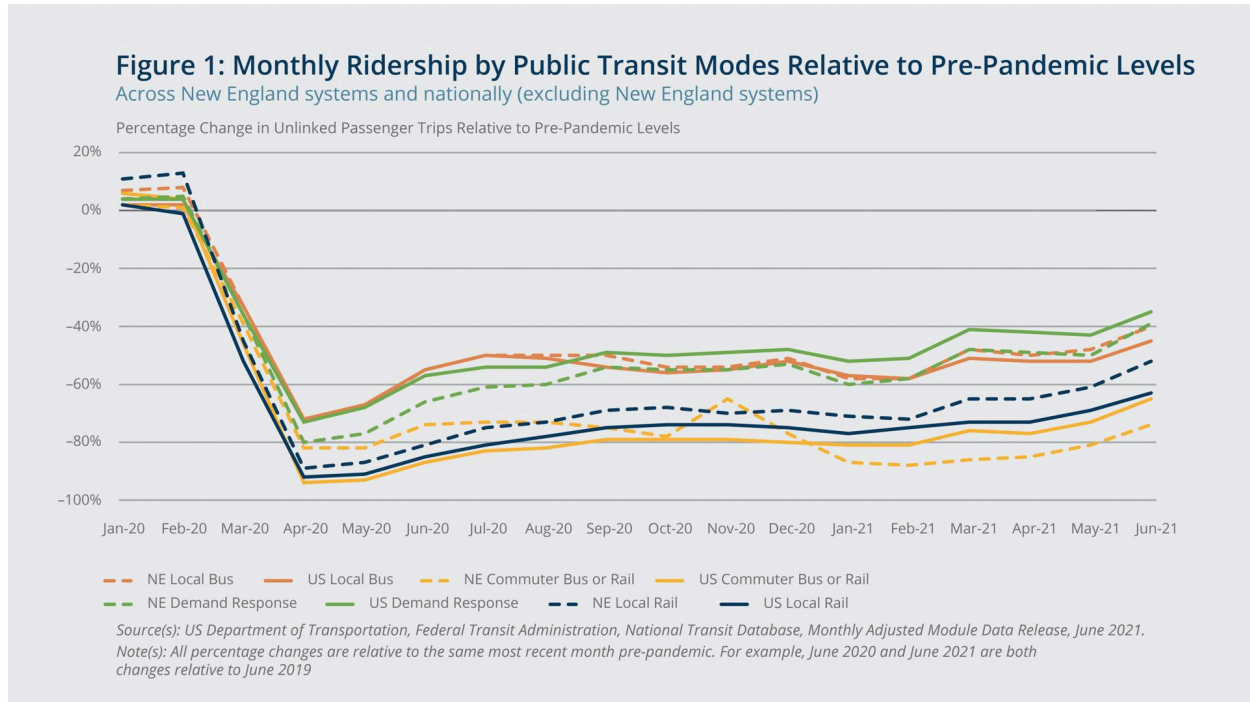
With this ethos of inclusivity and cooperation, we, the Transit Policy Reform Group, aim to provide policymakers and urban planners in the city of Boston with policy recommendations for a public transportation system that is not only efficient and reliable but also user-friendly. Good public transportation represents an investment in our community's future and prosperity. By committing to significant MBTA reform, we are placing our city on the path to a better ride for Boston.

