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Fixing the MBTA Retirement Fund: Reforming a Pension Fund in Crisis

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WHITE PAPER

No. 161 | December 2016

PIONEER INSTITUTE
PUBLIC POLICY RESEARCH

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Table of Contents

1. Executive Summary — 4

2. Introduction — 5

3. The MBTA at the Fiscal Brink — 8

4. The Unique Case of MBTA Pensions — 13
- 4.1. Social Security Eligibility — 13
- 4.2. Disparities in Contribution Rates between MBTARF and MSERS — 14

5. Why Are T Pensions So Expensive? — 19
- 5.1. Pensionable Pay (Average Final Compensation) — 19
- 5.2. Vesting — 20
- 5.3. Multiplier and Age Scale — 20

6. Discussion and Conclusion — 23

Endnotes — 26

1. Executive Summary

The state legislature, Governor Charlie Baker and the Massachusetts Bay Transportation Authority (MBTA) Fiscal and Management Control Board (FMCB) have taken many positive steps over the past two years to address the MBTA's ongoing fiscal crisis. But in the long term, the MBTA's financial problems will not be solved unless and until these leaders are willing to confront the growing financial challenges posed by the MBTA Retirement Fund (MBTARF).

The MBTARF's finances continue to deteriorate, and the Fund's designation as a private trust — in spite of the public funding it receives — has enabled its governing board to evade disclosure of critical financial information and elude scrutiny by stakeholders. Over the ten-year period from year-end 2005 to year-end 2015, the MBTARF's unfunded liability skyrocketed from $49 million to over $1 billion, the costs for which will be borne largely by MBTA customers and state taxpayers owing to the terms of MBTA collective bargaining agreements.[1] During calendar year 2015 alone, the MBTARF's unfunded pension liability grew by over $154 million.[2] The one year increase in unfunded pension liability dwarfs the $83.6 million reduction in the MBTA's structural deficit in FY2016, which the agency achieved through lower operating costs, higher own-source revenues, and lower debt service costs.[3] This demonstrates why state leaders must act to address rising MBTA pension liabilities if they want to make progress toward solving the T's long-term problems.

To put the MBTA's long-term fiscal dilemma into perspective, consider this fact: the T's total unfunded obligations, including pensions, deferred compensation, retiree healthcare, and state of good repair backlog (totaling $10.58 billion) as of Fiscal 2015 are greater than the MBTA's operating revenues, which include fare revenue, advertising, concession, and real estate, over the past 26 years (totaling $9.86 billion).

The mishandling of employee benefits is a noteworthy contributor to the MBTA's continuing fiscal and operational crisis. The MBTARF, which manages most T employee pensions, is an anomaly among public retirement systems in Massachusetts and across the U.S. The Fund has long maintained management structures and practices inconsistent with its mission and with basic standards adhered to by public and private pension funds alike.

A comparison of state and MBTA pensions reveals significant discrepancies in benefits, costs, and allocation. While the state withholds between 9 and 11 percent of employees' paychecks as their mandatory contribution to the Massachusetts State Employees' Retirement System (MSERS) or the Massachusetts Teachers' Retirement System (MTRS).[5] MBTA employee contributions to MBTARF stood at just 5.8 percent of pay for the fiscal year beginning July 1, 2015. As of July 1, 2016, MBTA employees contribute 6.46 percent.[4]

The MBTA itself contributed 16.03 percent of payroll to the MBTARF in fiscal 2015. According to the terms of the most recent MBTARF valuation, the MBTA's contribution rate has risen to 18.04 percent as of July 1, 2016.[6] Unlike the state, which is exempt from Social Security, the MBTA also makes contributions to Social Security equal to 6.2 percent of payroll, as do MBTA employees. Based on figures available in the 2015 valuation, when combined with payments to Social Security, the MBTA's pension contribution rate was about twice as large as what the commonwealth contributed for state employees in fiscal 2015. That year, the T contributed a total of 22.2 percent of covered payroll to the MBTARF and Social Security. To put this in perspective, the commonwealth's most recent contribution rate to MSERS was 12.1 percent of payroll.

In addition to the MBTARF's unusual contribution scheme, the pension agreement includes a number of terms that may compromise the plan's future solvency. These include the multiplier used to determine pension payout, the minimum creditable years of service required, as well as the ability to count sick days towards pensionable years of service and early retirement options.

One of the most significant differences between the MBTARF and other Massachusetts public retirement systems is Social Security eligibility. MBTARF members are among a very small percentage of public workers in Massachusetts—4.1 percent of all state and local government employees—who pay into and receive Social Security, and for whom public employers make matching contributions to Social Security on the employees' behalf.[7] This is due to Massachusetts' Section 218 agreement with the Social Security Administration (SSA), which followed a 1951 federal initiative to allow states to voluntarily enter into the federal program. While many state governments opted to extend coverage to their public workers at the time, the SSA allowed exemption from participating in Social Security for states that already had public retirement systems in place for government employees. Per the terms of Massachusetts' Section 218 agreement, employees in the Commonwealth's main state retirement system are not covered by Social Security—thus, both the state government and its employees do not make payroll contributions to the program.

The MBTARF, in contrast, participates in Social Security by virtue of Section 210(k)(1) of the Social Security Act, which stipulates that any public transportation service performed in the employ of a state or local public body is covered if any part of the transportation service was 'acquired from private ownership after 1936 and prior to 1951,' with some exceptions.[8] Consequently, the MBTA makes contributions to Social Security for its employees, while the majority of state and local

government bodies in Massachusetts do not do so. Notably, other states in which virtually all public employees do not participate in Social Security, public transit workers are also not covered. Insofar as the MBTA is covered in a state where the vast majority of government workers are not, Massachusetts is an outlier. Social Security costs alone add up to approximately $30 million per year for the MBTA.[9]

A large number of publicly managed pension funds today have plan members who are eligible for Social Security. However, most of these plans adjust their benefit payout formulas to reflect Social Security benefits. This is known as 'integration'—the practice of employers structuring their pension plan in order to factor in the Social Security payout and establish a more balanced overall retirement scheme. Public retirement plans that employ this design are called "coordinated plans." Though members under the MBTARF are eligible for Social Security, the MBTA's retirement plan structure does not adjust its benefits package to reflect the Social Security eligibility of its members in the way other coordinated plans do — in other words, the plan's contribution rates and other determinants of benefits are not offset to reflect the Social Security payout. This makes the MBTARF an outlier among public retirement systems whose members are eligible for Social Security.

In aggregate, the costs of the MBTARF's anomalous nature and the pension differences with other state-managed systems add up to millions of dollars of added expenses for Massachusetts taxpayers. Approximately $1.3 billion of the MBTA's $2.03 billion budget in fiscal 2016 was directly funded by state and local taxes. The MBTA would realize enormous savings from a transition to a more equitable public pension system that provides the same benefits to public-sector workers regardless of where in state government they work.

As the MBTA's principal retirement fund, and by virtue of the Fund's management of and reliance on public money, MBTARF policy and practices must change to bring the system into alignment with the rest of the state and ensure a fiscally sustainable future.

As a direction forward for the MBTA, we make the following recommendations with further description later in this report:

1. Assess the feasibility of moving the MBTA out of Social Security.
2. Institute a new pension benefit structure for MBTARF members and establish a more cost-effective contributory funding scheme for both MBTARF members and the Authority. To achieve this, we outline several options to consider, including instituting a new category of retirees—"Group T"—within the state retirement system for MBTARF members and developing a plan to phase out the MBTARF over a theoretical transition of MBTA employees to MSERS.
3. Transfer investment management to Pension Reserves Investment Management board (PRIM).

2. Introduction

This report provides an analysis of the MBTARF, which manages most MBTA pensions, in comparison with other state retirement systems in Massachusetts and against the backdrop of broader trends among public pension systems nationwide. Specific areas of focus are the MBTARF's contributory funding scheme relative to Massachusetts' state and teachers' retirement systems and differences in payout formulas between these public bodies; Social Security eligibility at the MBTARF considering comparable plan structures nationwide; as well as the MBTARF's growing unfunded liability.

Following the examination of the MBTA retirement benefit structure, the discussion focuses on the potential strategy of including T workers in the state pension system. Special consideration is given to the financial impact of the MBTA retirement package and the problematic governance structure that has enabled the MBTARF to keep its management practices private in spite of being mostly publicly funded. A particularly troublesome aspect of the MBTA's policies is the binding arbitration provisions governing the agency's labor relations with the majority of its workforce. The MBTARF's establishment as a private trust is but one significant outcome of this practice, which has had a profound effect on the agency's accountability and transparency, as well as its fiscal condition.

> "In 2014, Bridgewater Associates estimated that 85 percent of public pensions will fail within the next 30 years."

It is important to acknowledge that the MBTARF is not the only underfunded public pension fund. Public retirement systems across the country face a difficult road ahead. In spite of numerous reform efforts in recent years, many state and local governments continue to struggle with containing costs. A 2013 report from Morningstar, an investment research group, found that more than half of all states were below the "fiscally sound threshold" of a 70 percent funded ratio for public pension plans.[10] In 2014, Bridgewater Associates estimated that 85 percent of public pensions will fail within the next 30 years.[11]

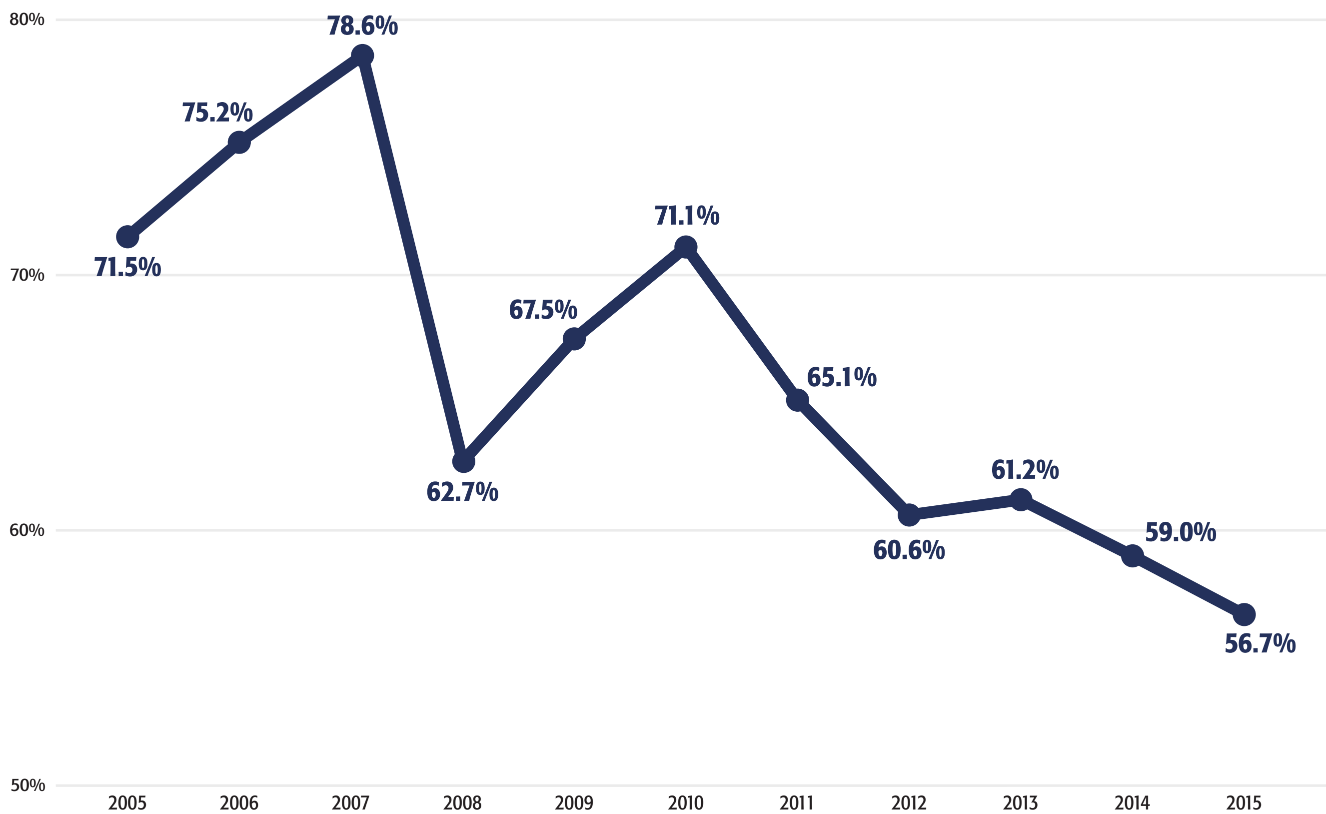
In a July 2015 report, the Pew Charitable Trusts found a $968 billion funding shortfall among state-run retirement systems as of 2013. Their study, based on data from 238 pension plans nationwide, further noted that pension debt was projected to remain over $900 billion for state-managed plans. If combined with deficits in municipal pension systems, the shortfall would surpass $1 trillion.[12] Adding to the concern, recent research

