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Taking Muni's Vitals

Data show the agency performs well compared with peers across the country

Acknowledgments

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Executive Summary

The San Francisco Municipal Transportation Agency (SFMTA) faces a troubling financial outlook, with projections indicating an annual operating deficit that could rise from \$307 million in fiscal year 2026–2027 to as much as \$434 million by 2030. If left unaddressed, such deficits could lead to significant reductions in Muni transit services, including the elimination of some routes and reduced frequencies on remaining routes. To counteract this trend, the agency is relying on the successful passage of two ballot initiatives in November 2026: a five-county regional sales tax and a parcel tax specifically for Muni operations.

SFMTA's strategy to manage projected deficits relies not only on significant new funding from these initiatives but also on efficiencies and savings that will generate upward of \$100 million annually over the coming years. In addition to its own efforts to identify savings, SFMTA (like other regional transit agencies) is subject to an upcoming independent financial efficiency review, directed by the Metropolitan Transportation Commission, that will also identify opportunities for cost reductions.

This research paper seeks to establish a baseline understanding of Muni's current performance and how its metrics compare with those of national peers. The analysis uses data from the National Transit Database to evaluate Muni against 14 national peers, focusing on a 10-year retrospective of key business metrics, including service output, ridership, productivity, costs, and effectiveness. The dataset compiled for this analysis is available at spur.org/MuniAnalysis2026.

Key Findings

Overall, the analysis reveals that Muni has consistently performed well, meeting or exceeding the average performance of similarly sized peer agencies across the county on a range of business metrics.

Service, Ridership, and Productivity: Over the past decade, Muni's service output has gone through ups and downs, but the net change in revenue service hours (meaning the total hours of service provided) over the last 10 years has been minimal. Ridership trends reflect more pronounced changes, with the agency seeing significantly fewer riders on its downtown-focused routes after COVID-19, while ridership on crosstown services such as the 22 and 49 has grown well beyond pre-pandemic levels. Overall, Muni ridership is down from 10 years ago, but the agency has recovered ridership faster than many of its peers, and its productivity, quantified as passengers per service hour, has generally held up well, making it one of the most productive transit systems in the country.

Cost Efficiency and Effectiveness: Analysis reveals that Muni's costs to operate service tend to be higher than those of many peers on an hour-for-hour basis. Muni's total operating expenses have also increased over the past decade (rising approximately 15% when adjusted for the Consumer Price Index). But these cost increases have been lower than the average operating-cost increases of peer systems. Moreover, Muni is exceptionally productive and continues to deliver passengers at a lower per-ride cost than most of its peers.

Areas to Explore: While Muni has performed well over the last decade, the agency still faces a financial deficit and must identify new savings and efficiencies. A deeper analysis and comparison of National Transit Database metrics highlight areas SFMTA may wish to explore as it seeks efficiencies and revenue opportunities, including transit speeds, light rail productivity, fleet management, headcount management, fare revenues, and the operational costs of San Francisco's iconic cable cars.

SFMTA's business metrics point to a well-managed agency that has effectively navigated a turbulent period for transit. As voters prepare to consider new funding measures, these metrics should reassure them that their investment will support a well-used and well-run system.

This paper uses transit-industry terminology that may not be common knowledge to all readers. A glossary of terms is available in Appendix B.

Introduction

The San Francisco Municipal Transportation Agency (SFMTA) presented a sobering, newly detailed outlook on its financial future at an SFMTA Board of Directors budget workshop on February 3, 2026. Agency projections show the SFMTA’s anticipated annual operating deficit growing from \$307 million in the upcoming fiscal year 2026–27 budget to as much as \$434 million by 2030. Unaddressed, deficits of this scale would result in a withering of Muni transit service, with the SFMTA having to eliminate up to 20 Muni lines, halve frequency on other routes, cut regular service after 9 p.m., and reduce or suspend service on historic streetcar and cable car lines. To avoid this outcome, the agency is counting on the successful passage of two ballot initiatives this November: a five-county regional sales tax to fund Muni and multiple other transit agencies throughout the region and a San Francisco parcel tax to provide additional funding specifically for Muni operations.¹

Exhibit 1. SFMTA’s Proposed Approach to Addressing Projected Operating Deficits

SFMTA proposes a combination of new revenues and agency efficiencies to address projected deficits. “One-time revenue” refers to post-pandemic recovery loans from the State of California, which will be exhausted by 2027.



Source: SFMTA, “2026 SFMTA Board Workshop,” presentation, February 3, 2026, <https://www.sfmta.com/media/44326/download?inline>.

SFMTA is not counting solely on new revenues to address future operating deficits. As Exhibit 1 shows, SFMTA has also identified the need to generate up to \$102 million in annual savings from agency efficiencies and revenue and has committed to fostering an “efficiency culture” as it seeks to stabilize its finances.² Transit “financial efficiency” is also a focus at the Metropolitan Transportation Commission, where an extensive independent efficiency study of Muni, BART, Caltrain, and AC Transit was mandated as part of the enabling legislation for the regional transit ballot measure, known as the Connect Bay Area Act, and commenced in early 2026.³ Between SFMTA’s self-directed efforts and a regional study, financial efficiency is poised to remain a central focus at SFMTA for years to come.

What does it mean for transit to be “efficient,” and could Muni already be deemed an efficient system? These questions are significant to the city’s voters, who will be asked to support new taxes later this year, and they are also important in informing how the agency pursues additional savings and revenues. Transit systems in the United

¹ SFMTA, “2026 SFMTA Board Workshop,” presentation, February 3, 2026, <https://www.sfmta.com/media/44326/download?inline>.

² SFMTA, “2026 SFMTA Board Workshop.”

³ Senate Bill 63, “Chapter 4: Financial Transparency and Review,” <https://legiscan.com/CA/text/SB63/id/3273319>.

States are unique in that they operate in a “business-like” manner but are also heavily regulated, publicly subsidized, and often delivered by government. Given this uniqueness, SPUR has chosen to examine Muni’s performance over the past decade relative to its peers, using a set of key business metrics to assess transit cost efficiency, productivity, and effectiveness. Our analysis uses data from the National Transit Database (NTD) to compare Muni’s performance with 14 peer agencies. The analysis highlights performance across key metrics and identifies more granular business areas where SFMTA should conduct its own analyses and inquiries to achieve savings and increase ridership and revenue.

Approach

Comparing Muni to Its Peers

Any evaluation of transit performance must contend with the reality that transit outcomes related to issues such as costs and ridership are shaped by a wide range of forces, some originating within the agencies and others external to them.

Internal forces:

- **Policy and management choices** by transit agency boards and staff regarding route design and scheduling, budgeting, fares, labor, and other aspects of administering a transit system
- **Fundamental system design**, including the scale of the transit system, the types of modes it operates, and the geographic extent of its network, which transit agency management cannot easily change

External forces:

- **Local context**, such as land use characteristics, the state of the local economy, and localized demographic trends
- **Federal and state laws and regulations** pertaining to areas such as safety, accessibility, sustainability, purchasing and procurement, and labor relations
- **Large-scale national events and economic trends**, including the rise of ride-hailing companies, the COVID-19 pandemic, and increased inflation

This analysis seeks to evaluate Muni’s performance relative to that of its national peers — an approach that helps sort through which aspects of transit performance are simply reflective of national trends (for example, all transit agencies saw some degree of ridership decline during the COVID-19 pandemic) versus aspects of performance that are more unique to Muni. For this analysis, SPUR compared a selection of Muni’s key business metrics over the last decade with those of 14 peer transit agencies serving large cities and metropolitan areas across the United States (Exhibit 2). Like Muni, these agencies operate multiple modes (for example, bus, rail, and other transit systems), and all (except the New York Metropolitan Transportation Authority) are within an order of magnitude of Muni’s size, as measured by their 2024 annual ridership. For descriptions of the different modes Muni operates, see Appendix A.

Exhibit 2. SFMTA and National Peers: Annual Ridership

Agency (Metro Area)	2024 Annual Passenger Trips (rounded to nearest 100,000)	Active Modes Reported to the National Transit Database
SFMTA	160,544,000	Motorbus, light rail, trolleybus, streetcar, cable car, demand responsive*
NYMTA (New York)	2,902,019,000	Motorbus, commuter bus, rapid bus, heavy rail
CTA (Chicago)	309,197,000	Motorbus, heavy rail
Metro (Los Angeles)	302,612,000	Motorbus, rapid bus, heavy rail, light rail, van pool, demand responsive
WMATA (Washington, D.C.)	262,474,000	Motorbus, heavy rail, demand responsive
MBTA (Boston)	251,725,000	Motorbus, trolleybus, rapid bus, heavy rail, commuter rail, light rail, ferry boat, demand responsive
NJT (New Jersey/New York)	222,475,000	Motorbus, commuter rail, light rail, hybrid rail, van pool, demand responsive
SEPTA (Philadelphia)	200,712,000	Motorbus, trolleybus, commuter rail, heavy rail, streetcar, demand responsive
King County Metro (Seattle)	88,639,000	Motorbus, trolleybus, commuter bus, ferry boat, light rail, van pool, demand responsive
Miami-Dade (Miami)	88,250,000	Motorbus, commuter bus, heavy rail, monorail, van pool, demand responsive
MTS (San Diego)	75,683,000	Motorbus, commuter bus, light rail, demand responsive
MARTA (Atlanta)	65,587,000	Motorbus, heavy rail, streetcar, demand responsive
TriMet (Portland)	64,749,000	Motorbus, light rail, hybrid rail, demand responsive
RTD (Denver)	64,292,000	Motorbus, light rail, commuter rail, demand responsive
DART (Dallas)	54,358,000	Motorbus, commuter bus, light rail, commuter rail, streetcar, van pool, demand responsive

Source: SPUR’s analysis of NTD data.

* Note: Demand-responsive service generally refers to paratransit service that agencies must provide on demand for qualifying riders who are unable to use scheduled, fixed-route transit. Paratransit is mandated by the Americans with Disabilities Act and is typically provided using smaller, dedicated vehicles. In some cases, agencies may contract with another entity to fulfill their paratransit obligations (and may therefore not directly report demand-responsive services to the National Transit Database).

Although the 14 agencies shown in Exhibit 2 are broadly Muni’s “peers” in the national transit landscape, immense differences between them and Muni make direct comparisons challenging. For example, each metropolitan area represented in Exhibit 2 is distinct, with different densities, land uses, and underlying propensities to support transit service and generate ridership. Additionally, most of these agencies operate over significantly larger geographic areas than Muni, a reality that skews comparisons of many performance measures involving “miles” or other

distance-based components. Muni does not serve regional trips. Finally, while all agencies are multimodal, the specific modes they operate vary significantly, influencing operational cost metrics. These important nuances often explain why this paper has chosen (or rejected) a particular metric for comparison. Nonetheless, comparing Muni with its national peers is helpful for understanding industry trends and establishing realistic performance ranges for different aspects of the transit system.

