

# Transforming the T: How MBTA Reform Can Right Our Broken Transportation System

Charles Chieppo  
*Harvard Kennedy School*

---

December 2015



# Transforming the T: How MBTA Reform Can Right Our Broken Transportation System

---

Charles Chieppo  
*Harvard Kennedy School*

---

December 2015



## INTRODUCTION

The most amazing thing about the collapse of public transit last February under the weight of Boston’s snowiest winter in recorded history was not that it happened, but that it didn’t happen sooner. The Massachusetts Bay Transportation Authority (MBTA, also known as the T) owes nearly \$9 billion in debt and interest and has a \$7.3 billion maintenance backlog. By 2010, just six of 57 maintenance projects with a safety rating of “critical” could be funded<sup>1</sup> and 82 percent of commuter rail coaches and locomotives were at least 22 years old.

Until fiscal year 2001, the MBTA informed the state legislature at the end of each year what its deficit was for the previous 12 months, and the commonwealth wrote a check to cover it. That system was replaced by one in which the T receives the revenue from one penny of the state sales tax and assessments from the municipalities it serves in addition to money from fares, rent on its real estate holdings, parking fees, advertising revenue, and other internally generated funds. But in recent years, “forward funding” has broken down. The sales tax was increased from 5 to 6.25 percent and state taxpayers have had to kick in hundreds of millions of dollars to cover MBTA shortfalls.

Legislation passed in the wake of last winter’s meltdown created a Fiscal and Management Control Board (FMCB) to oversee the MBTA. Their first report to the legislature earlier this year disclosed that without additional state help, the T is looking at a \$170 million shortfall for the current year, which is projected to grow to \$427 million by fiscal 2020. Expenses are rising at a 4.4 percent annual rate, while revenues are increasing by just 1.6 percent per year.<sup>2</sup>

The FMCB has already taken a number of steps to address the MBTA’s problems. A 2015 report by a special panel appointed by Governor Charlie Baker to review the MBTA in the wake of last winter’s collapse had identified that the T was unable to actually execute billions in planned capital spending over a recent five-year period.<sup>3</sup> Total

---

1 *MBTA Review*, David F. D’Alessandro, Paul D. Romary, Lisa J. Scannell, Bryan Woliner; November 1, 2009, p. 24.

2 *MBTA Fiscal Management and Control Board Report #1*, September 22, 2015, pp. 11 & 16.

3 *Back on Track: An Action Plan to Transform the MBTA*, Governor’s Special Panel to Review the MBTA, April 8, 2015, p.21.

capital spending was \$740 million last year; that will increase to \$1.05 billion during fiscal 2016.

The MBTA needs to spend \$472 million annually on state of good repair (SGR) just to keep the \$7.3 billion maintenance backlog from growing. Between 2009 and 2014, the T spent an average of \$378 million per year on SGR, but that increased to \$552 million between September 2014 and August of this year. To provide a sense of the magnitude of the maintenance backlog, the T would have to spend \$765 million annually to eliminate it over 25 years.<sup>4</sup>

As we approach another winter, the MBTA has also implemented an \$82.7 million winter resiliency program that includes replacing third rails, third rail heaters, and purchasing additional traction motors.

It would be impossible to address everything that needs to be done to turn the MBTA around in this brief, but I will set forth recommendations for reforms in several important areas.

### **I. Creating a Customer-Service Culture**

Providing excellent customer service increases ridership, which provides desperately needed revenue. Customer service should be the MBTA's top priority.

To achieve this goal, the MBTA should establish a set of customer-service focused metrics, put them on the T website, and constantly update the system's performance. Among the metrics could be on-time performance and a "passenger comfort index" based on things like the percentage of vehicles with working heat, air conditioning, and Wi-Fi. The commonwealth should assume a portion of the MBTA's debt based on the agency's success in achieving these goals.