from JPMorgan Chase noted that states' unfunded pension and other postemployment benefit (OPEB) liabilities could total as much as $1.5 trillion.[13]

The unfunded liability for Massachusetts' teachers and state employees reached $37.9 billion in 2015.

Massachusetts is no exception to this national trend. The overall funded ratio for the commonwealth's direct pension obligations (MSERS, MTRS and Boston teachers within the State-Boston Retirement System) declined from 71.5 percent at year-end 2005, to 56.7 percent a decade later (Fig. 1), according to valuations conducted by the Public Employee Retirement Administration Commission (PERAC), the state's pension regulator.[14] Meanwhile the unfunded liability more than doubled, from $14.5 billion to $37.9 billion (Fig. 2)."[15]

Fig. 1. Funding Level of Commonwealth Pension Liabilities YE 2005-2015



Source: PERAC

Fig. 2 Commonwealth Unfunded Liability YE 2005-2015 (Billions)

Source: PERAC

The commonwealth budgeted $2.2 billion for its pension contribution in FY 2017, with the appropriation rising at a rate of 7 percent annually through 2036. This funding schedule may turn out to be unsustainable because it's based on the expectation that contributions will increase twice as fast as the growth of state revenue and the overall economy. Though significant reforms to the state's main pension system were introduced in 2011, with projected savings of up to $5 billion in the long run, underfunding remains a critical issue. In a 2014 study of the Urban Institute, Massachusetts was the only state that received an overall grade of F for its public pension system, including an F for making required contributions (along with three other states).[16]

> "In a 2014 study of the Urban Institute, Massachusetts was the only state that received an overall grade of F for its public pension system, including an F for making required contributions."

While the MSERS and the MTRS still present daunting fiscal challenges for Massachusetts, legislative reforms enacted over the past decade signal the legislature's growing concern over what are fundamentally unsustainable practices. Legislation passed in 2011 introduced a number of significant changes to Massachusetts' public retirement systems, including the establishment of a new tier for new hires with a reduced multiplier, extension of the compensation base for final average salary from 3 to 5 years, larger penalties for early retirement (4 to 6 percent), and a higher age for normal retirement for members with 10 years of creditable service, among other changes.[17] Since the introduction of these reforms, the Massachusetts legislature has also promised to accelerate payments and moved the deadline to full funding from 2040 to 2036 (although PERAC has expressed doubts as to whether that would be feasible under the established payment schedule[18]).

These changes have been enacted during a period when public retirement plans nationwide have been similarly scaling back benefits and reducing their publicly funded obligations in recognition of the true costs of these benefits and of changing demographic and fiscal realities. However, not every publicly funded retirement system has been subject to ongoing pension reform. The MBTARF stands out as an example of resistance to reform. Virtually absent from the movement towards

substantive policy changes for over a decade, the fund remains shrouded in obscurity and insulated from reform in ways that have allowed unsustainable practices to continue. This resistance has occurred in the context of and has been a significant contributor to the deterioration in the MBTA's fiscal condition.

3. The MBTA at the Fiscal Brink

The current state of the MBTARF and the future of the fund are inextricably tied to the MBTA's financial condition. Beginning with the dire fiscal consequences of Boston's Big Dig in the 1990s, America's fifth largest transit agency gradually became a slow-motion train wreck. In early 2015, pervasive performance issues and system failures that left passengers stranded on train platforms and unable to get to and from work exposed enormous budget shortfalls. The MBTA had been virtually crawling through a fiscal crisis for years, accumulating an enormous deferred maintenance backlog.

"The MBTA had been virtually crawling through a fiscal crisis for years, accumulating an enormous deferred maintenance backlog."

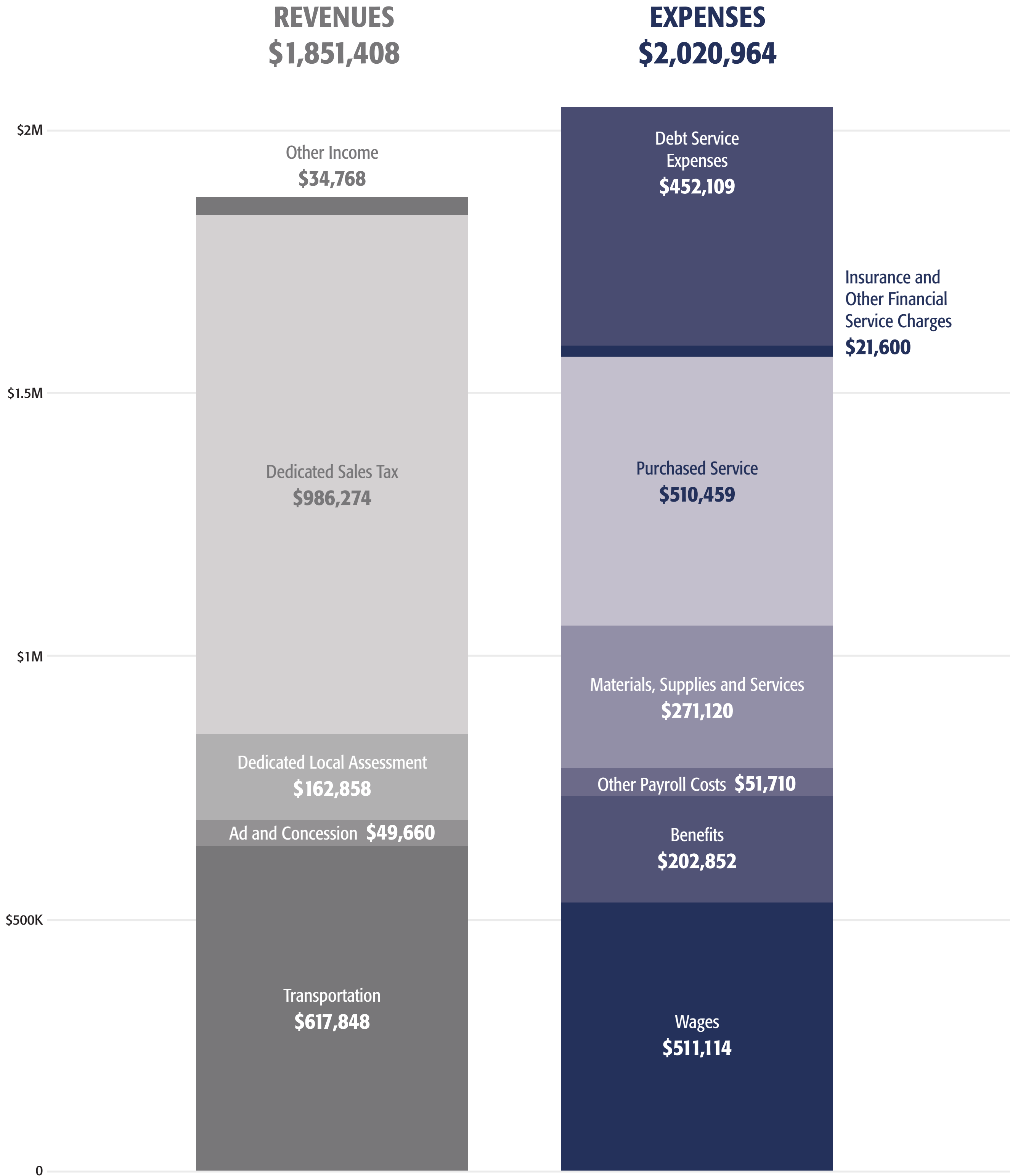
Since "forward funding" the MBTA was implemented at the turn of the century, state officials have used just about every trick in the book to keep the trains running without fundamental reform; from direct state-budget subsidies to using the T's capital account for operating expenses. Under forward funding, the authority was supposed to "self-fund" from service revenues and dedicated tax streams without additional state appropriations. However, shortfalls started mounting almost immediately, as the growth in sales-tax revenue fell short of projections and runaway operating costs piled up.

Operating revenue was expected to cover only $668 million, or 33 percent, of the MBTA's $2.02 billion budget for FY 2016 (Fig. 3).[19] Another $1.15 billion was supplied through dedicated sales-tax and local property-tax revenue under forward funding. All included, the authority's annual deficit was $170 million, which was offset through the usual special appropriation from the state, this time in the amount of $187 million, some of which ($11.7 million) went to cover the drawdown of the weather resiliency fund. Nonfinancial expenses ($1.56 billion) were more than twice as large as operating revenue, underscoring the MBTA's fundamental dependence on taxpayer support.

"Between the dedicated tax streams under forward funding and the direct budget subsidy, the MBTA was slated to receive $1.34 billion in taxpayer funding in FY 2016."

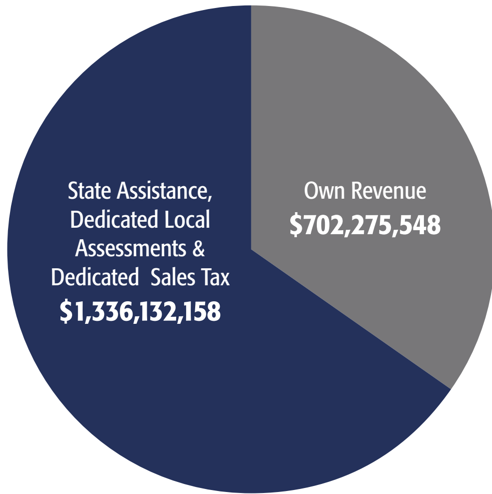
Between the dedicated tax streams under forward funding and the direct budget subsidy, the MBTA was slated to receive $1.34 billion in taxpayer funding in FY 2016 (Fig. 4). Incidentally, this is about as much as the authority's FY 2015 operating loss of $1.39 billion.[20] Operating revenue would have to triple without any cost increases to close most of this gap.

