MassINC Policy Center

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Reckoning with Historic Unfunded Municipal Pension Obligations

Pensions have long been a part of the total compensation paid to local public employees in Massachusetts. In periods of fiscal austerity, there is often heightened interest in the financial condition of these pension plans, their administration, and the benefits that they confer. When local budgets are healthy—as they have been for some time now—pension costs often receive less attention.

But through the ups and downs of the last several decades, Massachusetts taxpayers have shouldered very heavy costs to correct a long history of underfunding of these plans by multiple generations of prior leaders who promised the benefits of public pensions without fully paying for them. The resulting unfunded liabilities continue to take a heavy toll, particularly on Gateway Cities and their lower-income residents.

Understanding the historical context for unfunded pension liabilities will help current state and local leaders recognize and respond to the problems left behind in an equitable manner. Analysis separating the portion of the local pension burden resulting from prior generations' historical underfunding of the plans from the modern-day workforce's current pension cost clearly shows that offering defined benefit public pensions is not the problem per se: When funds are appropriately and contemporaneously set aside and invested prudently to cover local pension benefit costs, the pension benefits offered by local governments in Massachusetts are fully affordable.

This report provides data and context to call attention to these issues. Section 2 describes three choices in the history of public pension systems in Massachusetts, providing context of which many—even those who have long followed the commonwealth's pension issues—may be unaware. Next, the analysis shows that taxpayers have paid far more than their fair share of local pension costs in recent years. At the same time, the findings also strongly suggest that pension liabilities today remain significantly higher than they would be if all local pension funds had been invested as efficiently and responsibly as possible over the past few decades. In addition, the report presents data for Gateway Cities that further demonstrates the adverse impact that unfunded pension liabilities place on our regional economic centers and their current residents. The paper concludes with recommendations to enhance the transparency of local pension system funding, including more robust disclosures to taxpayers and discussion of a possible state-level funding approach that could more equitably address these systemic, intergenerational inequities, while incentivizing local plans to more efficiently manage plan assets by investing them through the state Pension Reserve Investment Management (PRIM) Board.

KEY FINDINGS

- As of 2023, recent generations of Massachusetts **taxpayers paid an estimated $22 billion more than their fair share to cover local pension obligations** left by prior generations, yet these local plans still have an estimated $8 billion in unfunded liabilities.
- Current **taxpayers face additional costs because most of the pension funds are managed by local boards that have underperformed** the state pension fund by more than $5.4 billion since the 1980s.
- **Geographic disparities** associated with uneven changes in population since the late 1970s have **exacerbated this burden** for residents of some communities, including many Gateway Cities.
- This pattern means **lower-income residents and people of color shoulder an inequitable share of legacy pension costs**. Since the 1980s, Gateway City residents have paid billions more than their own generation's fair share to cover local pension costs, with more than $5 billion in appropriations made for legacy pension costs since 2010.

Understanding the Historical Context: Three Structural Impediments

While modern discussions of municipal pensions often focus on unfunded pension liabilities, they generally leave out critical historical context. Previous generations of state and local leaders refused to adequately fund their pension promises. They also chose to keep public employees out of Social Security, avoiding both the employer and the employee contributions required by that system and thereby forgoing the potential to "export" a portion of public employee retirement costs to the federal government. Around the same time as state leaders finally addressed nearly a century of mismanagement and non- or underfunding of state and local pensions, voters adopted Proposition 2½, which severely constrained the ability of many communities to raise the local revenue needed to reduce unfunded legacy pension liabilities. These three critical pieces of historical context are described in more detail below.

1. For nearly a century, Massachusetts law made it illegal to prefund local pension costs and invest the assets responsibly. Pensions were an industrial-era creation, adopted first by the private sector as they sought to draw labor to railroads and factories. As with many policy innovations, Massachusetts was among the first states to create local public pensions for municipal workers. Pension-like benefits came first for those injured on the job (or to relatives of those lost in the line of duty) through systems such as the Charitable Association of the Boston Fire Department[1] and the Police Charitable Fund for the city of Boston.[2] The Legislature allowed these funds to offer age-related retirement benefits in 1892.[3]

Leading up to World War I, the Legislature passed hundreds of so-called "Special Act" pension bills

ADDITIONAL HISTORICAL PERSPECTIVE ON THE STATE ROLE FUNDING TEACHER PENSIONS

Similar to local systems, the Massachusetts Teachers' Retirement System (MTRS) was designed to remove unproductive employees from the workforce, attract higher quality employees and, notably, to attract more men into the teaching profession. At the time of its creation, the state board of education argued that teacher pensions should be provided by a state system because education was fundamentally a state responsibility under the Massachusetts constitution and because it believed that local systems would not be able to effectively provide teacher pensions.

Other states had already developed centralized systems for teachers in the early-1900's, including New York, Maryland, Rhode Island, and Virginia, and some Massachusetts cities and towns were refusing to establish their own local systems. MTRS has saved cities and towns enormous costs over time, including the system's 2023 estimated unfunded liability of $25.7 billion. The state teacher pensions system has had the added benefit of spreading these liabilities over all taxpayers, rather than creating the geographic and historical inequities that exist with municipal pension systems today.

for different categories of employees serving cities and towns across the commonwealth. In rare cases, employees paid into the annuities provided by these funds, but many funds did not require any employee contribution. And while some Massachusetts municipal employers provided a theoretical match, state laws actually prohibited local pension systems from setting aside any funds to cover this match until 1977, further weakening pension system finances. State law also barred local pension funds from investing in securities until 1987.

The historical record shows that lawmakers were aware of the fiscal consequences for future generations created by this undisciplined approach to public benefits, but decades passed before any action was taken (see box on p. 5). Municipal budgets have been absorbing the cost of these unfunded pensions for years, making it more difficult for cities and towns to properly fund critical investments in infrastructure and public services.

It is important to note that the commonwealth did take responsibility for teacher pensions early on in this local pension system history. Legislation enacted in 1913 established the Massachusetts Teachers' Retirement System (MTRS).[4] While prior generations of state-level decisionmakers underfunded the MTRS system in ways quite similar to the historical underfunding of local pension systems for other municipal employees, at least the responsibility for addressing these obligations falls on the current generation of taxpayers statewide and not on individual municipalities with their widely varying tax bases.

2. Prior decisions to not join Social Security have significantly increased public pension costs for today's local taxpayers. When the federal Social Security system was created in 1935, state and local government workers were barred from participating. Congress extended the benefit to local government employees in the 1950s. In more than half of states today, over 90 percent of public employees receive Social Security benefits. Massachusetts is one of just three states (including Nevada and Ohio) where all state and local workers do not participate in Social Security.[5]

The decision not to participate in the Social Security system avoided the need for Massachusetts state and local public employers to responsibly cover the future pension benefit costs for their then-current workers on a contemporaneous basis.[6] Analysis conducted in the 1980s showing it would be more expensive for the commonwealth to join Social Security supports this conclusion. Because the commonwealth was still significantly underfunding state and local pensions at the time, the employer contributions for current employees under Social Security would have required material and permanent increases in state and local appropriations.

If Massachusetts had followed other states and entered public employees in Social Security decades ago, it would have taken a more disciplined approach to public pensions and significantly reduced the liabilities that taxpayers face today. Moreover, to the extent that Social Security is underfunded and federal relief is eventually required, Massachusetts residents may end up subsidizing this deficit—and funding the Social Security benefits of other states—without reaping any benefits themselves. Current taxpayers will once again cover unfunded retirement contributions for public employees who never provided them with services.

3. Proposition 2½ further constrained the ability of communities to address growing unfunded local pension liabilities, widening geographic disparities. As the analysis presented in the next section will show, current unfunded local pension obligations are almost entirely the result of pre-Proposition 2½ liabilities. The limits voters imposed on municipalities in 1980—which restricted annual property tax increases to 2.5 percent of total valuation—made it more difficult for local governments to cover the costs of unfunded pension liabilities. For growing suburban communities, covering the cost of historical liabilities was less challenging, as these areas were rapidly adding new homes and businesses to their tax base and had relatively small unfunded pension liabilities from prior generations because they had smaller municipal workforces pre-suburbanization. In sharp contrast, cities were seeing their tax bases decline due to the loss of manufacturing jobs and the exodus of both people and employers to suburban communities.

These dynamics have had profound and inequitable distributional implications. Those whose parents and grandparents were raised in cities often moved out to suburban areas, while a new generation of Massachusetts residents—more often immigrants and people of color—have been left to shoulder these legacy costs.

