



# Massachusetts Bay Transportation Authority

## FY24 Operating Budget Preview

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MBTA Board of Directors

March 9, 2023

# Goals & Agenda

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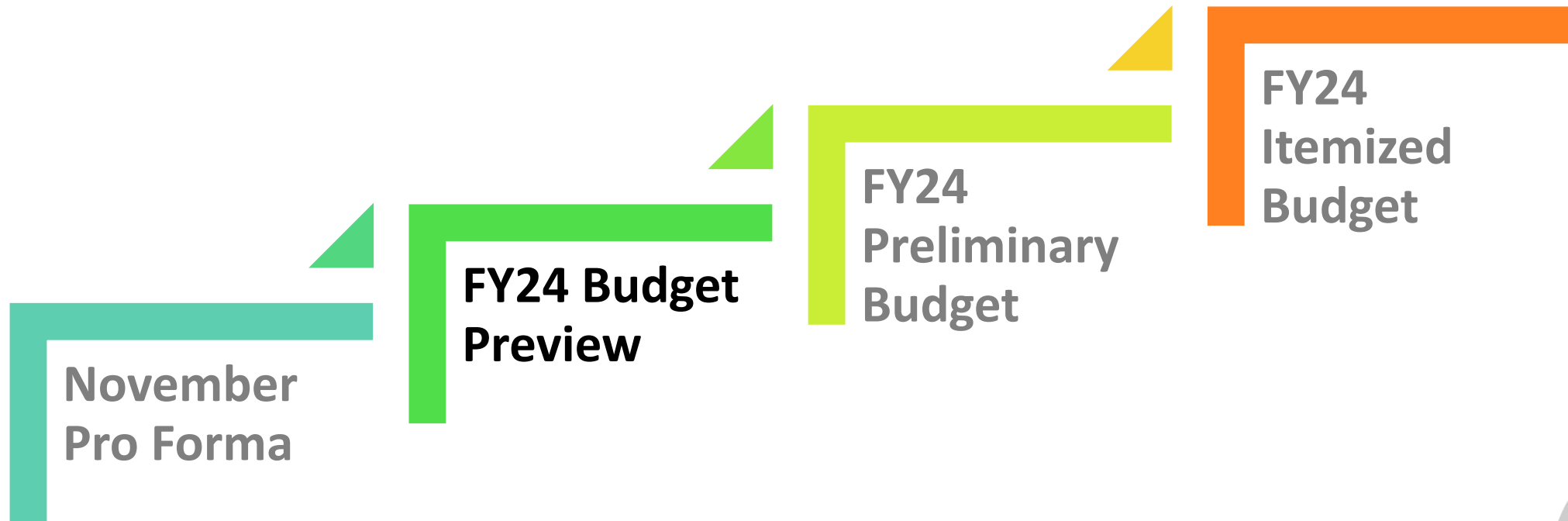
Goal: As budget estimates for next year continue to be formulated and refined, **the Budget Preview presentation**, following the framework outlined in the latest Pro Forma presentation, aims to provide a high-level summary of revenue assumptions and potential key investments to be detailed in the upcoming Preliminary Budget presentation

- The presentation contains four primary sections:
  - Budget process and improvements
  - Recap of FY23 budget investments
  - November Pro Forma review
  - Guiding principles for FY24 revenue and spending
- **Seeking Board comment and input prior to preliminary budget presentation in April, specifically on two key policy questions: fare revenue and budgeted headcount approach**



# FY24 Budget Presentations

- Beginning with the November Pro Forma, several budget presentations will be made to the Board prior to the approval of the FY24 budget
- Additionally, Finance has and will continue to provide quarterly updates on FY23 actual spending and revenue and variances to budget



# Operating Budget Process Improvements

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- Robust FY24 budget development process building on improvements from prior years
- Continued to provide departments additional time to formulate their requests
- Prioritized improved coordination and communication with each department through enhanced guidance and training
- Continued a bottom-up approach to building the FY24 budget through a collaborative approach with departments
- Continuous dialogue with departments to ensure updates for the latest financial information
- Engaged in inclusive conversation with departments to maintain an appropriate level of resources
  - More than 80 meetings completed between January-March 2023
  - Meeting with departments in two rounds to listen and understand requests with dedicated time to explain or discuss any changes or updates
  - Comprehensive collection of departmental requests for additional budgeted positions to improve safety



# Recap of FY23 Major Investments & Highlights

- Despite the COVID-19 pandemic, the FY23 budget maximized existing resources and made further investments in safety, service, and priority initiatives

## Safety

- **For operations safety**, included additional staff and new services spending to improve quality assurance, inspection, and safety assessment projects

## Hiring & Recruitment

- **For human resources hiring, recruitment, and retention efforts**, building on ongoing work and efficiencies to ramp up staffing to support safe, reliable service

## Bus Network Redesign

- **For Bus Network redesign**, staffing up to initiate service enhancements and non-wage costs for additional service mileage

## Fare Transformation

- **For continuous improvements to the fare system** to improve Charlie Cards and program availability along with piloting new technology and approaches

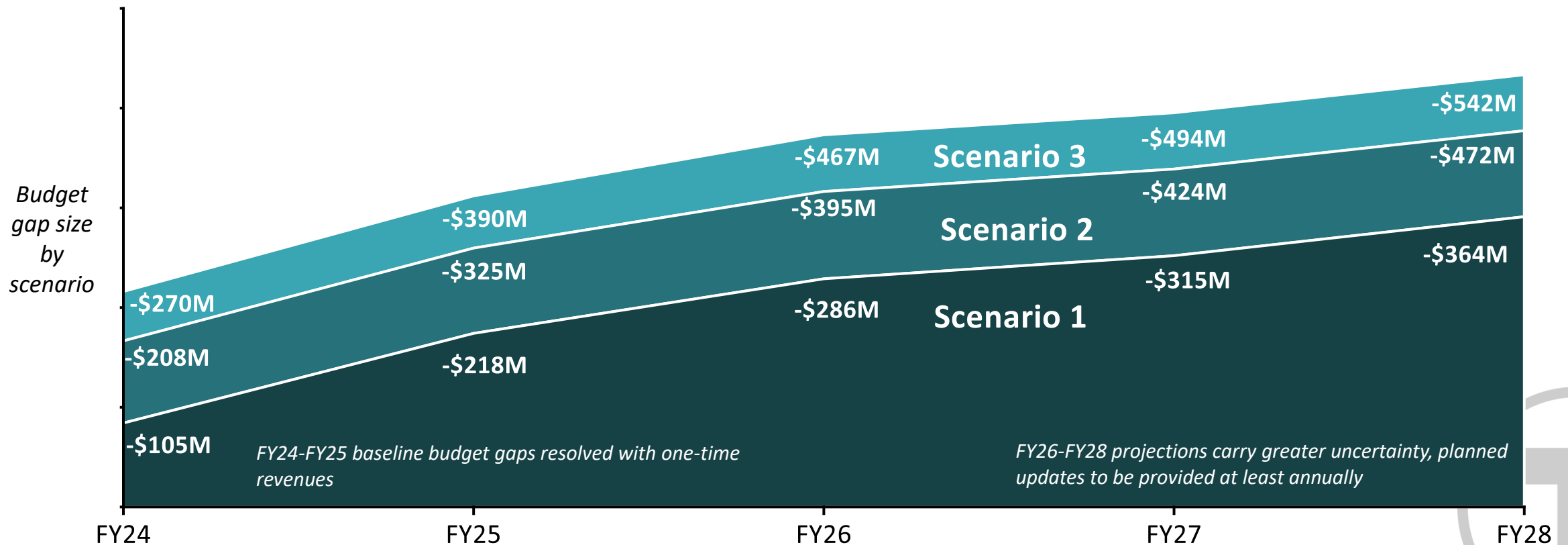
## Maximizing Resources

- **Maintained planned Deficiency Fund reserve transfer** without any fare increases or layoffs/furloughs