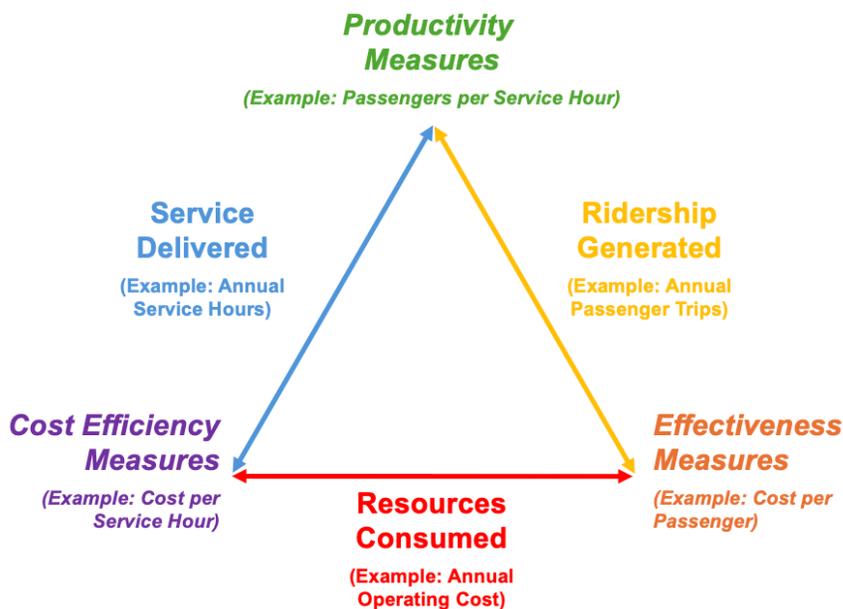
Understanding Transit Business Metrics

The word “efficiency” is often used imprecisely by policymakers and the media as a shorthand for controlling and reducing costs, increasing ridership, or delivering value for public investment. Rather than imposing a single definition or measure of efficiency, this analysis examines Muni’s performance against a range of industry-standard business metrics. All data used in this analysis are sourced from the National Transit Database (NTD), a repository of transit data maintained by the Federal Transit Administration, to which any transit agency receiving federal funds must report. The data are reported using a standardized methodology, validated by the Federal Transit Administration, and tracked consistently year to year. In the case of SFMTA, the NTD is an especially helpful source because the reporting methodology is transit-focused, stripping out costs associated with SFMTA’s street management and parking functions, allowing for a more direct comparison of Muni’s costs and service with those of other transit agencies.

Exhibit 3 diagrams these metrics conceptually, showing how aggregate measures of transit service, including output (the amount of service operated), transit usage (the ridership of a system), and resourcing (operating costs) interrelate and can be combined into performance measures that describe cost efficiency (the cost to produce a unit of service), productivity (usage per unit of service), and effectiveness (cost per unit of usage).

Exhibit 3. Basic Transit Business Measures

Productivity, effectiveness, and cost efficiency measures describe different aspects of transit performance. This figure illustrates the basic relationships among transit service output, ridership, and the resources used by a transit system.



Source: SPUR.

High-level business metrics such as “cost per hour” or “passengers per mile” rely on standard definitions and routinely collected data and are commonly used throughout the transit industry to track and assess performance. These measures are analogous to the vitals collected when a patient visits a doctor’s office — indicators such as blood pressure, temperature, or heart rate. Like medical vitals, they provide a high-level, quantitative record of system performance, enabling trend identification and peer comparisons. They also serve as important diagnostic indicators, helping flag areas of the business that have changed or warrant further investigation.

However, much like medical vitals, high-level transit business metrics have significant limitations. A high blood pressure reading at a doctor’s office is meaningful, but it may not indicate a patient’s overall health, nor does such a reading taken in isolation tell the doctor what the underlying cause is or what course of intervention may be appropriate. For this reason, looking at a range of metrics is helpful in establishing an overall picture of performance, as is considering how performance has changed and trended. Similarly, the transit business measures considered in this analysis are inherently reductive and don’t capture many of the important aspects of transit. Merely measuring the cost per hour of providing Muni service won’t tell San Francisco decision-makers and voters how essential the transit system is for people who are unable to drive — or for reducing congestion and air pollution or supporting downtown and adding value to real estate.

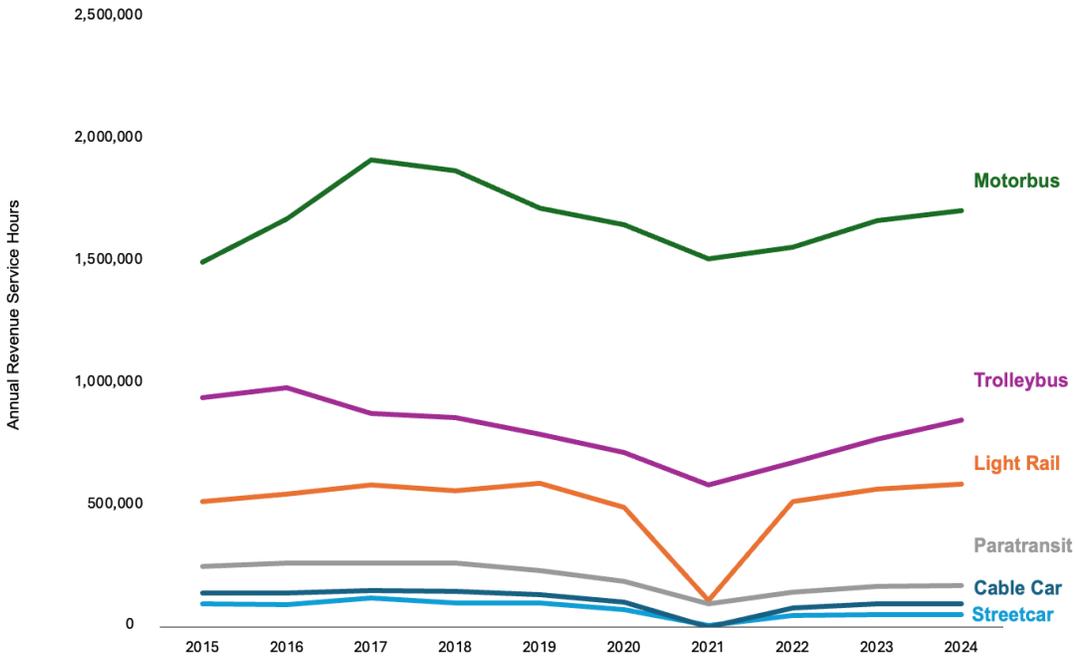
Analysis

Service Output, Ridership, and Productivity

The service Muni operates has fluctuated substantially over the last 10 years. Exhibits 4 and 5 present two representations of this change, measured by total revenue service hours (defined as the hours during which a transit vehicle is operating and open to passengers). Importantly, these measures reflect high-level, systemwide trends that obscure the many significant route-level restructurings and service adjustments made to Muni service during the last decade (particularly during the COVID-19 pandemic). Nonetheless, the figures show the proportional distribution of Muni service by mode and demonstrate that, while there have been ups and downs over the last 10 years, the net change in systemwide service levels has been minimal.

Exhibit 4. Muni Revenue Service Hours by Mode, 2015–2024

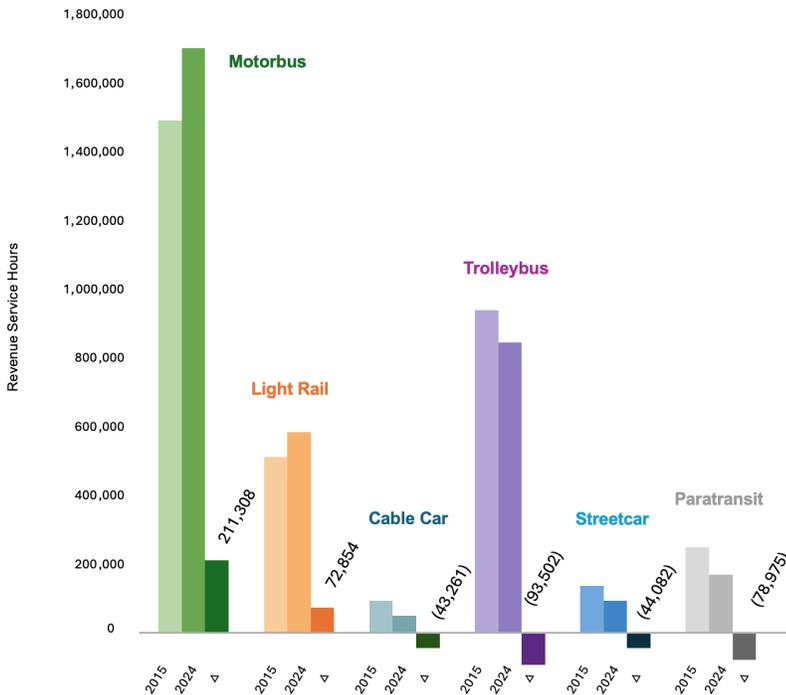
Muni’s service hours have fluctuated over the last decade, with modest service increases in 2015–2018, followed by a pandemic-era contraction and recovery.



Source: SPUR’s analysis of NTD data.

Exhibit 5. Muni Revenue Service Hours by Mode, 2015 vs. 2024

Muni has not substantially changed the total number of service hours it operates over the last 10 years. It has slightly expanded motorbus and light rail service hours, but reductions to trolleybus, streetcar, and cable car service have generally offset these increases.

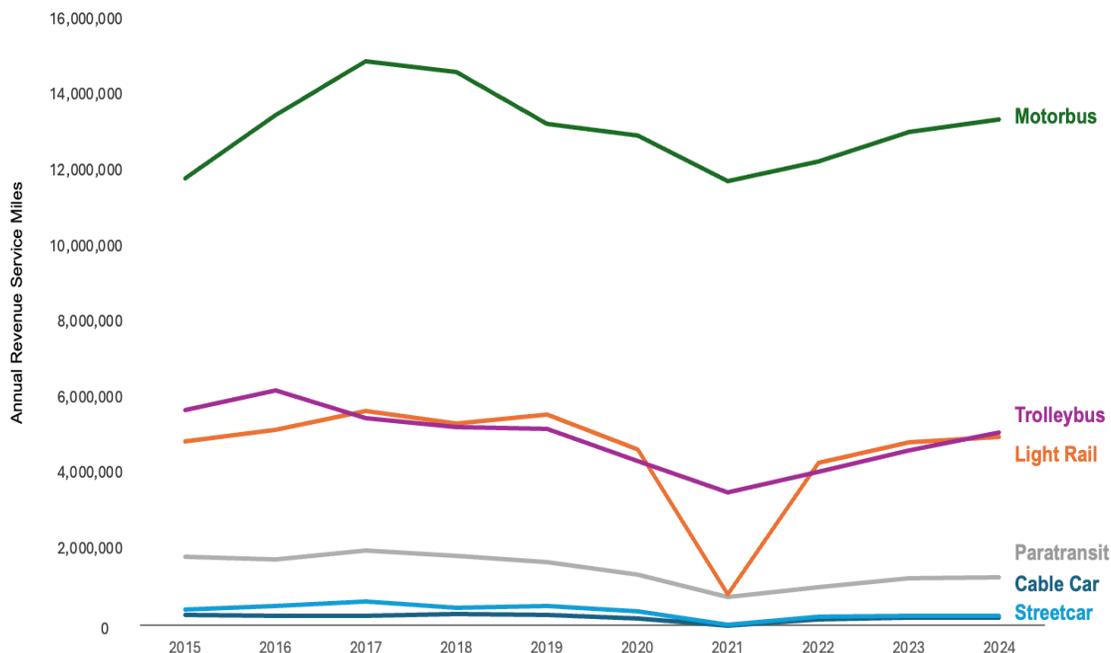


Source: SPUR’s analysis of NTD data.