Fig. 3. MBTA FY 2016 Budget (000s)



Source: MBTA

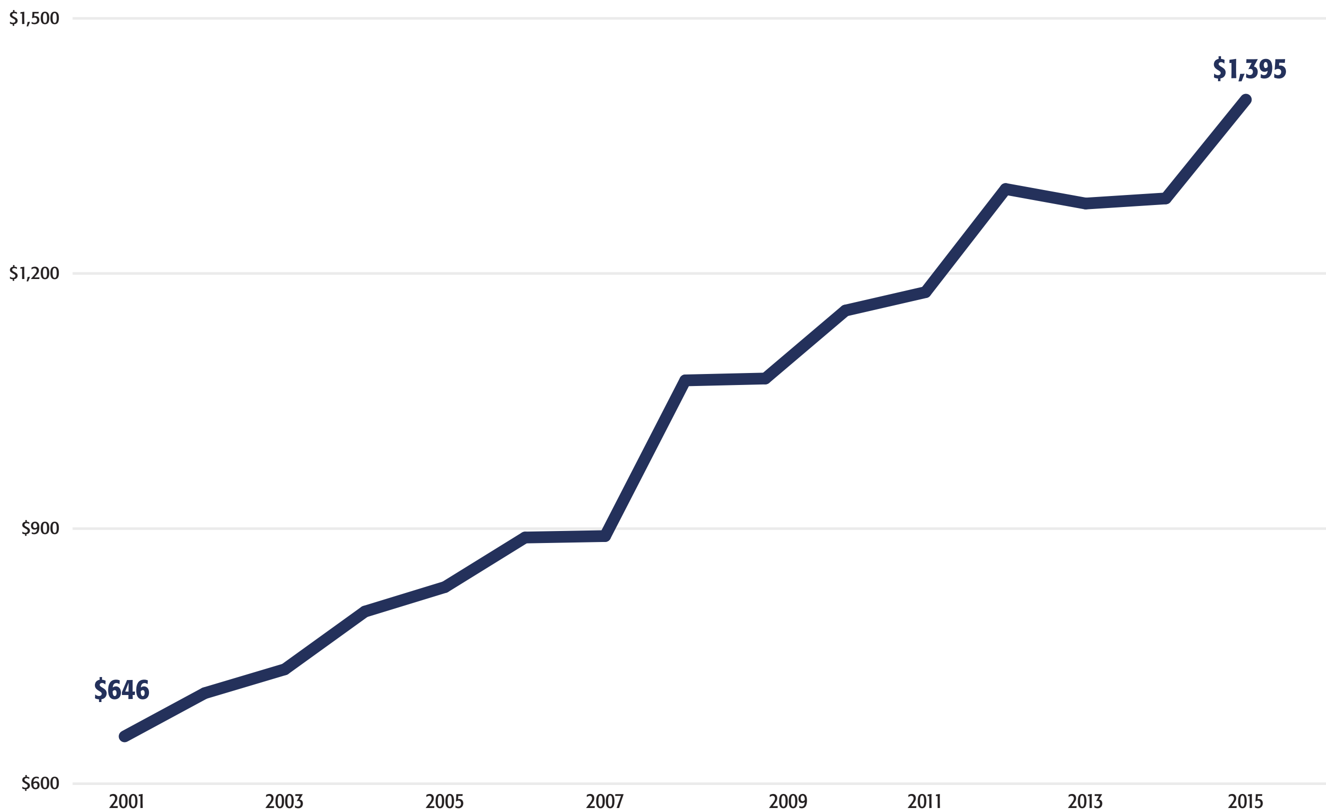
Fig. 4. Budgeted MBTA Public Funding and Operating Revenue FY 2016



Source: MBTA

As the MBTA's financial statements reveal, operating losses have grown significantly since forward funding was first implemented in FY 2001 (Fig. 5). For the 14-year period ending in FY 2015, reported operating losses grew at an annualized rate of 5.7 percent, whereas total budgetary expenditures rose at a rate of 4.9 percent. Cumulatively, expenses rose by 97 percent, while operating losses increased by 116 percent. This discrepancy indicates that the T has had trouble managing not just costs, but also revenue.

Fig. 5. MBTA Operating Losses FY 2001-2015 (mn)



Source: MBTA financial statements

This trend is directly related to the MBTA's growing structural deficit: the gap between total expenses and the revenues provided under forward funding. In December 2015, the FMCB appointed that year to shore up the authority's balance sheet expected the structural deficit to hit $427 million by FY 2020, absent significant reform.[21] This amount is about three times the $159 million structural deficit in 2010. The rising deficit is largely attributable to the fact that operating expenses have grown by an average of approximately 5 percent annually since forward funding began in FY 2001, while revenue has grown at less than half that rate.[22]

> "In December 2015, the Fiscal Management Control Board expected the structural deficit to hit $427 million by FY 2020, absent significant reform."

FY 2016 labor costs were budgeted at $766 million, about half of all operating expenses (Fig. 3). For every dollar spent on wages ($511 million), the MBTA expected to pay another 50 cents for retirement, unemployment and disability benefits—charges totaling $256 million. In FY 2015, the agency's obligations for pensions, Social Security and OPEB added up to half of all fare revenue.

The MBTA's dire fiscal state is also evident in the historically high unfunded liabilities the agency faces in connection with its pension, retiree health care and other fringe benefits. The MBTA's unfunded liabilities for its main retirement plan, transit police pensions and deferred compensation added up to almost $1 billion as of June 30, 2015.[23] As the MBTARF's recently released financial statements reveal, the unfunded liability of the main fund alone is now over $1 billion.[24] The agency's combined future payment obligations for the three retirement plans thus exceed the present value of available funds to pay for them by well over $1 billion.

> "According to its own projections, the MBTA's unfunded liabilities for its main retirement plan, transit police pensions and deferred compensation must have surpassed $1 billion in FY 2016."

OPEB liabilities are a significant source of rising costs. At the last measurement date in June 2014, the MBTA's $2.32 billion retiree healthcare obligation, which makes up the lion's share of OPEB costs, was left completely unfunded, aside from current year obligations.[26] The MBTA is expected to spend about $210 million towards fringe benefits in FY 2017, including $92 million in pension contributions and $104 million for health care.[27] A 2016 Hoover Institution study found that the MBTA's OPEB will be gobbling up some 23 percent of the agency's operating revenue by 2035, assuming no significant efforts to reduce public spending on retiree health care.[28]

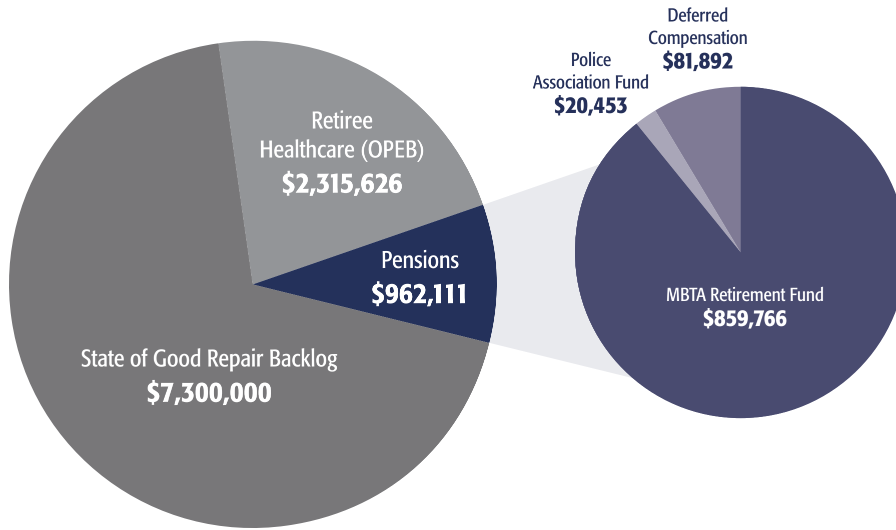
The constant scramble to meet operating expenses has also led the MBTA to accumulate an alarming maintenance backlog. While in recent years the commonwealth has assumed much of the responsibility for new capital spending, such as system expansion projects and investment in new infrastructure on existing routes, the MBTA has continued to bear the cost burden of an enormous backlog of capital maintenance needs. The spending levels necessary to bring the MBTA's existing network to a so-called "state of good repair" (SGR)[29] have grown consistently over the last decade. Meanwhile, annual SGR spending has regularly fallen far short of the amount required to prevent further deterioration of capital assets. The MBTA Fiscal Management Control Board's first annual report estimated that the annual SGR cost would rise to $1.4 billion in 25 years.[30] To cover the entire $7.3 billion backlog of deferred maintenance, the MBTA would have to pay a total of almost $25 billion over the next quarter-century.[31]

> "At the last measurement date in June 2014, the MBTA's $2.32 billion obligations for retiree healthcare, which makes up the lion's share of OPEB costs, was left completely unfunded."

The nondiscretionary liabilities associated with unfunded retirement benefits and the maintenance backlog totaled $10.58 billion as of FY 2015 (Fig. 6).[32] This total exceeds the MBTA's combined operating revenues, including fare revenue, advertising, concessions and real estate, over the past 26 years (from FY 1991 to FY 2016, totaling $9.68 billion (Fig. 7).[33] The authority's $5.3 billion in noncurrent debt as of FY 2015[34] is not included in the total as the MBTA already carried nearly $3.9 billion in long-term debt by FY 2001,[35] a large portion of which was rollover debt and issuance associated with the Big Dig.

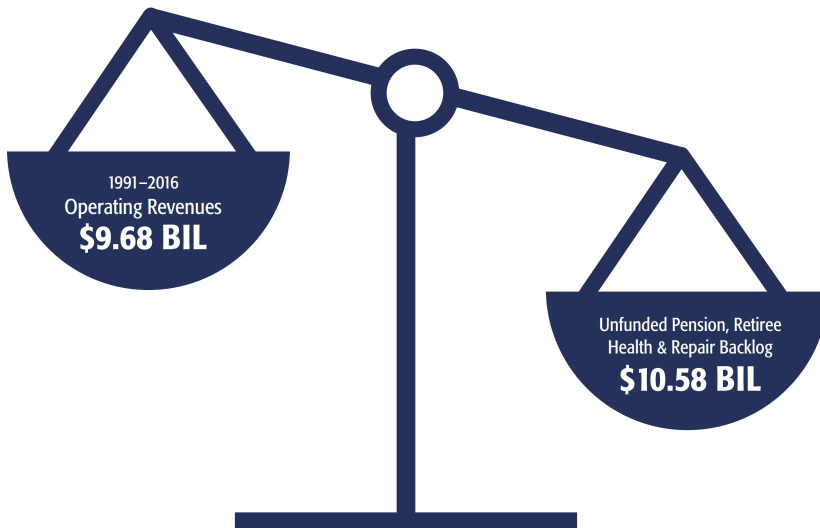
> "The total nondiscretionary liabilities associated with unfunded retirement benefits and the maintenance backlog exceed the MBTA's combined operating revenues for the 26 years from FY 1991 to FY 2016."