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

*Excluding all FTA directive spending and one-time revenues*

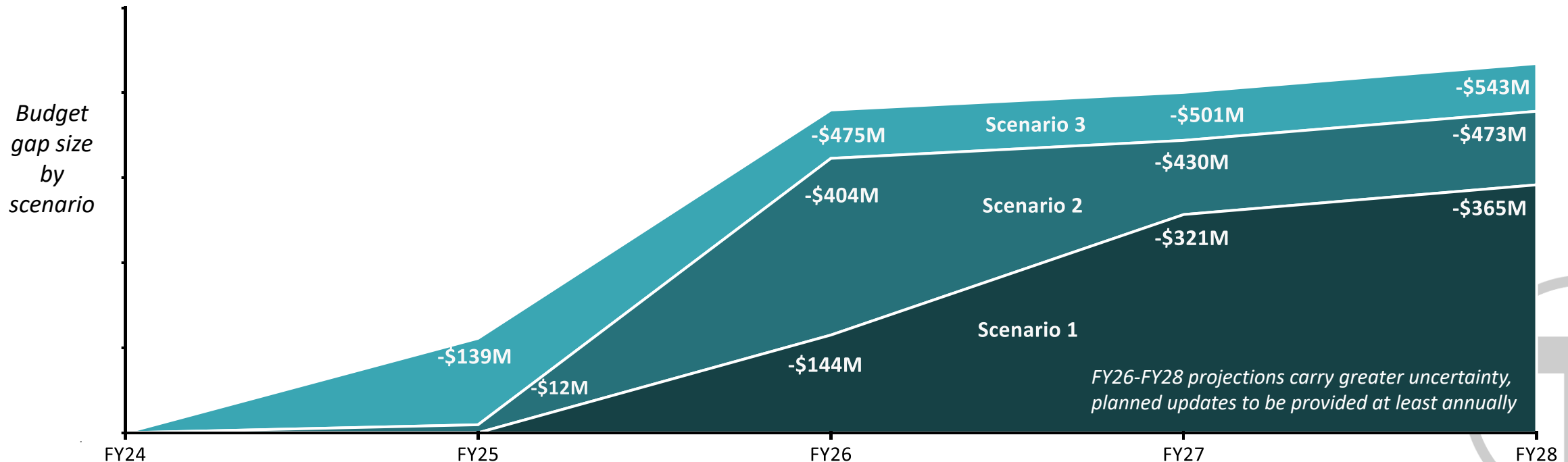
- **Excluding** the FTA directive response and one-time revenues, annual operating expenses would exceed operating revenues in every fare revenue scenario for the next five years
- FY24-FY25 baseline budget gaps shown planned to be resolved with one-time revenues



# 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 Scenarios 1 and 2
- Actual budget gaps depend on fare revenue and actual spending over the next two years



# Successful Budget Planning & Deficiency Fund Management

- As done the last two years, continuing to transfer favorable budget results in FY23 into the Deficiency Fund will mitigate the FY24 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**

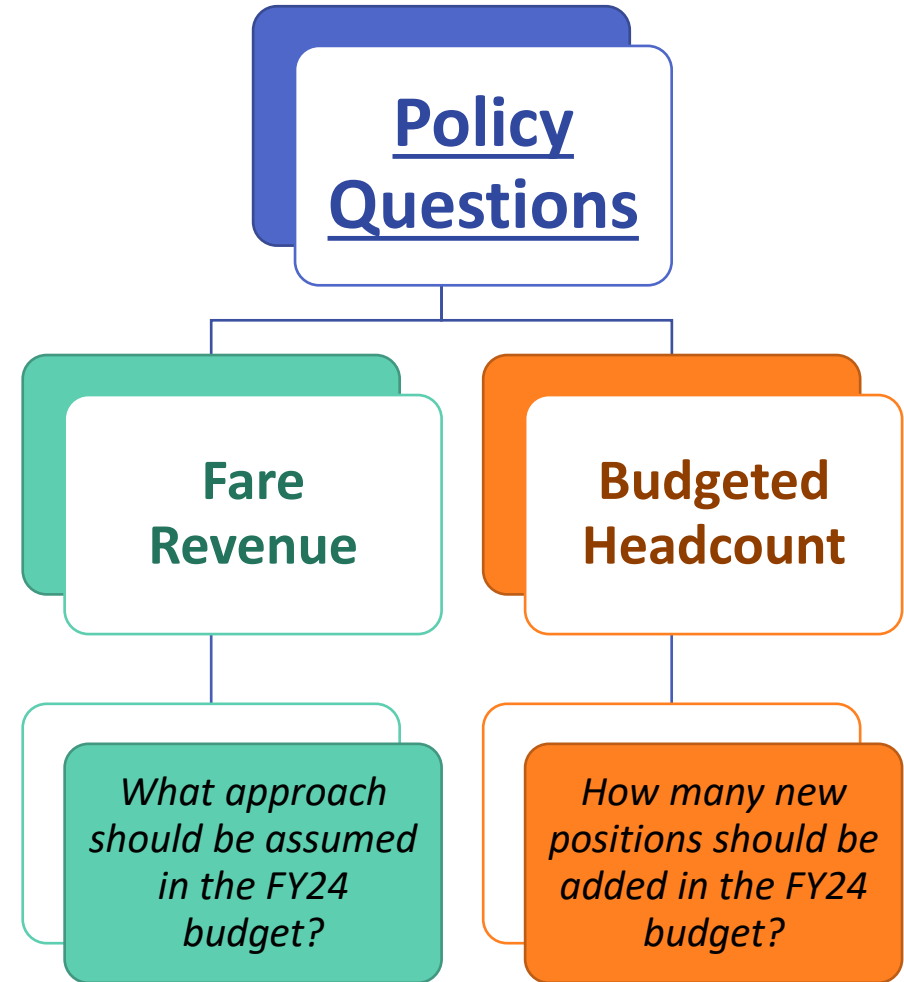
**Funding source for new/unbudgeted initiatives and priorities**





# FY24 Major Budget Assumption Review

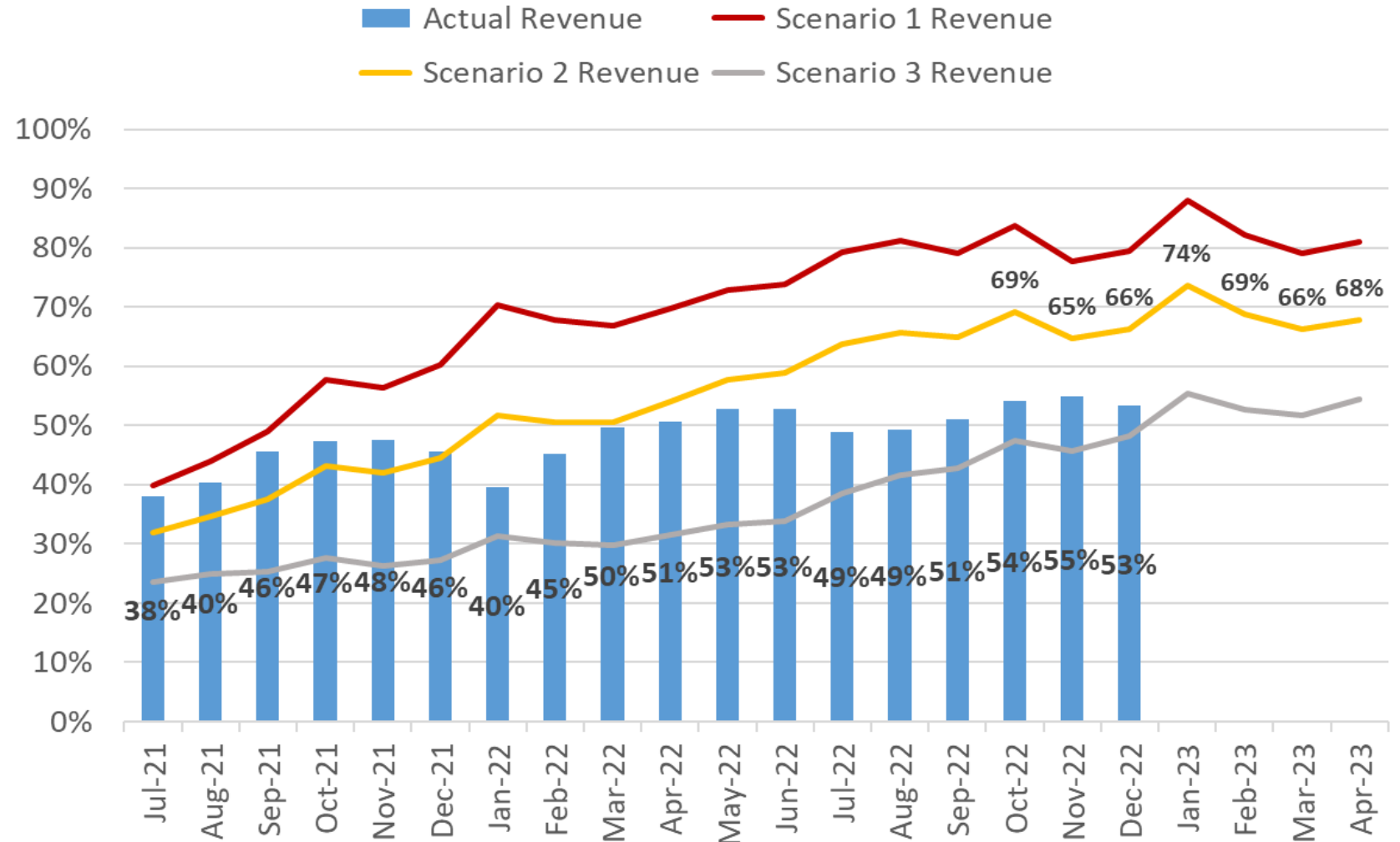
- Two key assumptions to revisit prior to FY24 preliminary budget presentation
- Fare revenue
  - Actual fare revenue collections remain between Scenario 2 and Scenario 3 assumptions
  - **Policy question: What approach should be assumed in the FY24 budget?**
- Operating budget headcount
  - The nationally challenging labor market has limited the MBTA's ability to fill new budgeted positions despite targeted investments for hiring and retention
  - The FTA-directed workforce assessment is ongoing and will impact headcount approach during FY24, after budget approval
  - **Policy question: What programmatic increases or initiatives should be added to the FY24 budgeted headcount?**