In addition to service hours, revenue service miles (the cumulative distance transit vehicles travel while in service) are another common measure of service output. Exhibit 6 shows how Muni’s output in service miles has varied across modes over the last decade. By 2024, Muni’s service miles had returned to just 1% above 2015 levels systemwide.

Exhibit 6. Muni Revenue Service Miles by Mode, 2015–2024

Muni’s service miles have fluctuated in a manner generally consistent with service hours. Over the last decade, Muni saw a net increase in motor bus and light rail service miles, largely offset by decreases in its cable car, streetcar, and trolleybus service miles.



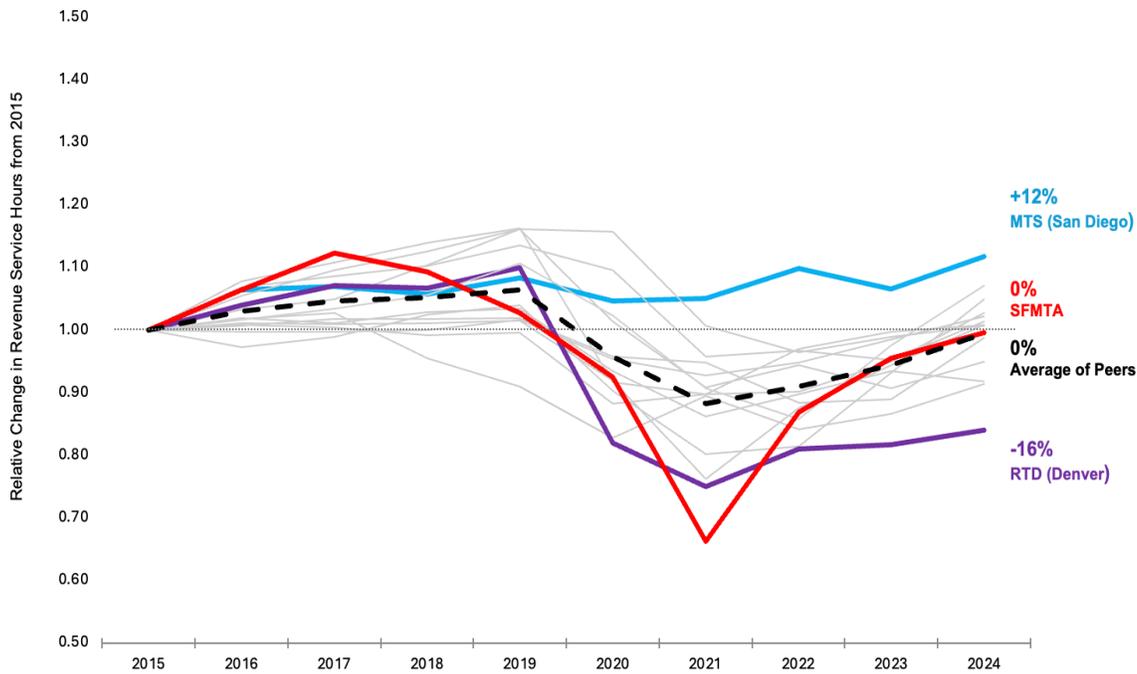
Source: SPUR’s analysis of NTD data.

While service miles are a useful metric in many circumstances, this analysis relies primarily on service hours to measure service output, reflecting an important distinction between Muni and its peers. Muni’s service consists of a compact network of buses and trains that operate intensively within San Francisco’s local streets and urban boundaries. By contrast, Muni’s national peers may be similar in size, as measured by ridership, operating spend, or service hours, but generally operate over much larger geographic areas, with many providing long-distance commuter services. This distinction is reflected in the geographic size of each agency’s network as measured by directional route miles (the cumulative length of all the transit routes operated by the agency). In 2024, Muni’s network covered just 600 linear route miles while its peer agencies ranged from a low of 1,400 route miles (Portland’s TriMet, a system less than half Muni’s size by ridership) to a high of more than 7,000 route miles (New Jersey Transit’s sprawling network, which includes many long-distance commuter services). These basic differences in system geography and distance covered generally mean that service hours, rather than service miles, form a better basis for comparing Muni with its peers.

Muni’s changes in aggregate service output, as measured in revenue service hours, generally track with an average of its national peer group. Exhibit 7 shows relative changes in total revenue service hours for the 15 agencies reviewed, indexed to their 2015 values, alongside the group average. Some agencies (such as San Diego’s Metropolitan Transit System) have modestly increased service since 2015, while others, including Denver’s Regional Transportation District (RTD), have cut service hours. Overall, however, the country’s large transit operators have generally maintained or restored service levels that are relatively close to where they were a decade ago, with Muni’s levels tracking closely to the average of its peers’.

Exhibit 7. Change in Service Output, SFMTA and National Peers (Relative to 2015 Levels)

Most large transit agencies have experienced significant fluctuations in transit service output over the last decade, particularly in response to the COVID-19 pandemic and its aftermath. Muni cut its service more deeply than some agencies during the pandemic, but it has since returned to operating a level of service typical of its peers.



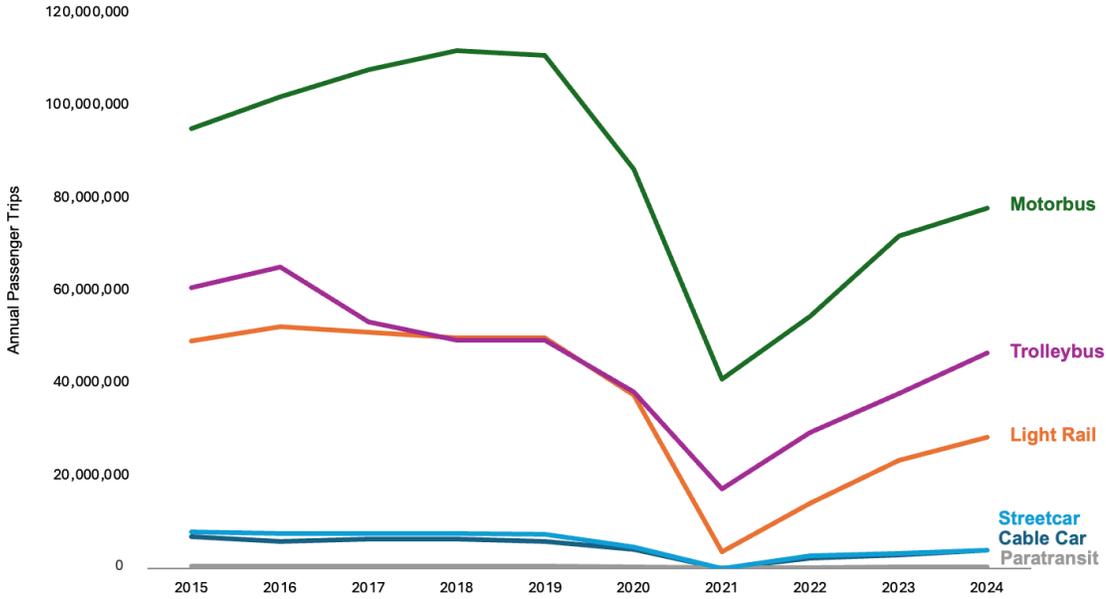
Source: SPUR’s analysis of NTD data. For specific transit agency data, see our dataset at spur.org/MuniAnalysis2026.

While its net change in service output has been minimal, Muni’s ridership has shifted more substantially over the last decade. Exhibits 8 and 9 show changes in ridership by mode on both absolute and relative bases, with mixed performance prior to 2019, steep declines across all modes during the COVID-19 pandemic, and a subsequent partial recovery from 2021 onward. A closer look at SFMTA’s own ridership data confirms overall trends but also shows a significant gap between weekday ridership on downtown-oriented routes and rail lines (which have struggled to rebuild ridership) and weekday ridership on crosstown routes such as the 22, 49, or 19, which have all seen ridership grow significantly above pre-pandemic levels. SFMTA ridership data also show a surge in weekend ridership, with many routes (such as the 38R) still recovering on weekdays but already exceeding pre-COVID levels on weekends.⁴

⁴ SFMTA, “Muni Ridership Recovery by Percentage by Route and Month,” <https://www.sfmta.com/reports/muni-ridership-recovery-percentage-route-and-month>.

Exhibit 8. Muni Ridership by Mode, 2015-2024

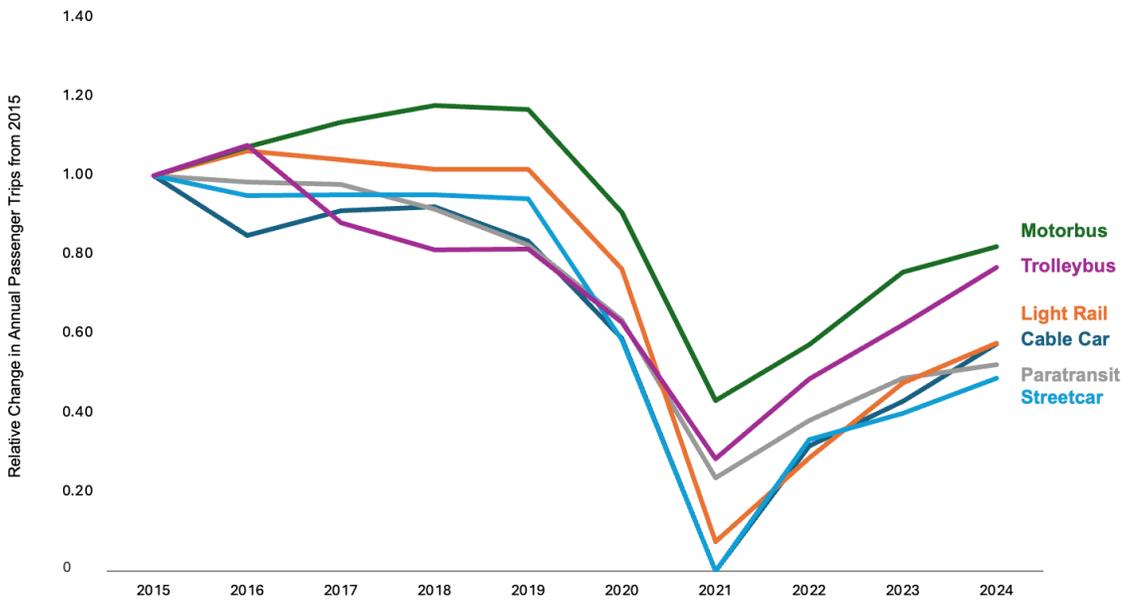
Muni’s motorbus ridership grew through 2019 while ridership on other modes was generally flat or in slight decline during the same time period. The COVID-19 pandemic led to a sharp drop in ridership across the system, particularly in rail service, which was temporarily suspended.



Source: SPUR’s analysis of NTD data.

Exhibit 9. Change in Muni Ridership by Mode (Relative to 2015)

Ridership on Muni’s motorbus service has consistently outperformed other modes over the last decade. Conversely, Muni’s light rail service performed well relative to other modes prior to the pandemic but has struggled to build ridership in recent years.



