



MBTA Fiscal and Management Control Board

Third Annual Report

December 15, 2017

Joseph Aiello, Chair
Steve Poftak
Brian Lang
Brian Shortsleeve
Monica Tibbits-Nutt



MBTA Fiscal and Management Control Board

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Members of the General Court:

This document fulfills the requirements of Section 207 of Chapter 46 of the Acts of 2015 specifying that the MBTA Fiscal and Management Control Board (FMCB) report annually on, among other things, the Massachusetts Bay Transportation Authority's "own-source revenue, operating budget, capital plan and progress toward meeting performance metrics and targets and metrics." The FMCB's charge is to oversee and improve the finances, management, and operations of the MBTA.

The FMCB's authorizing statute called for an initial three-year term, with the option for the Board to request that the Governor approve a single two-year extension. Governor Charlie Baker this year approved the Board's request to extend its term through June 30, 2020. By statute, the FMCB must now terminate its activities no later than June 30, 2020.

In addition to clearer governance, the T now has stable and tested leadership in place, with General Manager Luis Manuel Ramírez, Deputy General Manager Jeff Gonnevill, and Chief Administrative Officer Michael Abramo, CPA, leading a reorganized MBTA management and staff that is driven by solid analysis, open to innovative approaches, and committed to providing service that respects the needs of the region and the users and taxpayers that support the system.

As indicated in the Strategic Plan released last year, the transformation of the T into a world-class enterprise is a multi-year undertaking, defined by two overlapping goals:

- **Improve the T now:** This part of the overall strategy emphasizes short-term actions to improve the performance and reliability of today's system, from making key bus routes run more smoothly to accelerating State of Good Repair (SGR) investments in the core subway system to communicating with system users in smarter ways.
- **Position the T for a better tomorrow:** The T continues to invest in its future, not only through SGR, but through major new investments. These investments include new buses (including some already in service), power and signal upgrades that will enable the Red and Orange Lines to meet three-minute headway goals at an improved level of on-time performance, and a new automated fare collection system (AFC 2.0) that will speed service, provide greater customer and fare structuring flexibility, and significantly stem currently foregone revenues. A groundbreaking Fleet and Facilities Plan will provide a transparent pathway to ensure that rolling stock and maintenance facilities never again fall into the terrible conditions confronted in the winter of 2015. Other planning efforts, such as Focus40 and the Bus Service Plan, will further ensure that future investment decisions are fully informed by data and properly respond to changing factors, from demographic shifts to climate change.

The FMCB is pleased to report that the T has come a long way, both institutionally and operationally, in its ability to develop and implement such strategies. But to be clear: This Board recognizes that the day-to-day realities of many T riders do not necessarily align with this view of long-term progress. Too many system users still experience T service that is late, inadequate, or otherwise unreliable. Fixing a system as complex and challenged as the T was never going to be quick or easy. But with steady fiscal discipline, proven leadership and talent, and other organizational moves, the T is already a much-improved operation compared to when this Board began. The groundwork is in place for a much better future. Building on that groundwork, the Authority must have clear

aspirations -- and a strategy to achieve them. The Strategic Plan offers both the goals and data-specific metrics for meeting them.

Two major actions in just the last month are clear evidence of the new institutional capacity in place at the T:

- The Green Line Extension, all but buried less than two years ago by cost overruns and managerial failures, is now poised for construction. As approved by the FMCB on November 20, the contract for this long-delayed project is under the original budget limits -- and it includes all six additional upgrade options sought by stakeholders;
- The next generation of fare collection -- AFC 2.0 -- is moving ahead. The public-private partnership model approved by this Board paves the way for customers to interact much more effectively with the T, with more options to pay, more fare media available for use, and with compatibility across all modes. It also provides the MBTA with significant leverage over the private sector's long-term obligation to operate the fare collection system.

Like hard-working T employees, from bus operators to new executive talent recruited to further revitalize the T, this Board's primary commitment is to the riders who pay for, depend upon, and deserve a safe and reliable transit system.

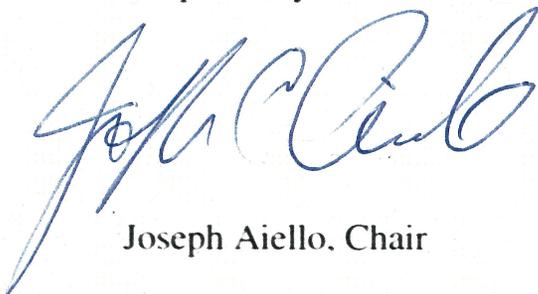
Again, to system users whose train or bus was late today, the claim that the T is already undergoing a turnaround may seem a stretch. However, comparing the state of the system when this Board was created less than three years ago to its state today shows a clear arc of progress:

- When the FMCB began, the T was facing steadily increasing operating budget deficits, projected as recently as two years ago to reach \$242 million in FY17. Instead, the FY17 deficit was \$30 million, with savings from operating costs going directly to system improvements. The fiscal discipline and controls now in place, reflected by zero growth in core operating expenses for two straight years, will help the T confront serious fiscal headwinds, especially in FY19 and beyond;
- In FY15, the T awarded just \$75 million in construction contracts to improve the T's underlying condition, or State of Good Repair. At that rate, the system would continue to deteriorate. But in FY18, the T is awarding \$450 million in SGR contracts;
- The overall quality and quantity of capital investments in the T have significantly improved, with capital spending well over \$800 million in FY17, more than double what it was just five years ago, fueling a robust pipeline for current and future system improvements. The T is also much more capable of developing and managing capital projects than it was in 2015;
- The T is attracting and retaining the talent it needs to plan, maintain, and operate the system that exists today and the aspirational system of tomorrow.

Even as it positions itself for long-term improvements, the T must stay focused on the current needs of employees and riders alike. This Board supports GM Ramírez' call to make capital delivery, improving human capital, customer service, and safety top priorities across the Authority.

The main section of this report provides updates on specific topic areas that the General Court specified for inclusion in this report. This and other information is provided to help all interested parties, from officials in the State House to riders on every T bus, better understand the T's steady transformation, as well as the hard work that remains to be done in the years ahead.

Respectfully submitted,



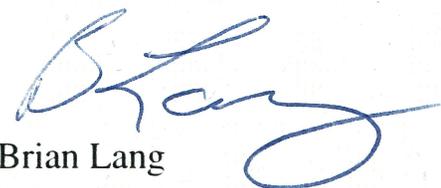
Joseph Aiello, Chair



Steve Poftak, Vice Chair



Monica Tibbits-Nutt



Brian Lang



Brian Shortsleeve

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I. Introduction: MBTA Transformation Gaining Speed

Much has changed since that long winter of 2015, the same year in which this Board first met.

The Governor and General Court established the FMCB after that winter revealed the depth of the T's fiscal, operational, and structural failures. The FMCB, in cooperation with T employees, faced the mammoth task of rebuilding not just the system, but the public's faith that the system could even be fixed, much less become an industry-leading transit system.

Since its first formal meeting on July 21, 2015, the Board has held more than 115 public meetings, discussing, debating, and acting upon a wide range of structural, fiscal, and operational issues. The Board has sought to be transparent and deliberative not merely because it is the proper way to conduct public business, but because the Board wants all stakeholders to understand and help the Board to resolve the problems that have accumulated at the MBTA over decades.

This Board's first year was consumed by crisis management and information gathering, dealing with a string of pressing demands on the system and from the public. Not only were system users unhappy, but T employees were both demoralized and often as overwhelmed as the system's infrastructure. The FMCB necessarily spent that first year trying to understand the extent of its challenges and the range of viable solutions to those challenges.

By the second year, with immediate crises somewhat controlled, the Board was able to focus on broader problems and broader problem solving. T operations improved overall, but this improvement was not consistent across all modes. Bus performance continued to lag; commuter rail service was also uneven. The T's fiscal situation continued to improve, and a landmark agreement with Boston Carmen's Local 589 positioned both the Authority and its biggest union for mutually beneficial, long-term progress.

Deliberate use of the waiver from the so-called Pacheco Law led to both cost savings and better delivery of services by means of contracting out certain functions, though not without occasional problems with vendors. The T must continue to improve its development, management, and oversight of contracts, Pacheco-related or not. To provide nearly 1.3 million trips per day, the MBTA works with an array of partners, including many third-party private vendors. Most of these contracts benefit the T and its riders, but others have failed to meet expectations.

One case in point is the consolidation of the Dispatch Center for the T's paratransit service, The RIDE. While this operation has long been out-sourced, vendor performance did not meet expectations and the Board is seeking ways to address concerns of RIDE stakeholders about the current contract.

A better experience for all riders drives this Board's ongoing emphasis on improving the T's capital delivery process and output. Repairs and upgrades to basic infrastructure, such as switches and signals (much of it funded from savings in operating costs) translate directly into better and more reliable service.

With new talent in place and more coming to help revitalize the agency, this third year of the FMCB has seen the T's transformation gain speed. The greatest challenge facing this Board and the T in the years ahead is to ensure that the structural, fiscal, and operational changes that have been or are being currently put in place truly translate into meaningful, consistent improvements for system users. Looking ahead, the FMCB must also address how best to institutionalize the commitment to stated strategies, to transparency, and to a passionate commitment to excellence.

The main section of this report that follows provides more detail on these future-looking efforts, other areas of success, and areas where progress has lagged.

I. Fiscal Sustainability

Looking Back: From The Governor's Special Panel Report of 2015:

- Key Finding: “Due to a severe imbalance between costs and revenues, the MBTA would be insolvent if not for continuing and increasing Commonwealth subsidies.”
- Key recommendation: Prepare operating plans “that rely primarily on own-source revenue and cost containment to balance the agency’s budget.”

Progress since 2015

The T has made strong and steady progress in year-over-year changes in T operating costs and revenues:

- A FY17 structural deficit that had been projected to reach \$242 million in the status-quo pro forma was instead \$30 million;
- Between FY00 and FY15, the average annual growth rate of T operating expense was 5 percent while for FY16 to FY18, the average annual operating expense growth rate is projected to be zero percent;
- Own-source revenues fell by 1 percent annually between FY05 and FY15 but they have grown at 14 percent annually from FY15 through FY17. The T is on pace to hit the Strategic Plan’s target of \$100 million in annual own-source revenue by FY21;
- MBTA debt expenses have been sharply cut by the termination of costly swaps. Instead of the 5 to 6 percent the T was paying on its debt, the floating market rate is currently at 0.5 percent to 1.5 percent;
- The landmark labor agreement reached with Carmen’s Union Local 589 a year ago reduced future operating costs by \$220 million over ten years;
- Successful outsourcing initiatives have T lowered operating costs while improving the rider experience.

Looking Ahead

The MBTA Strategic Plan calls for the T to link resources to strategic planning and results, including development of five- and ten-year pro formas and managing expenses to stay within projected revenue growth. Though serious fiscal headwinds loom, the FMCB remains committed to achieving its goal of fiscal sustainability for the MBTA.

“Northeast Deal of the Year”

In an innovative transaction that earned national notice, the T this year became the first public agency in the nation to issue “sustainability bonds,” the proceeds from which are exclusively used on projects with environmental and/or social benefits. The \$420 million in tax-exempt MBTA sustainability bonds represented the majority of a total \$576 million bond issuance in September 2017.

The September issuance, which respected financial publication *The Bond Buyer* selected as “The Northeast Deal of the Year,” will help support the T’s Capital Investment Program, including climate resilience, energy efficiency, accessibility, passenger safety and other projects.

In crafting this sophisticated approach, T officials consulted with academic experts, impact investors, and sustainability leaders at Fortune 500 companies. The use of sustainability bonds led to broader bank participation and to more aggressive pricing than the T would have received from traditional bonds. The result was historically lower borrowing costs for the MBTA.

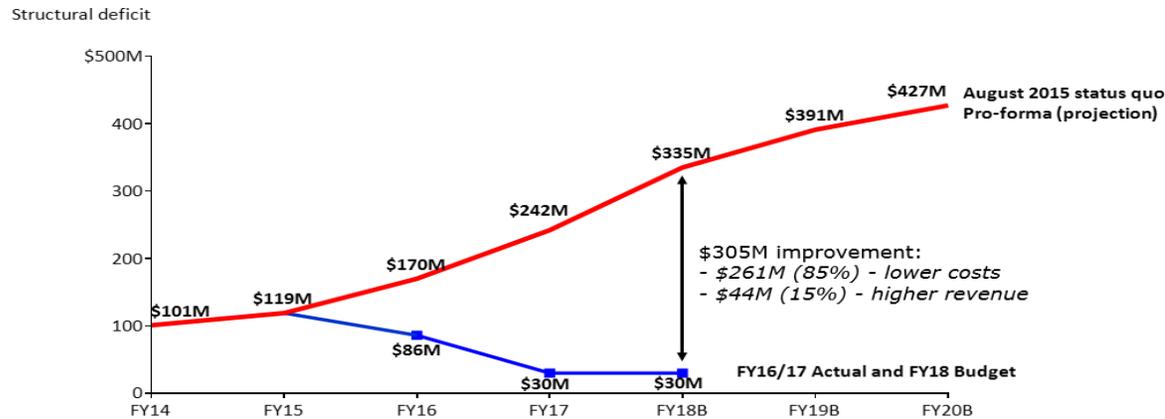
The bond sale was the MBTA's second competitive issuance in as many years. In June 2016, the MBTA refunded existing debt through its first competitive transaction in 21 years. The Sustainability Bonds and traditional bonds are rated AA by S&P Global and Aa3 by Moody’s Investor Services.

A. Closing the Structural Deficit in the Operating Budget

This Board’s first annual report in December 2015 warned that without action, the MBTA’s operating budget was heading for a structural deficit of \$242 million in FY17 and a staggering \$427 million in FY20.



Instead of continuing to grow to more than \$400M, MBTA deficits have been steadily going down



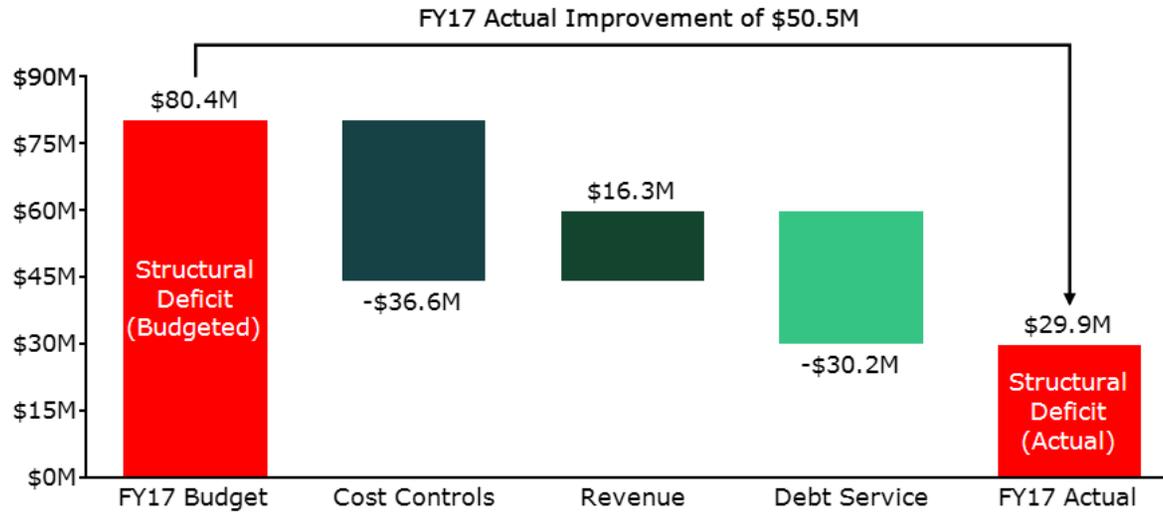
Note: MBTA management in process of recasting FY18-FY20; Operating Deficit does not include additional state assistance

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Instead, the approved MBTA operating budget for FY17 forecast a structural deficit of \$80 million. The actual FY17 structural deficit came in at an even better \$30million, or marking a decrease of nearly 90 percent from that original forecast.

This improvement was due mainly to almost \$37 million in internal cost controls and \$30 million in debt service savings. These gains were partly offset by \$16 million in less-than-budgeted revenues, due to less than expected sales tax revenues. Fare revenues increased in FY17 compared to FY16 primarily due to a fare increase.

FY17 Budget to Actual Structural Deficit (Not Including Additional Assistance)

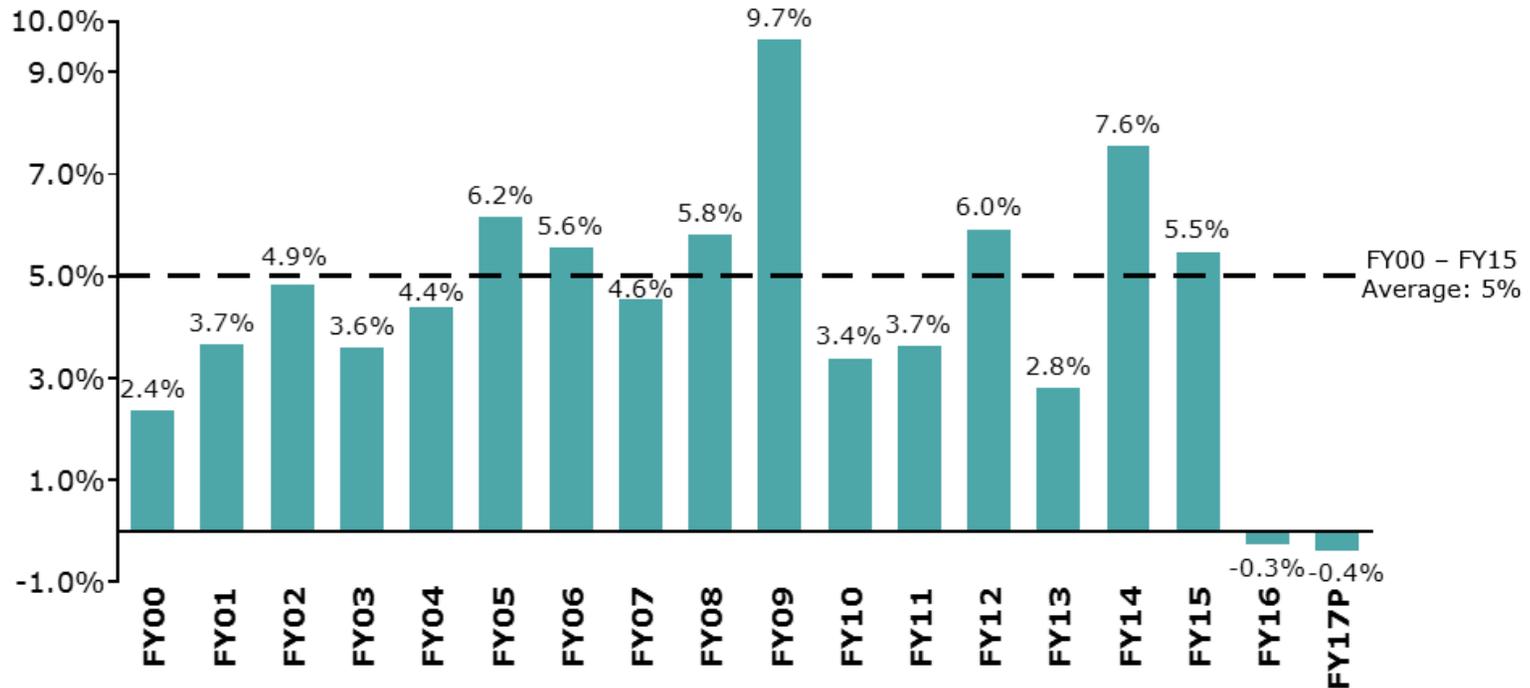


Source: MBTA Internal Data. Analysis above excludes revenue from monthly FY17 Additional Assistance payments.