# Actual Fare Revenue Collection Since July 2021

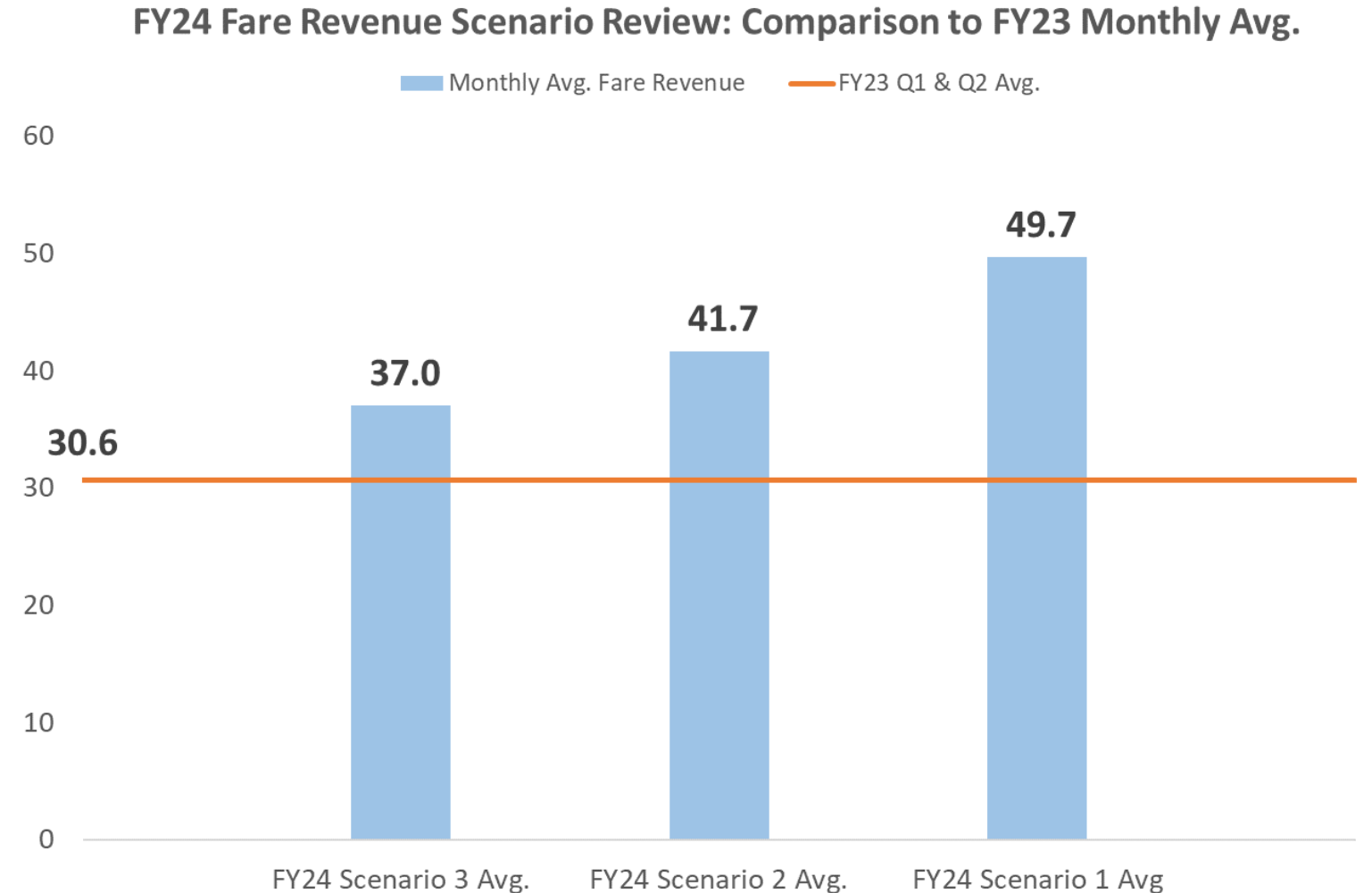
- 53% of baseline revenue in December tracks between Scenario 2 and Scenario 3
- Actuals below FY23 budget, based on Scenario 2 revenue projections
  - Since July 2021, actuals have aligned with all three scenarios
- Limited growth in fare revenue since March 2022