### **II. Fares**

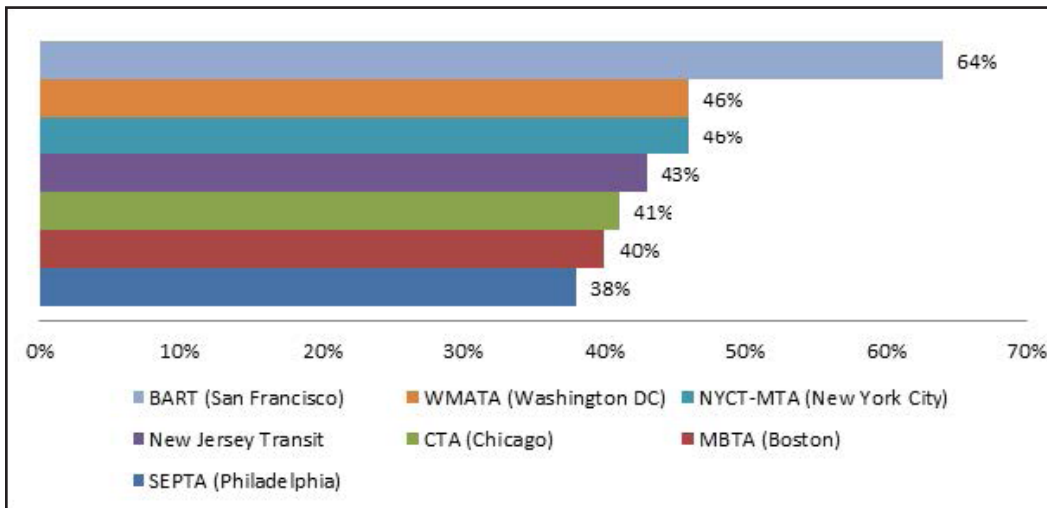
The MBTA should aim to increase the portion of its operating costs that is covered by fare revenue from 40 percent to 45 percent, which would put it more in line with other major US transit systems. Achieving this goal would reduce the T's annual deficit by

---

<sup>4</sup> MBTA Fiscal Management and Control Board Report #1, p.32.

more than \$60 million. Regular, modest fare increases will be required to increase the fare recovery ratio.

### Transit Agency Fare Box Recovery Ratio



(Source: NTD Database: Transit Profile: Top 50 Agencies for the 2011 Report Year. Farebox recovery ratios as reported in these national profiles do not include non-fare revenue.  
[http://www.ntdprogram.gov/ntdprogram/pubs/top\\_profiles/2011/2011\\_Complete\\_set\\_Top%2050%20Agencies.pdf](http://www.ntdprogram.gov/ntdprogram/pubs/top_profiles/2011/2011_Complete_set_Top%2050%20Agencies.pdf))

The MBTA should also develop a more flexible fare policy that includes pairing fare increases with discounts for low-income riders, which has been made possible by advances in smart card technology. The most basic purpose of transportation is to facilitate economic growth, and that includes providing low-income residents with access to jobs and an opportunity to climb the economic ladder.

But the T is also broke, so it must recoup the revenue lost to fare discounts. That can be achieved by a combination of raising fares on other riders and cutting costs.

Two savings opportunities—reforming the The Ride, the MBTA’s paratransit service, and contracting out bus maintenance—are discussed later in this brief. The T should also eliminate late-night service, as the FMCB recently recommended. Promises by local businesses to support the service have not materialized and the MBTA subsidizes those riding between 12:30 and 2:00 am on weekend nights to the tune of \$13.38

per rider. All told, the service loses \$14 million annually, and that money would be better spent making the T more accessible to low-income residents.<sup>5</sup>

Savings would prevent other MBTA riders from having to make up all of the revenue lost to fare discounts, but some of the burden would inevitably fall on those customers. Convincing more affluent customers with multiple transportation options to pay more and continue to ride the MBTA will require the laser-like focus on customer service mentioned above.