The MBTA’s annual growth rate in core operating expenses remains at its lowest two-year growth in at least 15 years. Between FY15 and FY16, core operating expenses declined; fiscal discipline continued between FY16 and FY17, with core operating expenses declining at 0.4 percent, excluding capital employee transfer (including capital employee transfer, operating expenses grew at 1.5 percent). This is in sharp contrast to the approximately 5 percent annual rate of operating expense growth the T experienced between FY00 and FY15.

FY15-17 MBTA Expense Growth – Slowest in 15 Years

Annual operating expense growth rate
(excluding debt)

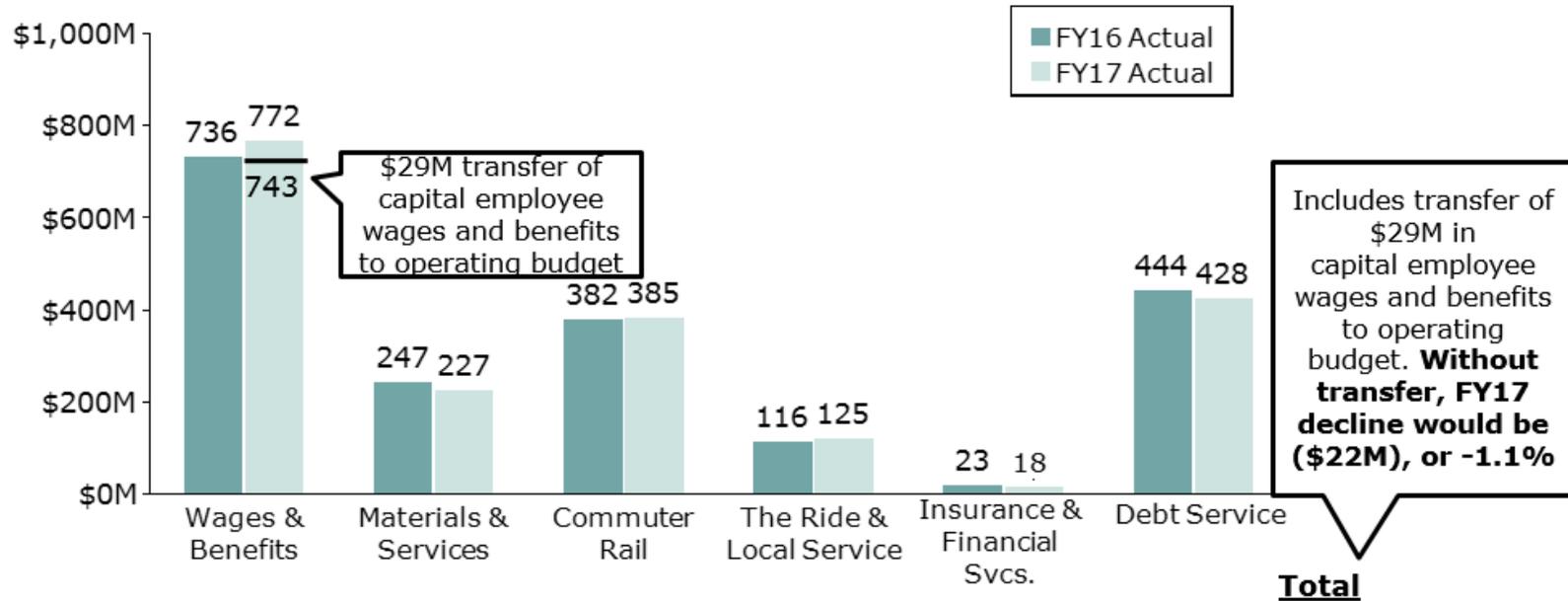


Note: For comparative purposes, FY17 core operating expenses exclude capital employees transferred in FY17.

Significant operating budget savings in FY17 came from reductions in materials and services expenses and debt service. Total wage and benefit expense increased by 4.9 percent over FY17, while material and services decreased by 8.0 percent and debt service expenses fell by 3.6%. Including debt service expenses, operating expenses declined 1.1 percent, excluding capital employee transfers (including capital employee transfers, expenses grew by 0.4 percent).

Operating Expense (Excluding Debt Service) Budget vs. Actual Comparison

Total Expenses (Including Debt Service) - FY17 vs. FY16



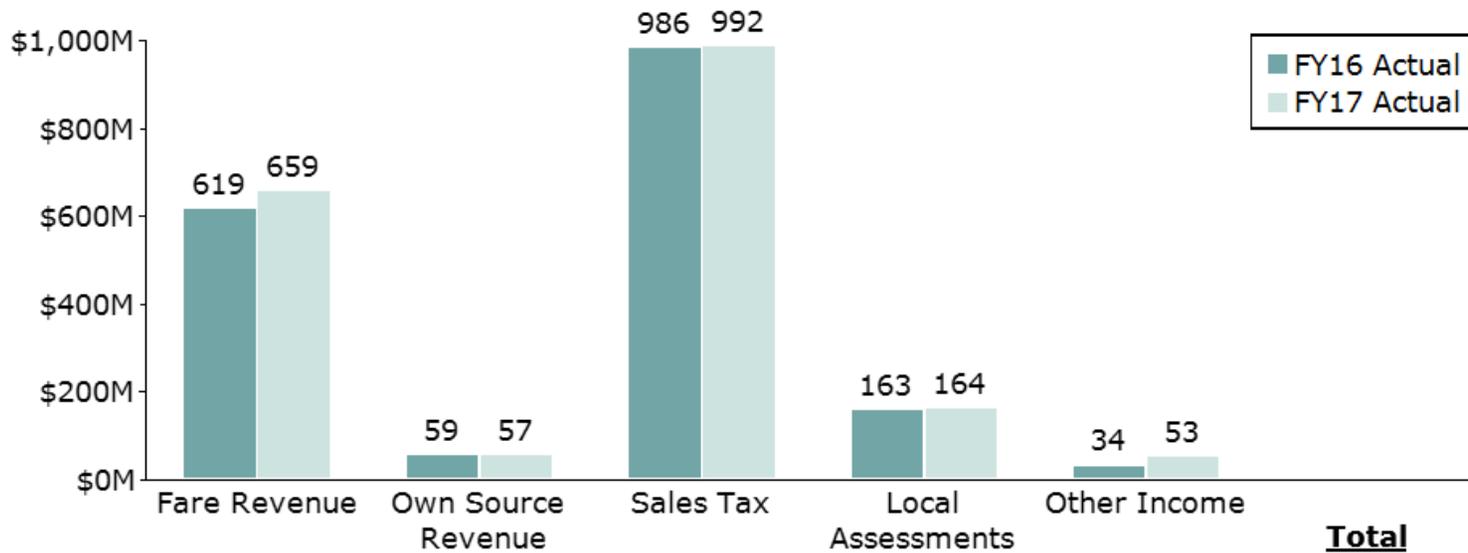
\$ Change	\$36.1M	-\$19.8M	\$2.7M	\$8.2M	-\$4.4M	-\$15.8M	\$7.0M
% Change	4.9%	-8.0%	0.7%	7.1%	-19.2%	-3.6%	0.4%

Source: MBTA Internal Data

Revenues in FY17 increased by \$63 million, representing an overall 3.4 percent increase compared to FY16. The fare increase approved by the FMCB in March 2016 led to a \$40 million increase in fare revenues from FY16 to FY17. One-time revenues in other own-source income increased by a significant \$19 million, year-over-year.

Total Revenue – FY17 vs. FY16

Total Revenue - FY16 vs. FY17



\$ Variance	\$39.8M	-\$2.6M	\$5.9M	\$1.1M	\$18.8M	\$63.1M
% Variance	6.4%	-4.4%	0.6%	0.7%	54.6%	3.4%

Note: Other income increase over FY16 primarily due to \$12.0M in one-time South Station payment from Equity Office, \$5.9M from Massport (Silver Line)

Source: MBTA Internal Data

A. FY17 and Beyond: Continued Focus on Cost Containment, Own-Source Revenue, and Operating Budget Accountability

Efforts to better control internal costs and increase own-source revenues have greatly improved the fiscal outlook. Measures that have either been completed or are well in process include:

- Increase own-source revenues from advertising, real estate, and parking;
- Hold managers accountable for achieving financial targets;
- Operate transparently, sharing as much financial and operating metrics data as possible with the public;
- Maintain progress on policies to reduce overtime and absenteeism;
- Further bolster fiscal management team;
- Review and enforce terms of existing service contracts, renegotiating or re-bidding them as appropriate;
- Leverage statewide contracts for further savings;
- Continue to explore opportunities with industry partners to provide better service or lower costs.

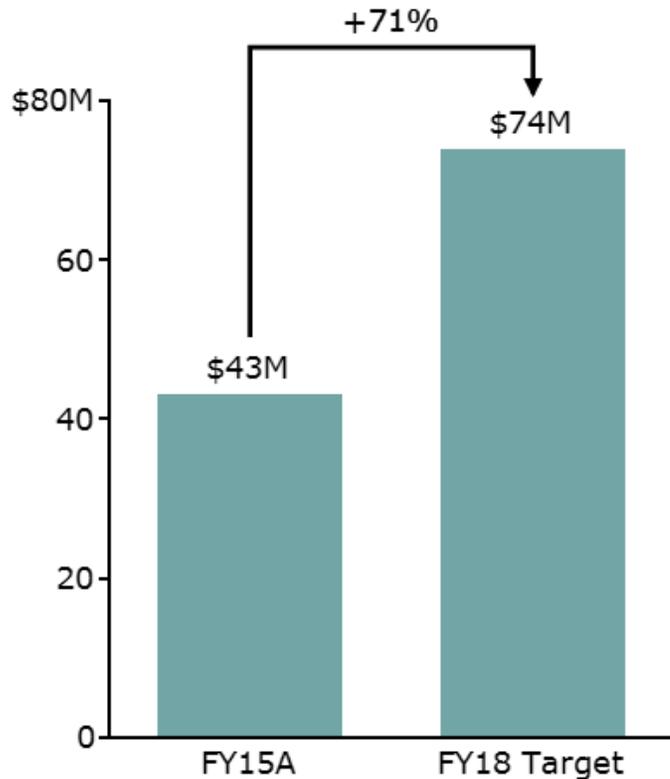
B. Own-Source Revenues – Non-Fare

Additional State Assistance to the T is not guaranteed. Indeed, during FY17, the Commonwealth swapped \$47 million of the \$187 million, reducing operating assistance while providing an equal amount in bond cap to support capital investments. In FY18, the state only plans to fund \$127 million in Additional State Assistance. Because no Additional State Assistance is guaranteed – that is, such funds are not appropriated annually -- and because as much of it as possible should be used to fund needed state of good repair investments, the T must accelerate efforts to increase revenues from sources other than fares, namely advertising, parking, and real estate.

For FY18, the T has set aggressive revenue targets for each of those categories and made progress in each:

MBTA Non-Fare Own-Source Revenue Up 70 percent

MBTA own-source revenue



Improving Bus Routes 7 and 9

Due to residential and commercial growth in South Boston, Bus Routes 7 and 9 have been facing increasing demand, now at about 10,000 passengers a day. Since the early 2000s, this ridership growth outpaced service increases. While weekday ridership on Route 7 was up 84 percent, for instance, the number of bus trips rose by just 28 percent.

In response, the T undertook operational changes, beginning in December 2016 with the addition of three peak period trips on Route 7 and two trips on Route 9. In September 2017, the T invested \$2.1 million to add seven buses and 10 operators to the two routes to improve frequency and reduce overcrowding. Working with Massport, the T also made improvements to the City Point Layover facility, converting into a passenger drop-off and pick-up location.

Results are positive:

- On time performance has increased from 72 percent in 2016 to 82 percent in 2017 on Route 7 and from 68 percent to 79 percent on Route 9;
- Passenger complaints are down;
- Ridership continues to grow, but crowding is less.

These actions to improve two heavily utilized bus routes demonstrate the T's ability to respond quickly to immediate demands even as it proceeds with longer term bus and other service planning.



Advertising

Working with its new advertising vendor, Outfront Media, the MBTA has embarked on digital transformation of its advertising inventory. More than 150 new digital screens have been installed, with 100 more to come by the end of 2017, reaching 700 total screens by the end of 2018 – all at no cost to the MBTA. Customer-facing content is in the process of being designed and rolled out across this new digital network. Additionally, new high-impact advertising formats on the MBTA bus fleet have helped generate more than \$500,000 in the first six months of FY18. The T also anticipates \$2.5 million in revenue as a result of the alcohol advertising approved by the Board last month.

Parking

The MBTA completed a rebid of its parking management contract in the spring of 2017. The new vendor, Republic Parking System, has rolled out state-of-the-industry mobile license plate recognition equipment to enhance enforcement operations. Separately, the MBTA has begun work on major capital projects, including facility resurfacing projects that have not been conducted in several years. Three facilities (Montserrat, Campello, and Norwood Central) are scheduled to be completed before end of year 2017; several other facilities, including Quincy Adams and Braintree as part of the South Shore Garages project, are planned to begin in 2018. These projects are intended to help reduce the MBTA's state of good repair backlog and improve user experience.

Real Estate

To help accelerate the development program, the T's real estate team brought on two new senior managers with substantial industry experience. New transit-oriented development guidelines are being developed to ensure the T's continued leadership in sponsoring and advocating for smart developments along its transit corridors. Creative new initiatives, including a recently signed solar canopy lease for several of the T's parking facilities, will combine with existing programs to continue to grow revenue.

C. Own-Source Revenues – Fares

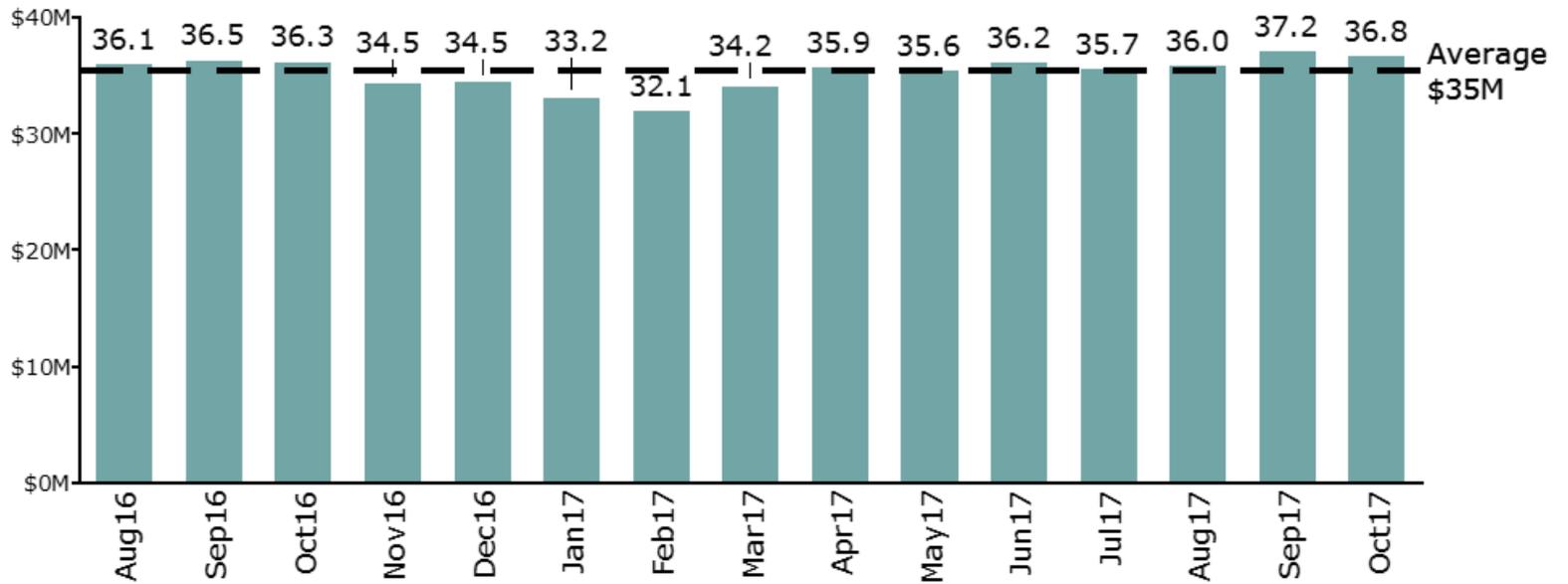
The MBTA's fare recovery ratio in FY17 was 43 percent, higher than it was in FY15 and FY16 (at 40 percent and 41 percent, respectively). The MBTA has budgeted for a 44 percent fare recovery ratio in FY18, continuing this positive trend. The MBTA will continue to look at growing fare revenues, which have risen from \$603 million in FY15 to \$659 million in FY17. The fare increase of just over 9 percent approved by the FMCB went into effect on July 1, 2016, meaning the increase was in effect for all of FY17. Fare increases varied by mode and ride and, in the case of single bus rides paid with cash or CharlieTicket, fares fell from \$2.10 to \$2.00.

