



Massachusetts Bay Transportation Authority

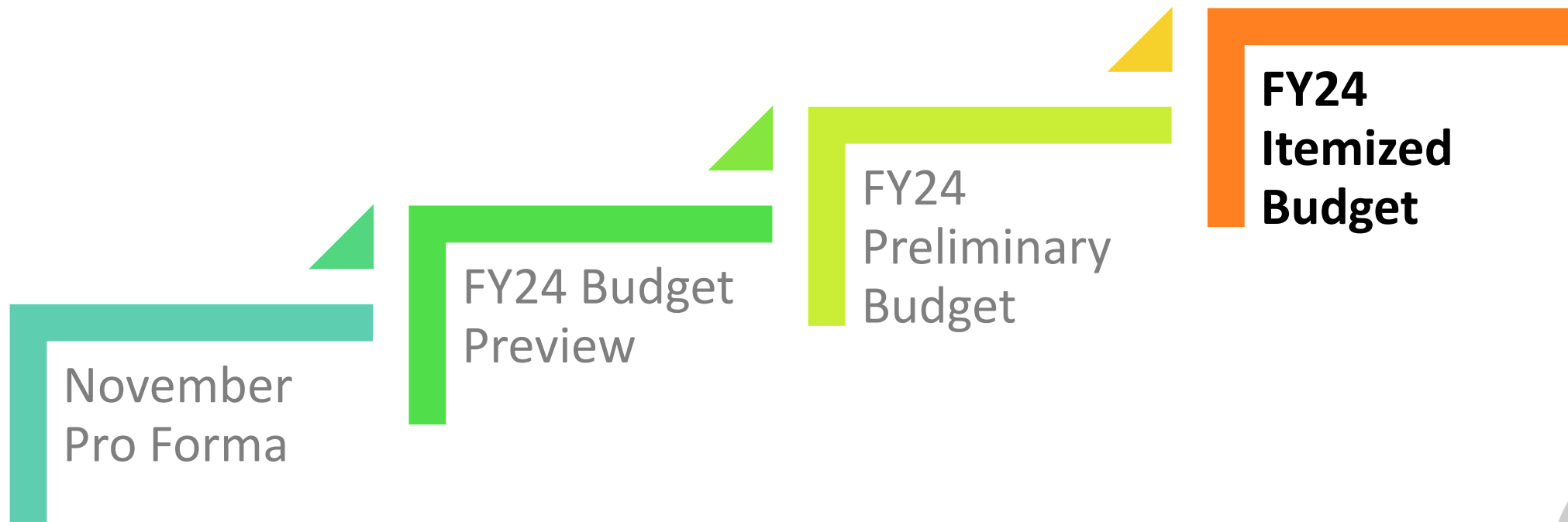
FY24 Operating Budget

Finance & Audit Committee

May 11, 2023

FY24 Operating Budget Process

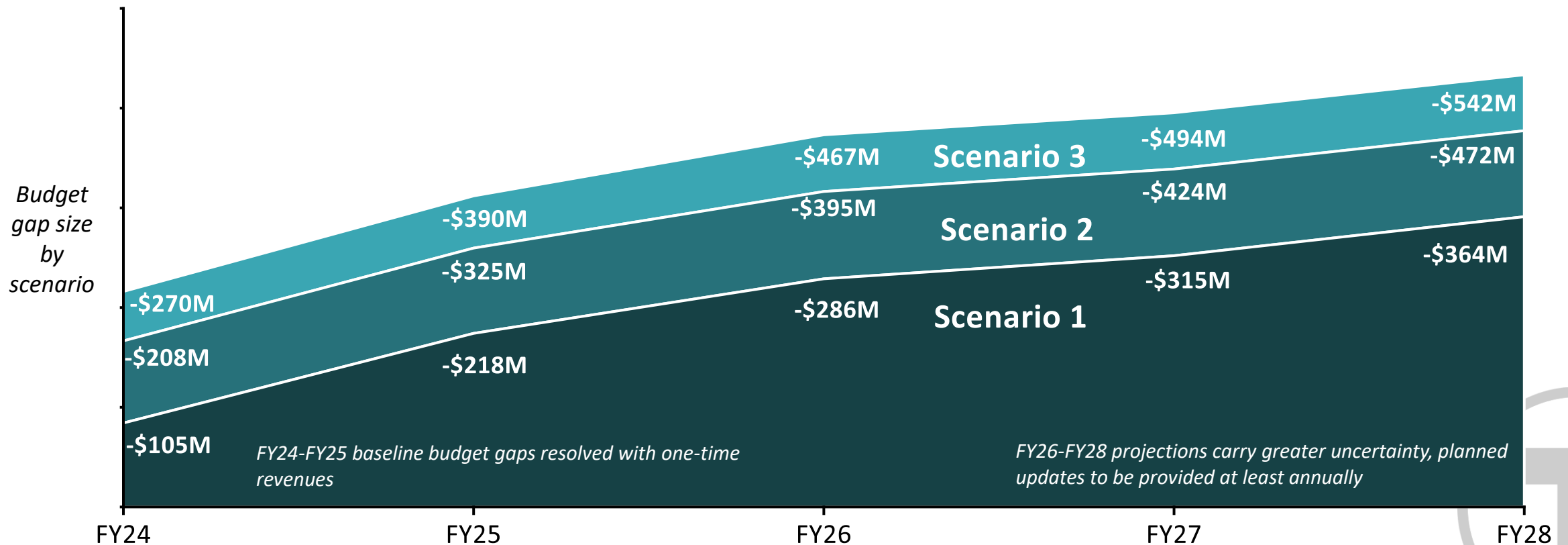
- Beginning with the November Pro Forma, several budget presentations have been made to the Board to approve guiding principles, detail safety and service investments, and provide historical spending and revenue data



Recap of Five-Year Budget Gap Projections from Pro Forma Presentation (November 2022)

Excluding all FTA directive spending and one-time revenues

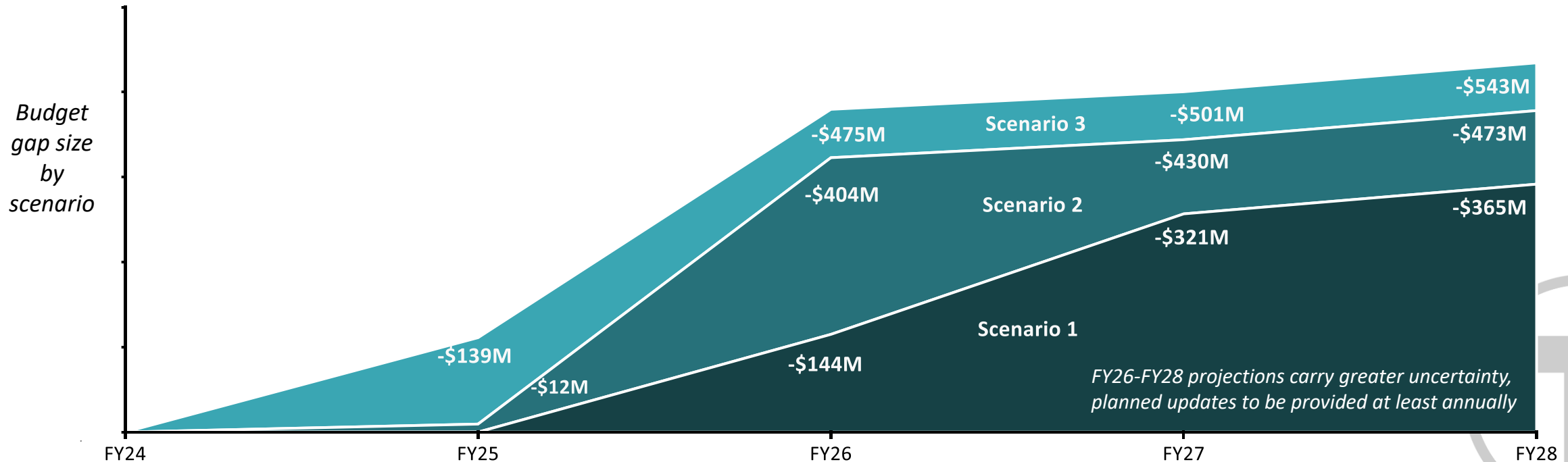
- **Excluding** the FTA directive response and one-time revenues, annual operating expenses would exceed operating revenues in all fare revenue scenario ranges for the next five years
- FY24-FY25 baseline budget gaps shown planned to be resolved with one-time revenues



Recap of FY24 – FY28 Budget Projections from Pro Forma Presentation

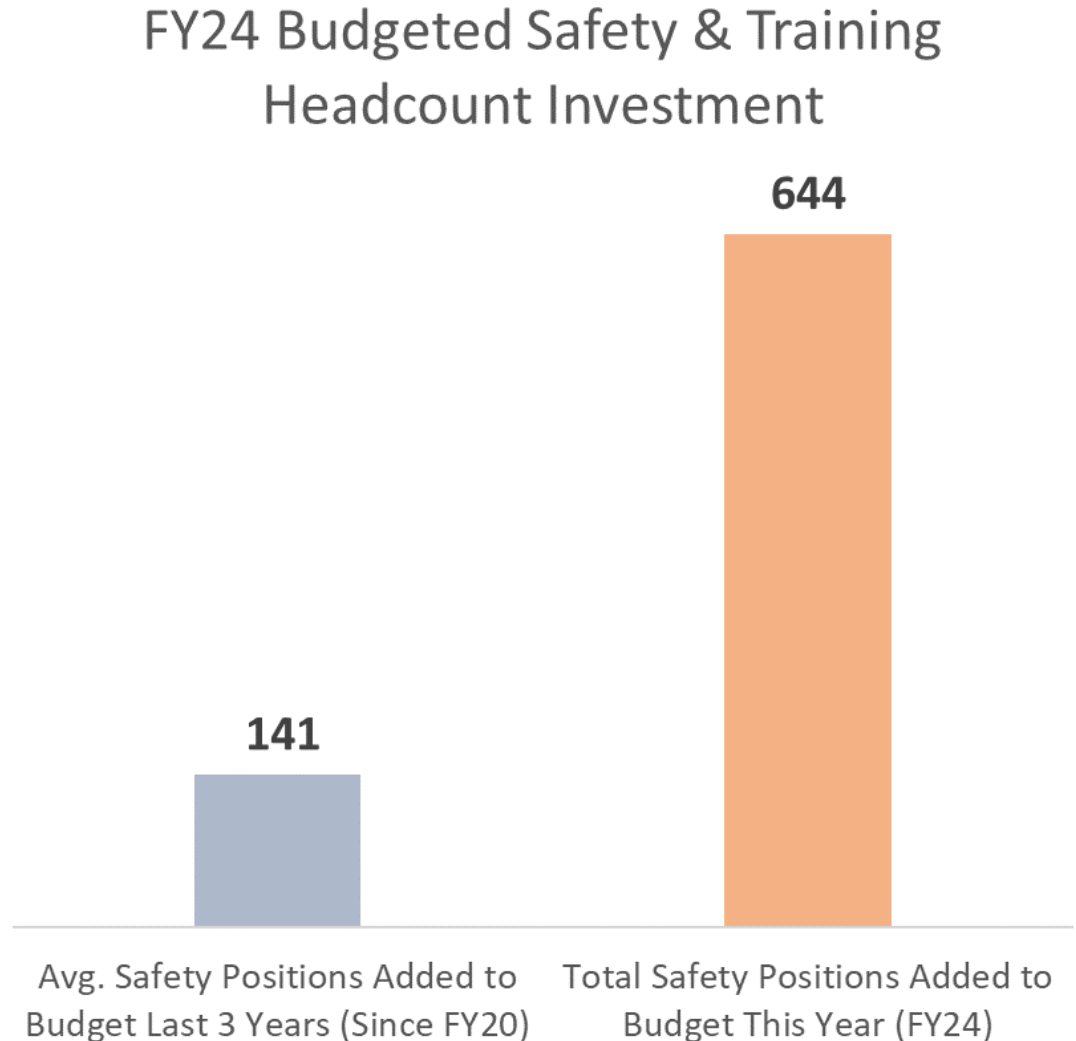
Including Initial (June) FTA directive spending and one-time revenues

- One-time reserve revenues are projected to resolve the budget gap in FY24 and FY25 under higher fare revenue scenarios
- Actual budget gaps depend on fare revenue and actual spending over the next two years



New Investments & Improvements in FY24 Budget

- **Major investment in safety and training quadruples prior year efforts**
 - More than half of all new spending directly related to safety and training
 - Headcount investment for safety and training more than four times the amount over the last three years
- As proposed in the Governor’s budget, **\$181M in new one-time capital investments** like bridge rehabilitation, station and accessibility improvements, and red-blue connector project
- As proposed in the Governor’s budget recommendation, \$5M in new one-time funding for the feasibility of implementing **a means-tested fare program to expand affordability**
- **New Chief Safety Officer position** for MassDOT & MBTA as the primary representative for overall safety issues relating to transportation



FY24 Operating Budget Summary

- Seeking Board vote to approve the FY24 budget and maintain Deficiency Fund transfer policy to plan for next year
- Fare revenue and ridership growth assumptions consistent with Board approved direction and preliminary budget vote
- New budgeted positions consistent with Board approved direction on safety and service expansions and preliminary budget vote

Revenue

- ✓ Updated modal ridership projection for FY24 fare revenue model
- ✓ Incorporating one-time state funding assistance for FTA directive response as currently appropriated
- ✓ Including new one-time funding assistance for capital investments and Means-tested fare program as included in Governor's FY24 H.1 budget recommendation
- ✓ Sales tax revenue estimate based on state consensus revenue projections
- ✓ Utilize Deficiency Fund reserve to balance operating budget gap in FY24, as outlined in the November 2022 five-year Pro Forma outlook

Additional Investments

- ✓ Add new safety positions to respond to FTA directives
- ✓ Building on prior year investments in additional safety & enhancing training capacity
- ✓ Maintaining high-level commitment to recruitment and retention efforts
- ✓ Ensuring funds for the operation of the Green Line Extension
- ✓ Committing funds for upcoming operation of South Coast rail expanded service
- ✓ Investing more budgeted resources towards Bus Network Redesign
- ✓ Planning for new Means-tested fare program and progress for Fare Transformation, including fare verification

FY24 Programmatic Investments

- Investments in multiple priority initiatives for safety and service add to the operating budgeted headcount
- Adding new positions allows the MBTA to continue to aggressively post, recruit, and hire new positions to meet safety and service goals
- Given current labor market challenges, adding new positions will also likely maintain or increase the number of budgeted vacancies in the short-term, despite enhanced HR efforts
- Consistent with Board direction during Budget Preview Presentation in March 2023 and Preliminary Budget Presentation in April 2023