Fare Revenue Actuals & Projections as % of Baseline



# Analyzing Established Fare Revenue Scenarios

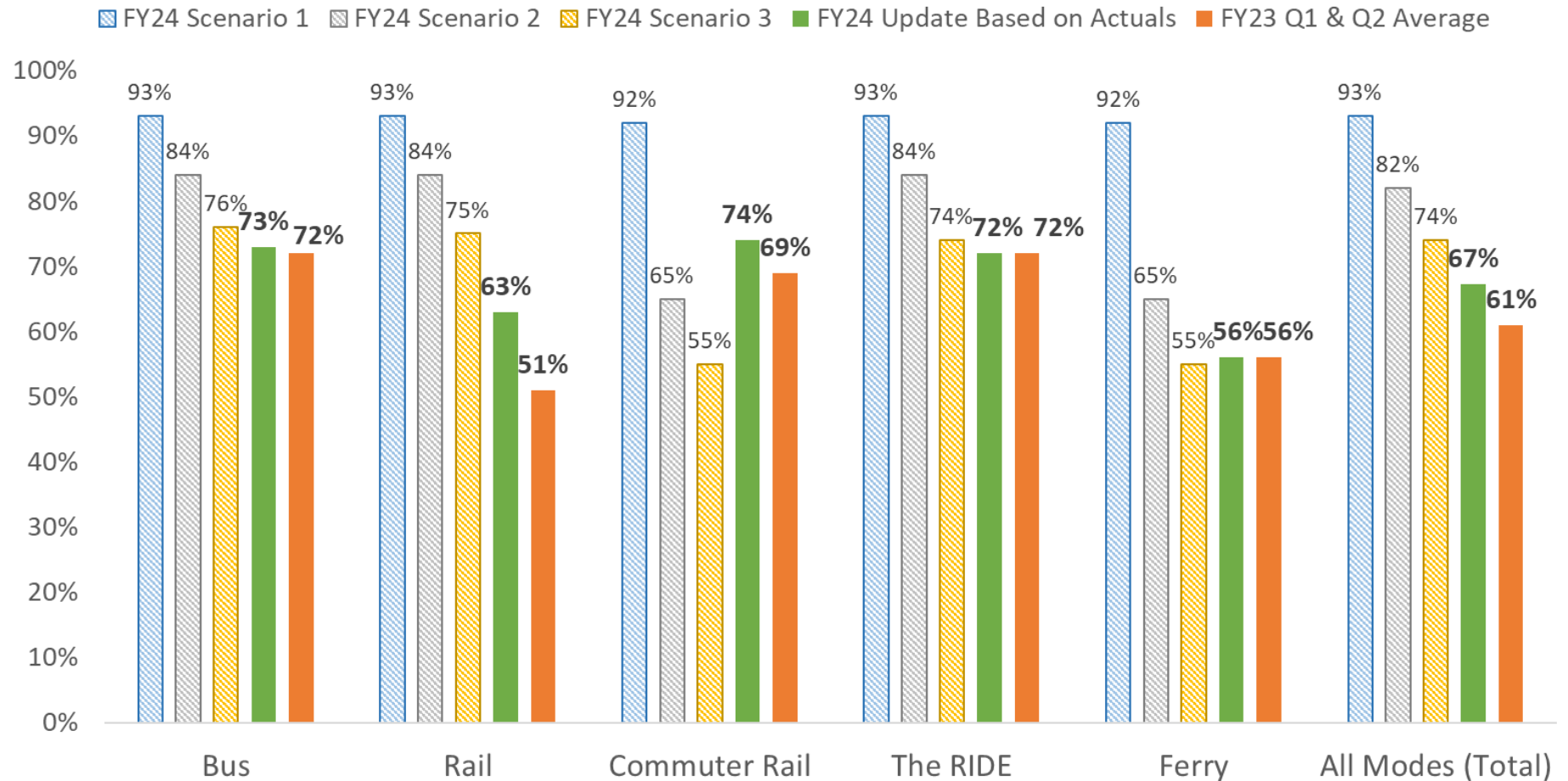
- If the MBTA followed the established fare revenue scenarios, all FY24 scenario options are above current fare revenue actuals through FY23 Q1 & Q2
  - FY23 Q1 & Q2 average suppressed by Orange Line work in August-September 2022
- FY24 total estimates:
  - Scenario 1: \$596M (86% of baseline)
  - Scenario 2: \$500M (72% of baseline)
  - Scenario 3: \$444M (64% of baseline)



# Incorporating Recent Actual Ridership Data

- Consideration for another option beyond the established scenarios for FY24 budget
- Using observed ridership data for each mode, FY24 assumptions have been updated to better align with current actual data
- Still allows for overall growth, customized by mode

Updating FY24 Budget Assumptions for Current Actuals



# FY24 Fare Revenue Budget Assumption Discussion



## Options to Review & Discussion

Option	Revenue	Description
<b>FY24 Update</b> <i>(Recommended)</i>	<b>\$418M</b>	Updated model that uses recent actuals and trends by mode to inform future projections
<b>Scenario 3</b>	<b>\$444M</b>	Does not accurately capture modal ridership breakdown observed over the last two years
<b>Scenario 2</b>	<b>\$500M</b>	Maintains FY23 assumed scenario despite month over month shortfalls realized to date
<b>Scenario 1</b>	<b>\$596M</b>	Severely aggressive growth assumptions, more than 60% above actuals realized to date

# Guiding Principles for FY24 Budget Priorities

- Invest in priorities, including major initiatives as outlined in the November Pro Forma
- Allow for other non-discretionary increases (e.g., debt service, contractual, capital costs operationalized, etc.)

## New & Recent Priorities

- 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 (Headcount)

- Investments in multiple priority initiatives for safety and service will add to the operating budgeted headcount
- Adding new positions would allow 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

## 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 or reporting, and quality control/assurance

## Safety & Training beyond FTA directive scope

- The MBTA has identified 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

## Bus Network Redesign

- Building on 87 positions added to the FY23 budget, adding additional positions to continue 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

- Building on 176 positions added to the budget in FY22 and FY23 to fully operate and maintain the expanded light rail service, which opened for full service in December 2022

## Means-tested Fares, Fare Transformation & Verification

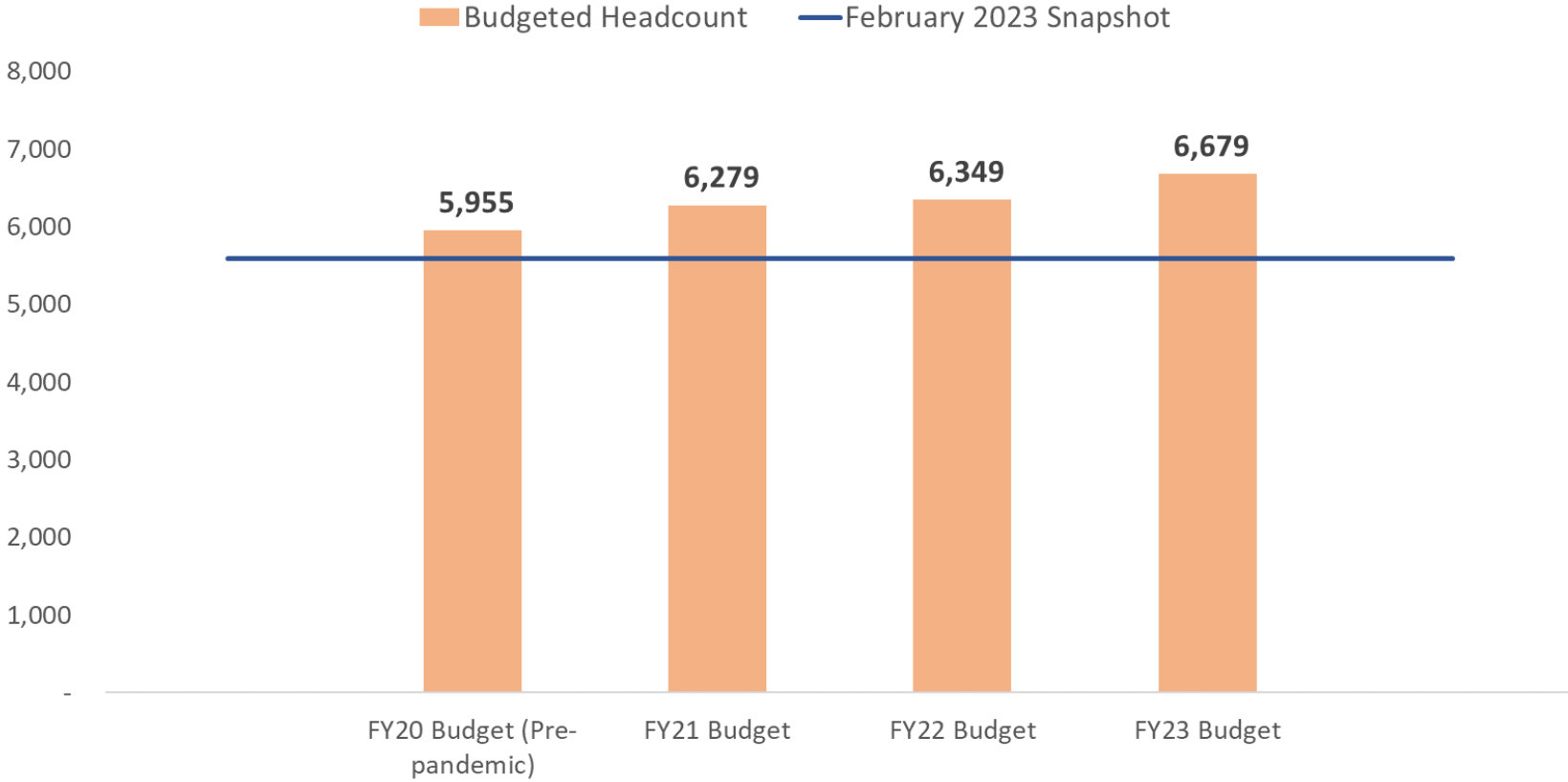
- Updating fare programs for equity and simplicity including initial steps to implement a means-tested fares program and verifying rider fares