For the first four months of FY18, monthly unallocated fare revenue from subway, bus, ferry, and The RIDE was consistent with last year, while commuter rail revenue increased by 2.9 percent.

Monthly Unallocated Revenue from Subway, Bus, Ferry and The RIDE

Monthly Subway, Bus, Ferry & RIDE Revenue

YTD FY18/FY17 Growth: 0.0%



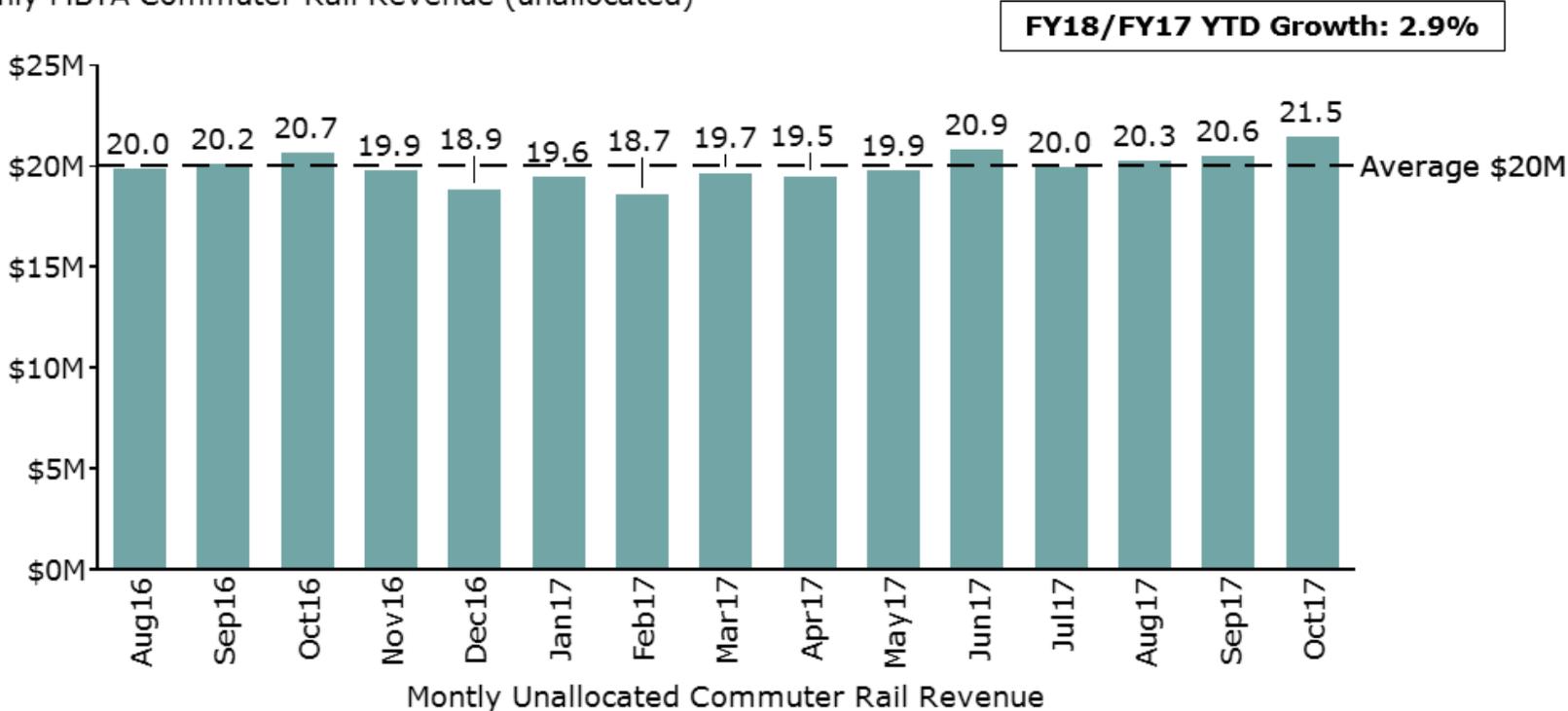
Monthly Unallocated Subway, Bus, Ferry & RIDE Revenue

Year-over-Year Growth by Month: 6.3% 9.7% 8.2% 5.4% 2.8% 7.3% 6.0% 6.1% -2.4% -0.4% 1.9% 1.2%

Note: Includes all adjustments to total fare revenue
 Source: MBTA Internal Data

Monthly Unallocated Commuter Rail Revenue

Monthly MBTA Commuter Rail Revenue (unallocated)



Year-over-Year Growth by Month: 7.4% 6.5% 12.4% 11.6% 8.9% 10.0% 11.9% 6.9% 4.1% 1.8% 1.8% 3.8%

Note: Chart above shows "unallocated" commuter rail revenue, prior to CTPS allocation for linked trips to other model
 Source: MBTA Internal Data

D. Transferring Employees from Capital to Operating Budget

In the past, the MBTA used funds that should have been used to meet capital needs to cover operating budget costs. Pursuant to the findings of the Governor's Special Panel on the MBTA in 2015, the MBTA identified 532 employees to transfer from the capital to the operating budget. That transfer was supposed to occur over four years in three phases but the T has acted more aggressively and transferred 312 positions in FY17. The final 220 employees from capital to operating will be completed by the end of FY19. The fully loaded budgetary cost of these final 220 employees is about \$27 million.

E. Fiscal Challenges Ahead

Despite the progress that has been made, balancing the T's operating budget faces headwinds. Even in FY17, the budget had assumed that sales tax receipts would generate an additional \$35 million to the MBTA. However, with sales tax receipts down for the Commonwealth, the Authority only received its minimum sales tax payment of \$992 million (the Base Revenue Amount). The Authority budgeted FY18 at the Base Revenue Amount level of just over \$1 billion. Recent months suggest that there will be no change to the amount of sales tax revenue received by the Authority.

Other challenges facing the T include:

- Controlling pension expenses, which are the fastest growing T expense and which continue to grow at an unsustainable rate. Pension costs to the T have grown by 250 percent since FY07, from \$37 million to a projected \$90 million in FY18;
- The ability of the T to achieve all approved initiatives, including savings in bus maintenance and from The RIDE;
- Debt Service is expected to increase by \$50 million a year beginning in FY19, putting further pressure on the ability of dedicated revenues to cover operating expenses.

III. Infrastructure

Looking Back: From The Governor's Special Panel Report of 2015:

- **Key Finding:** “[The MBTA] 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.”

Progress Since 2015

- The \$811 million investment by the T on the FY17 capital program was more than double what it was just five years ago. State of Good Repair (SGR) spending was up by 50 percent in FY17 over FY16.
- Investment on SGR vehicles in FY17 exceeded the goal set last year by the FMCB for a 40 percent improvement over FY16.
- The T plans to invest nearly \$800 million in SGR projects in FY18, an increase of more than 50 percent over SGR spending in FY15.

Looking Ahead

The Strategic Plan calls for the T to “expand capital delivery capacity to achieve a minimum of \$1 billion in annual State of Good Repair spending within four years and eliminate the backlog in 15 years.”

A. Overview

Since its beginning in 2015, the FMCB has made the T's capital investment program a top priority. Improving how much, how quickly, and how effectively the T makes, implements, and manages capital investments is at the core of fully transforming the T. Whether short-term "pay-go" spending on track and signal upgrades (funded by savings from the operating budget) or longer term investments in new vehicle fleets, a well-planned, well-managed capital program is central to significant, lasting improvements for riders.

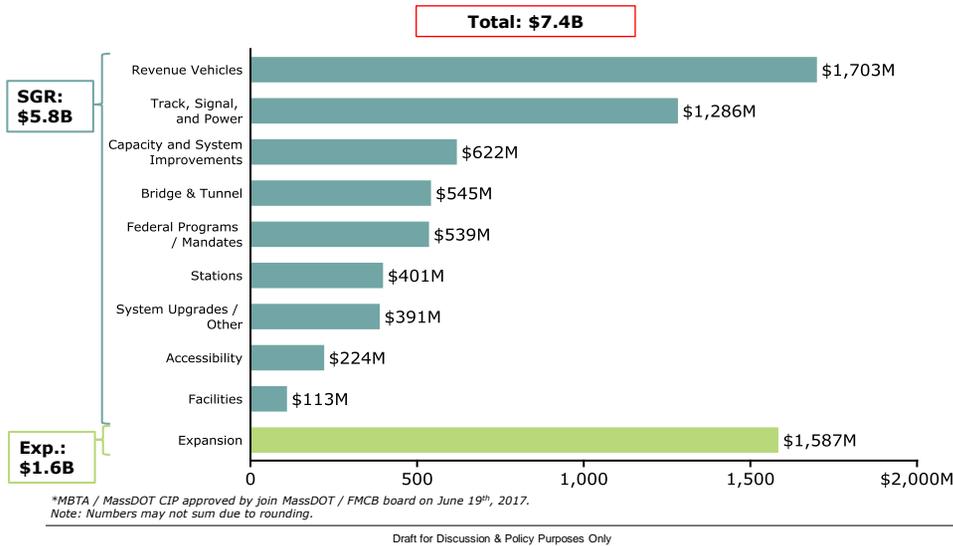
Reflecting this priority, the FMCB set some ambitious targets for the MBTA's capital program team in last year's Annual Report, including:

- Spend nearly 60 percent more on MBTA state of good repair infrastructure in FY2017 than it did in FY2016;
- Double spending on vehicles in FY17 compared to FY16;
- Award \$300 million in SGR construction contracts in FY17 (excluding vehicles), which would more than the total amount of SGR construction contracts awarded during the previous three fiscal years combined.

Those goals have been largely achieved. This demonstrates that the MBTA is institutionally now in a much more solid position to achieve the goal of \$7.4 billion capital spending target set in the FY18-22 Capital Investment Plan. Nearly 80 percent of that programmed CIP spending is to either improve system reliability (new vehicles and investments in track, signal, power and other infrastructure) or to modernize the existing system.



FY18-FY22 Capital Investment Plan calls for \$7.4B in capital spending over the next 5 years*



Achieving the FY18 capital investment goal of \$941 million, including \$795 million in SGR projects, will require the T capital team to further improve its project management system, including project controls, reporting, and other processes.

Toward that end, the Capital Delivery and Capital Program Oversight operations filled 24 key staff positions during calendar 2017 to support the increased capital program. An additional 22 positions were filled for the Green Line Extension project.

Expediting Green Line Improvements

As it awaits new fleets of Red and Orange Line cars, the T is expediting how it keeps its rail, signal, and power infrastructure in a state of good repair not just for tomorrow’s fleet, but today’s system.

An example of the Authority’s better institutional capacity to deliver SGR and other work is how it has achieved significant, short-term improvements on the Green Line by utilizing new accelerated rail replacement techniques. The MBTA’s Track Department was able to install 500 or more feet of new track in three-hour segments during overnight hours, work that previously took entire weekends to complete. By replacing nearly 25,000 feet of track and reducing rail defects by 50 percent, the T estimates that travel time on the Green Line has improved by seven minutes. In addition, 1,000 ties and tie plates were replaced.

These and other short-term improvements set the foundation for longer term core infrastructure work, which will be done in the months and years ahead as part of a comprehensive Green Line Track Renewal Plan. While these improvements have already had positive results for MBTA riders, a long-term plan is necessary to continue to upgrade the Green Line’s track, which was last replaced in the 1970s and 1980s. Construction costs of the Green Line track replacement project, which is expected to take 36 months, are estimated at \$120 million.

Major progress has been made to streamline project delivery and execution, with the MBTA shortening construction procurement, which had taken from seven to nine months, to no more than three months since the beginning of calendar year 2017.

Steps to improve the process undertaken in the last year include:

- Eliminated duplicative processes;
- Held to stated bid periods;
- Reduced time for routine tasks;
- Reviewed bid timelines with construction industry groups.

A current focus of the MBTA capital project team is to reduce design procurement to no more than six months.

B. FY17 Capital Spending

In FY17, the T spent \$811 million on its capital program, more than double what it was spending just five years ago. SGR spending was up by 50 percent in FY17 over FY16.

Substitute Service during Infrastructure Work

The primary job of the MBTA is move people safely and reliably. So when rail or other service is interrupted by needed State of Good Repair or other capital projects, it is critical that the T provide effective replacement service – and that it communicate well with riders and other stakeholders when such diversions are necessary.

The T has shown that it can improve system reliability and safety – without seriously disrupting riders.

An example is weekend diversions on the Red Line due to ongoing construction and track work on the Longfellow Bridge between Cambridge and Boston. As noted in a November 13 Boston Globe article, far from being upset, riders diverted to private buses for travel back and forth between Park Street station and Kendall Square on the weekend of November 11-12 “actually enjoyed it.”

By contracting for more private coaches, the T had enough vehicles. More importantly, the diversion was handled efficiently, with good communications and staffing to guide riders. Combined, the T moved 27,000 riders on that weekend, including 30 ADA transfers.

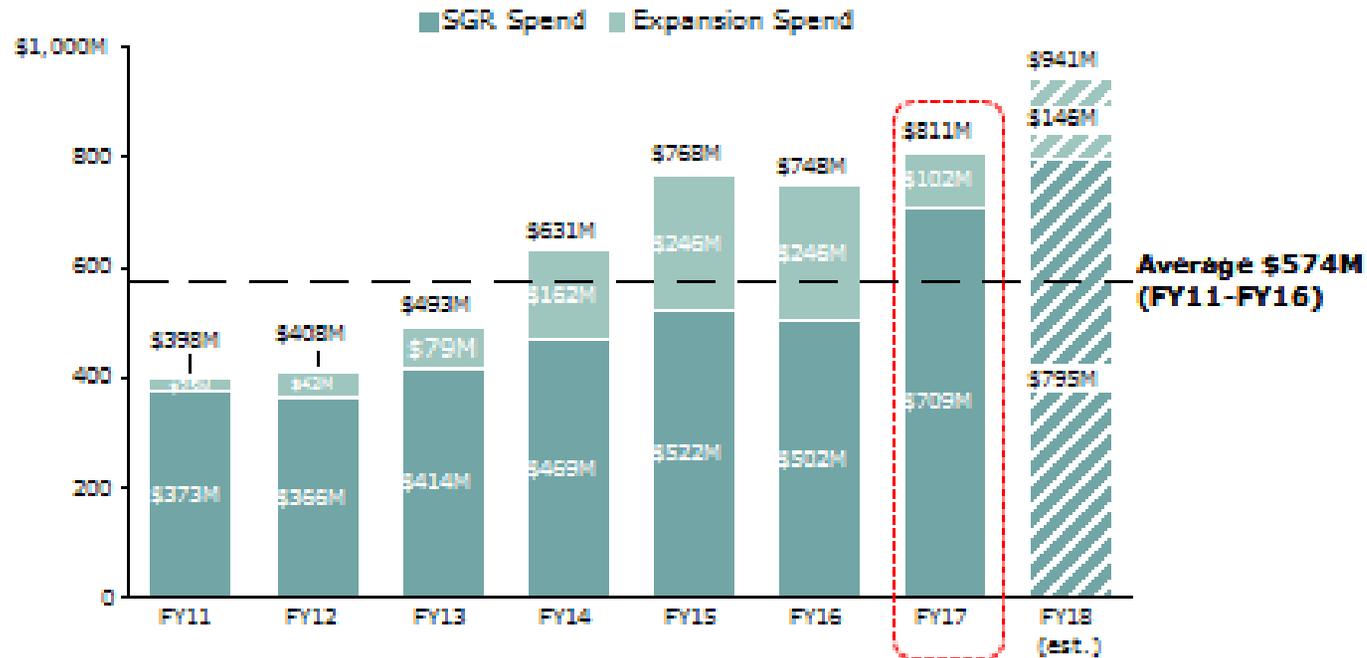
Private carrier buses have also been used to transport passengers during other capital projects, such as construction on the Beverly drawbridge project on the Newburyport/Rockport Line and the Commonwealth Avenue deck project. Being able to successfully divert customers enables the T to be able to shut down lines for long enough to, in some cases, work on more than one project. While working on the Beverly drawbridge, for example, the T was also to take advantage of the available track time to accelerate PTC work.

With the T poised to conduct many capital projects, this ability to effectively provide and communicate about alternative service is increasingly important.



MBTA capital investments steadily increasing

MBTA Capital Spending



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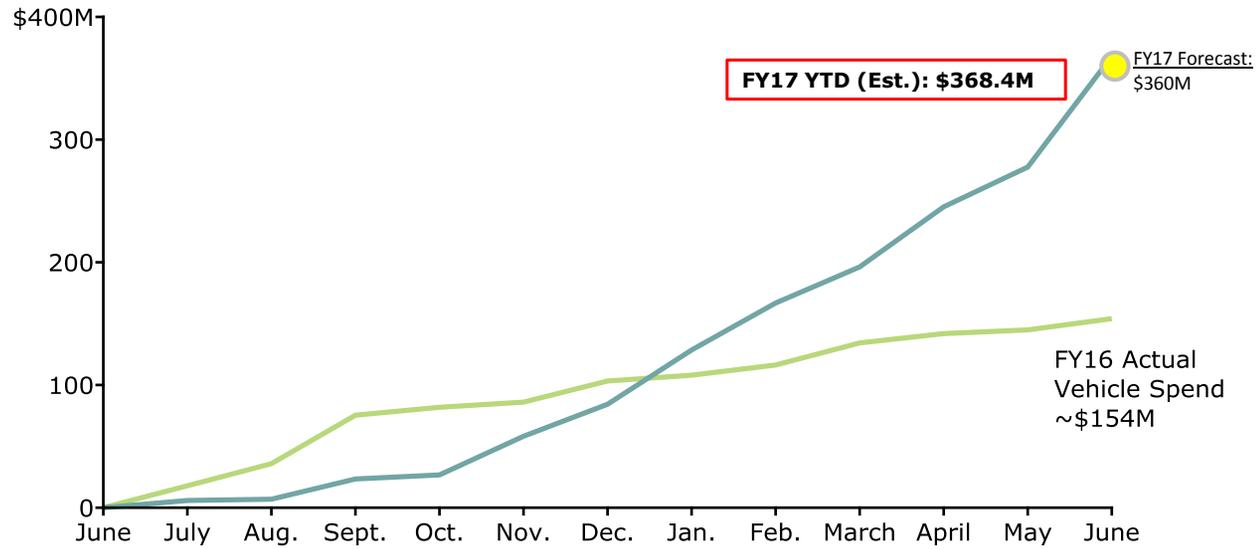
Spending on SGR vehicles in FY17 exceeded the goal set last year by the FMCB for a 40 percent improvement over FY16.



