April 8, 2015

Back on Track:

# An Action Plan

## to Transform the MBTA

**Submitted by the Governor's Special Panel to Review the MBTA**




Commissioned by:

**Governor Charles D. Baker**

**Commonwealth of Massachusetts**

## A Word of Thanks to the Men and Women of the MBTA

**The members of the Governor's Special Panel offer their deep appreciation to the men and women of the MBTA and Keolis Commuter Services, and their families, for their extraordinary efforts during the blizzards of 2015.**

**For all that you did to try to keep the MBTA operating, and then for your work during the period of recovery, we thank you.**

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# Governor's Special Panel to Review the MBTA: Our Charge

## Objectives

- **To develop a fact base** from available data and recently published reports to enable the MBTA and the Commonwealth to ground future plans and recommendations.
- **To undertake a rapid diagnostic** on the state of MBTA asset management and maintenance.
- **To make recommendations** to improve the MBTA's governance, structure, financials, and operations in both the short and long terms to enable the MBTA to plan, operate, and maintain a 21st-century public transportation system.

## To fulfill its charge, the Panel:

- Met 18 times over six weeks.
- Reviewed dozens of past studies.
- Met with current and former MBTA staff, General Managers, and MassDOT Secretaries.
- Toured four MBTA maintenance and operations facilities.

# The Panel's Diagnosis

## Pervasive Structural Failure

We balance respect for what MBTA and Keolis employees do to deliver 1.3 million daily rides, using out-of-date equipment, with a recognition that the MBTA system:

- **Is in severe financial distress** and would be insolvent without significant and continually increasing funding from the Commonwealth each year.
- **Lacks a viable maintenance and repair plan** for vehicles, facilities, signals, track and power systems, even though these are core responsibilities of the agency.
- **Lacks a culture of performance management and accountability.**
- **Is governed ineffectively**, in part because funding and financial responsibilities are too distant from decision-makers and customers.

Some have called the winter of 2015 a 'stress-test' for the MBTA. While the MBTA 'survived' the test, short-term costs were significant in disruption, economic losses, and public and private hardship. The long-term costs are even more troubling: the loss of public confidence in our regional transit system.

**The catastrophic winter breakdowns were symptomatic of structural problems that require fundamental change in virtually all aspects of the MBTA.**

# Action Plan: Urgent work is needed

Many past reports on the MBTA have attempted to quantify the financial needs of the agency. **This report is different.**

- It sheds light on the **structural problems** that prevent the MBTA from providing reliable, high-quality public transit service, every day, every rush hour, in all weather.
- It **rejects the 'reform vs. revenue' debate** because the MBTA needs both.
- It demonstrates the need for **significant and immediate change** so that the MBTA may execute a sustained campaign to transform its organization and rebuild its infrastructure.

- A well-functioning MBTA is **fundamental to the civic and economic life of the Commonwealth**. Demand for MBTA service appears to be at an all-time high and growing.
- The Panel urges Governor Baker and MassDOT and MBTA leadership to immediately **use the full extent of their respective authorities to transform the MBTA.**
- In addition, the Panel respectfully **urges that the Legislature act expeditiously to enact the recommendations provided herein**.
- **This Plan of Action will be difficult and require collective effort, but the alternative is far worse**: continued spiraling costs, unmet maintenance needs, and an increasingly unreliable MBTA.

**Nothing short of bold and urgent action is needed.**
**This report is a blueprint for that action.**

# The Panel's Key Findings

1. **Unsustainable Operating Budget**
   Due to a severe imbalance between costs and revenues, the MBTA would be insolvent if not for continuing and increasing Commonwealth subsidies.

2. **Chronic Capital Underinvestment**
   While the MBTA will ultimately need additional state funding for capital spending, it has been unable to spend the capital funds already available to it, contributing to chronic underinvestment in fleet and infrastructure.

3. **Bottlenecked Project Delivery**
   The MBTA struggles to get projects of all types out the door.

4. **Ineffective Workplace Practices**
   The MBTA is largely ineffective in managing its work due to weak workplace customs and practices.

5. **Shortsighted Expansion Program**
   MassDOT and the MBTA lack a rigorous, long-range expansion strategy based on a clear-eyed understanding of the physical and financial capacity of the MBTA and the regional transit needs of the future.

6. **Organizational Instability**
   The MBTA has been hobbled by frequent changes of leadership, significant vacancies, looming attrition, and organizational insularity.

7. **Lack of Customer Focus**
   The MBTA is not organized to operate as the customer-oriented business it is.

8. **Flawed Contracting Processes**
   MBTA procurement and contract management is inefficient and decentralized.

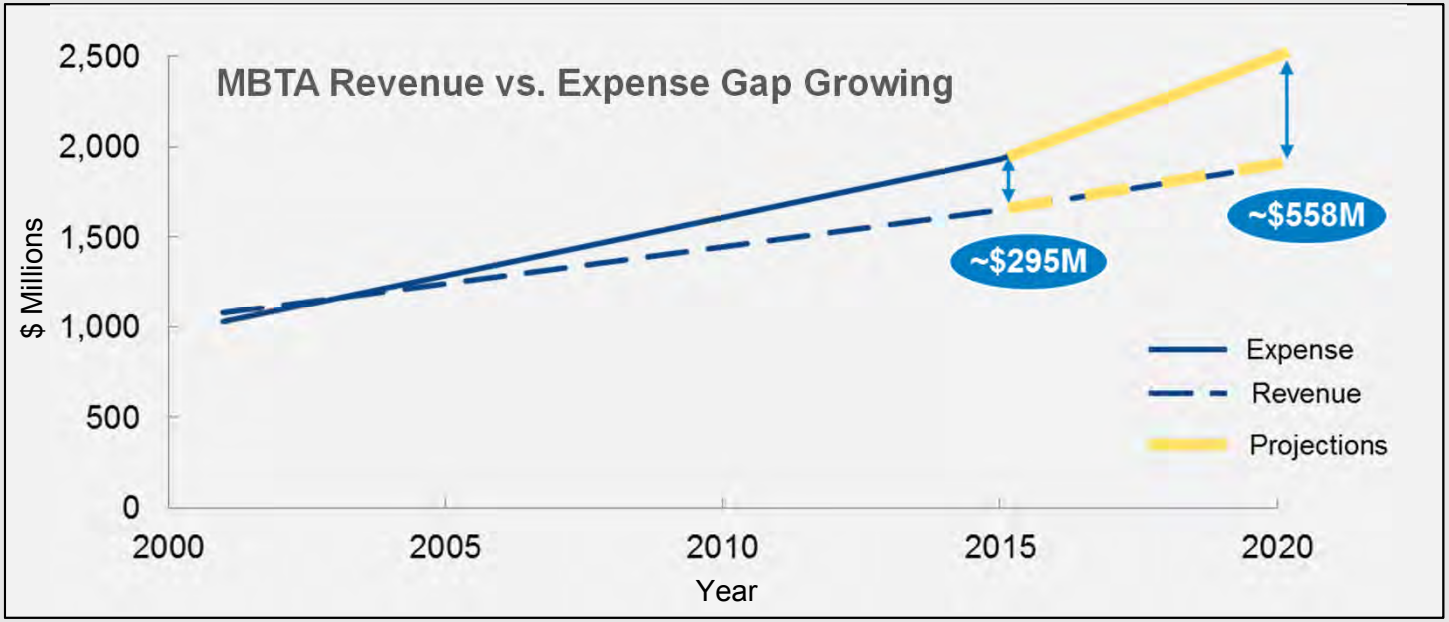
9. **Lack of Accountability**
   The Commonwealth provides more than half of the MBTA operating budget and substantial additional funding for capital projects, but the MBTA is not directly accountable to either the Governor or the Legislature.

# KEY FINDINGS AND RECOMMENDATIONS

# 1. Unsustainable Operating Budget



**Due to a severe imbalance between costs and revenues, the MBTA would be insolvent if not for continuing and increasing Commonwealth subsidies.**




- **Since 2013, the Commonwealth has implicitly assumed responsibility for funding MBTA operating deficits. This arrangement is not conducive to cost control and revenue generation.**
- **This is an unacceptable long-term situation for the Commonwealth, which faces growing and unpredictable funding requests from the MBTA (as it did prior to Forward Funding, which was designed to remedy this situation).**

**The panel recommends that the MBTA prepares 1- and 5-year operating plans that rely primarily on own-source revenue and cost containment to balance the agency's budget, with an identification of any un-met operating needs.**

Source: MBTA Panel projections and analysis. Graph shows revenue with guaranteed funding from the sales tax and without contract assistance and additional assistance. Expenses include debt service. FY01 to FY15 data from MBTA. Projections assume 2.1% ridership growth; 5% fare increases in FY2017 and 2019; Local Assessment growth at 2.5%; Dedicated Sales Tax revenue at 2.2%; and Other Revenues growth at their historic averages. Operating Expense growth is shown at 5.25%.

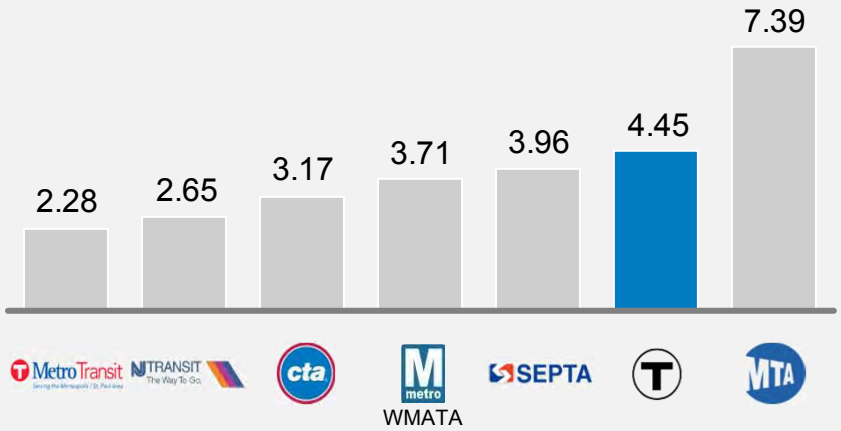
# Mounting Operating Costs

**1. Unsustainable Operating Budget**

- Operating expenses adjusted for service levels are growing at 5.25% per year. This is twice the rate of inflation.
- Operating costs at the MBTA are higher than most peer transit systems due to limited cost control, low labor productivity, and high maintenance costs.
- Average fleet age is the oldest of all peer transit systems across each mode of transportation and results in higher maintenance cost. The Red Line, for example, still operates vehicles built in 1969.
- Operating costs per vehicle revenue mile are the second highest of all peer agencies.