PASSING THE BUCK FOR FAR TOO LONG

The historical record shows that there was widespread understanding that public pension systems would become unbearable financial burdens for future generations of taxpayers if not properly funded. By 1914, reports on the financial conditions of Boston's pension funds revealed large unfunded liabilities. One of the two retirement funds for the city's teachers was approaching $100 million in unfunded liabilities (when adjusted for inflation); funds for Boston's police officers and firefighters had amassed similarly large deficits.[7] These liabilities were accrued in less than a single generation.

A commission empaneled by the Legislature in 1914 noted that adding more Special Acts to provide pensions (rather than developing a centralized, consolidated structure) would "complicate the situation year by year, making future effort for sound economic legislation well-nigh hopeless."[8] Seven years later, a Joint Special Legislative Committee on pensions acknowledged that "These (special-act pension systems) were passed without any estimates of the ultimate cost to the public, and without examination of the general principles involved."[9]

Turn-of-the-century commissions and special committees called for numerous and detailed pension reforms and proposed legislation, but as the decades elapsed, the problems grew much larger before any of these changes were adopted.[10]

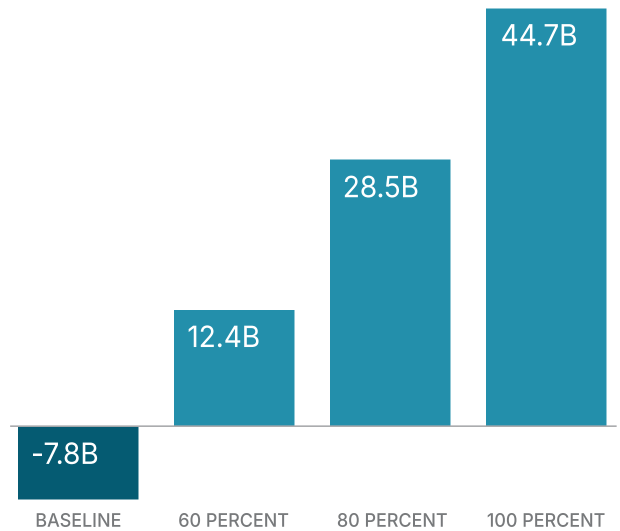
Intergenerational Inequity: Today's Taxpayers Have Paid More Than Their Fair Share

The pension funding debate often ignores the impact of nearly a century of past policy decisions that left current taxpayers with enormous liabilities. At present, state law requires tax dollars to pay for pensions earned decades ago. At the same time, taxpayers are required to fund future pension costs for employees currently providing services to the public. Whether local taxpayers today are actually doing more than their fair share from an intergenerational equity perspective is an important public policy question.

To examine this central question in a novel way, this report presents an analysis assuming that the local Massachusetts pension systems were all fully funded in 1987.[11] Actual pension system returns on investment during the period from 1987 to 2023 are then applied to this theoretical proper "beginning balance" of 1987 funding. Using this hypothetical case, the question is whether our hypothetical, fully funded systems would have remained fully funded from 1987 to 2023. This test provides an opportunity to evaluate the adequacy of the actions of current taxpayers.

The results presented in Figure 1 show that current taxpayers have done substantially more than their fair share in funding this gap. Had local pension systems been fully funded by prior generations, municipal pensions would have a $44.7 billion surplus today instead of a $7.8 billion deficit (as of 2023).[12] Even if pension systems were only 80 percent funded in 1987, all local pension systems would have been overfunded by a total of $28.5 billion in 2023. And if pension funds were funded at only 60 percent in 1987, by 2023, 75 systems would have been overfunded by a total of $12.9 billion; only eight systems would remain underfunded by a total of $458 million.

FIGURE 1: Aggregate local pension funding assuming different 1987 funding levels



Note: Positive numbers are aggregate overfunding

Source: Author's analysis of local pension fund data.

While local leaders and taxpayers did not inherit fully funded pensions, the current generations have made significant progress digging out of the hole left by past generations. In 1987, overall local pension funding was at 37 percent. These systems paid an average annual non-disability benefit of $7,250 per retiree ($19,450 in 2023 dollars). In 2023, overall local pension funding was 74 percent, with an average pension benefit of $32,270 per retiree. Recent generations have increased funding levels for pensions even while paying larger pensions than generations past.

FIGURE 2: **Pension funding under different scenarios**

		2023 FUNDING STATUS IF 1987 FUNDING WAS:		
	2023 STATUS	60 percent	80 percent	100 percent
All	-$7,828,000,000	$12,421,000,000	$28,518,000,000	$44,653,000,000
# Fully Funded	3	75 of 83	83 of 83	83 of 83
Value of Overfunding	$15,700,000	$12,879,000,000	$28,518,000,000	$44,653,000,000
Value of Underfunding	$7,844,000,000	$458,000,000	$0	$0

Note: Does not include Athol or Boston. Please see Appendices A, B and C for more detailed information.

Local Pension Investment Management Is Costly Due to Underperformance Relative to PRIM

While current taxpayers have paid more than their fair share, they are also paying for costly decisions made by modern local pension boards.

Massachusetts local and regional pension funds can be invested in the commonwealth's pension fund, which is operated by the Pension Reserve Investment Management Board (PRIM). Historically, the decision to invest through PRIM has rested with the local pension board, but since 2007, the commonwealth has had the authority to compel chronically underperforming local pension systems to move their assets to PRIM.[13]

Some states require their municipal pension assets to be invested by their larger state system, which is believed to provide better investment management at a lower cost. Our analysis finds that, in the vast majority of cases, local pension systems in Massachusetts—and their local taxpayers—would have been better served by investing their pension assets with PRIM.

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To examine this issue in a relatively simple and straightforward way, this analysis starts with the sum of money on hand in each pension fund in 1987 and multiplies this figure by the annual rates of return achieved by each fund from 1987 to 2023. The resulting 2023 total is then compared to investing the same amount of money at the rates of return achieved by PRIM.

The decision to permit local retirement systems to retain local control over investment of their pension assets has resulted in a conservatively estimated $5.2 billion loss of financial return. While 14 local pension systems experienced greater returns by investing their assets themselves between 1987 and 2023 (to a benefit of $246 million), 69 municipal pension systems lost a total of $5.4 billion in financial return by investing their assets themselves.

If anything, this estimation approach likely understates the advantage of investing with PRIM. First, a number of pension systems voluntarily moved some or all of their assets to PRIM at some point during the period of analysis. This eliminated the difference between the local pension fund's investment return and that of PRIM for those assets. Further, this methodology does not consider the additional money invested by pension systems each year during the study period (the so-called "annual required contribution," or ARC). A portion of these additional annual contributions would have been invested, and in most instances, these investments would have seen larger financial returns with PRIM. These potential gains are not included in the $5.2 billion estimated net loss. Lastly, this analysis does not consider that PRIM often charges lower investment fees compared to those charged to pension systems that invest their assets themselves. These lower investment fees would make investing in PRIM more financially beneficial.

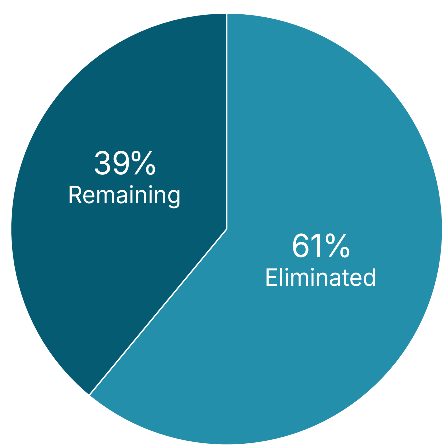
Simply investing all pension assets with PRIM starting in 1987 would have eliminated the entire 2023 pension liability for 25 municipalities. Given this conservative estimation method, it is likely that other municipalities could have eliminated their entire underfunded pension liabilities had they invested with PRIM.

In total, requiring local boards to invest with PRIM would have eliminated 61 percent of the unfunded liabilities for the 83 local pension systems examined. This estimate takes into account investment losses for the 14 municipalities that performed better than PRIM between 1987 and 2023, but it does not include savings from reduced investment fees and the other conservative assumptions discussed above.

Proponents of local pension fund investment observe that local control allows pension funds to tailor their investments to local preferences, including meeting the preferences of communities that might have a lower risk tolerance. However, this analysis shows that PRIM overperformed the vast majority of local pension systems over time. Local control has resulted in very significant financial losses compared to readily available options. This is the very scenario that conservative local pension boards seek to avoid by investing themselves. Stated another way, a loss is a loss, whether it is caused by an investment that is too aggressive and does not pay off, or by an investment that is too conservative and underperforms relative to other prudent investment options.