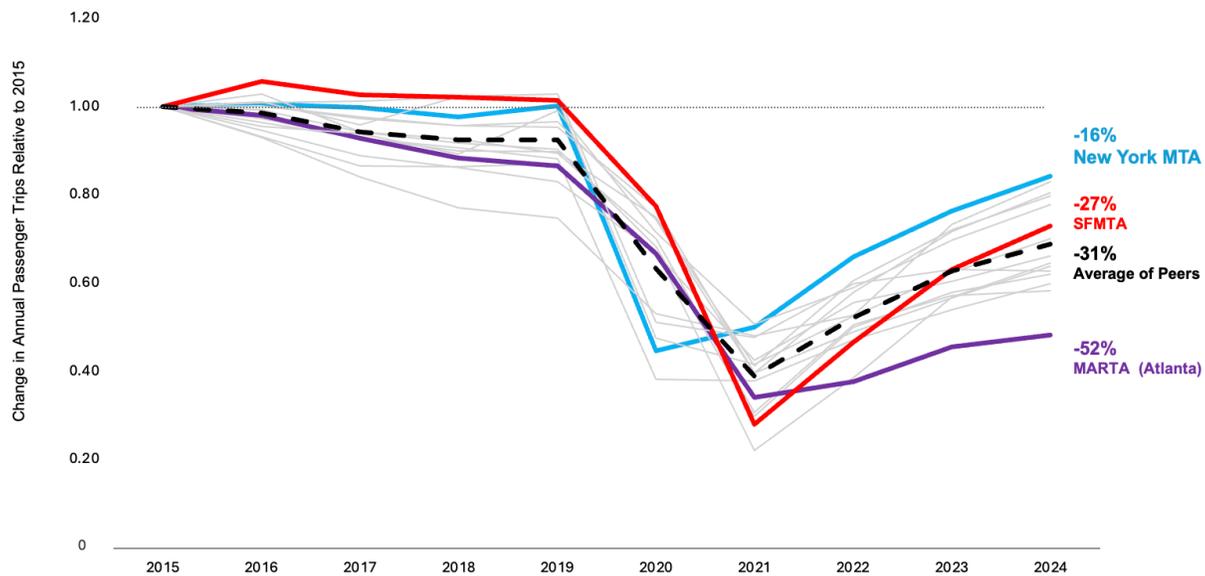
Source: SPUR’s analysis of NTD data.

Exhibit 10 shows Muni’s systemwide ridership trajectory compared with that of its national peers. Notably, as of 2024, none of the peer systems had achieved more than 84% of their 2015 ridership, reflecting a gradual decrease in

transit demand across many systems that predated the pandemic, as well as substantial declines affecting all large transit operators starting in 2020. Viewed in this context, Muni’s ridership performance has generally been strong. Prior to the pandemic, when ridership was already sliding among most peers, Muni was better able to retain patronage, with systemwide ridership peaking in 2016 and remaining essentially flat through 2019. Similarly, while Muni lost more riders than other systems as San Francisco shut down during the depths of the pandemic, it has since recovered passengers faster than its peers and is now above the average of its peer group in overall ridership recovery.

Exhibit 10. Change in Ridership, SFMTA and National Peers (Relative to 2015)

All of Muni’s peer systems have experienced significant ridership losses over the last decade, driven by both a gradual decline in demand and pandemic-related impacts. Muni has followed this general trend but has outperformed many of its peers.

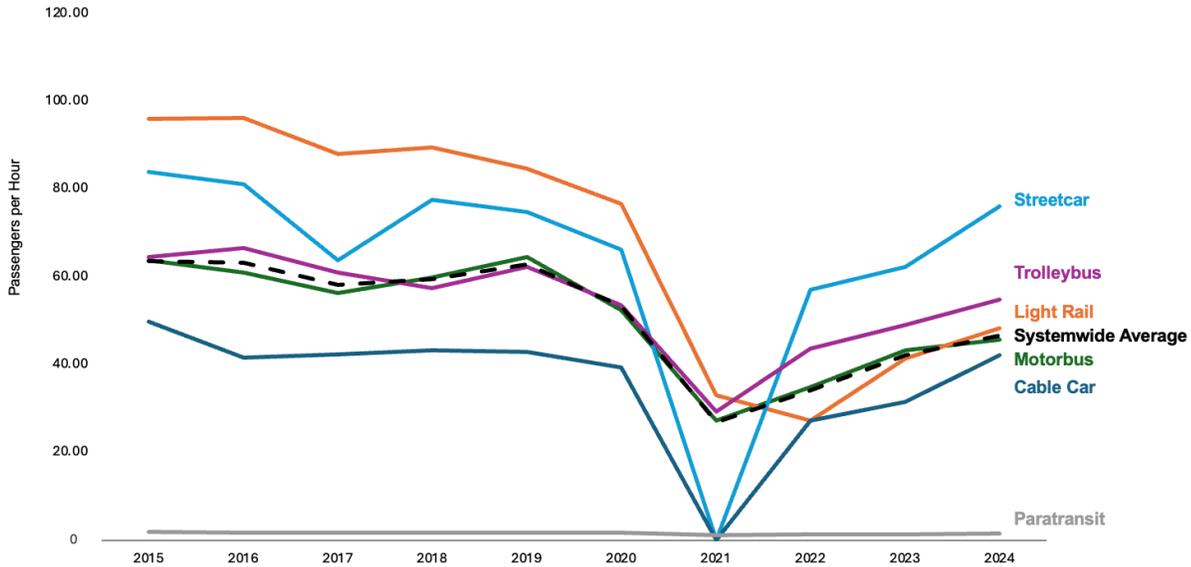


Source: SPUR’s analysis of NTD data. For specific transit agency data, see our dataset at spur.org/MuniAnalysis2026.

“Service productivity” combines measures of service output and ridership — in this case, measured as riders per service hour. Exhibit 11 shows changes in Muni’s productivity (measured as passengers per hour) by mode since 2015, with a gap for fiscal year 2020–2021 (when significant service cuts and suspensions temporarily distorted the metric, rendering it meaningless). Exhibit 12 shows the same productivity data indexed to 2015 values.

Exhibit 11. Muni Passengers per Hour by Mode, 2015-2024

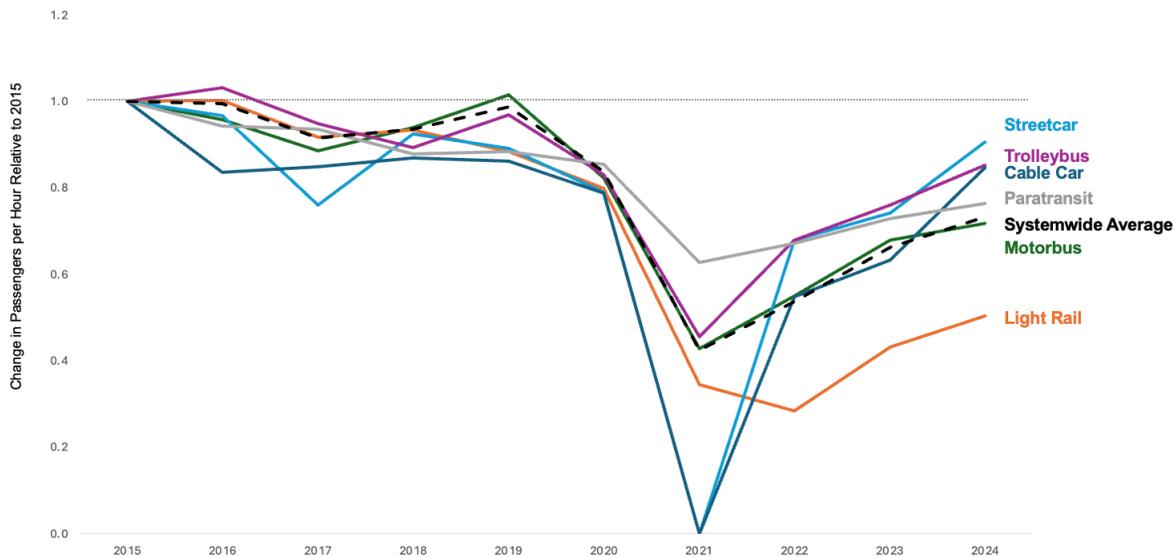
Muni's productivity was in gradual decline across most modes prior to the pandemic and is now on a recovery trajectory. Notably, Muni's light rail system was previously the most productive of Muni's modes but has struggled to rebuild ridership relative to service output since the pandemic.



Source: SPUR's analysis of NTD data.

Exhibit 12. Change in Muni Passengers per Hour by Mode (Relative to 2015)

Most of Muni's modes have recovered between 70% and 90% of their 2015 productivity levels, with the notable exception of the light rail system.



Source: SPUR's analysis of NTD data.

Muni is an exceptionally productive transit system when compared with its peers. Exhibit 13 includes measures of productivity in 2024 across all agencies studied, including systemwide and for motorbus and light rail modes specifically (two modes operated by a significant number of agencies in the peer set and thus appropriate for direct comparison).

Exhibit 13. Passengers per Hour for SFMTA and National Peers, by Select Modes and Systemwide, 2024

Agency (Metro Area)	Passengers per Hour, Motorbus Only	Passengers per Hour, Light Rail Only	Passengers per Hour, All Modes
SFMTA	45.73	48.31	46.59
NYMTA (New York)	54.76	-	77.95
CTA (Chicago)	33.21	-	32.31
Metro (Los Angeles)	34.50	47.68	34.47
WMATA (Washington, D.C.)	30.45	-	26.92
MBTA (Boston)	41.76	57.94	40.95
NJT (New Jersey/New York)	23.94	95.28	24.74
SEPTA (Philadelphia)	28.84	-	30.07
King County Metro (Seattle)	24.23	-	19.94
Miami-Dade (Miami)	33.83	-	24.33
MTS (San Diego)	22.73	59.29	28.05
MARTA (Atlanta)	17.56	-	21.01
TriMet (Portland)	21.51	43.29	22.77
RTD (Denver)	16.63	21.27	18.64
DART (Dallas)	14.36	40.84	15.86

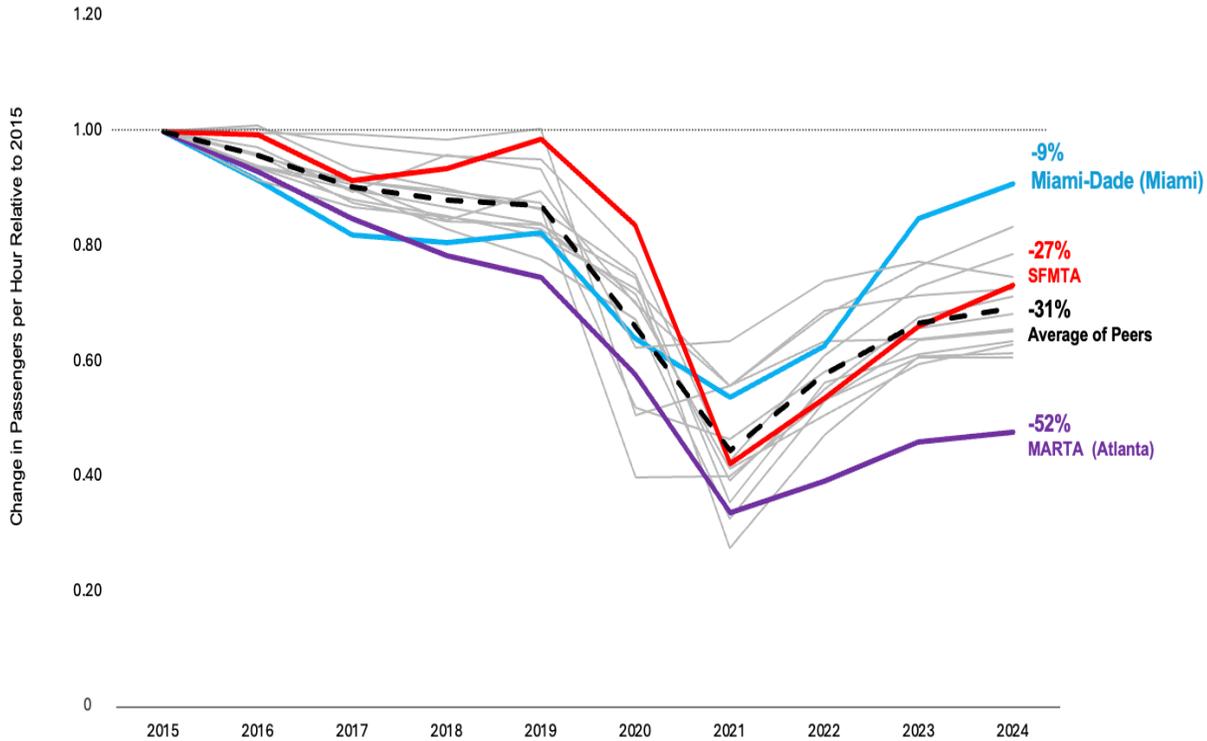
Source: SPUR’s analysis of NTD data.

