



KEEPING ON TRACK

Our Third Progress Report on Reforming and Funding Transportation Since Passage of the Massachusetts Transportation Finance Act of 2013







Written by
Rafael Mares



Produced by
Kirstie Pecci



KEEPING ON TRACK

Our Third Progress Report on Reforming and Funding Transportation Since Passage of the Massachusetts Transportation Finance Act of 2013



Rafael Mares, Conservation Law Foundation

Kirstie Pecci, MASSPIRG Education Fund

ACKNOWLEDGMENTS

The authors thank the following individuals for contributing information or perspectives for this report: Michael Berry, Legislative Director, MassDOT; Susan (Sue) Bristol, MassDOT Fiscal Office; Caroline Cox, Legal Intern, Conservation Law Foundation; Thom Dugan, Director of Finance and Highway Capital Programs, MassDOT Highway Division; Kate Fichter, Assistant Secretary for Policy Coordination, MassDOT; Rob Garrity, Chief of Staff, MassDOT; Scott Hamwey, Manager of Long-Range Planning, MassDOT; Ben Heckscher, Jr., Co-Founder, Trains in the Valley; Arthur Kimball-Stanley, former Counsel, House Bonding Committee, Commonwealth of Massachusetts; Zane Lumelsky, Co-Founder, Trains in the Valley; Jeannette Orsino, Executive Director, Massachusetts Association of

Regional Transit Authorities; Martin Polera, Business Development Manager, MassDOT; Michael Randolph, former Program Assistant, Conservation Law Foundation; Brian Shortsleeve, Chief Administrator, MBTA; Hoai Thuong Tran, Program Assistant, Conservation Law Foundation.

This report was made possible thanks to generous support from the Barr Foundation.

© 2017 Transportation for Massachusetts.

The authors bear responsibility for any factual errors. The views expressed in this report are those of the authors and do not reflect the views of our funders or those who provided review.

TABLE OF CONTENTS

INTRODUCTION	1
EXECUTIVE SUMMARY	2
OUR PROGRESS IN IMPLEMENTING THE 2013 AND 2009 ACTS Completed Requirements Missed Deadlines	5 5
THE FINANCIAL STATE OF OUR TRANSPORTATION SYSTEM Comparison of Actual Revenues and Expenses to Projections for MassDOT Actual Spending compared to Projections for FY15 Comparison of Actual Revenues and Expenses to Projects for the MBTA Upcoming Changes in Revenues and Costs	14 14 16 18 19
NEW TRANSPORTATION INVESTMENTS Review of 2016 and 2017-2021 Capital Plans Transportation Finance Act of 2013 Capital Projects	24 26
SIGNIFICANT SETBACKS	30
CONCLUSION	36
APPENDIX: MA TRANSPORTATION FUNDING FLOW CHART FOR FY15 SOURCES AND NOTES	37
NOTES	40

INTRODUCTION

SINCE 2000, the Commonwealth has recognized and sought to address the deficiencies in its transportation infrastructure, operations, finance, and funding. Significant milestones include the Massachusetts Bay Transportation Authority (MBTA) "Forward Funding" legislation (2000), the bipartisan **Transportation Finance Commission** (2007), the Transportation Reform Act (2009), the Transportation Finance Act (2013), and the creation of the MBTA Fiscal and Management Control Board (2015). Sixteen years later, the problems of our transportation system persist, and transportation continues to be one of the top policy priorities for legislators and the public alike.

This report is the third in a series of **Transportation for Massachusetts** (T4MA) progress reports that keep track of how the Commonwealth is implementing the measures required by the legislature, and the impact of these efforts so far. To provide a clearer, more complete evaluation of our transportation system, this report now includes an assessment

of the implementation of the 2009 Transportation Reform Act.

Keeping on Track now provides one-stop shopping for those interested in updated information about the Commonwealth's transportation system, completed statutory requirements from two transportation laws, missed deadlines, and improvements made through new transportation system investments.



On the subway with my bunny

EXECUTIVE SUMMARY

Increased funds have resulted in some progress, but the Commonwealth still lacks the resources to meet the state's critical transportation needs.

WHILE IT CAN a take a long time for transportation investments to produce actual improvements on the ground, the seeds of the Transportation Finance Act of 2013 are beginning to take root and a limited number of fruits have even been harvested. Since our last report, for example, the Massachusetts Department of Transportation (MassDOT) has made progress on improving rail service on the Knowledge Corridor by rerouting the Vermonter Amtrak service, which reduces trip times significantly, and opening up a newly-built station platform at Depot Square, which returns passenger train service to Holyoke. All-electronic tolling along the Massachusetts Turnpike, operational since October of 2016, is now saving drivers significant time.

Projects under construction, from which users will experience benefits soon, include the rehabilitation of the

I-91 Viaduct in Springfield (restoration of traffic in the fall of 2017; completion in February of 2019), renovation of Springfield Union Station (opening in early 2017), and replacement of Red and Orange Line cars on the MBTA (first production of cars to be completed in 2019, all new cars will be in service by 2023).

According to MassDOT's FY17-FY21 Capital Investment Plan, over the next five years, we can also expect increased investment in the repair and maintenance of bridges (\$2.05 billion), MBTA's Power, Facilities, and Operations (\$1.08 billion), the Registry of Motor Vehicles (\$120 million), and the Aeronautics Program (\$278 million). All of these investments will be above those previously anticipated in MassDOT's *The Way Forward* (2013).

In spite all of these achievements, however, MassDOT's FY17-FY21 Capital Investment Plan exposes that even with increased funding from the Transportation Finance Act of 2013, the Commonwealth still lacks the resources to meet all of the state's critical transportation needs. In the

past, MassDOT and other experts have estimated that over \$600 million per year over the next ten years is still needed in additional resources beyond those raised and pledged by the Transportation Finance Act of 2013. Many transportation projects previously identified by MassDOT as key repairs and improvements are not funded over the next five years. These projects include state of good repair projects, such as additional assistance for municipalities to repair local roads (Chapter 90) and the procurement of sufficient MBTA vehicles (specifically buses and replacement Green Line cars), as well as expansion projects, such as South Coast Rail, South Station Expansion, and the Inland Route connecting Boston to Springfield by rail.

If the Commonwealth is aiming for a transportation system that will help the state thrive not just now but in the decades ahead, maintaining our current transportation system is crucial, but it will not suffice to meet this goal. Changing demographics, such as fewer drivers due to aging baby boomers and fewer millennials getting driver's licenses, rapid changes in transportation technology, such as autonomous vehicles, and the increasing challenges of climate change will require smart planning and significant investment in our transportation system.

In this context, it is important to note the additional challenges ahead related to federal transportation funding. The **Metropolitan Planning Organizations** (MPOs), thirteen regional agencies across Massachusetts responsible for

programming a significant portion of federal transportation dollars, have been instructed to apply a 1.5% annual funding growth assumption starting in 2021. At the same time, the MPOs are expected to assume inflation of cost for individual projects at a 4% annual rate.1 Fewer federal resources will be available for transportation investments as a result of these diverging percentages, even if federal transportation dollars are increasing at the projected rate, adding to the problems associated with insufficient state transportation dollars.

The transportation budget fell short of projections.

The Commonwealth has compiled and provided information for a second full fiscal year since passage of the Transportation Finance Act of 2013. Overall, actuals of revenues and expenses were \$140 million short of projections, a difference of about 5%.

Below is a list of the most significant ways revenue and expense projections differed from revenue that was actually collected and spent in FY15:

- Motor vehicle inspection fees were up \$24 million from FY14 (\$32 million) as a result of the increase in inspection fees from \$29 to \$35. About 4.1 million inspections took place in FY15.
- Materials, supplies, and services expenses were down 50%, saving \$105 million. Likewise, office and

administrative expenses were more than 40% lower, saving \$52 million. A portion of these reductions (\$26 million) were a direct a result of cuts pursuant to M.G.L. Chapter 29, s. 9C, which requires that when projected revenue is less than projected spending the Governor must act to ensure the budget is brought into balance.

- expenses, on the other hand, were up \$140 million. This spending category includes expenditures for snow and ice operations, which, due to the severity of the winter in FY15, were about \$100 million higher than projected. Hired equipment and materials expenses related to snow and ice operations alone totaled \$138.6 million in FY15. The costs of maintaining the MassPike and the Tobin Bridge were also higher than projected.
- At the MBTA, materials, supplies, and service expenses and wage costs were up \$18 million and \$46 million respectively. Paratransit (The RIDE) expenses were \$31 million below the 2013 projections, due to the previous signing of favorable contracts. Fiscal year 2015 fare revenue was \$55 million higher than projections, based on healthy MBTA ridership and a 5% average increase in fares on July 1, 2014.

At least a dozen different reports have never been produced, or at best there is limited evidence of occasional compliance.

MassDOT has not completed many of the required reports.

Finally, the 2009 Transportation Reform Law and the Transportation Finance Act of 2013 both required MassDOT to file or obtain a series of regular reports, most annually. At least a dozen different reports have never been produced, or at best there is limited evidence of occasional compliance. While it is likely that some of these reports were delayed for legitimate reasons, the degree of non-compliance suggests that the legislature may be requiring an unreasonable number of reports, and/or MassDOT is not sufficiently focused on completing the work that it is required to do. Current leadership at MassDOT has set increased transparency as a laudable goal for itself, and meeting legislative requirements set forth in the 2009 and 2013 laws going forward would help demonstrate the department's commitment to accountability to the Legislature and the public.

OUR PROGRESS IN IMPLEMENTING THE 2013 AND 2009 ACTS

THIS SECTION OUTLINES the

requirements of the Transportation Finance Act of 2013 and, for the first time, the Transportation Reform Act of 2009, that have been completed. It also outlines which deadlines have been missed.

COMPLETED REQUIREMENTS

Completed requirements under the 2013 Transportation Finance Act

 Shift of daily operations off capital budget (MassDOT): Historically, some MassDOT personnel costs were charged to the department's capital accounts, costing the Commonwealth millions of additional dollars in interest payments, while reducing the

amount of money available for capital projects. The Transportation Finance Act of 2013 required this longstanding practice to end.² Consistent with this requirement, by the start of FY15 all MassDOT salary expenses were moved from the capital budget to the operating budget. In addition, MassDOT went beyond this legal requirement and eliminated non-personnel operating charges (such as consultant services and utilities) from the capital budget in FY16, spending approximately \$38 million to do so, in order to save money going forward.3

The **Project Selection Advisory Council** met regularly from January 2014 to June 2015. After it was granted a six-month extension, the Council's recommendations required by Section 59 of the Act were due on June 30, 2015. On July 1, 2015, the Council submitted its report, Recommendations for MassDOT Project Selection Criteria, to

MassDOT has met its increasing own-source revenue requirement set by the Act in every year since passage of the law.

- the Legislature.⁴ The Council is continuing to meet periodically to oversee the implementation of its recommendations, and a stakeholder advisory committee has been formed. MassDOT has used the project selection criteria developed by the Council, for the first time, in its development of the 2017-2021 Capital Investment Plan.
- MassDOT has met its increasing own-source revenue requirement⁵ set by the Act in every year since passage of the law. In FY14, the department was required to contribute 47% of the department's operating budget and it contributed 49.58%.⁵ In FY15, the department was required to contribute 48% of the department's operating budget and it contributed 49.44%.⁵
- The MBTA has met the increasing own-source revenue requirement⁸

The MBTA has met the increasing own-source revenue requirement set by the Act in every fiscal year since passage of the law.