Appendix

Appendix A: The MBTA Subway Map

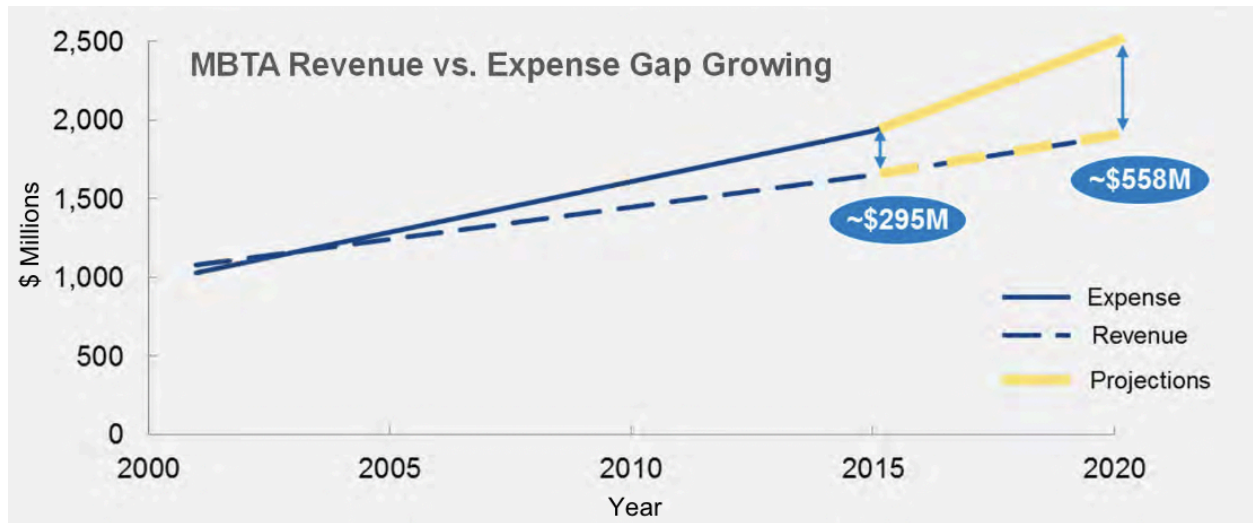


Appendix B: This graph shows the monthly ridership by public transit modes relative to pre-pandemic levels between New England systems and nationally.



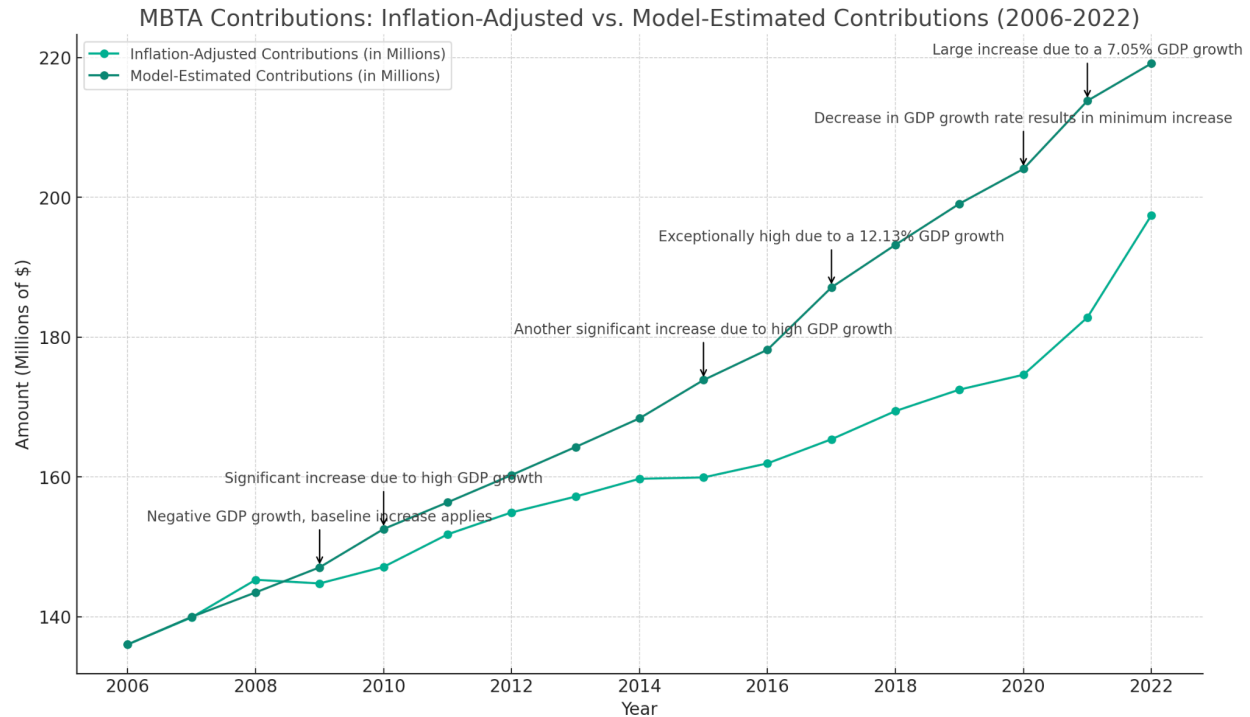
Source: Sullivan, Riley. "The COVID-19 Pandemic's Impact on Public Transportation Ridership and Revenues across New England." Federal Reserve Bank of Boston, September 27, 2021.

Appendix C: This graph shows the growing expense gap of the MBTA from 2000 to 2015 where their expenses have been exceeding revenues. The expense gap is also projected to grow larger from 2015 to 2020.



Source: Massachusetts Bay Transportation Authority. "MBTA Back on Track." MBTA, <https://www.mbtta.com/mbta-back-on-track>. Accessed 23 Apr. 2024.

Appendix D: This graph shows MBTA's contributions to emphasize loss revenue due to a model that does not react properly to current economic levels.



Source: Graph constructed using data from Statista (2024). “GDP of the Greater Boston metro area in the United States from 2001 to 2022”

<https://www.statista.com/statistics/183851/gdp-of-the-greater-boston-metro-area/>

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