FTA directive response

- Response to August 2022 FTA report issuing special directives and individual action items on areas including right of way safety, rail yard train movements, Operations Control Center, safety certifications, workforce capacity, mitigating safety risks, safety promotion, and quality control/assurance – 455 new positions

Safety & Training beyond FTA directive scope

- Further investments in safety and training beyond the scope of the FTA’s safety management inspection (SMI), including bus transportation, preventative and corrective maintenance at facilities and stations, and enhanced capacity to train and hire new staff – 189 new positions

Bus Network Redesign

- Adding 126 new positions to continue the goal of phasing in a 25% increase in service over several years across the network to prioritize equity and add more frequent service (subject to bus operator shortages and hiring)

Green Line Extension

- Adding 54 new positions to fully operate and maintain the expanded light rail service, which opened for full service in December 2022

Means-tested Fares

- Low-Income Fares expands fare affordability across modes, addressing an existing gap for the low-income population ages 26-64, supported through the Governor’s budget recommendation of \$5M in one-time start-up costs

FTA Safety Directive Response

FTA Safety Directive Response

\$68M in operating expenses in FY24 with \$44M for 455 new positions (subject to workforce assessment findings) and \$24M for project management, engineering, and recruiting contracts services along with personal protective equipment (PPE)

Track Maintenance & PPE: \$13.5M

- Addressing right of way safety, track repair, and consistent PPE requirements (*Directive 22-04*) – 97 positions

Vehicle Securement: \$13.7M

- Rail yard and maintenance facility safety surrounding train movements (*Directive 22-05*) – 153 positions

Operations Control Center: \$4.9M

- Enhanced staffing, capacity, and policies at Operations Control Center (OCC) (*Directive 22-06*) – 49 positions

Safety Certifications: \$3.9M

- Ensuring proper certifications and training material for safety-sensitive rail personnel (*Directive 22-07*) – 38 positions

Workforce Assessment: \$6.0M

- Workforce assessment to understand capacity and development of recruitment and hiring plan (*Directive 22-09*) – 37 positions

Safety Information & SMS: \$1.7M

- Enhance safety communication, procedures, training, and safety assurance and mitigate risk (*Directive 22-10*) – 16 positions

Safety Communication: \$0.4M

- Improve safety management, reporting, and process (*Directive 22-11*) – 4 positions

Policies & Training: \$11.3M

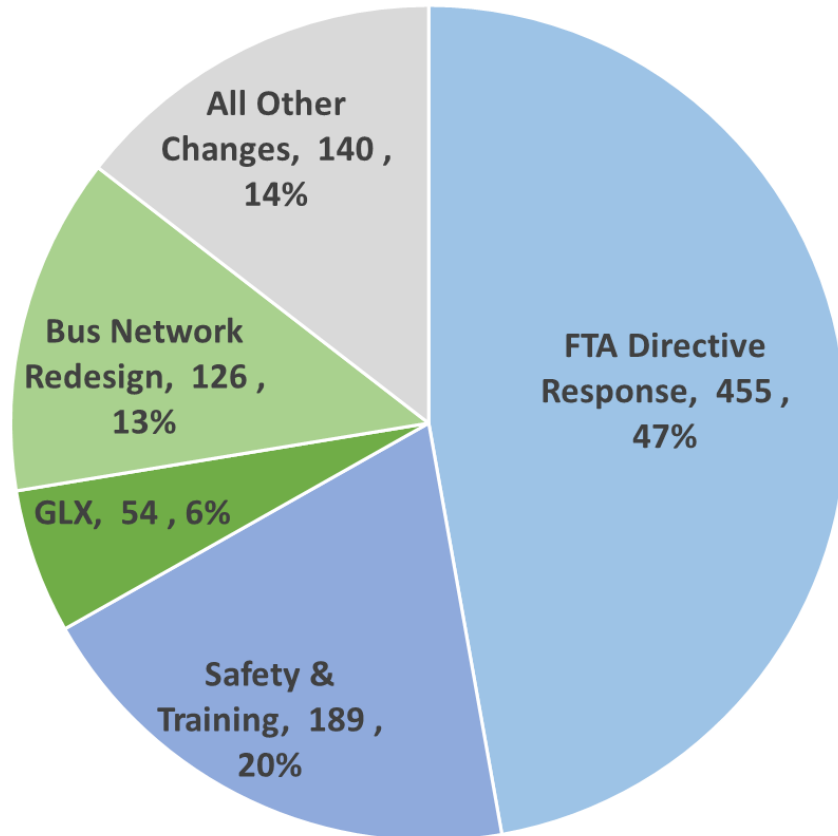
- Develop operating and maintenance policies on rail transit operations, QA/QC, and procedures (*Directive 22-12*) – 28 positions

Safety Directive Support: \$13.5M

- Supporting all directives under the coordination of the Quality Compliance Oversight Office – 33 positions

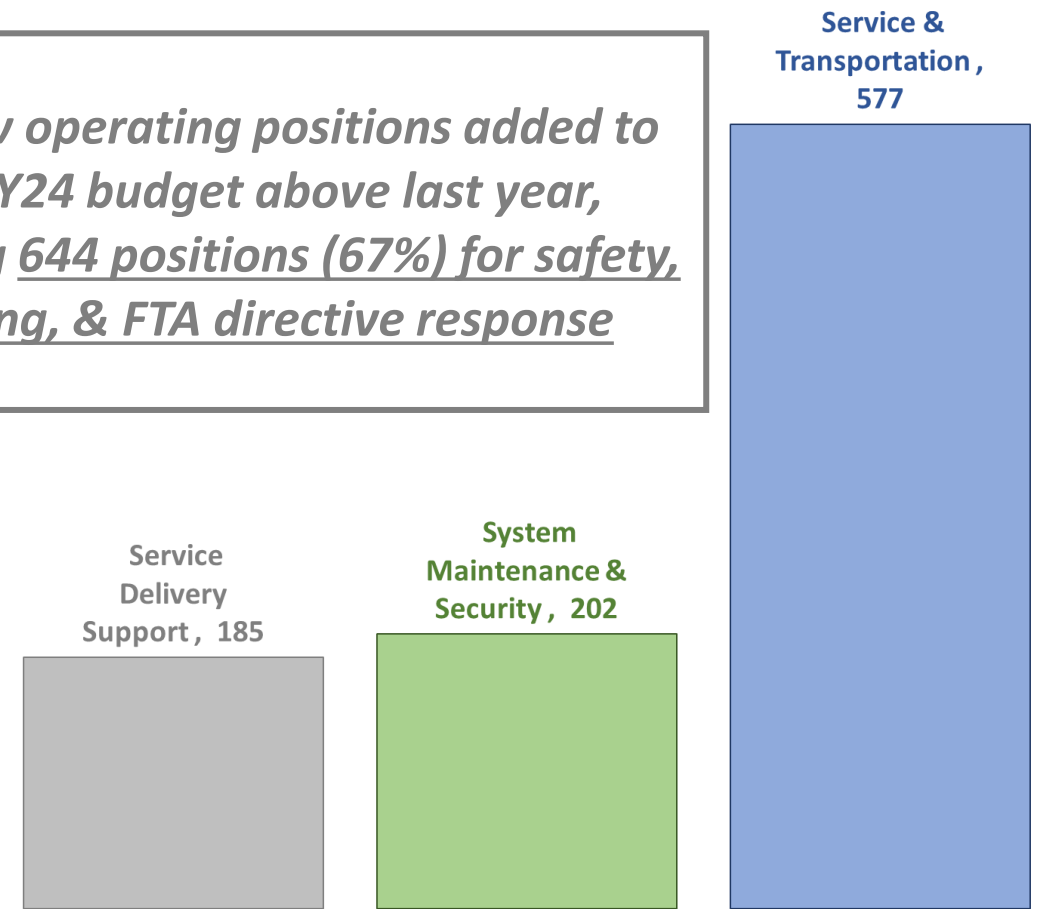
Programmatic Investment/Increase Position Detail

FY24 Programmatic Initiative Increases



FY24 Output & Department Mission Increases

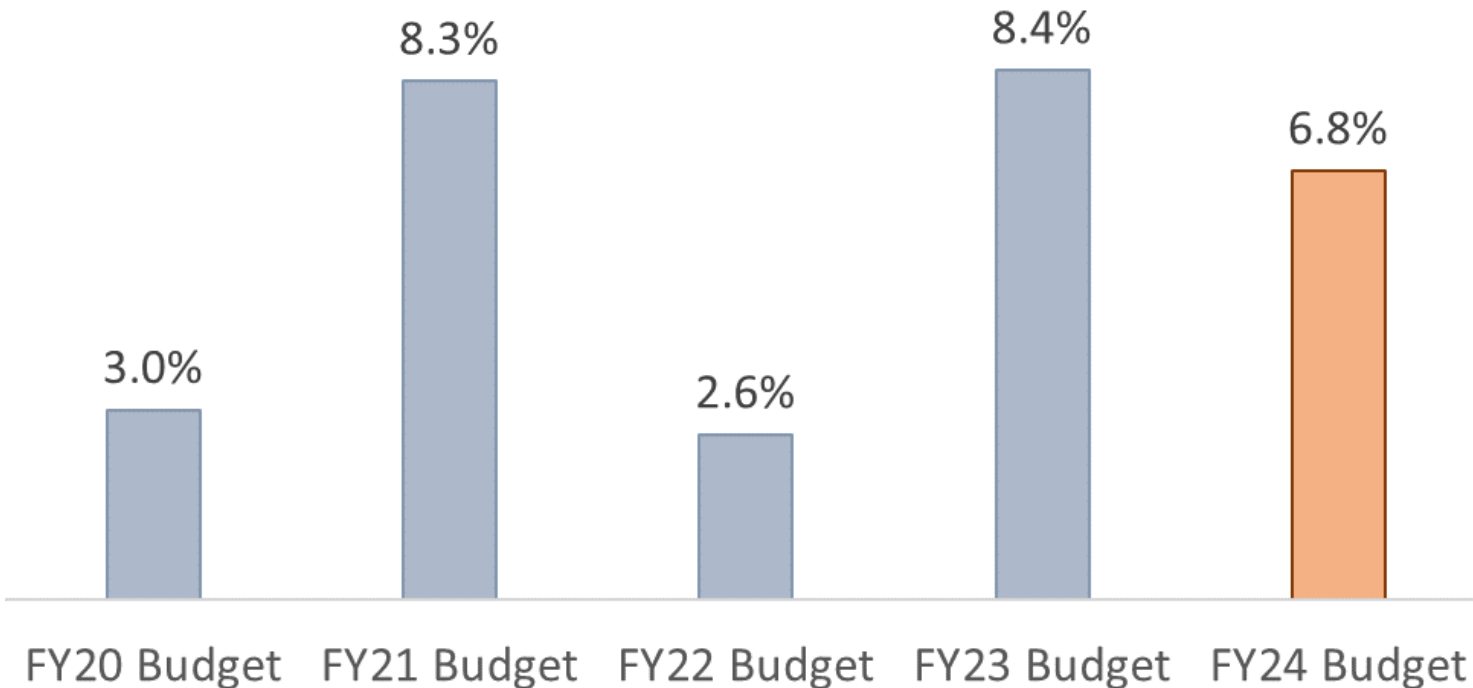
964 new operating positions added to the FY24 budget above last year, including 644 positions (67%) for safety, training, & FTA directive response



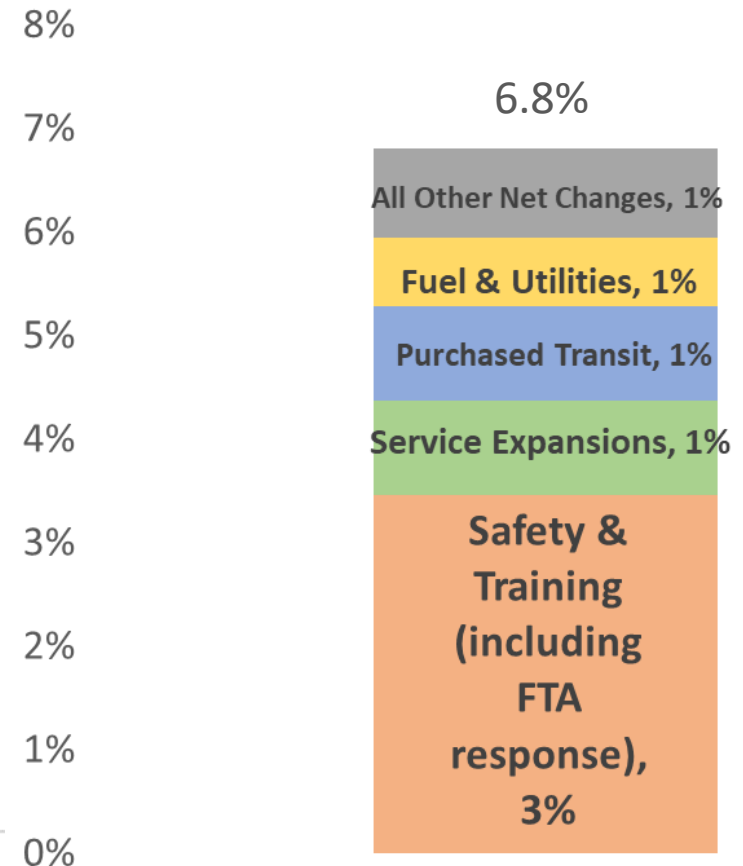
Total Budget Expense Growth Breakdown

6.8% total budget expense growth driven by safety & training, including FTA directive response