- set by the Act in every fiscal year since passage of the law. Under the Act, the MBTA is required to meet the benchmarks for the percentage of resources in the MBTA's operating budget that come from revenue sources that are under the agency's own control, such as fares, fees, advertising, parking, and real estate. In FY14, the Transportation Finance Act required the MBTA to contribute 31.5% of its operating budget from revenue raised by the authority. The MBTA met this target by contributing 33.3% of its operating budget (including debt service expenses) through own sources.9 In FY15, the Act required the MBTA to contribute 33% of its operating budget from revenue raised by the authority. The MBTA met this target by contributing 33.6% of its operating budget (including debt service expenses) through own sources.10
- RTA Service Planning: While the Transportation Finance Act of 2013 included no deadline, all 15 of the state's regional transit authorities completed the required Regional Transit Plans within 2015.11 As required, each plan included a comprehensive assessment of transit services; a thorough examination of the ridership trends for each line and service provided by the regional transit authority; a performance analysis of existing services; the development and evaluation of alternative service scenarios; the development of a recommendation to better align service with local and regional demand; an assessment of fare rates and collection methods; an

outline of the region's job creation goals and employment needs; and a determination of whether the regional transit authority's service is deployed in the most effective way possible to accommodate the transit needs of the region's workforce. Most, but not all, of the regional transit authorities considered the Commonwealth's environmental policies, as required. The regional transit agencies also conducted public hearings and provided the opportunity to comment on a draft report, as required by the statute. This service planning effort is important, as it occurred during a time of significant ridership increase for the RTAs. Between 2013 and 2015, overall RTA ridership has increased an average of 4.2% per year, a trend that continued into 2016.

The MassDOT review of rights of way and proposed legislation was due on March 1, 2014.12 The department completed this report by December of 2014, but it was not filed until September 1, 2015.

Completed requirements under the 2009 Transportation Reform Law

The Transportation Reform Law of 2009 consolidated the state's transportation agencies into a single department of transportation.¹³ While all public transportation agencies remained independent, they were more closely linked to the new entity and subjected to more oversight. The newly

Between 2013 and 2015, overall RTA ridership has increased an average of 4.2% per year, a trend that has continued into 2016.

established Massachusetts Department of Transportation (MassDOT) assumed operations from the previous collection of state transportation agencies on November 1, 2009.14

As required, MassDOT successfully completed this unification, which included mergers of agencies, 15 a revision of the internal structure of transportation decision-making within the executive branch,16 transfers of ownership of transportation assets,17 and creation of new funds related to transportation within the Commonwealth.¹⁸ The following are examples of significant changes that were required and implemented:

- Establishment of four divisions: Aeronautics, Highway, Rail and Transit, and Registry of Motor Vehicles.19
- Merger of the Massachusetts Turnpike Authority and MassHighway into the Highway Division.20
- Transfer of ownership to MassDOT of the Tobin Bridge from Massport, and of all vehicular bridges and underpasses and certain parkways previously owned by the Department of Conservation and Recreation.21

- A five-member Board of Directors was appointed by Governor Patrick with expertise in transportation, finance, and engineering to oversee the new department, while serving as the governing body of the MBTA at the same time.²² The structure of both boards has been changed by subsequent laws.²³
- Creation of an Office of Transportation Planning,²⁴ Real Estate Appraisal Review Board,²⁵ and a Public-Private Partnership Infrastructure Oversight Commission.²⁶
- Creation of the Commonwealth Transportation Fund²⁷ and the Massachusetts Transportation Trust Fund.²⁸
- MassDOT also established a performance measurement system for each division.²⁹ Through this system, MassDOT established program goals, measured program performance against those goals, and reported publicly on progress to improve the effectiveness of transportation design and construction, service delivery and policy decision-making.
- The Transportation Reform Law
 of 2009 required the Secretary of
 Transportation to establish the
 Healthy Transportation Compact,
 a coordinated effort between
 MassDOT and the Massachusetts
 Department of Health and Human
 Services, to "adopt best practices and
 increase positive health outcomes

through coordinated land use, transportation, and public health policy."³⁰ The Compact met three times – once each in 2010, 2011, and 2013 – and turned over its regular work to the Compact Advisory Council that began meeting in May 2014. The Council met a total of seven times, but neither the Advisory Council nor the Compact has met since March 25, 2015.³¹

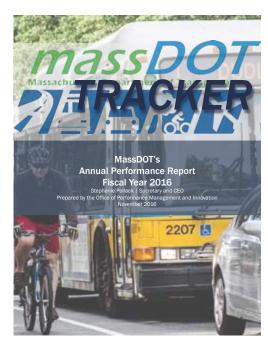
In addition, the Transportation Reform Law of 2009 required a series of regular reports. Despite our best efforts,³² evidence of filing could only be found for some of the requirements. The following are the reports that were recently filed and as such appear to be currently in compliance:

- On January 26, 2016, MassDOT filed with the legislature a revenue and expense report for the 2015 fiscal year, which is required every year no later than October 31.³³ Previous reports were filed for each fiscal year between 2010 and 2014.
- In November of 2016, MassDOT filed its yearly Annual Program

 Performance Report as mandated by the 2009 Transportation Reform Law (including the Project Information System and Performance Measurements Report). Previous reports were filed in 2015, 2014, 2013, 2010, and 2009. The report does not cover all of the performance measures required by the 2009 Transportation Reform Law. See Performance Measure and Goals on page 34.

- Additionally, the Acts of 2009 required that the Highway Division create a centralized online system to document performance measurements³⁵ and provide updates on all planning, design, construction, and maintenance projects it undertakes. MassDOT does feature a Highway Division project page that meets these requirements.36
- As part of the creation of one transportation department, the Transportation Reform Law of 2009 also required MassDOT to issue quarterly transition reports describing the progress it is making in incorporating preexisting agencies and authorities into a single new entity until completion of the transition.37 The reports, called "Quarterly Integration Reports," covered plans for the assignment and reassignment of resources including personnel, equipment and supplies into the new department of transportation and the status of the transition of roads, bridges, designated parkways and any other transportation assets of the Massachusetts Turnpike Authority, the Massachusetts Port Authority, the Department of Conservation and Recreation and the Department of Highways, with approximate schedules for the completion of the transition. MassDOT issued these reports as required on a quarterly basis between September 2009 and May 2011, as far as the records reflect, during the period of transition.
- As part of the establishment of the **Public Works Economic Development**

- Program, MassDOT was required to report annually on the status of this program.38 MassDOT filed such a report in December of 2009, but not thereafter, because the program was consolidated into the MassWorks Infrastructure Program at the Executive Office of Housing and Economic Development.
- The Transportation Reform Law of 2009 also required MassDOT to conduct an inventory of all information technology systems used by the agencies or assets that were being transferred to the new department of transportation.39 The inventory included a description of each system in use to permit the identification of redundancies among such systems. A required report of the results of the inventory was completed on time in April of 2010.



Cover of MassDOT's 2016 Annual Performance Report

MISSED DEADLINES

Missed deadlines under the 2013 Transportation Finance Act

After being formed in 2014, a year later than the deadline, the **Performance** and Asset Management Advisory Council (the "Council") continued to meet in 2015. Although the 2013 Transportation Finance Act required that the Council be chaired by the Secretary of Transportation, MassDOT's chief engineer heads the body instead. As created, the Council was to include two members from the Massachusetts Municipal Association, but only one is serving. Likewise, a city engineer and a lawyer were appointed to the Council, but no member of a business association serves on the Council, as expected by the law.

Preliminary 10-year forecasts, assuming current level of investment, include the grim findings that only approximately 20% of state-owned, non-Interstate roads will be in good or excellent condition, and that the Commonwealth will experience a renewed increase in the number of structurally deficient bridges throughout the state.

Since October 1, 2013, the Council was required to file annual progress reports.⁴⁰ On January 15, 2016, the Council finally issued its first annual report. The report establishes an asset inventory, assesses the current condition of assets, models performance over time given investment levels for a portion of the Highway Division's assets, but does not document asset management activities of MassDOT's other divisions. The Council has stated that it plans to release subsequent reports for MassDOT's Aeronautics and Rail and Transit Divisions at an unspecified future date. The report admits that the Council has not achieved all legislative requirements. In addition to the continued need to include all MassDOT assets in its asset performance and management system and the establishment of a single integrated asset management system by July 1, 2014,41 no multimodal performance measures or benchmarks against other states and countries have been developed, for example.

According to the Council's report, the **Highway Division already maintains** a comprehensive and mature asset management system for bridges and pavements and has developed a strategic plan to achieve better asset management across all areas. Work is currently underway to inventory and assess traffic signals, signs, sidewalks, pedestrian ramps, culverts, and overhead structures. Preliminary 10-year forecasts, assuming current level of investment, include the grim findings that only approximately 20% of state-owned, non-Interstate roads will be in good or excellent condition, and that the Commonwealth

will experience a renewed increase in the number of structurally deficient bridges throughout the state.

In addition, MassDOT was required to develop and recommend procedures and requirements for the administration of the performance and asset management system on or before November 1, 2013.42 These procedures and requirements are supposed to include a plan for integrating asset management with long-term statewide planning processes, a tool for the estimation of capital investment needs, an asset investment prioritization method and recommendations related to training, data storage and collection, reporting practices, budgeting, and other issues related to asset management.⁴³ None of these procedures, requirements, and recommendations have been presented to the Board of Directors to date.

As part of the fall 2014 Supplemental Budget, the Legislature extended the reporting deadline for the Value Capture Commission to March of 2015. To date, no such report has been released, and the Commission has not met since December 2014.

MassDOT and MBTA preliminary reports on savings to the operating budget are due every October 1st (preliminary) and January 1st (final),44 but none of the sixteen required reports have ever been filed.

The Secretary of Transportation and the General Manager of the MBTA continued to miss the required semi-annual meetings regarding the fiscal status

of MassDOT and the MBTA with the Secretary of Administration and Finance and the House and Senate Committees on Ways and Means. These meetings are required to occur in July and January of each year.45 Only the first of the regular meetings required ever took place (on February 20, 2014). Prior to each meeting, the filing of reports regarding the fiscal status of MassDOT and the MBTA are required to be submitted.46 No such reports have been filed.

Missed deadlines under the 2009 Transportation Reform Law

The Transportation Reform Act of 2009 required the creation of two unpaid positions — tollpayer and ridership advocates within MassDOT to represent the interests of tollpayers and riders, respectively. 47 The tollpayer position was finally filled in August of 2016. The ridership advocate position remains unfilled.

The Act also required a series of reports, many of which have never been filed. The following list provides descriptions of the required reports which were never produced, or for which there is only limited evidence of occasional compliance:

• Reform Progress Reports: The main purpose of the Transportation Reform Act of 2009 was to create a single state transportation agency and consolidate administrative activities and functions common to the separate offices and divisions within the department in order to

improve administrative efficiency and save money. The Act required reform progress reports every six months starting on December 15, 2009, describing the progress in implementing this reform, including the operating and capital expenditures made by the department in implementing the requirements of this section and on the administrative savings that have been achieved through the implementation of the requirements of this section.48 These reports were meant to focus on overall progress of the reform efforts, rather than on the merger of agencies, in contrast to the separately required quarterly transition reports mentioned above. We could only verify that the first of these reports was produced and filed in December of 2009. It appears that none of the subsequent reports have been filed to date.



MassDOT at 10 Park Plaza

- In advance of each fiscal year, MassDOT is required to submit an **Annual Information Technology Plan**,⁴⁹ to facilitate the integration of the information technology inherited by the new department of transportation, the development of new systems, and the improvement of applications for existing systems. It appears that only one of these plans has been developed and it was submitted in June of 2010.
- Every year, MassDOT's Office of **Performance Management and Innovation** is required to publish a "scorecard" identifying the number of projects actively under construction and those completed in the previous year by type, value and location, and those planned for the following year. ⁵⁰ On December 31, 2009, MassDOT filed such a scorecard. We were unable to find proof that any other scorecards were produced since then, despite the statutory requirement for the Office of Performance Management and Innovation "to mak[e] all reports available through an on-line system."51
- **Reports Related to Comprehensive** State Transportation Plan: MassDOT is required to report annually on its compliance with its five-year capital plan, including whether the department is meeting the requirement of providing at least 5% of the estimated construction, reconstruction, and repair needs of public highways and bridges of the commonwealth, its counties, cities, and towns combined each year.52 None of these reports have been filed to date.