**Total maintenance expense[1] per vehicle revenue mile[2] for buses**

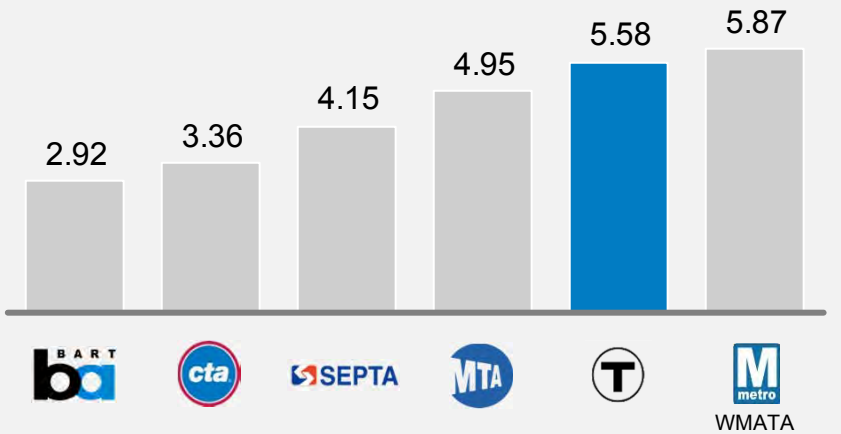
$ USD, average of 2011-2013




1 Calculated as three-year average from 2011-2013 of fully loaded vehicle and non-vehicle maintenance expenses for buses; includes maintenance wages, fringe benefits, service costs, fuel, tires, other maintenance supplies
2 Three-year average of bus vehicle revenue miles from 2011-2013 NTD data

**Total maintenance expense[1] per vehicle revenue mile[2] for heavy rail / subway**

$ USD, average of 2011-2013



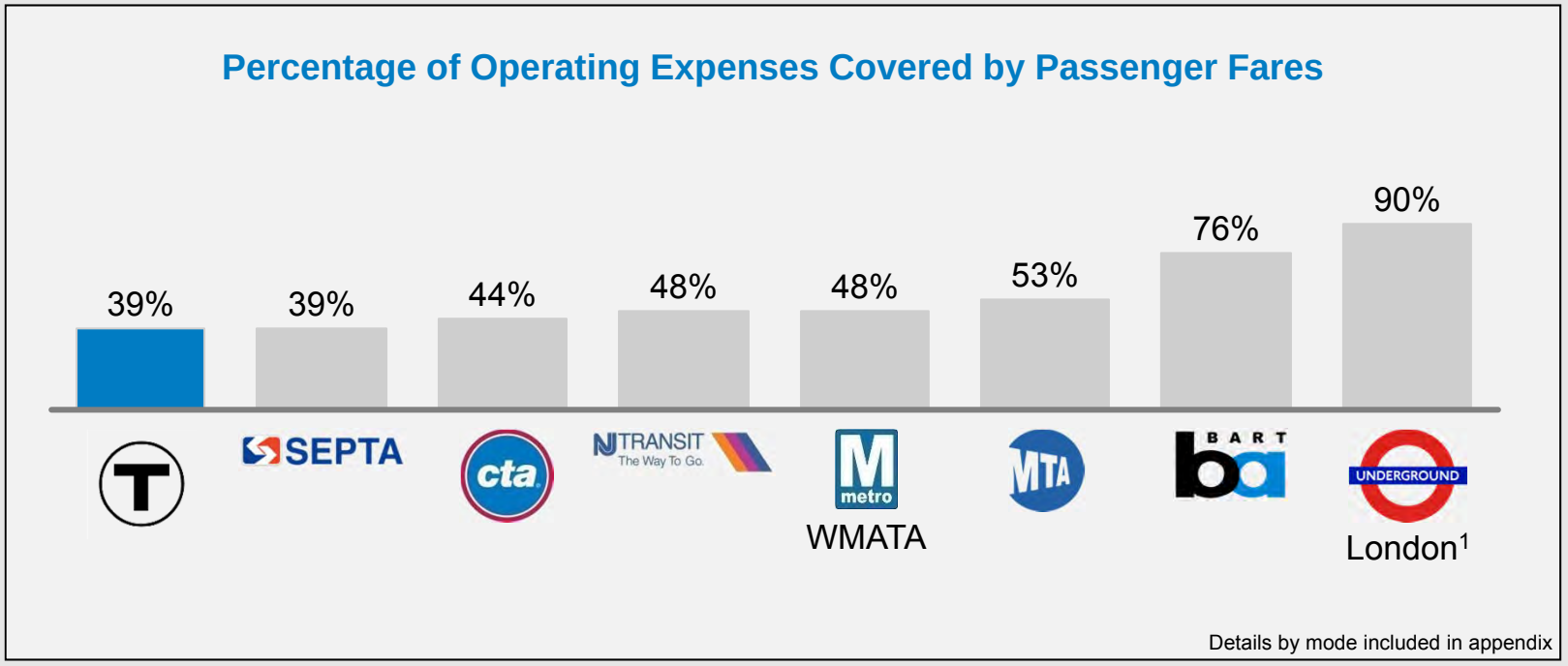

1 Calculated as three-year average from 2011-2013 of fully loaded vehicle and non-vehicle maintenance expenses for heavy rail / subway; includes maintenance wages, fringe benefits, service costs, fuel, tires, other maintenance supplies
2 Three-year average of heavy rail / subway vehicle revenue miles from 2011-2013 NTD data

Source: National Transit Database

# Stagnating Revenue

1. Unsustainable Operating Budget

- Major sources of MBTA revenue (i.e. fares and local assessments) are capped by law.
- Between 2001-2015, revenue only grew 2.12% annually.
- The percentage of operating expenses excluding debt service covered by fare revenues is 39%, well below peer transit systems.
- Ridership, while increasing, is unevenly measured and receives insufficient emphasis as a means of increasing fare revenue.




1 Includes the underground / subway system only, not the entire Transport for London system
Source: National Transit Database 2012 and 2013, MTR Annual Report 2012; TFL Annual Report 2011-2012

# MBTA fares are significantly lower than peer transit systems

**1. Unsustainable Operating Budget**


**MBTA single fares are underpriced and monthly passes are steeply discounted compared to peer transit systems. This pricing is unsustainable for the MBTA given its current financial condition.**

1 Core Charlie Card fare
2 LinkPass provides unlimited travel on subway and local bus
3 MetroCard fare
4 30-day unlimited ride MetroCard
5 Based on peak trip from Silver Spring and Metro Center
6 28-day SmarTrip fast pass
7 Based on purchasing 4 weekly passes
8 Converted from Pounds Sterling and based on pay as you go rate (Oyster card) for peak trip from Zone 1-3

# The MBTA Should Urgently Pursue Revenue Opportunities

Unsustainable Operating Budget

## The MBTA should explore all avenues of new own-source and value-capture revenue.

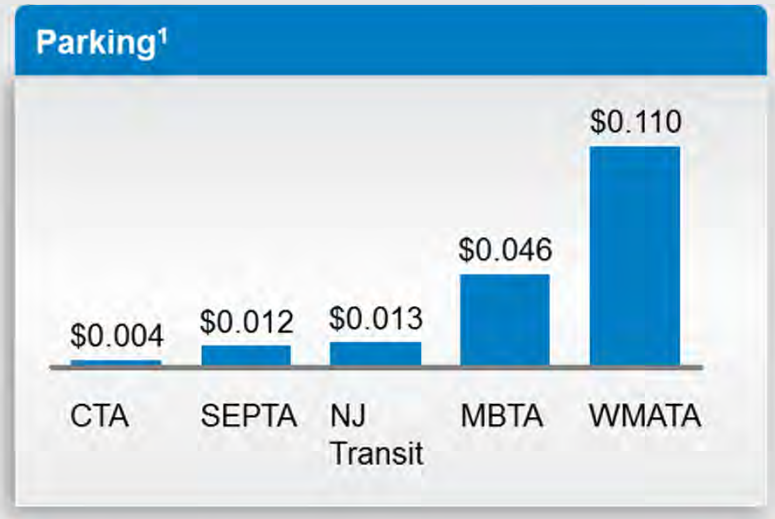
### Examples of these sources embraced by other transit organizations include:

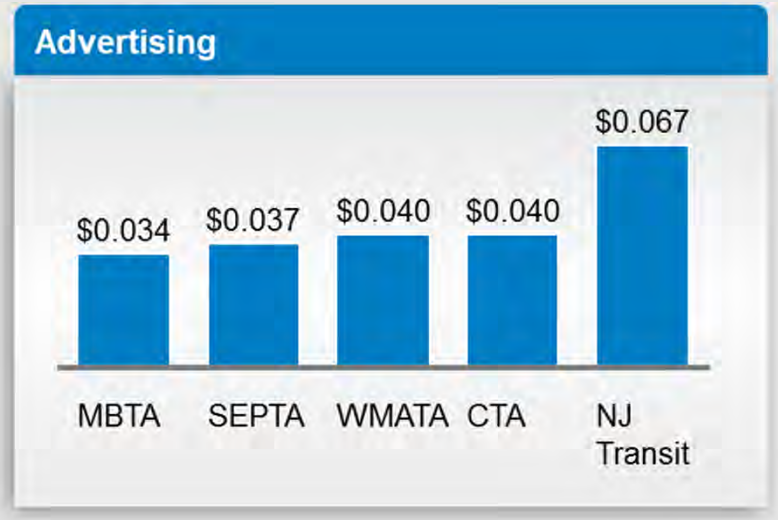
- Increasing ridership as a means to increase revenue (ridership should be a key performance metric).
- Raising and restructuring fares and/or assessments (will require legislation).
- Reducing fare evasion through restructuring, technology, and/or campaigns.
- Creating innovative financial partnerships with universities, major developers, and municipalities that will contribute to transit funding.
- Increasing advertising and concessions in MBTA facilities.
- Maximizing federal reimbursement for paratransit operations.
- Actively seeking and applying for current/future grants for transit development projects.
- Selling or leasing MBTA and state-owned surplus land, including air-rights, for transit-oriented developments (TODs) would provide revenue for the MBTA as well as increase ridership from the people who live, work and engage in commerce, as well as increase state revenues through new jobs, housing, and economic development.
- Having new development projects located near MBTA transit stations financially support MBTA service as part of the developer mitigation process. While mitigation payments for roadway improvements are a routine and common practice in Massachusetts, the equivalent support for MBTA operations almost never occurs. Mitigation payments for MBTA improvements would become an established practice.
- Exploring the use of District Improvement Financing (DIF) for municipalities, and pledging a portion of incremental property tax collections to cover a portion of the costs for major MBTA capital projects, especially debt payments over time.

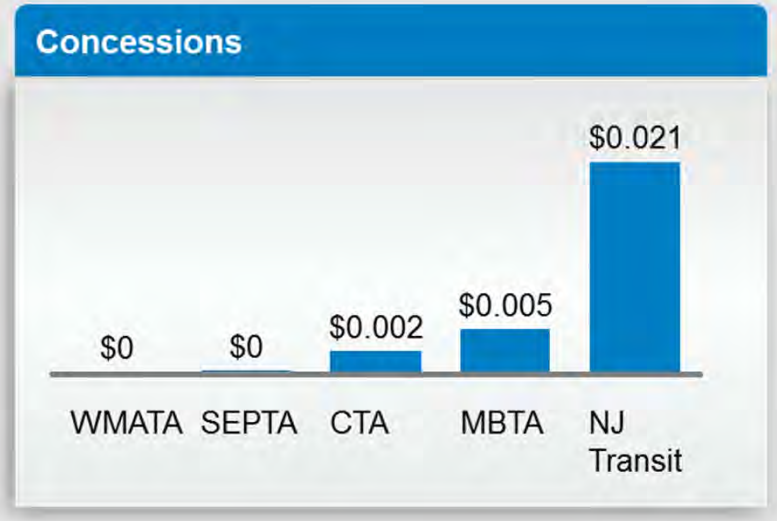
# Comparative Sources of Non-Fare Revenue

Dollars of revenue per unlinked passenger trip

**1. Unsustainable Operating Budget**




**Existing sources of revenue at the MBTA are at or below parity with peer agencies.**

**The panel observed an approach to revenue generation and revenue maximization which lacks creativity and is filled with lost opportunity.**

1 Revenues earned from parking fees paid by passengers who drive to park-and-ride lots operated by the transit agency to utilize transit service
Source: National Transit Database, 2013

# Debt and Other Future Liabilities

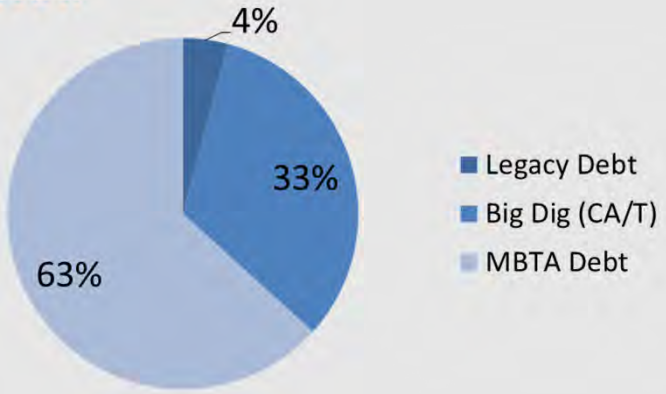


## The MBTA currently holds $5.5 billion in outstanding debt.

### Legacy Debt: $230 million
Debt service associated with debt incurred prior to the introduction of Forward Funding in 2000 ($3.6 billion at its high in 2000).