FY17 SGR Vehicle Spending

MBTA Capital Spending (Actuals, FY 2017 Forecast)

Updated July 27, 2017



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June
FY17 Actual (\$M)	\$7.1	\$1.3	\$16.5	\$3.5	\$32.0	\$26.1	\$30.2	\$50.0	\$29.4	\$49.2	\$32.9	\$90.0
FY17 YTD (\$M)		\$8.4	\$24.9	\$28.4	\$60.4	\$86.5	\$116.7	\$166.7	\$196.1	\$245.3	\$278.2	\$368.4

*Note: Does not include \$23M for Green Line #9 cars, which are classified as Expansion.

As noted in the “Upgrading the Core System” section below, the MBTA has received 369 new buses over the past year, with most of them already in service:

- 175 Flyer 40-foot CNG buses
- 150 Flyer 40-foot hybrid buses
- 44 Flyer 60-foot diesel hybrid buses

FY17 Capital Spend Update



New Flyer Buses



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Transformative changes are already coming to core subway lines. The first of the 152 Orange line cars will be tested on MBTA tracks during early 2018 and will be carrying customers by late 2018.

FY17 Capital Spend Update



Red / Orange Line Cars

Mock-up of new Orange Line car delivered to Boston for display

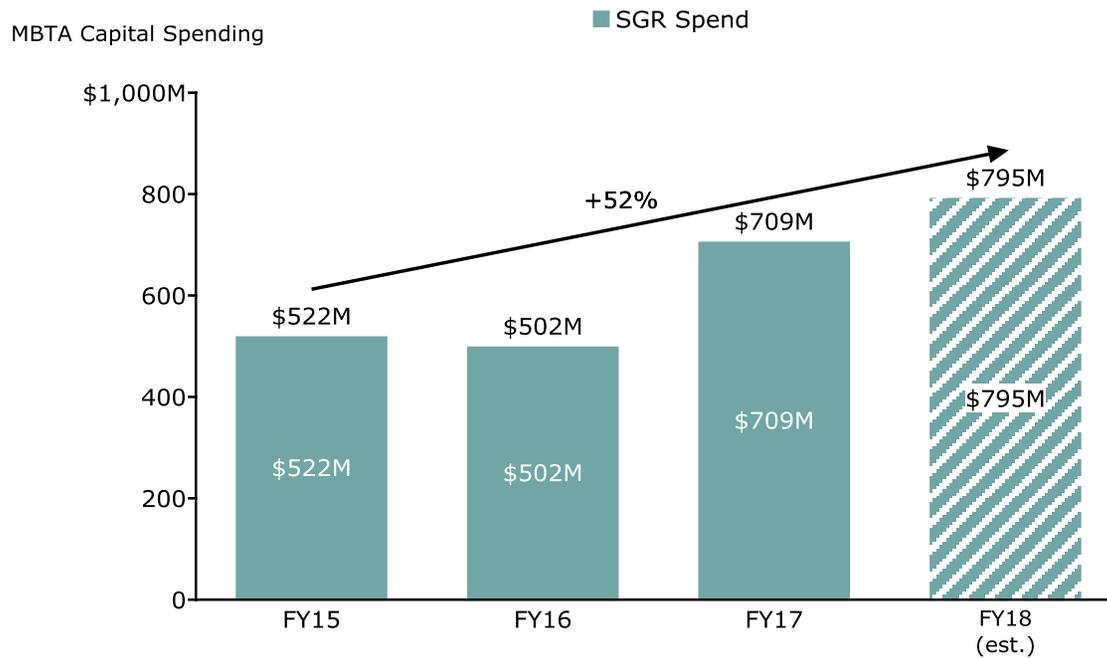


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Looking to FY18, the T hopes to invest nearly \$800 million in SGR projects. This represents an increase of more than 50 percent over SGR spending as recently as FY15.



FY18 State of Good Repair goal is \$795 million



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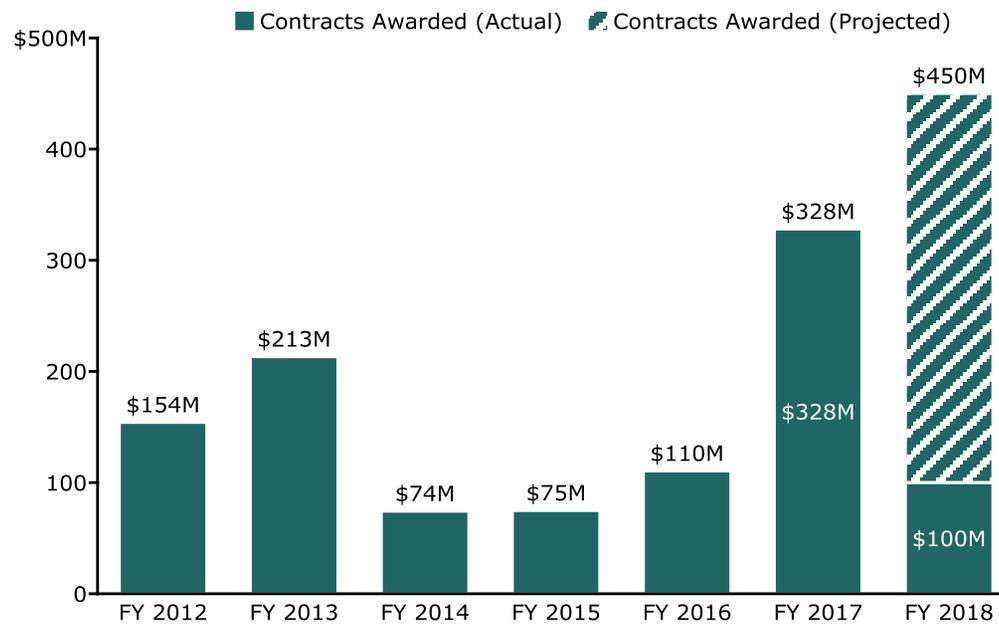
Achieving this level of investment in FY18 and expanding it in subsequent years requires the T to have a steady pipeline of contracts. This has been a marked area of improvement for T capital delivery. The \$328 million in SGR construction contracts awarded in FY17 far exceeded the total of all such contracts awarded over the previous three years combined.

Execute FY18-FY22 CIP



Fueling the SGR project pipeline

Dollar Value of Contracts (\$M)



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C. Capital Maintenance Fund “Lock Box”

As highlighted in last year’s report, another important initiative of the FMCB was the establishment of a Capital Maintenance “Lock Box,” funded largely by savings in the operating budget. Money from this Pay-Go fund is flexible and available immediately for capital projects not included in the current CIP. To date, this funding mechanism has been the source for more than \$116 million in capital spending, with an additional \$245 million of capital projects in progress.

Since last year’s report, the T capital team has established a consistent process for allocating Pay-Go funds, including a screening process and a Pay-Go Committee made up of senior managers from across the organization. The Pay-Go Committee has focused on using these funds to make near-term capital improvements that benefit the riding public and to provide seed funding for longer term capital investments expected in the following year’s CIP. Projects funded since the last report include:

- **Customer Technology Improvements:** Upgrades to real-time tracking tools and other technology (\$2.4 million);
- **Investment in Commuter Rail fleet:** Funding overhauls and repairs of Commuter Rail vehicles to improve reliability (\$10.6 million);
- **Subway maintenance of way improvements:** Improving maintenance of way along subway tracks, particularly on the Green Line (\$9.2 million);
- **Bus service plan implementation:** Analysis of existing bus service with recommendations for route, schedule, spacing, and other changes (\$4.9 million);
- **RIDE vehicle procurement:** New vehicles for The RIDE (\$5.6 million);
- **Parking lot paving:** Pave nine Commuter Rail and subway parking lots with critical need (\$12.6 million).

In addition to monthly meetings to approve new projects, the Pay-Go Committee has begun to meet quarterly with all departments to review the status of funded projects and to identify and mitigate any obstacles preventing projects from moving forward.

D. Analyzing Proposals for System Expansion and Capacity

Since last year's FMCB Annual Report, MassDOT and the MBTA have taken important steps involving the Green Line Extension (GLX) and South Coast Rail projects.

Green Line Extension

Two years after the project was put on hold due to escalating costs, the FMCB voted on November 20, 2017, to approve a design-build contract, marking a milestone moment for the long-delayed project to extend Green Line service into Somerville and Medford. The Board accepted staff's recommendation to select GLX Constructors as the design-build firm that will perform the design and construction for the GLX project. That recommendation followed the GLX project team's "price opening" a few days earlier. Two final bids each came in under the price limit set by the T, with GLX Constructors total contract price offering coming in at \$1,082,118,600.

Significantly, that bid includes all six additive options and MBTA contingency. The inclusion of prioritized additive options means that in addition to track infrastructure and seven station stops, construction will include platform canopies, additional elevators at select stations, public art, additional community connection to the community path located on Chester Street in Somerville, extension of the community path between East Somerville and Lechmere Stations and an enhanced vehicle maintenance facility in Somerville.

GLX Constructors is comprised of Fluor Enterprises, Inc., The Middlesex Corp., Herzog Contracting Corp., and Balfour Beatty Infrastructure, Inc.

Looking ahead, the MBTA plans to issue the Notice-To-Proceed (NTP) to GLX Constructors by the end of 2017, upon release of federal funding from the FTA. Upon receipt of the NTP, the design-build team will commence the submission of early design packages, the baseline schedule and other key deliverables, and prepare to commence construction activities in calendar 2018. The project is scheduled for the commencement of revenue service by December 2021.

South Coast Rail

As noted in last year's report, MassDOT and the MBTA are exploring the possibility of implementing South Coast commuter rail service via the Middleborough Line in order to expedite the provision of rail service to the South Coast. While the FMCB continues to monitor and review the project, primary responsibility for this ongoing analysis rests with MassDOT.

MassDOT filed a Notice of Project Change under the Massachusetts Environmental Policy Act (MEPA) in March 2017, proposing a phased approach to the overall project that would maintain the long-term commitment to service via the Stoughton Branch, while providing service in the short term via the Middleborough Line. The Secretary of Energy and Environmental Affairs issued a Certificate in May outlining MEPA's requirements for a Supplemental Draft Environmental Impact Report (SDEIR). MassDOT is currently working on the SDEIR for filing in the first quarter of 2018. A public comment period will follow, during which time MassDOT will hold meetings to solicit comments and answer questions from the public.

Once the public comment period is completed, EOEEA will issue a Certificate scoping the Supplemental Final Environmental Impact Report (SFEIR). After the MEPA process concludes with the Secretary's Certificate on the SFEIR, MassDOT will implement Phase 1 service, which is currently projected to commence in calendar year 2022.

E. Update on Key Projects

Positive Train Control (PTC)

After successfully closing on two federal loans under the TIFIA and RRIF loan programs totaling \$382 million on Dec. 8, 2017, the MBTA now has guaranteed funding in place to complete work on federally mandated Positive Train Control technology and associated infrastructure. PTC is an advanced system designed to automatically stop a train before certain accidents, including train-to-train collisions, can occur. Integrated command, control, communications, and information PTC systems control train movements with safety, security, precision, and efficiency.

While the T had been trying to secure financing since 2014, the current management team's success at closing the loans from the Federal Railroad Administration means the final piece is now in place for the duration of the PTC project. The loans, secured at the relatively low interest rate of 2.6 percent, mature in 2039.

The T's \$459 million PTC program will be applied to all MBTA Commuter Rail lines, covering about 394 combined route miles of service. (The MBTA program is being designed to be consistent with the PTC system that already exists on the Northeast Corridor's Providence Line). The PTC program, which has been in the design phase and transitioning to the installation phase, has installed back office equipment at Cobble Hill, wayside and communications equipment on over half of the MBTA lines, and have been in vehicle upgrade production since March 2017.

During 2018, the goal is to have all of the PTC equipment installed and pilot lines ready and running for revenue service demonstration on the New Hampshire Main Line (the Lowell Line) for the North Side and the Stoughton Branch for the South Side. Achieving these goals will help to secure an extension beyond the December 2018, allowing the T to continue the path towards completion by the end of 2020.

Upgrading the Core System

Planning and implementing significant improvements in the reliability and performance of the T's core system requires short-term as well as long-term planning, and major as well as relatively small investments. The T is working on all tracks.

On the longer term, major investment side, 252 new Red and Orange Line cars will be in revenue service by September 2023. The first new Orange Line cars will be in service by the end of 2018.

The Authority has purchased 375 new buses, with 369 in service now. The remaining six buses are advanced electric technology buses that the Authority will be prototyping on the Silver Line, servicing the Transitway tunnel next year. Together, these and other investments will represent a generational improvement in MBTA service.

But for these new vehicles to achieve their maximum service potential, the T also must be sure its track, signal and other infrastructure is ready to handle them safely and reliably. The T is making the capital investments necessary to make sure this will be the case. At the same time, however, T employees are also hard at work across the system and all its modes to make improvements to benefit not only tomorrow's system users, but the ones riding today.

Backed by improved ways of doing business, such as a new internal electronic requisition process, T operations are taking actions that, while not nearly as obvious as a new subway car, can be just as beneficial to passengers.

Examples include:

- The track department has developed new management processes that have greatly improved its work flow. Using accelerated rail replacement techniques, the agency's track department can now install 500 feet of track in three-hour periods during overnight hours. That type of work previously took entire weekends to complete;
- The T's power department has worked with the signals department on a program to provide backup power to Orange and Red Line signals;
- The signals team has taken steps to improve communications systems, including new fiber that has been installed on the Orange and Blue Lines, as well as part of the Red Line;
- Transit facilities closed more than 14,000 work orders in 2017;
- Safety improvements continue for riders and employees alike, from identifying and geo-locating all MBTA fire hydrants to internal safety audits.

The different components of this report all come together when it comes to improving the core system. Capital delivery – some of it using funds saved from operating costs – is improving in both quality and quantity. Procurement and contract management systems are being upgraded and streamlined. And the T is acting to attract and retain the talent it needs to shape all these moving pieces into a safe, reliable, and high-performing system.

IV. Customers

Looking Back: From The Governor's Special Panel Report of 2015:

- Key Finding: “The MBTA is not organized to operate as the customer-oriented business it is...The MBTA does not emphasize customer-centered performance management in its operations.”
- Key recommendation: “The MBTA should implement a rigorous, customer-oriented performance management system [and] strengthen its customer communications capabilities, using both traditional and innovative ways of information sharing ...”

Progress since 2015

Promising better service is not enough; the T has taken specific actions and plans others to improve the rider experience, with both immediate and longer term actions across all modes:

- On-time performance and other system metrics have been improved and are much more readily accessible;
- System performance has improved, though not evenly across all modes;
- Savings from operating expenses are being invested in immediate improvements, such as better switches and signals, that will improve system performance and reliability;
- The T's new Service Delivery Policy sets how the MBTA measures the performance of all of its fixed route services and how it plans bus service; a key goal of the policy is to update measures to use the best data available to more accurately reflect the rider experience;
- The Customer Service Agent program has been restructured and improved;
- A new Director of Customer Service will be in place by early 2018.

Looking Ahead

The Strategic Plan calls for the T to “focus first on the bus system” to improve service delivery and the rider experience. It also calls for implementation of the new fare collection system and a “strategic communications plan” to improve how the T provides “accurate and real-time customer information.”

A. Setting Targets and Performance Data

The Legislature calls for this report to update “progress toward meeting performance metrics and targets.” This section summarizes system performance in key modes. It also discusses how the MBTA’s revised Service Delivery Policy uses new sources of data in order to better measure the customer experience.

After two years of public and stakeholder input and data analysis, the FMCB adopted a new Service Delivery Policy in January, 2017. The policy sets how the MBTA measures the performance of all of its fixed route services and how it plans bus service.

The goal of the revised policy was to update measures to use the best data available to reflect the customer experience. New measures include:

- A rider-based wait time reliability measure for subway and light rail;
- An ADA accessibility subway measure for how many hours of platform time are not accessible, either due to an inaccessible station or elevator outages;
- For bus, a measure of passenger minutes in crowded conditions, in order to take into account how long passengers are traveling in crowded buses.

System users and the general public can obtain information on system performance in several ways. Annual data are available in the MassDOT Annual Performance report Tracker. Daily reliability is reported on the MBTA performance dashboard at www.mbtabackontrack.com.

The MBTA recognizes that in addition to actual service performance, understanding riders' experience and perception of the service is critical to making improvements. The Authority has a monthly satisfaction survey to gather system user opinions. The results are reported on the MBTAbackontrack dashboard and used to inform decision-making on how to improve service.

Transit Signal Priority

Based on initial positive results, the FMCB has approved plans to expand the T's Transit Signal Priority (TSP) pilot early next year.

TSDP provides faster service to bus and trolley passengers by using signal technology to reduce dwell times for vehicles that operate in mixed traffic. This is accomplished by extending green-light time or shortening red-light time, allowing for trains and buses to be delivered within their scheduled headways with enough space for all passengers to board.