Fig. 6. MBTA Operating Liabilities as of FY 2015 (000s)



Source: MBTA financial statements

Fig. 7. MBTA Operating Revenues FY 1991-2016 versus Operating Liabilities as of FY 2016



Source: MBTA financial statements

On top of these unfunded obligations, the Authority also faces $5.2 billion in outstanding long-term debt.[36] This sum is the combination of legacy debt from the Big Dig and outstanding debt from past capital spending. The long-term debt is especially problematic because of the substantial cash burden on the MBTA's budget. Expected debt service expenditures totaled $452 million in FY 2016, approximately 30 percent of the agency's total annual operating expenses.[37] The Fiscal and Management Control Board (FMCB) projected that debt service will increase more than 17 percent, by $78 million annually, through FY 2020.[38]

4. The Unique Case of MBTA Pensions

The MBTARF is a single-employer retirement fund established in 1948 by agreement between the MBTA's predecessor, the Metropolitan Transit Authority (MTA), and Local 589 of the Amalgamated Transit Union, Boston Carmen's Union. The fund exists as a private trust, although it is financed mostly by contributions from the MBTA. At year-end 2015, the MBTARF provided benefits to 6,407 retirees and had 5,798 members who are active employees.

Like the agency it serves, the MBTARF is on a fiscally unsustainable trajectory. In calendar 2015 it faced an $89 million net outflow—a deficit resulting from more benefits being paid than contributions made by the MBTA and its employees.[39] According to the same analysis, an average MBTARF retiree would contribute $47,000 to the fund, but receive $1.65 million in retirement benefits.[40]

MBTA contributions towards pension plans have also risen significantly, from $38 million in FY 2007 to $78 million in FY 2016.[41] $92.7 million was initially budgeted for FY 2017.[42] Yet, the MBTARF's funding levels have hit historic lows. In 2005, the MBTARF was 97.4 percent funded, but by 2014 it had dropped to 64.9 percent. While contributions doubled, the fund's assets fell by 13 percent in the decade ending in 2015.[43]

How did the MBTARF wind up in this untenable fiscal situation and what unique features of the fund have facilitated such precipitous deterioration in its finances? While there are many intersecting variables to consider in addressing this query, the fund's unique history and governance structure are important considerations, especially when assessed in comparison to the state's other principal retirement systems.

The MBTARF's governing board consists of seven directors, three each appointed by the Boston Carmen's Union and employees on one hand, and MBTA management on the other. One tie-breaking member is appointed jointly by these six. This group is responsible for all decision-making regarding investment, funding and transparency, among other issues. Importantly, the MBTA's management and members of the retirement plan do not have direct authority to make decisions regarding management of the fund.[44] A 2016 Pioneer study summarizes some of the fundamental issues arising from the fund's governance structure:

> The authority is contractually obliged to contribute whatever amount is required by the funding schedule adopted by the retirement board. That schedule is not constrained by governmental accounting standards or any other independent authority; it is at the mercy of the board's momentary disposition. The MBTA has no real say in investment decisions either, even though it appoints three of the seven board members. The tie-breaking "independent" member is a lawyer whose firm specializes in labor disputes. She has typically sided with union leaders, including to prevent disclosure of fund records in defiance of Massachusetts law.[45]

MBTARF is also completely independent of the Public Employee Retirement Administration Commission (PERAC), which oversees the other 104 Massachusetts public pension systems, and is not subject to the state's ethics, public records and open-meeting laws. Among other pension systems, PERAC oversees the MSERS and the MTRS, as well as the Pension Reserves Investment Management (PRIM) board, which invests their assets. The MSERS administers a cost-sharing multiemployer defined-benefit plan covering effectively all employees of the commonwealth and certain employees of independent authorities and agencies, including the state police officers at the Massachusetts Port Authority. The MSERS had 91,298 active employees at the end of FY 2015. The MTRS also administers a cost-sharing multiemployer defined-benefit plan covering certified teachers in cities (except Boston), towns, regional school districts and Quincy College. The MTRS had 85,181 active members at the end of FY 2014.

As the following sections will show, there are several substantial differences between the MBTARF and the two largest state retirement systems. These disparities should be important items of focus for policymakers as they consider MBTARF reforms going forward. While this comparative assessment focuses principally on differences between the MBTARF and the MSERS, the MTRS is considered in specific instances where its inclusion is informative.

4.1. Social Security Eligibility

One of the most significant distinctions between the MBTA and other state retirement systems is Social Security eligibility. MBTA workers are among a very small percentage of public workers in Massachusetts—4.1 percent of all state and local government employees—who are eligible for both a public pension and Social Security benefits after serving a state agency.[46] As with private employers, both employees and the employer must pay a payroll tax of 6.2 percent of compensation in accordance with the Federal Insurance Contributions Act (FICA). This tax is in addition to a 1.45 percent Medicare withholding (the "regular" Medicare tax) that all employers and employees pay.

MBTA employees are also exempt from the "windfall elimination provision," a statute enacted in 1983 to reduce the Social Security payout for public-sector retirees who receive a government pension upon retirement but did not contribute to Social Security throughout their public sector employment.

This provision applies to public sector retirees who did not pay towards Social Security during their public employment but paid into the Social Security system while in a position outside of public service. A 2014 study published through the Social Security Bulletin provides helpful additional description:

> The Windfall Elimination Provision (WEP), enacted in 1983, reduces Social Security benefit payments to beneficiaries whose work histories include both Social Security—covered and noncovered employment, with the noncovered employment also providing pension coverage. To be affected by the WEP, an individual must have worked in covered employment long enough to qualify for Social Security benefits; must have also worked in noncovered employment, meaning that Federal Insurance Contributions Act (FICA) Social Security payroll taxes were not paid; and, importantly, must have earned a pension in that noncovered job.[47]

Due to the unique nature of the MBTARF as a private trust, which makes it exempt from the windfall elimination provision, Fund members are not subject to a reduction of their Social Security payout as a result of membership in the MBTA's pension plan. That T employees receive the compounded payout of their pension plus Social Security payments effectively allows them to "double dip" from two publicly funded retirement systems without any reduction in pension payout for their noncovered employment. And while MBTA employees are not alone among public workers in other states in their eligibility for Social Security, the MBTA's retirement system is anomalous in that its members receive a full state pension on top of Social Security.

"MBTA employees are also exempt from the "windfall elimination provision," a statute enacted in 1983 to reduce the Social Security payout for public-sector retirees who receive a government pension."

Neither MSERS nor MTRS members contribute to Social Security, in accordance with the Section 218 agreement between Massachusetts and the Secretary of Health and Human Services in 1952. The Section 218 amendment to the Social Security Act was originally introduced to offer state and local governments the option of voluntarily entering Social Security to extend coverage to state and local government employees who did not have access to a public retirement plan. Since the amendment's 1951 enactment, all 50 states have entered into Section 218 agreements. Since 1983, these agreements have been binding and permanent, so states are no longer able to opt out of all or part of them. As of July 1991, Social Security is mandatory for state and municipal government employees who are not already covered by a Section 218 agreement or a FICA-equivalent plan.[48]

Today, there are a significant number of publicly managed pension plans whose members are eligible for Social Security. As mentioned above, the MBTA is included in this group. Unlike the MBTARF, virtually all other public pension plans whose members are eligible for Social Security adjust their benefit formulas to reflect the Social Security payout. This practice of structuring the pension plan to factor in a Social Security payout with the aim of creating a coordinated overall retirement scheme is called "integration." As the Employee Benefit Research Institute (EBRI) explains, integrated pension plan structures "allow employers to reduce a worker's employer-provided retirement benefit roughly by the amount the employer has paid for that worker's Social Security tax."[49] Public pension funds that incorporate this plan benefit design are referred to as "coordinated plans."

"Unlike the MBTARF, virtually all other public pension plans whose members are eligible for Social Security adjust their benefit payout formulas to reflect the Social Security payout."

The 2012 nationwide comparative study of 87 public pension systems by the Wisconsin Legislative Council (WLC) found 70 state systems that include Social Security benefits in their retirement plans. States where public employees are not eligible for Social Security typically have plans that include a higher formula multiplier to compensate for the lack of Social Security coverage.[50] These plans also typically offer a higher state matching contribution to further mitigate the absence of Social Security coverage. Echoing the EBRI statement on integrated plan structure, the WLC report observed that states with retirement systems under which members are Social Security-eligible typically structure their plans to offer a lower payout formula multiplier.

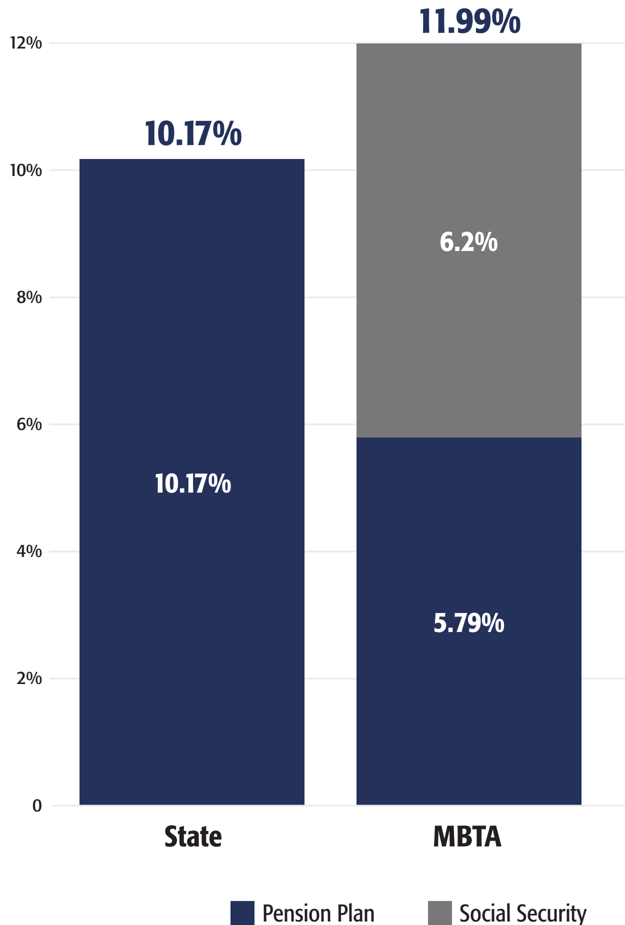
4.2. Disparities in Contribution Rates between MBTARF and MSERS

The Social Security tax added to MBTA employees' compensation withholdings has a significant impact on total contribution rates and take-home pay. In FY 2015, MBTARF members were required to contribute 5.79 percent of their compensation into the fund—according to the terms of the most recent valuation, as of July 1, 2016 this rate is 6.46

percent.[51] MBTARF members also contribute 6.2 percent of their pay towards Social Security. Thus, MBTARF members were required to contribute a total of 11.99 percent of annual compensation for their pension benefits in fiscal 2015 (Fig. 8). As of July 1, 2016, members pay a combined rate of 12.66 percent."[52]

In contrast, MTRS and MSERS members are not eligible to earn Social Security benefits while enrolled in the state pension systems. Accordingly, neither plan members nor the state pays towards the Social Security component of the FICA tax. By statute, Massachusetts' state employees in both systems make mandatory pre-tax contributions ranging from 5 to 9 percent of pay, depending on when the employee joined the system.[53] For state employees whose membership began on or after January 1, 1979, an additional 2 percent of annual compensation above $30,000 is withheld.[54] Thus, an MSERS member hired after 1978 would contribute at a 9 percent rate, plus another 2 percent for the amount over $30,000.

