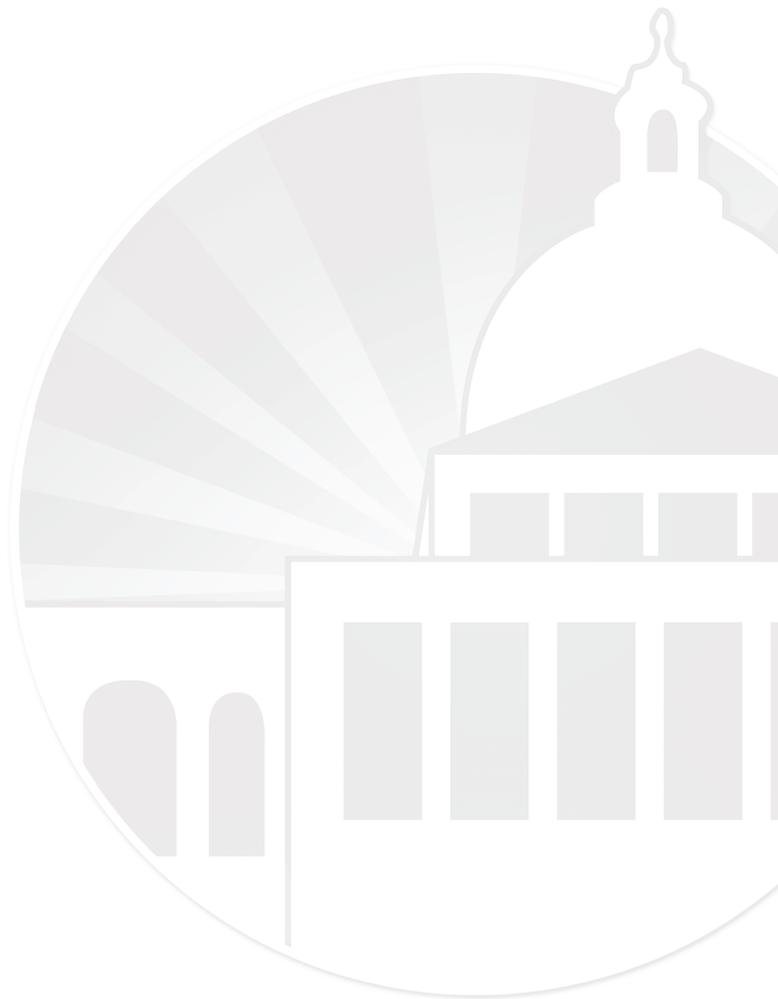


# MASSPENSIONS.COM UPDATE ON PUBLIC RETIREMENT SYSTEMS

*by Iliya Atanasov*



**PIONEER INSTITUTE**  
PUBLIC POLICY RESEARCH

**White Paper No. 127**  
February 2015

## PIONEER'S MISSION

Pioneer Institute is an independent, non-partisan, privately funded research organization that seeks to improve the quality of life in Massachusetts through civic discourse and intellectually rigorous, data-driven public policy solutions based on free market principles, individual liberty and responsibility, and the ideal of effective, limited and accountable government.



**This paper is a publication of the Center for Better Government**, which seeks limited, accountable government by promoting competitive delivery of public services, elimination of unnecessary regulation, and a focus on core government functions. Current initiatives promote reform of how the state builds, manages, repairs and finances its transportation assets as well as public employee benefit reform.



**The Center for School Reform** seeks to increase the education options available to parents and students, drive system-wide reform, and ensure accountability in public education. The Center's work builds on Pioneer's legacy as a recognized leader in the charter public school movement, and as a champion of greater academic rigor in Massachusetts' elementary and secondary schools. Current initiatives promote choice and competition, school-based management, and enhanced academic performance in public schools.



**The Center for Economic Opportunity** seeks to keep Massachusetts competitive by promoting a healthy business climate, transparent regulation, small business creation in urban areas and sound environmental and development policy. Current initiatives promote market reforms to increase the supply of affordable housing, reduce the cost of doing business, and revitalize urban areas.