# Operating Budget Headcount Overview

- The MBTA has always realized operating budget vacancies due to natural turnover and attrition
- Since FY20, significant investments in budgeted safety and service positions combined with a challenging labor market have increased the number of budgeted vacancies in recent years
- 96% of public transit agencies are experiencing a workforce shortage per American Public Transportation Association's (APTA) October 2022 report
- Active headcount snapshot in February 2023, approximately 5,600 active operating staff

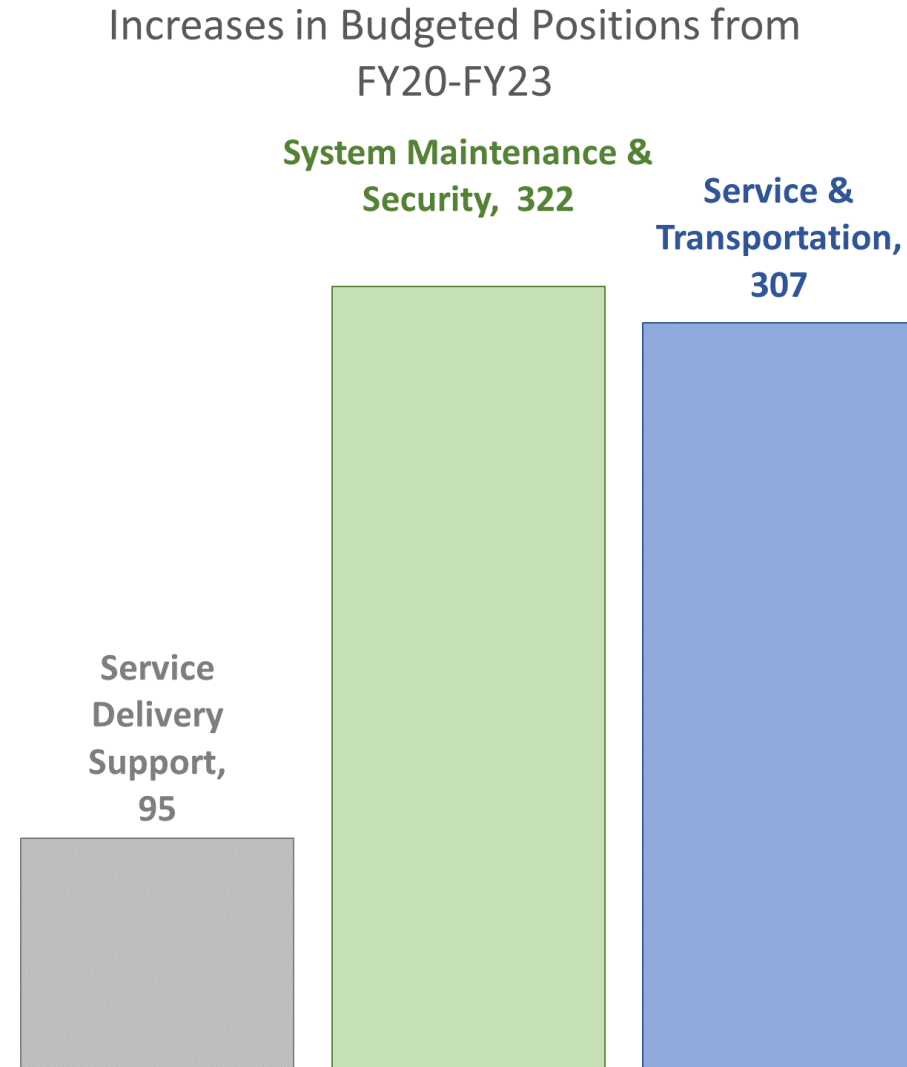
**Budgeted & Active Operating Headcount: Pre-pandemic to Present**





# Recap of FY23 Budgeted Headcount Investments for Safety, Service, & New Initiatives

- FY23 budget included 6,679 operating budget positions
  - 330 (5%) above the FY22 budget baseline
- 724 positions (12%) above the FY20 budget level (pre-pandemic)
- 87% of new budgeted positions (629 total) since FY20 directly tied to service, system maintenance, and security



# Recap of Increased Budgeted Safety Positions Since the Pandemic

- At least 424 budgeted safety positions added since the FY20 budget prior to FTA directives in 2022
- 148 new budgeted positions specifically designated for safety in FY23
- 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