### III. Expansion

There is no single cause for the condition the MBTA finds itself in today, but it's safe to say that no single factor is more responsible than the system's unrestrained growth over the past quarter-century. During that time, the T has expanded faster than any other major American transit agency.<sup>6</sup>

Much of the growth can be traced back to a consent decree entered into with environmental groups during the waning days of the Dukakis administration in 1991. The Conservation Law Foundation had sued to stop construction of the Central Artery/Tunnel Project (known as the Big Dig) unless steps were taken to mitigate the effect on air quality as a result of the additional vehicular traffic the project would accommodate. Despite evidence that there would be no detrimental impact because traffic that had been gridlocked would move as a result of the Big Dig and the fact that building new transit lines was perhaps the most expensive way to improve air quality, the parties entered into a consent decree that required the commonwealth to complete billions of dollars worth of expansion projects.

Because the mandate came with no funding source to pay for construction, operation, or maintenance of new transit assets, these Central Artery mitigation requirements were largely paid for by borrowing and diverting money from maintenance, which have contributed to the \$9 billion owed in debt and interest and \$7.3 billion maintenance backlog.

Given the MBTA's dire finances and recent history of aggressive expansion, no major expansion projects should be undertaken beyond those required by law (such as

---

5 "Can late-night MBTA service be Saved?" By Shirley Leung, *The Boston Globe*, November 20, 2015

6 *MBTA is the Fastest Expanding Transit System*, by Gregory W. Sullivan, Pioneer Institute policy brief, March 2015.

the troubled Green Line extension) until the state of good repair backlog is eliminated. When expansion projects are undertaken, budgets should be based on construction, operating, and maintenance costs over the project's lifecycle, not just construction costs.

#### **IV. Reform the Ride**

The Ride, the MBTA's on-demand service for disabled riders who can't use buses and trains provided about 2.2 million one-way trips in fiscal 2014 at an average cost of \$49.88 per trip. In contrast, the state's Executive Office of Health and Human Services' Human Service Transportation (HST) Office provided about 3 million similar trips at \$17.57 per trip<sup>7</sup>, or about one-third the cost of The Ride.

There are several reasons for the cost disparity. The Ride has three exclusive contracts that cover different geographic regions of the commonwealth. Regardless of the needs of the individual being transported, The Ride sends a vehicle capable of providing maximum service. By contrast, HST uses a paratransit broker that contracts with 364 transportation companies that compete on price to provide the level of service appropriate to each individual customer. Most of the HST vendors are cabs.

According to HST's 2014 annual report, there was more than one passenger on board for all or part of 64.5 percent of HST trips. Since The Ride contractors are paid by the trip, there is a disincentive to double up. Not surprisingly, there was an average of just 0.89 passengers per revenue mile on each paratransit vehicle in 2013.<sup>8</sup>

The Ride also automatically provides door-to-door service rather than curb-to-curb service. The Americans with Disability Act allows, and HST provides, less expensive curb-to-curb service as long as door-to-door is provided upon request.

The MBTA's contracts with The Ride providers can be cancelled with 30-days written notice. The T should cancel the contracts and adopt the HST model. Bringing costs down to the HST level would save \$491.9 million over six years, or about \$82 million per year<sup>9</sup>, with no diminution of service quality.