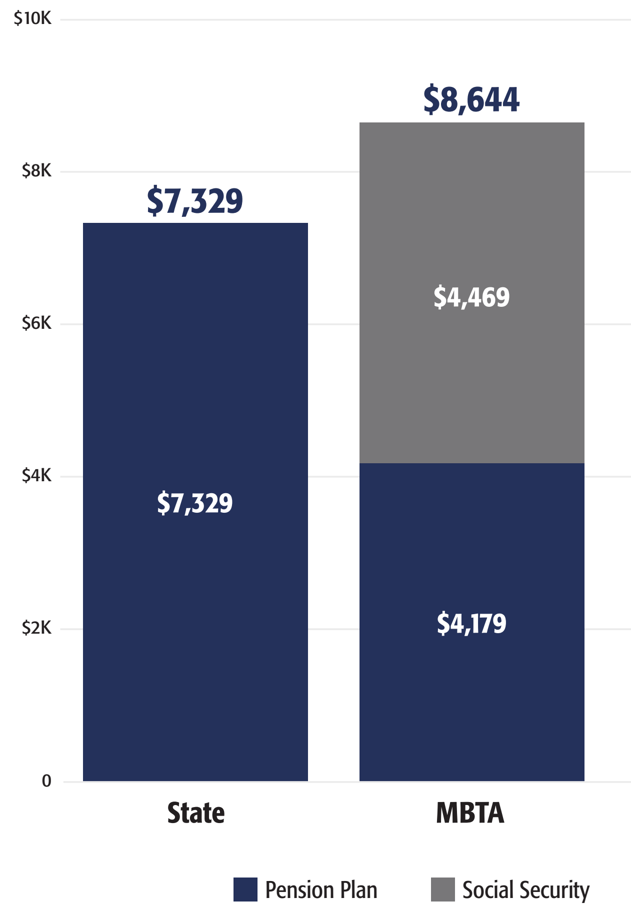
Fig. 8. MBTA and State Employees' Pension Contribution Rates



Source: MBTA, MSERS

The average annual compensation for an MBTARF member as of 2014 was $72,086.[55] An active MSERS member with this salary would pay an annual required contribution of 10.17 percent of compensation towards the main state retirement system, resulting in a $7,329 withholding from the base salary (Fig. 9). The MBTARF member's total contribution to the MBTARF and Social Security of 11.99 percent, based on the fiscal 2015 contribute rate, would result in an $8,644 annual withholding.[56] In this example, the MBTARF member would be paying $1,315 more than an MSERS member.

Fig. 9. Example of MBTA and State Employees' Pension Withholdings

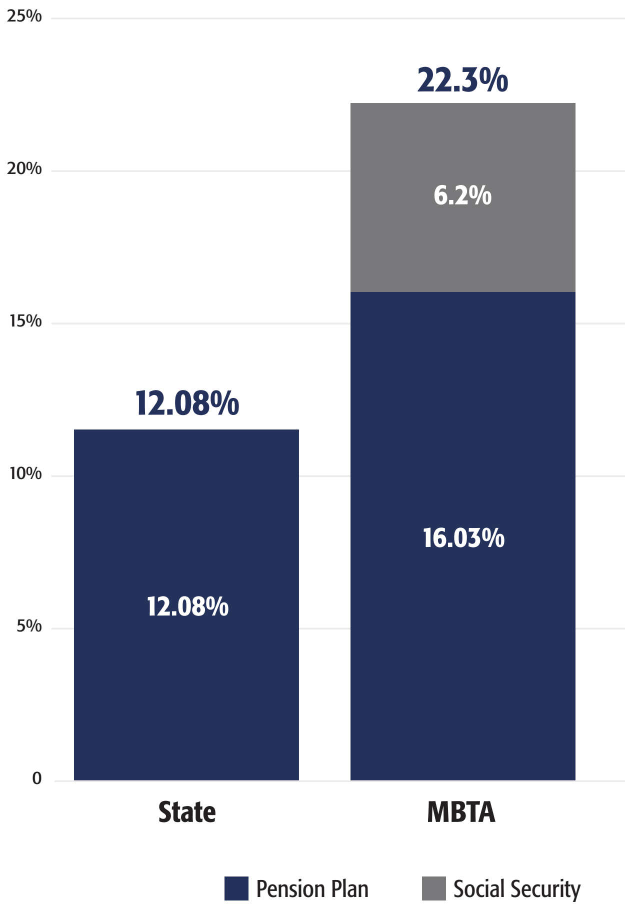


Source: MBTA, MSERS, own calculations

From July 1, 2015 through June 30, 2016, the MBTARF required the MBTA to pay in 16.03 percent of payroll, in addition to the 6.2 percent Social Security tax (Fig. 10).[57] As a percentage of payroll, the employer was responsible for paying almost twice as much towards the MBTARF than what it had to pay towards the MSERS. Going back to the example with average annual compensation, these contribution rates translate into $8,705 for the average state employee and $16,024 for

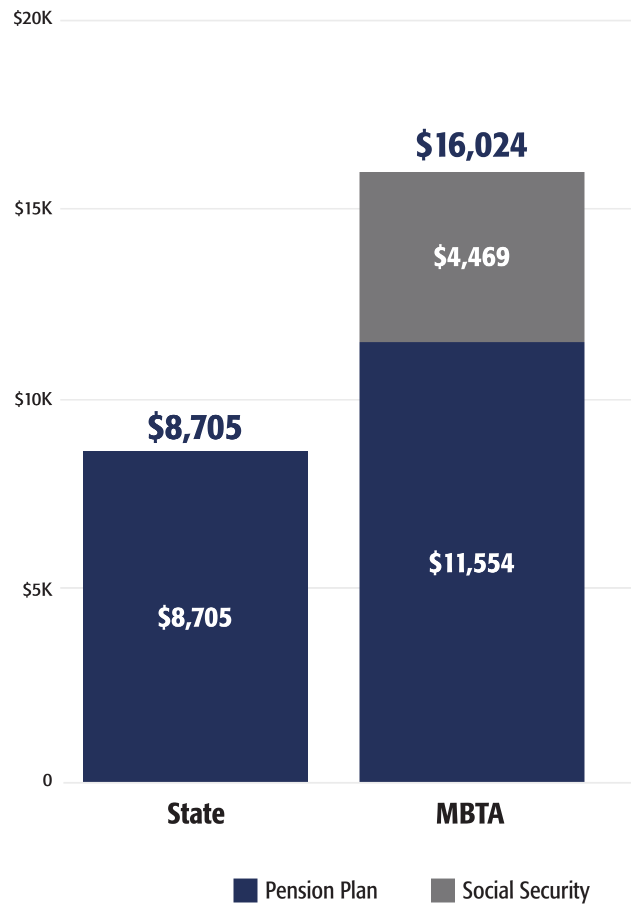
the average MBTA employee (Fig. 11).

Fig. 10. MBTARF and MSERS Employer Contribution Rates



Source: MBTARF, MSERS

Fig. 11. Example of MBTARF and MSERS Annual Employer Contributions



Source: MBTARF, MSERS, own calculations

As a percentage of pay, MBTA contributions to its main pension plan are almost twice as large as those the commonwealth makes for members of the state retirement system.

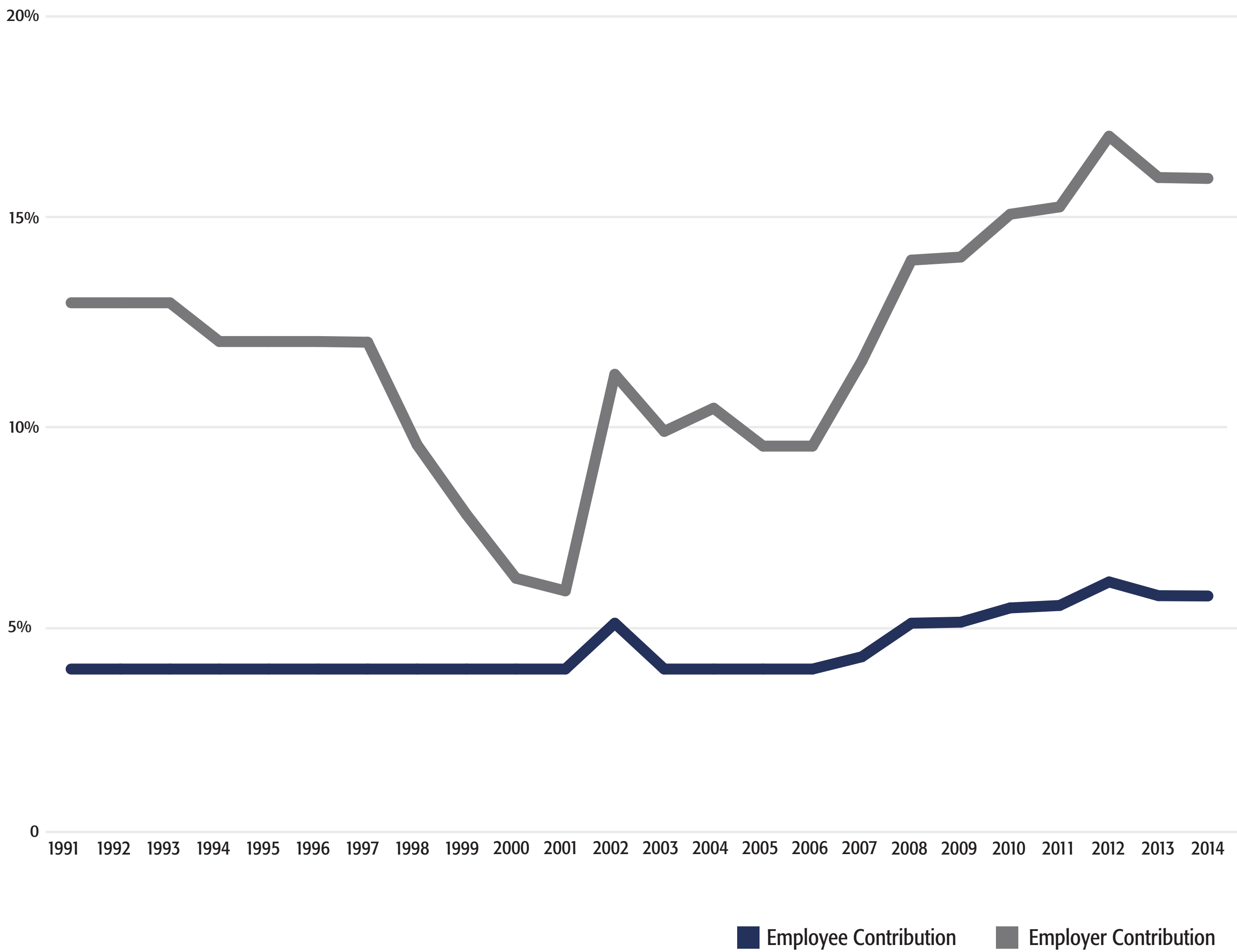
The disparity in required contributions between the state and MBTA plans is driven by the different cost-sharing structures enshrined in them. MSERS employees pay in at a statutorily fixed rate, while the state picks up any remaining amount. MBTARF members, on the other hand, have to pick up 25 percent of the total change in the ARC to the fund according to their 2014 pension agreement, which results in a floating contribution rate. Theoretically, this means MBTA employees' pension withholdings can rise if the MBTARF's funded ratio falls even further, but under that scenario the MBTA would also have to contribute substantially more.