Total Budget Expense Growth
FY20 approved budget - FY24 preliminary budget

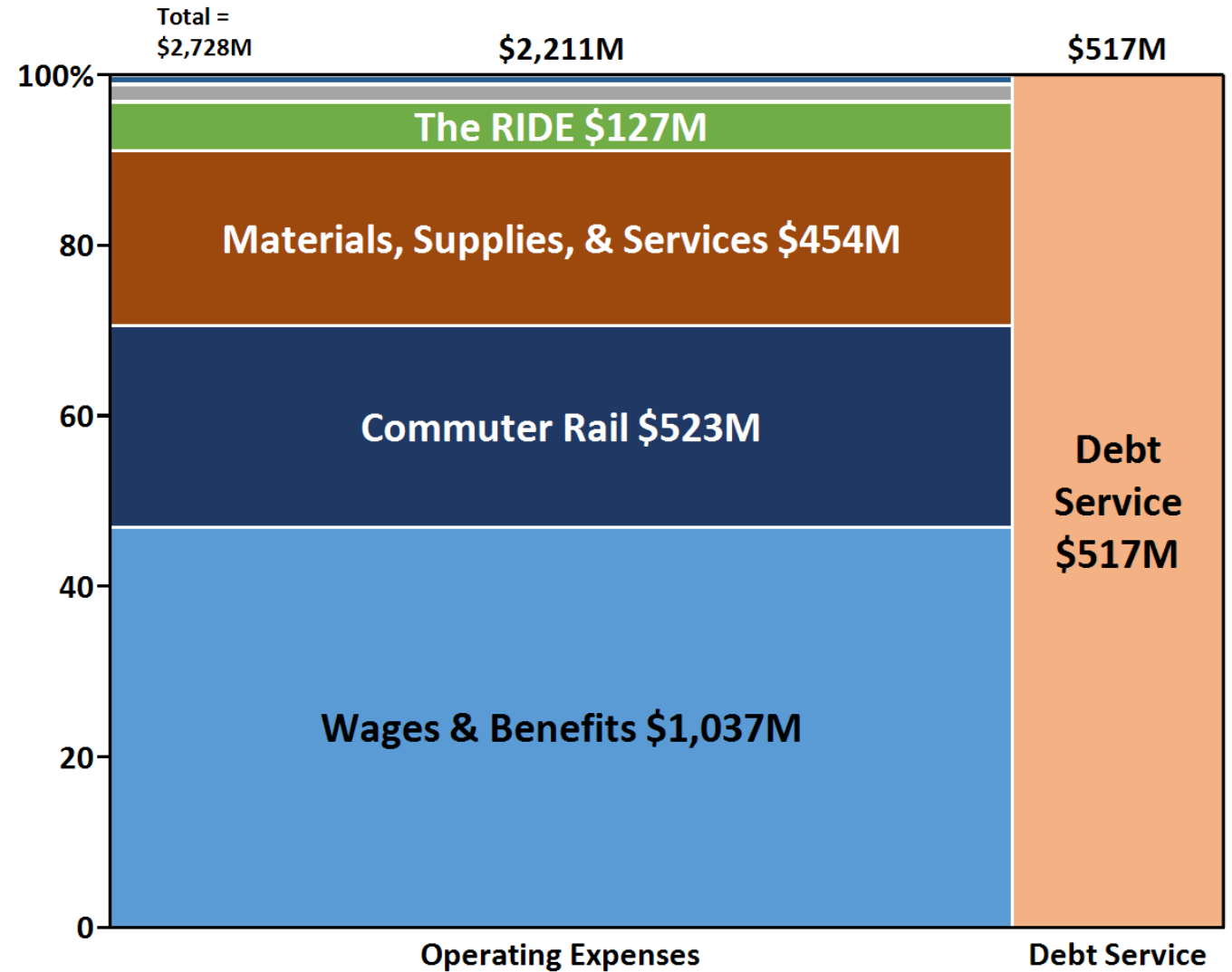


Breakdown of FY24 Budget Growth



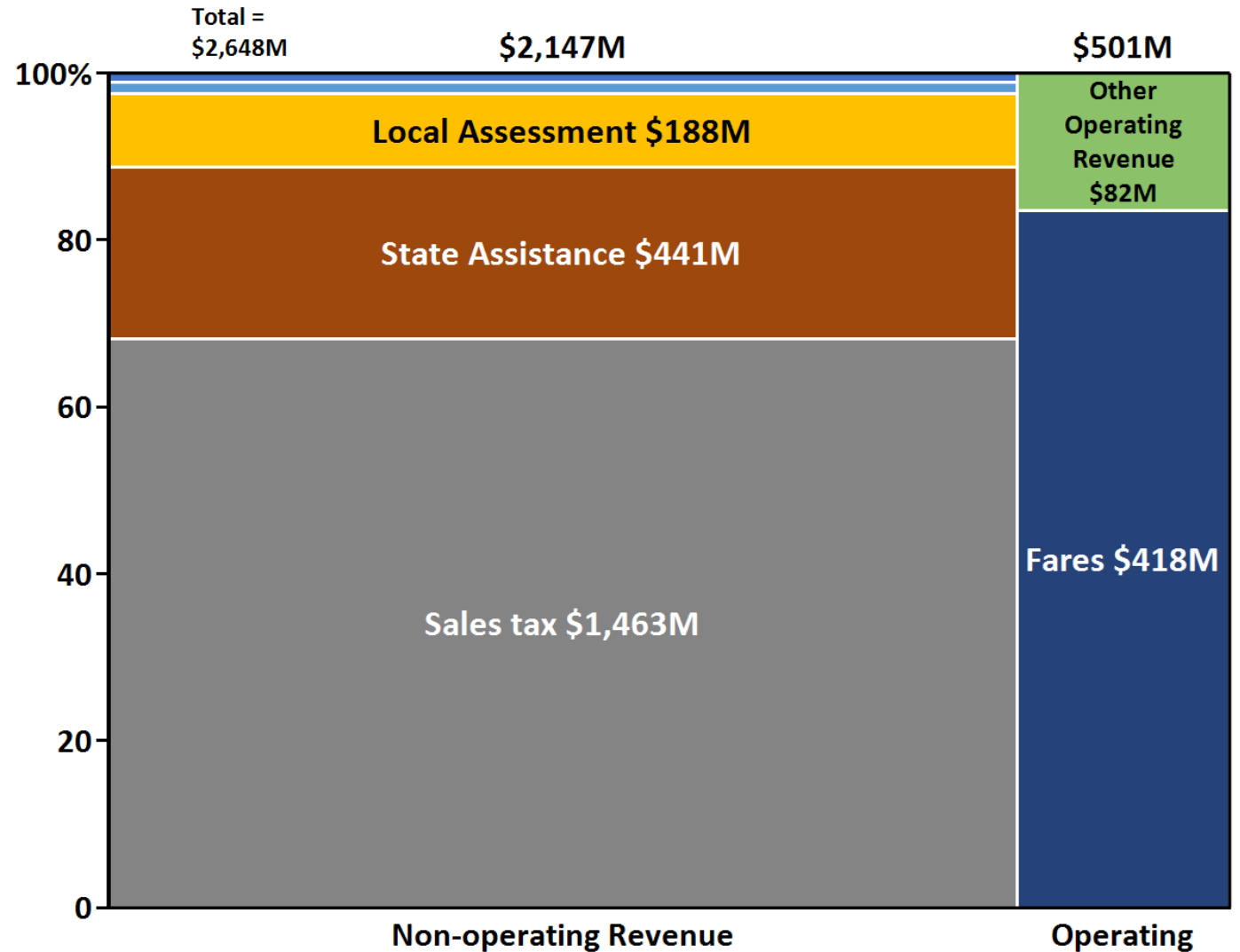
FY24 Spending Budget Overview

- 81% of FY24 budget spending is operating expenses
 - 38% for wages and benefits to operate and support service systemwide
 - 25% for purchased transit to run commuter rail, RIDE, ferry, and other local service
 - 17% for materials, supplies, and services, including fuel, cleaning, and utilities
 - 1% for all other remaining expenses
- Remaining 19% for debt service and the cost of borrowing for capital improvements and maintenance



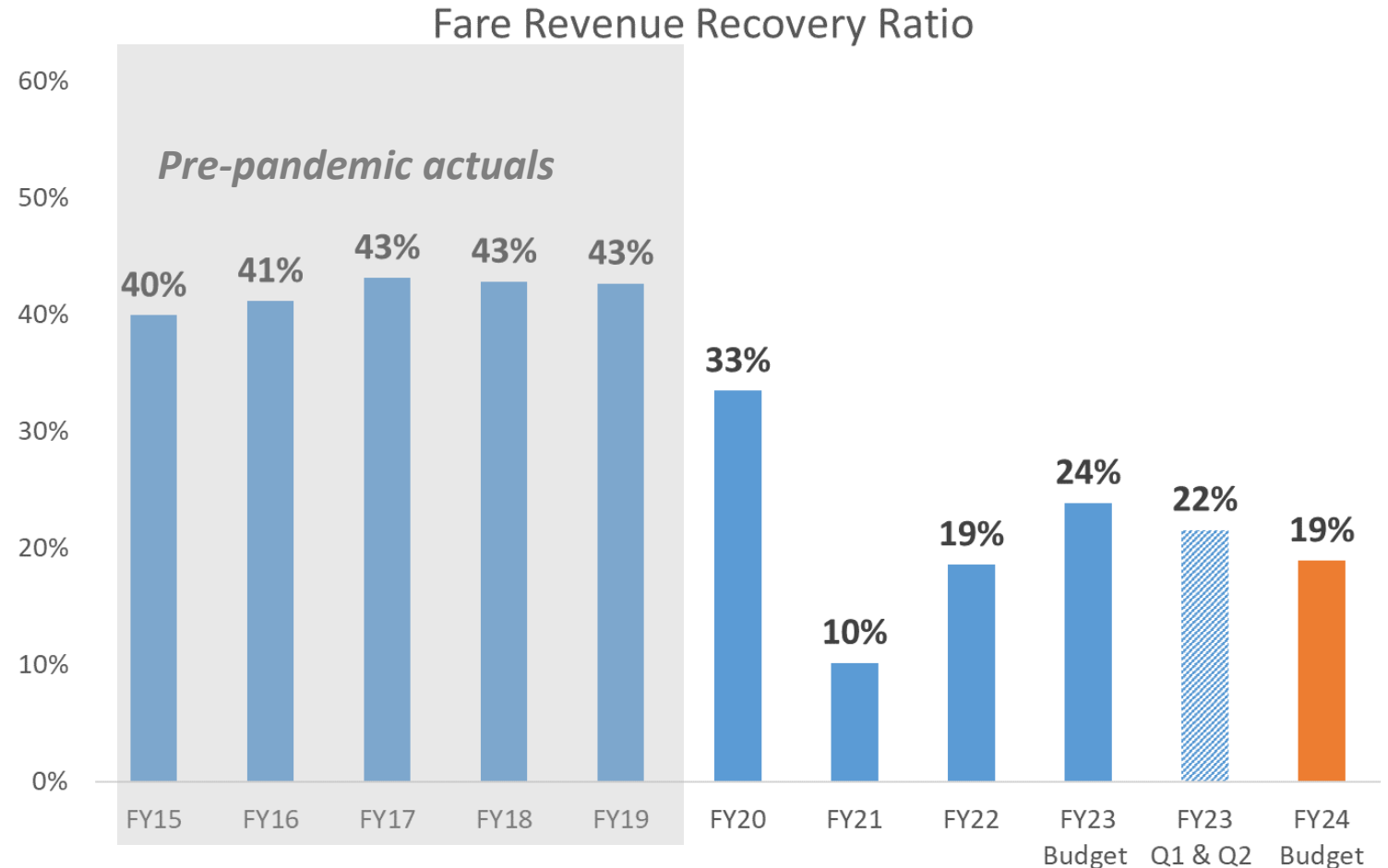
FY24 Revenue Budget Overview

- 81% of FY24 budget revenue is subsidy (non-operating) revenue
 - Sales tax revenue is 55% of total
 - State assistance is 17% of total revenue, with more than half being one-time
 - Local assessment is 7% of total revenue
- Fare revenue accounts for 16% of total revenue
- Other operating (own-source) revenue accounts for remaining 3%



Fare Revenue Recovery Ratio

- Fare revenue recovery ratio of **19%** as operating expense growth exceeds fare revenue growth
 - \$418M in fare revenue and \$2,211M in operating expenses in FY24 budget
 - \$474M in fare revenue and \$1,987M in operating expenses in FY23 budget
- Prior to COVID-19, fare revenue recovery ratio had stabilized at 43% by FY19
- Fare revenue recovery ratio demonstrates the portion of fare revenue supporting or funding operating expenses (excluding debt service payments)



FY24 Preliminary Budget Balance Summary

- FY24 initial budget gap of \$366M fully offset through one-time revenues and transfers
- **\$285M of various one-time sources, including \$186M proposed in Governor’s H.1 budget**
 - \$181M in one-time capital investments from Governor’s FY24 H.1 budget recommendation to be transferred to the capital budget
 - \$68M of already appropriated \$378M in one-time state assistance funds for FTA safety directive response
 - \$31M in estimated FEMA reimbursement revenue for cleaning and PPE expenses already incurred in prior years
 - \$5M in one-time state assistance for start-up costs for a means-tested fare program as included in the Governor’s FY24 H.1 budget recommendation
- **\$261M Deficiency Fund reserve transfer, below latest Pro Forma constraints**
 - November 2022 Pro Forma modeled up to \$270M Deficiency Fund transfer, depending on the level of fare revenue

Description (\$M)	Amount (\$M)
Recurring Revenues	2,363
Total Expenses	2,728
<i>Initial Budget Gap</i>	<i>(366)</i>
One-time sources	285
One-time Capital Investment Transfer	(181)
Deficiency Fund Reserves	261
<i>FY24 Net Revenue (after transfers)</i>	<i>0</i>



Next Steps in Operating Budget Planning



Risks/Opportunities for FY24 Budget Tracking & Reporting

- **FTA safety spending:** Pace of actual spending and any additional investments stemming from ongoing corrective action plan progress, including the workforce assessment
- **Hiring & headcount:** Hiring progress compared to prior year actuals given substantial increase in budgeted headcount for safety and service enhancements
- **Fare & Own-source revenue:** Monitoring any further growth in ridership and its impact on revenue
- **Sales tax revenue:** Monitoring any further gains above state budget benchmarks, one of the leading factors behind recent year budget favorability



Request of the Board: Budget Vote

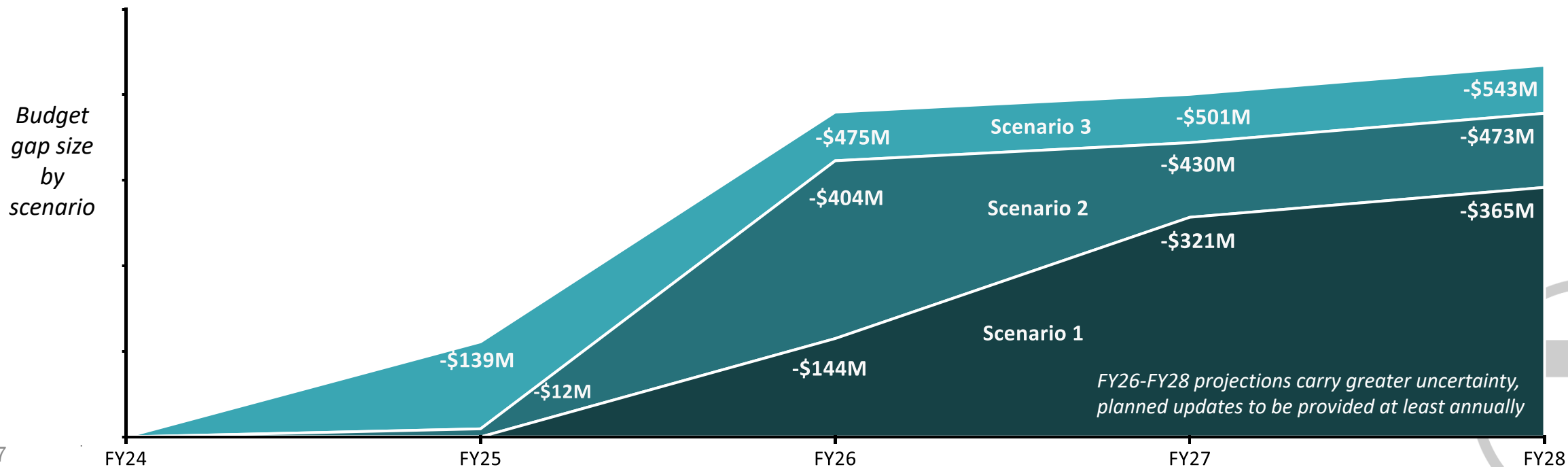
- **It is VOTED:**
- To approve the Authority's itemized budget of current operating expenses and debt service costs, for a one-year period from July 1, 2023 through June 30, 2024, in the amount of \$2,728,126,655, as presented May 25, 2023; and
- That the General Manager is hereby authorized and directed to submit the approved itemized budget, in the name and on behalf of the Authority, to the MBTA Advisory Board no later than June 15, 2023 in accordance with Section 20 of Chapter 161A of the Massachusetts General Laws; and