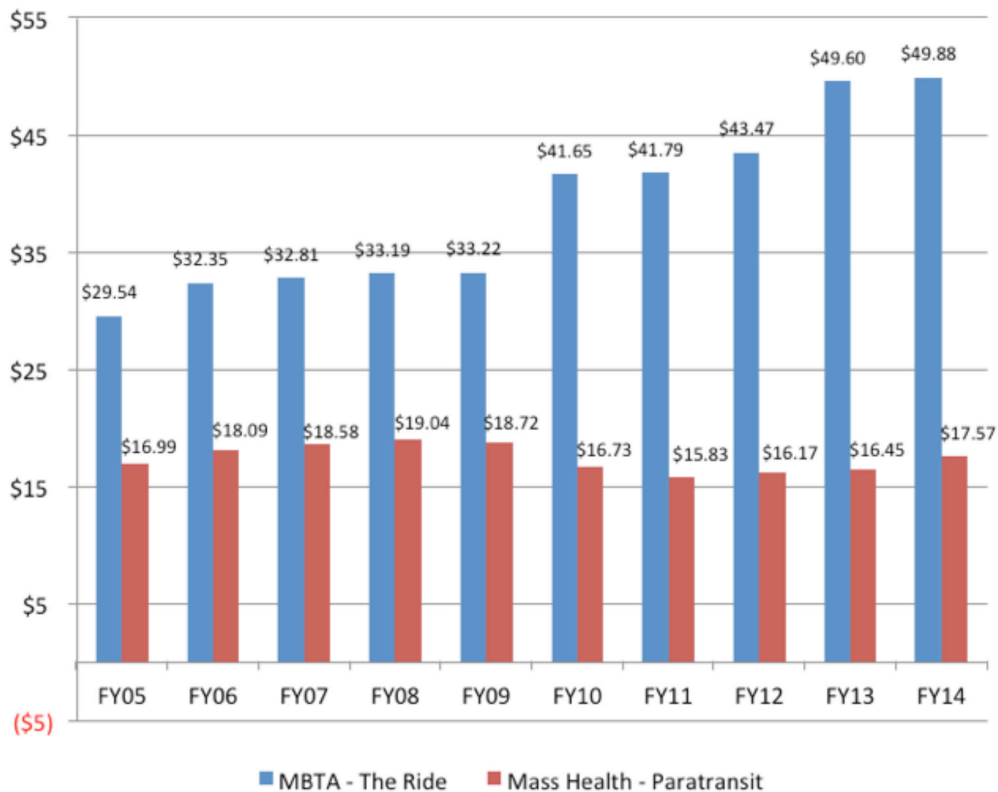
---

7 See [http://pioneerinstitute.org/better\\_government/how-to-save-the-mbta-over-100-million-a-year/](http://pioneerinstitute.org/better_government/how-to-save-the-mbta-over-100-million-a-year/), retrieved December 5, 2015.

8 Ibid

9 Ibid

Operating Expense per Passenger Trip: The Ride and HST MassHealth, 2005–2014



(Source: Pioneer Institute for Public Policy Research)

The authority has launched a pilot program that allows customers who use The Ride to hail a subsidized ride with a handicapped accessible taxi, which could save as much as \$16 million a year if implemented across the system. Also under consideration are partnerships with ride-hailing services like Uber and Lyft that would allow The Ride customers to schedule an accessible vehicle to transport them on demand at no additional cost to the passenger.



**V. Contract out Bus Maintenance**

The MBTA should take advantage of the three-year exemption from Massachusetts’ anti-privatization statute, known as the Pacheco Law, which was enacted earlier this year to contract out maintenance for its buses. In 2013, the T had the highest maintenance costs per hour of bus operation of 425 US bus transit agencies.<sup>10</sup>

The Federal Transit Administration-sponsored Integrated National Transit Database Analysis System allows researchers to determine which transit agencies are sufficiently similar to be considered “peers.” The table below shows that, as measured by vehicle revenue mile, MBTA bus maintenance costs were 92.2 percent higher than the average of its five peers in 2013.<sup>11</sup> Had bus maintenance costs been the same as the average of its peers, the T would have saved \$49.8 million.<sup>12</sup>

.....  
**Vehicle maintenance cost per revenue mile, MBTA compared to INTDAS peers, 2013 and 2004–2013**