The T began partnering with Boston-area municipalities in 2015 to discuss "borrowing" green- and red-light time for the TSP pilot to give MBTA vehicles priority to proceed at a traffic signal. These discussions continued into 2017 with the MBTA developing TSP software that was then piloted on individual signals. The results of the initial pilot, was a faster commute for MBTA passengers and, significantly, no demonstrably negative effect on the mixed vehicle traffic in which these bus routes and trolleys operated; no traffic signal-related complaints were received during the time of the pilot.

Beginning in 2018, the TSP pilot will expand from individual traffic signal intersections to broader corridors, including Beacon Street in Brookline (nine additional traffic signals serving the Green Line C branch), Commonwealth Avenue in Boston (20 additional traffic signals serving the Green Line B branch), Huntington Avenue in Boston (ten additional traffic signals serving the Green Line E branch), and Massachusetts Avenue in Cambridge (50 additional traffic signals between the Boston and Arlington borders in Cambridge). The estimated cost for this corridor TSP pilot is approximately \$1.125 million, or \$12,640 per signal.

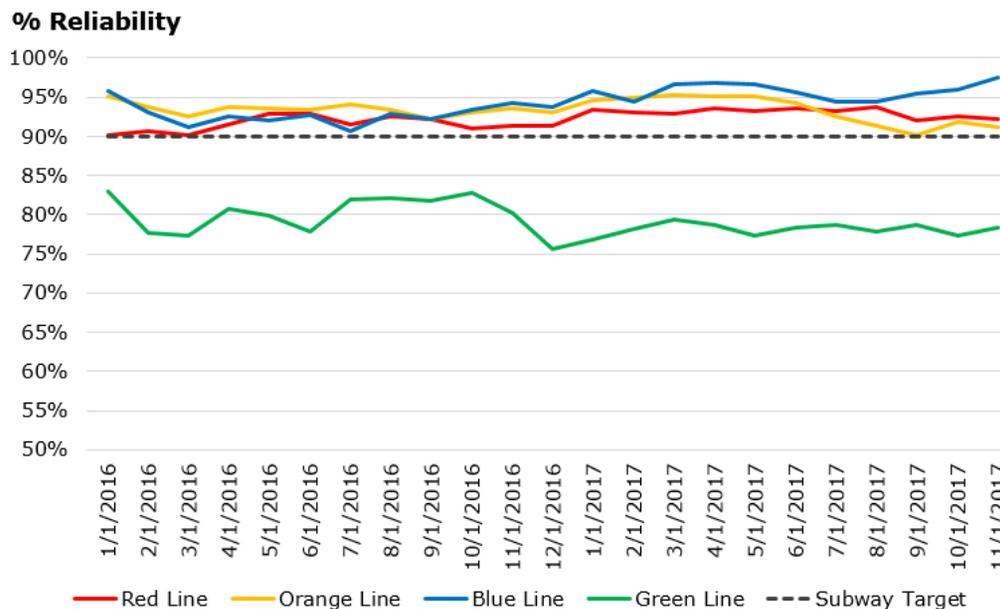
B. Performance by Mode

Because the T has two years of consistent data, it is possible to track performance over time to see the trends. Since each mode is measured differently, it is difficult to compare between modes. Over the past two years, reliability has varied due to seasonal and other performance factors.

The Blue Line has shown the most consistent improvement, while the Red and Orange lines show a recent decline.



Subway and Light Rail Reliability by Line by Month

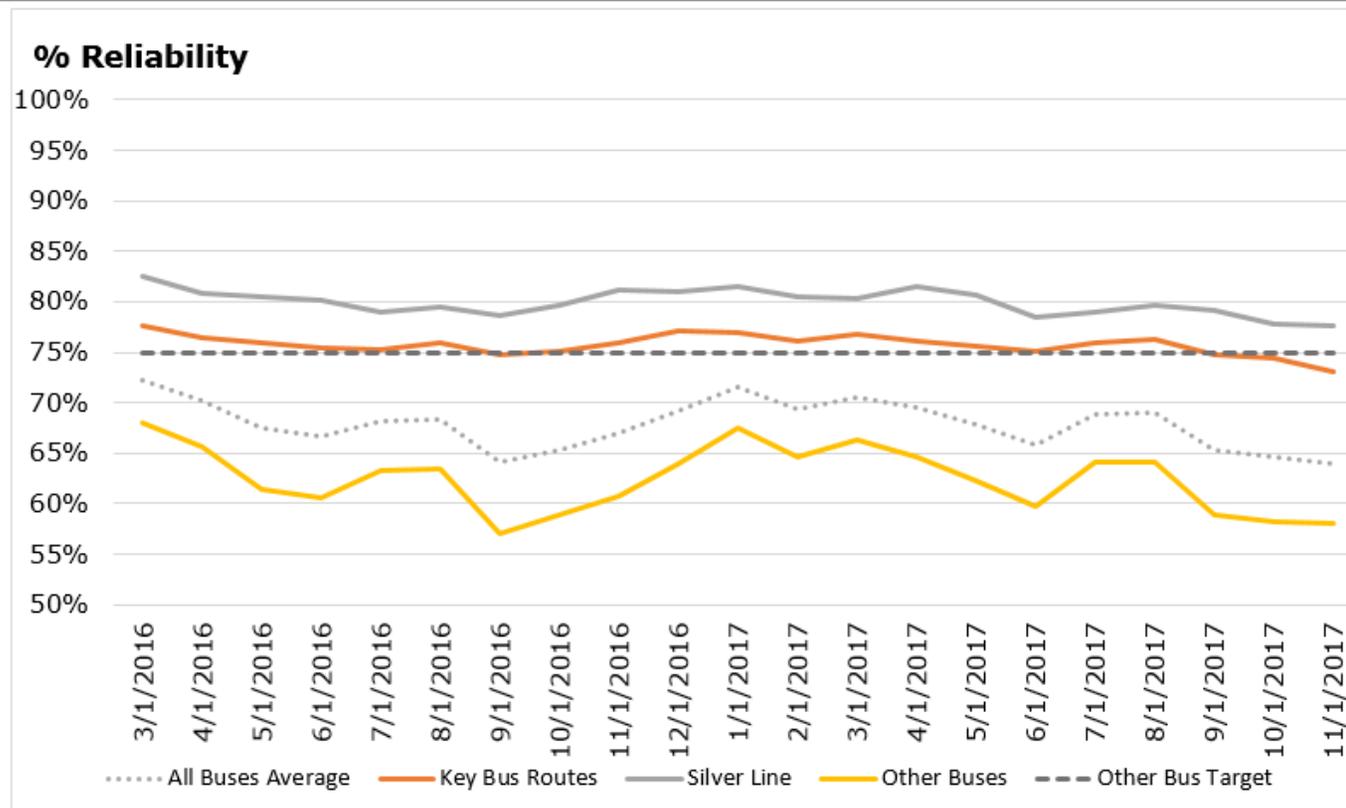


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The bus standard was tightened in March 2016 to better reflect passenger experience. Performance reflects seasonal patterns due to traffic and weather, but shows a downward trend.



Bus Reliability by Month

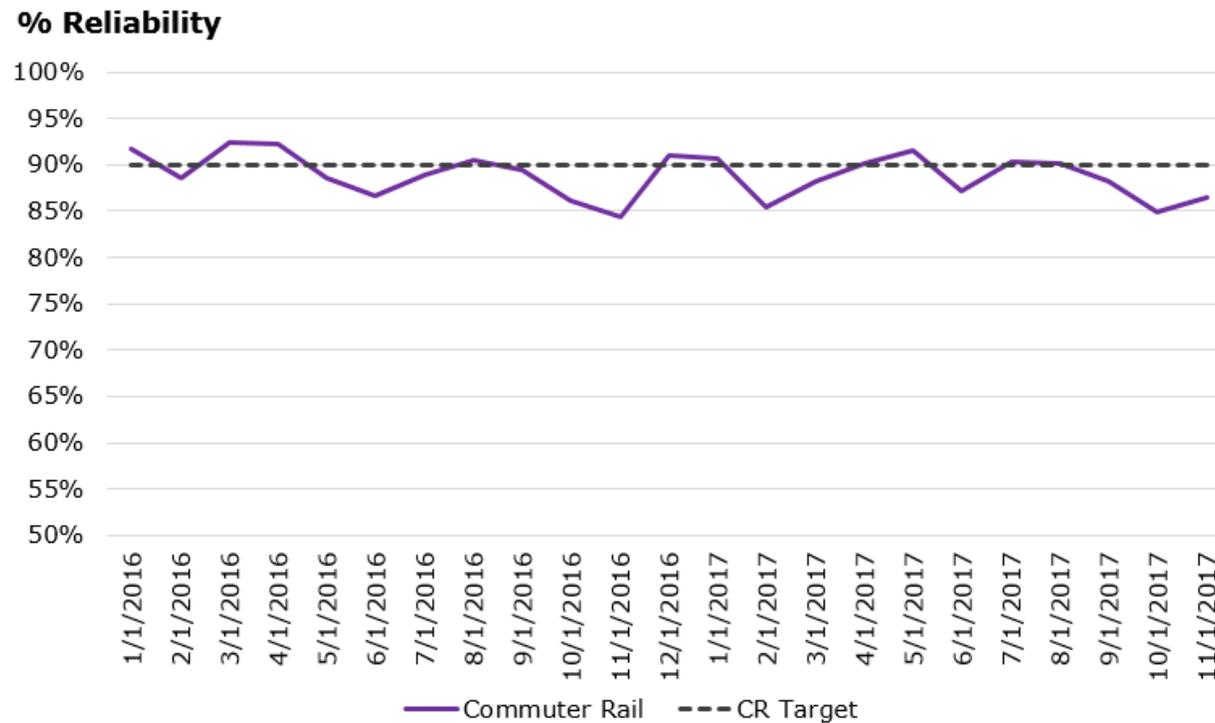


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Like bus, commuter rail has seasonal impacts on its reliability. The MBTA is working with Keolis to ensure that commuter rail performance matches the standard.



Commuter Rail Reliability by Month (unadjusted)



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The FMCB and MBTA continue to work with Keolis to improve commuter rail performance and reliability. Among other actions, the Board approved funding to overhaul locomotives, which has helped establish a more consistent supply of locomotives, which has reduced cancellations. The FMCB continues to monitor Keolis to make sure that ongoing improvements in locomotive availability and reductions in mechanical failures translate into better on-time performance, which is what matters to riders.

The MBTA knows how critical reliability is to improving service. That is why capital projects to upgrade fleet, signal, power, and other infrastructure are so important to subway reliability and why improving operational consistency and maintaining equipment is central to improving commuter rail reliability. Improving the reliability of the bus system, which clearly lags other modes, is a primary goal of the upcoming service plan.

Between the FY16 and FY17, the MBTA experienced a loss in ridership, of 6 percent on bus and 2 percent on subway, during off-peak and weekend service. While in line with national transit trends, these declines are still concerning as they indicate a loss of market share for public transit. The FMCB seeks to increase the MBTA's market share by both planning for peak capacity and improving T services to be more competitive. The T service plan for buses is a key initiative toward this goal.

All-door boarding

A pilot program to test all-door boarding this year that showed the effectiveness of this faster boarding process demonstrates the transformational benefits for riders that will come when AFC 2.0 enables such boarding on all buses and trains.

During the pilot, which was funded by the Barr Foundation, all doors were opened and no fares collected at all stops along the SL4 and SL5 bus routes, both of which start at Dudley and follow Washington Street from there to Chinatown. In Chinatown, the SL4 turns east on Essex Street to its terminus at South Station and the SL5 continues along Washington Street to its final stop at Downtown Crossing (Temple Place).

Results of the pilot, which ran from May 24, 2017, to June 6, 2017, include:

- On-time departure improved throughout the day, with greater improvements during peak periods;
- The vast majority of riders surveyed reported very high levels of satisfaction with their trip during the all-door boarding pilot (90 percent of respondents were at least somewhat satisfied);
- 65 percent of respondents said their trip was at least somewhat faster than usual.

And as an indicator of how a better customer experience can translate into steady or even increased ridership, 70 percent of those surveyed said their experience with all-door boarding made them at least somewhat more likely to use the Silver Line.

C. Service Planning

The purpose of the MBTA bus service plan is to close the gap, through internal adjustments and external partnerships, between standards set by the 2017 Service Delivery Policy and actual service delivery.

Delivering optimal service delivery – including, but not limited to buses that arrive within the scheduled headway and with enough space for all passengers to board – will require not only hard work by T staff, but active coordination and cooperation with a wide range of private and public stakeholders, from everyday bus riders to the municipalities who control the roads over which T buses travel and where T stops are placed.

As it proceeds with the MBTA Bus Service Plan, the T will evaluate a range of tools and options, such as improving bus dispatch and run times, upgrading infrastructure, and better vehicle design and vehicle upgrades.

The MBTA Bus Service Plan team will work with other teams in the organization to expedite its

partnerships with municipalities to review and implement a range of improvements, such as traffic signal

prioritization and dedicated bus lanes. The T will also work with private partners to help it develop technical analyses.

T staff plans to make a series of plans and recommendations to the FMCB throughout 2018, with an incremental application of the MBTA Bus Service Plan over the next twenty-four months and scheduling changes in 2019.

D. Resiliency, Planning, and Preparedness

Winter Preparedness

The MBTA has spent considerable resources on a range of preventive measures to handle the effects of winter weather. By the winter of 2016-17, for example, MBTA workers had installed:

- Nearly 105,000 linear feet of brand new third rail between JFK/UMass Station and Quincy on the Red Line;
- More than 52,000 linear feet of “Heater Element Infrastructure,” which includes the conduit, wiring, and junction boxes to support the Red Line’s third rail heating systems;
- 200,000 linear feet of new wiring for the Orange Line’s third rail heating system;
- 5,321 linear feet of snow fencing along Orange Line tracks.

The MBTA also has 80 stainless steel plows for Red and Orange Line trains and continues to equip trains with rail de-icing equipment. Yearly testing of all equipment has been designed into normal vehicle inspection and will take place as part of the Winter Preparedness Drill.

To further enhance the T’s efforts to operate as reliably as possible during winter conditions, the T this year added a 1.5 megawatt portable generator, which is capable of temporarily replacing the traction power feed at a substation. This is the first time the T has had an important tool such as this.

Even with this continued emphasis on winter preparation and resiliency, the MBTA continues to prepare employees for incidents dealing with snow, fire, smoke, security situations, or other disruptions. Increased training and focusing of customer disruptions has become the center of the Emergency Preparedness program.

Other Extreme Weather Events and Impacts of Climate Change

Anticipating the impacts of climate change in Massachusetts, Governor Baker issued an Executive Order in 2016 that requires state agencies to identify vulnerabilities to climate change that may interfere with each organization's ability to function efficiently and provide critical services.

The FMCB recognizes that the MBTA's operations, services, and infrastructure assets are unquestionably sensitive to both short-term intense weather events and long-term incremental changes in climate. In coming decades, risks from extreme heat events, heavy rainfall, winter weather, storm surge, and sea-level rise need further examination. Based on recent climate models for the region, the Boston metropolitan area will experience sea-level rise of three to seven feet and as many as 90 extreme heat days each year. Intense rain events are also trending upward.

In its Strategic Plan, the FMCB directed the MBTA to assess system-wide vulnerability to climate and weather stressors. As a result, the MBTA has begun to take steps to embed climate resiliency into its activities so as to help make the system more resilient to the impacts of global climate change. These steps, which are now underway, include:

- Integrating cost-effective climate change adaptation planning, implementation and reporting into all operations, financial planning, and key agency functions;
- Embedding resiliency into capital programs by incorporating future projections for extreme weather and climate risk into all project development;
- Developing and using climate risk vulnerability assessments to identify critical locations in the transit system. The MBTA has conducted a climate change vulnerability assessment of the Blue Line and will shortly begin assessments has plans to conduct similar assessments for the entire MBTA system.

The MBTA will continue conducting vulnerability assessments, identifying critical vulnerabilities among T assets and services, and pursuing resiliency planning to minimize such vulnerabilities. The MBTA will utilize the vulnerability results to prioritize resiliency measures for the most vulnerable assets and services. Resiliency measures may be incorporated into existing capital projects and may occur as new resiliency-focused projects. The MBTA expects the vulnerability assessments and resiliency projects to be iterative as new information on climate risk and the system's State of Good Repair becomes available.

Resiliency planning may leverage newly available funding from the MBTA's Sustainability Bonds, which may also encourage the prioritization of projects that reduce the Authority's risk to weather and climate stressors. The MBTA will train Capital Delivery project managers on the processes for incorporating resiliency into project design and will introduce resiliency as a standard consideration in to policy and planning documents moving forward. Following the approval of this policy by the FMCB, the MBTA will continue pursuing CCVAs and will identify new opportunities to incorporate resiliency into key Authority functions and capital projects.

Additional Preparedness Measures

The MBTA must be prepared for all emergencies, weather and otherwise. The MBTA has held multiple drills to improve employee awareness and communication relating to train evacuation.

In April 2017, the MBTA and MassDOT hosted a security screen workshop with Boston Harbor Cruises, U.S. Coast Guard, TSA, and other stakeholders to identify ways to enhance security screening and other measures during periods of elevated threats to the MBTA system or the region as a whole.

In October 2017, the MBTA, MassDOT, MEMA, Keolis, Pan Am Railways, the Town of Ayer and numerous surrounding communities conducted a commuter rail drill simulating a collision between a passenger train and a freight locomotive. The exercise required the evacuation of more than 120 passenger volunteers, many of whom were assigned simulated injuries. First responders were challenged to conduct firefighting operations, victim extrication, scene security, environmental hazard mitigation, and establishment of incident command.

This month, the MBTA and MassDOT will conduct their annual subway drill, consisting of a simulated subway train derailment at the MBTA's state-of-the-art Emergency Training Center. As part of the exercise, about 50 volunteers will simulate being trapped or injured in a subway train. Boston Fire, Boston EMS, and the MBTA Transit Police will join MBTA Operations as they respond to the incident, coordinate to identify and utilize the nearest emergency exit, evacuate injured and trapped passengers, and also film the exercise to create a future training video for first responders.