Recap of FY24 – FY28 Budget Projections from Pro Forma Presentation

Including Initial (June) FTA directive spending and one-time revenues

- One-time reserve revenues are projected to resolve the budget gap in FY24 and FY25 under higher fare revenue scenarios
- Actual budget gaps depend on fare revenue and actual spending over the next two years



Maintaining a Forward-Looking Approach

- As done the last three years, continuing to transfer favorable budget results in FY24 into the Deficiency Fund will mitigate FY25 budget gap depending on any realized exposures or opportunities
- Voting to sequester favorability to the Deficiency Fund from FY21 - FY23 has remedied recent budget gaps on a year-to-year basis

Maintaining Deficiency Fund Transfers Policy

Temporarily mitigates potential budget gaps in future years

Protects against potential budget risks in the upcoming year

Funding source for new/unbudgeted initiatives and priorities



Request of the Board: Deficiency Fund

- **It is VOTED:**
- To authorize the transfer of surpluses, defined as total revenues less total expenses, above the amounts identified in the adopted FY24 budget, as may be amended, to the Operating Budget Deficiency Fund to mitigate the projected deficit in FY25 or FY26 and any other current or future obligations.



Appendix

Revenue Summary & Assumptions

- **Fare revenue** and **Other operating revenue** (parking, advertising, real estate, etc.) decrease consistent with updated FY24 modal projection update
- **Sales tax revenue** carried at consensus state tax estimates under the Governor’s FY24 H. 1 budget recommendation to the Legislature
- **State assistance** increase, beyond \$187M in recurring assistance, reflects additional one-time funding assistance for multiple investments
 - \$181M in one-time state assistance for capital projects, as proposed in H.1
 - \$68M of already appropriated \$378M in one-time state assistance for FTA safety directive response
 - \$5M in one-time state assistance for start-up costs for a means-tested fare program in H.1
- **Federal revenue** reflects anticipated FEMA reimbursement for cleaning and PPE expenses already incurred in prior years
- **Net transfers** includes \$261M in Deficiency Fund reserve funds to balance operating budget gap offset by \$181M transfer for one-time capital investments per FY24 H.1

Item (Figures in millions)	FY23 Budget	FY24 Budget	\$ Change	% Change
Fare Revenue	474.3	418.5	(55.9)	-12%
Other Operating Revenue	82.6	82.4	(0.1)	0%
Subtotal Operating	556.9	500.9	(56.0)	-10%
Sales Tax	1,325.1	1,463.5	138.4	10%
Local Assessment	183.8	188.4	4.6	3%
State Assistance	187.0	441.4	254.4	136%
Other Income	13.0	22.9	9.8	76%
Federal	32.0	31.4	(0.7)	-2%
Subtotal Non-operating	1,740.9	2,147.4	406.5	23%
Total Revenue	2,297.8	2,648.3	350.5	15%
Net Transfers	255.7	79.8	(175.9)	-69%
Total Sources	2,553.5	2,728.1	174.6	7%

Table compares FY23 Board approved budget to FY24 preliminary budget assumptions



Spending Summary & Assumptions

- **Wages and benefits** increase accounts for additional headcount for FTA safety directive response, additional safety & training, Bus Network Redesign, and collective bargaining agreements
 - 7,643 operating budget positions, 964 (14%) above the FY23 budget
- **Materials, Supplies, & Services** includes \$24M for FTA directive response costs for professional services contracts, PPE, and recruiting along with added scope of multiple contracts to include GLX service locations and other inflationary pressures
- **Commuter rail** includes fixed price contractual cost increase combined with additional scope changes in preparation for South Coast Rail service and flexibility for peak ridership service expansion
- **Debt service** consistent with obligations associated with capital borrowing costs while managing the overall stability of the long-term debt portfolio

Item (Figures in millions)	FY23 Budget	FY24 Budget	\$ Change	% Change
Wages & Benefits	932.0	1,036.7	104.8	11%
Materials, Supplies, & Services	365.5	453.9	88.4	24%
Other Operating Expenses	37.9	45.4	7.5	20%
Commuter Rail	503.5	522.7	19.2	4%
The RIDE	126.2	127.1	0.9	1%
Ferry	18.7	21.7	3.0	16%
Other Local Service Subsidy	3.3	3.6	0.4	11%
Subtotal Operating	1,987.1	2,211.2	224.1	11%
Debt Service	566.5	516.9	(49.5)	-9%
Total Expenses	2,553.5	2,728.1	174.6	7%

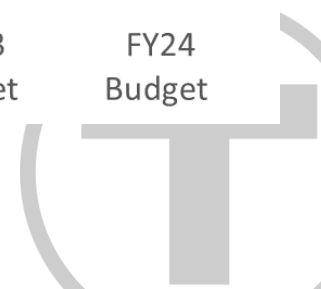
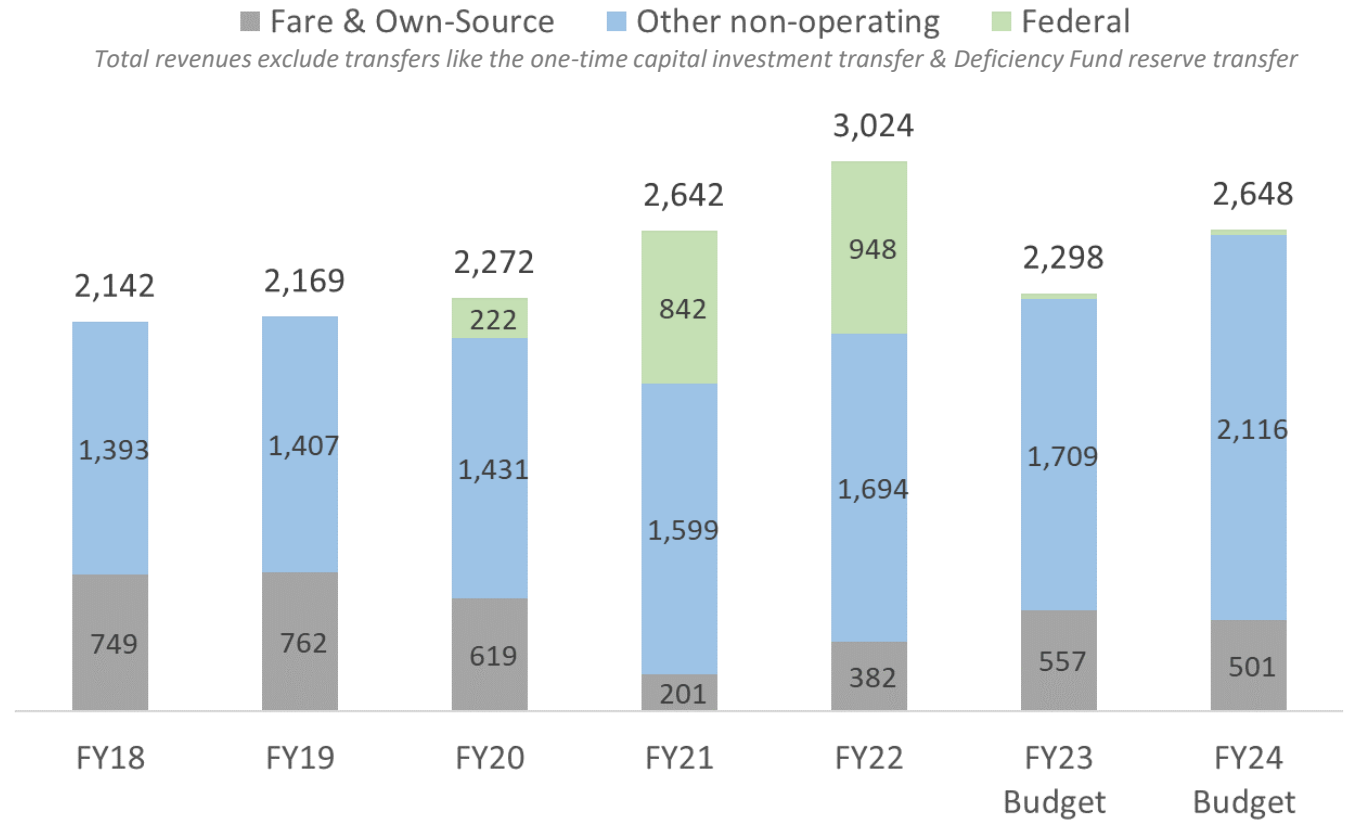
Table compares FY23 Board approved budget to FY24 preliminary budget assumptions



Operating, Non-operating, & One-time Federal Revenues

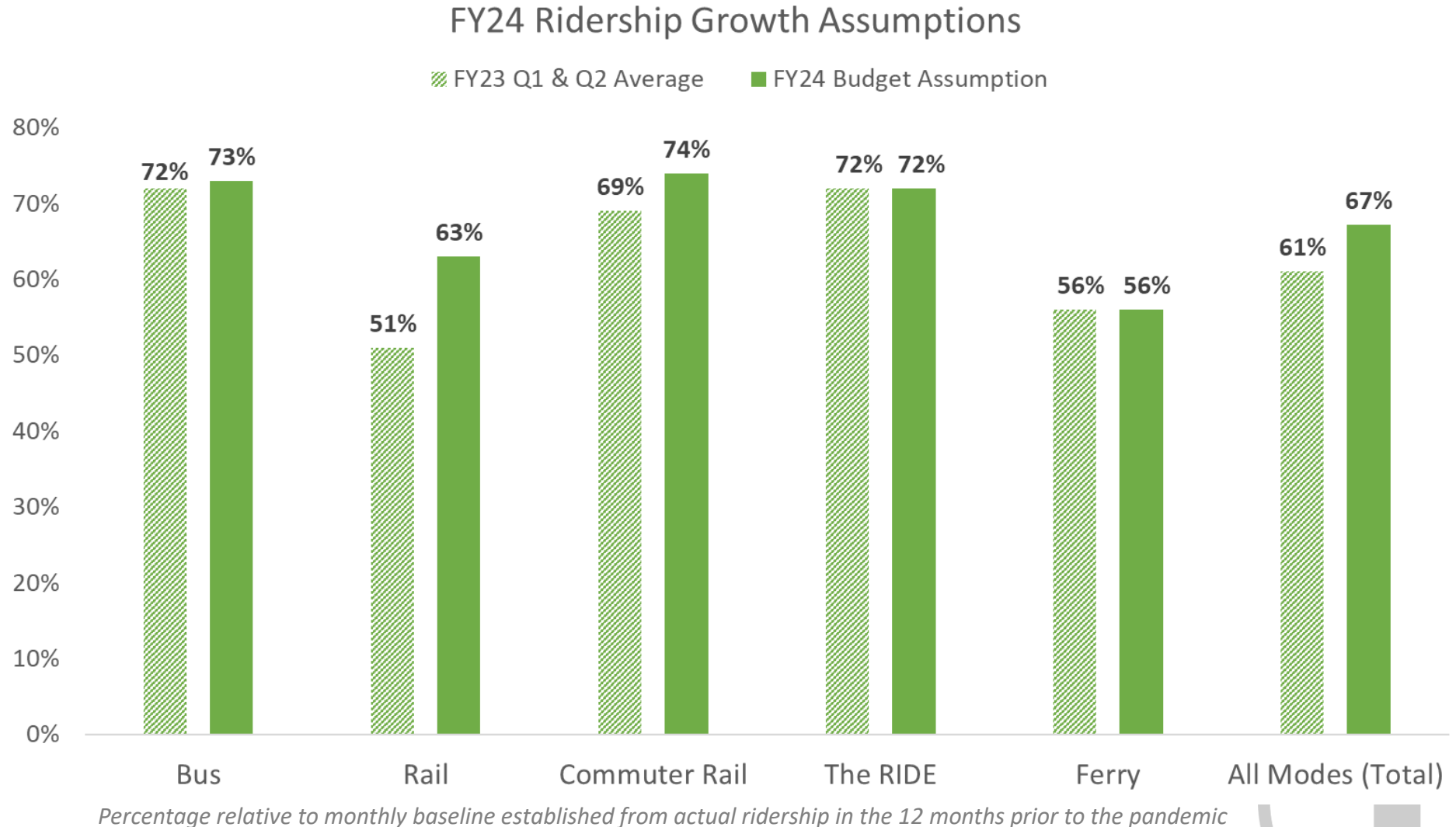
- **80% of FY24 total revenues from non-operating sources subsidizing service across the system**
 - Fares and other own-source revenues account for less than 20% of total revenue
 - Prior to COVID-19, non-operating revenue made up approximately 65% of annual total revenues
- **\$2,147M in non-operating (subsidy) revenue in FY24**
 - Sales tax revenue of \$1,464M represents more than half (55%) of total FY24 revenue
 - \$31M in one-time FEMA reimbursement revenue for cleaning and PPE
- **\$501M in fare and own-source (operating) revenue, down \$56M or -10% from FY23 budget**
 - Down \$261M or -34% from pre-pandemic

Breakdown of Operating & Non-operating Revenue History (\$M)