An even stronger argument against local control of pensions is that local pension systems are not actually under local control. The local pension boards that make investment decisions in Massachusetts are comprised of five members: one finance professional from the city or town, one member appointed by the municipality's executive officer or board, two members elected by the members of the pension system itself, and a fifth member elected by the other four. The practice of selecting three of these five members internally from the body itself is designed to ensure the pension system operates for the benefit of its members, free from undue influence from the employer (in this instance, elected and appointed representatives of local taxpayers). Because cities and towns have very little direct influence over the pension boards, there is very little accountability to or true local control by democratically elected and responsible officials. While the vast majority of pension boards and officials are upstanding, this lack of oversight and accountability has led to some questionable practices in the past, including expensive travel for pension board members (ostensibly to visit pension fund investments in other countries). It has also resulted in more than $5.2 billion in foregone investment returns that could have been achieved had all local pension assets been invested by PRIM.

FIGURE 3: **2023 Unfunded Actuarial Accrued Liability (UAAL) eliminated by mandatory investment by PRIM, 1987–2023**



Note: Please see Appendix D for more detailed information about the impact on individual municipalities.

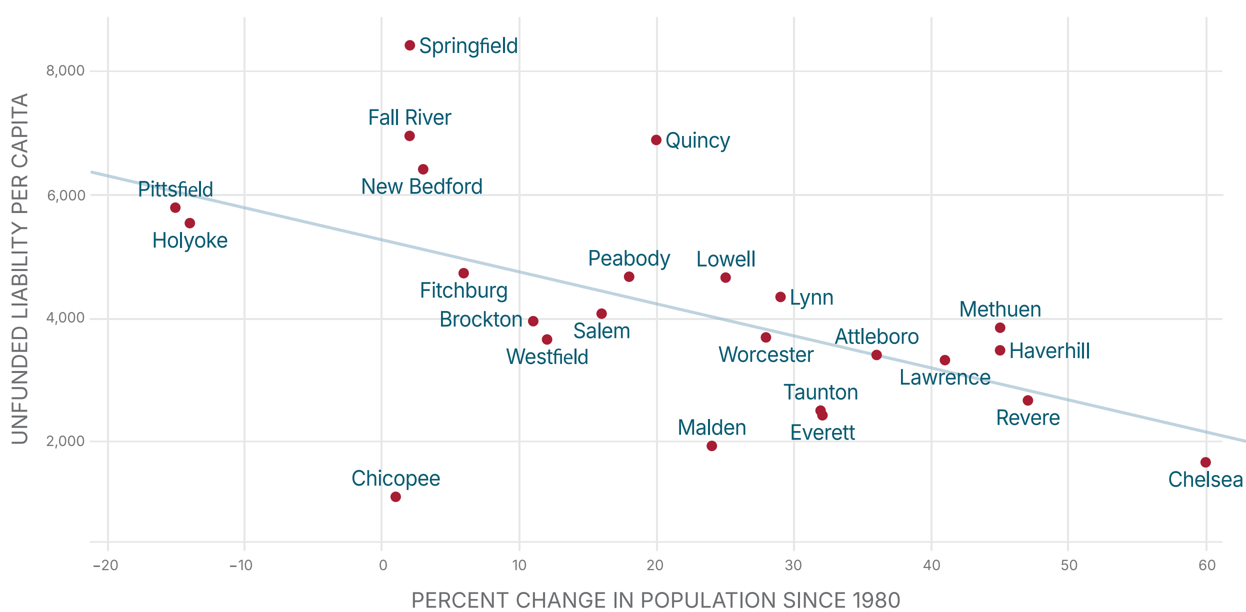
The Inequitable Burden of Local Pension Obligations

As this analysis demonstrates, current taxpayers shoulder the burden of pension underfunding and decisions made decades ago. However, this burden falls much more heavily on the state's poorer residents. Cities disproportionately have higher unfunded liabilities, both because they were relatively larger population centers in the past with relatively larger municipal workforces, and because with economic restructuring they have become lower-wealth communities with far less ability to "buy their way out" of this problem.

In 1940, the 26 Gateway Cities were home to nearly 40 percent of the state's population. Today they house just 27 percent of Massachusetts residents. While the per capita unfunded liability varies considerably across the Gateway Cities, linear regression suggests disparate rates of population growth since 1980 explain nearly one-third of the differences in unfunded liability across the full set of 26 communities (Figure 4). And among the larger cities (those with more than 75,000 residents in 1980) that shoulder the bulk of these unfunded liabilities, population change over the past four decades accounts for the majority of the variation in unfunded liability per capita.

A significant share of the municipal budget in these Gateway Cities now goes to covering unfunded obligations. For example, the city of Springfield was required to spend more than $56 million to fund its pension system in 2023.[14] By way of comparison, that level of funding would allow the city to hire an entire second police department (including 598 new officers, command staff, and administrators) and still have nearly $5 million left over.[15] This is especially egregious because Springfield's residents and elected leaders, both current and from the recent past, bear no responsibility for the underfunding decisions made by prior generations that have led to these large pension deficits. In fact, if Springfield had received a fully funded pension system in 1987, its pension fund would have been overfunded by $2.2 billion in 2023.

FIGURE 4: **Per capita unfunded liability by population change since 1980, Gateway Cities**



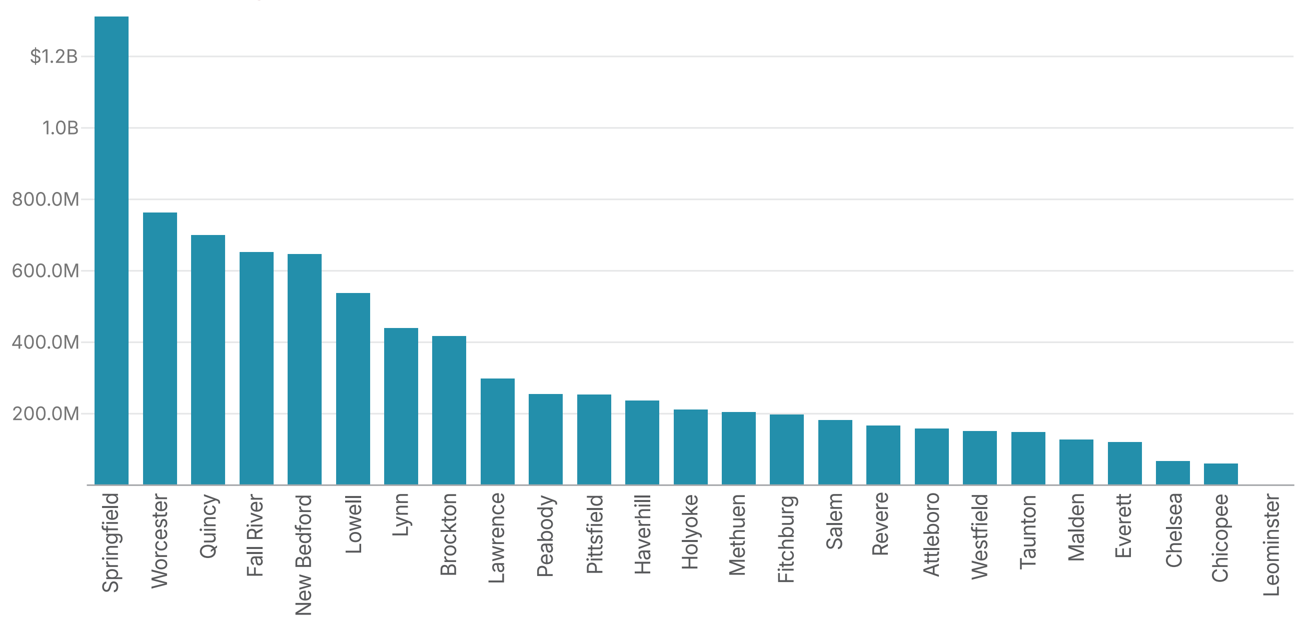
Source: Author's analysis of local pension data and data from the decennial Census

Across the Gateway Cities, on average, 9 percent of the annual general fund budget goes to unfunded pension obligations, compared to 7 percent for non-Gateway Cities. The shares are far higher on average in a number of cities, including Fall River (12.6 percent), Holyoke (11.5 percent), Fitchburg (11.3 percent), New Bedford (11.2 percent), and Lynn (11.1 percent). Gateway Cities' average spending on pensions is 249 percent of their 2020 spending on debt service (generally, bonds used to invest in infrastructure) and 19 percent of education spending in 2020. This compares to 124 percent and 16 percent, respectively, for non-Gateway Cities. These disparities may seem small, but it should be noted that Gateway Cities have relatively larger budgets—nearly twice as large, on average—making small percentage differences highly impactful.