As Exhibit 13 indicates, Muni operates the second-most productive large transit system in the United States as measured systemwide and the second-most productive when considering only direct comparisons of motorbus service. Only the New York Metropolitan Transportation Authority (MTA) achieves a higher level of systemwide productivity than Muni. Other peer systems are well below Muni’s productivity level, with the Massachusetts Bay Transportation Authority (MBTA) in Boston the sole peer that comes close to Muni’s passenger-per-hour delivery. Notably, however, Muni’s 2024 light rail productivity was less exceptional, with several peer systems achieving higher levels.

Muni has also performed well relative to peers in maintaining productivity over the last decade. Exhibit 14 shows the relative change in systemwide productivity across Muni’s peer set since 2015 and, similar to Muni’s ridership profile, shows the system performing positively compared with other large agencies.

Exhibit 14. Change in Passengers per Hour, SFMTA and National Peers (Relative to 2015)

Muni's productivity has declined and recovered over the last 10 years. While lower than in 2015, Muni's productivity has held up well relative to its peers'.



Source: SPUR's analysis of NTD data. For specific transit agency data, see our dataset at spur.org/MuniAnalysis2026.

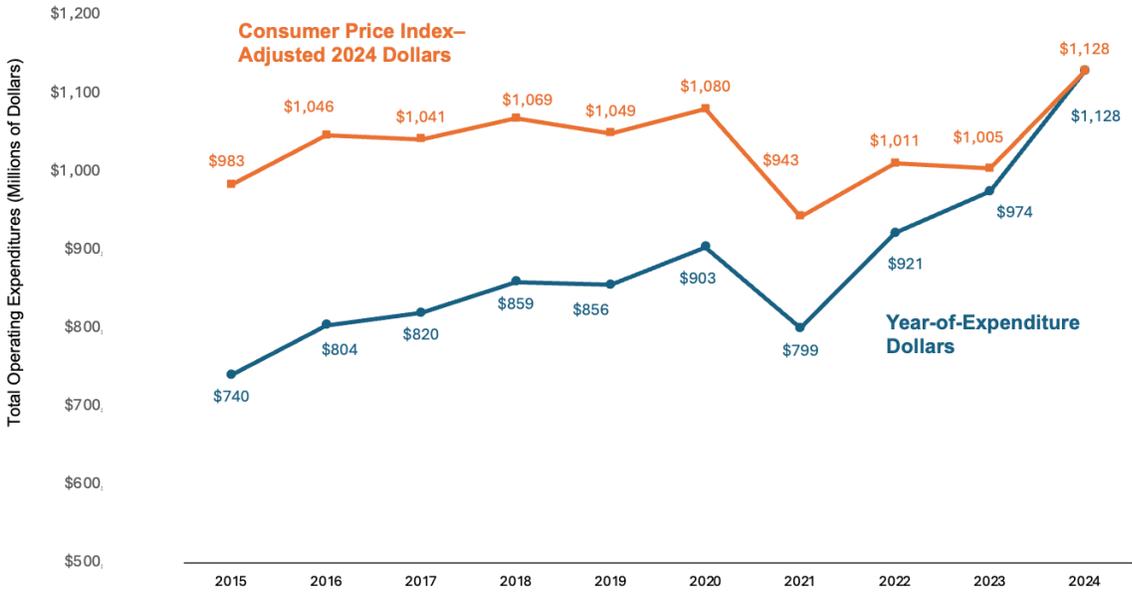
SFMTA, like all large transit agencies in the United States, has had a challenging last 10 years. Despite difficult conditions across the industry, Muni has performed well, sustaining and recovering ridership and productivity faster than its peers, on average, while holding its aggregate service output constant. This performance over the last decade is evidence of both the enduring importance of transit to San Francisco and of SFMTA's high-quality service and prudent management.

Costs, Efficiency, and Effectiveness

Muni has shown a strong ability to recover ridership and support productivity relative to service levels, but it's important to examine changes in service provision costs and their effects on the system's productivity and effectiveness measures. Exhibit 15 shows Muni's total operating expenses as reported to the NTD, both in the year of expenditure and as adjusted by the Consumer Price Index (CPI) to 2024 dollars.

Exhibit 15. Total Muni Operating Expenditures in Year of Expenditure and in Consumer Price Index-Adjusted Dollars, 2015-2024

Once consumer price inflation is considered, Muni’s increase in operating costs appears relatively modest over the last decade.



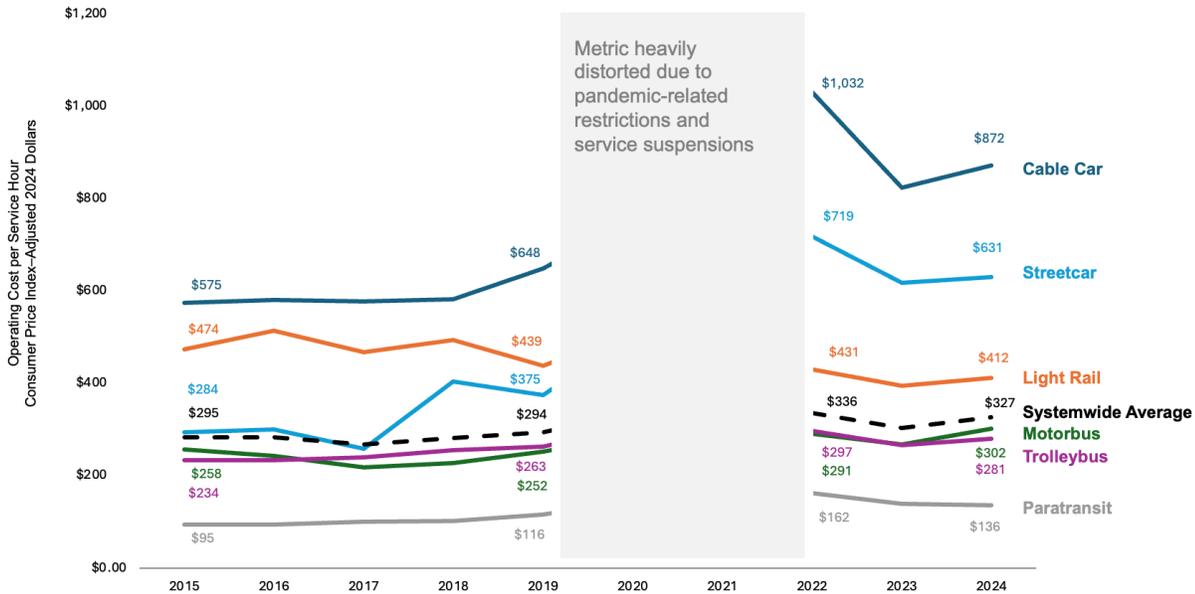
Source: SPUR’s analysis of data from the NTD and Bureau of Labor Statistics.

Note: The CPI data are for all urban consumers for 2015-2025 and are not seasonally adjusted.

Exhibit 16 translates this cost into a “cost per hour” measure for Muni’s various modes (with a break in fiscal year 2020-21, when service on some modes was fully or partially suspended due to the pandemic, which heavily distorted per-hour measures).

Exhibit 16. Muni Operating Costs per Revenue Hour by Mode, 2015–2024

Muni’s Consumer Price Index–adjusted cost per hour has gradually increased systemwide relative to 2015 but with significant variation by mode.



Source: SPUR’s analysis of NTD data.

Muni’s cost-per-hour data highlight important trends within the system. Systemwide, CPI-adjusted cost per hour has risen approximately 15% relative to 2015, with about 4% of that increase occurring before 2020, prior to any COVID-19-related impacts. Changes in hourly costs have also varied significantly by mode. Notably, historic cable car and streetcar services have seen large increases in hourly costs (up 51% and 114%, respectively). At the same time, Muni has achieved an impressive reduction in light rail costs per hour, delivering a 13% reduction in CPI-adjusted costs relative to 2015.

A direct comparison of Muni’s cost per hour with its peers’ yields mixed results, but it generally shows that Muni’s costs trend higher. Exhibit 17 includes comparisons of 2024 costs per hour reported to the NTD by Muni’s national peers for motor bus and light rail service, as well as systemwide costs.

Exhibit 17. Cost per Revenue Service Hour for SFMTA and National Peers, by Select Modes and Systemwide, 2024

Muni’s costs tend to be higher than peers’, but differences vary by mode. Motorbus and light rail values reflect only directly operated modes (and exclude services contracted to a third-party operator).

Agency (Metro Area)	Cost per Hour, Motorbus Only	Costs per Hour, Light Rail Only	Cost per Hour, All Modes
SFMTA	\$301.60	\$412.10	\$327.39
NYMTA (New York)	\$293.39	-	\$287.02
CTA (Chicago)	\$197.88	-	\$200.42
Metro (Los Angeles)	\$221.63	\$691.33	\$275.44
WMATA (Washington, D.C.)	\$272.51	-	\$302.88
MBTA (Boston)	\$302.24	\$420.18	\$351.63
NJT (New Jersey/New York)	\$213.96	\$560.24	\$327.86
SEPTA (Philadelphia)	\$207.34	-	\$232.38
King County Metro (Seattle)	\$256.20	-	\$227.03
Miami-Dade (Miami)	\$230.00	-	\$179.83
MTS (San Diego)	\$153.87	\$212.29	\$141.76
MARTA (Atlanta)	\$163.66	-	\$213.89
TriMet (Portland)	\$208.60	\$464.84	\$251.84
RTD (Denver)	\$346.72	\$311.28	\$258.73
DART (Dallas)	\$185.48	\$493.85	\$222.94
Average of Peer Set	\$237.01	\$445.76	\$253.40

Source: SPUR’s analysis of NTD data.