Looking to calendar 2018, the T will conduct further emergency preparedness exercises, with a particular emphasis on active shooter and security incident response and coordination. Planned or proposed activities that may incorporate this theme include a ferry discussion workshop, a subway evacuation drill, a commuter rail evacuation drill, and a full-scale ferry active shooter exercise.

Incident Response

In order to prevent customer disruptions, After Action Reviews (AARs) have been conducted for incidents requiring service disruption, rules violations or operational deficiencies. Eighteen AARs have been performed as part of this program, with assigned corrective actions tracked for remediation by relevant departments. Corrective actions are reviewed monthly and are discussed at various senior management meetings.

One corrective action from such meetings was to establish coordination meetings of incidents requiring response by the Boston Fire Department. These monthly reviews have led to numerous changes to the relationship, including emphasis of the ICS command structure, standpipe testing procedures and signage coordination. The MBTA and Boston Fire Department continue to implement joint changes to standard operating procedures, ensuring all roles and responsibilities are clearly defined when responding to an incident. Both parties have agreed to more regularly scheduled table top exercises to work on station and facility specifics.

Employee Training

The MBTA continues to train employees through its Security Awareness and Emergency Preparedness course. This covers an overview of the National Incident Management System, ICS, emergency communications protocols, emergency evacuation procedures, suspicious package training as well as an active shooter module. The training is offered as a day-long course to front-line personnel and has been shortened for presentation to all employees.

Further Employee Outreach

MBTA front-line workers, from CSAs and operators to commuter rail conductors, face a range of challenges. Providing them with proper facilities, essential tools, and more timely communication resources will help those workers provide the highest level of service to T riders.

Recognizing that increasing morale and enhancing communication among front-line workers contributes also to an improved customer experience, FMCB Director Monica Tibbits-Nutt last year initiated a series of outreach efforts to T employees in order to make them feel heard and to collect the kind of first-hand feedback that can help improve riders' experience. The outreach included informal gatherings at area garages, where employees could speak about concerns, questions, and issues that matter to them.

The major feedback collected during this outreach included:

- Some operators indicated a desire to change current uniforms to provide greater comfort and seasonal versatility;
- The condition of break areas and their furnishings--which bus and train operators use during split shifts to rest, eat, stay warm in winter--was found in many cases to be subpar;
- Technology and equipment for employee communications was either lacking or out-of-date, including the equipment necessary for workers to receive news, weather, traffic information, alerts, and important information from the Authority. Such information helps employees feel more included and better informed and thus able to do their jobs better.

Responding to what employees had to say, the FMCB approved the use of pay-go capital in May 2017 to act on some of this employee feedback. Some operating funds are being used to purchase new uniforms, upgrade employee breaks areas, and procure better communications technology. Other planned employee-facing improvements include new fitness equipment in various locations and more nutritional options in work areas.

While these employee improvements continue, GM Ramirez is also initiating a series of steps to improve workplace safety across the Authority. The FMCB supports and looks forward to updates about these efforts.

V. Management

Looking Back: From The Governor’s Special Panel Report of 2015:

Key Findings:

- “The MBTA has been hobbled by frequent changes of leadership, significant vacancies, looming attrition, and organizational insularity.”
- “The MBTA is largely ineffective in managing its work due to weak workplace customs and practices.”
- “MBTA procurement and contract management is inefficient and decentralized.”

Key Recommendations:

- “A thorough review should begin promptly of personnel policies, hiring practices, and management training.”
- “The MBTA should develop a plan to substantially reduce absenteeism.”
- The MBTA should centralize agency procurement and contracting with a new procurement office for both MassDOT and the MBTA.”
- “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.”

Progress since 2015

The T has greatly improved its organizational capacity, reorganizing departments and taking significant steps to attract and retain the talent it needs to complete the Authority’s transformation. The T has updated and strengthened its Human Resources operation, leading to significant improvements in workforce productivity. And careful and deliberate use of the temporary waiver from Pacheco Law requirements has led to both reduced costs and improved service.

- Senior management at the T has been revitalized, with 70 percent of the senior leadership team joining the T within the last two years;
- The T has sharply reduced how long it takes to hire new employees. A hiring process that took an average of 137 days per hire in 2015 is now down to about 70 days;
- Reorganizing and strengthening T human resources department and procedures, including the use of a Third Party Administrator, has helped to reduce absenteeism and overtime, not only reducing costs, but reducing service disruptions;
- Improved efficiencies and cost savings from deliberate use of the Pacheco waiver include:
 - **Cash processing:** MBTA money is now collected, processed, and deposited more efficiently and cost-effectively. The time it takes to deposit funds collected has been reduced by 80 percent and monthly cash processing costs have dropped from nearly \$1 million to under \$300,000.
 - **Warehouse and logistics operations:** T mechanics now get the parts they need to keep the T fleet running much more quickly and the MBTA has avoided the need to invest capital dollars in a new warehouse facility to replace its own dilapidated facilities.

Looking Ahead

The Strategic Plan calls for the T “to continue to develop a procurement process that serves Operations,” including implementation of “strategic sourcing initiatives [and] latest industry procurement practices.” It also calls for the T to “improve productivity and cost-effectiveness through a combination of changing internal business practices and work rules, and using private sector contracts and partnerships.”

A. Workforce

Of all the pieces required to transform the MBTA into a premier transit agency, none is as critical as the people who operate, maintain, and manage the system every day. Making the system more reliable today and achieving tomorrow's strategic priorities cannot happen without T managers and employees who are motivated, productive, well-trained, and appropriately compensated.

While challenges remain, the FMCB can report further improvement in both the productivity of MBTA employees and in making the MBTA's Human Resources department more efficient and effective. New leadership is now positioned to build upon the progress made in the last year, including developing and implementing strategies to attract and retain talent for the MBTA.

Transforming the Human Resources Department

To move the HR department forward, the MBTA's Human Resources Management team underwent an almost total turnover in late 2016. Led by a Chief Human Resources Officer and Deputy Director who began work in August 2016, the new management team includes another Deputy Director of HR, a Manager of Staffing, a Manager of Benefits, a Manager of Organizational Analysis HR-CRM, a Manager of Compensation, a Manager and Assistant Manager of ADA and Leaves, a Compliance Analyst and Project Administrator, and a Human Resources Business Partner. This leadership team is putting in place best business processes to streamline and create efficiencies.

This chart highlights the key workforce and other HR developments described in this section:

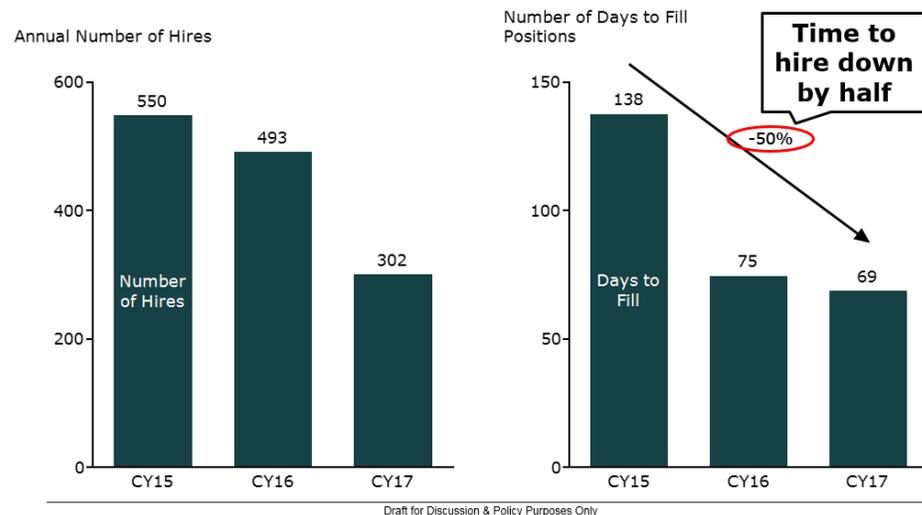
	Value	June 2015	June 2016	Dec 2016	Sept 2017
WORKFORCE REDUCTION	\$15M savings in FY17 and \$25M in FY18	Lack of position control	\$13.3M annual recurring savings	\$16.5M annual recurring savings	\$35.5M net salary reduction/\$50M total including fringe
TIME TO HIRE	Quicker recruitment of talent	Excessive time to hire	35% Improvement over CY 2015	45% Improvement over CY 2015	An additional 8% Improvement YTD CY2017 vs CY2016
ABSENCE MANAGEMENT	Reduce impact on customers	Absenteeism negatively affecting rider experience	23% reduction	18% reduction	10% reduction
OVERTIME MANAGEMENT	Operating budget savings	Excessive OT w/ insufficient controls	40% reduction	26% reduction	19% reduction
COMPENSATION	Ensure talent is appropriately compensated	Compensation strategy missing	Building overall strategy for FY17	Conducted internal study to identify parity risks, RFP issued , Vendor selected	From internal study, 10 salary adjustments were made in March 2017 and 52 in July 2017
PERFORMANCE MANAGEMENT	Hold employees accountable for their performance	Inconsistent use of P/M	Hold managers of people accountable. Develop training program to launch in September 2016	473 Managers & Supervisors trained so far. Classes continuing monthly	570 Managers & Supervisors trained with an additional 50 scheduled before the end of CY2017
LEAVE MANAGEMENT	Sustain gains in absence management with regards to leave management	Auditing	RFP, formed partnership with WorkPartners	Launched Pilot Program - 9/1/16 with 1500 Employees	Phase I - 1/15/17, Phase III – 2/19/17, Phase III – 3/19/17 Completed entire outsourcing for 6520 Employees
HR STRATEGIC INITIATIVES		No Formal Strategic Initiatives in place			Launched Branding Initiative and our JOIN-STAY-GROW Campaign
TECHNOLOGY	Improve internal customer experience & reduce human input errors with self service	Unfunded technology roadmap	Conduct Fit/Gap Analysis for Migration	GO LIVE 1/1/17 Reviewing lessons learned & plan for next phases	Full Organization Migration completed in July 2017

Filling Vacancies, Reducing Time to Hire and Critical Talent Hires

In 2015, the MBTA hired 550 employees, requiring an average of 137.5 days per hire. In one of its first moves, the FMCB called upon the MBTA to reduce the time-to-hire, setting a target of 100 days for the time-to-hire in 2016. The MBTA exceeded that target, hiring 493 employees in an average of 75 days, a decrease of 45 percent over calendar 2015. The FMCB then set a new target of 90 days for calendar 2017. Through the first three quarters of, the time-to-hire already meets that goal and continues to decrease, with 302 employees hired in an average of 69 days.



Annual Hires and Time to Hire CY15-17



Absenteeism, Leaves Management and Overtime Management

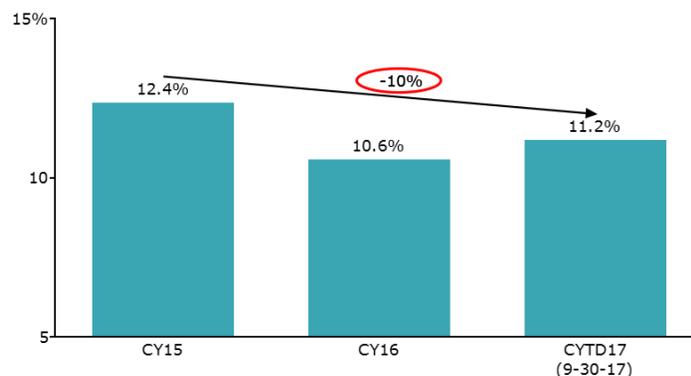
Absenteeism: Further progress has been made toward improving the MBTA’s management of employee absences, particularly unscheduled absences, which result in dropped trips that inconvenience customers and cause higher operating expenses due to overtime.

Though unscheduled absences still create occasional disruption for system users, the unscheduled absence rate for transportation operators must continue to decline as the T does a more consistent job of enforcing its attendance policies. For all of 2015, the T terminated 32 employees for attendance violations. In 2016, there were 24 terminations and 48 terminations for this reason during the first nine months of 2017 as the T holds employees accountable for their attendance.



Declining trend of unscheduled absence rate for Transportation Operators CY15 to CYTD17

Unscheduled Absence % - Transportation Operators



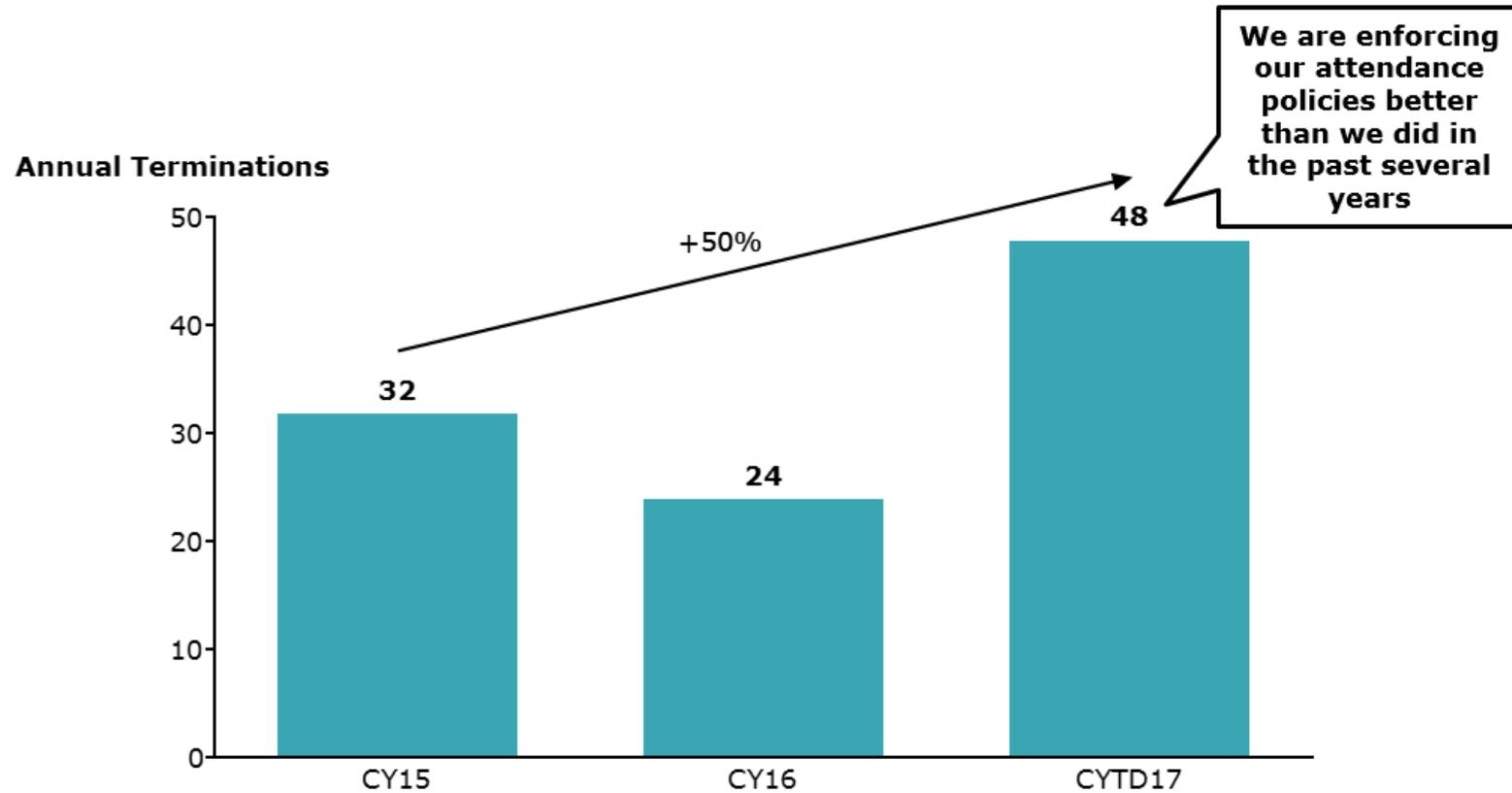
Source: Internal MBTA data

Note: Transportation Operators include the titles of FT & PT Bus Operators, RTL Motorpersons, Streetcar Motorpersons

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Annual Terminations for Violations of Attendance Policy



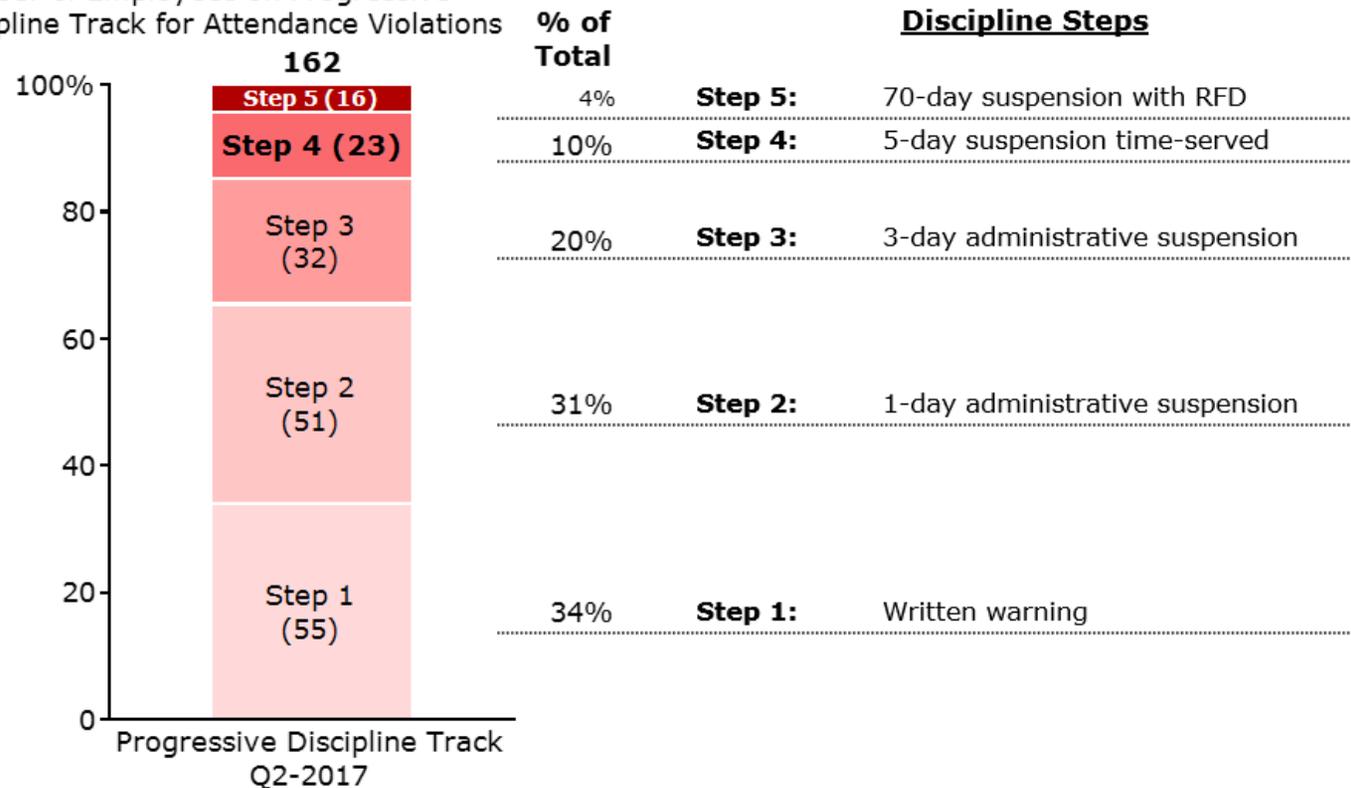
Source: Internal MBTA data

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More than 70 employees are currently in steps 3, 4 and 5 of progressive discipline for violating attendance policy during Q3 of 2017