In practice, MBTARF contributions have been negotiated by management and the union leadership through collective bargaining agreements to allocate a disproportionate amount of the cost to the MBTA (Fig. 12). There is a floor of 4 percent of pay for member contributions if total required contributions fall below that level, as required in the pension agreement. But when that occurs, those overpayments are later credited to the employee, reducing future contributions. Over 24 years, the average employee contribution to the MBTARF has been 4.5

percent, whereas the MBTA has been required to pay in nearly three times that, or about 11.9 percent of payroll. The significant exceptions in the data coincide with temporary windfalls associated with the dotcom and housing bubbles, which provided a short-lived boost to MBTARF assets. The employer contribution rate peaked at 17.06 percent in 2012, before valuation assumptions were manipulated to decrease the overall ARC growth.

> "Over 24 years, the average employee contribution to the MBTARF has been 4.5 percent, whereas the MBTA has been required to pay in nearly three times more, or about 11.9 percent of payroll."

Fig. 12. MBTARF ARC Allocation as Percentage of Payroll for Valuation Years 1991-2014



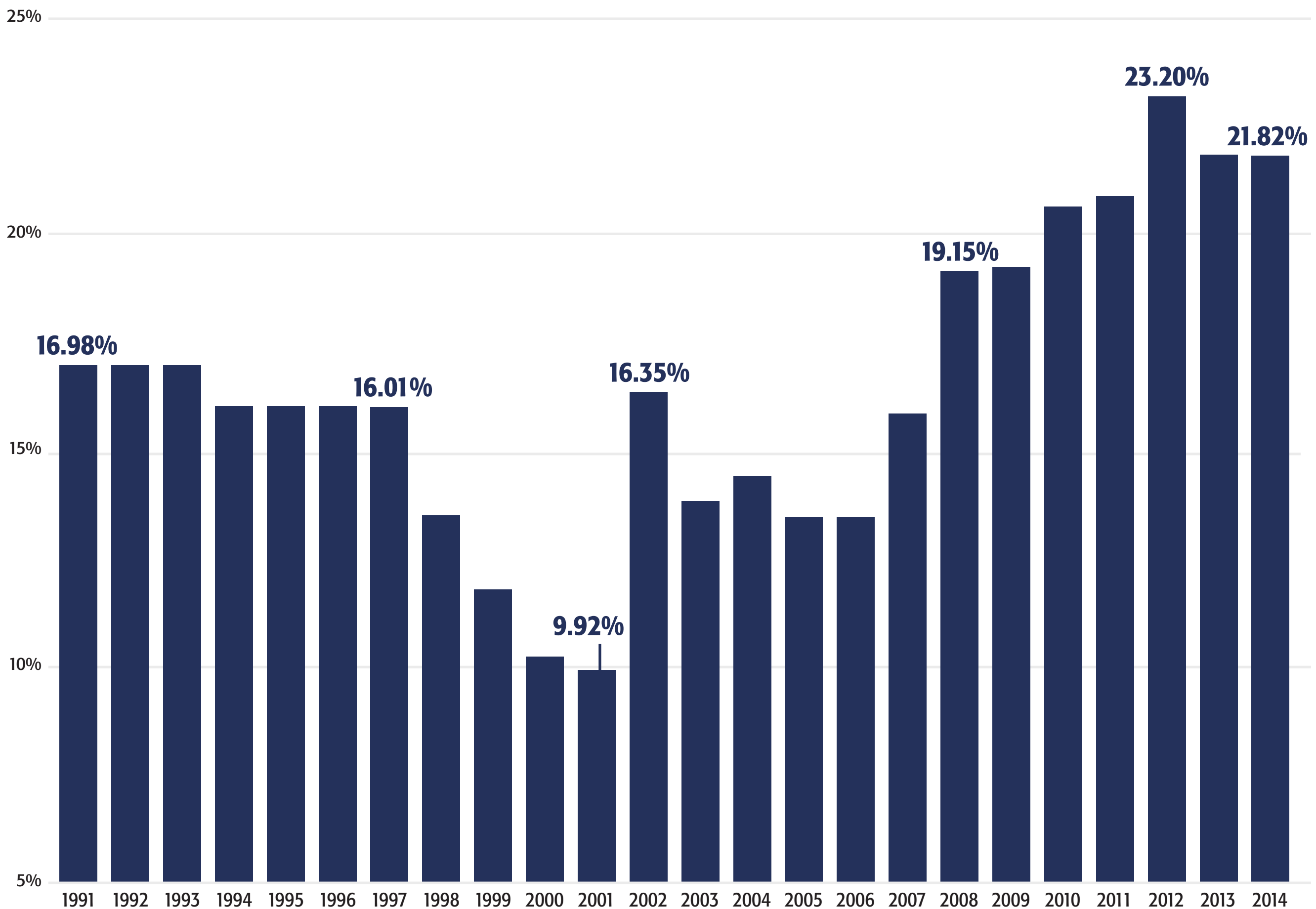
Source: MBTARF actuarial valuations

The underlying ARC captures the annual contribution amount necessary to meet pension obligations based on actuarial assumptions about longevity, service, plan investment returns, pay raises and other factors.

> After its creation in the 1990s, the annual required contribution (ARC) quickly became recognized as the unofficial measuring stick of the effort states and local governments are making to fund their pension plans. A government that has paid the ARC in full has made an appropriation to the pension trust to cover the benefits accrued that year and to pay down a portion of any liabilities that were not pre-funded in previous years. Assuming projections of actuarial experience hold true, an allocation short of the full ARC means the unfunded liability will grow and require greater contributions in future years.[58]

As MBTARF unfunded liability has grown, the overall ARC has increased as well, from 14.4 percent of payroll as of the 2004 valuation to 21.82 percent 10 years later (Fig. 13). The last contribution rate is one third higher than the 24-year average of 16.4 percent of payroll and the upward trend is likely to continue amid disappointing investment returns and further adjustment of actuarial assumptions to more realistic levels. The increased funding responsibility has fallen disproportionately on the MBTA.

Fig. 13. MBTARF ARC as Percentage of Payroll for Valuation Years 1991-2014



Source: MBTARF actuarial valuations

As of the year-end 2014 valuation, the MBTA was expected to cover 73.5 percent of the total ARC for MBTARF members, while employees were responsible for 26.5 percent. In contrast, the state paid 54.6 percent of overall MSERS contributions in FY 2015, while members paid 46.4 percent. Even with FICA included, the MBTARF's required employer contribution rate was 65 percent of the total, whereas the employees' was 35 percent. The cost allocation differentials further illustrate the extent to which the MBTA is continuing to foot a disproportionate share of the growing bill for MBTARF retirement obligations relative to other Massachusetts state employee pensions.

While they provide a snapshot of the pension plans' immediate fiscal effect, these comparisons are not predictive of the long-term cost and sustainability of the pension systems. The WLC warns:

> Employer contributions often vary between categories of employees and change significantly from year to year, particularly if investment returns from pension funds are volatile. In addition, employer costs are often designated under several categories reflecting normal costs, amortization, administrative costs, and unfunded postretirement increases and the designation of these costs may vary from plan to plan.[59]

In addition, the Massachusetts legislature has frequently postponed pension payments for state pension plans to free up cash for other spending, changing its contribution rates accordingly. For example, PERAC determined that the FY 2017 contribution budgeted for commonwealth plans would cover only 72 percent of the ARC determined according to fiscally prudent principles established by the Governmental Accounting Standards Board.[60] In other words, the fiscally responsible state ARC (including the MSERS, the MTRS and Boston teachers) would likely be closer to 15 percent than to 12 percent of payroll. Meanwhile, both the state plans and the MBTARF have been known to use suspect methodologies and assumptions to determine the cost of pension benefits and required contributions. Accordingly, these employer contributions do not necessarily provide a comprehensive or accurate picture of the fiscal burden associated with each plan. A more complete picture can be obtained only by analyzing ARC components such as normal cost, amortization of the unfunded liability and administrative expenses, but ultimately the most reliable benchmark is the underlying benefit structure.

5. Why Are T Pensions So Expensive?

Between 2005 and 2015, both state and MBTA pensions have undergone some more or less significant benefit changes. Because legal and political considerations make adjustments to earned benefits prohibitively difficult, the most constructive path forward is to focus on the most recent pension agreement governing MBTARF benefits and the MSERS pension tier established for employees hired after 2012. Hereafter, 'MSERS members' refers to Group 1 state employees, classified by Mass General Law Chapter 32 Section 3 as general employees and 'clerical, administrative and technical workers, laborers, mechanics and all others not otherwise classified,' unless clearly noted otherwise.[61] As discussed earlier, MBTA employees are eligible to earn Social Security benefits in addition to their MBTA pensions in accordance with Social Security rules and regulations, so their pension benefits come at a higher cost to both the employee and the MBTA, and include a higher final payout from the very outset of a line-by-line comparison with the state plan.

5.1. Pensionable Pay (Average Final Compensation)

One of the principal differences between MBTA and state pensions is the compensation average (pensionable pay) used as a basis for the calculation of retirement allowances. For MBTA employees, pensionable pay is based on the average of their three years of highest compensation overall, while other state employees are restricted to the highest compensation over either three or five *consecutive* years, depending on whether the employee was hired before or after the 2012 changes.[62] Contractually, any lump-sum payments for retroactive raises received before FY 2016 can be counted towards pensionable pay.

Cherry-picking the three highest years of compensation used to determine MBTARF pensionable pay allows members to count 'spike years,' or years which they receive retroactive collectively bargained pay raises for prior years, among their three highest-paid years. Those years when the lump sum is received can then be selectively included in the three highest years of compensation, producing a significantly higher pensionable pay than would be the case if the wage increases were counted as compensation spread across the years the wages were actually earned.

MBTA pension calculations are often based on these spike years, which push the total cost per retiree far beyond what an equivalent state employee would receive. State employees cannot take advantage of retroactive benefits to the same extent due to their being restricted to using consecutive years of *regular* compensation to compute their retirement packages. This can make a substantial difference in future pension payouts, and illustrates the imbalance between MBTA workers and those in the state system with respect to retirement benefits.

Prior to the 2013 pension agreement, T employees could count spike years without limitation. This was revised in the 2013 pension agreement to provide that lump-sum payments received after July 1, 2015 would be applied to the years in

which the salary increases were actually earned. This was a step in the right direction, but one with limited near-term impact. Since retiring T employees are still allowed to count "spike years" that occurred before July 1, 2015 among their three highest years, employees on the MBTA payroll during those years can still boost their pensions by counting these spike years.[63] Over time, as current MBTA employees retire and are replaced by those hired after July 1, 2015, the "spike year" problem will be eliminated. In the meantime, however, the MBTA workforce is still allowed to count spike years that occurred prior to FY2016 to augment their pensions.

The 2014 pension agreement governing MBTARF also allows members to bank unused vacation pay and sick time to increase total compensation in the final year of employment and thereby "spike" their pensions. By contrast, state employees can only credit vacation and back pay into an account similar to an IRA, with sick time credited at a punitive 20 percent rate.[64]

"The 2014 pension agreement governing MBTARF allows members to bank unused vacation pay and sick time to increase total compensation in the final year of employment and thereby 'spike' their pensions."

In addition to using a more prudent period for pensionable pay, state law includes specific anti-spiking provisions (with reasonable exceptions). If pay has more than doubled in any given year, the employee is automatically switched to a five-year base for the determination of pensionable pay. Furthermore, if the compensation in any year of the base period is more than 10 percent higher than the average pay in the preceding two years, the excess amount cannot be included in calculating pensionable pay.[65]

5.2. Vesting

Any MBTA employee, including all part-time workers, is eligible to become a member of the main pension plan, while the MSERS allows only state workers with at least half-time employment to join. MBTARF members with 10 years of creditable service are vested in that they may begin to receive a pension at age 65 if they have not withdrawn their contributions prior to that date. This "vested" pension is equal to half of the normal retirement allowance plus 5 percent for each year of service above 10, up to a total of 20. While MSERS members also require 10 years of service, they only have to attain age 60 before they become eligible for retirement under standard conditions.