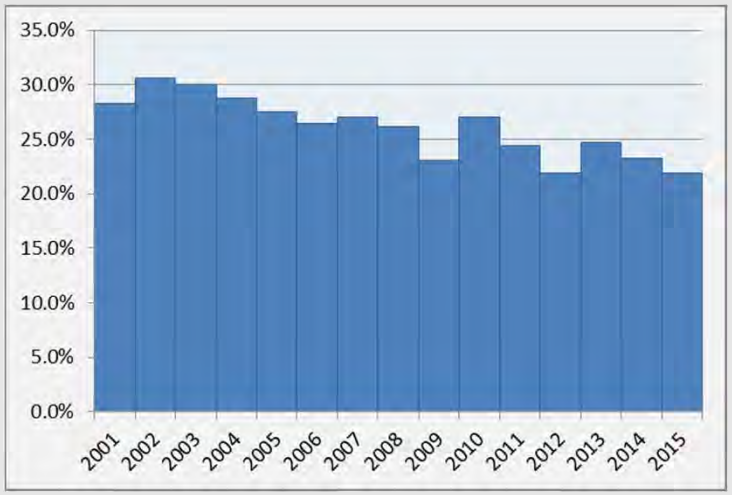
### Big Dig Debt: $1.8 billion
Debt incurred to construct the Central Artery/Tunnel project transit mitigation commitments.

### MBTA Debt: $3.5 billion
Debt issued by the MBTA since 2000 for its own capital needs.




## A significant portion of the annual operating budget is used to pay debt.

- In FY2015, 21.9% of the MBTA's operating budget will be used to pay for debt service.
- In order to save on operating costs, the MBTA has frequently restructured its debt, ensuring that its debt burden will continue into the future, constraining the MBTA's needed ability to borrow.
- Also as a result of the restructurings, the MBTA is now not making sufficient payments to allow it to meaningfully reduce its debt burden.
- Similarly, as of 2014, the MBTA had unfunded pension and compensation liabilities of $835.5 million and retiree health care/OPEB liabilities of $1.8 billion.
  (Active employees=5,726; Retirees receiving benefits=6,371)



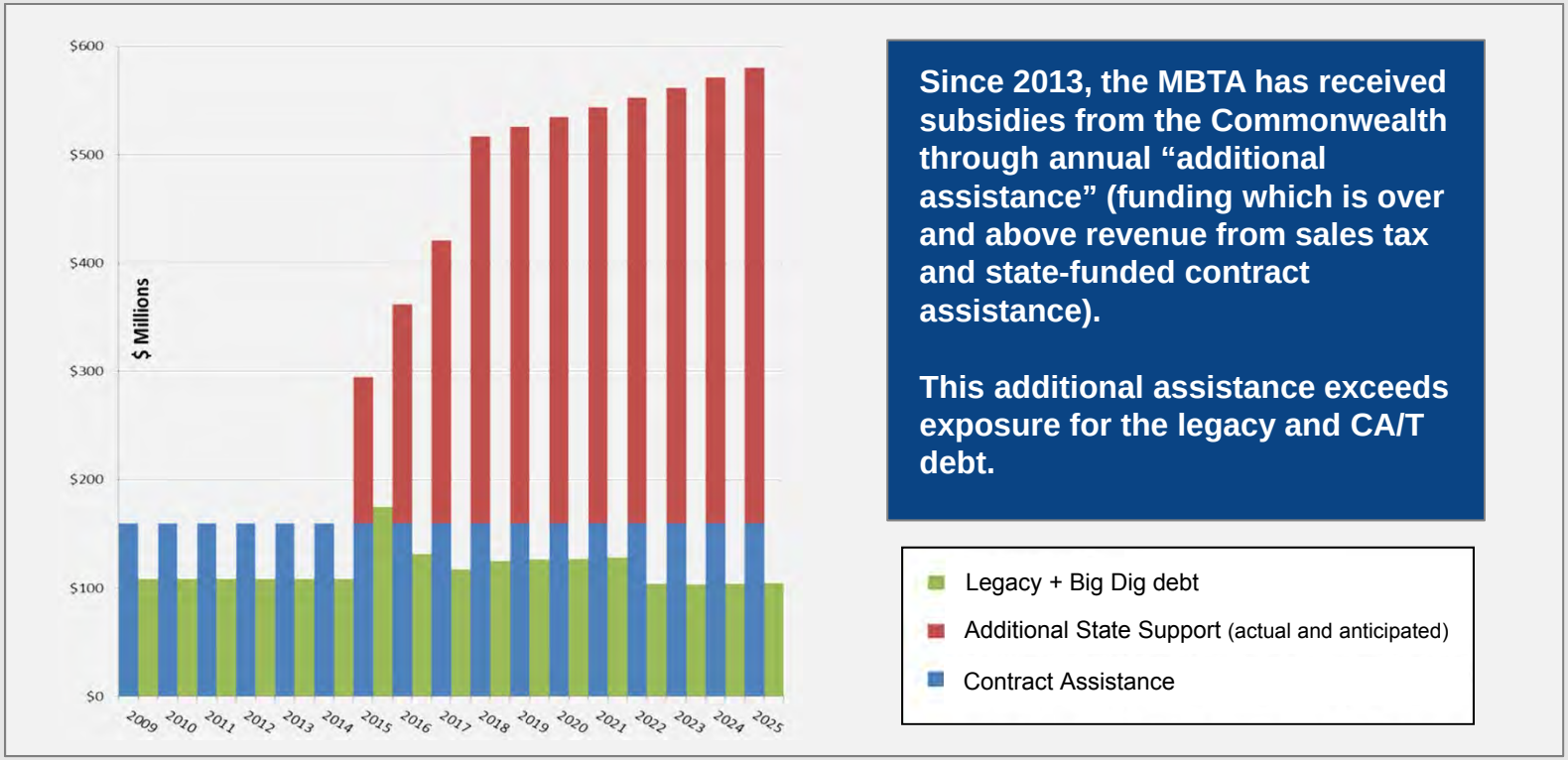

Source: MBTA

# Dispelling a Debt Myth

1. Unsustainable Operating Budget

## Legacy and CA/T Mitigation Debt:

- Debt service – especially debt related to the Central Artery/Tunnel transit mitigation projects ('*Big Dig Debt*') and the debt assumed by the MBTA in 2000 – has been identified by many as the biggest financial challenge facing the MBTA.
- This debt certainly has had an impact on the MBTA operating budget over the past 15 years; however, it is declining, in both balance and importance, as it is paid off over time.
- Furthermore, the cost of the debt service for the legacy and Big Dig debt is significantly less than the MBTA Contract and Additional Assistance to which the Commonwealth is currently committed.




Source: MBTA and Massachusetts Taxpayer Foundation

# A Potential Solution

1. Unsustainable Operating Budget

## Link Future State Operating Assistance Directly to Debt Repayment

- The Commonwealth should consider replacing the current open-ended commitment to provide annual General Fund assistance to close the MBTA's operating deficit with an assumption of Commonwealth responsibility for the debt service payments associated with the remaining legacy and Central Artery/Tunnel transit mitigation debt.

  **Remaining Legacy Debt**
  *$25.8 million annually until 2020, declining thereafter until 2030*

  **Big Dig Debt**
  *$108 million annually, until 2040*

- For FY16, the MBTA will still require the proposed $187 million in additional assistance in order to transition to this new structure.

- It is the Panel's belief that the MBTA can reasonably set a near-term target to balance its operating budget through a combination of support from the Commonwealth (declining over time), internal cost control, increases in own-source revenue, and new funding to transition employees from the capital to operating budgets.

**This action would allow the Commonwealth to continue to provide financial assistance to the MBTA, but in a way that will decline over time and is more predictable than the current arrangement.**

# 2. Chronic Capital Underinvestment



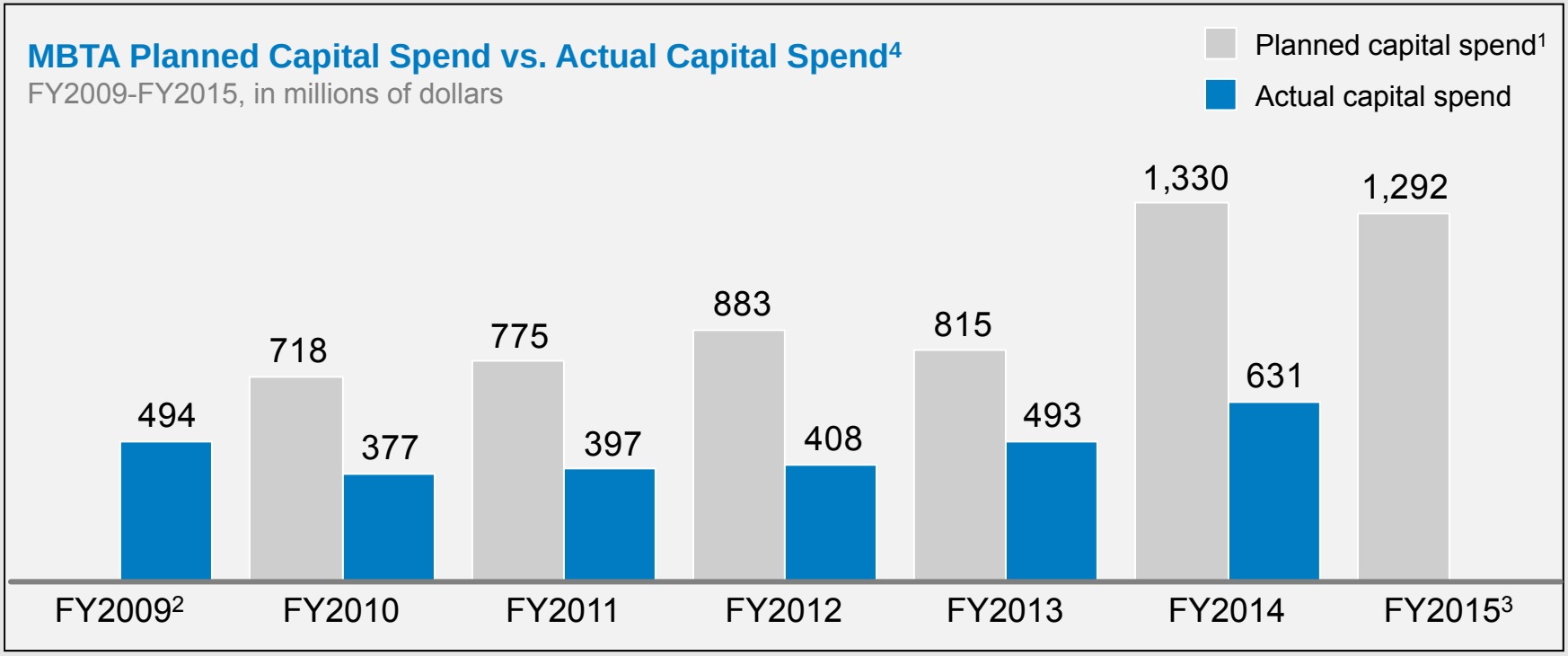
**While the MBTA will ultimately need additional state funding for capital spending, it has been unable to spend the capital funds already available to it, contributing to chronic underinvestment and an acute backlog in fleet, facilities, systems, and infrastructure.**

Additional significant warning signs with respect to capital budgeting:

- The MBTA regularly uses funds intended for the capital program for operating expenses.
- In 2015, the MBTA will use $66.5 million in capital dollars to fund 444 salaries.
- In the past five years, the MBTA spent only $2.3 billion of the $4.5 billion it had planned to spend on capital construction.

## MBTA Planned Capital Spend vs. Actual Capital Spend[4]

FY2009-FY2015, in millions of dollars




1 Based on CIP published at start of that fiscal year
2 Before 2010, planned capital spend was not broken down per year
3 Actual capital spend for 2015 is not recorded as year is still in progress
4 Capital spend is defined as budget spent for long-term projects via CMS (Capital Management System)
Source: MBTA CIPs, MBTA Actual Capital Spend Model

# Enormous and Growing Maintenance Backlog

**2. Chronic Capital Underinvestment**

## The MBTA has announced an accumulation of $6.7 billion in outstanding maintenance and modernization needs to reach a state of good repair (SGR), however the actual number is unquestionably higher.