Number of Employees on Progressive Discipline Track for Attendance Violations

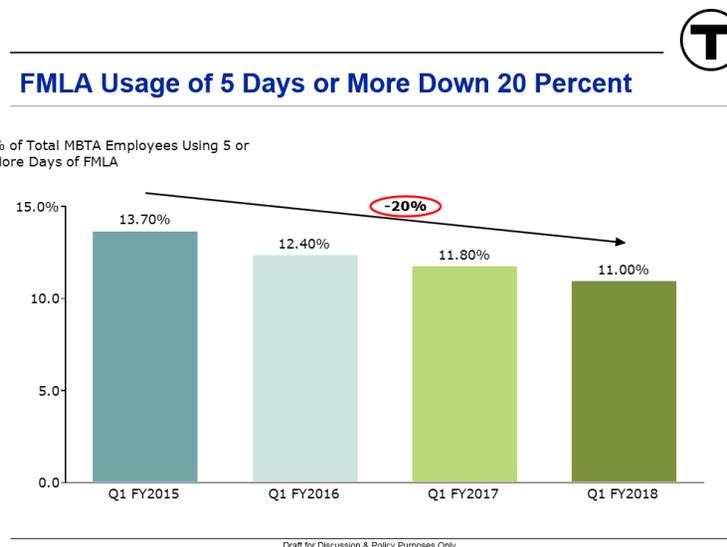


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Leaves Management: The MBTA formed a partnership with WorkPartners to provide third-party administrative capabilities to sustain the gains in absence management with regards to leave management. The Pilot Program began on September 1, 2016, and with a very aggressive timeline, the entire outsourcing of leave management for about 6,520 employees was completed by March 19, 2017. Once the full organizational roll-out was completed, the focus was to maintain data integrity and reconciliation as well as ongoing reporting and evaluation of key metrics.

The percentage of “pending” requests for the Family and Medical Leave Act (FMLA) fell from 22 percent to 10 percent, reflecting quicker processing time of requests; the percentage of “denials” went from 25 percent to 50 percent, showing more scrutiny of requests for leave and ensuring that the leave request actually qualifies and the time requested is reasonable to the condition.

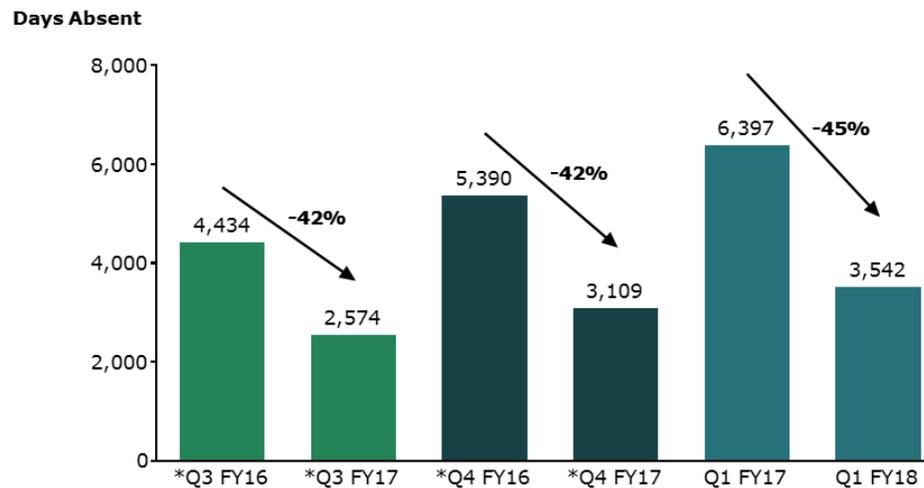
These numbers reflect a better process with the Third Party Administrator than would have occurred had the T continued to manage FMLA in-house.



The outsourcing of Leave Management for FMLA, the Small Necessities Leave Act, and Military and Parental Leave enabled the HR Absence Management Team to have the time necessary to focus on continuous leave as an accommodation under the ADA. More cases are closing and employees are getting back to work sooner.



Case Management: Continuous Leave as an Accommodation under ADA, 2016 vs 2017



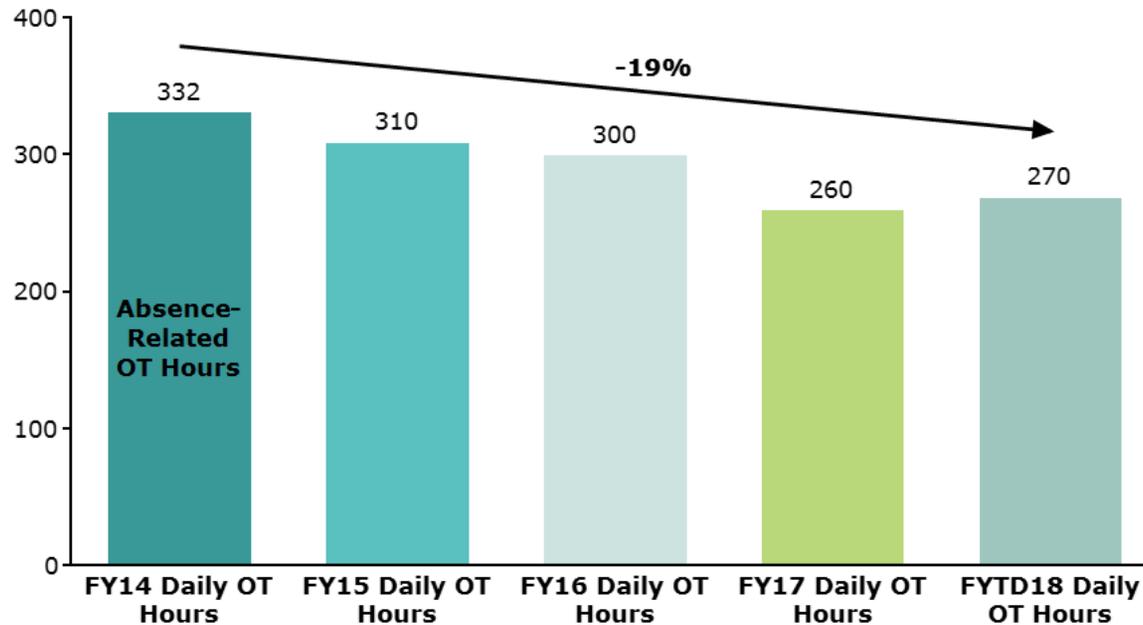
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Overtime Management: As noted in earlier FMCB annual reports, another key challenge at the MBTA had been the excessive use of overtime, with insufficient controls. With more effective policies and procedures now in place, the overall use of overtime must continue to trend down.



Average Daily Absence-Related Overtime Hours are Flat Year-over-Year and Trending down when compared to past years

**Average Absence Related OT Hours per Day
(Operators)**



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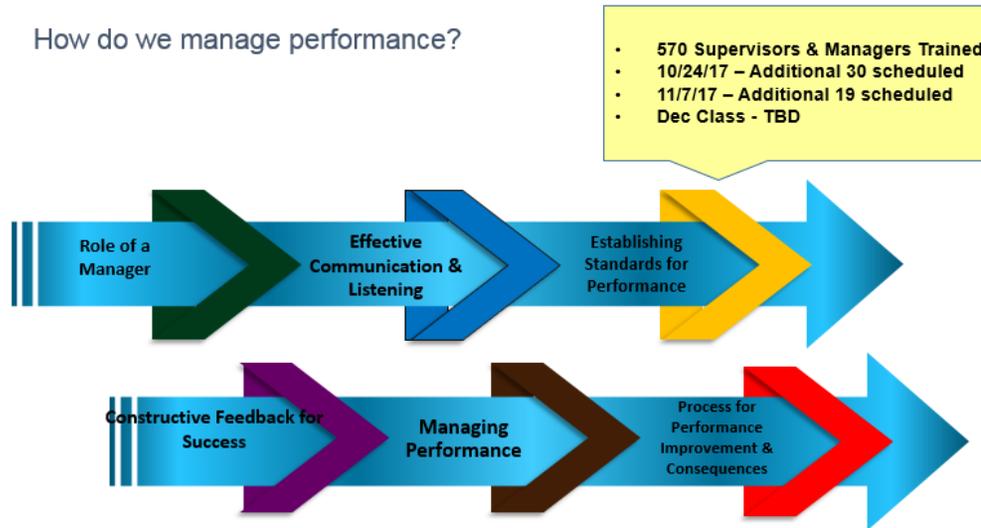
Compensation: Approach to the Talent Challenge

In addition to hiring qualified new employees, the T must build upon and expand the pool of talent already working for the Authority. To that end, the MBTA is taking a disciplined approach to Talent Management and Succession Planning to ensure that a pipeline of “Ready Now” talent is available. This requires both a culture of learning and development to help future leaders grow within the organization and a good compensation approach to attract, retain and motivate people. These goals were accomplished in several phases:

- January-July 2017: The T developed an understanding of its current compensation of top leadership and identified parity risks through an internal study. Based on that study, 10 compensation adjustments were made in March 2017 and an additional 52 salary adjustments followed in July 2017.
- January - July 2017: An RFP was issued for a formal compensation study to help set a baseline view of how MBTA pay levels compare to market. Interviews were conducted and the vendor (Mercer) began work in June 2017.
- January - August 2017: Talent Management. The T developed and implemented a Talent Management Process to identify high-potential talent and develop plans to invest in them. A Succession Planning process is being developed to ensure a pipeline of “ready-now” talent to ensure continuity of the MBTA.
- September - December 2017: Review of Mercer Study. This last phase of the process will review the pay philosophy and initial results of the Mercer Study.

PERFORMANCE MANAGEMENT TRAINING

How do we manage performance?



HR Strategic Initiatives

HR is currently working on five strategic initiatives:

Branding: As it moves towards a “People First” approach to HR, the T needs to create and convey a value proposition that compels individuals to JOIN-STAY-GROW

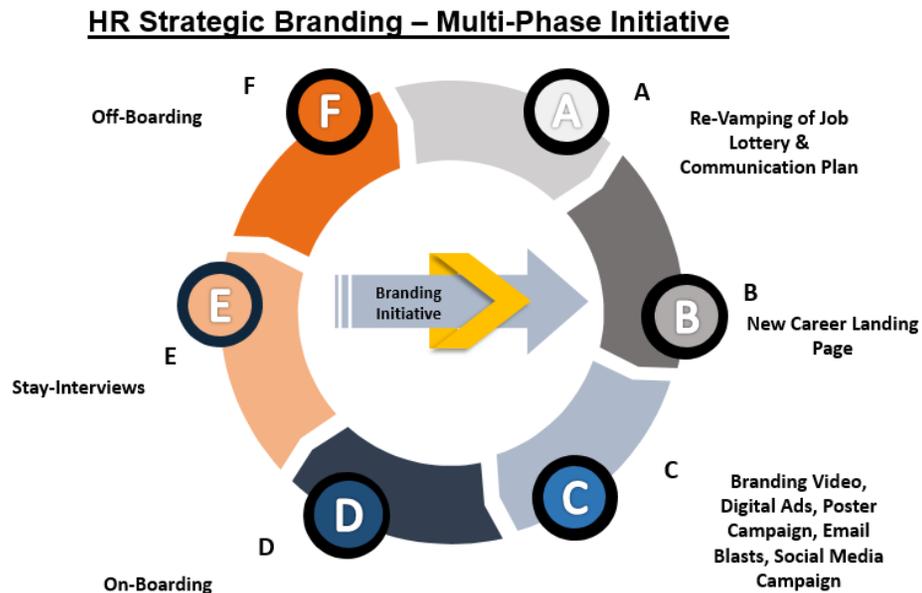
Workforce Development – Talent Review and Succession Planning: The goal is to build sustainable leadership bench strength by assessing, selecting, developing, retaining and engaging the future leaders and critical talent of the Authority.

Talent Management: Design a competency-based Management and Supervisory Certificate Program.

Talent Acquisition: Identify and define career ladders leading up to the critical positions identified by the Strategic Planning team.

Process Simplification: Implement a centralized process that is easily trackable and ensures critical steps have been completed; provide clear guidance to managers regarding the hiring process, timelines, roles and responsibilities.

The “Branding” initiative was launched in January 2017 with the revamping of the Job Lottery, followed by launching a new Career Landing Page that is visually attractive to candidates and allows them to experience a bit of the MBTA prior to filling out an online application. The Career Landing Page includes a video that features MBTA and MassDOT employee testimonials on why they decided to join, why they continue to stay, and how they’ve grown in their careers.



DIGITAL – JOIN STAY GROW BRANDING ADS



The long-term phases of the branding initiative are:

- On-Boarding – how someone is welcomed into the organization is very important. The T needs to reinforce that candidates made the right choice to work for the T.
- Stay Interviews – quick check- to ensure new employees are comfortable within their roles and have the tools and equipment to be successful.
- Off-Boarding – Should employees decide to leave for one reason or another, they should leave the same way we welcomed them into the organization – with a well-coordinated and articulated process.

Need to Upgrade HR Technology

Last year's annual report noted the problem of "antiquated human resources technology." The MBTA's current HR technology remains inadequate not only for the department's internal processes, but for MBTA employees.

The MBTA and the Commonwealth entered into a partnership to align human resources/payroll processes and systems to:

- Facilitate transactional to strategic transition of human resources and payroll processes;
- Increase efficiency and accuracy for benefits processing and administration (e.g., automated integration with GIC to reduce human input errors);
- Accelerate implementation timeline compared to other options.

Employees will have access to "Self-Service" upon implementation to:

- Simplify benefits enrollment and administration (real-time);
- Eliminate paper timecards and allow online approval by supervisor;
- Provide online access to leave accruals and pay advice (any time and any place).

The initial phase was implemented on January 1, 2017 for a portion of the workforce. After reviewing lessons from that initial phase, the T's full organizational migration was completed in July 2017.

Payroll Reduction Program

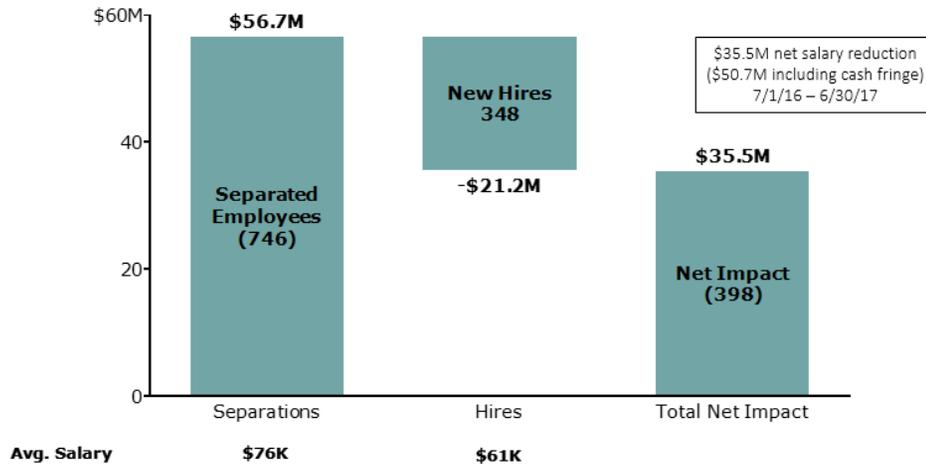
With the MBTA facing serious financial challenges, the T set a goal to save \$25 million in wage costs -- the equivalent of about 300 positions -- on an annual basis through voluntary incentive programs. Achieving this goal is a critical step in realigning the T's organization with current budget reality.

In FY17, the MBTA realized a headcount reduction of 398 employees with a \$35.5 million net salary savings and \$50 million in fully loaded net cash savings.

Bending the cost curve: Streamlining workforce

Annual value: \$51M

MBTA Separations / Hires
Salary (\$ Millions)



B. Reorganizing MBTA Operations

The FMCB and MBTA management have focused on attracting new talent with high-level skill sets to help drive the transformation of the Authority. Indeed, of the top 50 salaried management positions, 35 have been hired since the FMCB began its work in 2015.

With new leadership in place and operations realigned, the T is now better able to coordinate operations across divisions and functions and to more systemically move the system forward. While new positions were created in some instances, most of the positions below were filled with new leadership.

Critical new hires start with a permanent general manager but, as shown in the graphics below, run up and down the organization as the Authority acts to significantly improve and expand its “bench” of skill sets, with the right people to exercise them. Even as the T seeks to trim its head count where possible and where such moves do not undermine service, the T is also adding people to critical positions.