These competing costs reduce the quality of local government services, which tends to lower property values over time, making it even more difficult for Gateway Cities to cover pension obligations. Today, all of these cities would boast large surpluses—or expanded public services for residents—had they received fully or even reasonably-funded pension systems in 1987.

While a full analysis of the additional burden imposed on current and future taxpayers by the need to pay for previously unfunded health care and Other Post-Employment Benefits (OPEB) is beyond the scope of this study, the full extent of the costs to be covered for municipal retirees is clearly even larger than demonstrated by this analysis of pension benefits alone.[16] OPEB is growing each year, and at a far faster rate than municipalities can manage. While the combined municipal pension liability for the 83 local systems was $7.8 billion in 2023, the combined OPEB liabilities for Massachusetts cities and towns in 2021 is estimated at $34 billion, with only $1.9 billion in assets set aside.[17] The funded ratio for all municipalities is 5.5 percent, while Gateway Cities have a combined funded ratio of 0.9 percent. The OPEB funding shortfall is a growing challenge to budgets across both state and local systems.

FIGURE 5: **Remaining unfunded actuarially assumed pension liabilities for Gateway Cities, 2023 onward**



Note: Barnstable is part of a county system. See Appendix E for more detail.

Rising to the Challenge: A True Test of Our Commitment to Equity and Prudent Fiscal Policy

Concerns regarding the financial sustainability of public pension systems have led to calls to curtail benefits or take other steps to reduce liabilities. However, cutting pensions is only one approach to the challenge, and taking it implies that the problem is the size of benefits themselves rather than the choices made by prior generations to not adequately fund their pension promises and instead pass these costs on to future generations. Policy debates that focus on benefit levels also tend to ignore the geographic disparities among communities over time, as well as how those disparities further skew the inequities within Gateway Cities and other communities that have experienced adverse demographic and tax base trends over many decades.

While Massachusetts has made progress on the unfunded pension liability problem in recent years (with considerable help from financial market performance), this does not obviate the need for further action, especially given the commonwealth's geographic and economic disparities and their long-term implications for our varied communities. Additional, meaningful action is needed to address this pension problem in a more equitable manner.

Toward this end, the following recommendations merit consideration:

1. Increase transparency by bifurcating local pension systems. Our annual state and local pension spending is really funding two different things—prior generations' unfunded benefits and future benefits promised to current public workers. To reflect this reality more accurately, and to provide taxpayers greater visibility into it, local pension fund reporting should be made more transparent by both disclosing and dividing the liabilities following an approach recommended by Boston College's Center for Retirement Research: One part of the system would provide current and recent pension benefits, while another would give an account of the funding requirements and a funding source for the unfunded liabilities inherited from prior generations. This would add transparency in reporting and potentially allow for the use of different funding mechanisms for these two different categories of pension liabilities (perhaps with a state-level funding source for at least a material portion of the legacy liabilities) while also giving consideration to using a different funding source and schedule of unfunded liabilities that would more equitably spread prior generations' liabilities over a broader base of taxpayers at the state level and perhaps across multiple future generations.[18]

> Pension spending is really funding two different things—prior generations' unfunded benefits and future benefits promised to current public workers.

Transparency and bifurcation in reporting and broadening of the funding source (and possibly the schedule) for prior liabilities could provide for greater equity, and might allow current taxpayers to make other important investments that can provide important local government services benefits to current and future generations. Our current structure prioritizes eliminating pension liabilities for future generations at the expense of improved education, public safety, or other priorities that may better serve current and future taxpayers and residents.

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2. Allow communities to exclude historical unfunded pension liability costs from the Proposition 2½ levy limit. The local pension liabilities that saddle many cities today are largely the result of forces beyond their control. When taxpayers self-imposed Proposition 2½ in 1980, they were unaware of the extent of the local pension problem and the disparate impacts that the measure would have on lower wealth communities. Today, these issues are clearer and must be addressed. Municipalities should have the option to exclude from Proposition 2½ the costs that they continue to incur as a result of pre-Proposition 2½ pension policies.

This remedy is far from perfect and does not offer a solution on its own. Removing legacy pension costs from the Proposition 2½ calculations will still require current taxpayers to shoulder a heavy historical burden using their tax dollars; given the economic conditions of the most impacted urban communities, it may be difficult for their commercial or residential tax bases to support higher rates. But at a minimum, these communities should have the option to exclude pension obligations that were accrued pre-Proposition 2½ until the historical deficit is eliminated.

This issue is especially salient in an economic downturn. Gateway City real estate markets are historically more volatile. Sharp declines in property values can push the levy limit (last year's collections plus 2.5 percent and new growth) over the levy ceiling (2.5 percent of total valuation), forcing cities to reduce tax collections. In Springfield, this occurred in FY 2012 and FY 2013, and also over a five-year span beginning in FY 1991. The problem was so severe that the Massachusetts Department of Revenue recommended special legislation to allow Springfield to recapture its lost levy capacity.

3. Consider direct state appropriations to encourage local systems to invest in PRIM. Centralizing pension asset investment with PRIM would have significantly improved investment returns for local pension funds. The Commonwealth has previously provided direct appropriations to municipalities that were fully invested in PRIM (1996 is one such example), which creates an incentive to shift all investment activities to this fund. While moving toward mandatory investment by PRIM is recommended, a financial incentive would support voluntary participation before the implementation of a mandate. Given the financial vulnerability of some cities and towns and the burden that this vulnerability places on the commonwealth, it would be fiscally prudent to consider utilizing a portion of the interest earnings on the Commonwealth's Rainy Day Fund to create this incentive. According to the State Comptroller, the Fund's balance was $8.8 billion as of August 9, 2024. Dedicating a portion of the interest earnings on this fund for this purpose would improve the financial position of cities and towns—and functionally the commonwealth—while helping to address the historical local funding issues that the commonwealth itself helped create.

4. Move all local pension fund assets to PRIM with a goal of achieving superior investment returns. Whether through an incentive provided by state funding assistance as discussed above, or simply by mandating it through legislation, the commonwealth also could take action to consolidate local pension assets for investment by PRIM. The efficiencies gained through this process—improved returns and lower investment fees and associated costs—could be steadily used to reduce the burden for communities experiencing an outsized share of the burden related to prior generations' pension underfunding decisions. Given the historically strong performance of PRIM, municipalities could retire their pension debts sooner and more efficiently than under the current local system, reducing the need for additional funding from their budgets. Cities with deeply underfunded pension systems, like Springfield, could be given significant relief over time, for example, by directing to them the investment expense savings from pension assets currently not invested with PRIM or through provision assistance from a recurring state funding source such as the "Rainy Day" fund earnings.

The commonwealth also could take action to consolidate local pension assets for investment by PRIM.

Such an approach would have profound long-term benefits because Springfield and the other Gateway Cities are regional economic centers that impact their surrounding communities. Moreover, if these local governments are ill-positioned to serve their residents well, state taxpayers ultimately absorb a large share of the resulting social and economic costs.

APPENDIX A

2023 Value of Municipal Pension Systems if Pension Systems were 100 Percent Funded in 1987

	Additional assets to be 100% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023
Adams	$4,197,000	$51,118,218	$16,900,000	$34,218,218
Amesbury	$7,713,000	$121,887,090	$45,200,000	$76,687,090
Andover	$18,279,000	$291,283,014	$17,000,000	$274,283,014
Arlington	$33,196,000	$523,687,518	$118,100,000	$405,587,518
Attleboro	$20,493,000	$401,531,793	$85,100,000	$316,431,793
Belmont	$20,773,000	$474,692,707	$62,100,000	$412,592,707
Beverly	$30,950,000	$22,869,525,142	$13,700,000	$550,341,607
Braintree	$28,821,000	$469,298,272	$102,500,000	$366,798,272
Brockton	$82,013,000	$1,410,270,981	$46,100,000	$1,364,170,981
Brookline	$74,533,000	$1,443,783,301	$188,200,000	$1,255,583,301
Cambridge	$113,294,000	$2,215,379,413	$175,400,000	$2,039,979,413
Chelsea	$39,258,000	$584,337,374	$39,100,000	$545,237,374
Chicopee	$51,415,000	$947,032,649	$44,700,000	$902,332,649
Clinton	$4,556,000	$64,247,730	$22,300,000	$41,947,730
Concord	$12,856,000	$220,845,021	$15,000,000	$205,845,021
Danvers	$22,450,000	$329,811,323	$82,400,000	$247,411,323
Dedham	$18,267,000	$395,012,554	$20,200,000	$374,812,554
Easthampton	$6,069,000	$97,290,034	$10,200,000	$87,090,034
Everett	$42,416,000	$742,368,227	$75,200,000	$667,168,227
Fairhaven	$6,371,000	$138,366,712	$16,400,000	$121,966,712
Fall River	$75,556,000	$1,176,872,789	$364,400,000	$812,472,789
Falmouth	$15,456,000	$305,001,160	$72,700,000	$232,301,160
Fitchburg	$31,403,000	$443,706,744	$132,400,000	$311,306,744
Framingham	$49,237,000	$1,068,685,274	$98,400,000	$970,285,274
Gardner	$10,019,000	$222,579,238	$42,000,000	$180,579,238
Gloucester	$21,671,000	$399,907,780	$112,600,000	$287,307,780
Greenfield	$10,301,000	$187,448,566	$48,200,000	$139,248,566
Haverhill	$55,381,000	$1,403,430,330	$153,800,000	$1,249,630,330
Hingham	$11,687,000	$233,013,777	$42,200,000	$190,813,777
Holyoke	$53,904,000	$1,138,913,668	$113,800,000	$1,025,113,668
Hull	$7,739,000	$119,127,093	$9,600,000	$109,527,093
Lawrence	$61,758,000	$886,985,888	$194,200,000	$692,785,888
Leominster	$20,229,000	$362,217,220	$5,600,000	$356,617,220