- Secretary's Annual Reports: The Secretary is also required to annually submit a complete and detailed report of MassDOT's activities within 90 days after the end of the fiscal year and make it publicly available on the department's website.53 We could only verify that the report was produced and filed in 2010 and 2013.
- Real Estate Appraisal Review Board Reports: The 2009 Reform Act created a Real Estate Appraisal Review Board, which approves the valuation of property over \$300,000 taken by eminent domain on behalf of MassDOT for public use. The board is required to submit an annual report of its activities during the preceding fiscal year.54 According to MassDOT, no such reports have been filed to date.
- American Recovery and Reinvestment Act (ARRA) of 2009 **Reports**: The Transportation Reform Act of 2009 required annual reports from MassDOT on the progress and all expenditures related to state transportation infrastructure projects undertaken through use of federal funds received under ARRA until the culmination of all such projects.⁵⁵ MassDOT submitted such a report in December of 2009, but we could not find any additional reports

- thereafter, as not all ARRA projects were completed at that time.
- Proposed Transfer of Department of Conservation and Recreation (DCR) Parkways and Boulevards to MassDOT Report: MassDOT and DCR were required to file an evaluation and study of all DCR parkways and boulevards proposed for transfer to MassDOT, including standards to protect their scenic and historic integrity.56 We were not able to find any evidence of such a report ever being filed.
- Transfer of Bridges, Underpasses, and Parkways to MassDOT Report: Likewise, the 2009 Transportation Reform Law required MassDOT to prepare a report documenting the extent of the bridges, underpasses and parkways transferred to the department.⁵⁷ We were also not able to find any evidence of such a report ever being filed.
- MBTA capital or operating cost for expansions or changes in service reports: The MBTA is required to provide annual reports showing the estimated capital or operating cost the authority projects to incur in the following fiscal year for expansions or changes in service imposed by the legislature after July 1, 2000.58 We were not able to find any evidence of such a report ever being filed.

THE FINANCIAL STATE OF OUR TRANSPORTATION SYSTEM

THE COMMONWEALTH HAS now completed three fiscal years since passage of the Transportation Finance Act of 2013. In our previous report, we analyzed FY14. We now have data available to analyze FY15. Overall, actuals of revenues and expenses were \$140 million short of projections, a difference of about 5%.

COMPARISON OF ACTUAL REVENUES AND EXPENSES TO PROJECTIONS FOR MASSDOT

1. Actual receipts of revenue compared to projections for FY15: Transportation Finance Act revenue projections for FY15 were similar to revenues actually received. Revenues from sources created by the Transportation Finance Act overall performed as expected, with higher returns from the motor vehicle sales tax compensating for

the loss of revenue associated with the repeal of the indexing of the gas tax to the Consumer Price Index and the lack of revenue from gaming. Funding Sources that existed prior to the Transportation Finance Act outperformed expectations in FY15 by \$110 million, or about 5%.

Table 1 shows the projections, actual receipts, and variance for revenue sources which existed prior to passage of the Transportation Finance Act of 2013.

Table 2 shows the projections, actual receipts, and variance for each revenue source that was newly created by the Transportation Finance Act of 2013.

Motor Vehicle Inspection Fees: On July 1, 2014, annual state car inspection fees changed from \$29 to \$35. MassDOT now collects \$9.60 instead of \$4.60 per inspection. This increase helped to increase collections in this area by \$24 million as compared to the previous year alone. Additionally, inspection fees have outperformed projections.

Table 1. FY15 Projected vs. Actual Revenues for Funding Sources that Existed Prior to the Transportation Finance Act

Revenue Source	Projection for FY15	Actual Receipts in FY15 ⁵⁹	Variance Favorable Unfavorable
Gas Tax Revenue (from 21 cent rate)	\$662 million	\$660 million	\$2 million
Old Sales Tax Revenue	\$338 million	\$358 million ⁶⁰	\$20 million
RMV Fees	\$547 million	\$572 million	\$25 million
Motor Vehicle Inspection Fees	\$21 million	\$56 million	\$35 million
Metropolitan Highway System Toll Revenue	\$220 million	\$236 million	\$16 million
Western Turnpike Toll Revenue	\$120 million	\$128 million	\$8 million
MHS and WT Non-toll revenue	\$53 million	\$52 million	\$1 million
Highway Revenue ⁶¹	\$25 million	\$24 million	\$1 million
Merit Rating Board Assessments	\$9 million	\$9 million	\$0
Federal Grants	\$34 million	\$44 million	\$10 million
Total	\$2.029 billion	\$2.139 billion	\$110 million

Table 2. FY15 Projected vs. Actual Revenues from Revenue Sources Created by the **Transportation Finance Act**

New Revenue Source	Projection for FY15	Actual Receipts in FY15 ⁶²	V ariance Favorable Unfavorable
Gas Tax Revenue (from additional 3 cents)	\$95 million	\$95 million	\$0
Indexing of the Gas Tax	\$8 million	\$0	\$8 million
Additional Amount from New Sales Tax Revenue (Motor Vehicles Sales Tax)	\$132 million	\$152 million	\$20 million
New Western Turnpike Tolls	\$0	\$11 million ⁶³	\$11 million
Gaming	\$12 million	\$0	\$12 million
Total New Revenue	\$247 million	\$258 million	\$11 million

Registration Fees: On July 1, 2014, noncommercial vehicle two-year registration fees increased from \$50 to \$60. Road test fees also went up from \$20 to \$35.

Gaming Revenue: In 2013, MassDOT projected revenue from gaming for FY17 to be \$50 million and expected it to increase by \$1 to \$2 million per year over the next four years.⁶⁴ Now, it projects only \$10 million in revenue in FY17, no revenue in FY18, \$31 million in FY19, and \$42 million in both FY20 and FY21. That's \$138 million less revenue between FY17 and FY21 from gaming alone.65

ACTUAL SPENDING COMPARED TO PROJECTIONS FOR FY15

Actual spending for FY15 was \$261 million higher than projections. This amount is partially made up by the \$121 million surplus on the revenue side (see above).

Table 3 below shows the projections, actual spending, and variance for each expense in FY15.

Table 3. Projected vs. Actual Spending, FY15 (MassDOT)

Expense	Projection for FY15 ⁶⁶	Actual Spending in FY15 ⁶⁷	Variance Favorable Unfavorable
Employee Payroll and Benefits	\$392 million	\$413 million	\$21 million
Materials, Supplies, Services	\$91 million	\$105 million	\$14 million
Construction and Maintenance	\$205 million	\$345 million	\$140 million
Office and Administrative Expenses	\$126 million	\$74 million	\$52 million
Transfers, Grants, Subsidies, and Contract Assistance	\$391 million ⁶⁸	\$414 million ⁶⁹	\$23 million
Debt Service Expenses	\$1.252 billion	\$1.367 billion ⁷⁰	\$115 million
Total	\$2.457 billion	\$2.718 billion	\$261 million

Table 4. FY15 Project and Actual Funding Gap With and Without Transportation Finance Act Revenues (MassDOT and MBTA)

Gap	Projection FY15 Favorable Unfavorable	Actual Gap in FY15 Favorable Unfavorable	Variance Favorable Unfavorable
Without Transportation Finance Act Revenues	\$425 million	\$579 million	\$154 million
With Transportation Act Revenues	\$0 (after \$91 million in increased own- source revenue)	\$321 million	\$321 million (\$230 million in increased own- source revenue)

Construction and Maintenance: This spending category includes snow and ice operations, which, due to the severity of the winter in FY15, were \$138.6 million higher, almost \$100 million more than projected in 2013 for FY15. In addition, expenditures on the maintenance of the MassPike and the Tobin Bridge were higher than projected in FY15.71

Employee Payroll and Benefits:

FY2016 is lower than expected as a result of 412 employees with salaries totaling \$28.8 million accepting early retirement incentives. The exact financial impact of this program remains undetermined for the future. Likewise, the effect on operations is still an open question. Among the retiring employees are contract specialists, auditors, inspectors, accountants, and compliance officers, as well as engineers, mechanics, and inspectors of construction and safety.

Office and Administrative Expenses: This spending category was smaller in FY15 than projected because the shift of nonpayroll expenses from the capital budget did not occur until FY16, which is one year later than originally anticipated. In FY15, only payroll and fringe benefits shifted from capital to operating.

Debt Service Expenses: The difference in debt service expenses is largely related to the debt forecast method applied to The Way Forward pro forma. The pro forma was developed using debt forecast and projected borrowings based on capital spending plans, interest rate assumptions, and other assumptions related to the issuance and timing of payments.

Transportation Funding Gap Before and After Passage of Transportation Finance Act: Prior to passage of the Transportation Finance Act, the Joint Ways and Means Committee projected an operating budget gap of \$425 million for FY15. With the additional revenue raised by the Act, the Committee predicted a balanced operating budget. If one excluded the new revenue from the Act, the gap in FY15 would be \$579 million, \$154 million more than predicted by the Committee. With the new revenue, the remaining gap is still \$321 million. To cover the full gap, the Joint Ways and Means Committee originally expected \$91M from increased (so called ownsource) revenue to be raised by MassDOT and the MBTA. To balance, the budget in FY15, additional own-source revenue in the amount of \$230 million was required.



National Guard removes snow from Brigham Circle 2015

COMPARISON OF ACTUAL REVENUES AND EXPENSES TO PROJECTS FOR THE MBTA

The overall projections made for the MBTA during the deliberations prior to passage of the Transportation Finance Act of 2013 for FY15 were remarkably accurate. As shown in Table 5 below, Individual revenue and expense predictions tend to not have varied

by more than 10%. Fare revenue, for a third year in a row, outpaced projections. The underestimation of both revenues and expenses essentially cancel each other out. Overall revenues were up \$39 million over projections and overall expenses (including debt service) were \$23 million higher than expected. That is a difference of only \$16 million on an almost \$2 billion budget. With the help of \$187 million from the Transportation Finance Act of 2013, and various cost savings measures, the MBTA was able to balance its budget.

Table 5. Projected vs. Actual Revenues and Expenses for the MBTA, FY15 (Greatest Variances)

Revenue Source/ Expense	Projection for FY15 ⁷²	Actual Receipts/ Expenses in FY15 ⁷³	Variance Favorable Unfavorable
Revenues Overall	\$1.764 billion	\$1.803 billion	\$39 million
Expenses Overall	\$1.899 billion	\$1.922 billion	\$23 million
Fares	\$548 million	\$603 million	\$55 million
Other Non-Operating Income	\$10 million	\$26 million	\$16 million
Dedicated Sales Tax	\$998 million	\$971 million	\$27 million
Wages	\$444 million	\$490 million	\$46 million
Fringe Benefits	\$207 million	\$200 million	\$7 million
Materials, Supplies and Services	\$235 million	\$253 million	\$18 million
Purchased Local Service Expenses/THE RIDE	\$143 million	\$112 million	\$31 million

With the help of \$187 million from the Transportation Finance Act of 2013, and various cost savings measures, the MBTA was able to balance its budget.

UPCOMING CHANGES IN REVENUES AND COSTS

MBTA fare increase: The MBTA increased its fares on July 1, 2016 by a systemwide average of 9.3%. This increase in fares will result in approximately \$43 million in new revenue in FY17, or an incremental increase of about \$20 million over the 5% average fare increase originally planned and budgeted.

Additional State Assistance: The Governor's FY2017 budget only sought \$187 million out of the \$261 million assumed in the pro forma underlying the Transportation Finance Act of 2013. The MBTA is predicting a structural deficit of \$126 million for FY2017.74 The structural deficit reflects revenues and expenses not including the \$187 million the MBTA is receiving in state assistance.