Muni’s 2024 motorbus cost per hour is among the highest in the county, behind only Denver’s RTD and Boston’s MBTA, and well above the average rate for its full peer set. Conversely, Muni’s light rail cost per hour is significantly lower than that of many of its peers. Systemwide, Muni’s costs are high (lower only than the MBTA and New Jersey Transit). But direct comparisons of systemwide costs are heavily influenced by factors such as the specific types and proportions of service a system operates (Muni, for example, is the only system in the United States that operates cable cars, a mode that in 2024 cost \$871 per hour of service provided, or nearly three times what it costs Muni to provide an hour of bus service).

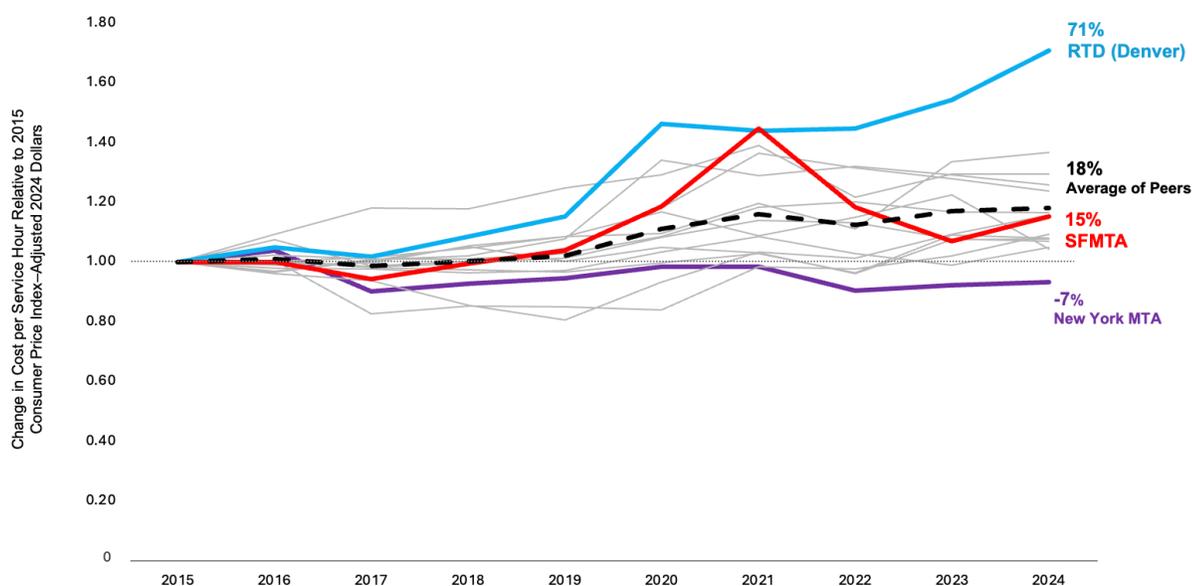
While Muni’s absolute costs trend toward the higher end of its peer group, elevated service costs are not surprising given the Bay Area’s broader economic context. According to the Bureau of Labor Statistics (BLS), the 2024 regional CPI for the San Francisco Bay Area was approximately 10% higher than the average national CPI for all

urban metropolitan areas in 2024.⁶ Similarly, a 2024 BLS analysis of public- and private-sector wage rates in the San Francisco metro area found wages (including those in the transportation sector) 25% higher than the national average.⁷ In this context, Muni’s hourly operating costs would be expected to be at least somewhat higher than those of national peers, simply due to differences in wage and material costs.

While Muni’s absolute costs are higher than average, Muni appears to have controlled cost increases well. Over the last decade, Muni’s change in operational spending has generally tracked its peers’ average or stayed below it. Exhibits 18 and 19 show changes in total operating spend and systemwide cost per hour, both indexed to 2015 values, across Muni’s peer group.

Exhibit 18. Change in Total Operating Cost, SFMTA and National Peers (Relative to 2015)

Muni’s operating costs have grown over the last decade but at a slower rate than most of its peers’ costs.



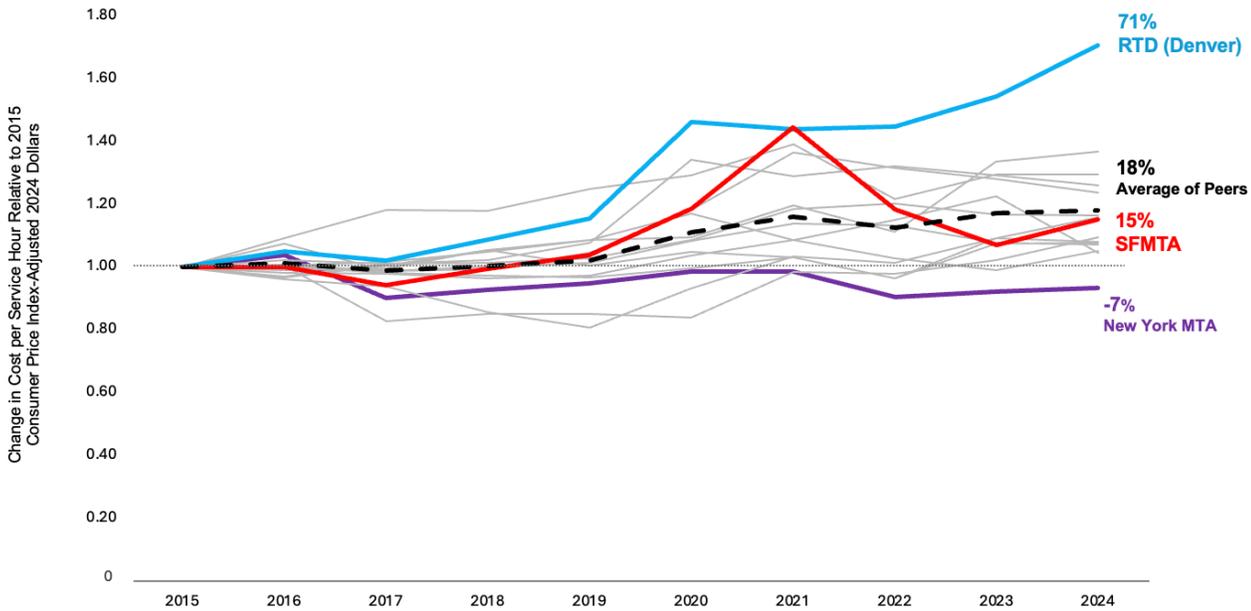
Source: SPUR’s analysis of NTD data. For specific transit agency data, see our dataset at spur.org/MuniAnalysis2026.

⁶ See Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers, 2015–2025, not seasonally adjusted, and Consumer Price Index for San Francisco–Oakland–Hayward, 2015–2024, <https://data.bls.gov/timeseries/CUUR0000SA0>.

⁷ U.S. Bureau of Labor Statistics, Western Information Office, “Occupational Employment and Wages in San Francisco–Oakland–Fremont — May 2024,” https://www.bls.gov/regions/west/news-release/occupationalemploymentandwages_sanfrancisco.htm.

Exhibit 19. Change in Systemwide Cost per Revenue Hour, SFMTA and National Peers (Relative to 2015)

Muni's cost per hour has increased more slowly than its peers' average cost per hour.



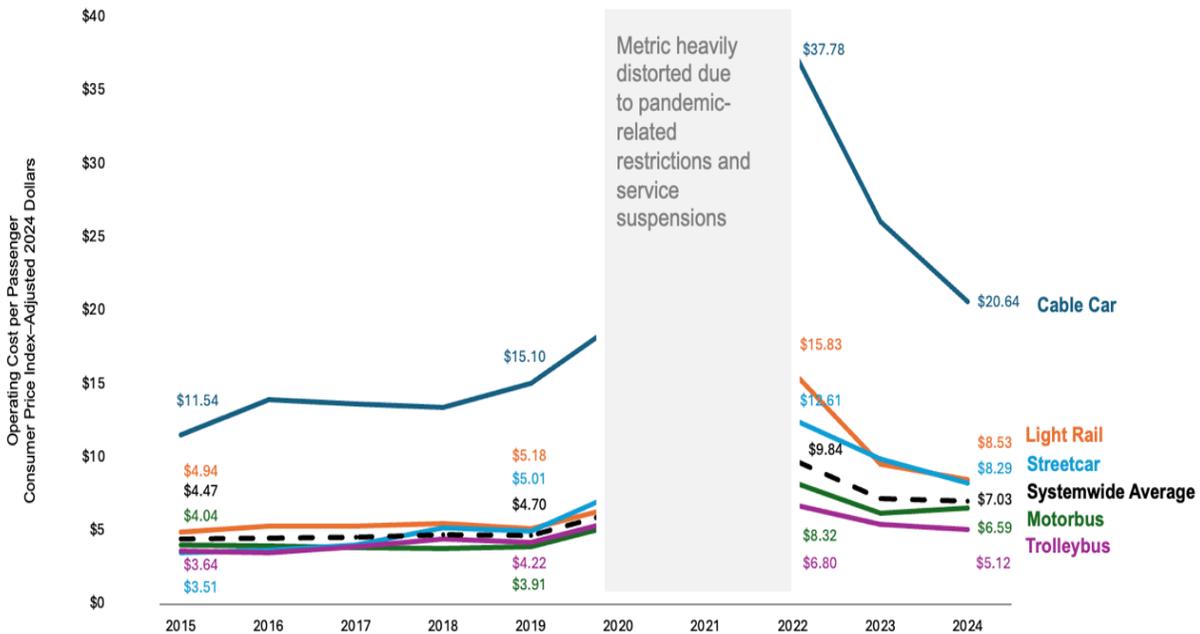
Source: SPUR’s analysis of NTD data. For specific transit agency data, see our dataset at spur.org/MuniAnalysis2026.

The two figures show that most large transit agencies have seen increases in both total operating costs and per-hour costs over the last decade, when adjusted for CPI. Indeed, only three agencies — the New York MTA, SEPTA, and Miami-Dade — saw reductions in total operating costs between 2015 and 2024, and only the New York MTA achieved a reduction in cost per service hour. Put another way, both SEPTA and Miami-Dade lowered their total costs but further reduced service, effectively decreasing their systems’ efficiency. Muni has seen increases of 15% in both metrics, tracking close to but below the average of its peers, indicating that the agency has generally done well in managing costs relative to its service outlay.

In addition to measuring cost efficiency, cost metrics can be combined with ridership metrics to provide a basic measure of “effectiveness” — what it costs a transit agency to deliver a single ride. Exhibit 20 shows Muni’s cost per passenger by mode in CPI-adjusted dollars, along with a systemwide average. Cost per passenger can vary substantially by mode because this metric captures both differences in operating costs and the relative productivity of each mode.

Exhibit 20. Muni Cost per Passenger by Mode, 2015–2024

Muni’s cost per passenger varies substantially by mode and has increased steadily over the last decade, although values are now falling from pandemic highs.



Source: SPUR’s analysis of NTD data.

As Exhibit 20 indicates, Muni’s costs per passenger have increased over the last decade, although they are now declining from pandemic-era highs. Overall, 2024 costs per passenger were up 57% since 2015, but there is significant variation by mode: costs per passenger on historic cable cars rose 136%, compared with a more modest 41% increase for trolleybus passengers.