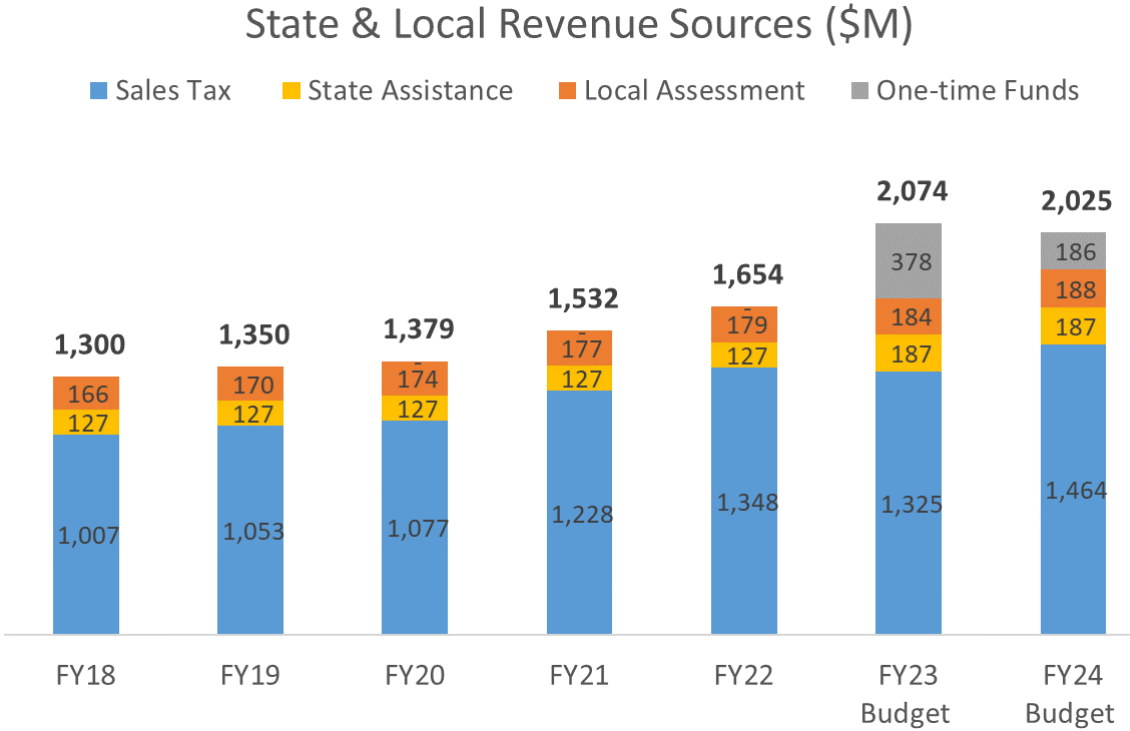
Approved FY24 Ridership Growth Projection

- FY24 budget includes an updated model for fare revenue, as directed by the Board during March 2023 Budget Preview Presentation
- Using observed ridership data for each mode, FY24 projections have been updated to better align with current actual data
- Updated model provides projection for overall growth, customized by mode



State and Local Revenue Sources

- State and local funds make up a portion of the MBTA's overall annual revenue
 - **Sales tax revenue** funds 54% of FY24 budgeted expenses
 - **Local assessment** funds 7% of FY24 budgeted expenses
 - **Recurring state assistance of \$187M** as approved in the annual state budget funds 7% of FY24 budgeted expenses
- Addition of various **one-time revenue sources** have mitigated budget gaps stemming from fare revenue collection and new initiatives
 - Total \$378M already appropriated for **FTA safety directive response** efforts
 - \$266M in reimbursement funds per Chapter 268 of the Acts of 2022 to be provided
 - \$112M per Chapter 268 of the Acts of 2022 fully received
 - \$181M in **one-time capital investments** from Governor's FY24 H.1 budget recommendation
 - \$5M in **one-time state assistance** for start-up costs for a means-tested fare program as included in the Governor's FY24 H.1 budget recommendation
- \$20M proposed in supplemental funding bill from the Governor for hiring and training in March 2023



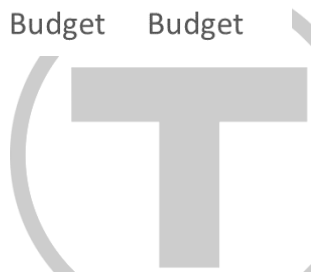
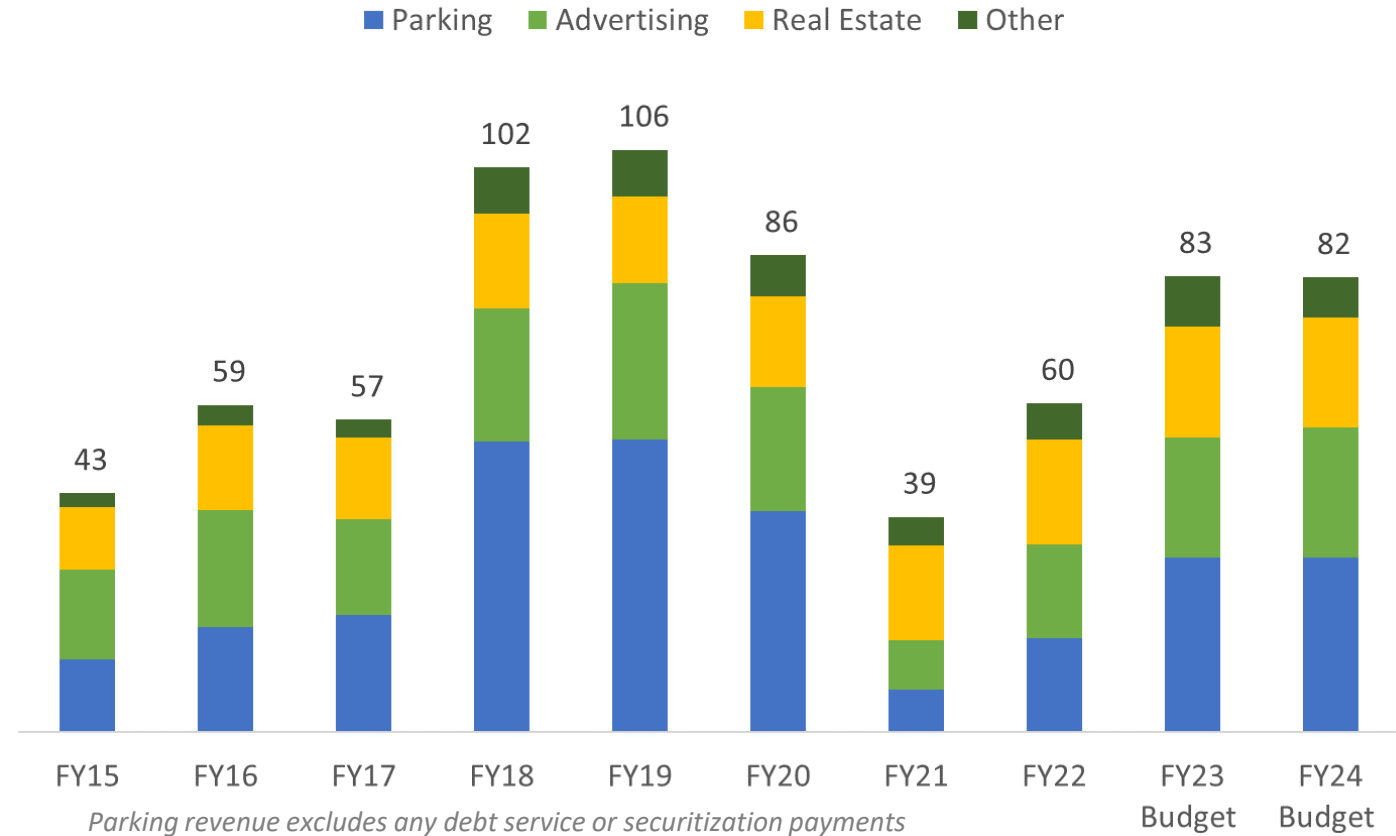
\$68M in one-time state assistance for FTA directive response in FY24 part of \$378M appropriated in FY23



Own-Source Operating Revenue

- **\$82M own-source revenue projection in FY24, nearly level to FY23 budget**
 - Own-source revenues correlated with ridership, but not as directly impacted as fare revenue
 - Real estate revenues more resilient to ridership variability
 - Parking revenue mostly correlated with commuter rail ridership, which has outperformed expectations
- **Own-source revenue represents only 3% of total FY24 revenue**
- Past initiatives to increase revenues include:
 - Reprocured advertising contracts with industry-leading commercial terms
 - Installed network of digital advertising and customer information panels which drove incremental advertising
 - Updated parking pricing across network

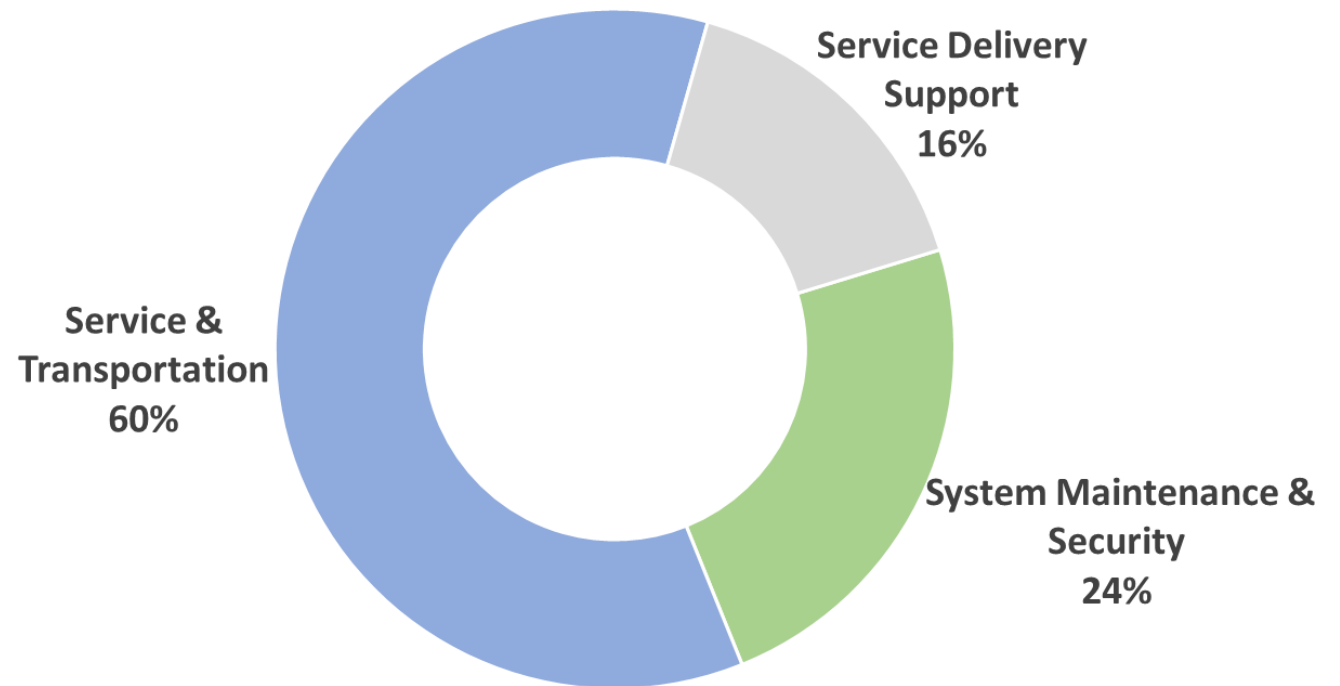
Own Source Revenue History by Category (\$M)



Operating Expense Breakdown

- **84% (\$1,860M) of operating expenses directly tied to service transportation and system maintenance**
 - 60% (\$1,337M) directly supports all service and transportation including rail yard safety and service expansions like GLX and Bus Network Redesign
 - 24% (\$523M) for system and vehicle maintenance, safety, and security
- 16% (\$351M) to support service delivery like the new Quality Compliance Oversight Office as well as hiring, recruiting, and customer experience

FY24 Breakdown of Operating Expenses



Operating expenses do not include debt service payments. Total expenses are operating expenses plus debt service payments.



Optimizing Debt Portfolio for Debt Service Savings

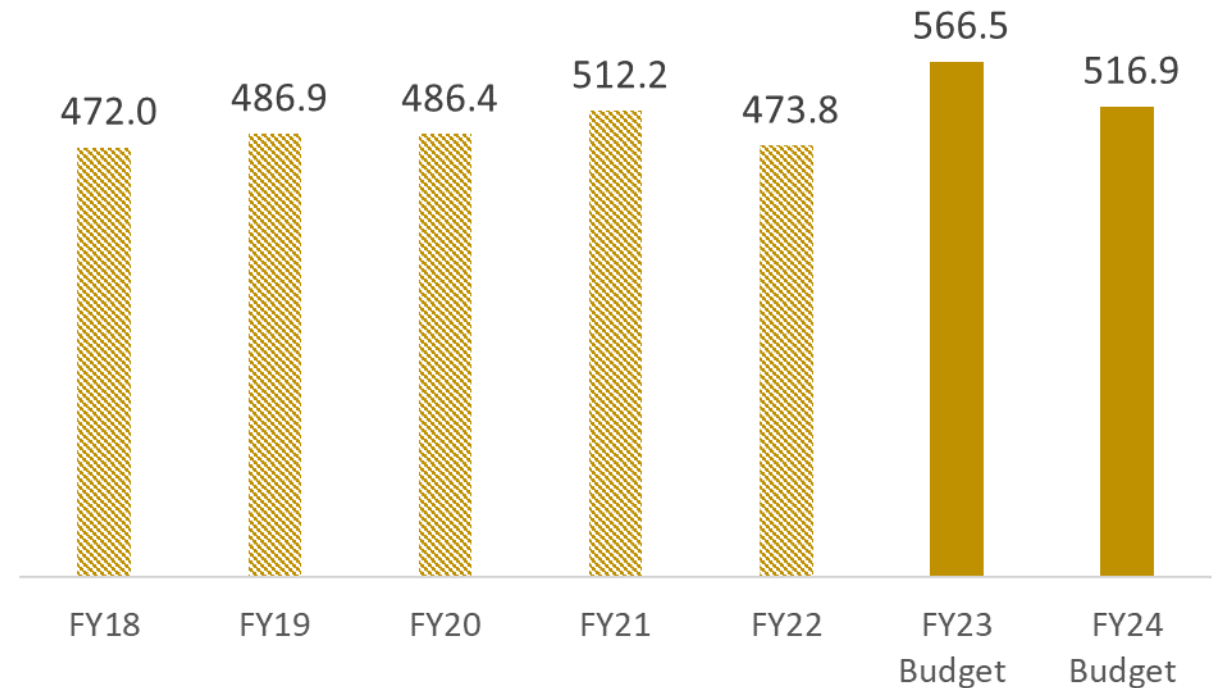
AAA ratings

- Improved coverage ratios to enhance credit quality, recognized by highest attainable rating category by Fitch and Kroll

Proactive Budget Savings

- Cash defeasance for FY23 and FY24 yields budget savings (\$56M)
- Debt service represents 19% of total budget in FY24, down from 24% in FY19

Historical Debt Service Spending Detail (\$M)



Special Directive 22-4

- This Special Directive mandates that MBTA take nine required actions
- These required actions are to address deficiencies in personal protective equipment and right of way safety; to correct defective track conditions; and to address management practices that negatively impact track repair