MBTA Capital Reserve: Reportedly the MBTA currently lacks the organizational capacity to spend any additional amount on capital improvements, in 2016, the MBTA created a capital reserve. The so-called "lockbox" holds funding to pay for capital improvements in the future. Since its inception, so far, a total of \$117 million have been added: \$31 million in state assistance, \$25 million in operating savings, \$6 million in real estate proceeds, and \$55 million in excess debt reserves transferred.75 None of the money in the lockbox was used in FY16. The first expenditure occurred

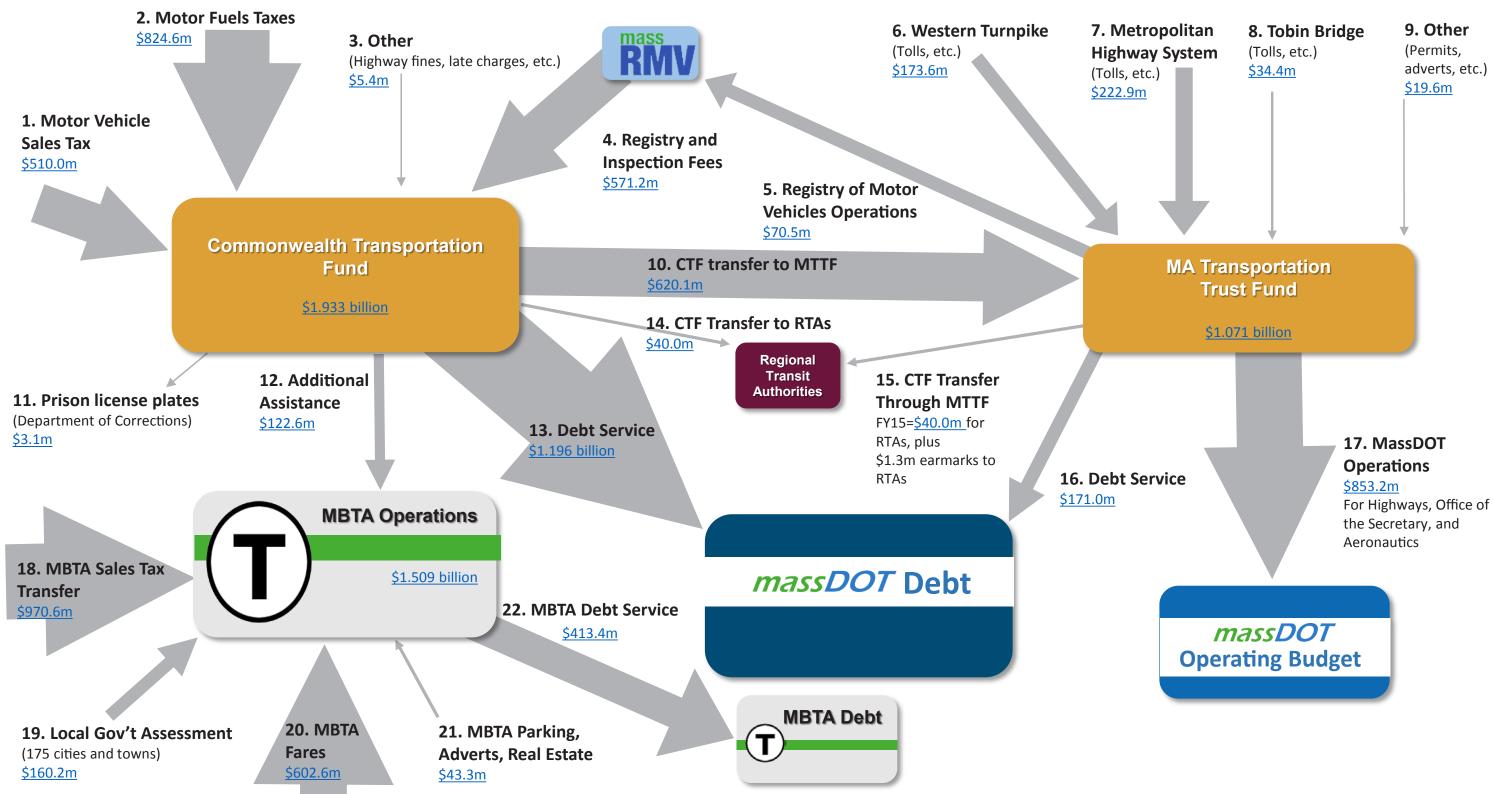
in August of 2016, leaving the total balance in October of 2016 at \$112 million. In addition to \$43 million from the fare increase, the MBTA will be adding another a yet to be determined amount from the \$187 million state assistance in FY2017 to the lockbox.

Sales Tax: In 2000, the Legislature passed legislation known as "Forward Funding" with the goal of making the MBTA financially self-sufficient by dedicating a portion of the sales tax to the transit agency. Shortly after passage, sales tax revenue growth slowed significantly, and actual receipts have lagged behind Forward Funding projections ever since. In FY17, for the first time since passage of Forward Funding, the MBTA was originally projected to receive revenue from the sales tax above the statutory base amount, which was the safety net included by the statute to mitigate an unexpected decline in sales tax revenue.76 As a result of lower actual sales tax revenue than projected so far in FY17, however, it appears for now that the MBTA may only receive the base amount again after all.77

Energy: In 2015, the MBTA signed new energy contracts that will result in total operating budget savings of about \$25 million over the next five years, an average of \$5 million per year.

Advertising: The MBTA's net advertising revenues are expected to be up by \$9.7 million in FY17 compared to FY15. Between FY16 and FY17, the MBTA projects an increase of 30%, from \$20 million to \$26 million. The market trend in transit advertising is shifting

Massachusetts Transportation Funding Flow Chart for FY15



Figures do not include state budget allocation for federal funding, capital outlays, MassPort, ferry authorities, or the one-time \$32 million supplemental funding from the General Budget for fiscal year 2014 snow and ice operations spent in 2015. Also not included are: state parking ticket surcharges on rental cars (which are paid to municipalities), Merit Rating Board assessments (paid by insurance companies), gaming revenue transfers to the Transportation Infrastructure and Development Fund, or \$31.1 million State Retiree Benefits transfer from the CTF.

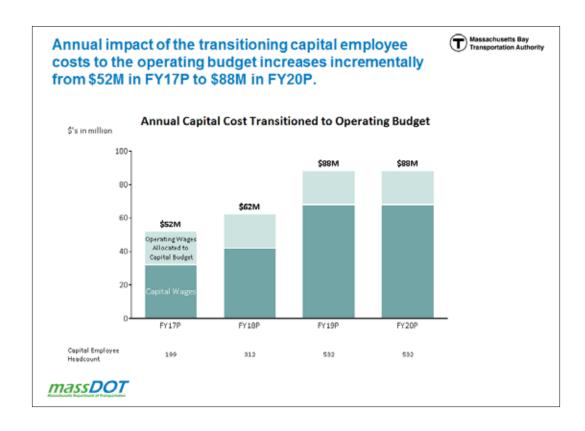


from static advertising, for which the content does not change in real time, to digital advertising. The MBTA's plan is to capture growing digital advertising revenue by adding screens. Static advertising is still expected to increase 20% over FY15, but digital advertising is rising at a rate of 100% over FY15.

Non-essential cost growth: Through a budget recast, the MBTA was able to eliminate non-essential cost growth resulting in anticipated savings of between \$50 and \$60 million. Department heads were asked to specify reductions in materials and services and to identify vacant positions that do not need to be filled. Likewise, non-essential planned spending increases were eliminated.

Elimination of late-night bus and transit service: In December of 2015, the MBTA's Fiscal and Management Control Board voted to initiate the process of ending late-night bus and transit service, which will reduce service hours by 90 minutes on Friday and Saturday nights from 2:00am to 12:30am. The MBTA expects to save about \$9 million as a net result of this service cut in FY2017.

Shift of daily operations off capital budget (MBTA): The MBTA currently has 532 employees whose salaries are paid through MBTA bonds and federal capital grants. All these employees work on capital projects and vehicle procurement. Although the 2013 Transportation Act does not mandate these MBTA employees to



be moved to the operating budget, a requirement that the legislation put in place for MassDOT employee salaries, the transit agency is now transferring them to the operating budget. The state's FY16 budget called upon the MBTA to transfer employees off the capital budget by July 1, 2018.78 This transition will begin with the FY17 budget and will be completed over a four-year period.⁷⁹ This will increase costs to the operating budget, but have a long-term benefit of reducing the MBTA's interest payments. The FY17 budget includes \$33 million in wages and \$15 million in benefits, for a shift of a total of \$48 million in costs to the operating budget.

Early Retirement: The MBTA expects to reduce labor costs through its voluntary retirement incentive plan. 264 employees have opted to participate. Of these positions, 156 will not be backfilled. The MBTA has estimated \$13.3M in recurring annual payroll savings subject to a one-time program expense of \$4.4M.80

New Union Contract: In December of 2016, the MBTA signed a new agreement with the Carmen's Union Local 589. The MBTA estimates that the new contract will save the transit authority \$1 million in FY17 and \$10 million in FY18, and an average of \$20 million per year between FY18-FY21.

Table 6. Anticipated Changes in Revenues and Costs

Revenue/Cost	Increased Revenue or Cost Savings Additional Cost or Revenue Loss in FY17
New MBTA Fares (5%)	\$25.8 million ⁸¹
Incremental Fare Increase (over 5%)	\$20 million ⁸²
Additional State Assistance	\$74 million ⁸³
Materials/Services – Energy	\$5 million ⁸⁴
Advertising	\$7.6 million ⁸⁵
Non-essential cost growth (materials and services, unfilled vacancies, and outside service contracts)	\$50 to \$60 million ⁸⁶
Elimination of late-night bus and transit service	\$9 million ⁸⁷
Early Retirement	\$13.3 million
New Union Contract	\$1 million ⁸⁸

NEW TRANSPORTATION INVESTMENTS

REVIEW OF 2016 AND 2017-2021 CAPITAL PLANS

report, MassDOT released two capital plans: a one-year plan for fiscal year 2016 in June of 2015, which included continued funding for ongoing projects, and the more comprehensive five-year FY17-FY21



New Government Center Station

Capital Investment Plan in June of 2016. This first, fully-integrated capital plan produced jointly by the MBTA and all MassDOT divisions provides additional insight into the Baker Administration's plans for investment in the state's transportation system and infrastructure. With a greater focus on maintaining and improving the overall condition of the existing transportation system rather than in modernization or expansion, a number of projects previously identified as necessary in The Way Forward have experienced significant setbacks. The five-year capital plan for the first time also provides a list of unfunded projects. The unfunded projects combined, as detailed in the spreadsheets associated with the FY17-FY21 Capital Investment Plan have a total cost of over \$23 billion, and do not even include high-profile projects such as the Red/Blue Line Connector, the Blue Line extension to Lynn, or construction dollars for South Coast Rail, South Station Expansion, the Inland Route, or the North-South Rail Link, to name just a few.

Table 7. Comparison of Projects Listed in The Way Forward and FY17-FY21 Capital Investment Plan (CIP)

Project	CIP compared to The Way Forward
Continued Accelerated Bridge Program	included at \$2.05 billion (no longer called Continued Accelerated Bridge Program)
Highway Preservation Facilities & Systems	included but only with \$82 million instead of \$200 million
Chapter 90 (Additional \$100 million/year)	not included
I-91 Viaduct in Springfield	included
I-93/I-95 Interchange in Canton	not included
I-93/I-95 Interchange in Woburn	not included
Bicycle & Pedestrian Facilities	included but only with \$60 million instead of \$215 million
RTA Vehicles	included but only at \$117 million per year instead of \$200 million
Red & Orange Line Cars	Included
Green Line Cars	not included (\$5 million for design only instead of \$506 million)
MBTA Buses	Included with insufficient amount
Red Line #3 Overhaul	included but now replaced with purchase of additional vehicles
MBTA Power, Facilities, and Operations ⁸⁹	included at higher amount: \$1.08 billion instead of \$840 million
Modernization Pilot projects	not included
Aeronautics Program	included at higher amount: \$278 million instead of \$62.5 million
RMV Capital	included at higher amount: \$120 million instead of \$75 million
South Coast Rail	included but only at \$148 million instead of \$1.57 billion
Green Line Extension	included with reduced scope
South Station Expansion	not included (\$750,000 for design only instead of \$680 million)
Inland Route	not included
Berkshires to NYC	Included but only at \$16 million instead of \$57 million
Knowledge Corridor	Included
Rail to Cape Cod	not included

Green = Funded at or above amount/pace of spending in *The Way Forward* Yellow = Funded at reduced amount/pace of spending Red = Not included or at an insignificant amount only

TRANSPORTATION FINANCE ACT OF 2013: CAPITAL PROJECTS

Openings

Passenger train service returned to Holyoke in August of 2015 via a newlybuilt \$4.3 million station platform at Depot Square, an important additional step toward the long-term vision for the **Knowledge Corridor** project. Additionally, Vermonter Amtrak service has been rerouted, reducing trip times. Significant work on rebuilding the Connecticut River Line remains to complete this project.