Muni’s high productivity, combined with its generally higher costs, yields cost-per-rider metrics that remain strong compared with its peers’. Exhibit 21 shows Muni’s absolute cost per passenger in 2024 for motorbus, light rail, and systemwide. Generally, Muni’s costs per passenger are lower than the average for its peers, both for individual modes and for the system as a whole.

Exhibit 21. Cost per Passenger, SFMTA and National Peers, 2024

Muni's exceptional productivity enables the system to achieve a relatively low cost per passenger compared with its peers' cost.

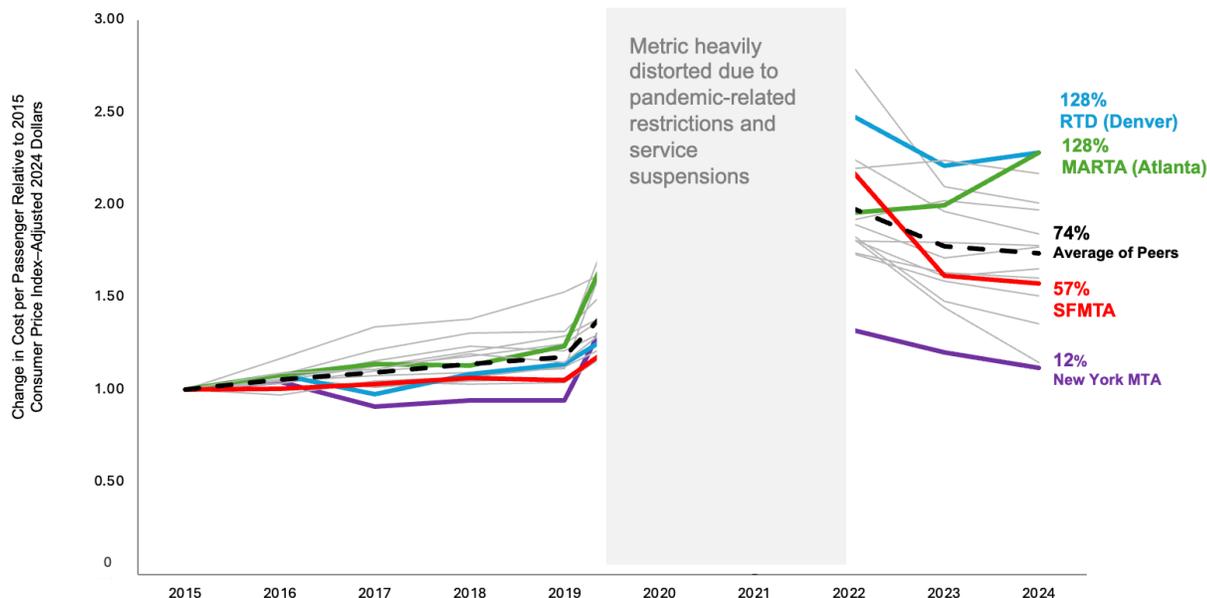
Agency (Metro Area)	Cost per Passenger, Motorbus Only	Costs per Passenger, Light Rail Only	Cost per Passenger, All Modes
SFMTA	\$6.59	\$8.53	\$7.03
NYMTA (New York)	\$3.61	-	\$3.68
CTA (Chicago)	\$5.96	-	\$6.20
Metro (Los Angeles)	\$6.42	\$14.50	\$7.99
WMATA (Washington, D.C.)	\$8.95	-	\$11.25
MBTA (Boston)	\$7.24	\$7.25	\$8.59
NJT (New Jersey/New York)	\$8.94	\$5.88	\$13.25
SEPTA (Philadelphia)	\$7.19	-	\$7.73
King County Metro (Seattle)	\$10.57	-	\$11.39
Miami-Dade (Miami)	\$6.80	-	\$7.39
MTS (San Diego)	\$6.77	\$3.58	\$5.05
MARTA (Atlanta)	\$9.32	-	\$10.18
TriMet (Portland)	\$9.70	\$10.74	\$11.06
RTD (Denver)	\$14.34	\$14.64	\$13.88
DART (Dallas)	\$12.91	\$12.09	\$14.06
Average of Peer Group	\$8.35	\$9.65	\$9.25

Source: SPUR's analysis of NTD data.

Muni's performance on a cost-per-passenger basis also looks strong when considered in terms of cost changes since 2015. All of Muni's peers have seen their CPI-adjusted cost per passenger increase over the last decade, from a low of 12% for the New York MTA to a high of 128% for both Denver's RTD and the Metropolitan Atlanta Rapid Transit Authority (MARTA). Overall, Muni's national peer set has seen a 74% increase in cost per passenger, while SFMTA held to a 57% increase — again, beating the average (Exhibit 22).

Exhibit 22. Change in Cost per Passenger, SFMTA and National Peers (Relative to 2015)

All agencies examined have seen costs per passenger increase over the last decade, but SFMTA has managed to keep Muni's rate of increase below the average of its peers'.



Source: SPUR's analysis of NTD data. For specific transit agency data, see our dataset at spur.org/MuniAnalysis2026.

While Muni does have somewhat elevated operating costs relative to its national peers, these higher costs can be at least partially explained by the generally high costs of labor and materials in the Bay Area and by the influence of some higher-cost services Muni operates (most notably, the cable cars). More importantly, Muni has effectively controlled cost growth, achieving lower total cost growth than its peers' average and a lower cost-per-hour growth rate. Thanks to its exceptional productivity, Muni also achieves a relatively low cost per passenger across modes and systemwide, and it has more controlled cost-per-passenger growth than its peers.

Digging into the Data: Areas for Further Analysis

The preceding analysis of efficiency, productivity, and effectiveness metrics shows that the last decade has been difficult for transit as a whole, but it also indicates that SFMTA has consistently managed Muni service well relative to its peers. Unfortunately, prudent management and beating the averages are not enough to avoid a fiscal cliff. As SFMTA has acknowledged, the agency will need to rely on new funding from two planned 2026 ballot measures, as well as on more than \$100 million annually in additional savings and efficiencies, to balance its budget.⁸

At its February 3, 2026, budget workshop, SFMTA staff outlined several initial strategies and areas where the agency is seeking internal savings, including staffing refinements to reduce premium pay, changes to maintenance practices and facilities to reduce ongoing costs, and deployment of new technologies to increase productivity and revenues. In addition to SFMTA's own efforts, the Metropolitan Transportation Commission recently initiated a multiyear financial efficiency review of Muni, BART, Caltrain, and AC Transit to identify strategies for agencies to reduce costs and improve ridership.

⁸ SFMTA, "2026 SFMTA Board Workshop," presentation, February 3, 2026, <https://www.sfmta.com/media/44326/download?inline>.

As these efforts get underway, a deeper dive into NTD data from the last decade points to six additional areas of Muni’s business that may be fruitful for analysis and discussion.

Transit Speeds: Unlike peer agencies that operate significant portions of their service on freeways or long stretches of dedicated right-of-way, SFMTA must provide the vast majority of Muni service on San Francisco’s surface streets. Consequently, Muni’s average speeds tend to be slow. In 2024, Muni averaged 7.3 miles per hour across all modes, with a high of 8.5 miles per hour on the light rail system and a low of just over 2 miles per hour for the cable cars (these speeds reflect average speed during the entirety of revenue service — not just when the vehicle is in motion. Speeds appear especially low because they include time spent at traffic signals and transit stops. On a positive note, Muni’s speed has increased slightly (2% systemwide) over the last decade, while most of its national peers saw slight declines in average speed.

As traffic congestion in San Francisco continues to grow, sustaining and increasing the speed of Muni’s buses and trains will be essential to building ridership and improving the agency’s fiscal health. Running transit faster means a given bus or train can serve more people in less time, allowing the agency to deliver the same service with fewer resources or expand service without requiring new investment. Enhancements to increase transit speeds are central to SFMTA’s long-standing Muni Forward program, a data-driven agency initiative to increase transit performance and improve reliability through targeted infrastructure improvements. The agency has already achieved notable success in increasing speeds on individual routes, such as the 38 and 49, through transit-priority treatments, including dedicated lanes, signal priority, and improved boarding facilities, resulting in up to 35% reductions in travel time.⁹ Continuing and expanding on these successful efforts to speed transit are among the most direct ways SFMTA can both reduce service costs and make transit more attractive and useful to riders.

Light Rail Productivity: Muni’s light rail system has seen a remarkable improvement in cost efficiency over the last decade — a 13% decline in cost per hour of service since 2015 — but its ridership recovery and productivity have lagged those of other modes. Prior to COVID-19, the light rail system accounted for between 22% and 23% of Muni’s total ridership, but as of 2024, light rail’s share had declined to 18% of total ridership, and its productivity (measured in riders per hour) fell by 50%, a steeper drop than any other mode. Muni’s light rail system is oriented toward downtown service, so it’s unsurprising that ridership has recovered slowly as downtown San Francisco has struggled to rebuild post-pandemic activity levels. BART, for example, is also focused on downtown commute trips and has seen a slower recovery than Muni’s light rail system.

The more extensive physical infrastructure of the light rail system means that SFMTA has less flexibility to tailor and adapt service to new markets. It also means that a larger proportion of the costs of maintaining and operating light rail are “fixed” and won’t scale directly with changes in service levels. Therefore, growing ridership and increasing productivity on the light rail system will have an outsized impact on Muni’s business metrics and will be essential to the system’s long-term health. Fortunately, Muni’s more recent ridership data show that light rail ridership has recovered significantly since 2024, with more than 30% growth in weekday trips from January 2024 to January 2026 (compared with 13% systemwide growth during the same period).

Fleet: As of 2024, Muni had some 1,155 active vehicles in its fleet, excluding vehicles used to provide demand-responsive paratransit service. This total represents roughly 15% growth from 2015 (primarily driven by new light rail and motorbus vehicles) — the highest level of fleet expansion among the peer agencies analyzed. Muni also maintains a high “spare ratio” (the ratio of total active vehicles in the fleet to the number deployed during peak service). Muni’s 2024 spare ratio of 1.7 is significantly higher than its peer

⁹ SFMTA, Fast Forward: 10 Years of Muni Forward, 2014-2024, September 2024, <https://www.sfmta.com/media/40687/download?inline>.

agencies' average of 1.4 and is the highest among the agencies examined, except for RTD in Denver (which has a spare ratio of 1.89). Muni's spare ratio has also steadily increased, ranging from 1.2 to 1.5 pre-pandemic (values more typical of its national peers) and growing significantly post-2020.

Muni has good reasons to maintain a large fleet and a higher-than-typical spare ratio. In general, fleet counts can fluctuate from year to year as new tranches of vehicles are purchased or retired. Additionally, Muni operates numerous modes (each with a distinct vehicle type) and must further differentiate its fleet to meet its varied market needs and operating environment, providing the capacity to accommodate large crowds in some cases while deploying smaller vehicles that can traverse steep hills and narrow streets in others. Nonetheless, fleet maintenance is a significant cost driver for any transit agency — and it may be worthwhile for Muni to evaluate its fleet strategy and either affirm or adjust it.