<b>Transit Agency</b>	<b>Maintenance / VRM 2013</b>	<b>Maintenance / VRM 2004–2013</b>
Boston – MBTA	\$4.57	\$3.39
Philadelphia – SEPTA	\$2.55	\$2.14
Washington, D.C. – WMATA	\$2.99	\$3.14
Baltimore – MTA	\$2.13	\$2.72
Atlanta – MARTA	\$2.03	\$1.74
Miami – MDT	\$2.18	\$1.99
AVERAGE 5 PEERS	\$2.38	\$2.34
<b>MBTA</b>	<b>Maintenance / VRM 2013</b>	<b>Maintenance / VRM 2004–2013</b>
MBTA above peer average / VRM	\$2.19	\$1.05
MBTA % above peer average / VRM	92.2%	44.8%
MBTA VRM	22,719,357	240,272,542
<i>MBTA savings if at peer average</i>	\$49,777,067	\$252,235,474

.....

10 Ibid

11 Ibid

12 Ibid

Among the reasons for the high costs was staffing levels. The MBTA had more full-time maintenance employees per vehicle revenue miles than any of its peer agencies and its staffing rate was 59.6 percent above the average for its five peer agencies.<sup>13</sup>

The high bus maintenance costs can't be blamed on a lack of capital investment or the age of the T's buses. Between 2004 and 2013, MBTA capital expenditures on buses were 19.7 percent above the average of its peer agencies. T buses were older than the average of its peers, but by less than one year.<sup>14</sup>

A November review by the Massachusetts Department of Transportation confirmed the MBTA's high bus maintenance costs.<sup>15</sup>

## **VI. End Final and Binding Arbitration**

The MBTA is the only place in Massachusetts' public sector where binding arbitration settlements are not subject to approval by another entity such as a city council or board of selectmen. Even the state Superior Court has noted that its ability to review the decisions is quite limited.

The impact of final and binding arbitration on the MBTA can be illustrated by a recent episode that began when a state law was enacted in 2009 to save the MBTA \$30 million by moving its employees into the Group Insurance Commission, which provides health insurance to state employees. The MBTA's Carmen's Union challenged the shift, but it was upheld by the state Superior Court.

But the union then filed a complaint with the US Department of Labor and the matter was ultimately submitted for final and binding arbitration. The arbitrator ordered that no employees could be shifted until the arbitration was concluded. The MBTA calculated that the delay cost then \$61 million.

When the arbitrator ruled, MBTA employees were granted several benefits that are unavailable to state employees, which means an arbitrator was essentially able to overrule a law passed by the legislature and signed by the governor. That same legis-

---

<sup>13</sup> Ibid

<sup>14</sup> Ibid

<sup>15</sup> Massachusetts Department of Transportation, Bus Maintenance: Overview on Current Cost Structure and Benchmarks (Draft), November 2, 2015.

lature should end final and binding arbitration and force the T to operate by the same rules as the rest of the public sector in Massachusetts.

### **VII. Move MBTA Employees and Retirees into the State Pension Fund**

The \$1.6 billion MBTA Retirement Fund (MBTARF) oversees pensions for 12,000 active and retired public employees and is partially funded by taxpayers. But it is organized as a private trust, which means it is not subject to public records laws and releases only certain financial documents to the public. As a result, it was almost two years before the public learned that the fund lost a \$25 million investment in a hedge fund represented by the MBTARF's former executive director.

Other recent events have cast doubt on the fund. A study coauthored by Harry Markopolos, the whistleblower in the Bernie Madoff case, found the MBTARF overstated its financial health by as much as \$470 million, or 29 percent of the fund's value.<sup>16</sup> The study also found that the fund changed its accounting methods three times in three years to put the best face on its financial health and used mortality tables that were more than 20-years-old to project its long-term obligations.

Markopolos and Boston University Finance Professor Mark Williams also found that the MBTARF increased the assumed rate of return on its investments from 7.5 percent to 8 percent to make its finances look better. This comes at a time when other pension funds are reducing return assumptions. The fund's long-term rate of return has been 6.73 percent.<sup>17</sup>

The MBTARF was 81 percent funded in 2008, but it is currently only about two-thirds funded. That goes down to less than half if Markopolos and Williams are right about the fund overstating its financial health by \$470 million.