	Additional assets to be 100% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023
Lexington	$18,994,000	$332,080,955	$47,700,000	$284,380,955
Lowell	$70,509,000	$1,390,286,067	$296,100,000	$1,094,186,067
Lynn	$93,506,000	$1,421,511,100	$272,400,000	$1,149,111,100
Malden	$52,033,000	$1,214,831,675	$81,100,000	$1,133,731,675
Marblehead	$18,294,000	$428,570,911	$48,300,000	$380,270,911
Marlborough	$9,704,000	$156,671,539	$43,000,000	$113,671,539
Maynard	$4,492,000	$61,602,921	$14,700,000	$46,902,921
Medford	$54,169,000	$931,820,751	$117,600,000	$814,220,751
Melrose	$17,763,000	$279,865,054	$61,300,000	$218,565,054
Methuen	$21,977,000	$331,935,508	$109,500,000	$222,435,508
Milford	$9,729,000	$173,139,917	$54,800,000	$118,339,917
Milton	$10,936,000	$236,647,302	$3,000,000	$233,647,302
Montague	$4,526,000	$99,499,986	$8,400,000	$91,099,986
Natick	$26,380,000	$408,267,951	$75,400,000	$332,867,951
Needham	$27,968,000	$610,376,553	$77,000,000	$533,376,553
New Bedford	$90,309,000	$1,878,674,976	$389,500,000	$1,489,174,976
Newburyport	$10,487,000	$179,743,021	$40,400,000	$139,343,021
Newton	$46,773,000	$822,744,819	$301,200,000	$521,544,819
North Adams	$11,311,000	$259,710,118	$14,500,000	$245,210,118
North Attleborough	$8,923,000	$168,320,838	$44,400,000	$123,920,838
Northampton	$16,895,000	$381,839,518	$51,400,000	$330,439,518
Northbridge	$3,596,000	$79,887,401	$9,200,000	$70,687,401
Norwood	$14,390,000	$328,906,680	$63,000,000	$265,906,680
Peabody	$42,858,000	$754,444,847	$150,400,000	$604,044,847
Pittsfield	$39,552,000	$618,115,926	$146,000,000	$472,115,926
Plymouth	$16,292,000	$298,945,253	$165,200,000	$133,745,253
Quincy	$111,749,000	$1,760,351,289	$(10,100,000)	$1,770,451,289
Reading	$21,018,000	$460,659,360	$53,100,000	$407,559,360
Revere	$46,473,000	$833,281,748	$98,100,000	$735,181,748
Salem	$37,231,000	$565,280,270	$120,000,000	$445,280,270
Saugus	$15,287,000	$337,412,754	$14,600,000	$322,812,754
Shrewsbury	$11,924,000	$242,719,889	$8,000,000	$234,719,889
Somerville	$57,084,000	$1,269,756,441	$119,500,000	$1,150,256,441
Southbridge	$6,988,000	$105,150,360	$24,100,000	$81,050,360
Springfield	$217,913,000	$3,761,422,844	$898,400,000	$2,863,022,844
Stoneham	$14,583,000	$249,306,918	$15,400,000	$233,906,918
Swampscott	$13,842,000	$283,982,645	$35,500,000	$248,482,645

	Additional assets to be 100% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023
Taunton	$38,281,000	$773,005,305	$107,400,000	$665,605,305
Wakefield	$18,912,000	$417,216,834	$56,100,000	$361,116,834
Waltham	$53,565,000	$912,712,699	$164,900,000	$747,812,699
Watertown	$33,905,000	$554,269,247	$(3,500,000)	$557,769,247
Webster	$5,435,000	$88,038,858	$26,600,000	$61,438,858
Wellesley	$23,036,000	$568,731,278	$29,800,000	$538,931,278
West Springfield	$17,471,000	$235,844,532	$60,700,000	$175,144,532
Westfield	$25,505,000	$491,153,089	$82,600,000	$408,553,089
Weymouth	$40,395,000	$865,649,628	$104,300,000	$761,349,628
Winchester	$15,041,000	$289,399,990	$14,000,000	$275,399,990
Winthrop	$11,415,000	$212,479,780	$(2,100,000)	$214,579,780
Woburn	$20,231,000	$390,167,537	$90,300,000	$299,867,537
Worcester	$187,565,000	$3,530,646,746	$448,900,000	$3,081,746,746

(1) Negative numbers mean there is a negative UAAL (the system was overfunded in 2023).

APPENDIX B

2020 Value of Municipal Pension Systems if Pension Systems Were 80 Percent Funded in 1987

	Additional assets to be 80% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023
Adams	$2,667,200	$32,485,707	$16,900,000	$15,585,707
Amesbury	$5,005,000	$79,093,075	$45,200,000	$33,893,075
Andover	$12,696,200	$202,318,913	$17,000,000	$185,318,913
Arlington	$20,735,600	$327,116,969	$118,100,000	$209,016,969
Attleboro	$14,339,600	$280,964,490	$85,100,000	$195,864,490
Belmont	$13,979,600	$319,453,818	$62,100,000	$257,353,818
Beverly	$21,685,000	$395,193,610	$13,700,000	$381,493,610
Braintree	$19,505,800	$317,616,954	$102,500,000	$215,116,954
Brockton	$56,474,400	$971,116,865	$46,100,000	$925,016,865
Brookline	$53,637,400	$1,039,013,355	$188,200,000	$850,813,355
Cambridge	$72,990,400	$1,427,272,667	$175,400,000	$1,251,872,667
Chelsea	$28,975,600	$431,288,553	$39,100,000	$392,188,553
Chicopee	$36,531,000	$672,878,532	$44,700,000	$628,178,532
Clinton	$2,866,000	$40,415,715	$22,300,000	$18,115,715
Concord	$8,637,600	$148,379,819	$15,000,000	$133,379,819
Danvers	$14,881,200	$218,618,631	$82,400,000	$136,218,631
Dedham	$12,904,000	$279,041,003	$20,200,000	$258,841,003
Easthampton	$4,103,800	$65,786,594	$10,200,000	$55,586,594
Everett	$30,729,600	$537,831,919	$75,200,000	$462,631,919
Fairhaven	$4,403,800	$95,642,650	$16,400,000	$79,242,650
Fall River	$52,360,800	$815,580,506	$364,400,000	$451,180,506
Falmouth	$11,034,400	$217,747,464	$72,700,000	$145,047,464
Fitchburg	$22,042,000	$311,441,074	$132,400,000	$179,041,074
Framingham	$34,566,000	$750,252,355	$98,400,000	$651,852,355
Gardner	$6,772,000	$150,444,815	$42,000,000	$108,444,815
Gloucester	$15,090,800	$278,479,457	$112,600,000	$165,879,457
Greenfield	$7,152,600	$130,156,743	$48,200,000	$81,956,743
Haverhill	$39,724,000	$1,006,660,523	$153,800,000	$852,860,523
Hingham	$7,660,400	$152,731,987	$42,200,000	$110,531,987
Holyoke	$37,061,000	$783,045,404	$113,800,000	$669,245,404
Hull	$5,464,200	$84,110,901	$9,600,000	$74,510,901
Lawrence	$44,449,400	$638,394,872	$194,200,000	$444,194,872
Leominster	$14,156,600	$253,485,802	$5,600,000	$247,885,802