Administrative “Critical Hires” July 2016 – October 2017

Position	New Hires	Position	New Hires
<i>Administrative</i>		Director Vendor Management	1
General Manager	1	Director Contract Mgmt	1
Chief Human Resources Officer	1	Director of External Affairs	1
Dpty Director of HR	2	Director of Labor Operations	1
HR - Manager of Benefits, Manager of Compensation, Manager of Staffing, Manager of ADA & Leaves, Manager of Org Analysis & HCMS, Assist. Mgr of ADA & Leaves	6	Director Special Projects	1
Chief Customer Experience Officer	1	Director Cost Ctrl & Lean Strategy	1
Director Financial Analysis & Plan	1	Dpty Director Advertising	2
Director Commuter Rail Strategy	1	Dpty Director IT Risk Mgmt	1
Director Sr. Veh Fleet Maint	1	Dpty Director Applications Dvlpmt	1
Director of Revenue	1	Dpty Director Financial Strategy	2
Director Transp. Innovation	1	Dpty Chief Procurement Officer	1
Director Flexible Contracting	2	Dpty Chief Real Estate	1
Director Labor Relations	1	Dpty Dir Fare Product/Policy	1
Director Parking	1	GLX Program Council	1
Director of Payroll	1	Manager of IT Systems	1
		Manager Perf Data & Tech OPMI	1
		Analysts (Sr. Innovation, Budget, Labor, Vendor, Data & Project)	10



Capital Delivery and Capital Program Oversight “Critical Hires” July 2016 – October 2017

Position	New Hires
Capital Delivery	
Deputy AGM, Commuter Rail Programs	1
Senior Director, Bridge & Tunnel	1
Director of Administration	1
Project Manager, Commuter Rail	1
Resident Engineer	5
Construction Inspector	5
Project Coordinator	1
Change Order Analyst	3
Executive Assistant	1
Capital Program Oversight	
Senior Director, Capital Planning	1
Senior Director, Project Controls	1
Senior Manager, Federal Programs	1
Budget Analyst	2

Position	New Hires
Green Line Extension (GLX)	
GLX Program Counsel	1
Director of Administration	1
Deputy Program Manager of Design	1
Director of Construction	1
Deputy Program Manager of Legal	1
Project Coordinator	2
Engineer	8
Senior Budget Analyst	2
Safety Manager	1
Change Order Analyst	1
IT Support Coordinator	1
Document Control Manager	1
Administrative Assistant	2



Operations “Critical Hires” July 2016 – October 2017

Position	New Hires
Operations	
Director E&M Training	1
Director Transit Facility Maint	1
Director Power Systems Maint	1
DCOO – SvcPI & Strategy	1
Sr. Director Vehicle Maint & Strategy	1
Deputy Director-System Safety & Eng.	1
OCC Operations Info Officer	2
Supervisor Signals & OCC Systems	1
Manager Workforce Plan & Admin	1
Manager Tech Projects – P&S	1
Manager Security Projects	1
Manager Tech Projects – Veh Eng	1
Supervisor Subway Transportation	1
Supervisor Bus Transportation	3
Supervisor Maint of Way	2
Supervisor Vehicle Schedules	2
Supervisor Transm & Dist Ops	2

Position	New Hires
Supervisor Signal Maint	1
Supervisor Electrical Maint	1
Supervisor Workforce Logistics Suppt	1
Supt Cleaning & Maint	1
Supt Maint (Rapid Transit)	1
Engineer – PSM Transm & Distbtn	3
Engineer – Maint. Of Way	3
Engineer – Heavy Rail Maint.	3
Power Dispatcher – Pow Sys Main	1
Line Foreperson(s) - Pow Sys Main	2
Wire Foreperson(s) - Pow Sys Main	2
Night Main Foreperson – MOW	1
Rail Repairer(s)	12
PTMP PT MotorPerson	26
PTO PT Bus Operators	193
PTSO PT Street Car Operators	42



Safety “Critical Hires” July 2016 – October 2017

Position	New Hires
<i>Safety</i>	
Director Safety Engineering	1
Deputy Director Safety Oversight	1
Dpty Director System Safety Eng-Sys	1
Dpty Director Safety & Engineering	1
System Safety Specialist	4
Safety Analyst	1
Safety Audit Coordinator	1

C. Improving procurement and contracting

The MBTA works with an array of partners to support operations, including human resources, financial management, procurement, information technology and communications, marketing and advertising, and real estate management. Several of these functions are managed through long-standing relationships with third-party private vendors whose focused industry expertise supports better and more efficient operations. In some cases, including commuter rail, The RIDE, ferries and several bus routes, service delivery itself is contracted out. All Regional Transit Authorities contract out their bus operations and most out-source maintenance.

Over the past year, the T's reorganized procurement has been working to improve T procurement through a variety of business process and technology changes.

One of the technology-focused improvements is a new e-bidding platform called FairmarkIT. This pilot was designed to make more efficient and transparent the procurement process for T purchases, the vast majority of which are for goods or services worth less than \$50,000 (the T spent \$378 million on purchases in FY17). Historically, these small purchasing processes were inefficient and difficult to monitor and manage. Quotes were not electronically stored. Vendor information was not shared across buyers and inviting new bidders into the process was cumbersome and time consuming. And in general, the system lacked transparency.

By contrast, the FairMarkIT online public bidding system stores electronic quotes, stores vendor purchasing history in a central location, simplifies the process of inviting new bidders, and it is completely open for new bidders to enroll themselves. This means that more vendors can do business with the T and the T's procurement professionals have access to the information and tools they need to make responsible, informed, decisions, including historic purchase history. The platform, which is open and available to anyone through mbta.fairmarkit.com, gives the buyers the information and negotiating leverage they need in order to make informed purchasing decisions.

In addition to major process improvements for these relatively low-dollar yet high-volume purchase orders, FairMarkIT provides data analytics the T can use to help make strategic purchasing decisions and to detect price aberrations and certain procurement risks. In the future, the T hopes to be able to use this platform to better target qualified small and disadvantaged businesses.

As of early November, 2017, the T has completed 550 bids using FairMarkIT during the pilot phase and has incorporated a number of key process improvements that strengthens the Authority's ability to get competitive bids and measure performance and risk using the platform. The just completed pilot phase of this project saw promising results: Initial estimates suggest an increase in efficiency of about 15 percent and revealed an average historical price variance of nearly 30 percent.

Other actions taken in the past year to improve procurement include:

Electronic Purchase Order

The T's first fully electronic Purchase Order approval process went live last month. This will streamline and standardize the purchase order process, which in the past often involved four separate steps, including manually carrying hard copy purchase orders from place to place for signature.

Purchase orders now go through the same steps for proper approval and signature, but now these steps are all handled through the online portal, which can also retain better and real-time data on purchase orders issued or in process.

Clearer, More Consistent Procurement Processes

The T has now implemented a standardized system for all procurement requests that all T employees can access. This improves on past practices, where requests for information were handled in often uncoordinated and time-consuming ways, such as phone calls and emails between end-users and buyers. All T buyers have now been trained to be able to give end-users accurate, up-to-date information and the proper steps to follow in order to create the proper solicitation for the type of good or service requested.

To further improve the procurement process, the T has also streamlined documentation requirements from vendors. An MBTA “Invitation to bid” used to be a 67-page document, requiring up to 16 signatures. Now it is less than 20 pages and requires just two signatures. This system is not only more saving operating costs for the T; it also makes the process of dealing with the T more user friendly for current or potential vendors.

Using conservative estimates, these combined process improvements decrease the time from procurement to paying for that procurement by almost 40 percent. And the T is saving more than 60,000 pieces of paper annually, enough to fill two MBTA buses.

Combined Purchasing Power

The T began the first phase of aligning the MBTA with statewide contracts and using statewide pricing to achieve efficiencies and cost savings in October, 2016. Aside from cost savings, entry into the state purchasing system has created an electronic system that enables the T to post bids that anyone can see and access. And compared to the past system, where everything was on paper and thus difficult to search and track, CommBuys enables T staff to more easily and efficiently track and retrieve the procurement records upon request.

Further Improvement Needed

These steps all mark significant progress and set the stage for more efficient, cost-effective, and innovative procurement practices and actions going forward. At the same time, however, the T continues to face challenges when it comes to monitoring and enforcing contracts that have already been procured and implemented. Improving the T's ability to properly develop and oversee contracts will remain a major focus of this Board in the year ahead. Among other things, T management needs to:

- Establish a consistent template for all T contracts, with clear standardized provisions, such as termination rights, reporting requirements, and penalties for failure to perform;
- Continue to hire sufficient staff to help develop, implement, and oversee contracts.

Even as the FMCB continues to work with T leadership to improve contract management, it also looks forward to further progress on improving the T's procurement systems and processes.

D. Provisioning of Services

The systemic collapse of the MBTA two winters ago year forced attention on the Authority's problems and produced the political will to resolve them. One effective tool for bringing real and lasting improvement to the T has proven to be the three-year exemption granted to the MBTA from the requirements of what is commonly known as the Pacheco Law.

In September, the T filed an annual report with the General Court on the use and effectiveness of the Pacheco waiver. This section presents highlights from that report, the full version of which is available at: <https://d3044s2alrsxog.cloudfront.net/sites/default/files/fmcb-meeting-docs/reports-policies/2017-annual-report-to-legislature-pacheco-law-waiver.pdf> .\

The report notes the waiver's benefits beyond cost savings and more efficient operations, as detailed in this report. "The process of developing Requests for Information and Requests for Proposals has required the Authority to comprehensively review entire business processes from beginning to end," the report says. "Even when it does not result in outsourcing, the availability of the waiver has caused the Authority – and its unions – to examine and rethink internal processes and operations in ways that had rarely if ever happened before."

Specific actual or potential uses of the waiver include:

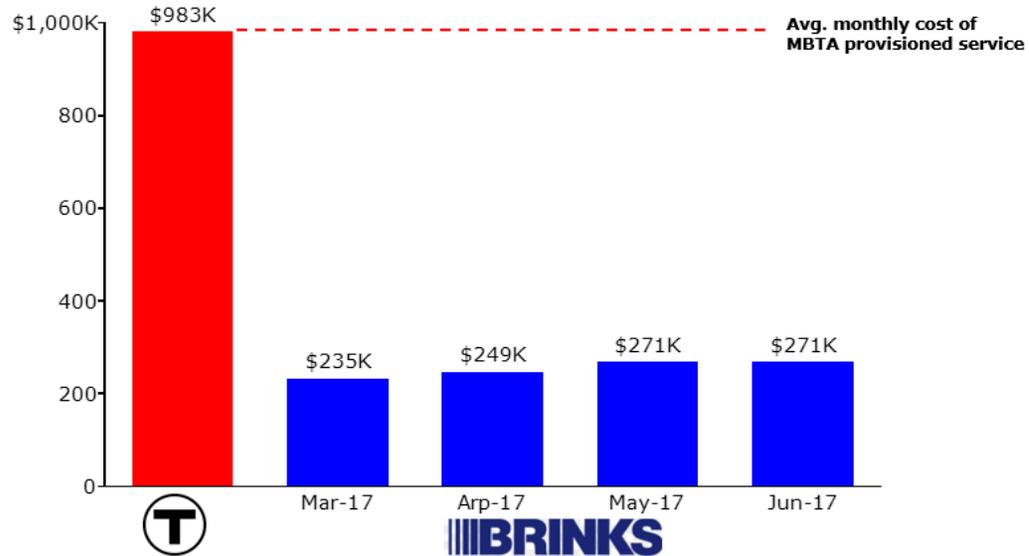
Overtime and absence management: Contracting for a Third Party Administrator has helped the T reduce overtime expenses and absenteeism. Better leave management has led to better performance for customers, with trips cancelled because of operator FMLA absence declining 18 percent in FY2017 compared to FY2016.

Cash collection and processing: As a result of contracting out cash operations, MBTA money is now collected, processed, and deposited more efficiently and cost-effectively. Time from collection to deposit has been reduced by 80 percent at the same time that monthly costs have dropped from nearly \$1 million to under \$300,000.



Cash handling contract management: March - June 2017 actuals

Cost of Cash Handling

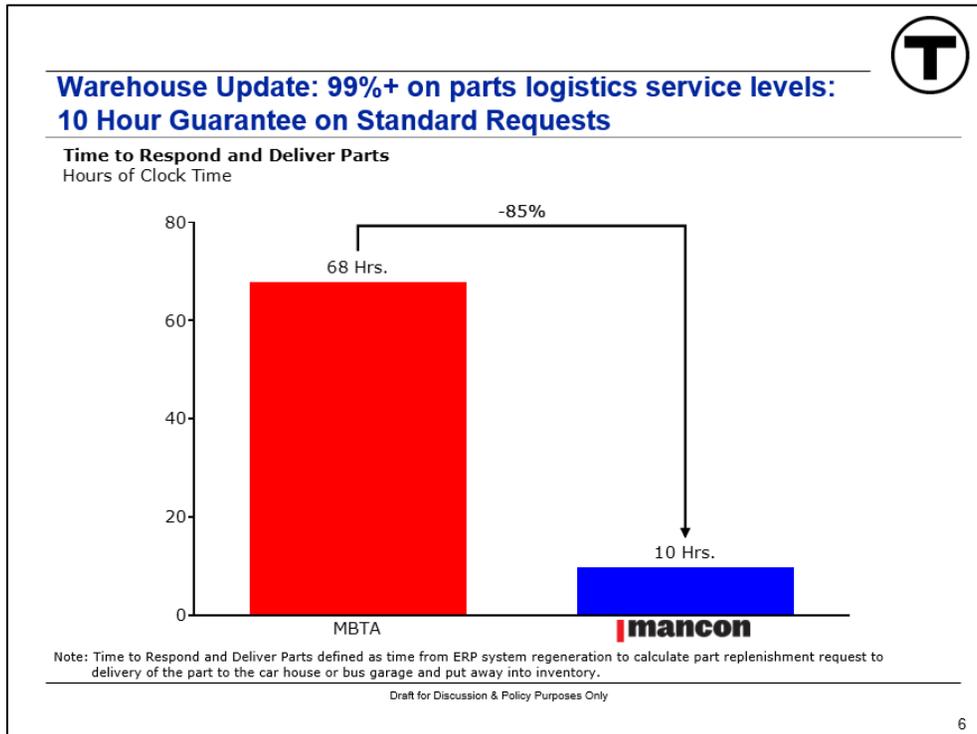


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*money room fully loaded

Jun-17 included 2% Incentive added to Transportation invoice for exceeding Performance SLA

Warehouse and logistics operation: Outsourcing this critical function has ensured that T mechanics now get the parts they need to keep the T fleet running much more quickly while avoiding the need to invest MBTA capital dollars in a new warehouse facility to replace the dilapidated Everett warehouse. Under the contract with the vendor, Mancon, fully loaded costs to the T have dropped by more than 40 percent.



Customer service call center: A contract signed in June 2017 will provide the T with state-of-the-art call center technologies designed to improve customer experience and reduce call volume while cutting costs by more than half over five years. The contract will expand weekday hours and provide weekend customer service, which had been discontinued through the in-house call center due to budgetary pressures.

Customer Service Agents program: This contract, currently being phased in, will deliver improved customer service with “transit ambassadors” in stations using tablets and other technology to more quickly provide accurate information to customers and report system issues to T operations. Once fully implemented by FY2019, the contract is expected to save the authority \$4 million annually.

Police Dispatch: Operation of the Transit Police dispatch center has been transferred to a professional civilian staff, returning about 15 transit police officers to the streets.

Automated Fare Collection (AFC 2.0): In November, the FMCB approved a contract to implement a new automated fare collection system that will enable customers to pay fares using mobile phones and credit cards as well as allowing the T to restructure its fares to be more equitable and affordable while maximizing ridership and revenue. The vendor will design, implement, finance and operate the new system.

Bus Maintenance: Looking ahead to other possible areas of outsourcing, this Board has instructed T staff to pursue a three-part strategy to identify ways to improve the maintenance of MBTA-operated buses in order to improve the reliability of bus service while reducing costs.

The first part of this approach, and the FMCB’s preferred approach, is to achieve cost savings and productivity improvements through negotiations with the unions representing MBTA bus maintenance employees. Those discussions are ongoing.

The second piece of the FMCB’s strategy is to enhance productivity through internal management initiatives, which includes streamlining staffing levels and modernizing business processes. This process has led to improved efficiency at the Cabot garage.

The third component of the three-part approach is to test the market by issuing an RFP seeking bids from private sector leaders to improve bus maintenance productivity while providing safe and reliable service. On July 21, 2017, the MBTA issued a Request for Proposals from vendors to improve bus maintenance productivity while assuring safe and reliable buses for customers.

VI. Conclusion: Completing the transformation

This report has detailed progress in a range of areas, from new leadership and talent to infrastructure improvements to better communication with both system users and employees. Taken together, these and other developments over the last 30 months are clear evidence that a number of plans and actions to complete the T's transformation are well underway.

But the full realization of all this work and efforts is by no means guaranteed. Furthermore, riders want T performance to get better now -- not next year or next decade.

In the years ahead, the FMCB and T leadership must balance furthering the T's long-term transformation with the need to continue immediate improvements:

- With capital dollars and processes in place, the T must further improve how it plans, funds, and manages investments into the system;
- Particular focus must be paid to improving bus service, including on-time performance and route planning and efficiency, with a focus on bus maintenance;
- The T must maintain financial discipline and address pension costs, which represent the fastest growing item in the operating budget;
- Management must continue its efforts to improve productivity through cooperation with labor partners;
- The T must further strengthen its processes for developing, overseeing, and managing contracts with third parties;

- Through Focus40, Service Planning, and other initiatives, the T must consider future opportunities and identify key investments that might accommodate regional growth, including:
 - Better transitions from commuter rail to regional transit;
 - Optimizing water transportation;
 - Working with community and agency partners to accelerate climate resiliency implementation.
- The T must continue building its management team and continue its efforts to attract and retain talent across the organization.

That is a heavy roster of goals. But this Board owes it to T riders, employees, communities, and taxpayers to complete the transformation of the T that began less than three years ago.