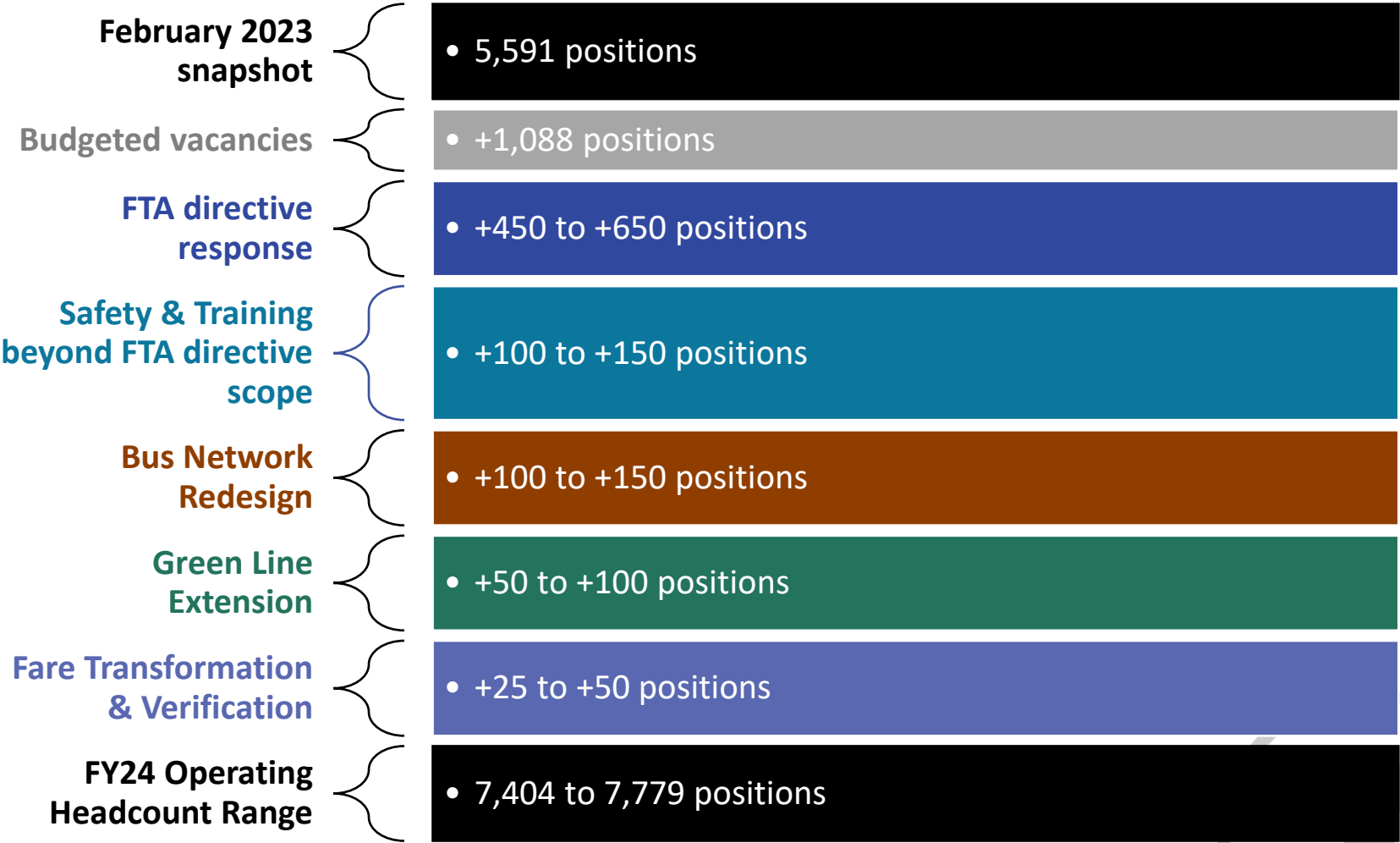
## Operations Safety

148  
positions

\$15M in  
annual  
wages

# Determining Level of FY24 Programmatic Investments (Headcount)

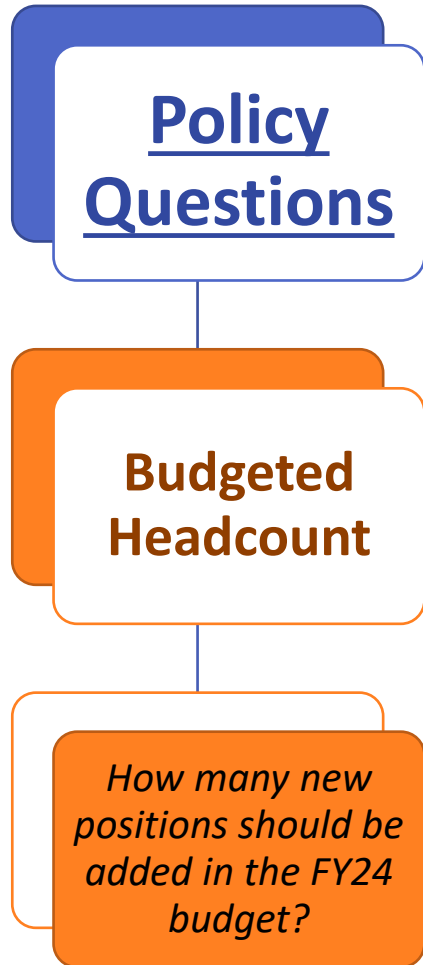
- Fully funding all requested headcount into the FY24 budget would add 725-1,100 positions above the FY23 budget (+11% to +16%)
  - Defined headcount assumptions by initiative to be presented during preliminary FY24 budget presentation to the Board
- Per the FTA’s Safety Management Inspection Final Report in August 2022, “Interviews with a range of personnel throughout the MBTA’s organization indicate that the overall MBTA transit system may be between 1,500 and 2,000 active positions short in managing its current level of activity”
- Ongoing FTA directed workforce assessment will further refine and adjust overall headcount needs during FY24



# Illustrative Programmatic Options for FY24 Budget Consideration

Illustrative Options to Approve for FY24 Budget	Existing Budgeted Vacancies	FTA Directive Response	Safety & Training Beyond FTA Scope	Bus Network Redesign	Green Line Extension	Fare Transformation & Verification
<b>Option 1: Fully Fund All Initiatives</b>	✓	✓	✓	✓	✓	✓
<b>Option 2: Safety Focused Investment</b>	✓	✓	✓	Fill existing vacancies before budgeting new positions	Fill existing vacancies before budgeting new positions	Revisit pending ridership return & growth
<b>Option 3: Maintain FY23 Headcount</b>	✓	Fill existing vacancies pending workforce assessment	Fill existing vacancies pending workforce assessment	Fill existing vacancies before budgeting new positions	Fill existing vacancies before budgeting new positions	Revisit pending ridership return & growth

# FY24 Budgeted Headcount Assumption



## Options to Review & Discussion

**Fully Fund All Pro Forma Initiatives**  
*(Recommended)*

**7,404 to 7,779 positions**

Maintains Pro Forma approach for all approved initiatives, including all FTA safety directives, accounting for time to ramp up hiring

**Only Safety Focused Investments**

**7,229 to 7,479 positions**

Prioritizes FTA directive response, safety, and training for new positions, while focusing on filling existing vacancies for all other initiatives

**Maintain FY23 Headcount Until Workforce Assessment**

**6,679 positions**

Hold on any additional budgeted headcount increases pending the findings and recommendations of the FTA directed workforce assessment

*\*Ongoing FTA directed workforce assessment will further refine and adjust overall headcount needs during FY24*

# Planned Analysis & Detail for Preliminary Budget Presentation for April Board meeting

## Revenue Detail & Analysis

- **Revenue summary and variance analysis** to FY23 budget
- Historical revenue detail of **operating and non-operating revenue**
- **Fare revenue** estimates by month, including fare revenue recovery ratio
- **Own-source revenue** historical summary
- **State and local** historical revenue detail
- **Operating budget gap and Deficiency Fund reserve transfer impact**

## Investments, Spending, and Headcount

- **Key investment** highlights for operations and safety initiatives
- Overview of **operating expenses by function**
- **Spending summary and variance analysis** to FY23 budget
- Historical actual and budgeted **spending growth**
- **FTA directive response spending** summary
- **Headcount overview** and detail by function

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# Appendix



# Ridership Scenario Planning and Assumptions

- Three scenarios developed by MassDOT planning & OPMI contemplating ridership growth, the current public health pandemic, and employer operations
  - Scenarios 1 and 2 assume a “boost” in ridership in Fall 2021; while Scenario 3 sees a longer span of growth
- Modeled projections consistent with McKinsey & Company Future of Work report from July 2021 and APTA report by EBP US, Inc. from January 2021 on vehicle miles traveled (VMT)
- Initial modeling completed in October 2020 with an update in February 2021
- Actuals observed have remained within the projected scenario ranges
- Board approved FY23 budget based on Scenario 2 projections given actual ridership and fare revenue at the time of budget development (February/March 2022)

## Scenario 1

Economic, demographic, and mobility patterns gradually return to mostly pre-COVID-19 conditions with slight increases in the number of teleworkers

## Scenario 2

Travel patterns diverge as consumers and employees adopt to a new normal, especially in light of new and emerging remote meeting and e-commerce technologies

## Scenario 3

The economic impacts of COVID-19 have depressed travel and mobility, especially on the MBTA, and telecommuting is standard practice

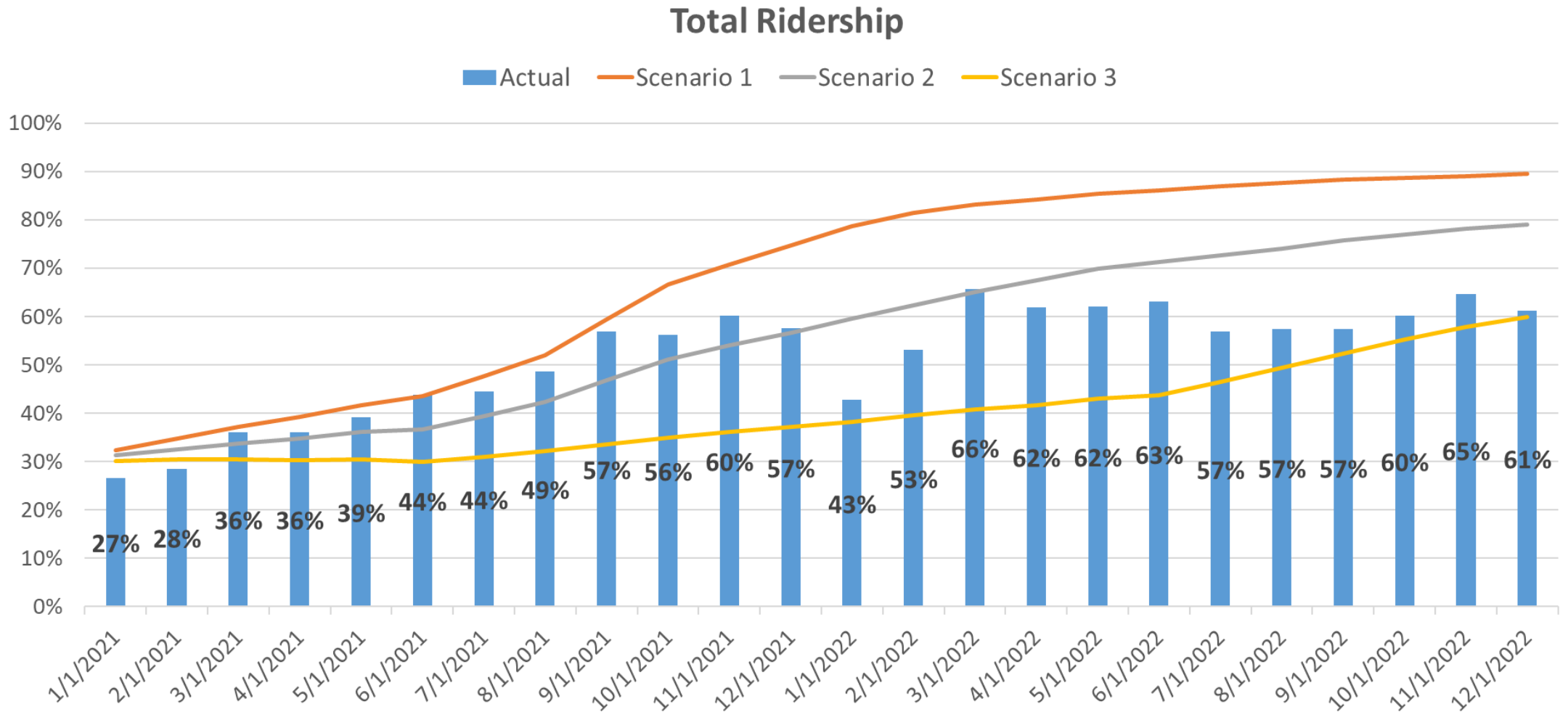
*\*Fare revenue scenario projections to be updated as needed if actual observed ridership consistently deviates outside the projected range*