FTA-TRA-22-001

- Establish consistent PPE requirements for ROW personnel access

FTA-TRA-22-002

- Implement and document consistent MOW compliance with ROW safety procedures, including PPE requirements for all personnel

FTA-TRA-22-003

- Correct the track defects between Tufts Medical Center and Back Bay Stations on both north- and south-bound tracks

FTA-TRA-22-004

- Document MOW maintenance needs and develop and implement a schedule to ensure adequate track access to meet maintenance requirements

FTA-TRA-22-005

- Develop and implement work plans to address MOW maintenance needs and manage on-going MOW workload

FTA-TRA-22-006

- Expedite and resource the transition to the new Enterprise Asset Management (EAM) system and formalize/implement procedures and protocols to ensure MOW managers and MOW inspectors share information and establish data-driven maintenance priorities

FTA-TRA-22-007

- Develop and implement a process and reporting procedure that accurately communicates the number, severity, and significance of MOW defects to Executive Leadership

FTA-TRA-22-008

- Develop and implement a special maintenance repair plan to reduce the percentage of system track that is under a speed restriction

FTA-TRA-22-009

- Restore Green Line work train capabilities

Special Directive 22-5

- This Special Directive mandates that MBTA undertake three required actions
- These required actions address the pattern of safety incidents and interim safety findings concerning unintended and uncontrolled train movements by disabled trains in maintenance facilities and rail yards

FTA-VSC-22-001

- Develop and implement specific written procedures for yard movements of rail vehicles with known or suspected defective brakes or propulsion equipment

FTA-VSC-22-002

- Develop training and train personnel on the policies and procedures to safely move rail vehicles with known or suspected defects

FTA-VSC-22-003

- Create and implement a compliance program to ensure personnel consistently and accurately use policies and procedures for yard movements of rail vehicles with known or suspected defects



Special Directive 22-6

- This Special Directive mandates that MBTA take seven required actions
- These required actions address the pattern of safety incidents and interim safety findings related to actions within the Operations Control Center at MBTA

FTA-OCC-22-001

- Ensure that staff working in the OCC, including dispatchers and supervisors, are certified

FTA-OCC-22-004

- Develop and enforce policies that require OCC personnel to work in a rested state

FTA-OCC-22-007

- Verify that all dispatchers working within the OCC are current in their certifications prior to starting their shift

FTA-OCC-22-002

- Ensure OCC staff have sufficient time off to recover between shifts, consistent with MBTA hours of service policy for rail transit motorpersons

FTA-OCC-22-005

- Adequately staff the OCC for current operational needs and provide a plan to meet the operational needs of the system

FTA-OCC-22-003

- Submit to FTA and DPU each week that for each shift, OCC supervisors and managers are not dual scheduled for both supervisory duties and dispatcher duties at any time during assigned shifts

FTA-OCC-22-006

- Identify and address major challenges in recruiting and training new rail transit dispatchers, the quality and performance of their training, and the certification of new candidates



Special Directive 22-7

- This Special Directive mandates that MBTA undertake three required actions
- These required actions address the pattern of safety incidents and interim safety findings concerning lapsed training certifications of safety-sensitive rail personnel

FTA-LC-22-001

- Ensure that staff operating revenue service trains and supervising train movements and revenue service trains are certified

FTA-LC-22-002

- Ensure that personnel with lapsed certifications are not placed on duty to perform or supervise train operations

FTA-LC-22-003

- Create, review, and/or update its training materials to include; training and certification manuals for each line, to include manuals for operators and supervisors; updated rulebooks for all train lines, enforce version control; a compilation of temporary and permanent orders



Special Directive 22-9

- This Special Directive mandates that MBTA take four required actions
- The findings and required actions outlined in this Special Directive will assist the MBTA in focusing its attention on balancing demands from operations and capital projects with workforce capacity and capability to inform resource prioritization

FTA-22-MBTA-CAT1-1

- Conduct and submit to FTA a workforce analysis and associated workforce planning

FTA-22-MBTA-CAT1-2

- Develop and implement a recruitment and hiring plan to address findings from its workforce analysis and associated workforce planning for at least a five-year period, including how it will expand its capabilities for recruiting and hiring personnel to fill operations, maintenance, and capital project delivery positions

FTA-22-MBTA-CAT1-3

- Modify safety engineering and certification requirements for its capital projects and vehicle procurements and ensure they are addressed through additional E&M and Safety Department staffing, contractor resources, or a combination of approaches. This may be done as part of the workforce analysis in Finding 1, or as part of a separate initiative

FTA-22-MBTA-CAT1-4

- Review the inspection and resident engineering resources needed to ensure compliance with MBTA safety rules related to the Right of Way to ensure the safety of personnel while in active work zones through additional staffing, contractor resources, or a combination of approaches



Special Directive 22-10 (1 of 2)

- This Special Directive mandates that MBTA take six required actions
- This Special Directive identifies action that the MBTA must take to enhance and expedite implementation of the agency's SMS, including the development of procedures, safety management training, safety risk assessment, and safety assurance activities to build the organization's capability to identify safety concerns and to prioritize action to mitigate safety risk

FTA-22-MBTA-CAT2-1.A	FTA-22-MBTA-CAT2-1.B	FTA-22-MBTA-CAT2-2	FTA-22-MBTA-CAT2-3.A	FTA-22-MBTA-CAT2-3.B	FTA-22-MBTA-CAT2-3.C	FTA-22-MBTA-CAT2-3.D	FTA-22-MBTA-CAT2-4.A	FTA-22-MBTA-CAT2-4.B	FTA-22-MBTA-CAT2-4.C
Conduct a critical and comprehensive review of its entire SMS planning, implementation, and operational processes and activities to address the gaps discussed in this finding	<ul style="list-style-type: none"> • Update its SMS Implementation Plan to reflect the results of this review, including defined actions, timeframes, responsibilities, and expected outcomes 	<p>Define explicit criteria for prioritizing safety risks and include it in Agency Safety Plan</p> <p>Define how safety information is presented to leadership in a prioritized and actionable manner</p> <p>Require a means for operating department leads to elevate proposed safety risk mitigations</p>	<ul style="list-style-type: none"> • Map its safety data flows and supporting processes 	<ul style="list-style-type: none"> • Establish explicit accountabilities and responsibilities for safety data flows as a component of safety information management (collection, analysis, communication, storage, and retrieval of safety data) 	Provide formal training in safety information management to relevant personnel	<ul style="list-style-type: none"> • Demonstrate that its executive management uses and promotes the usage of safety data analysis and/or documented facts in decision-making related to safety risk 	<ul style="list-style-type: none"> • Update its Safety Assurance process to include monitoring of safety risk mitigations with a) compliance-based activities to provide the baseline for monitoring implementation status and b) performance-based activities to monitor the actual effectiveness of safety risk mitigations 	<ul style="list-style-type: none"> • Prepare a monthly look-ahead schedule for prioritized safety risk monitoring activities that include safety risk mitigations and corrective actions in place to address MBTA's highest safety priorities 	Develop and document guidance, and deliver training for safety investigators that ensure the consideration of precursor factors in the analysis of the chain of events leading to a safety event (accident, incident, or occurrence)

Special Directive 22-10 (2 of 2)

- This Special Directive mandates that MBTA take six required actions
- This Special Directive identifies action that the MBTA must take to enhance and expedite implementation of the agency's SMS, including the development of procedures, safety management training, safety risk assessment, and safety assurance activities to build the organization's capability to identify safety concerns and to prioritize action to mitigate safety risk

FTA-22-MBTA-CAT2-5.A

- Develop and document criteria for conducting safety risk assessments consistent with the basic principles of safety management and the tenets of SMS as conveyed in FTA's SMS guidance materials

FTA-22-MBTA-CAT2-5.B

- Develop explicit direction for the ownership of safety risk assessments among the Safety Department and the operating departments. Documentation must include providing explicit roles, responsibilities, and thresholds of authority of each department involved

FTA-22-MBTA-CAT2-5.C

- Ensure that operating departments including subject matter expertise, own safety risk assessments, while safety officials provide support for safety risk assessments and reports on results to Executive Leadership for safety resource allocation priorities

FTA-22-MBTA-CAT2-5.D

- Expand its policy of establishing a predefined schedule of safety risk assessment workshops and develop criteria attuned with the nature of hazard identification

FTA-22-MBTA-CAT2-6.A

- Evaluate (and correct) the data contained in its hazard log and safety risk mitigation log for accuracy and relevancy to SMS

FTA-22-MBTA-CAT2-6.B

- Expedite the build out of its safety risk and safety risk mitigation monitoring information tools

FTA-22-MBTA-CAT2-6.C

- Demonstrate use of its safety information management tools to effectively prioritize its resources to address the results of safety risk monitoring and safety performance monitoring

Special Directive 22-11

- This Special Directive mandates that MBTA take three required actions
- This Special Directive identifies action that the MBTA must take to improve MBTA’s management of its safety committee process, employee safety reporting program, and safety promotion activities

FTA-22-MBTA-CAT3-1.A

- Develop and describe, in the organization’s SMS documentation, instructions regarding the conduct, recording, communication and follow up of the outcome consensus decisions

FTA-22-MBTA-CAT3-1.B

- Develop and describe, in the organization's SMS documentation, a formal mechanism and associated guidelines to ensure that the meetings are consistent in the identification and analyses of safety concerns and hazards; prioritization of safety risks; implementation of corrective actions; and safety risk mitigation effectiveness monitoring

FTA-22-MBTA-CAT3-2.A

- Develop explicit and formal guidelines for the expected role and contribution of frontline employees to the local safety committee meetings

FTA-22-MBTA-CAT3-2.B

- Develop instructions for the conduct of the meetings, including explicit departmental accountabilities for meeting outcome information capture, communication and follow up

FTA-22-MBTA-CAT3-3.A

- Expedite the development of an effective ESRP as a fundamental source of safety information for hazard identification and safety performance monitoring

FTA-22-MBTA-CAT3-3.B

- Provide explicit direction to frontline employees on what to report and what not to report through the ESRP

FTA-22-MBTA-CAT3-3.C

- Provide refresher training to stakeholder personnel on the role of employee safety reporting within SMS and the crucial contribution managers and supervisors play in the development of an effective safety reporting context



Special Directive 22-12 (1 of 3)

- This Special Directive mandates that MBTA take seven required actions
- This Special Directive identifies requiring action that the MBTA must take to improve MBTA's management of its operating and maintenance policies, monitoring of rail transit operations, Quality Assurance/Quality Control capabilities, and training and procedures

FTA-22-MBTA-CAT4-1.A	FTA-22-MBTA-CAT4-1.B	FTA-22-MBTA-CAT4-1.C	FTA-22-MBTA-CAT4-1.D	FTA-22-MBTA-CAT4-1.E	FTA-22-MBTA-CAT4-1.F
<ul style="list-style-type: none">• Each operating and maintenance department must establish a group to review department-wide information on levels of non-compliance with key rules and procedures critical to the safety of activities performed by the department	<ul style="list-style-type: none">• Each department must establish and act on a prioritized list of most frequently violated rules and procedures with the most significant potential safety consequences	<p>Each department must develop and implement approaches, which could include audits, use of checklists and guides, Campaigns, and training, to improve compliance</p>	<ul style="list-style-type: none">• Each department must report to the Safety Department monthly on its compliance with identified key rules and procedures critical to the safety of activities performed by the department	<ul style="list-style-type: none">• The Safety Department must review and audit these reports and compile a monthly compliance report for MBTA's executive leadership team	<ul style="list-style-type: none">• Each department must continue to review safety data to assess effectiveness of actions and to improve compliance with safety rules and procedures



Special Directive 22-12 (2 of 3)

- This Special Directive mandates that MBTA take seven required actions
- This Special Directive identifies requiring action that the MBTA must take to improve MBTA’s management of its operating and maintenance policies, monitoring of rail transit operations, Quality Assurance/Quality Control capabilities, and training and procedures

FTA-22-MBTA-CAT4-2	FTA-22-MBTA-CAT4-3.A	FTA-22-MBTA-CAT4-3.B	FTA-22-MBTA-CAT4-3.C	FTA-22-MBTA-CAT4-3.D	FTA-22-MBTA-CAT4-4.A	FTA-22-MBTA-CAT4-4.B	FTA-22-MBTA-CAT4-4.C
<ul style="list-style-type: none"> •Develop, document, and communicate a mechanism to monitor operations, and provide training to stakeholder safety and operating personnel on this mechanism, to enable the analysis and understanding of situations of non-compliance 	<ul style="list-style-type: none"> •Develop and administer a QA/QC program to independently oversee of ongoing QA/QC activities 	<ul style="list-style-type: none"> •Ensure that the QA/QC functions are independent of the functions of the Safety department and report directly to the GM 	<ul style="list-style-type: none"> •Develop a formal QA/QC procedure that details the oversight of and accountability and roles and responsibilities for QA/QC programs provided by railcar manufacturers and MBTA consultants related to quality control of its railcars and subcomponents 	<ul style="list-style-type: none"> •Ensure that the MBTA QA/QC independent group is staffed with a sufficient SMEs in necessary disciplines to ensure a complete and thorough understanding of the responsibilities under the purview of railcar maintenance and engineering 	<ul style="list-style-type: none"> •Conduct a training needs assessment for rail transit operations and maintenance departments, to include emergency response training. This assessment should identify training that needs to be updated, developed, and supported with additional resources 	<ul style="list-style-type: none"> •Implement the results of the training needs assessment 	<ul style="list-style-type: none"> •Consider opportunities and adopt technology and other resources to support training development and training management and record-keeping



Special Directive 22-12 (3 of 3)

- This Special Directive mandates that MBTA take seven required actions
- This Special Directive identifies requiring action that the MBTA must take to improve MBTA's management of its operating and maintenance policies, monitoring of rail transit operations, Quality Assurance/Quality Control capabilities, and training and procedures

FTA-22-MBTA-CAT4-5.A	FTA-22-MBTA-CAT4-5.B	FTA-22-MBTA-CAT4-6	FTA-22-MBTA-CAT4-7.A	FTA-22-MBTA-CAT4-7.B
<ul style="list-style-type: none">• Review its existing maintenance rules and procedures; identify opportunities for tools and checklists to support employees in carrying out maintenance rules and procedures; and develop, distribute, maintain, and update these materials	<ul style="list-style-type: none">• Include frontline maintenance personnel in the development evaluation of these tools and checklists	<ul style="list-style-type: none">• Evaluate expanding its existing mentoring program from Bus Transit Operations to include new part-time and full-time rail transit operators or consider establishing a mentoring program specific to rail transit operations. In its evaluation, MBTA should consider opportunities and resources to support the professional development of rail transit operations personnel	<ul style="list-style-type: none">• Confirm radio dead spots with frontline motorpersons and maintenance workers	<ul style="list-style-type: none">• Improve the performance of its radio system in these dead spots