5.3. Multiplier and Age Scale

The unique multiplier used to calculate benefits for MBTA retirees is another important feature of the fund's calculation formula that deviates from the practices of the rest of the state retirement system. The multipliers, or 'age factors,' are a key component of the formula used to determine public employees' maximum retirement allowance. In both systems, the pension is determined by multiplying pensionable pay by the number of creditable years by the corresponding multiplier. MBTARF pensions are capped at 75 percent of pensionable pay, which, combined with a relatively flat multiplier, encourages employees to retire early. MSERS pensions are capped at 80 percent and the multipliers are graduated with respect to both age and creditable service, encouraging employees to continue working well into their 60s.

The MBTA's pension agreement mandates a flat rate of 2.46 percent for every year of creditable service. The rate is graduated indirectly only for vested employees who have been terminated and reached age 65 with less than 20 years of creditable service, as explained in the prior subsection. In addition, members are eligible for early reduced retirement after completing 20 years of service and reaching age 55, with a half-percent penalty for each month before age 65.

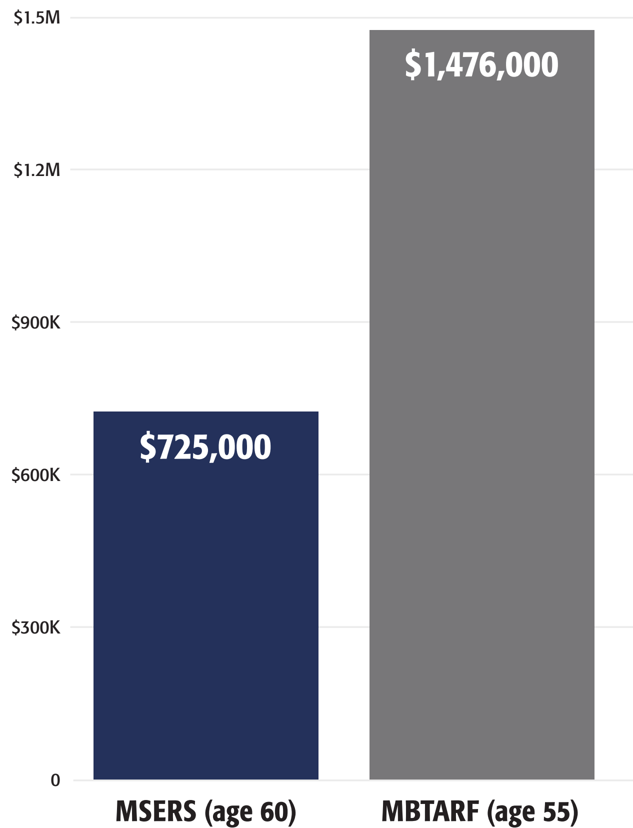
"Any MBTA employee, including all part-time workers, is eligible to become a member of the main pension plan, while the MSERS allows only state workers with at least half-time employment to join."

Public sector pension calculation formulas factor in annual reductions for early retirement as determined by the age at which a member retires and how many creditable years of service an employee has at the time of retirement. Of the 87 retirement systems examined in the WLC study, none had a normal retirement age below 59.5 years. As the study notes, a number of the plans examined also employ an "X amount of years and out" system, whereby employees can retire at any age with full benefits after completing "X" number of years of service. The most common provision in the plans studied stipulates 30 years of service paired with a minimum age of 55. The majority of the plans reviewed—79 out of 87—also allow "early retirement" before retirees meet normal age and service years requirements; though, as the study explains, the annuity for those who opt for early retirement is reduced from the full benefit amount they'd otherwise receive in satisfying normal retirement requirements (between 2-7 percent reduction among states included in the study). MBTARF members having attained 25 years of service can retire as early as age 55

without a penalty, resulting in an allowance equal to 61.5 percent of pensionable pay. A state employee would have to wait until age 60 and even then would receive just 1.45 percent a year, for a total of 36.25 percent of pensionable pay. On a base of $80,000 for each employee, the MSERS member would get an annual allowance of $29,000, while the MBTARF member would pocket $49,200, or 70 percent more (Fig. 14). Assuming life expectancy of 85 years,[66] the MBTA employee will collect twice as much from the normal early retirement as the state worker (Fig. 15). Factoring in that MBTARF employee contributions have been about half those required by the state over the past quarter-century, the MBTARF early normal pension becomes four times more generous than the nearest equivalent state pension. The vast majority of MBTARF members, who were hired before 2012, can retire as soon as they accumulate 23 years of service regardless of age. For example, an MBTA employee who started at age 22 can retire at 45 and collect benefits for another 40 years, while earning another pension elsewhere.

Fig. 14. Annual Allowance at Minimum Retirement Age with 25 Years of Service

Fig. 15. Lifetime Allowances at Minimum Retirement Age with 25 Years of Service



While there is significant variation among state retirement systems in how they determine final pension payout, the majority of plans mandate reductions for early retirement and are increasingly moving towards formulas that use lower multipliers. The number of public retirement plans in the WLC study with multipliers over 2.1 percent per year of service dropped from ten to four between 2010 and 2012.[67] A 2014 study by the National Association of State Retirement Administrators (NASRA) found that among retirement systems in 24 states that had recently introduced reforms, every state cut the multiplier and in each state there was a "diminished pension benefit" as a result of reforms.[68] This shift among state-managed retirement systems suggests that many public pension funds are changing their policies in recognition of unfunded pension

> "Factoring in that MBTARF employee contributions have been about half those required by the state system over the past quarter-century, the MBTARF early normal pension becomes four times more generous than the nearest equivalent state pension."

liabilities—a problem that has also moved public pension funds to raise employee contributions to retirement plans in order to address the growing costs of underfunding.

Although MBTARF members are eligible for Social Security, the MBTA's retirement plan structure does not adjust its payout scheme accordingly. In other words, the determinants of benefits are not adapted to reflect Social Security payout. This makes the MBTARF an outlier among public retirement systems in which members are eligible for Social Security.

MSERS, whose members are not covered by Social Security, uses incrementally higher multipliers that max out at 2.5 percent for retirees aged 67 (recently bumped up from age 65 by the state legislature), but start at 1.45 percent for retirees aged 60 with less than 30 years of service. The higher-multiplier MSERS age scale applies to employees with 30 years of service.

An MBTARF member enrolled at age 25 can accumulate this creditable service by the minimum normal retirement age of 55 and receive an annual benefit of $59,040 at that time (Fig. 16). A state employee would qualify for $39,600 at age 60 and go on to collect $990,000 through age 85, whereas the MBTARF member would receive $1.77 million — "only" 80 percent more (Fig. 17). In other words, the transit worker's allowance would be 49 percent higher. The five extra years of retirement for the MBTARF member net $295,200 of the difference between the lifetime allowances. The remaining $486,000, or 62 percent of the gap, arises from the substantial disparity in the applicable multipliers. Assuming again MBTARF members' contribution rates at about half the level of state employees' contributions, the MBTA pension would offer a payout three times higher than the state's.

Fig. 16. Annual Allowance at Minimum Retirement Age with 30 Years of Service

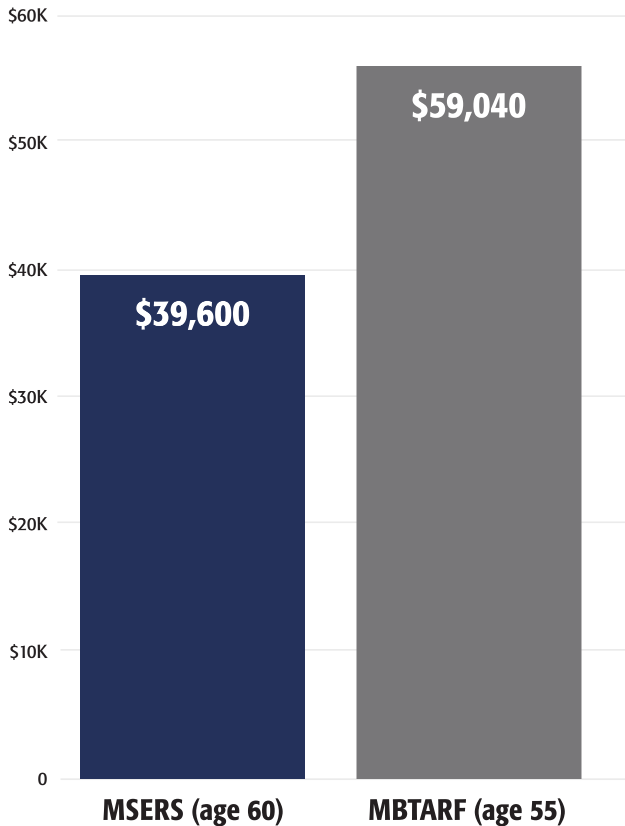
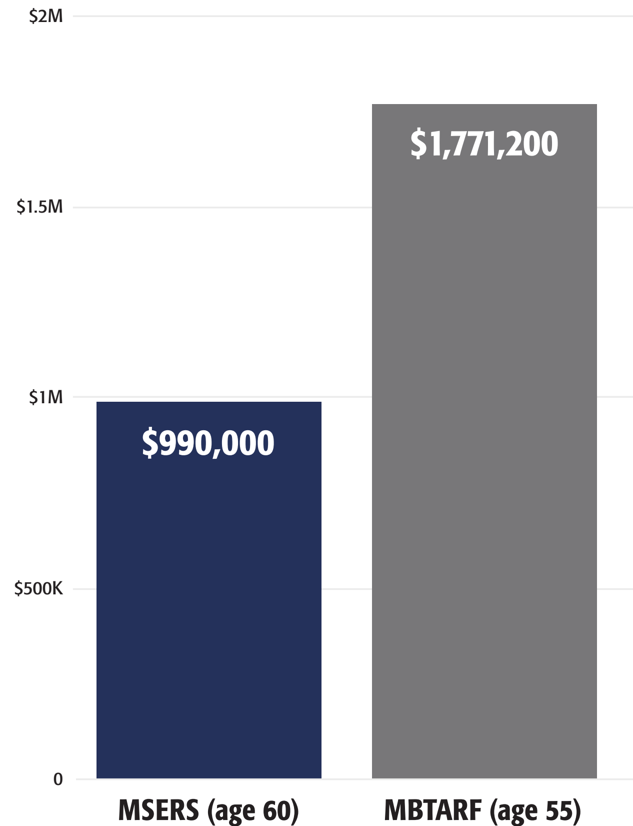


Fig. 17. Lifetime Allowances at Minimum Retirement Age with 30 Years of Service



The higher multiplier values and earlier retirement ages for MBTA employee pensions result in significantly higher payouts for MBTA workers relative to state employees. In fact, a state employee can almost never earn as much as a transit worker for the same amount of service because of the extreme differences in age scales (Fig. 18). Albeit indirectly, benefit structures reveal a tremendous inequity in pension benefits between MBTA and state employees.