Originally, MassDOT projected the gantries would save \$50 million per year, but more recent estimates considering the life cycle costs of the equipment suggest that the reduction in operating costs is actually closer to \$20 million per year.

Construction

MassDOT implemented all electronic tolling along the Massachusetts
Turnpike in October of 2016. The new system is now in operation; new gantries are in place to scan E-ZPass transponders along the Pike, and former toll plazas are under reconstruction. The system automatically deducts tolls from the accounts of drivers with E-ZPass transponders at regular travel speeds. Those without the transponder are identified by their license plates and sent an invoice in the mail.

In July 2014, MassDOT successfully implemented an all-electronic tolling system on the Tobin Bridge as a trial. Though there were problems collecting the pay-by plate fees issued, MassDOT expects that changes to the late-fee structure will increase compliance with fine payment and reduce the likelihood of exorbitant fees. Under the new, more lenient late-fee structure, a \$1 late-fee will be added to every unpaid pay-by-plate toll only after an invoice goes unpaid for 30 days. An additional \$1 is added to each transaction after 60 days of non-payment, and another \$1 after 90 days.90 The fees are capped at \$6. All-electronic tolling is expected to reduce traffic congestion, increase safety, and decrease air pollution, but save less money than previously projected. Originally, MassDOT projected the gantries would save \$50 million per year, but more recent estimates considering the life cycle costs of the equipment suggest that the reduction in operating costs is actually closer to \$20 million per year.91 Revenue should increase as MassDOT comes to additional agreements with other states and is able to better enforce penalties on drivers who do not pay invoices.

In May 2015, MassDOT signed a \$148 million contract for rehabilitation of the I-91 viaduct in Springfield to be funded with state (20%) and federal dollars (80%). Construction began in December of 2015 with closure of inner lanes and several ramps. This project will replace the existing deck of the viaduct. In February of 2016, MassDOT began demolition of the reinforced concrete deck.92 MassDOT estimates that traffic will be restored in late fall 2017 and that the project will be complete in February 2019.

The Springfield Union Station has been under construction since April of 2013. The project, primarily funded with federal dollars and committed prior to and independently of the passage of the Transportation Finance Act of 2013 and publication of The Way Forward, now also benefits from some state dollars. The renovation includes restoring the terminal building and central concourse with new passenger waiting areas, ticket windows, and elevators to the track level, as well as the construction of a 26-bay bus terminal and 377 space parking garage. The completion of the new Springfield Union Station is delayed, as one section of the new platform required an overhaul since MassDOT's original design for the renovated station was too narrow to comply with the Americans with Disabilities Act. As a result, this section of the platform is expected to open six months after the



I-91 Viaduct median installation

anticipated opening of the rest of the station in early 2017.

In 2014, the MBTA awarded the contract for new Red and Orange Line MBTA cars to CNR Changchun. The contract calls for 152 new Orange Line cars and 132 Red Line cars. At the end of June 2016, CNR began construction of a new factory in Springfield to assemble the cars. The factory will include a 2,200-foot test track and is set



Transit racers, during attempt to set record dashing through the MBTA system, can't wait for the new Orange and Red Line vehicles.

The 2017-2021 Capital Investment
Plan only sets aside sufficient
funding to replace or overhaul less
than a third of the buses that will
be need to be replaced by 2021.

to begin production in 2018. The first production of cars will be completed in 2019, and all new cars will be in service by 2023. Last fall, the MBTA held a public vote for selecting the new look of the new vehicles and announced the results in November of 2015. In December of 2016, the MBTA Fiscal and Management Control Board authorized the transit authority to purchase an additional 134 Red Line cars from CNR in order to replace the complete fleet.

Early action items for the **Green Line Extension** and **South Coast Rail** are under construction.



New Red Line cars

Operational Improvements

Starting in late 2015, the MBTA implemented an \$83.7 million winter resiliency plan aimed at upgrading infrastructure, investing in snow removal equipment, and improving operations during severe weather. Since the introduction of the five-year plan, the MBTA has installed snow fences and replaced third rail heaters on the Orange and Red lines, for example. The MBTA also purchased new equipment, including an increased stock of traction motors, many of which broke during the winter of 2015, vehicle-borne anti-icing equipment, and snow removal vehicles. In addition, the MBTA created a dispatch center dedicated to snow and ice operations, known as the Storm Desk, that issues situation updates, tracks weather and service patterns, and reports to the public during extreme weather. Other reforms and improvements are ongoing, such as winter drills, new snow and ice vendor contracts, additional training for managers, and a new snow and ice operations plan. To the disappointment of some MBTA employees, and to the delight of others, the 2016 winter did not provide a sufficient test for the effectiveness of these new measures.

Property Acquisitions

MassDOT purchased the Taunton to New Bedford and Fall River right of way needed for the **South Coast Rail** project (regardless of the alternative routes presently under consideration).

Procurements

The MBTA has so far invested \$330 million in bus replacement between FY14 and FY17. This amount is less than the \$450 million previously identified as needed in The Way Forward. As a result, additional expenditures on MBTA bus replacement are clearly needed. By 2021, 908 of the transit agency's currently active buses will be beyond their useful life. The 2017-2021 Capital Investment Plan only sets aside sufficient funding to replace or overhaul less than a third of the buses that will be need to be replaced by 2021.

Financial Commitments

As a replacement for the cancelled request for proposals for thirty diesel multiple units (DMUs) (see below), the MassDOT is refurbishing locomotives and coaches the MBTA currently owns. The MBTA owns 120 locomotives. Keolis, the private operator of the MBTA's commuter rail system, is contractually obligated to maintain 81 of them. The MBTA is interested in Keolis increasing that number to 90 in the future. The remaining 30 locomotives are available to be refurbished. There is currently \$32 million set aside for this purpose in the five-year Capital Investment Plan, which allows for refurbishment of ten train sets of one locomotive and two coaches each. The refurbished

trains will be used on the Fairmount Line (in place of the DMUs), for a pilot project on the Knowledge Corridor, and potentially on other commuter rail lines to increase frequency of service and/or to reduce trip times.

The Accelerated Bridge Program (ABP) is coming to a close. The final bridge construction project under the program was advertised in the spring of 2016. While the FY17-21 Capital Investment Plan does not formally continue this program as the Continued ABP, it sets aside \$2 billion for ongoing bridge repair and replacement. Additionally, the FY17-FY21 Capital Investment Plan funds a Municipal Bridge Program with \$50 million for small, municipallyowned bridges, which are ineligible for federal funding.



The rare new locomotive — 30 Commuter Rail locomotives are available to be refurbished.

SIGNIFICANT SETBACKS

Cancellation of Late-Night Service

ALTHOUGH MBTA Late-Night

Service was relied upon heavily by late-shift workers, and its termination disproportionately impacted customers of color and those with low incomes, the transit agency eliminated the service in March of 2016. The cost of service, and concerns about MBTA overnight maintenance schedules contributed to the decision. MBTA reported that the service cost \$14.4 million in the last fiscal year, and cancellation would save the agency \$9 million. MBTA had hoped that corporate sponsorships and partnerships would help with the cost, but financial support was lower than expected. The last trains and buses now depart downtown Boston around 12:30 a.m.

Green Line Extension – Scaled back project

After news broke in August of 2015 that the projected cost for the **Green Line Extension** increased from \$2 billion to \$3 billion, the MBTA and

MassDOT engaged consultants in a reassessment of the project. The consultants' reevaluation of the project, including redesign and a new budget, was completed in May of 2016. The Board of directors of MassDOT and the Fiscal and Management Control Board (FMCB) of the MBTA voted to approve the revised plan for the extension. The redesigned project includes revisions to stations, the vehicle maintenance facility, the viaducts and bridges, power and signal systems, and the Somerville Community Path extension. The new plan will retain station locations and most of the functionality of the previous design. The new cost estimate for the Green Line Extension is \$2.3 billion.

To assist in making up the difference between the previous and current cost estimate, the cities of Somerville and Cambridge intend to contribute a total of \$75 million to the redesigned project. The Federal Transit Administration (FTA) is currently in the process of reviewing the revised scope and cost estimates, but the FTA already signaled in May of 2016 that the proposed changes are consistent

with the scope and benefits of the original project. The state secured close to \$1 billion in federal funding in 2015 for the project through a New Starts grant from the FTA. The remaining costs will be funded by the state. Route 16, the Medford terminus of the Green Line Extension, was already funded separately with federal dollars through the Boston Region Metropolitan Planning Organization, but that money was shifted in June of 2016 to help cover the remaining increase in project costs. After completion of environmental review and a new cost estimate, the Commonwealth will now need to identify a new funding source for this portion of the project.

South Coast Rail — Despite significant completion of design, proposal of a scaled back, temporary, new route

The design of the South Coast Rail project was 15% complete as of June 2016. MassDOT and the MBTA are poised to advance to 30% design.[i] This project would extend rail from Stoughton to Fall River and New Bedford. The new rail line would serve 10 communities, only two of which currently have commuter rail access. MassDOT predicts a ridership of 4,500 daily riders with 77 minute trips to New Bedford and 75 minutes to Fall River from South Station. As part of early action items, MassDOT is in the process of replacing four bridges, conducting grade crossing improvements, and completing extensive track related improvements. Additionally, MassDOT

purchased the Taunton to New Bedford and Fall River right of way needed for this project from CSX, as mentioned earlier.

MassDOT now estimates that this project will cost \$1 billion more than the \$2.23 billion previously projected and will take longer to complete.[ii] Because of the new cost projection and timeline, MassDOT has proposed to consider a previously eliminated alternative that would extend the Middleborough/Lakeview Line to Fall River and New Bedford until the full project can be completed. Under the new concept, only seven new stations, instead of ten, would be constructed. The new stations left out from the original project design would be Taunton Depot, Raynham Place, Easton Village, and North Easton, and one existing station (Middleborough) would have to be relocated. Two stations on the Stoughton Line,



Green Line Extension Red Bridge Pump Station Construction 2015

which would have been renovated under the original project, would not be improved (Canton Center and Stoughton). The change in the route would also result in South Coast Rail service not passing through Back Bay Station, an important connection point in the transit system.

Electrification of the line, which is required by the Army Corps of Engineers for the original project, would be more difficult to achieve for the proposed alternative. MassDOT projections suggest that ridership on the alternative route would be lower

SOUTH COAST RAIL CORRIDOR MAP

SOUTH COAST RAIL CORRIDOR MAP

South Street Coast Coa

South Coast Rail Map

and the full trip from New Bedford would be 92 minutes instead of 77. The most challenging aspect of this alternative appeared to be the need to fit two tracks into a limited right of way near the Savin Hill MBTA station in Dorchester, which would require the construction of a tunnel fitting two Red Line and two commuter rail tracks below the Southeast Expressway. Consulting firms have proposed that a public-private partnership could widen the section of I-93 to add two reversible toll lanes and accommodate the new commuter rail track capacity. It appears that the idea of a tunnel and the widened section of I-93 have now been abandoned. Without a tunnel. daily trips to the South Coast would be very limited until such time as the original project is implemented.