- Information about Commuter Rail and other key assets has not been collected.
- Large gaps exist in the MBTA's data and capital asset management systems, and much work remains to be done to develop a comprehensive infrastructure inventory.

**MBTA Reported:**

| Asset Category | # of Assets | Replacement Value | SGR Score | SGR Backlog Amount | % of Total Backlog |
|---|---|---|---|---|---|
| Revenue Vehicles | 20,262 | $6,807,342,488 | 2.83 | $2,634,418,286 | 39.4% |
| Bridges | 1,335 | $5,148,275,301 | 3.39 | $799,663,040 | 11.9% |
| Signals | 401 | $2,900,740,296 | 2.57 | $1,369,027,122 | 20.5% |
| Stations | 50,054 | $2,699,874,652 | 3.86 | $255,984,809 | 3.8% |
| Facilities | 2,855 | $1,527,289,845 | 3.19 | $477,930,928 | 7.1% |
| Track/ROW | 129 | $823,254,368 | 2.69 | $304,603,884 | 4.6% |
| Power | 3,047 | $793,073,100 | 2.18 | $462,319,775 | 6.9% |
| Parking | 47,215 | $228,188,855 | 2.12 | $172,050,515 | 2.6% |
| Communications | 15,334 | $172,916,740 | 4.25 | $3,195,090 | 0.0% |
| Technology | 1,092 | $138,231,180 | 1.39 | $131,592,980 | 2.0% |
| Tunnels | 67 | $132,750,000 | 3.10 | $24,000,000 | 0.4% |
| Non-Revenue Vehicles | 1,089 | $77,414,330 | 2.70 | $33,724,000 | 0.5% |
| Fare Collection | 2,982 | $64,152,548 | 3.79 | $425,000 | 0.0% |
| Elevators and Escalators | 338 | $49,370,000 | 2.94 | $22,950,000 | 0.3% |
| | 146,200 | $21,562,873,703 | 3.05 | $6,691,885,429 | 100% |

Source: MBTA

The SGR score is the average rating of all recorded assets within their respective category. A score of less than or equal to 2.5 notes an asset that is not in a state of good repair. The backlog is the current estimated cost to bring all recorded assets into a state of good repair.

# Need New Discipline in the Capital Program

2. Chronic Capital Underinvestment

**Panel Recommendations:**

- **Implement a 'firewall' between the operating and capital budgets.**
- **Transfer employees funded with capital monies to the operating budget.**
  - $66.5 million in FY2015
  - This will require new operating support from the Commonwealth in FY17 and beyond.

- **For FY2016, the MBTA should:**
  - Prepare an assessment of its most urgent capital and rolling stock needs.
  - Identify clear funding needs.
  - Spend its entire FY16 capital allotment.

- **The MBTA should also prepare 5- and 20-year capital plans, laying out a phased program for the complete restoration of the physical assets of the MBTA, a plan to address the failings within the existing capital program, and clear recommendations for funding needs.**
  - Based on the 5- and 20-year capital plans, the Legislature should create a new, protected capital fund dedicated to system rehabilitation and modernization.
  - This will require a Legislative commitment of new capital funding for the MBTA.

# 3. Bottlenecked Project Delivery



**The MBTA struggles to get projects of all types out the door.** *(Examples on following slides)*

- In the past five years, the MBTA spent only $2.3 billion of the $4.5 billion it had planned to spend on capital construction.
- With an enormous backlog of deteriorating infrastructure, the MBTA needs to dramatically accelerate and improve the way it delivers capital maintenance and improvement projects.

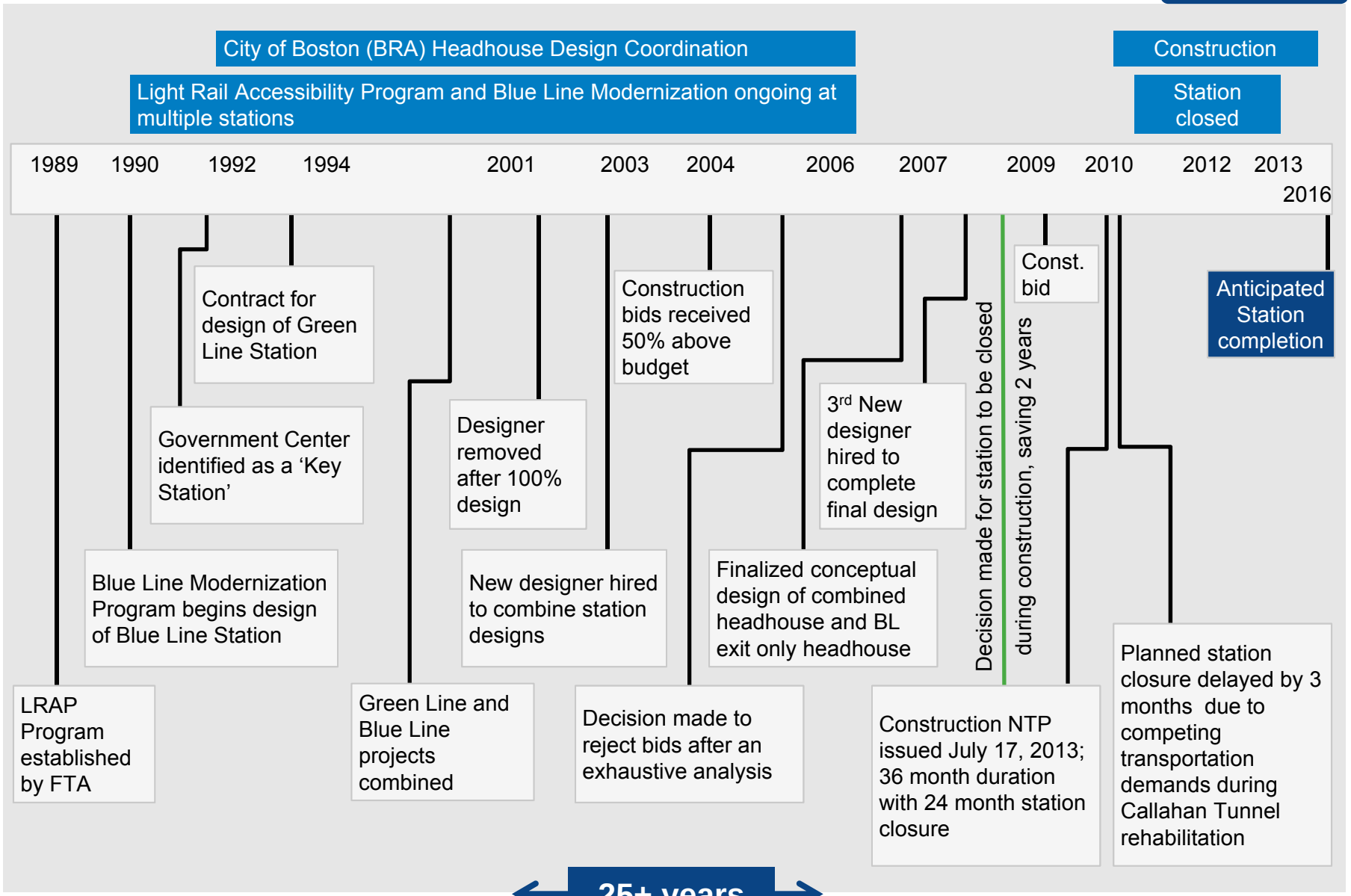
Source: MBTA

**Panel Recommendations:**

- **The Legislature should permit the MBTA to use project delivery methods used by other state agencies.**
  - The MBTA should be permitted to make use of the Design-Build procurement method to reduce project timelines and increase efficiency.
  - The MBTA should be permitted to make use of the Construction Management at Risk procurement method to better manage costs.
  - The MBTA needs an exemption to privatization and contracting restrictions to make an impact in the severe backlog of projects.
- **The MBTA should reduce barriers to public-private partnerships and pursue them to the greatest extent possible and prudent.**
  - For example, the MBTA should be permitted to seek and consider partnerships that would allow them to address long term-costs associated with track and rolling stock. An example would include a re-structuring of the bus network to allow greater reliance on lower-costs vans, jitneys, and flexible pricing.

# Case Study: Government Center Station

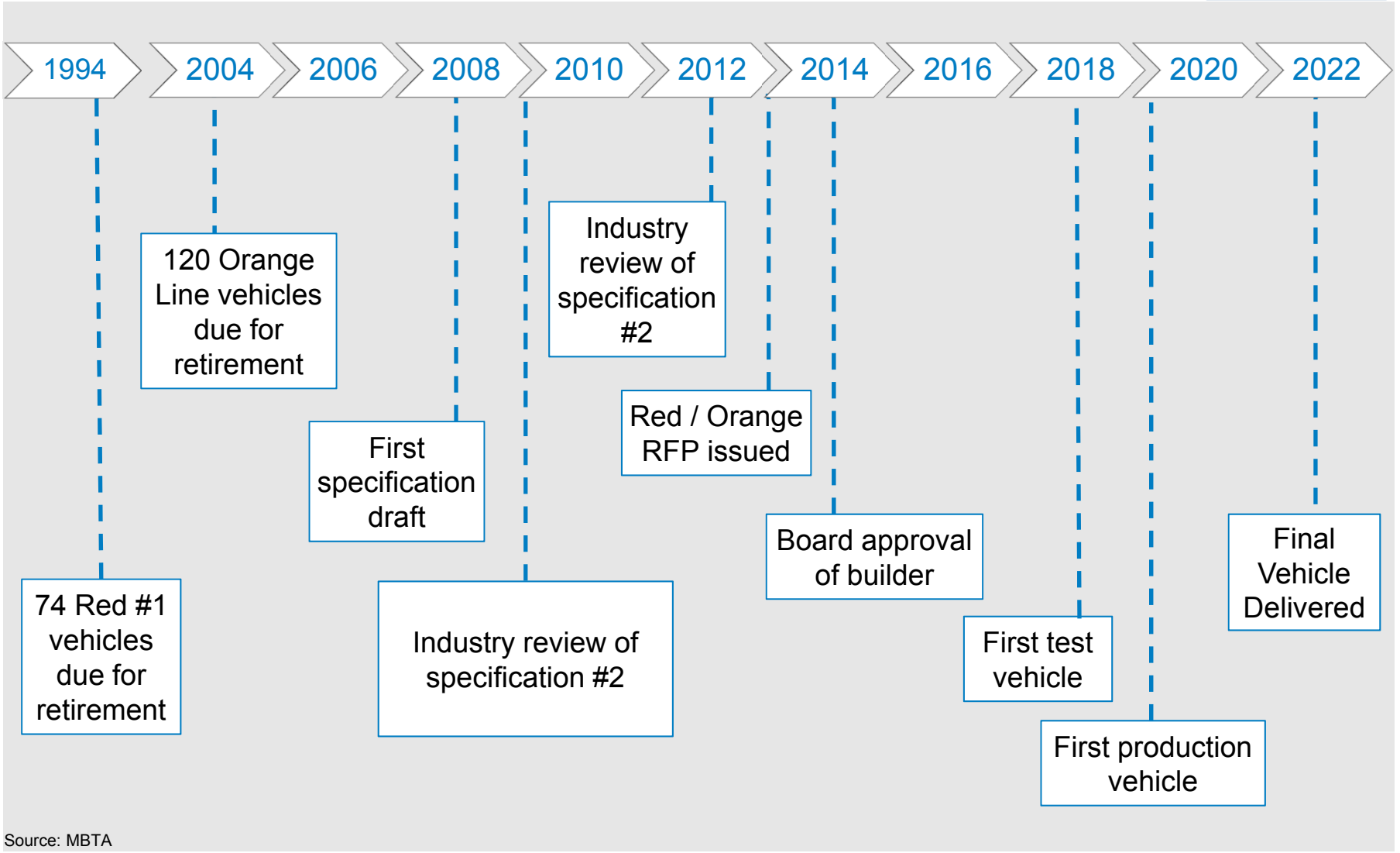
**3. Bottlenecked Project Delivery**




Source: MBTA

# Case Study: Red and Orange Line Vehicle Procurement

**3. Bottlenecked Project Delivery**




Source: MBTA

**25+ years between scheduled retirement and actual replacement; practices need reform**

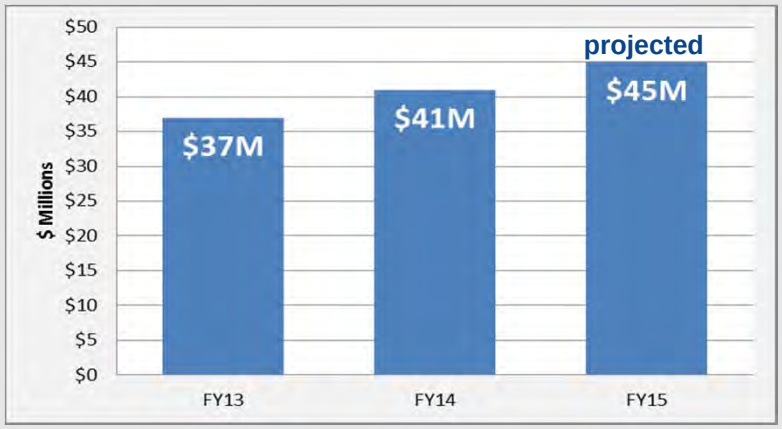
# 4. Ineffective Workplace Practices



**The MBTA is largely ineffective in managing its work as a result of weak customs and practices.**

- The present dynamic and culture do not allow for the achievement of individual potential and inhibits productive partnerships between management and labor/key contractors.
- There is a lack of performance metrics, which directly impacts customers.
- Inefficient work practices and low productivity appear to contribute to substantial annual overtime costs:

**MBTA Overtime Costs in Millions**




- One example of inefficient work practices can be observed in how the MBTA responded to Late Night Service with respect to its train maintenance program. As the service day lengthened, the night maintenance shift was reduced to only four hours each night – and fewer hours on weekends. Given set up and tear down time, the mechanics now only spend 1-3 hours per day actually working on the trains, yet the MBTA pays them for a full 8 hour shift.

**A thorough review should begin promptly of personnel policies, hiring practices, and management training.**

Source: MBTA

# Collective Bargaining

4. Ineffective Workplace Practices

- **The current collective bargaining process creates inefficiencies and has delayed recent legislative reforms.**
  - Many existing labor contracts are automatically extended until a new agreement is reached ('evergreen provisions'), exposing the MBTA to large retroactive wage increases.
  - Bargaining typically ends with binding arbitration.
  - The MBTA has the only public union in the Commonwealth with binding arbitration settlements which are not subject to approval (i.e. legislative, board, or municipality).
  - This process disincents collaboration between the MBTA and its employees to address short-term issues and long-term structural concerns.

Source: MBTA

**Recommendation:**

**The Legislature should review the collective bargaining process, including binding arbitration and 'evergreen' contract terms, to best promote a positive collaborative relationship between management and labor.**

# High Absenteeism

4. Ineffective Workplace Practices

- **A prominent example of weak MBTA management is excessive absenteeism.**
  - 15% of all MBTA employees took at least one day of paid leave during the 2015 winter storm recovery.
  - Tens of thousands of bus trips are cancelled each year due to unplanned absences.
  - A practice of the MBTA to not require overtime (overtime work is currently voluntary) results in a shortage of workers, dropped trips, and poor customer service.
  - Absenteeism causes substantial overtime costs for the MBTA.
  - 30% of the workforce (65% of heavy rail operators) is certified to take unscheduled, intermittent Family and Medical Leave. This is disruptive to productivity.

Source: MBTA

**Recommendation:**

**The MBTA should develop a plan to substantially reduce absenteeism.**

- The MBTA must fight abuses of FMLA, worker's compensation, and other types of leave. As other private and public-sector employers frequently do, the MBTA should seek third-party assistance to manage this liability.

# Absenteeism Data



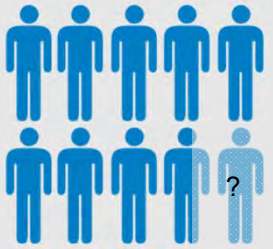
## MBTA Absence Rate FY2014[1]

| Position | FY2014 Absence rate |
|---|---|
| Part-time Motorpersons/Train Attendants | 19% |
| Office/Clerical | 17% |
| Full-time Surface Operators | 16% |
| Full-time Motorpersons/Train Attendants | 15% |
| Customer Service Agents | 15% |
| Professionals | 14% |
| Steel and Construction Trades | 12% |
| All others | 5-11% |

**Comparatively,**

**The Bureau of Labor Statistics reports absenteeism in the transportation industry of approximately 3%**

**Peer agencies have reported absence rates of 5-6%**



**MBTA Average across all positions** **11-12%** → **Including vacation days, MBTA employees miss an average of 57 working days per year** → **This is equivalent to:**

- **11-12 weeks**
- **Nearly 3 months**
- **Working only 4 days a week**

**For some groups of employees, the average is as high as 74 days per year (equivalent to nearly 15 weeks of missed work)**

1 Percentage of days taken off the following leave categories: Union Business, Compensatory, Bereavement, Court-ordered, Jury Duty, Military, Other Protected, Sick Paid Protected, Sick, Reported Injury, Worker's Comp, SNLA, ADA, FMLA, Parental, AWOL, Non-Authorized, Unexcused, Miss, Red Miss, Suspended, Disqualified, Excused No Pay, Inactive, Leave of Absence Waived out of work days not including contractual time off 2 Does not include Commuter Rail employees

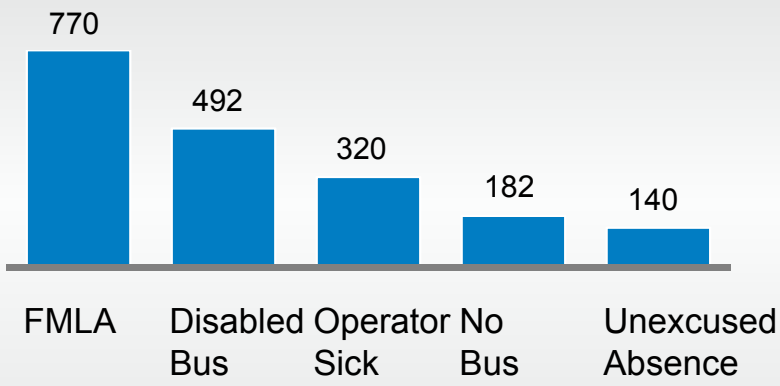
Source: MBTA Employee Availability reports, FY2014

# Leading Causes of Weekday Dropped Bus Trips

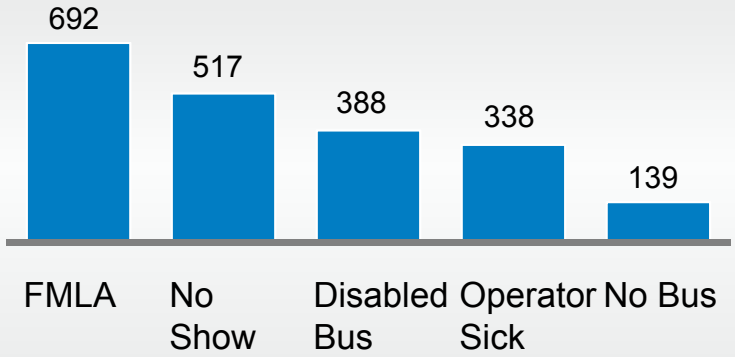
Number of weekday bus trips dropped per month

**4. Ineffective Workplace Practices**

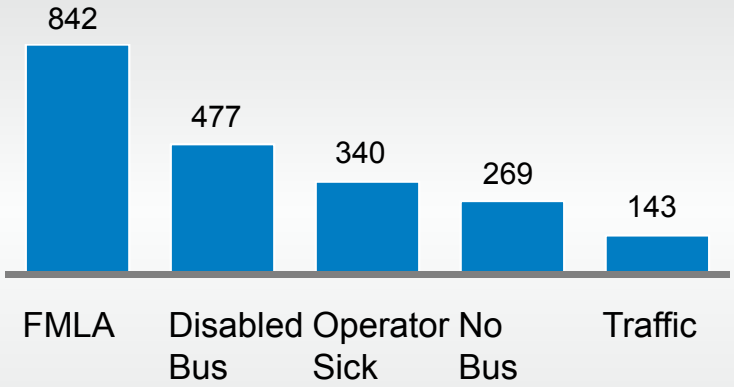
## January 2014



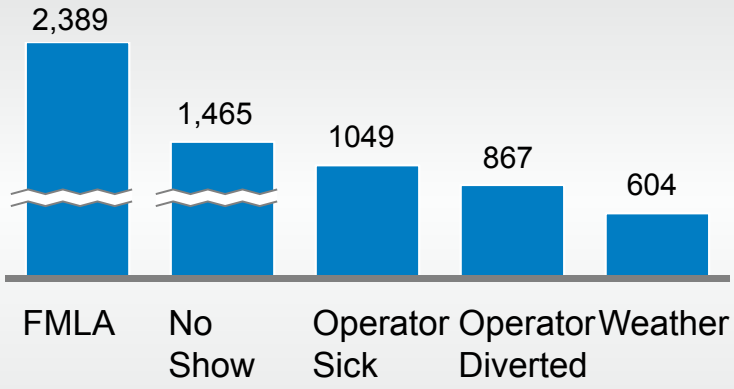

## January 2015




## February 2014




## February 2015




**In January/February of 2015, more than 6,400 bus trips were cancelled due to unplanned absenteeism.**

Source: MBTA Advisory Board

# 5. Shortsighted Expansion Program



**MassDOT and the MBTA lack a rigorous, long-range system expansion strategy based on a clear-eyed understanding of the physical and financial capacity of the MBTA and the regional transit needs of the future.**

- Over time, the MBTA and the Commonwealth have spent billions of dollars on expansion projects, without a sound understanding of immediate State of Good Repair needs[1].
- Since 2012, the MBTA has used a decision support tool to prioritize SGR projects for inclusion in the Capital Investment Program, yet it is not clear that more effective and efficient prioritization has actually resulted [2]. The tool is not currently used to prioritize proposed expansion projects.

**To prioritize spending of limited dollars on immediate needs, MassDOT and the MBTA should impose a temporary moratorium on construction spending for system expansion, except for federally funded projects, until the 5 and 20 year capital plans are put in place.**

- 'System expansion' is the construction of projects that provide new transit service.
- It does not include projects to modernize or increase capacity of the current system.
- A modest portion of the capital budget should be devoted to planning and design work for potential system expansion projects, so that such projects can be evaluated and prioritized.
- Federally or privately funded projects should be exempt from the moratorium, including:
  - The Green Line Extension project: Funded by the federal New Starts program.
  - Assembly Square and Boston Landing: Substantial federal or private funding is available for construction and/or long-term maintenance, thus to stretch every dollar, the MBTA should continue to pursue similar projects.

[1] The MBTA uses a State of Good Repair database (Slide 19) to track assets, but it is not fully complete and likely underestimates the backlog.
[2] An ongoing Project Advisory Committee will help prioritize future investments, but better tools and more rigorous process are needed. The decision support tool appears to not be based on industry best practices or take into account longer-term impact. For instance, some decision criteria weight, such as only 4% for revenue impact without joint combined consideration of cost, may not best support system sustainability or fiscally responsible expansion projects.

# 6. Organizational Instability



- **The MBTA has been hobbled by frequent changes of leadership, significant vacancies, looming attrition, and overall instability.**
  - Leadership: Since the position was created in 1981, the MBTA has had nine General Managers (GM). Six of those, including three Interim GMs, have served in the last ten years.
  - Vacancies: 10% or more of senior positions in the T are vacant or filled by interim staff.
  - Attrition: 45% of MBTA employees will be eligible to retire in the next five years.
  - Instability: The Winter of 2015 revealed significant breakdowns and gaps in the MBTA's use of Standard Operating Procedures and emergency preparedness.