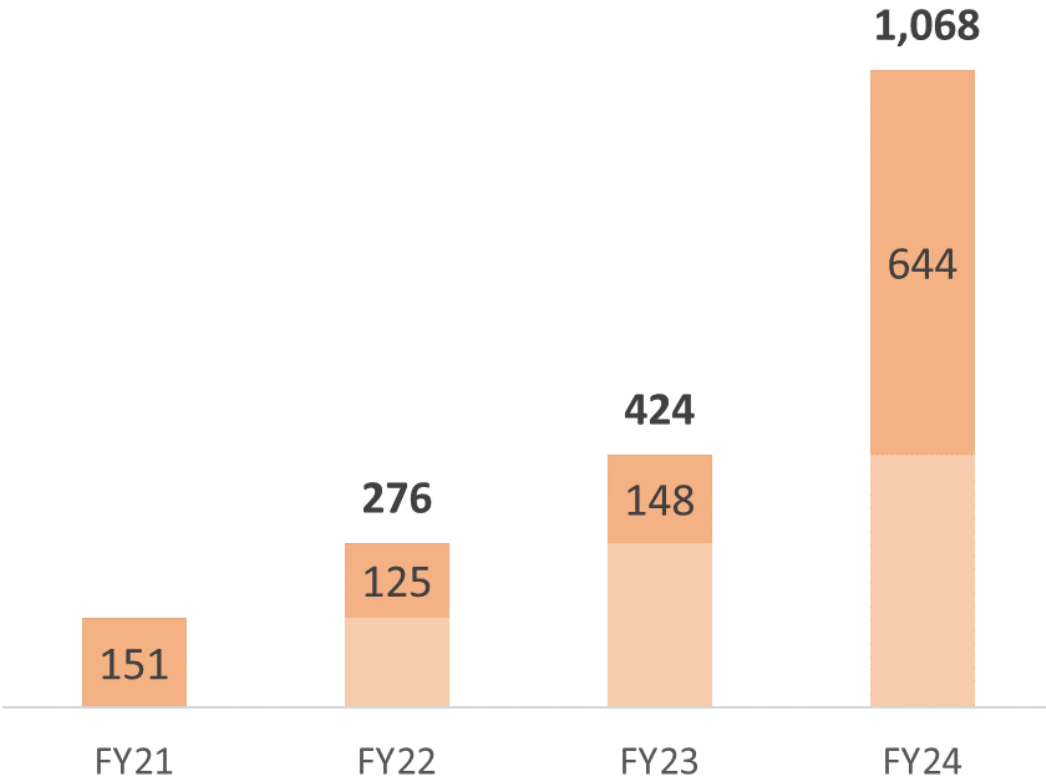


Recent Investments for Safety, Service, & New Initiatives

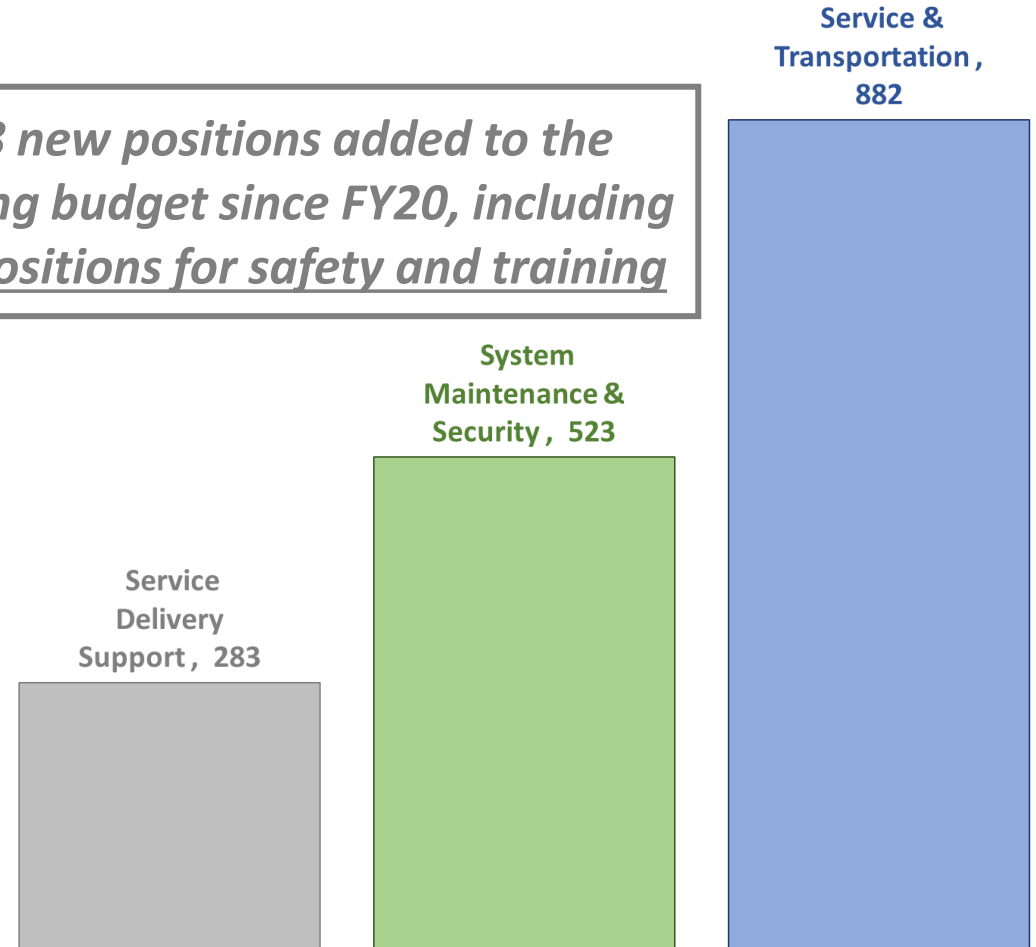
Operating Safety Budgeted Positions Added Since FY20

All Budgeted Positions Added Since FY20 by Output & Department Mission

■ Increase That Year & Cumulative Total



1,688 new positions added to the operating budget since FY20, including 1,068 positions for safety and training



FY24 New Safety Positions Budgeted

- 644 new budgeted positions specifically designated for safety & training
- 455 positions for FTA safety directive response
 - 97 positions, including trackpersons, equipment operators, and engineers, addressing right of way safety, track repair, and consistent PPE requirements (Directive 22-04)
 - 153 positions, including motorpersons and repair forepersons, addressing rail yard and maintenance facility safety surrounding train movements (Directive 22-05)
 - 49 positions, including OCC staff and inspectors, enhancing staffing, capacity, and policies at Operations Control Center (Directive 22-06)
 - 38 positions, including instructors, ensuring proper certifications and training material for safety-sensitive rail personnel (Directive 22-07)
 - 37 positions, including HR recruiters and staff, coordinating and executing a workforce assessment to understand capacity along improved recruitment and hiring plan (Directive 22-09)
 - 16 positions, including analysts and specialists, enhancing safety communication, procedures, training, and safety assurance and mitigate risk (Directive 22-10)
 - 4 positions, including systems safety specialists, improving safety management, reporting, and process (Directive 22-11)
 - 28 positions, including engineers and quality control managers, developing operating and maintenance policies on rail transit operations, QA/QC, and procedures (Directive 22-12)
 - 33 positions, including the new Quality Compliance and Oversight Office (QCOO), supporting all directives including medical, diversity, technology, financial reporting, and purchasing
- **189 positions for additional safety and training** for proper staffing levels, certification, and supervision including 38 positions for bus transportation, 67 positions for heavy and light rail, 31 for transit facilities maintenance, and 26 instructors more instructors and the newly created Training department

Operations
Safety

644
positions

\$63M in
annual
wages

FY23 New Safety Positions Budgeted

- **148 new budgeted positions specifically designated for safety**
- 28 positions for transit facilities maintenance for mechanical and station inspections to avoid potential interruptions
- 26 positions for heavy rail to support rail yard safety, along with the additional training and testing of new Red and Orange Line vehicles
- 18 positions for rail maintenance for proactive inspections, implement additional QA/QC functions, improved cleanliness, tool calibration, and defective part replacements
- 15 positions for light rail yard safety and to prepare and support vehicles for revenue service for the Green Line Extension
- 11 positions for power systems maintenance to increase supervisory capacity, including vertical transportation contracts like escalators and elevators
- 10 positions for signals and communication maintenance including engineers to address the movement towards more advanced, specialized, technical nature of equipment
- 7 positions for engineering to manage and improve quality on all modes, including signal and tracks
- 5 positions for bus transportation for additional inspectors and supervisors
- Remaining 22 positions support efforts in and across multiple departments including Chief Operating Officer, Security Department, Safety Department, OCC & Training, and Maintenance of Way

Operations
Safety

148
positions

\$15M in
annual
wages

FY22 Additional Safety Positions Budgeted

- **125 new budgeted positions for safety**
- 78 positions for system and vehicle maintenance, including system repairers and technicians
- 32 positions for transportation safety, including rapid transit motorpersons and bus supervisors
- 10 positions for operations planning and training, including dispatchers and supervisors
- 5 positions for security, including system administrators
- These additional positions improve transportation and system safety and reliability with the added benefit of reducing overtime

Operations
Safety

125
positions

\$11M in
annual
wages

FY21 Additional Safety Positions Budgeted

- **151 new budgeted positions for safety**
- New positions targeting three priorities:
 - Preventative maintenance inspections
 - Includes fire suppression systems, stand pipes, bridges, switch machines, catenary wires, and tracks
 - Overnight supervision
 - Respond to emergencies, manage overnight activities, and prepare for morning service
 - Training programs
 - Increase ride reports, employee training, performance reviews, audits, and course materials
- Full breakdown of positions by department/area:
 - 80 for system maintenance
 - 20 for transportation departments
 - 20 for safety department
 - 18 for vehicle maintenance
 - 13 among all other departments

Operations
Safety

151
positions

\$12M in
annual
wages

Additional Service & Maintenance Highlights & Improvements

Green Line Train Protection System (GLTPS)

- *Initial stages of preparation for using onboard alerts and communications to automatically stop the train to avoid collisions and enhance safety*

Engineering Audits

- *Increase audits on bridges, platforms, stairs, and facilities infrastructure*

RIDE Revenue Vehicles

- *Full maintenance audit on all RIDE revenue vehicles*

Increasing Rail Maintenance Personnel Pipeline

- *Trainee program to increase recruiting and expand candidate pool*

Bus Stop Signage

- *Expanded efforts to keep in a state of good repair*

Contracted Bus Service Team

- *Proactive approach in planning for any service diversions to mitigate issues for riders*

Federal Relief Funding Update

- **Three major federal relief packages totaling \$1,988M in expected reimbursement for operating expenses to make up for lost fare revenues**
 - Coronavirus Aid, Relief, and Economic Security (CARES) Act
 - Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA)
 - American Rescue Plan Act of 2021 (ARPA)
- **All funds fully claimed by June 2022 to mitigate current and future year budget gaps**
 - All \$827M in CARES Act funding fully claimed for reimbursement between FY20 and FY21
 - All \$301M in CRRSAA funding fully claimed for reimbursement between FY21 and FY22
 - All \$860M in ARPA fully claimed by the end of June 2022

**Federal Relief Fund
Allocation \$1,988M**

**\$827M
from
CARES Act**

**\$301M
from
CRRSAA**

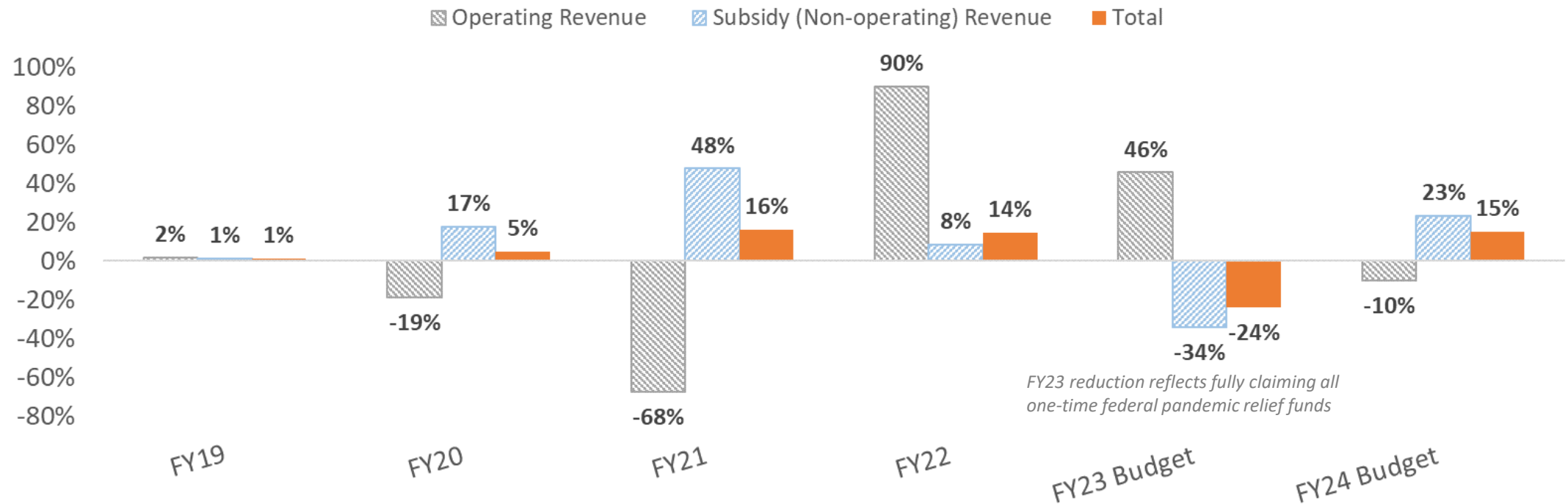
**\$860M
from
ARPA**



Historical Year Over Year Annual Revenue Growth

- Since FY19, reduced operating revenue has been offset by one-time federal and state assistance
 - FY24 budget operating revenue down 34% from FY19
- 15% total revenue growth in FY24 budget reflects infusion of one-time state assistance from Governor’s budget recommendation for capital investments and means-tested (low-income) fare program

Annual Revenue Growth By Category Since the Pandemic



Low-Income (Means-tested) Fare Program Summary

Purpose

Low-Income Fares expands fare affordability across the MBTA modes, addressing an existing gap for the low-income population ages 26-64.

Development & Launch

Developing and launching a Low-Income Fare program is currently estimated to require at least 12 months with project implementation costs of approximately \$5 million. Key elements include the standard fare change process, changes to fare collection technology and fare media, the implementation of an online application, and onboarding of internal and partner staff in Community Based Organizations.