Cape Flyer -- Delay in construction of new station and rejection of year round service

The Cape Flyer, launched in 2013, provides weekend passenger train service to Cape Cod from Memorial Day weekend until Labor Day. The route stretches from South Station to Hyannis, with stops in Braintree, Brockton, Middleborough/Lakeville, Wareham Village and Buzzards Bay. MassDOT announced in February 2015 that the addition of a new station in Bourne would be delayed at least a year due to winter weather conditions. The construction of this new station was then suspended indefinitely later in the year. Cape Cod residents supported a plan for year-round commuter rail

service, but the Fiscal and Management Control Board of the MBTA rejected the proposed seven-month pilot program, citing its \$200,000 price tag and uncertain ridership.93

Fairmount Line - Cancelled request for DMUs, using refurbished trains instead

After numerous extensions, in 2015, the MBTA cancelled its request for proposals to acquire 30 diesel multiple units (DMUs), which were supposed to operate first on the Fairmount Line. Instead of these independently powered vehicles that would have run on commuter rail tracks, MassDOT is planning to refurbish locomotives and coaches the MBTA currently owns (see above under financial commitments).

I-90/Mass Turnpike Allston Interchange stalled

The I-90/Massachusetts Turnpike **Allston Interchange Improvement** Project, which was not part of the Way Forward, but was added to MassDOT's FY14-FY18 Capital Improvement Plan, is now included, but with very limited funding for planning and environmental review in the FY17-FY21 Capital Investment Plan.



Passengers board the train at the Fairmount Station



Allston Interchange

PERFORMANCE MEASURES AND GOALS

Across the U.S., state departments of transportation are increasingly using performance measures to improve their planning, operations, and investment choices, and in response to a greater need for accountability. A more performance-based system of transportation investment was also one of the key reforms of MAP-21, the 2012 federal transportation funding and authorization bill, and those federal requirements are now being finalized. Both the 2009 Transportation Reform Law and the Transportation Finance Act of 2013 helped bring the Commonwealth in step with this national trend.

Mixed adherence to new Performance Measures created by the Acts of 2009

The Acts of 2009 created the Office of Performance Management and Innovation within MassDOT.⁹⁴ The law requires that this office develop a performance measurement system and establish performance goals for each MassDOT division.⁹⁵ The measurements are meant to provide data on the operation of the divisions and allow the department to assess how well it is doing at achieving the defined goals.⁹⁶ MassDOT is obligated to report on the data found from these measurements, the goals it sets, and what the measurements show about the department's progress toward those goals.

Though the Office of Performance Management and Innovation is largely able to establish its own goals, the statute specifies a number of measurements that the Office must track both for individual fiscal years and the previous five fiscal years. Out of 19 performance measures

required by the 2009 law, MassDOT now reports on 10.97 MassDOT is working to develop the additional measures required.

Among the measurements it has included, MassDOT has successfully reported on:

- Number of capital projects completed for each year of reporting (highway and transit);
- Ridership (but only MBTA, not for the RTAs);
- On-time performance for each fiscal year (but only MBTA, not for the RTAs); and
- Assessment of maintenance of bridges.

However, MassDOT has not fully and consistently reported on such measurements as congestion, maintenance programming, and percentage of projects completed early or on time, or provided a full assessment of maintenance performance by asset class, mode, and region.

Mixed adherence to new Performance measure goals created by the Transportation Finance Act of 2013

The Transportation Finance Act of 2013 supplemented the 2009 performance measure and goals framework with ten specific goals.98 MassDOT only reports one so far.

Since March of 2016, the MBTA has made some performance measures publicly available and accessible at its MBTA Performance Dashboard, tracking reliability, ridership, financials, and customer satisfaction.⁹⁹

Performance Goal	Provided	Achieved
Reduce commuting times by 10% in each region for each 5-year period (Highway Division).	No	N/A
Reduce fatalities by 10% for each 5-year period (Highway Division).	Yes	No
Reduce accident rate by 10% for each 5-year period (Highway Division).	No	N/A
Reduce administrative disbursement rate per mile by 10% for each 5-year period (Highway Division).	No	N/A
Increase maintenance disbursements per mile by at least the same total dollar amount as the total dollar amount saved by the reduction of the administrative disbursement rate per mile under for each 5-year period (Highway Division).	No	N/A
Decreasing the urban transit bus fleet age for each transit authority by 10% for each 5-year period (Mass Transit Division).	No	N/A
Reduce fatalities due to transit accidents in each transit authority by 10% for each 5-year period (Mass Transit Division).	No	N/A
Increase the farebox recovery ratio by 10% for each transit authority for each 5-year period (Mass Transit Division).	MBTA only/ not for 5-year period	N/A
Increase on-time performance by 2% for each transit authority for each 5-year period, until that percentage reaches 98% (Mass Transit Division).	No	N/A
Increase revenue miles per active vehicle by 5% for each transit authority for each 5-year period (Mass Transit Division).	Not for 5-year period	N/A

CONCLUSION

ON JULY 24, 2016, without any fanfare, the third anniversary of the passage of the Transportation Finance Act came and went. While this anniversary was not acknowledged by the public at large, the influx of additional funding from the Act has already had a significant but quiet impact on both operations of the Commonwealth's transportation system and investment in its infrastructure. The future stands to bring additional critical investments with funding from the Transportation Finance Act of 2013. Actual revenue and spending has varied in places from projections and overall the budget has fallen short about 5% (or \$140 million) from 2013 projections.

As expected by the architects of the Transportation Finance Act of 2013, it is still true that the resources available to MassDOT are hundreds of millions of dollars short of what is necessary to maintain and build the transportation system the Commonwealth needs,

and projections are unfortunately beginning to look more optimistic that the reality. While a renewed and prioritized focus on state of good repair by the administration will help create a better foundation for our transportation system, it is worth noting that not even this category is fully funded.

At the same time, the serious effects of inadequate investment in modernization and expansion today will be felt even more sharply in the future. If we don't solve this deficit now, it will only become increasingly dire. The Fair Share Amendment, a likely constitutional amendment ballot question that seeks to add an additional tax on incomes over a million dollars to help fund transportation and education, is one proposed solution. With this potential of additional transportation revenue on the horizon, it may be possible for the Commonwealth to avoid this course.

APPENDIX: MA TRANSPORTATION FUNDING FLOW CHART FOR FY15 SOURCES AND NOTES

Spending	ı Item	Recipient	FY 2015 amount		
Motor Ve	ehicle Sales Tax	Commonwealth Transportation Fund (CTF)	\$510,030,805		
Source	MassDOT Revenue and Expense Report BFY 2015 (Jan 26, 2016), p. 10.				
Link	https://www.massdot.state.m	a.us/Portals/0/docs/infoCenter/financials/FY_2015.pdf#page=10			
Notes	The CTF is a budgetary fund	f the Commonwealth for transportation-related purposes.			
Motor Fu	iel Taxes	CTF	\$824,640,027		
Source	MassDOT Revenue and Expense Report BFY 2015 (Jan 26, 2016), p. 10.				
Link	https://www.massdot.state.m	a.us/Portals/0/docs/infoCenter/financials/FY_2015.pdf#page=10			
Notes	Includes: gasoline, diesel, jet	uel taxes, related licensing fees, and underground tank storage cleanup f	ees		
Other fu	nds paid to CTF	CTF	\$5,360,118		
Source	MassDOT Revenue and Exper	se Report BFY 2015 (Jan 26, 2016), p. 10.			
Link	https://www.massdot.state.m	a.us/Portals/0/docs/infoCenter/financials/FY_2015.pdf#page=10			
Notes	Includes: grant/loan repayme	nts, highway fines, late payment charges and interest, Motor Carrier 88.24	I, and miscellaneous		
Registry a	and Inspection Fees	CTF	\$571,159,664		
Source	MassDOT Revenue and Expense Report BFY 2015 (Jan 26, 2016), p. 10.				
Link	https://www.massdot.state.ma.us/Portals/0/docs/infoCenter/financials/FY_2015.pdf#page=10				
Notes	Includes: motor vehicle license, vehicle, title and other fees, including citable motor vehicle inspection collections, spec/motor license fees, other motor vehicle inspection fees, and driver vehicle data/records fees. Includes all fees paid to the RMV except a \$2 per motorcycle registration (which is dedicated to motorcycle safety) and receipts from veterans license plates (contributed to the General Fund). For a list of the 37 types of Registry fees, see https://malegislature.gov/Laws/GeneralLaws/Partl/TitleXIV/Chapter90/Section33				
payment	usetts Transportation Trust F s to Registry of Motor Vehic	es (RMV) for	£70 F0C 000		
operatio		Registry of Motor Vehicles (RMV)	\$70,506,000		
Source		ements, Required Supplementary Information and Supplementary Schedul	les (June 30, 2015), p. 110.		
Link	http://www.massdot.state.ma	us/Portals/0/docs/infoCenter/financials/financial_063015.pdf#page=112			
Western T	urnpike tolls and other revenu	e to the MTTF Massachusetts Transportation Trust Fund (MTTF	F) \$173,563,000		
Source	MassDOT, Basic Financial Stat	ements, Required Supplementary Information and Supplementary Schedul	les (June 30, 2015), p. 110.		
Link	http://www.massdot.state.ma.us/Portals/0/docs/infoCenter/financials/financial_063015.pdf#page=112				
Notes	Includes toll revenue, rental/	ease income, investment income, departmental and other income.			
•	litan Highway System tolls a to the MTTF	nd other MTTF	\$222,876,000		
Source	MassDOT, Basic Financial Stat	ements, Required Supplementary Information and Supplementary Schedul	les (June 30, 2015), p. 110.		
Link	http://www.massdot.state.ma	us/Portals/0/docs/infoCenter/financials/financial_063015.pdf#page=112			
Notes	Includes: toll revenue, rental/lease income, investment income, departmental and other income. Excludes: \$125 million in CTF transfer and \$124K in direct federal grants and reimbursements.				

Spendin	g Item	Recipient	FY 2015 amount		
Tobin Br	idge tolls and other revenue to the MTTF.	MTTF	\$34,442,000		
Source	MassDOT, Basic Financial Statements, Required Supp	plementary Information and Supplementary Schedule	es (June 30, 2015), p. 110.		
Link	http://www.massdot.state.ma.us/Portals/0/docs/infoCenter/financials/financial_063015.pdf#page=112				
Notes	Includes toll revenue, investment income, and departmental income.				
Other re	evenue to the MTTF	MTTF	\$19,624,000		
Source		blementary Information and Supplementary Schedule			
Link		* * * * * * * * * * * * * * * * * * * *	25 (Suite 30, 2013), p. 110.		
Notes	http://www.massdot.state.ma.us/Portals/0/docs/infoCenter/financials/financial_063015.pdf#page=112 Includes: Commonwealth grants or contract assistance, rental/lease income, investment income, departmental or other income.				
110103	includes. Commonwealth grants of contract assistant	nee, remainease meome, investment meome, departir	iental of other meome.		
Commor	nwealth Transportation Fund (CTF) to MTTF	MTTF	\$620,149,841		
Source	MassDOT Revenue and Expense Report BFY 2015 (Ja	an 26, 2016)			
Link	https://www.massdot.state.ma.us/Portals/0/docs/info	Center/financials/FY_2015.pdf#page=7			
Notes	Includes:B12:H12 \$495,631 CTF operations transfer, \$100 million transfer for MHS bond payments, and \$25 million for Central Artery operations and maintenance				
Prison Li	cense Plates	Department of Corrections	\$3,090,898		
Source	State budget line item 8900-0010				
Link	http://www.mass.gov/bb/h1/fy16h1/brec_16/act_16/h	89000010.htm			
Notes	For prison industries and farm services; provided, that the commissioner of correction or a designee shall determine the cost of manufacturi motor vehicle registration plates and certify to the comptroller the amounts to be transferred from the Commonwealth Transportation Fun established pursuant to section 2ZZZ of chapter 29 of the General Laws to the department of correction revenue source				
Additior	nal Assistance	MBTA	\$122,552,622		
Source	Comptroller Statutory Basis report, FY 2015 (page 1	54)			
Link	http://www.mass.gov/comptroller/docs/reports-audits/sbfr/2016-sbfr.pdf#page=72				
Notes	Funded 100% by the Commonwealth Transportation bb/gaa/fy2017/app_17/act_17/ha15956369.htm .	n Fund and determined in the General Appropriation	ns Act http://www.mass.gov/		
Debt Ser	rvice of MassDOT debt paid by CTF	Bondholders of MassDOT debt	\$1,196,296,000		
Source	Comptroller Statutory Basis report, FY 2015 (page 1	54)			
Link	http://www.mass.gov/comptroller/docs/reports-audit	ts/sbfr/2016-sbfr.pdf#page=72			
Notes	Comptroller reports final amounts for interest principal retirement (\$735,408,000) plus Interest and fiscal charges (\$460,888) for a total of \$1,196,373,000. This amount differs somewhat from the GAA anticipated line item outlays.				
CTF tran	sfer to Regional Transit Authorities (RTAs)	Regional Transit Authorities (RTAs)	\$40,000,000		
Source	Governor's Budget				
Link	http://www.mass.gov/bb/gaa/fy2017/prnt_17/app_17	//act_17/pa15956370.htm			
Notes	Line item 1595-6370 of the GAA Budget and reported sp	ending equal \$40,000. "Commonwealth Transportation F	und transfer to Regional Transit		
MTTF tra	ansfer to Regional Transit Authorities (RTAs)	RTAs	\$41,330,000		
Source	General Appropriations Act, line item 1595-6368.				
ink	http://www.mass.gov/bb/gaa/fy2015/prnt_15/app_15	s/act_15/p15956368.htm			
Notes	various regional transit authorities. "For an operating to section 4 of chapter 6C of the General Laws; proving organized pursuant to chapter 161B of the General 2ZZZ of chapter 29 of the General Laws; provided fur transit authority for a contract with Community Transit authority, to provide the existing services and that not less than \$460,000 shall be provided to Ber	erating transfer from the MTTF, plus \$1,330,000 in earny transfer to the Massachusetts Transportation Trust vided, that \$40,000,000 shall be provided to the region Laws or predecessor statutes pursuant to clause (2) our ther, that not less than \$770,000 shall be provided the insit Services, Inc., or any successor agency engaged be densure those services shall not be reduced in fiscally kshire Rides to maintain transportation services; proves assist the training, placement and development of a	t Fund, established pursuant onal transit authorities of subsection (d) of section to the Montachusett regional y the Montachusett regional year 2015; provided further, yided further, that not less		