- **Future General Managers should be hired by and report to the Secretary of Transportation. GMs should be provided with contract terms, a leadership team, and support that encourages him/her to remain with the MBTA for a minimum of five years.** With new leadership, the MBTA should:
  - Perform a thorough evaluation of its staffing needs and fill critical positions.
  - Implement employee recruitment, retention, and training plans.
- **The MBTA should undertake a comprehensive risk assessment agency-wide to identify organizational, management, and operational risks.** Most immediately the MBTA should review best practices and implement updated Standard Operating Procedures and emergency preparedness plans including appropriate training and communication.

# 7. Lack of Customer Focus



- **The MBTA is not organized to operate as the customer-oriented business it is.**
  - The focus of the agency appears too often to be internal and not on the needs of its customers.
  - The MBTA is not organized by its modes of business, making accountability diffuse.
  - The MBTA does not appear to have or follow a written annual multi-year business plan.
  - The MBTA does not emphasize customer-centered performance management in its operations.

- **The MBTA should reorganize its internal structure along modal business lines.**
  - The modal business lines should report directly to the General Manager.
  - The MBTA should implement a system of clear accountability for modal operational performance.
  - MassDOT and the MBTA, together, should create strong, consolidated support departments.
- **The MBTA should implement a rigorous, customer-oriented performance management system.**
  - Years of unreliable service, inadequate facilities, poor communication, and lack of written customer-oriented protocols have broken the bond of trust between the MBTA and its riders.
  - Using the example of other transit agencies and common best practices, the MBTA operating divisions should employ a daily program of rigorous performance management to identify and drive out problems. Senior MBTA management should lead this effort.
  - The MBTA should develop public scorecards to track performance with customer-oriented metrics[1].
- **The MBTA should strengthen its customer communications capabilities, using both traditional and innovative ways of information sharing, and regularly survey customers.**

[1] Some metrics and performance indicators exist within the organization, but they are not used to drive decision making. Specific dashboards were developed in the snow-recovery period, but standard scorecards or dashboards with more customer metrics are needed.

# 8. Flawed Contracting Processes



- **MBTA procurement and contract management is inefficient and decentralized.**
  - MBTA staff report excessive and redundant internal processes to advance even small projects.
  - Project procurements are often delayed, may include legal challenges, and can end in suboptimal products. *See case study on the Red and Orange Line procurements.*
  - MBTA is inhibited by the Pacheco Law from procuring private, cost-effective services, and is strictly limited by state law in its use of many procurement processes (e.g., CM at-Risk and Design/Build).
  - Key service contracts require stronger hands-on management. For example, the Commuter Rail contract – a service fundamental to the MBTA – is managed well below the General Manager level.

- **MassDOT should centralize agency procurement and contracting with a new professional office for both MassDOT and the MBTA.**
  - The MBTA should create a separate function dedicated solely to fleet procurement.
  - The MBTA should re-engineer its internal processes to implement industry best practices, to be nimble and flexible, and to greatly reduce inefficiency and delay.
  - The MBTA should emphasize the use of 'best value' for bid evaluation and contract awards.
- **The Legislature should free the MBTA from the constraint of the Pacheco Law, and other limits placed on its use of modern procurement, where beneficial and cost-effective.**
- **Service contracts should foster collaboration between the MBTA and its vendors.**
  - The MBTA should commit high-level attention to the management of the Commuter Rail contract, and should emphasize collaboration and be focused on customer service and operational concerns.

# 9. Lack of Accountability



- **The Commonwealth provides over half of the MBTA operating budget and substantial additional funding for capital projects, but the MBTA is not directly accountable to either the Governor or the Legislature.**
  - The current governance structure does not foster productive oversight of the troubled MBTA.

- **In order to immediately begin the crucial work of reforming the MBTA, the Governor should request that current Board members resign and appoint new members.**
- **The Legislature should establish an MBTA Fiscal & Management Control Board to manage all aspects of the MBTA and to function as the MBTA Board for an estimated 3 year period.**
  - The FMCB should select and hire a Chief Administrator, who will run MBTA daily operations.
  - The FMCB should be empowered to address the full range of issues hobbling the MBTA related to governance, finance, agency structure, and operations. *See Slide 35 for details.*
  - The FMCB term may be extended in one-year increments for an additional two years, upon agreement of Secretary of Transportation and the Secretary of Administration and Finance.
- **The Legislature should reconstitute the MassDOT Board to make it more effective and representative[1].** Reconstitution should:
  - Increase the number of members.
  - Change the terms so that the majority of members serve co-terminus with the Governor by whom they are appointed.
  - Appoint the Secretary of Transportation as the Chair.

[1] During the period of the FMCB, the FMCB will serve in place of the MBTA Board and oversee the MBTA, while the reconstituted MassDOT Board will oversee MassDOT. The knowledge and perspective gained during the period of the FMCB should inform the formation of the ultimate governance structure for the MBTA.

# RECOMMENDATIONS

# Range of Scenarios Considered for Reform of the MBTA

- **Scenario 1: Modify Existing Governance Structure**
  - T is responsible for its own transformation with no new oversight
  - Board is modified to provide greater accountability and control
- **Scenario 2: Fiscal and Management Control Board**
  - New oversight and management support
  - Collaboration with Legislature, MBTA staff, unions, stakeholders
  - Duration based on progress toward established goals
  - Estimate of 3-5 years
- **Scenario 3: Receivership**
  - Unilateral oversight and management
  - Power to reopen collective bargaining agreements to the full extent permitted by the Constitution
- **Scenario 4: Abolition of MBTA and Creation of Successor Agency**
  - New MassDOT Transit Division
  - MBTA employees transition to become Commonwealth employees

# Fiscal & Management Control Board

## Goals and Responsibilities

### Governance

- Embrace transparency and accountability
- Develop organizational stability
- Earn public trust

### Finance

- Manage and control revenues and costs aggressively
- Assume responsibility for the MBTA bond covenants
- Enforce firewall between capital and operating budgets
- Develop 1, 5, and 20 year capital and operating plans
- Create a dedicated state-funded capital program to modernize vehicles and infrastructure

### Agency Structure

- Reorganize MBTA along modal business lines
- Establish clear performance accountability by mode
- Consolidate and strengthen support departments
- Conduct comprehensive risk assessment
- Reinvent the labor-management and contract relationships

### Operations

- Create customer-oriented performance management
- Strengthen customer communications overall
- Invest heavily in system and fleet modernization
- Strengthen emergency response capabilities
- Rationalize and reform system routes, particularly bus routes

## Structure

### Composition

- Three members appointed by the Governor
- One member recommended by the Senate President and appointed by the Governor
- One member recommended by the Speaker of the House and appointed by the Governor

### Accountability

- Reports to the Secretary of Transportation
- Replaces the MassDOT Board for oversight of the MBTA for its duration

### Duration

- Anticipated to be 3-5 years

**A strong Fiscal & Management Control Board is vital to the MBTA's future.**

# Recommended Executive Actions

**By June 30, 2015**

## In order to:

- **Take full responsibility**, the Governor requests that current Board members resign and appoints new members to oversee MassDOT and the MBTA. Once established, the Fiscal & Management Control Board will oversee the MBTA.
- **Address the full extent of the systematic failures**, the Governor submits legislation establishing the Fiscal & Management Control Board (FMCB) effective July 1, 2015.
- **Provide a dedicated executive**, the Governor appoints a Chief Administrative Officer[1]. The Chief Administrative Officer will report initially to the Secretary of Transportation and ultimately to the FMCB once established.
- **Prioritize and understand immediate capital needs**, the Governor directs the Secretary of Transportation and Chief Administrator to assess MBTA's most urgent capital and rolling stock needs for the next 5 years, recommend priorities, and submit a procurement and implementation plan.
- **Practice sound fiscal management,** and prevent the comingling of funds, the Governor directs the MBTA to implement a 'firewall' between the operating and capital budgets.
- **Capture future revenue opportunities**, the Governor directs the Secretary and Chief Administrator to develop a pro-active plan to significantly increase its own-source revenue through fares, advertising, concessions, parking, and real estate, as well as through grants and federal programs[2].
- **Focus on immediate and short-term capital needs,** or the State of Good Repair, the Governor directs MassDOT and the MBTA to impose a moratorium on all construction spending for system expansion, except for federally funded projects[3].
- **Tackle procurement inefficiencies and cultivate expertise**, the Governor directs the Secretary to centralize agency procurement and contracting under a new professional office for both the MBTA and MassDOT.
- **Prevent another widespread system failure**, the Governor directs the MBTA to revisit its full preparedness process and planning, and the MBTA adopts an Incident Command System.

[1]Chief Administrative Officer will assume responsibilities of the General Manager
[2] For example, the MBTA should look into federal financial participation (FFP) for the Ride.
[3] The Green Line Expansion should be exempt. The MBTA should continue to pursue projects, such as at Assembly Square and Boston Landing, for which substantial federal or private funding is available for construction and/or long-term maintenance.

# Recommended Executive Actions

**By March 31, 2016**

**In order to:**

- **Provide better alignment between service and its customers**, the MBTA reorganizes its internal structure along modal business lines.
- **Instill appropriate budget discipline and good business practice**, the MBTA prepares 1 and 5 year operating plans that rely primarily on own-source revenue and cost containment to balance the agency's budget.
- **Assure the longer term sustainability of the transit system**, the MBTA prepares a 20 year capital plan for the complete restoration of the physical assets of the MBTA.
- **Prioritize the importance of customer service and communication**, the MBTA initiates a rigorous, customer-oriented performance management program.
- **Ensure a safe and effective workplace**, the MBTA reviews best practices and implements updated Standard Operating Procedures and emergency preparedness plans including appropriate training and communication.
- **Significantly improve productivity**, the MBTA identifies and implements best practices supporting workforce productivity and engagement, focusing on key performance metrics, role distribution, appropriate on-going training, and overall morale.
- **Increase employee attendance and reduce overtime costs,** the Governor directs the Secretary of Transportation and the MBTA to develop a plan to substantially reduce absenteeism [1].
- **Simultaneously improve service and lower costs**, the MBTA reviews other transit systems' public-private partnerships, reduces barriers to partnerships, and prudently pursues them to the greatest extent possible.
- **Leverage alternative funding sources**, the MBTA creates innovative financial partnerships with universities, major developers, and municipalities that will contribute to transit funding.
- **Utilize real estate assets strategically** in order to maximize non-fare revenue to support the system and ensure future financial health.

[1] The plan should include proactive management of sick time, FMLA use, and worker's compensation.

# Recommended Legislative Actions

**By June 30, 2015**

**New legislation:**

- **Establish an MBTA Fiscal & Management Control Board** (see description) to manage all aspects of the MBTA and to function as the MBTA Board for 3-5 years.
- **Eliminate existing fare restrictions** and allow the FMCB to review and adjust fares.
- **Limit future General Fund operating assistance by purpose** to cover (1) debt service payments (2) employee costs for staff moving off of the capital budget[1].
- **Require a comprehensive annual report** from the FMCB by December 15 each year to the Legislature and Governor.
- **Commission an independent audit** of unfunded pension and other post-employment benefit liabilities.

**Longer term:**

- **Create a new, protected capital fund** dedicated to system rehabilitation and modernization based on the 5- and 20-year capital plans.

**Amend existing law to:**

- **Permit the use of project delivery methods** used by other state agencies.
- **Free the MBTA from the constraints of the Pacheco Law,** and other limits placed on its use of modern procurement, where beneficial and cost-effective.
- **Review the process of collective bargaining and consider limiting provisions** (i.e. eliminate evergreen clauses, limit scope of issues subject to binding arbitration, and require board approval of agreements), as needed to establish cost-effective operations and to better promote a collaborative relationship between management and labor.
- **Reconstitute the MassDOT Board** to make it more effective and representative. Reconstitution should include: increasing the number of members; changing the terms so that the majority of members serve co-terminus with the Governor by whom they are appointed; appointing the Secretary of Transportation as the Chair. Further changes to the structure of the MassDOT Board should be informed by the experience of the FMCB period[2].