	Additional assets to be 80% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023
Lexington	$12,169,000	$212,756,299	$47,700,000	$165,056,299
Lowell	$49,796,800	$981,885,961	$296,100,000	$685,785,961
Lynn	$65,663,400	$998,238,102	$272,400,000	$725,838,102
Malden	$37,692,200	$880,012,270	$81,100,000	$798,912,270
Marblehead	$12,442,600	$291,491,003	$48,300,000	$243,191,003
Marlborough	$5,836,400	$94,228,954	$43,000,000	$51,228,954
Maynard	$2,947,600	$40,423,146	$14,700,000	$25,723,146
Medford	$38,784,000	$667,166,387	$117,600,000	$549,566,387
Melrose	$11,922,000	$187,837,143	$61,300,000	$126,537,143
Methuen	$15,606,800	$235,721,486	$109,500,000	$126,221,486
Milford	$6,288,800	$111,917,186	$54,800,000	$57,117,186
Milton	$6,390,600	$138,288,062	$3,000,000	$135,288,062
Montague	$3,199,600	$70,340,290	$8,400,000	$61,940,290
Natick	$18,740,800	$290,040,486	$75,400,000	$214,640,486
Needham	$21,603,200	$471,470,493	$77,000,000	$394,470,493
New Bedford	$63,615,400	$1,323,374,858	$389,500,000	$933,874,858
Newburyport	$7,348,400	$125,948,662	$40,400,000	$85,548,662
Newton	$22,347,800	$393,101,504	$301,200,000	$91,901,504
North Adams	$7,842,400	$180,068,131	$14,500,000	$165,568,131
North Attleborough	$5,828,800	$109,952,763	$44,400,000	$65,552,763
Northampton	$11,860,200	$268,049,308	$51,400,000	$216,649,308
Northbridge	$2,382,600	$52,930,957	$9,200,000	$43,730,957
Norwood	$7,729,800	$176,677,057	$63,000,000	$113,677,057
Peabody	$29,989,800	$527,921,277	$150,400,000	$377,521,277
Pittsfield	$27,072,400	$423,085,598	$146,000,000	$277,085,598
Plymouth	$10,311,000	$189,198,656	$165,200,000	$23,998,656
Quincy	$78,495,400	$1,236,516,466	$(10,100,000)	$1,246,616,466
Reading	$14,750,800	$323,298,796	$53,100,000	$270,198,796
Revere	$34,004,600	$609,717,740	$98,100,000	$511,617,740
Salem	$25,717,600	$390,471,700	$120,000,000	$270,471,700
Saugus	$10,754,600	$237,374,188	$14,600,000	$222,774,188
Shrewsbury	$7,818,000	$159,139,893	$8,000,000	$151,139,893
Somerville	$38,440,200	$855,050,304	$119,500,000	$735,550,304
Southbridge	$4,905,400	$73,812,905	$24,100,000	$49,712,905
Springfield	$160,093,000	$2,763,384,779	$898,400,000	$1,864,984,779
Stoneham	$9,629,800	$164,628,387	$15,400,000	$149,228,387
Swampscott	$10,015,000	$205,467,865	$35,500,000	$169,967,865

	Additional assets to be 80% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023
Taunton	$26,717,000	$539,494,338	$107,400,000	$432,094,338
Wakefield	$12,765,400	$281,616,951	$56,100,000	$225,516,951
Waltham	$36,353,200	$619,434,842	$164,900,000	$454,534,842
Watertown	$24,083,800	$393,715,077	$(3,500,000)	$397,215,077
Webster	$3,770,600	$61,078,071	$26,600,000	$34,478,071
Wellesley	$14,600,000	$360,456,531	$29,800,000	$330,656,531
West Springfield	$12,243,600	$165,278,812	$60,700,000	$104,578,812
Westfield	$17,287,000	$332,897,999	$82,600,000	$250,297,999
Weymouth	$28,579,800	$612,454,344	$104,300,000	$508,154,344
Winchester	$9,800,800	$188,574,658	$14,000,000	$174,574,658
Winthrop	$7,994,400	$148,808,441	$(2,100,000)	$150,908,441
Woburn	$13,123,200	$253,089,151	$90,300,000	$162,789,151
Worcester	$131,460,200	$2,474,552,968	$448,900,000	$2,025,652,968

(1) Negative numbers mean there is a negative UAAL (the system was overfunded in 2023).

APPENDIX C

2023 Value of Municipal Pension Systems if Pension Systems were 60 Percent Funded in 1987

	Additional assets to be 60% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023 (2)
Adams	$1,137,400	$13,853,195	$16,900,000	$(3,046,805)
Amesbury	$2,297,000	$36,299,060	$45,200,000	$(8,900,940)
Andover	$7,113,400	$113,354,811	$17,000,000	$96,354,811
Arlington	$8,275,200	$130,546,420	$118,100,000	$12,446,420
Attleboro	$8,186,200	$160,397,188	$85,100,000	$75,297,188
Belmont	$7,186,200	$164,214,930	$62,100,000	$102,114,930
Beverly	$12,420,000	$226,345,614	$13,700,000	$212,645,614
Braintree	$10,190,600	$165,935,636	$102,500,000	$63,435,636
Brockton	$30,935,800	$531,962,750	$46,100,000	$485,862,750
Brookline	$32,741,800	$634,243,410	$188,200,000	$446,043,410
Cambridge	$32,686,800	$639,165,920	$175,400,000	$463,765,920
Chelsea	$18,693,200	$278,239,732	$39,100,000	$239,139,732
Chicopee	$21,647,000	$398,724,414	$44,700,000	$354,024,414
Clinton	$1,176,000	$16,583,699	$22,300,000	$(5,716,301)
Concord	$4,419,200	$75,914,617	$15,000,000	$60,914,617
Danvers	$7,312,400	$107,425,938	$82,400,000	$25,025,938
Dedham	$7,541,000	$163,069,452	$20,200,000	$142,869,452
Easthampton	$2,138,600	$34,283,155	$10,200,000	$24,083,155
Everett	$19,043,200	$333,295,611	$75,200,000	$258,095,611
Fairhaven	$2,436,600	$52,918,589	$16,400,000	$36,518,589
Fall River	$29,165,600	$454,288,224	$364,400,000	$89,888,224
Falmouth	$6,612,800	$130,493,767	$72,700,000	$57,793,767
Fitchburg	$12,681,000	$179,175,404	$132,400,000	$46,775,404
Framingham	$19,895,000	$431,819,435	$98,400,000	$333,419,435
Gardner	$3,525,000	$78,310,392	$42,000,000	$36,310,392
Gloucester	$8,510,600	$157,051,135	$112,600,000	$44,451,135
Greenfield	$4,004,200	$72,864,921	$48,200,000	$24,664,921
Haverhill	$24,067,000	$609,890,716	$153,800,000	$456,090,716
Hingham	$3,633,800	$72,450,198	$42,200,000	$30,250,198
Holyoke	$20,218,000	$427,177,140	$113,800,000	$313,377,140
Hull	$3,189,400	$49,094,709	$9,600,000	$39,494,709
Lawrence	$27,140,800	$389,803,857	$194,200,000	$195,603,857
Leominster	$8,084,200	$144,754,385	$5,600,000	$139,154,385

	Additional assets to be 60% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023 (2)
Lexington	$5,344,000	$93,431,643	$47,700,000	$45,731,643
Lowell	$29,084,600	$573,485,855	$296,100,000	$277,385,855
Lynn	$37,820,800	$574,965,104	$272,400,000	$302,565,104
Malden	$23,351,400	$545,192,866	$81,100,000	$464,092,866
Marblehead	$6,591,200	$154,411,096	$48,300,000	$106,111,096
Marlborough	$1,968,800	$31,786,369	$43,000,000	$(11,213,631)
Maynard	$1,403,200	$19,243,370	$14,700,000	$4,543,370
Medford	$23,399,000	$402,512,023	$117,600,000	$284,912,023
Melrose	$6,081,000	$95,809,232	$61,300,000	$34,509,232
Methuen	$9,236,600	$139,507,463	$109,500,000	$30,007,463
Milford	$2,848,600	$50,694,456	$54,800,000	$(4,105,544)
Milton	$1,845,200	$39,928,822	$3,000,000	$36,928,822
Montague	$1,873,200	$41,180,595	$8,400,000	$32,780,595
Natick	$11,101,600	$171,813,021	$75,400,000	$96,413,021
Needham	$15,238,400	$332,564,433	$77,000,000	$255,564,433
New Bedford	$36,921,800	$768,074,740	$389,500,000	$378,574,740
Newburyport	$4,209,800	$72,154,303	$40,400,000	$31,754,303
Newton (3)	$-	$-	$301,200,000	$(301,200,000)
North Adams	$4,373,800	$100,426,144	$14,500,000	$85,926,144
North Attleborough	$2,734,600	$51,584,687	$44,400,000	$7,184,687
Northampton	$6,825,400	$154,259,097	$51,400,000	$102,859,097
Northbridge	$1,169,200	$25,974,513	$9,200,000	$16,774,513
Norwood	$1,069,600	$24,447,435	$63,000,000	$(38,552,565)
Peabody	$17,121,600	$301,397,706	$150,400,000	$150,997,706
Pittsfield	$14,592,800	$228,055,271	$146,000,000	$82,055,271
Plymouth	$4,330,000	$79,452,059	$165,200,000	$(85,747,941)
Quincy	$45,241,800	$712,681,643	$(10,100,000)	$722,781,643
Reading	$8,483,600	$185,938,231	$53,100,000	$132,838,231
Revere	$21,536,200	$386,153,732	$98,100,000	$288,053,732
Salem	$14,204,200	$215,663,131	$120,000,000	$95,663,131
Saugus	$6,222,200	$137,335,621	$14,600,000	$122,735,621
Shrewsbury	$3,712,000	$75,559,898	$8,000,000	$67,559,898
Somerville	$19,796,400	$440,344,167	$119,500,000	$320,844,167
Southbridge	$2,822,800	$42,475,449	$24,100,000	$18,375,449
Springfield	$102,273,000	$1,765,346,714	$898,400,000	$866,946,714
Stoneham	$4,676,600	$79,949,855	$15,400,000	$64,549,855
Swampscott	$6,188,000	$126,953,085	$35,500,000	$91,453,085