Speriality	g Item	Recipient	FY 2015 amount		
MTTF to	MassDOT Debt	MassDOT Debt	\$170,959,717		
Source	MassDOT Revenue and Expense report, p. 110.				
Link	https://www.massdot.state.ma.us/Portals/0/docs/inf	oCenter/financials/FY_2015.pdf#page=112			
Notes	MTTF Revenue and Expenses in larger MassDOT Revenue and Expense report lists the same amount rounded to nearest thousand http://www.massdot.state.ma.us/Portals/0/docs/infoCenter/financials/financial_063015.pdf#page=112				
MassDO	T operating transfer from MTTF	MassDOT	\$853,212,000		
Source	Massachusetts Transportation Trust Fund, Combining Schedule of Revenues, Expenditures and Changes in Fund Balances, Fiscal year ended June 30, 2015, p. 110				
Link	http://www.massdot.state.ma.us/Portals/0/docs/info	Center/financials/financial_063015.pdf#page=112	2		
Notes	Expenditures for Highway, Office of the Secretary, Rail and Transit, and Aeronautics (excludes RMV, Rail and Transit and debt service, which are accounted for elsewhere).				
Sales tax	transfer	MBTA	\$970,637,174		
Source	MassDOT, Basic Financial Statements, Required Sup	plementary Information and Supplementary Scho	edules (June 30, 2015), p. 32		
Link	https://www.massdot.state.ma.us/Portals/0/docs/inf	oCenter/financials/FY_2015.pdf#page=30			
	plus \$160 million appually Effective for fiscal 2015	the \$160 million adjustment was integrated into	the inflation adjusted floor		
	plus \$160 million annually. Effective for fiscal 2015, which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%2	(lesser of sales tax growth or inflation, but not goory basis, see page A-12 http://www.massbondho	increased by \$160 million. The reater than 3% and not less		
Local Go	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not g cory basis, see page A-12 http://www.massbondho	increased by \$160 million. The reater than 3% and not less		
Local Go Source	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%2	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not g cory basis, see page A-12 http://www.massbondho 9%20-%20OS.pdf MBTA	increased by \$160 million. The reater than 3% and not less older.com/sites/default/files/		
	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%2 vernment Assessments	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not g cory basis, see page A-12 http://www.massbondho 9%20-%20OS.pdf MBTA plementary Information and Supplementary Sche	increased by \$160 million. The reater than 3% and not less older.com/sites/default/files/		
Source	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%2 vernment Assessments MassDOT, Basic Financial Statements, Required Sup	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not g cory basis, see page A-12 http://www.massbondho 9%20-%20OS.pdf MBTA plementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the	sincreased by \$160 million. The reater than 3% and not less older.com/sites/default/files/ \$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for		
Source Link	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%20 vernment Assessments MassDOT, Basic Financial Statements, Required Suphttps://www.massdot.state.ma.us/Portals/0/docs/inf-Assessed to 175 member communities associated with the cities and towns, see "Cherry Sheet Manual," Divisional dis/cherry/cherrysheetmanual.pdf	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not g cory basis, see page A-12 http://www.massbondho 9%20-%20OS.pdf MBTA plementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the	sincreased by \$160 million. The reater than 3% and not less older.com/sites/default/files/ \$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for		
Source Link Notes	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%20 vernment Assessments MassDOT, Basic Financial Statements, Required Suphttps://www.massdot.state.ma.us/Portals/0/docs/inf-Assessed to 175 member communities associated with the cities and towns, see "Cherry Sheet Manual," Divisional dis/cherry/cherrysheetmanual.pdf	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not gory basis, see page A-12 http://www.massbondhog/20-%20OS.pdf MBTA pplementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the ion of Local Services, Department of Revenue, p. 1	\$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for 37 http://www.mass.gov/dor/docs/		
Source Link Notes	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%2000 wernment Assessments MassDOT, Basic Financial Statements, Required Suphttps://www.massdot.state.ma.us/Portals/0/docs/inf. Assessed to 175 member communities associated with cities and towns, see "Cherry Sheet Manual," Divisional statements of the cities and towns, see "Cherry Sheet Manual," Divisional statements.	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not gory basis, see page A-12 http://www.massbondhog/20-%20OS.pdf MBTA plementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the ion of Local Services, Department of Revenue, p. 1	\$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for 37 http://www.mass.gov/dor/docs/		
Source Link Notes MBTA fa Source Link	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%2000 wernment Assessments MassDOT, Basic Financial Statements, Required Suphttps://www.massdot.state.ma.us/Portals/0/docs/informassessed to 175 member communities associated with cities and towns, see "Cherry Sheet Manual," Divisional dis/cherry/cherrysheetmanual.pdf MBTA Statement of Revenues and Expenses	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not gory basis, see page A-12 http://www.massbondhog/20-%20OS.pdf MBTA plementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the ion of Local Services, Department of Revenue, p. 1	\$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for 37 http://www.mass.gov/dor/docs/		
Source Link Notes MBTA fa Source Link	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%20vernment Assessments MassDOT, Basic Financial Statements, Required Suphttps://www.massdot.state.ma.us/Portals/0/docs/inf. Assessed to 175 member communities associated with cities and towns, see "Cherry Sheet Manual," Divisional dis/cherry/cherrysheetmanual.pdf Tres MBTA Statement of Revenues and Expenses http://www.mbta.com/uploadedfiles/About_the_T/fi	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not gory basis, see page A-12 http://www.massbondhog/9%20-%20OS.pdf MBTA pplementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the ion of Local Services, Department of Revenue, p. 1 MBTA MBTA Financials/SOREHistoryFY2016.xls	sincreased by \$160 million. The reater than 3% and not less older.com/sites/default/files/ \$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for 37 http://www.mass.gov/dor/docs/ \$602,626,507		
Source Link Notes MBTA fa Source Link MBTA pa	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%20 vernment Assessments MassDOT, Basic Financial Statements, Required Suphttps://www.massdot.state.ma.us/Portals/0/docs/inf-Assessed to 175 member communities associated with cities and towns, see "Cherry Sheet Manual," Divisional dis/cherry/cherrysheetmanual.pdf Tres MBTA Statement of Revenues and Expenses http://www.mbta.com/uploadedfiles/About_the_T/markings, ads, real estate, etc	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not gory basis, see page A-12 http://www.massbondhog9%20-%20OS.pdf MBTA pplementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the ion of Local Services, Department of Revenue, p. 1 MBTA MBTA Financials/SOREHistoryFY2016.xls MBTA	sincreased by \$160 million. The reater than 3% and not less older.com/sites/default/files/ \$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for 37 http://www.mass.gov/dor/docs/ \$602,626,507		
Source Link Notes MBTA fa Source Link MBTA pa Source Link	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%20vernment Assessments MassDOT, Basic Financial Statements, Required Suphttps://www.massdot.state.ma.us/Portals/0/docs/inf. Assessed to 175 member communities associated with cities and towns, see "Cherry Sheet Manual," Divisional Statement of Revenues and Expenses http://www.mbta.com/uploadedfiles/About_the_T/loarkings, ads, real estate, etc MBTA Statement of Revenues and Expenses	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not gory basis, see page A-12 http://www.massbondhog9%20-%20OS.pdf MBTA pplementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the ion of Local Services, Department of Revenue, p. 1 MBTA MBTA Financials/SOREHistoryFY2016.xls MBTA	sincreased by \$160 million. The reater than 3% and not less older.com/sites/default/files/ \$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for 37 http://www.mass.gov/dor/docs/ \$602,626,507		
Source Link Notes MBTA fa Source Link MBTA pa Source Link	which was reset at \$970.6 million, and the amount floor grows by the allowable base revenue growth than 0%) thereafter. For a description of the statut downloads/2016%20Series%20F%20%28Green%20vernment Assessments MassDOT, Basic Financial Statements, Required Suphttps://www.massdot.state.ma.us/Portals/0/docs/inf-Assessed to 175 member communities associated with cities and towns, see "Cherry Sheet Manual," Divisional Statement of Revenues and Expenses http://www.mbta.com/uploadedfiles/About_the_T/markings, ads, real estate, etc MBTA Statement of Revenues and Expenses http://www.mbta.com/uploadedfiles/About_the_T/markings, ads, real estate, etc	of sales tax statutorily credited to the MBTA was (lesser of sales tax growth or inflation, but not gory basis, see page A-12 http://www.massbondhog/9%20-%20OS.pdf MBTA pplementary Information and Supplementary Schoocenter/financials/FY_2015.pdf#page=30 with the transit authority. For a description of the ion of Local Services, Department of Revenue, p. 1 MBTA MBTA Financials/SOREHistoryFY2016.xls MBTA	sincreased by \$160 million. The reater than 3% and not less older.com/sites/default/files/ \$160,159,000 edules (June 30, 2015), p. 32 assessment and the formula for 37 http://www.mass.gov/dor/docs/ \$602,626,507		

NOTES

- 1 Boston Metropolitan Planning Organization, Charting Progress to 2040: Long-Range Transportation Plan of the Boston Region Metropolitan Planning Organization (July 2015).
- 2 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Section 62(a).
- 3 See Governor Charles D. Baker's Budget Recommendation Fiscal Year 2016, Capital Budget, available at http://www.mass.gov/bb/h1/fy16h1/cap_16/hdefault.htm.
- 4 MassDOT, Recommendations for MassDOT Project Selection Criteria (July 1, 2015), available at https://www.massdot.state.ma.us/Portals/0/docs/PSAC/Report_Recom.pdf.
- 5 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013. Section 60.
- 6 See MassDOT, Revenue and Expense Report, Fiscal Year Ended June 30, 2014 (FY14), Legislative Report Chapter 6C, Section 28 (dated October 31, 2014), p.3. The FY14 MassDOT Actual Operating Budget was \$998,946,591 of which the department provided \$495,276,945 or 49.58%. The Commonwealth provided \$503,669,646 or 50.42%.
- 7 See MassDOT, Revenue and Expense Report, Fiscal Year Ended June 30, 2015 (FY15), Legislative Report Chapter 6C, Section 28 (dated January 26, 2016), p.3. The FY15 MassDOT Actual Operating Budget was \$1,226,516,628 of which the department provided \$606,366,787 or 49.44%. The Commonwealth provided \$620,149,841 or 50.56%.
- 8 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Section 61.
- 9 Massachusetts Bay Transportation Authority, MBTA Statement of Revenue and Expenses, FY1991 to FY2014.
- 10 Massachusetts Bay Transportation Authority, MBTA Statement of Revenue and Expenses, FY1991 to FY2015.
- 11 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Section 63.
- 12 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Section 65.
- 13 Massachusetts General Laws, Chapter 6C, Section 2(a)