[1] Limit future General Fund operating assistance by purpose to (1) debt service payments associated with the remaining legacy and Central Artery/Tunnel transit mitigation debt and (2) the costs of transferring the salaries of MBTA employees from the capital to operating budgets, just as was done for MassDOT. Currently there is an open-ended commitment to provide annual General Fund assistance to close the MBTA's operating deficit, but this should not occur going forward.
[2] MassDOT Board will not oversee the MBTA for the period of the FMCB.

# About the Panel

## MBTA Special Panel Members

**Jane Garvey**
*Meridiam Infrastructure*

**Robert Gittens**
*Northeastern University*

**Jose Gomez-Ibanez**
*Harvard University*

**Katie Lapp** *
*Harvard University*

**Brian McMorrow** *
*Massport*

**Joseph Sullivan**
*Mayor*
*Town of Braintree*

**Staff Support:**
Kate Fichter, Adam Weikel, Molly Bode, Joel Barrera, and Patrick Moore

**Co-Chairs*

## Key References & Reports

**Taking the T to the Next Level of Progress** (2000)
*MBTA Blue Ribbon Committee on Forward Funding*

**MBTA Capital Spending: Derailed by Expansion?** (2002)
*Massachusetts Taxpayers Foundation/Pioneer Institute*

**Transportation Finance in Massachusetts: An Unsustainable System** (2007)
*Massachusetts Transportation Finance Commission*

**T Approaching Dire Financial Straits** (2008)
*Massachusetts Taxpayers Foundation*

**Born Broke** (2009)
*MBTA Advisory Board*

**MBTA Review** (2009)
*David D'Alessandro*

**Blue-Ribbon Summit on Financing the MBTA and RTAs** (2010)
*Northeastern University Dukakis Center/Conservation Law Foundation*

**Maxed Out** (2011)
*Transportation for Massachusetts*

**Transportation Governance and Finance** (2011)
*National Conference of State Legislatures*

**Fare Hikes, Service Cuts and MBTA Mismanagement** (2012)
*Pioneer Institute*

**Hub and Spoke Report** (2012)
*Urban Land Institute/Northeastern University Dukakis Center*

**Staying on Track** (2012)
*Northeastern University Dukakis Center*

**The MBTA's Out-of-Control Bus Maintenance Costs** (2013)
*Pioneer Institute*

**Keeping on Track, Progress Reports** (2014, 2015)
*Transportation for Massachusetts*

**The End of Its Line** (2015)
*Massachusetts Taxpayers Foundation*

# About the Panel

## Outreach

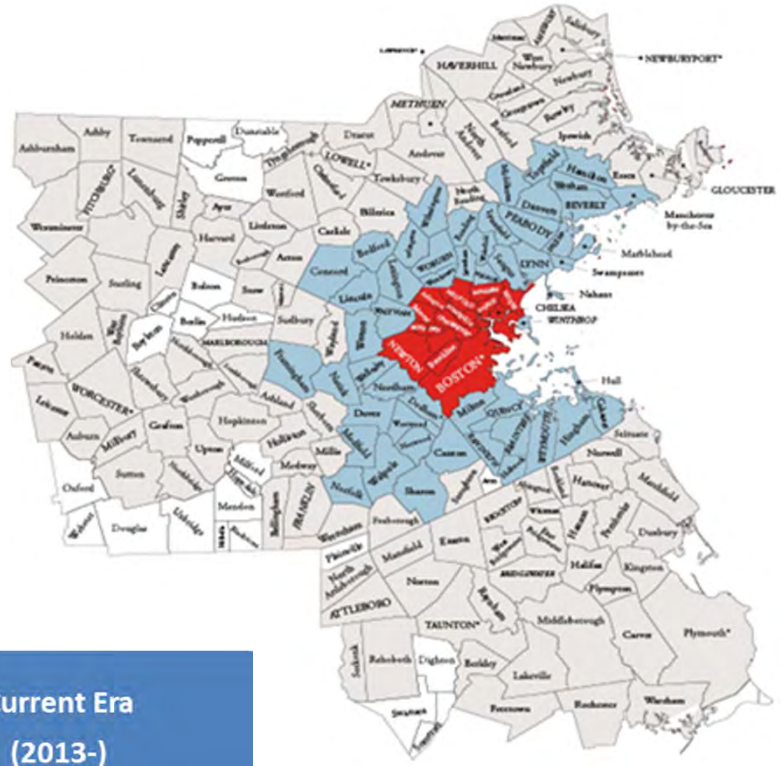
**Panel members met with or received input from the following organizations**

495/MetroWest Partnership
A Better City
Alternatives for Community & Environment
American Council of Engineering Companies of Massachusetts
Associated Industries of Massachusetts
Associated Subcontractors of Massachusetts
Boston Harbor Association
Boston Carmen's Union - Local 589
Bridj
Conservation Law Foundation
Construction Industries of Massachusetts
Edwards Wildman Public Policy Group
Future Boston Alliance
Greater Boston Chamber of Commerce
Great Boston Real Estate Board
Local Initiatives Support Coalition
Massachusetts Association of Health Plans
Massachusetts Association of Realtors
Massachusetts Business Roundtable
Massachusetts Hospital Association
MassDOT Board of Directors
MassINC
MassPIRG
Massachusetts Smart Growth Alliance
Massachusetts Taxpayers Foundation
MBTA Advisory Board
MBTA Rider Oversight Committee
MBTA Transit Police Association
Medical Academic and Scientific Community Organization
Metro Mayors Coalition
Metropolitan Area Planning Council
NAIOP Massachusetts
National Federation of Independent Business
New England Legal Foundation
Newton Board of Alderman
Rappaport Institute
The Research Bureau
Transportation for Massachusetts

# APPENDIX

# Service Area

- **The MBTA…**
  - serves 175 cities and towns
  - covers a 3,200 square mile area
  - reaches 4.7 million residents
  - makes 1.3 million trips each weekday
  - had more than 400 million boardings in 2014
  - **continues a history of expanding service**



*(MBTA 101 Presentation, February 26, 2015)*

| Federal Funding Era (1964-1989) | Big Dig Era (1990-2013) | Current Era (2013-) |
|---|---|---|
| • Red Line Braintree Extension<br>• Orange Line Haymarket North<br>• Red Line Northwest Extension<br>• Orange Line Southwest Corridor<br>• Numerous cutbacks in CR service | • Worcester CR<br>• Newburyport CR<br>• Old Colony CR<br>• Providence CR<br>• Silver Line Waterfront<br>• Silver Line Washington St<br>• Greenbush CR<br>• Wickford Jct CR<br>• Fairmount Improvements | • CapeFlyer<br>• Assembly Station<br>• Green Line Extension<br>• Wachusett Extension<br>• Silver Line to Chelsea<br>• *South Coast Rail**<br>• *Boston Landing*<br>• *West Station*<br>• *Urban Rail Service* |

*(MBTA Expansion Presentation, March 16, 2015, 2015)*

# Modes

The MBTA is the fifth-largest mass-transit system in the U.S. by ridership….

and operates a greater number of transportation modes compared to other systems

| Transit system | Annual un-linked trips (millions) |
|---|---|
| MTA (New York) | 3467.0 |
| CTA (Chicago) | 529.2 |
| LACMTA (Los Angeles) | 476.3 |
| WMATA (Washington DC) | 413.6 |
| MBTA (Boston) | 395.3 |
| SEPTA (Philadelphia) | 358.4 |
| NJ Transit (New Jersey) | 264.4 |
| BART (San Francisco) | 126.5 |
| MTA Bus (New York) | 125.0 |
| RTD (Denver) | 101.4 |
| Metro North (New York) | 83.8 |
| METRA (Chicago) | 73.6 |
| GCRTA (Cleveland) | 49.2 |

National Transit Database, reporting year 2013

| | Bus | Heavy rail | Light rail | Commuter rail |
|---|---|---|---|---|
| MBTA (Boston)[1] | ✓ | ✓ | ✓ | ✓ |
| SEPTA (Philadelphia) | ✓ | ✓ | | ✓ |
| MTA (New York) | ✓ | ✓ | | |
| MTA Bus (New York) | ✓ | | | |
| Metro North (New York) | | | | ✓ |
| NJ Transit (New Jersey) | ✓ | | ✓ | ✓ |
| CTA (Chicago) | ✓ | ✓ | | |
| METRA (Chicago) | | | | ✓ |
| WMATA (Washington DC) | ✓ | ✓ | | |
| LACMTA (Los Angeles) | ✓ | ✓ | ✓ | |
| RTD (Denver) | ✓ | | ✓ | |
| GCRTA (Cleveland) | ✓ | ✓ | ✓ | |
| BART (San Francisco) | | ✓ | | |

1 MBTA also operates a ferry transit system

Source: National Transit Database

# System Complexities

**Red Line**
22 stations
218 cars
284,000 weekday boardings

**Green Line**
66 Stops
206 cars
219,000 weekday boardings

**Commuter Rail**
137 stations 1
80 locomotives
31,000 weekday boardings

**Orange Line**
20 stations
120 cars
212,000 weekday boardings

- **Expansive system**
- **Many modes with a wide range of maintenance challenges**
- **Aged infrastructure**
- **Increasing ridership**
- **Continual expansion**
- **Significant maintenance needs**

**Mattapan Trolley**
8 stations
10 cars
4,500 weekday boardings

**Ferry**
7 terminals
2 owned vessels
4,800 weekday boardings

**Bus**
8,000+ stops
1,055 vehicles
385,000 weekday boardings

**Blue Line**
12 stations
112 cars
67,000 weekday boardings

**Private Carriers**
16 routes
3,100 weekday boardings

**The Ride**
819 vehicles
3 cotractors
6,900 weekday boardings

*(MBTA 101 Presentation, February 26, 2015)*

# Rail fleet age and useful life

- An aging fleet continues to fuel maintenance costs, is increasingly susceptible to the elements, and contributes to service disruptions.
- Many trains are at or past their useful life with new trains still years away from being put into service.

| | Line/Mode | Fleet | Qty. | Service Date | Age (years) | Useful life |
|---|---|---|---|---|---|---|
| Heavy rail | Red | No.1 Fleet | 74 | 1969 | 46 | 25 |
| | | No.2 Fleet | 58 | 1987 | 28 | 25 |
| | | No.3 Fleet | 86 | 1994 | 21 | 25 |
| | Blue | No.5 Fleet | 94 | 2007 | 8 | 25 |
| | Orange | No.12 Fleet | 120 | 1981 | 34 | 25 |
| | | **Total Number of Heavy Rail Cars** | **432** | | | |
| Light Rail | Mattapan Trolley | | 10 | 1946 | 69 | 25 |
| | Green | No. 7 Fleet | 94 | 1987-88 | 28-27 | 25 |
| | | No.7 Fleet | 20 | 1997 | 18 | 25 |
| | | No. 8 Fleet | 95 | 1999-2007 | 8-16 | 25 |
| | | **Total Number of Light Rail Cars** | **219** | | | |

Note: Bus data reflects directly operated buses only (does not include purchased transit)
Source: National Transit Database 2013

# Pension Snapshot

## Employee pension contribution rates

- MBTA Retirement Fund: 5.79%
- MBTA Police Fund: 8.51%

## Age benefits at retirement for MBTA Retirement Fund

- Normal retirement: age 65
- Early normal retirement: 23 years of service (no age requirement) (now grandfathered)
- Early normal retirement (new hires post 12/6/12): 25 years of service and age 55

## Age benefits at retirement for MBTA Police Fund

- Normal retirement: age 65
- Early normal retirement: 23 years of service and age 52