5-Year Cost

We expect \$2.4 million of ongoing annual administrative costs, with fare revenue losses and operating costs growing from \$22 million in year 1 through a steady state of \$53 million in year 5.

Broad MBTA Financial Context

The Governor's FY24 H.1 recommendation included \$5M in one-time start-up costs. Going forward, the future fare revenue loss would incrementally increase our future year funding gaps and would require additional funding and/or reprioritization with other important initiatives impacting the Operating Budget.

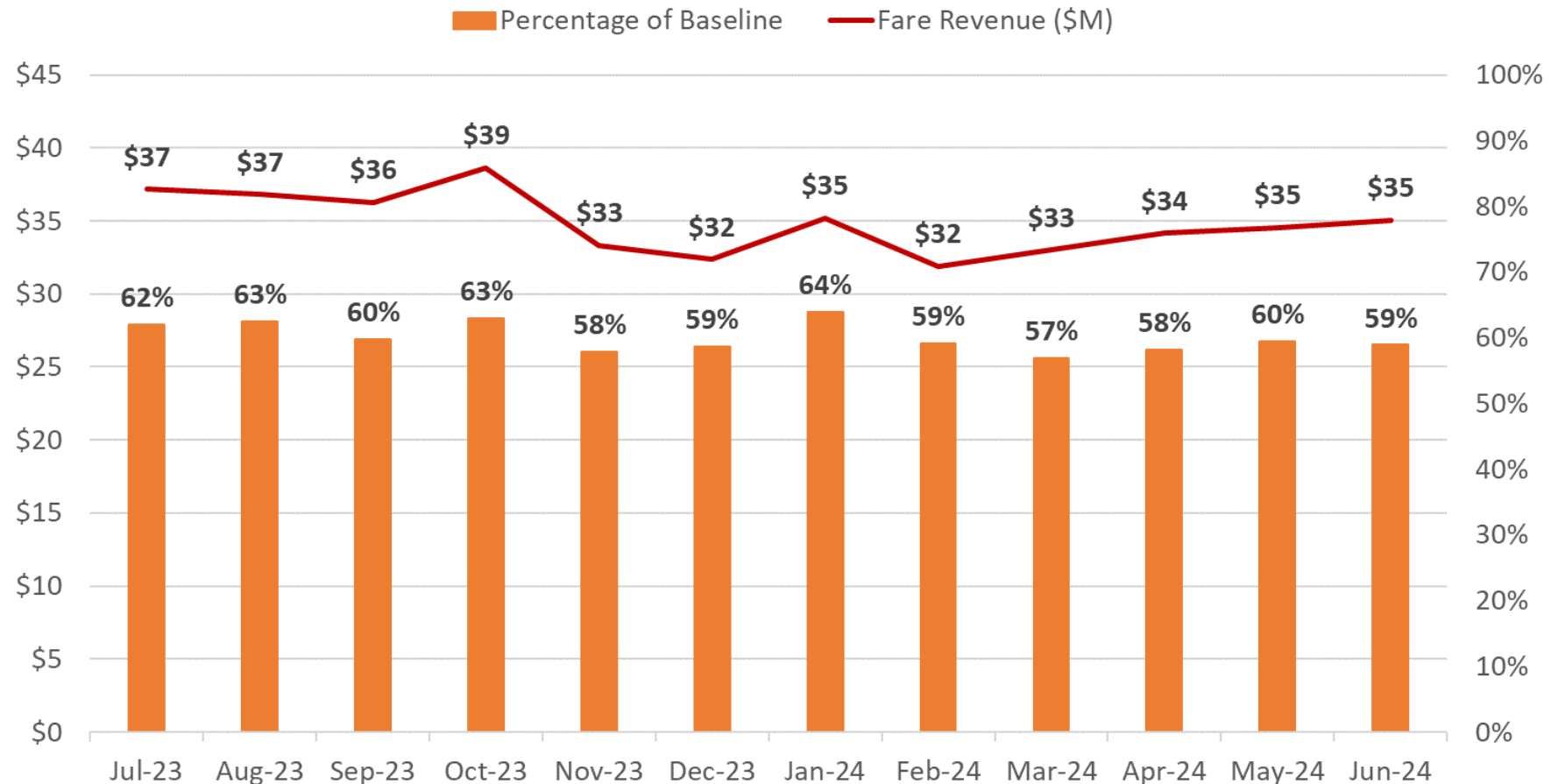


FY24 Monthly Fare Revenue Projections

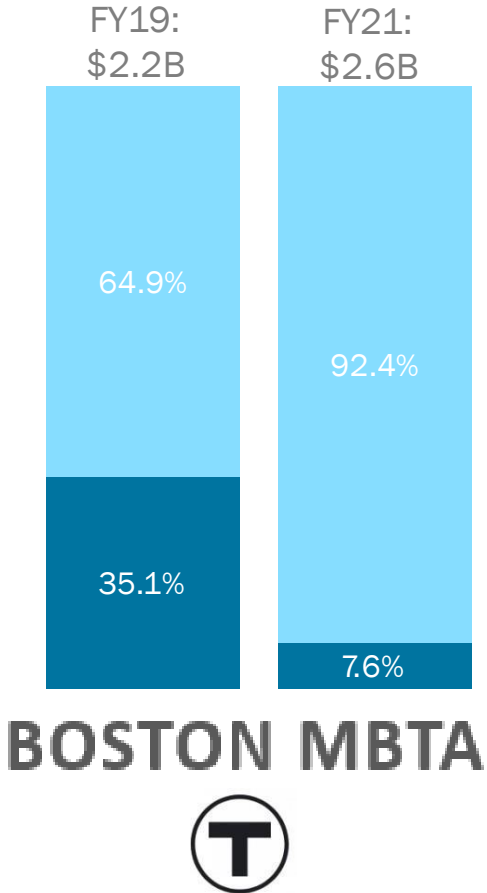
- **FY24 fare revenue assumption of \$418M, 60% of pre-pandemic baseline**

- Updated modal ridership based projection
- Incorporates new data on actual ridership patterns observed since the pandemic
- Higher than the 49%-55% realized through Q1 & Q2 of FY23
- Adjusts for seasonality in ridership
- Consistent with Board direction from FY24 Budget Preview presentation in March 2023

FY24 Monthly Fare Revenue Summary



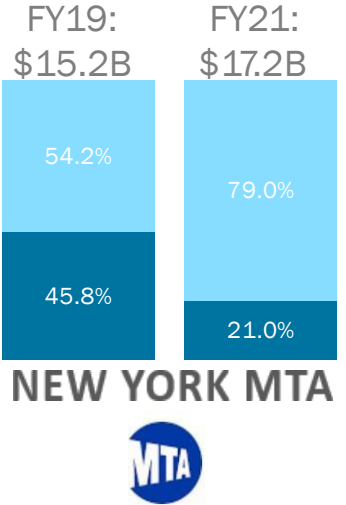
Peer Agency Revenue for Operations Breakdown



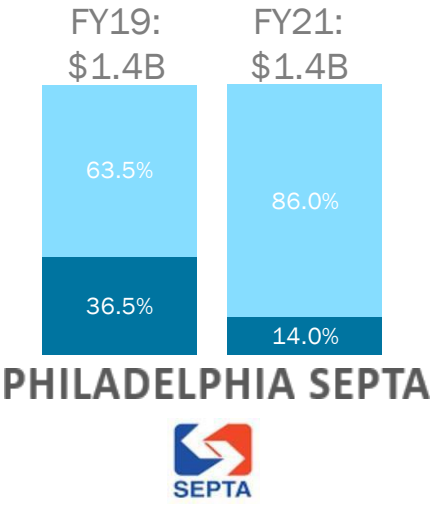
BOSTON MBTA

System Revenues (e.g. Fares, Own Source)

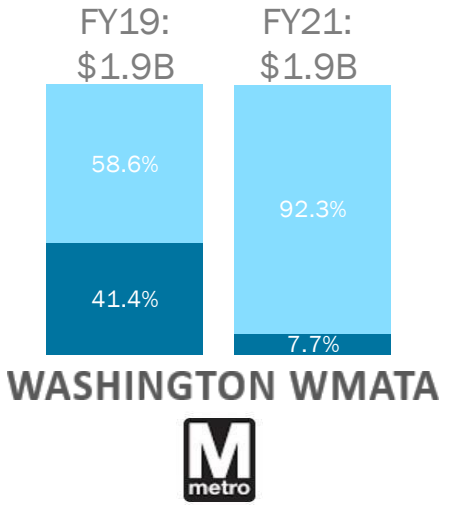
Non-System Revenue (e.g. Sales Tax, Local Assessments)



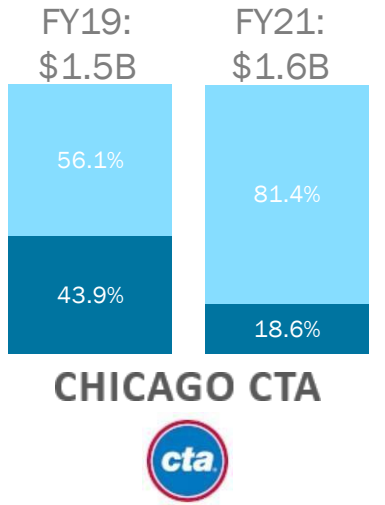
NEW YORK MTA



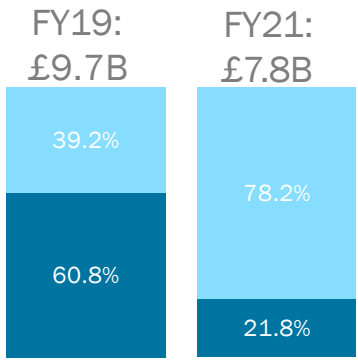
PHILADELPHIA SEPTA



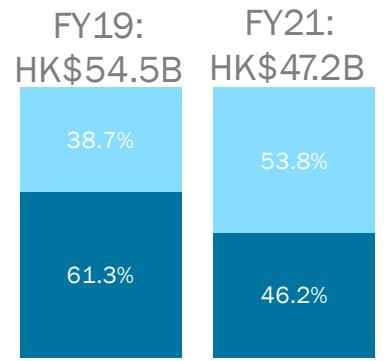
WASHINGTON WMATA



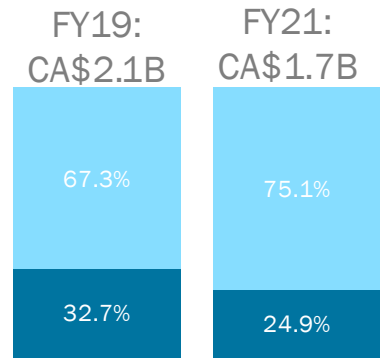
CHICAGO CTA



LONDON TFL



HONG KONG MTR

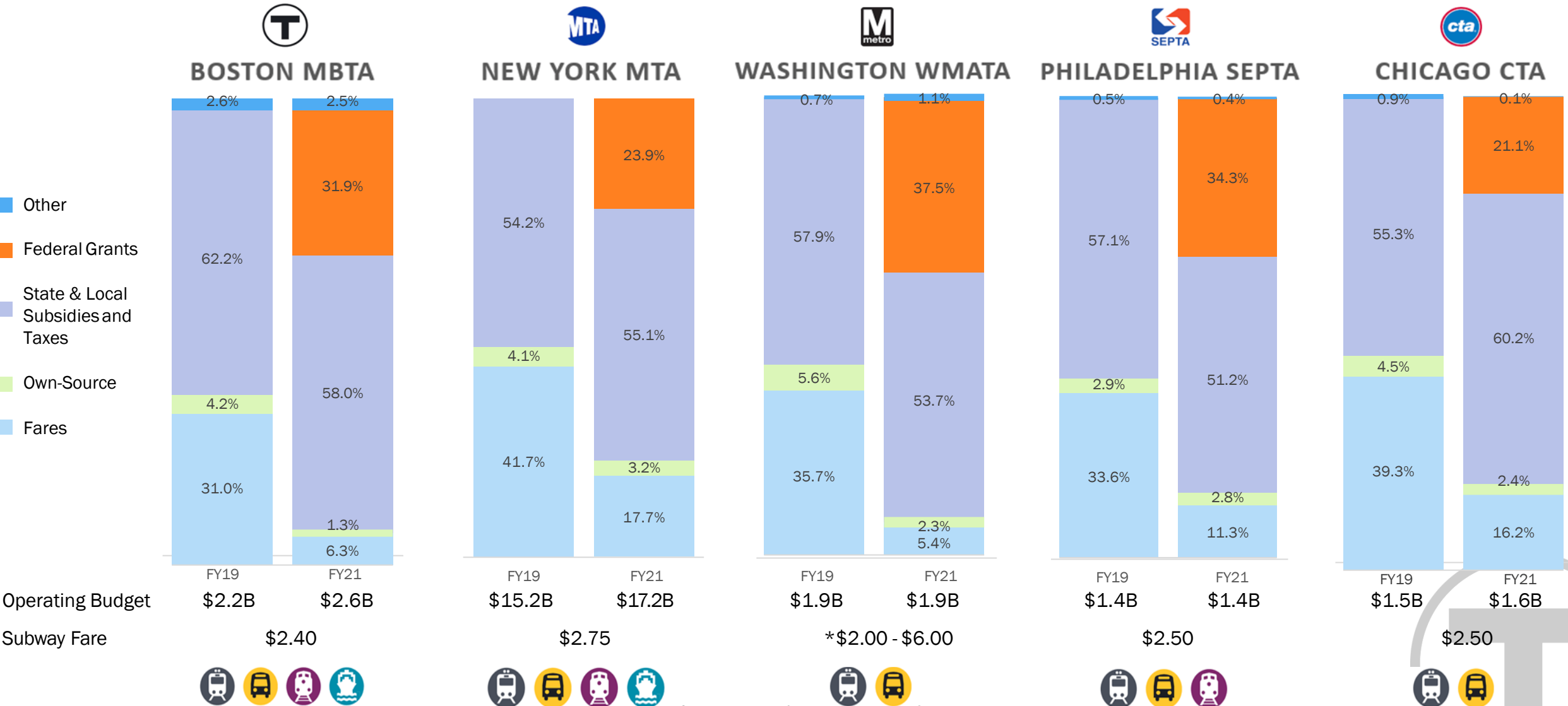


VANCOUVER LINK

System Revenue%

	2019 Rank %		2021 Rank %	
MTR	1	61.3%	1	46.2%
TfL	2	60.8%	3	21.8%
MTA	3	45.8%	4	21.0%
CTA	4	43.9%	5	18.6%
WMATA	5	41.4%	7	7.7%
SEPTA	6	38.5%	6	14.0%
MBTA	7	35.1%	8	7.6%
TransLink	8	32.7%	2	24.9%

Peer Revenues for Operations by Category: Covid Impact



Operating Budget

Subway Fare

Categorization of Revenue & Expenses