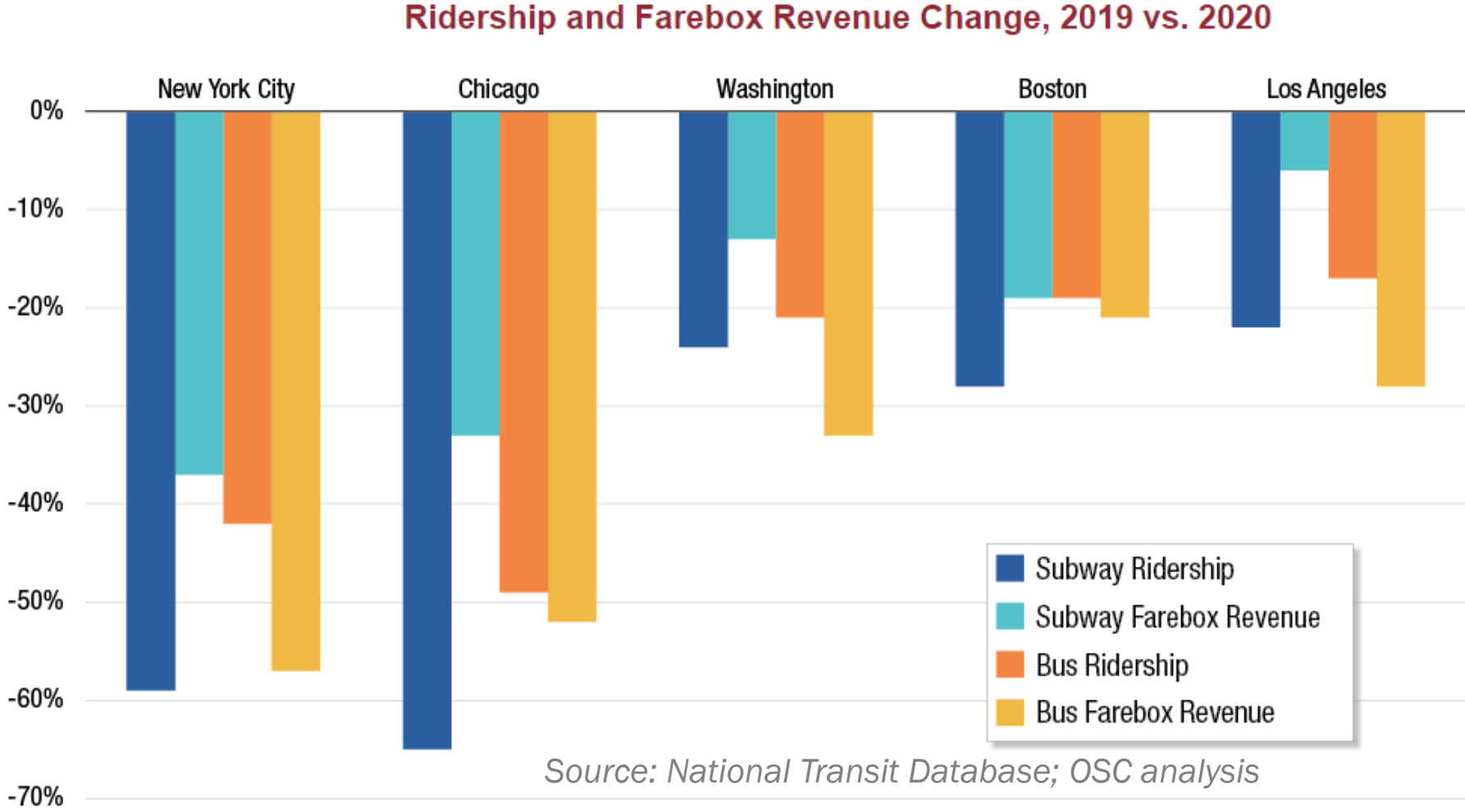


# Total Ridership

- Total ridership 61% of pre-pandemic baseline as of the end of FY23 Q2



# Ridership & Farebox Revenue Comparison



# HR Priorities for Overcoming Challenges

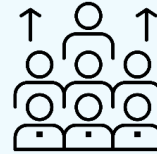
## Priorities

### Improve Efficiency of Hiring Cycle Times



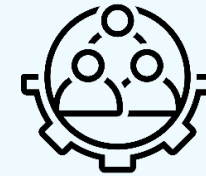
- Increase the speed and number of hires
- Increase hiring capacity of recruiting team

### Expand Candidate Pool



- Increase number of candidates applying
- Help achieve DEI initiatives

### Retention & Utilization of Workforce



- Decrease absence rates to expand onsite presence
- Right-size organization to service delivery levels

## Initiatives

- ✓ Fully-staffed recruiting team
- ✓ Developed robust HR Dashboards
- ✓ Outsourcing WFAs
- ✓ Reviewing Req Creation Process
- ✓ Driving Record Attestation Process

- ✓ Marketing Campaign
- ✓ Bus Operator Hiring Bonus (\$4,500)
- ✓ Employee Referral Bonus (\$2,000)
- ✓ Driving Record Policy Update
- ✓ Incorporate CDP into Training Program
- ✓ Sign-on Bonus & Counter Offers

- ✓ PFML Policy Update
- ✓ FMLA Policy Update
- ✓ Updated Attendance Policy
- ✓ Hire Directly to FTO (Scheduling Changes)



# HR Actions to Support Priorities



## Improve Efficiency of Hiring Cycle Times

Action	Outcome
Doubled size of recruiting team, dedicated verticals	2.4x increase in hiring capacity
Developed and implemented recruiting metrics	Identified and eliminated upstream process bottlenecks
Documented SOP for recruiters	Faster training and onboarding of new staff
Pulled driving records on behalf of applicants	Eliminated ~50% drop off in bus operator applicants
Eliminated randomization process for Bus Operators	Initiating for October class, eliminates avg. 3 weeks
Streamlined requisition creation process	Decreased unnecessary fields by 56%
Digitized position control request process	Eliminates ~2-6 weeks in hiring process
Reduced process approvals	Eliminates ~2 weeks
Standardizing pre-boarding process	Eliminates ~1-3 weeks in hiring process



## Expand Candidate Pool

Action	Outcome
One-Stop Bus Operator Hiring Event	Increased bus operator class #'s
MBTA Employment Fair at City Hall Plaza	Community outreach event
Bus Operator Marketing Campaign	On-going
\$4500 Hiring Bonus for Bus Operators	On-going
\$1000 Referral Bonus for Bus Operator positions	On-going, increase and expansion of positions under review
Driving Record Policy Update	Increased eligible applicants by ~20%
Text Message Reminders	Helps ensure candidates stay aware of next steps
Standardized Programmed Hiring applicant communications	Reduced inefficiency improved outreach
FY23 Marketing Campaign	On-going
Initiating Commercial Driver's Permit Training	First class October 2022, second class January 2023