	Additional assets to be 60% funded in 1987	2023 value of these new assets	2023 UAAL (1)	Over (under) funding 2023 (2)
Taunton	$15,153,000	$305,983,370	$107,400,000	$198,583,370
Wakefield	$6,618,800	$146,017,067	$56,100,000	$89,917,067
Waltham	$19,141,400	$326,156,984	$164,900,000	$161,256,984
Watertown	$14,262,600	$233,160,907	$(3,500,000)	$236,660,907
Webster	$2,106,200	$34,117,285	$26,600,000	$7,517,285
Wellesley	$6,164,000	$152,181,785	$29,800,000	$122,381,785
West Springfield	$7,016,200	$94,713,091	$60,700,000	$34,013,091
Westfield	$9,069,000	$174,642,908	$82,600,000	$92,042,908
Weymouth	$16,764,600	$359,259,060	$104,300,000	$254,959,060
Winchester	$4,560,600	$87,749,325	$14,000,000	$73,749,325
Winthrop	$4,573,800	$85,137,102	$(2,100,000)	$87,237,102
Woburn	$6,015,400	$116,010,766	$90,300,000	$25,710,766
Worcester	$75,355,400	$1,418,459,189	$448,900,000	$969,559,189

(1) Negative numbers mean there is a negative UAAL (the system was overfunded in 2023).

(2) Negative numbers mean there is still an unfunded liability.

(3) Newton’s funding ratio exceeded 60% in 1987.

APPENDIX D

The impact to returns on investments if local pension systems had invested their pension assets in PRIM in 1987. Please note that, during this time period, some local systems did invest part or all of their assets with PRIM. Please also note this analysis does not consider the financial benefit (i.e., savings) associated with PRIM's lower investment fees, which would have provided additional compounded returns to local systems.

	2023 VALUE OF 1987 FUNDING		PRIM advantage (or loss)
	Invested as it was	If invested in PRIM	
Adams	$42,044,339	$75,462,573	$33,418,235
Amesbury	$92,082,987	$127,381,349	$35,298,362
Andover	$153,537,493	$210,626,273	$57,088,780
Arlington	$459,165,228	$636,272,788	$177,107,560
Attleboro	$201,304,721	$224,595,156	$23,290,436
Belmont	$301,501,737	$288,427,924	$(13,073,813)
Beverly	$280,198,375	$336,105,755	$55,907,380
Braintree	$289,108,317	$388,133,833	$99,025,516
Brockton	$785,499,596	$998,589,327	$213,089,730
Brookline	$580,066,426	$654,613,778	$74,547,352
Cambridge	$1,725,154,318	$1,928,624,010	$203,469,692
Chelsea	$180,906,731	$265,692,966	$84,786,235
Chicopee	$423,737,938	$502,901,652	$79,163,714
Clinton	$54,912,349	$85,124,931	$30,212,582
Concord	$141,480,989	$180,043,382	$38,562,393
Danvers	$226,152,138	$336,521,105	$110,368,967
Dedham	$184,845,203	$186,863,870	$2,018,667
Easthampton	$60,227,164	$82,130,037	$21,902,873
Everett	$280,313,314	$350,118,359	$69,805,045
Fairhaven	$75,253,595	$75,746,760	$493,165
Fall River	$629,588,625	$883,602,903	$254,014,278
Falmouth	$131,267,321	$145,416,292	$14,148,971
Fitchburg	$217,621,605	$336,695,990	$119,074,385
Framingham	$523,479,323	$527,232,430	$3,753,106
Gardner	$138,092,878	$135,885,098	$(2,207,780)
Gloucester	$207,233,832	$245,493,830	$38,259,998
Greenfield	$99,010,547	$118,943,181	$19,932,634
Haverhill	$580,418,705	$500,693,738	$(79,724,967)
Hingham	$168,395,171	$184,634,095	$16,238,924
Holyoke	$640,427,653	$662,614,735	$22,187,082
Hull	$55,953,868	$79,463,052	$23,509,184

	2023 VALUE OF 1987 FUNDING		PRIM advantage (or loss)
	Invested as it was	If invested in PRIM	
Lawrence	$355,969,190	$541,813,408	$185,844,218
Leominster	$181,439,868	$221,512,821	$40,072,953
Lexington	$264,542,326	$330,771,784	$66,229,459
Lowell	$651,714,463	$722,534,466	$70,820,003
Lynn	$694,853,890	$999,179,561	$304,325,671
Malden	$459,265,349	$430,018,622	$(29,246,727)
Marblehead	$256,828,627	$239,657,066	$(17,171,560)
Marlborough	$155,541,386	$210,604,413	$55,063,027
Maynard	$44,295,956	$70,609,534	$26,313,578
Medford	$391,451,070	$497,458,378	$106,007,308
Melrose	$180,274,500	$250,128,264	$69,853,763
Methuen	$149,134,605	$215,850,942	$66,716,337
Milford	$132,973,734	$163,341,932	$30,368,198
Milton	$255,148,896	$257,757,591	$2,608,694
Montague	$46,298,491	$46,038,291	$(260,200)
Natick	$182,869,375	$258,304,104	$75,434,729
Needham	$84,153,747	$84,294,230	$140,484
New Bedford	$897,825,613	$943,478,913	$45,653,300
Newburyport	$89,228,776	$113,805,955	$24,577,180
Newton	$1,325,471,753	$1,647,257,039	$321,785,286
North Adams	$138,499,817	$131,862,759	$(6,637,059)
North Attleborough	$123,519,539	$143,142,796	$19,623,256
Northampton	$187,111,534	$180,983,385	$(6,128,149)
Northbridge	$54,894,819	$54,017,387	$(877,432)
Norwood	$432,241,434	$413,404,614	$(18,836,820)
Peabody	$378,173,005	$469,629,915	$91,456,910
Pittsfield	$357,035,711	$499,425,827	$142,390,116
Plymouth	$249,787,732	$297,587,489	$47,799,758
Quincy	$858,822,825	$1,191,814,613	$332,991,787
Reading	$226,143,462	$225,557,020	$(586,442)
Revere	$284,538,292	$346,904,860	$62,366,568
Salem	$308,762,579	$444,555,879	$135,793,300
Saugus	$162,780,079	$161,221,460	$(1,558,619)
Shrewsbury	$175,180,087	$188,131,781	$12,951,693
Somerville	$803,774,245	$789,930,502	$(13,843,743)
Southbridge	$51,536,918	$74,872,339	$23,335,421

	2023 VALUE OF 1987 FUNDING		PRIM advantage (or loss)
	Invested as it was	If invested in PRIM	
Springfield	$1,228,767,481	$1,556,186,042	$327,418,561
Stoneham	$174,085,740	$222,605,848	$48,520,107
Swampscott	$108,591,254	$115,707,822	$7,116,568
Taunton	$394,549,533	$427,133,031	$32,583,498
Wakefield	$260,782,582	$258,413,407	$(2,369,175)
Waltham	$553,676,588	$710,336,287	$156,659,699
Watertown	$248,501,602	$332,302,022	$83,800,420
Webster	$46,765,075	$63,111,370	$16,346,295
Wellesley	$472,642,455	$418,498,119	$(54,144,336)
West Springfield	$116,984,072	$189,443,413	$72,459,341
Westfield	$300,122,364	$340,696,468	$40,574,104
Weymouth	$400,326,790	$408,376,690	$8,049,900
Winchester	$214,726,673	$243,963,592	$29,236,919
Winthrop	$105,876,915	$124,342,734	$18,465,819
Woburn	$295,224,391	$334,641,099	$39,416,708
Worcester	$1,749,822,146	$2,032,133,652	$282,311,506

Excludes data for City of Boston pension systems.