Headcount and Labor: Nearly three-quarters (72%) of Muni's 2024 operating expenditures went to labor, the single largest driver of Muni's operating costs. An examination of factors influencing headcount and labor practices will be unavoidable as the agency considers how to reduce costs and increase efficiency. The NTD collects significantly less data on employees and labor issues than on other aspects of transit's business, limiting the potential for comparative labor analyses among agencies. Nonetheless, two trends in the available data are worth noting. First, Muni appears to perform well in labor productivity, averaging 2.6 employee-hours per hour of transit service delivered. This level of productivity is slightly better than the average rate of 2.7 hours of labor per hour of service delivered across Muni's national peer group. Second, the number of full-time employee positions dedicated to various aspects of Muni operations expanded significantly (22%) between 2015 and 2024. While NTD data don't illuminate the rationale for this increase, much of it was likely to build staffing up to more operationally sustainable levels. Muni has struggled to meet its performance target for the percent of scheduled service delivered (98.5%), but it has seen sustained improvement over the last several years as staffing has grown, and it has consistently hit or exceeded its target since late 2022.¹⁰ Notably, SFMTA's own, more recent data show the agency's headcount declining in the fiscal year 2025–2026 budget. In 2025, the SFMTA Board of Directors also moved to eliminate more than 500 vacant positions from the amended fiscal year 2025–26 budget, adding another constraint on further staffing growth.¹¹

Fare Revenues: SFMTA reported just more than \$97 million in fare revenues to the NTD in 2024, a 66% reduction from its 2015 total of more than \$283 million, adjusted for inflation. This drop in fare revenues is substantial and significantly exceeds Muni's 27% drop in ridership during the same period. Stated another way, independent of changes in total ridership, Muni experienced a 53% drop in per-passenger fares between 2015 and 2024, resulting in a significant loss of revenue for the system.

Understanding the dynamics of Muni's declining fare revenues is complex, and much of the drop may result from deliberate choices made by policymakers. Over the last decade, both SFMTA and the San Francisco Board of Supervisors instituted or expanded significant fare discount programs, including making Muni free for youth, seniors, people with disabilities, and people experiencing homelessness, as well as providing discounted fares and passes for qualified customers on limited incomes.¹² SFMTA, at the request of the

¹⁰ SFMTA, "Percentage of Scheduled Muni Service Hours Delivered," February 1, 2026, <https://www.sfmta.com/reports/percentage-scheduled-muni-service-hours-delivered>.

¹¹ SFMTA, "Fiscal Year 2025–2026 Budget and 5-Year Projection," presentation to SFMTA Board of Directors, September 2, 2025, <https://www.sfmta.com/media/43204/download?inline>.

¹² SFMTA, "Getting Around — Muni: Fares," <https://www.sfmta.com/getting-around/muni/fares>.

Board of Supervisors, also paused planned fare increases during the COVID-19 pandemic, resulting in rates falling behind inflation.¹³

While SFMTA's level of fare loss is not unique among its peers, it is unusual. All agencies examined saw total fares and fares per passenger fall over the last decade, with Portland's TriMet, Washington, D.C.'s WMATA, and Los Angeles' Metro all experiencing declines in total fares or fares per passenger at rates similar to Muni's. However, most of Muni's national peers experienced lower declines in total fare collections and saw fares per passenger decrease at a more modest rate. SFMTA has acknowledged challenges with increased fare evasion in recent years and, as of spring 2025, has significantly increased fare inspection activity, nearly doubling the rate of passenger inspections between 2024 and 2025 and increasing the revenue collected per rider by 6% during the same period.¹⁴ As SFMTA seeks to stabilize its financial outlook, it should continue to examine the extent to which lower fare revenue stems from deliberate policy choices or from other factors that could be mitigated, such as elevated fare evasion rates.

Cable Car Costs: Cable cars are a symbol of San Francisco, a major tourist attraction, and an indelible feature of the city's cultural and historical landscape. But as Exhibit 20 indicates, they are also extremely costly to operate relative to other modes. Cable car service cost Muni \$81 million to operate in 2024, or roughly 7% of the system's total operating cost. On an hourly basis, cable cars cost \$871 to operate, well beyond the systemwide average of \$327 per hour. Similarly, the cost per passenger for cable cars stood at nearly \$21 in 2024, nearly three times the systemwide average of \$7.

SFMTA's responsibilities and requirements relative to cable car operations are spelled out in surprising detail in San Francisco's City Charter (a practice that SPUR highlighted and recommended for reevaluation in its recent Charter for Change report).¹⁵ While SPUR doesn't recommend changing SFMTA's role in cable car operations, the agency may wish to explore options to generate additional revenue from the cable car system or seek supplemental support from the city's budget, given the outsized expense of providing cable car service and the unique value this mode brings to the city as a cultural attraction. SFMTA already acknowledges the special status of cable cars by pricing them differently from other modes and by excluding cable car service from some of its passes and fare discount programs.¹⁶ The agency should continue to seek opportunities to align cable car revenues and funding more closely with the ongoing costs of operating this important attraction.

Each of the topics described above is a complex subject worthy of in-depth analysis that goes beyond what can be discerned from NTD data or adequately examined within the scope of a single research paper. Again, however, as with vitals taken at a doctor's office, looking at NTD data can reveal important trends or prompt questions for further analysis.

¹³ "Supes, SFMTA Board Announce No Muni Fare Increases for Next 2 Years," *Bay City News*, June 10, 2020, <https://www.nbcbayarea.com/news/local/san-francisco/supes-sfmta-board-announce-no-muni-fare-increases-for-next-2-years/2307046/>.

¹⁴ SFMTA, "Transit Fare Optimization and Compliance," presentation to SFMTA Board of Directors, April 15, 2025, <https://www.sfmta.com/media/42040/download?inline>.

¹⁵ B. Rosenfield, M. Skelly, and N. Neditch, *Charter for Change: Empowering San Francisco's Government Through Charter Reform*, SPUR, November 2025, https://www.spur.org/sites/default/files/2025-11/SPUR_Charter_for_Change.pdf.

¹⁶ SFMTA, "Getting Around — Muni: Fares," <https://www.sfmta.com/getting-around/muni/fares>.

Conclusion

Data across a range of business metrics and transit agencies show that the last decade has been a challenging period for public transit in the United States. Costs have risen, ridership has fallen, and transit operators have struggled to adapt their services amid a rapidly changing business environment. While San Francisco and Muni have hardly been immune to these trends, a national review of high-level efficiency, productivity, and effectiveness metrics shows that Muni has consistently beaten the curve, performing at or above the average of its national peer group on core measures of cost control, ridership recovery, system productivity, and cost to deliver passengers. This strong performance does not mean there aren't opportunities for Muni to become more efficient. Indeed, the agency must find ways to reduce costs and increase revenues if it is to stabilize its finances. But as city voters contemplate November 2026 ballot measures to support transit, these metrics should give them confidence that Muni is a well-managed, efficient, and highly productive transit system.

The Many Modes of Muni

SFMTA operates many “modes” or subcategories of transit service. Throughout the transit industry, modes are defined by the type of vehicle used (such as motor-bus coach or light-rail car) and sometimes by the characteristics of the service provided (on-demand paratransit service, for example). Different modes have distinct operational costs, maintenance needs, and performance characteristics, and they are typically tracked and reported separately.

Most of SFMTA’s service is provided on motorbus, trolleybus, and light rail modes. But the agency also operates paratransit services as well as historic cable car and streetcar services.



Motorbus Service

SFMTA’s dominant mode uses rubber-tire bus coaches of varying size. Motor buses have historically relied on diesel fuel but SFMTA’s new fleet are hybrid electric and run on a blend of traditional diesel and biodiesel fuel.



Trolleybus Service

This large fleet of rubber-tire buses is powered by electricity from an overhead catenary system. Trolleybuses are less polluting than diesel or hybrid vehicles, but their need for overhead wires introduces additional maintenance elements and complicates rerouting.



Light Rail Service

Muni Metro includes six lines radiating outward from downtown. The system includes underground subway segments with dedicated stations, but large portions of the light rail network run on surface streets with auto traffic.



Paratransit Service

Under federal law, transit agencies are required to provide door-to-door paratransit service for passengers who have a disability that prevents them from accessing scheduled, fixed-route transit services. SFMTA’s paratransit services use smaller vehicles, and customers call in advance to schedule trips.



Cable Car Service

Unique in the world, this mode of historic transit pulls cars using cables running under the street. San Francisco's cable cars were designated a national historic landmark in 1964.



Historic Streetcar Service

Since the 1980s, SFMTA has operated a limited number of streetcar lines along the Embarcadero and Market Street using historic streetcar vehicles from cities around the world.

Photos: Jeremy Menzies | SFMTA Photo

Source: SFMTA "Meet our Fleet" <https://www.sfmta.com/muni-transit>

Glossary

Consumer Price Index (CPI)

A measure published by the U.S. Bureau of Labor Statistics that tracks inflation and is used to compare costs across years.

CPI-Adjusted Dollars (Inflation-Adjusted Dollars)

Dollar values adjusted using the Consumer Price Index so costs from different years can be compared on an equivalent basis. In this paper, many costs from past years have been CPI-adjusted to 2024.

Cost per Passenger

The average operating cost to deliver one passenger trip, calculated by dividing total operating costs by total passenger trips. Cost-per-passenger values cited in this paper have been calculated on an annualized basis.

Cost per Revenue Service Hour

The average cost to operate one hour of transit service, calculated by dividing total operating costs by total number of hours an agency's transit vehicles are operating and available to the public. Costs per revenue service hour cited in this paper have been calculated on an annualized basis.

Effectiveness

A measure of how a transit agency converts operating resources into passenger trips, commonly expressed as cost per passenger trip or cost per passenger mile.

Fare Revenue

Revenue collected directly from passengers as payment for use of the system.

Indexed Values (e.g., 2015 = 1.00)

A way of showing change over time by expressing all values relative to a base year. A value of 1.00 represents the base year.

Mode

A classification of transit service based on the type of vehicle and operating characteristics used to provide service. Common transit modes include bus, light rail, heavy rail, commuter rail, streetcar, ferry, and demand-responsive (paratransit) service.

National Transit Database (NTD)

A federal database maintained by the Federal Transit Administration that collects standardized data on transit service, ridership, and finances.

Operating Costs (Operating Expenses)

Ongoing costs required to operate transit service, including labor, maintenance, fuel, and administration, but excluding capital costs associated with long-term expansion of the system, vehicle replacements, or major rehabilitations.

Operating Deficit

The gap between operating expenses and operating revenues when expenses exceed revenues.

Passenger Trips (Ridership)

The total number of boardings on transit vehicles. Each boarding counts as one trip, regardless of distance traveled. Ridership values cited in this paper are measured annually.

Passenger Miles

The total number of miles traveled by passengers on transit vehicles. Unlike passenger trips, this metric captures the distance traveled by passengers in addition to their use of the system.

Passengers per Hour

A measure of transit productivity indicating how many passenger trips are carried per hour of revenue service.

Productivity

A measure of how much ridership is generated per unit of service, commonly expressed as passengers per revenue service hour or passengers per revenue service mile.

Revenue Service Hours

The total hours that transit vehicles are operating and available to carry passengers, excluding non-revenue operations.

Revenue Service Miles

The total miles traversed by transit vehicles when they are available to carry passengers, excluding non-revenue operations.

Service Output

The amount of transit service provided, typically measured using revenue service hours or revenue service miles.

Spare Ratio

The ratio of total active vehicles available for operations to the number of vehicles required to operate peak service, indicating fleet availability and resilience.