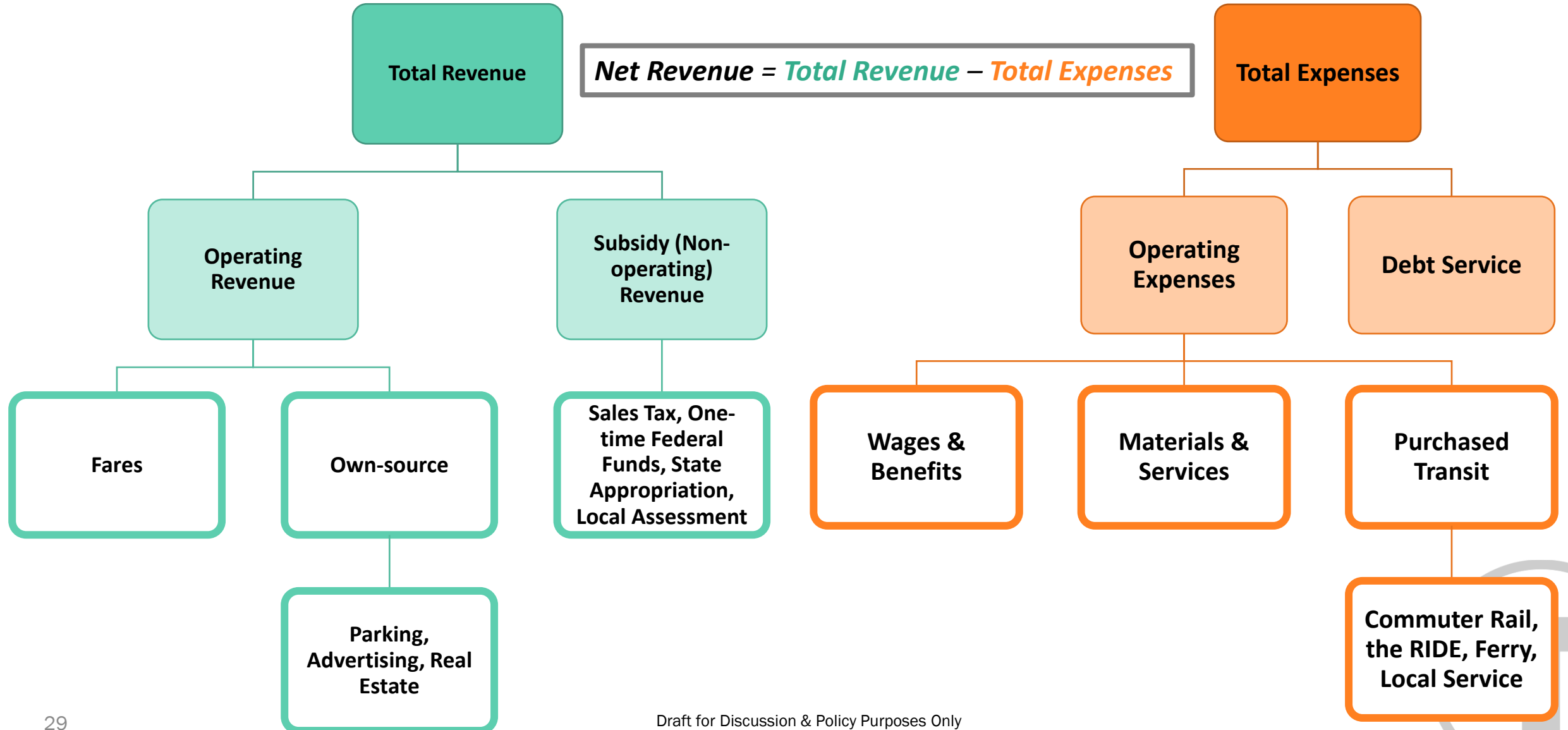


## Retention & Utilization of Workforce

Action	Outcome
PFML Policy Update	Re-certification to reduce misuse
FMLA Policy Update	Re-certification to reduce misuse
Increased education reimbursement to \$10,000	1.8x increase in usage
Attendance Policy Update	Improves job condition, target Q1 CY23 (technology upgrade underway)
Increased Bus Operator Training Salary	Raised trainee salary up to starting pay
Increasing Starting Pay	Eliminations of first pay step under review
Split Shift for Operators	Currently Under Review



# Categorization of Revenue & Expenses



# 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-22-004**

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

**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-22-002**

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

**FTA-TRA-22-005**

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

**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-22-003**

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

**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-22-009**

- 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"> <li>• Update its SMS Implementation Plan to reflect the results of this review, including defined actions, timeframes, responsibilities, and expected outcomes</li> </ul>	<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"> <li>• Map its safety data flows and supporting processes</li> </ul>	<ul style="list-style-type: none"> <li>• 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)</li> </ul>	Provide formal training in safety information management to relevant personnel	<ul style="list-style-type: none"> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• 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</li> </ul>	<ul style="list-style-type: none"> <li>• 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</li> </ul>	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	FTA-22-MBTA-CAT3-1.B	FTA-22-MBTA-CAT3-2.A	FTA-22-MBTA-CAT3-2.B	FTA-22-MBTA-CAT3-3.A	FTA-22-MBTA-CAT3-3.B	FTA-22-MBTA-CAT3-3.C
<ul style="list-style-type: none"> <li>•Develop and describe, in the organization’s SMS documentation, instructions regarding the conduct, recording, communication and follow up of the outcome consensus decisions</li> </ul>	<ul style="list-style-type: none"> <li>•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</li> </ul>	<ul style="list-style-type: none"> <li>•Develop explicit and formal guidelines for the expected role and contribution of frontline employees to the local safety committee meetings</li> </ul>	<ul style="list-style-type: none"> <li>•Develop instructions for the conduct of the meetings, including explicit departmental accountabilities for meeting outcome information capture, communication and follow up</li> </ul>	<ul style="list-style-type: none"> <li>•Expedite the development of an effective ESRP as a fundamental source of safety information for hazard identification and safety performance monitoring</li> </ul>	<ul style="list-style-type: none"> <li>•Provide explicit direction to frontline employees on what to report and what not to report through the ESRP</li> </ul>	<ul style="list-style-type: none"> <li>•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</li> </ul>



# 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"><li>• 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</li></ul>	<ul style="list-style-type: none"><li>• Each department must establish and act on a prioritized list of most frequently violated rules and procedures with the most significant potential safety consequences</li></ul>	<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"><li>• 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</li></ul>	<ul style="list-style-type: none"><li>• The Safety Department must review and audit these reports and compile a monthly compliance report for MBTA's executive leadership team</li></ul>	<ul style="list-style-type: none"><li>• Each department must continue to review safety data to assess effectiveness of actions and to improve compliance with safety rules and procedures</li></ul>



# 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"> <li>•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</li> </ul>	<ul style="list-style-type: none"> <li>•Develop and administer a QA/QC program to independently oversee of ongoing QA/QC activities</li> </ul>	<ul style="list-style-type: none"> <li>•Ensure that the QA/QC functions are independent of the functions of the Safety department and report directly to the GM</li> </ul>	<ul style="list-style-type: none"> <li>•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</li> </ul>	<ul style="list-style-type: none"> <li>•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</li> </ul>	<ul style="list-style-type: none"> <li>•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</li> </ul>	<ul style="list-style-type: none"> <li>•Implement the results of the training needs assessment</li> </ul>	<ul style="list-style-type: none"> <li>•Consider opportunities and adopt technology and other resources to support training development and training management and record-keeping</li> </ul>



# 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"><li>• 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</li></ul>	<ul style="list-style-type: none"><li>• Include frontline maintenance personnel in the development evaluation of these tools and checklists</li></ul>	<ul style="list-style-type: none"><li>• 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</li></ul>	<ul style="list-style-type: none"><li>• Confirm radio dead spots with frontline motorpersons and maintenance workers</li></ul>	<ul style="list-style-type: none"><li>• Improve the performance of its radio system in these dead spots</li></ul>