Excluding the financial benefit (savings) associated with lower investment fees from PRIM:

1. 14 cities and towns that would have lost money with PRIM, losing a total of $246,080,379.
2. 69 cities and towns that would have benefited from investing with PRIM, gaining a total of $5,443,571,247.

APPENDIX E

Remaining UAAL payments from 2023 onward. Please note that these payments do NOT include debt service related to pension obligation bonds issued by cities and towns. These bonds reduced the municipality's UAAL but increased its debt, essentially swapping lower UAAL payments for higher debt service payments.

Adams	$ 34,225,866
Amesbury	$ 79,910,077
Andover	$ 363,917,417
Arlington	$ 179,645,571
Attleboro	$ 163,817,617
Belmont	$ 118,581,572
Beverly	$ 144,756,837
Boston—City	$ 1,687,518,791
Braintree	$ 176,895,885
Brockton	$ 465,266,848
Brookline	$ 247,702,472
Cambridge	$ 300,300,332
Chelsea	$ 77,170,357
Chicopee	$ 60,306,106
Clinton	$ 33,172,545
Concord	$ 31,102,551
Danvers	$ 148,194,642
Dedham	$ 44,069,624
Easthampton	$ 30,635,403
Everett	$ 145,165,349
Fairhaven	$ 22,251,230
Fall River	$ 679,402,535
Falmouth	$ 120,606,749
Fitchburg	$ 211,313,558
Framingham	$ 183,954,850
Gardner	$ 51,052,656
Gloucester	$ 205,354,419
Greenfield	$ 93,488,587
Haverhill	$ 269,433,359
Hingham	$ 98,165,371
Holyoke	$ 237,750,137
Hull	$ 35,960,340
Lawrence	$ 298,199,380
Leominster	$ (9,171,685)

Lexington	$ 61,357,710
Lowell	$ 559,521,542
Lynn	$ 469,202,759
Malden	$ 146,693,724
Marblehead	$ 81,540,566
Marlborough	$ 68,318,592
Maynard	$ 27,325,496
Medford	$ 209,226,901
Melrose	$ 108,993,921
Methuen	$ 223,079,911
Milford	$ 97,529,212
Milton	$ 24,864,871
Montague	$ 20,076,445
Natick	$ 102,857,926
Needham	$ 142,941,237
New Bedford	$ 710,016,403
Newburyport	$ 91,364,063
Newton (1)	$ -
North Adams	$ 18,437,466
North Attleborough	$ 76,878,192
Northampton	$ 105,224,040
Northbridge	$ 11,294,767
Norwood	$ 73,533,807
Peabody	$ 255,253,704
Pittsfield	$ 264,285,459
Plymouth	$ 313,220,048
Quincy	$ 730,203,416
Reading	$ 75,951,586
Revere	$ 175,826,751
Salem	$ 206,898,301
Saugus	$ 29,434,521
Shrewsbury	$ (3,613,350)
Somerville	$ 239,892,687
Southbridge	$ 60,407,299

Springfield	$ 1,438,666,016
Stoneham	$ 29,966,074
Swampscott	$ 60,385,353
Taunton	$ 178,092,712
Wakefield	$ 92,882,725
Waltham	$ 278,494,099
Watertown	$ 21,283,066
Webster	$ 49,296,469
Wellesley	$ 56,024,723
West Springfield	$ 94,455,017
Westfield	$ 157,769,673
Weymouth	$ 188,726,142
Winchester	$ 33,738,080
Winthrop	$ 7,635,010
Woburn	$ 172,677,260
Worcester	$ 806,088,511

(1) Information not available on Newton’s future pension funding requirements.

ENDNOTES

1 Created by Chapter 44 of the Acts of 1829. Report on the Commission on Pensions, March 16, 1914, p. 140.

2 Report on the Commission on Pensions, March 16, 1914, p. 126.

3 Ibid, p. 128.

4 Historically, Boston teachers were treated differently. But 2010 legislation stipulated that the commonwealth is responsible for all employer contributions and future pension benefit obligations for Boston teachers who are members of the Boston retirement system.

5 See: "Social Security Coverage of State and Local Government Employees." (Washington, DC: Congressional Research Service, updated March 2024). See also: "The Impact of Mandatory Social Security Coverage of State and Local Workers: A Multi-State Review." Alicia H. Munnell, August 2000, p. 11, available at https://assets.aarp.org/rgcenter/econ/2000_11_security.pdf.

6 In 1950, the cost to participate in Social Security was 1.5 percent of earnings for the employee, matched by an identical contribution from the employer. In 1959, the cost was 2.5 percent for each party. By 1980, it was 5.6 percent each. See https://www.ssa.gov/OACT/ProgData/oasdiRates.html#:~:text=Social%20Security%20Tax%20Rates%20%20%20%20Calendar,%20%20--%20%2025%20more%20rows%20.

7 Report on the Commission on Pensions, March 16, 1914, p. 8-9.

8 Ibid, p. 23.

9 Report of the Joint Special Committee on Pensions, January 1921, p. 13.

10 As but a few examples, the 1910 and 1914 state commissions each drafted legislation that required pension systems to make annual contributions to pension funds in excess of current (so-called "normal") costs so as to reduce unfunded liabilities. This approach was not adopted until 1987. Also: "The commission believes that service ought to be adequately paid for at the time when it is rendered, so that no deferred payments may interfere with the movability of the employee by subjecting him to financial loss when he leaves one employment for another." Report of the Commission on Pensions, March 16, 1914, p. 11. And: "In none of our pension laws has any provision been made for paying up this accrued liability at the start. In all cases payment has been shifted upon future taxpayers ... All students of pension questions condemn it as unsound." Report of the Joint Special Committee on Pensions, January 1921, p. 38-39. The 1921 commission report called for the taxpayers who received the benefit of public service to pay for the retirement costs related to that service as a matter of fairness and as a way to effect financial savings. It also recommended the payment of a lump sum into an employee's retirement account upon retirement to at least ensure that each individual pension was fully funded and that cost did not continue to accrue during retirement

11 This section focuses exclusively on the experience of local pension systems–those associated with the cities and towns of the commonwealth. Excluded from this analysis are State, State Teacher and public authority pension systems, as well as the regional/county pension systems that serve historically smaller municipalities. The city of Boston's pension systems are excluded, given the lack of available data. The town of Athol's system is also excluded, as it combined into a county system in 2004.

12 Throughout this analysis, it is acknowledged that prior generations of taxpayers were generally barred by law from funding pension costs. These taxpayers had it within their power to change this and to require or allow that they pay for the pension costs they incurred, but they did not do so. They did, however, change the law in 1987 to require current taxpayers to fund both our current labilities and the liabilities created by prior generations.

13 According to Chapter 68 of the Acts of 2007, the commonwealth can force a local pension fund to turn management of its assets over to PRIM if its system is less than 65 percent funded and investment returns have trailed PRIM by 2 percent or more over the prior 10 years.

14 Memorandum from PERAC to the Springfield Retirement Board, dated November 26, 2018, available at www.mass.gov/doc/springfield-2020/download.

15 Springfield's stated pension cost of $93 million for 2023 assumes payment of significant costs by the city's independent housing authority and water and sewer commission. See General Fund FTEs in City of Springfield, MA Fiscal Year 2021 Adopted Budget, p. 7-5, available at https://www.springfield-ma.gov/finance/fileadmin/budget/2021/FY21_Adopted_Budget_-_Compressed.pdf.

16 Unfunded OPEB liabilities consist mainly of health care, dental, and vision benefits provided to current and future municipal retirees, but in some instances may also include disability, long-term care, and death benefits.

17 See OPEB Summary Report: Commonwealth, Cities and Towns, December 2021, Public Employee Retirement Administration Commission, available at https://www.mass.gov/doc/download-the-2021-opeb-summary-report/download.

18 For more on this concept, please see, "Legacy Debt in Public Pensions: A New Approach," Jean-Pierre Aubry, Center for Retirement Research at Boston College, June 2022. Available at https://crr.bc.edu/wp-content/uploads/2022/06/SLP84.pdf.

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