Fig. 18. Multipliers at Different Ages for Recent State and MBTA Employees (%)

Age	MSERS 25 years of service	MSERS 30 years of service	MBTARF 30 years of service
67	2.5	2.5	2.46
66	2.35	2.375	2.46
65	2.2	2.25	2.46
64	2.05	2.125	2.46
63	1.9	2	2.46
62	1.75	1.875	2.46
61	1.6	1.75	2.46
60	1.45	1.625	2.46

Source: MBTARF, Massachusetts State Retirement Board

An MBTA employee can retire at age 55 with a multiplier of 2.46 percent (i.e., 2.46% x average of three highest year compensation x years of creditable service), while state employees have to reach age 60 to get a multiplier of 1.625 percent and reach age 72 to get a multiplier of 2.5. The current multiplier used to determine payout for MBTA retirees encourages employees there to retire earlier, thereby enabling them to receive a pension for many years beyond what is common among their public peers.

The average age of retirement at the MBTARF in 2014 was 58.[69] Figure 19 compares the lifetime pension payout for hypothetical MBTA and state employees, showing the effect of the multiplier. The comparison shows that a 58-year-old MBTA employee with $80,000 in pensionable compensation and 28 years of service will earn $1.49 million in lifetime pension payments. By comparison, a 65-year-old state employee retiring with $80,000 in pensionable compensation and 35 years of service will earn $1.26 million in lifetime pension payments. In this example, the MBTA employee earns $53,136 in lifetime pension payments for every year of service, while the state employee earns $36,000, meaning that the MBTA employee earns 47.6 percent more per year of service (i.e. $53,136/$36,000 = 147.6 percent). This differential indicates that substantial savings could be realized by bringing the MBTARF pension system more in line with that of the state employee system, MSERS.

Fig. 19. Comparison of MBTARF and MSERS retirement payouts

	MBTARF	MSERS
Pensionable pay	$80,000	$80,000
Age at retirement	58	65
Multiplier	2.46	2.25
Creditable service	28	35
Average pension	$55,104	$63,000
Average years in retirement	27	20
Total retirement payout	$1,487,808	$1,260,000
Cost per year of service	$53,136	$36,000

6. Discussion and Conclusion

As yet, the MBTA has not undergone the significant reforms that have been introduced to the state retirement system. There has likewise not been comparable policy action to establish measures that would reduce the MBTARF's unfunded liability. As the plan's liability grows, it is imperative that policymakers consider the degree to which the MBTA and taxpayers will have to bear this growing cost burden, as the MBTA is contractually obligated to cover 75 percent of any funding shortfalls.

Because of the Fund's autonomy from the rest of the state system and continued insistence that it is a private trust, the MBTARF has been able to maintain outdated policies and practices in spite of internal issues with funding and dramatic shifts in how other publicly funded retirement systems are managed. The fiscal consequences of the MBTA's separation from the state system are considerable: the MBTA's annual tax payments towards Social Security add up to approximately $30 million. The collective differences in retirement benefits for the MBTA and the state also reflect a fundamental lack of equity in Massachusetts' public retirement systems.

The following policy items represent a cross-section of reforms for consideration, some of which will require a longer time-line and greater political will to realize. Other recommendations offer pragmatic options for immediate action by the FMCB. The various stages of transition above will not be a simple or quick fix, and will require that the FMCB and union leadership work together to engineer reforms.

1. **Assess the feasibility of moving the MBTA out of Social Security**

   An important first step in reforming the MBTARF should be determining the feasibility of shifting the Fund out of Social Security. MBTA workers currently must pay 6.2 percent of their compensation towards Social Security. The agency must pay this contribution rate on top of its

contribution to the pension fund annually, which was just over 16 percent as of July 2015 and is now up to over 18 percent. The status quo presents an unnecessary fiscal burden to both sides.

The FMCB should work with the MBTA, its members unions and the General Court in a significant effort to move the MBTA out of Social Security. Any revision to this current policy is contingent on determining whether MBTARF members are subject to the terms of Section 210(k) of the Social Security Act, which delineates a number of provisions that mandate coverage for transportation service workers under specific conditions. Section 210(k)(1) stipulates that any public transportation service performed in the employ of a state or local public body is covered if any part of the transportation service was 'acquired from private ownership after 1936 and prior to 1951,' with some exceptions.[70] As the MBTA's predecessor, the MTA, was assembled from insolvent private railroads in 1947, the terms of Section 210(k)(1) likely provide the legal grounds for the agency's participation in Social Security. The several exceptions in the law, including the exemption of any system acquired during the aforementioned time with any general retirement system already in place providing benefits that cannot be "diminished or impaired," would have to be carefully reviewed to gauge whether moving MBTARF members out of Social Security would require amending federal law.

2. **Institute a new pension benefit structure for all current MBTARF members, and develop a plan to phase out the MBTARF**

   The MBTARF's benefit structure, including the member and employer contribution scheme, formula multiplier tier, and qualifying years of pensionable compensation, should be changed to establish parity with state employees.

   For instance, MBTA employees can currently retire with a multiplier of 2.46 percent at age 55, while state employees earn only 1.5 percent per year of employment at age 55 and must work until 67 to receive a multiplier of 2.5 percent. This creates a problematic incentive for members to retire early, which results in significantly higher life-time benefits for MBTA retirees compared to state employees and a larger burden to the state. Introducing a multiplier schedule at the MBTA that starts at 1.45 and increases with age in a way that parallels MSERS' age factor schedule would be a practical way to address this issue.

   Annual pension contribution rates are another example. MBTARF members are expected to pay 6.46 percent in as of July 2016, while the MBTA will pay 18.04 percent, according to recent MBTARF financial statements.[72] Comparatively, general state employees pay 9 percent rate, plus another 2 percent for any salary over $30,000, while the state most recently contributed 12.1 percent to MSERS. This disparity must be mitigated to ensure the fiscal sustainability of MBTARF and establish a more equitable system whereby MBTARF members are contributing at levels commensurate with their public peers. This will require that MBTA employees pay a higher contribution rate towards the fund whether the MBTA can move out of Social Security or not. The MBTA will also be taking on a larger share of this burden due to terms in the most recent pension agreement that require the MBTA to pay 75 percent of the ARC, which continues to grow dramatically due in large part to the rising unfunded liability.

   If the MBTA and its employees can successfully transition out of Social Security, the MBTA and MBTARF members would each be paying 6.2 percent less in annual contributions. If MBTA employees were no longer required to contribute to Social Security, and their contribution to MBTARF were increased to 9.5 percent, their total contribution would decline from its current level (12.7 percent) by 3.2 percent. With this change, the MBTA's contribution rate could be reduced by 3.0 percent, from its current of 18.04 percent, to 15.04 percent.[73] These changes to the contribution rates would ease the burden of payment obligations to both the MBTA and MBTARF members.

   One direction to consider in establishing a different contribution structure is merging the MBTARF system with MSERS. The Massachusetts legislature could institute a new 'Group T' within the state retirement system for MBTA employees in which employee contribution rates could be structured to reflect the changes described above, assuming the MBTA can successfully achieve exemption from the SSA. The migration to MSERS would be similar to the transfer of the MBTA workforce to the state employee health insurance plan under the Group Insurance Commission (GIC)—a change that has saved the state millions of dollars per year since the reform was introduced in 2011.

   Another approach in transferring MBTA employees to the main state retirement system would be establishing a Group T in MSERS, as described above, in which the benefits and employee contribution rates of new hires at the MBTA could be structured so that the totality of the Social Security and MSERS benefits earned while employed at the MBTA equals the the benefit earned by a Group 1 general state employee. If the MBTA is unable to extricate itself from participation in Social Security, the exemption from the windfall provision, in this way, could be factored into the overall pension package to make the benefit and contribution rate commensurate with that of state employees under MSERS. This would augment cost containment efforts and establish pension equity with

other state workers for new hires going forward, while helping to transition away from the practices that brought the MBTARF to its current untenable financial condition. A similar approach could be adopted with the much smaller police plan at the MBTA, establishing a special group within the state system that ensures a total federal and state benefit equal to the benefit for other security officers employed by the state.

An important additional consideration in weighing a transition to MSERS is the number of recent reforms at both MSERS and MTRS that have laid the groundwork for long-term cost reductions in future state pension obligations. While MSERS must take important additional steps to ensure future solvency, 2011 reforms were a strong start towards long-term sustainability. A February 2013 study from the Center for Retirement Research at Boston College expects that state employer contributions towards the normal cost are projected to decline by half by 2046; the year all employees covered under the system will have reduced benefits introduced by the new reforms. The study also notes that, with benefit reductions and consistent full payment of the ARC, the unfunded liability of both state and teachers' pensions will decline:

> Taking into account both their benefit reductions and paying down their unfunded liabilities, the share of state and local budgets devoted to pension costs is projected to drop from 7.4 percent today to 3.2 percent by 2046.[74]

Both systems have established a plan to be fully funded by 2040, and the Public Employee Retirement Administration Commission (PERAC)—the body that oversees MSERS, addition to 103 other public retirement systems—projects savings up to $5 billion over the next thirty years due to the 2011 reforms.[71] In a scenario where a successful migration to MSERS can be realized, the MBTA can work with employee representatives and the retirement board to implement a plan to phase out the MBTARF in accordance with Article VIII of the pension agreement. The future solvency of fund should be a matter of grave concern to MBTA employees. Under the terms of the current pension agreement, the MBTA and its unions have "no liability for the payment of the benefits under the fund . . . and each member and retired member or other beneficiary under the fund shall look solely to the assets of the fund for any payments or benefits under the fund." Neither the MBTA, the Commonwealth, nor the unions are required under the agreement to serve as a "backstop" to the fund should it become insolvent. As analysis performed by the MBTA earlier this year points out, the MBTA's future asset base could see significant decline under certain scenarios where the rate of investment return falls below 6 percent. In a scenario with an assumed rate of return of 4 percent, the Fund's main assets would decline from $1.5 billion, as of 2015, to $576 million by 2035.[75] As this analysis illustrates, the implications of such scenarios for the viability of members' future pension benefits should not be ignored.

As mentioned above, the declining financial condition of the fund is also readily demonstrated by the fact that its unfunded liability has skyrocketed from $49 million in 2005 to $944 million in 2015. This burgeoning growth has occurred despite the fact that the MBTA's annual contribution rate has virtually tripled from 6.2 percent of payroll in 2003 to an estimated 18.1 percent in 2017, exclusive of the MBTA's required Social Security contributions. In order to protect the future interests of MBTA employees and retirees, the legislature should work with the MBTA and its unions to restructure the MBTA retirement system and steer it on a fiscally sustainable course.

3. **Transfer investment management to PRIM**

As Pioneer has stated previously, one of the most problematic features of the MBTARF governance structure is that it has been led by individuals with limited investment qualifications or experience. This arrangement has been costly in terms of performance results, questionable investments, and high administrative fees generated as a result of the board's need to seek outside counsel on investment decisions in the absence of in-house expertise. Whether MBTARF members are migrated to the state retirement system or not, the Fund's members would be better served by PRIM's well-established team, which has demonstrated professional expertise in managing large investment pools.

An additional important consideration is that the MBTARF's asset balance has declined since 2005, while both the MTRS and the MSERS, which are managed by PRIM, have significantly increased the market value of their assets over this same period. In 2005, the MBTARF oversaw assets worth $1.7 billion. By 2014, total assets had declined 7 percent to $1.6 billion. Over the same time frame, the MSERS's asset balance grew from $17.9 to $23.6 billion, a 32 percent increase, and the MTRS balance increased from $20 to $25 billion — a 25 percent increase.[76]

Endotes

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