- 14 The 186th General Court of the Commonwealth of Massachusetts, Chapter 25 of the Acts of 2009. Section 182.
- 15 Massachusetts General Laws, Chapter 6C, Section 2(a).
- 16 Massachusetts General Laws, Chapter 6C, Section 73.
- 17 Massachusetts General Laws, Chapter 6C, Section 4.
- 18 Massachusetts General Laws, Chapter 29, Section 2ZZZ.
- 19 Massachusetts General Laws, Chapter 6C, Section 29(b).
- 20 Massachusetts General Laws GL c. 6C, s. 30(b).
- 21 Chapter 25 of the Acts of 2009, Section 147.
- 22 Massachusetts General Laws, Chapter 161A, Section 7 (2009) (amended 2012).
- 23 Massachusetts General Laws, Chapter 161A, Section 7 (2012); Massachusetts FY2016 Budget, Outside Section 200, available at http://www. mass.gov/bb/gaa/fy2016/os_16/h200.htm.
- 24 Massachusetts General Laws, Chapter 6C, Section 10.
- 25 Massachusetts General Laws, Chapter 6C, Section 43(a).
- 26 Massachusetts General Laws, Chapter 6C, Section 73.
- 27 Massachusetts General Laws, Chapter 29, Section
- 28 Massachusetts General Laws, Chapter 6C, Section 4.
- 29 Massachusetts General Laws, Chapter 6C, Section 6(b).
- 30 Massachusetts General Laws, Chapter 6C, Section 33.
- 31 MassDOT GreenDOT, Healthy Transportation Compact https://www.massdot.state.ma.us/ GreenDOT/HealthyTransportation/HealthyTransportationCompact.aspx
- 32 Our research methodology included online research, records requests to MassDOT, the MBTA, and the Joint Committee on Transportation, as well as searches of all House and Senate Journals from June 2009 to June of 2016, and the Massachusetts Archives.

- 33 Massachusetts General Laws, Chapter 6C, Section 28.
- 34 Massachusetts General Laws, Chapter 6C, Section 6(b).
- 35 Id.
- 36 MassDOT Highway Division, Project Info (2016), available at http://www.massdot.state.ma.us/ highway/ProjectInfo.aspx
- Massachusetts General Laws, Chapter MGL c. 6C,
- 38 Massachusetts General Laws, Chapter MGL c. 6C, s. 48(e).
- 39 Massachusetts General Laws, Chapter MGL c. 6C, s. 172.
- 40 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Section 12.
- 41 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Section 69.
- 42 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Section 68(a) and (b).
- 43 Id.
- The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Sections 60(b) and 61.
- 45 The 188th General Court of the Commonwealth of Massachusetts, Chapter 46 of the Acts of 2013, Section 78.
- 46 Id.
- 47 Massachusetts General Laws, Chapter MGL c. 6C, Section 167.
- 48 Massachusetts General Laws, Chapter 6C, Section 5(b).
- 49 Massachusetts General Laws, Chapter 6C, Section 5(c).
- 50 Massachusetts General Laws, Chapter 6C. Section 6(c).
- 51 Id.
- Massachusetts General Laws, Chapter 6C, Section 11.
- 53 Massachusetts General Laws, Chapter 6C, Section 35.
- Massachusetts General Laws, Chapter 6C, Section 43(d).
- 55 Massachusetts General Laws, Chapter 6C, Section 157.

- Massachusetts General Laws, Chapter 6C, Section 177.
- 57 Massachusetts General Laws, Chapter 6c, Section 178(c).
- Massachusetts General Laws, Chapter 161A, 58 Section 20.
- MassDOT, Revenue and Expense Report, Fiscal Year Ended June 30, 2015 (FY15), Legislative Report Chapter 6C, Section 28 (dated January
- 60 Pursuant to the Transportation Finance Act of 2013, the Commonwealth Transportation Fund now receives the motor vehicles tax receipts rather than a portion of the general sales tax. Without that change, the Commonwealth Transportation Fund would have received \$358 million in FY15. See Commonwealth of Massachusetts, Department of Revenue, Monthly Reports of Collections and Refunds, June 2015, Net Collections - Table B (Between FY11 and FY13, 6.16% of the sales tax, or 0.385% of receipts from sales or the sales price of purchases as defined in M.G.L. Ch. 64H and Ch. 64I, was credited to the Commonwealth Transportation Fund. As a result, 6.16% of the total sales and use tax revenue of \$5,804,688,553 in FY15 or \$358 million would have become available).
- 61 This includes funds from the issuance of permits and fees for the use of the Commonwealth's highways by oversized vehicles and construction equipment, and from the sale and lease of Mass-DOT land.
- 62 MassDOT, Revenue and Expense Report, Fiscal Year Ended June 30, 2015 (FY15), Legislative Report Chapter 6C, Section 28 (dated January 26, 2016).
- 63 Incremental estimated revenue for interchange 1-6 based on FY14 collections of 8.5 months. (Estimated by Susan Bristol, MassDOT, received 12/7/16).
- 64 MassDOT Pro forma associated with The Way Forward (January 2013).
- MassDOT, 2017-2021 Capital Investment Plan (2016), p.23, available at http://www.massdot. state.ma.us/Portals/0/docs/infoCenter/docs_materials/CapitalInvestmentPlan2017-2021.pdf.
- See Joint Ways and Means Committee Transportation Finance Framework Pro Forma (April 2013).
- 67 MassDOT, Revenue and Expense Report, Fiscal Year Ended June 30, 2015 (FY15), Legislative Report Chapter 6C, Section 28 (dated January 26, 2016), p. 5.
- 68 State funding, including, but not limited to, \$80 million in RTA contract assistance, \$160 million in MBTA contract assistance pursuant to Massachusetts General Laws, Chapter 29, Section 2ZZZ(d)(1) and \$135 million in MBTA contract assistance pursuant to the Transportation Finance Act of 2013 pro forma.

- 69 Id.
- 70 Commonwealth of Massachusetts, Statutory Basis Financial Report Fiscal Year Ended June 30 2015 (November 10, 2015) at p. 65 (debt service) and MassDOT, Revenue and Expense Report, Fiscal Year Ended June 30, 2015 (FY15), Legislative Report Chapter 6C, Section 28 (dated January 26, 2016) at p. 5 (debt service).
- 71 Actuals for snow and ice operations (\$128.6M) and PayGo Capital Maintenance (\$191.6M) provided by Susan Bristol, MassDOT (12/6/16).
- 72 MBTA *Pro forma* as adapted by Joint Ways and Means Committee (2013).
- 73 MBTA Statement of Revenue and Expenses FY1991 to FY15.
- 74 Update on Additional Assistance, Report to Fiscal and Management Control Board (October 6, 20016) at http://www.mbta.com/uploadedfiles/About_the_T/Board_Meetings/3.%20GM%20Remarks%20FINAL-PDF%20FOR%20POSTING.pdf, p.6.
- 75 *Id.*at p.5.
- 76 Chief Administrator's Remarks to the MBTA Fiscal and Management Control Board (August 1, 2016) at http://www.mbta.com/uploadedfiles/About_the_T/Board_Meetings/CA-Remarks-8-1-2016.pdf, pp. 1-2.
- 77 State House News Service, Massachusetts Sales Tax Oct. Revenues Look Promising, State House News Service (Nov. 5, 2016) available at http:// dedham.wickedlocal.com/news/20161105/massachusetts-sales-tax-oct-revenues-look-promising.
- 78 Chapter 46 of the Acts of 2015, Section 169.
- 79 MBTA Fiscal and Management Control Board, First Annual Report (December 22, 2015), p. 45.
- 80 Jessie Saintcyr, CAO for MassDOT & Assistant Secretary of Human Resources, Human Resources Strategy Update to the Fiscal and Management Control Board (August 1, 2016) at http://www.mbta.com/uploadedfiles/About_the_T/Board_Meetings/Human-Resources-Update-8-1-16.pdf
- 81 Central Transportation Planning Staff, Potential MBTA Fare Changes in SFY 2017, Final Option Impact Analysis (March 2016), p. 7 and based on conversation with Chief Administrator Brian Shortsleeve on March 22, 2016.
- 82 Id.
- 83 MBTA Fiscal and Management Control Board, First Annual Report: Letter to the Members of the General Court (December 22, 2015).
- 84 MBTA Fiscal and Management Control Board, First Annual Report (December 22, 2015), p. 25.
- 85 MBTA Fiscal and Management Control Board, First Annual Report (December 22, 2015), p. 28.

- 86 MBTA Fiscal and Management Control Board, First Annual Report (December 22, 2015), p. 25.
- 87 MBTA Fiscal and Management Control Board, MBTA Late Night Service: Proposed Service Changes (February 29, 2016), p. 6.
- 88 MBTA Fiscal and Management Control Board, L589 Boston Carmen's Union Contract Update (December 19, 2016), p. 9.
- 89 The Way Forward added \$300 million over a 10-yeaer period to planned spending in the following MBTA program areas (as listed in the 2013-2017 MBTA CIP on p.18): track/right of way, signals, communications, power, maintenance facilities, and facilities. See http://www.mbta.com/uploadedfiles/About_the_T/Financials /0000FY13FY17CIP442012.pdf. Thus over a five-year period The Way Forward planned to spend \$150 million in addition to \$689.40 million listed in the 2013-2017 MBTA CIP, for these program
- 90 MassDOT, "MassDOT Substantially Reduces Fines for Tobin Bridge Pay-by-Plate Customers," MassDOT News Archives (May 28, 2015), available at http://www.massdot.state.ma.us/ main/tabid/1085/ctl/detail/mid/2937/itemid/562/ MassDOT-Substantially-Reduces-Fines-for-Tobin-Bridge-Pay-By-Plate-Customers-.aspx
- 91 MassDOT Highway Division, All-Electronic Tolling Update (November 18, 2015), available at http://www.mbta.com/uploadedfiles/About_ the_T/Board_Meetings/AETBriefing.pdf
- 92 MassDOT, "Construction," Interstate 91 Viaduct Rehabilitation Project (2016) http://www.massdot.state.ma.us/i91viaductrehab/Construction. aspx
- 93 See Ethan Genter, "MBTA Board Wary of Bourne Commuter Rail," Cape Cod Times (April 8, 2016), available at http://www.capecodtimes.com/article/20160408/NEWS/160409500
- 94 Massachusetts General Laws, Chapter 6C, Section 6(a).
- 95 Massachusetts General Laws, Chapter 6C Section 6(b).
- 96 The Office has defined MassDOT's goals broadly as safety, customer service, employee engagement, fiscal responsibility, and innovation, and employee empowerment. See MassDOT, 2014 Annual Performance Report (December 2014), available at https://www.massdot.state.ma.us/ Portals/0/docs/infoCenter/performancemanagement/AnnualPerformanceReport_2014.pdf
- 97 MassDOT, MassTracker: MassDOT's Annual Performance Report, Fiscal Year 2015 (December 2015), p. 44-46.
- 98 The Act states that these goals "shall include, but not be limited to" those listed. Massachusetts General Laws, Chapter 6C, Section 6A.
- 99 See www.mbtabackontrack.com.



50 Milk Street, 16th Floor Boston, MA 02109 info@t4ma.org • 413-367-T4MA

www.t4ma.org



www.facebook.com/T4MASS

Executive Committee