The growing unfunded liability comes despite increased MBTA contributions, which rose by 46 percent between fiscal 2012 and fiscal 2016. Since 2001, T wage costs have risen by 50 percent, but pension costs are up 250 percent.<sup>18</sup> Three-quarters of the increased pension costs are funded by the MBTA, not employees.

---

<sup>16</sup> "Madoff whistle-blower sounds alarm on T pension fund," by Beth Healy, *The Boston Globe*, June 27, 2015

<sup>17</sup> *Solvency and Insolvency of the MBTA Retirement Fund*, by Iliya Atanasov, Pioneer Institute Policy Brief, February 2014, p.3

<sup>18</sup> Testimony of Iliya Atanasov before the Joint Committee on Public Service, February 25, 2014.

One of the main reasons for these skyrocketing costs is that, unlike for state employees, MBTA employee pension contributions are subject to collective bargaining and not set in statute. State employees pay about 10 percent of salary toward pension, while T employees paid about 5.5 percent in 2012.<sup>19</sup>

And while the now-famous “23 and out” provision that allowed many MBTA employees to retire in their 40s with a healthy pension is now gone, T pensions remain richer than their state counterparts. Workers can still retire and begin to collect at 55 if they have 25 years on the job, and unlike state employees, they can use back pay and unused vacation time to “spike” their pensions.

It’s clear that the MBTARF’s condition is deteriorating, but since it’s not subject to public records laws, it’s hard to know just how much or all of the reasons why. It’s also clear that taxpayers could be on the hook for pension fund shortfalls at the T.

State leaders could pass legislation to make the fund public and submit it to all the same requirements as other public pension funds in Massachusetts, but the fund would still take in less from workers and pay richer benefits than other public pension funds. Although it is a complicated process, the better approach would be to phase out the MBTARF and enroll new employees in the state pension fund.

## CONCLUSION

The MBTA didn’t become a mess overnight, and decades of deterioration will take time to reverse. By themselves, the recommendations included in this policy brief will not fix the T. Many other problems, such as rampant absenteeism and flawed contracting systems (as currently demonstrated by cost overruns on the Green Line extension) must also be addressed, but these are a starting point for common-sense reforms that can get the MBTA on the road to recovery.

As we saw last winter, the MBTA is a backbone not only of Boston’s economy, but of the region’s. Fixing it will take reform, restraint, and revenue, but the return on that investment would be significant for generations to come.

---

<sup>19</sup> [http://pioneerinstitute.org/better\\_government/the-end-of-the-line-for-the-mbta-retirement-fund/](http://pioneerinstitute.org/better_government/the-end-of-the-line-for-the-mbta-retirement-fund/), February 20, 2014, retrieved December 5, 2015.

**Charles Chieppo** is an Innovations in American Government Fellow at Ash Center for Democratic Governance and Innovation. From 2003 to 2005, Chieppo served as policy director in Massachusetts' Executive Office for Administration and Finance, where he led the Romney administration's successful effort to reform the commonwealth's public construction laws, helped develop and enact a new charter school funding formula, and worked on a variety of public employee labor issues such as pension reform and easing state restrictions against privatization.

Previously, he directed the Shamie Center for Better Government at Pioneer Institute, a think tank with which he is still affiliated as a senior fellow. While at Pioneer, Chieppo served on the MBTA's Blue Ribbon Committee on Forward Funding and has written and commented extensively on T and other transportation issues. He was a contributor to "MBTA Capital Spending Derailed by Expansion," by the Massachusetts Taxpayers Foundation with Pioneer Institute, which won the Government Research Association's "Most Distinguished Research" award.



*A publication of the*

Ash Center for Democratic Governance and Innovation  
Harvard Kennedy School  
79 John F. Kennedy Street  
Cambridge, ma 02138

616-495-0557  
[www.ash.harvard.edu](http://www.ash.harvard.edu)