## Actuarial liability

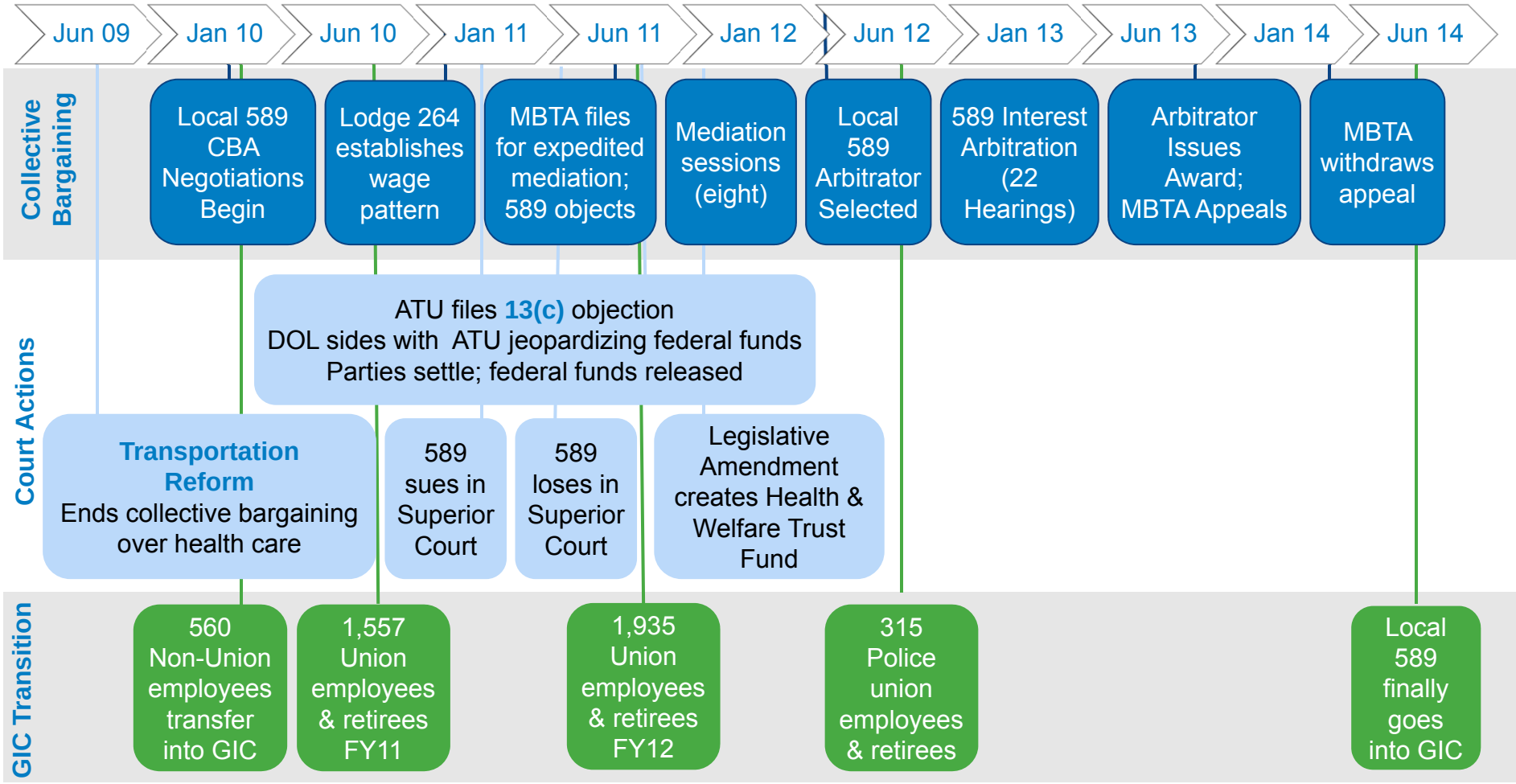
- Unfunded accrued liability for MBTA Retirement Fund as of 12/31/13: $757,448,781
- Unfunded accrued liability of MBTA Police Fund as of 12/31/13: $21,263,291

## Other Plans

- Unfunded liability for the Deferred Compensation Plan: $56,816,000
- Deferred Compensation Savings Plan (401B)
  - Employee contribution 5.79%
  - Employer contribution 8.00%

**Information provided by the MBTA, however the Panel has no way to confirm its accuracy. The Retirement Fund's continued refusal to submit to an independent audit strongly suggests that these figures are understated.**

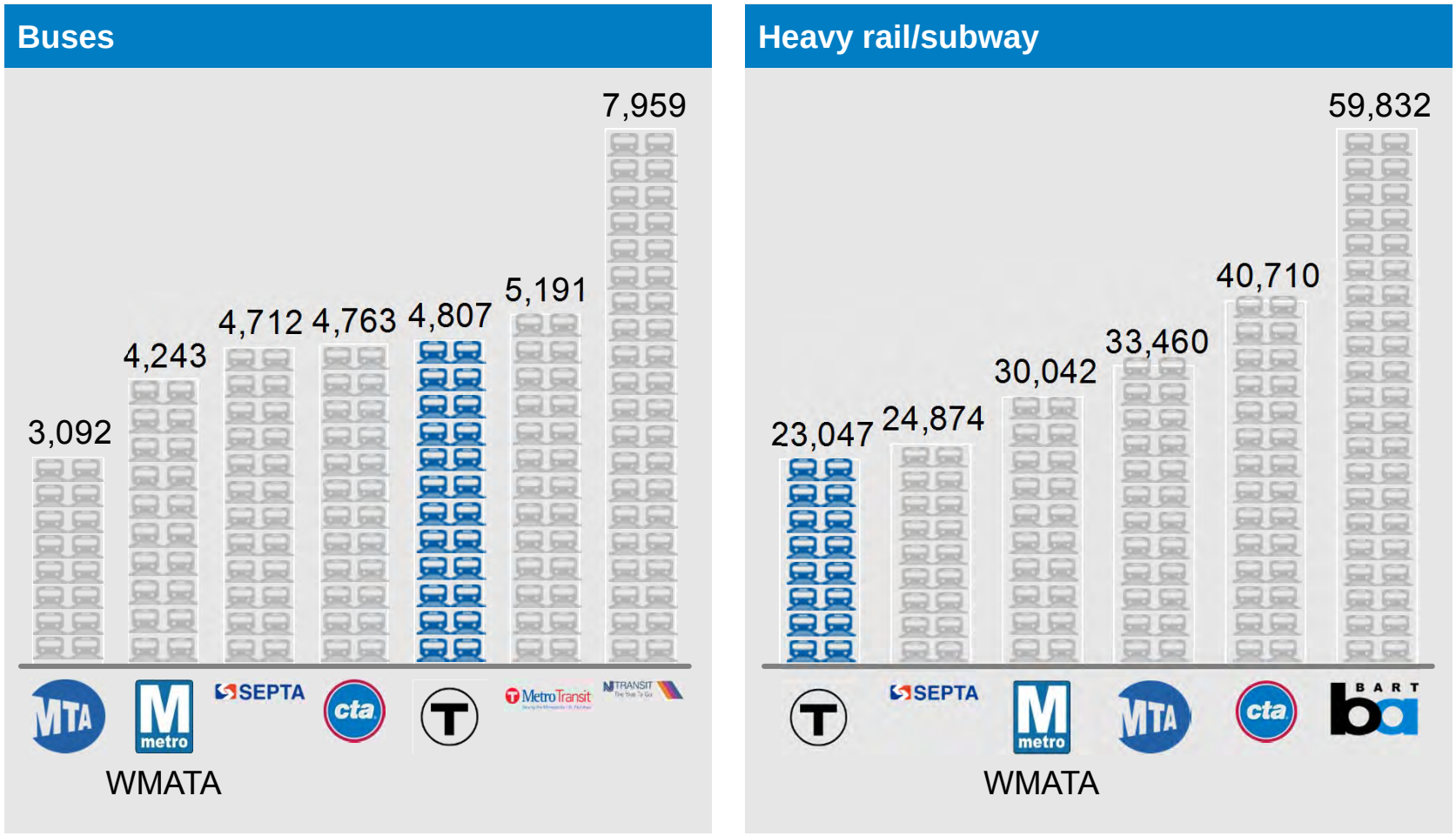
# Case Study: Collective Bargaining - Wage Increases and GIC costs




Provided by the MBTA

# Vehicle Revenue Miles per Full-Time Operator

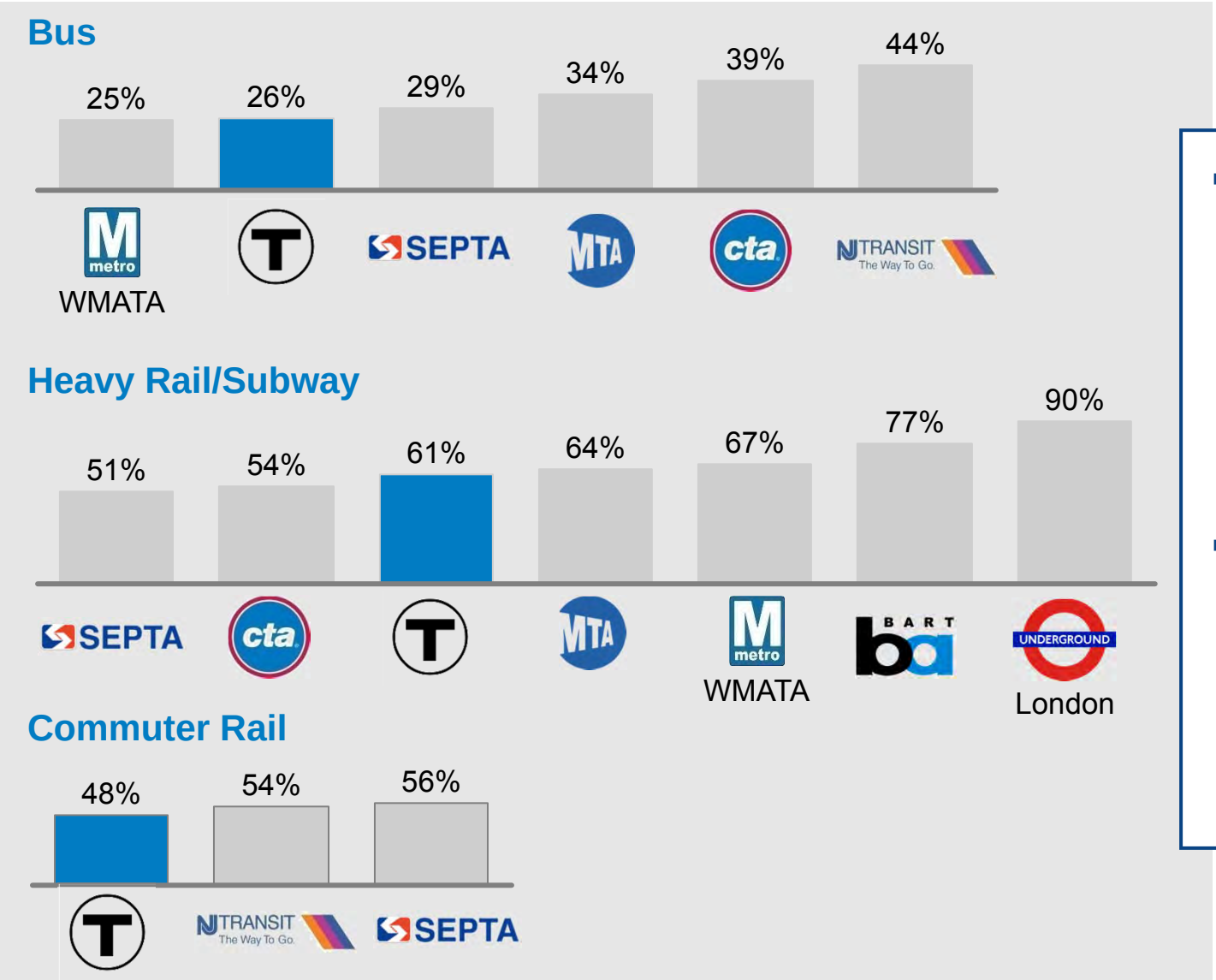
Miles, average of 2011-2013




**MBTA vehicle operators are less productive compared to other peer transit systems; productivity needs improvement**

Source: National Transit Database 2011-2013

# Percent of operating expense covered by passenger fares




- The MBTA has a lower percentage of operating expenses covered by fare revenue (fare recovery ratio) compared to most peers, across multiple modes
- Most peers who have low fare recovery ratio in one mode are offset by higher than average fare recovery in other modes

Source: National Transit Database 2013, TfL Annual Report 2011-2012