**The Center for Health Care Solutions** seeks to refocus the Massachusetts conversation about health care costs away from government-imposed interventions, toward market-based reforms. Current initiatives include driving public discourse on Medicaid; presenting a strong consumer perspective as the state considers a dramatic overhaul of the health care payment process; and supporting thoughtful tort reforms.

## **TABLE OF CONTENTS**

I. Executive Summary	5
II. Functional Overview of MassPensions.com Update 2014	5
III. What's New in MassPensions Update 2014	5
IV. What's in Store for 2015	6
V. PERAC's 2013 Annual Report	6
VI. The Great Bifurcation	7
VII. Reduction of Assumed Rates of Return (ARRs)	7
VIII. Funding Progress	9
IX. Benefits	9
X. Investment	10
XI. Feedback	11
About the Author	13
Endnotes	14

## I. EXECUTIVE SUMMARY

Pioneer Institute is releasing an update to MassPensions.com with new data from the Public Employee Retirement Administration Commission about the status of the 105 Massachusetts public pension systems at the beginning of 2014. Retirement boards have continued on their path of lowering assumed rates of return (ARRs) towards more reasonable levels. However, funding progress for most systems remained stilted, as 22 local boards extended their funding deadlines by up to eight years.

While the state and its retirement systems have taken steps to accelerate funding and started bringing some actuarial assumptions to more sensible levels, the condition of most systems is perilous. There are three broad reasons for this assessment: (1) contributions still are below GASB-recommended levels and are bound to remain so for the foreseeable future; (2) assets have barely recovered to pre-crisis levels, even as liabilities have continued to grow; and (3) plans and funding are not stress-tested and there are very limited fiscal reserves to meet the next economic recession.

## II. FUNCTIONAL OVERVIEW OF MASSPENSIONS.COM UPDATE 2014

With this update, [MassPensions.com](http://MassPensions.com) now includes eight tabs:

1. Overview – summarizes key characteristics of the selected retirement system (such as assumed rate of return and funding deadline) and displays ranks and scores.
2. Members – displays the number, age and pay of working and retired members.
3. Financial Condition – provides key metrics on assets, liabilities, contributions and pension disbursements, as well as the funded ratio of the system.
4. Investment Performance – showcases the system's investment returns since 1985, including peer and market benchmarks for the same period.
5. Asset Allocation – displays available data on the types of assets held in the system's portfolio.
6. COLA Base – conveniently tabulates the base on which cost-of-living adjustments are calculated for all the systems over time.
7. System Units – lists the member jurisdictions of multiemployer plans such as regional and county systems.
8. About – includes basic information about the project.

The content of the tabs can be controlled from the sidebar located on the left side of the website. Users can choose to view data about a specific retirement system or a community/authority if it does not have an independent pension plan. They can view the underlying data tables and download information displayed on the website as a PDF file.

## III. WHAT'S NEW IN MASSPENSIONS UPDATE 2014

In this version of MassPensions.com, Pioneer is beginning to implement a slew of changes that we have been working on in 2014. These changes

are driven by feedback from retirement-board members, plan administrators, regulators, finance professionals and other interested parties, as well as by Pioneer’s ongoing research on public pensions and retiree health care.

MassPensions will no longer rank and score systems on their funded ratio. Based on research from the past year<sup>1</sup> and plan managers’ feedback, it is reasonable to conclude that current actuarial standards do not allow for adequate and fair comparisons on this metric between systems or even of the same system over time. For further information on the reliability of these estimates, please refer to Pioneer’s recent release [“Market Rates of Return for Effective Financial Management.”](#) Ongoing implementation of GASB Statements 67, 68 and 71 will further complicate this issue (see below). For the same reasons, composite scores will be suspended until further review.

Pioneer is also changing the way to score and rank systems on their funding deadline. Rather than the absolute date of the expected full funding, we will be grading systems on a rolling basis from the year of record of each data point. We would consider systems with less than four years on their liability amortizations essentially fully funded (Table 1). On the other end of the spectrum are systems with more than 20 years remaining, which includes the state and teachers’ retirement boards with their 2036 target.

**TABLE 1.  
SCORING FUNDING DEADLINES**

Remaining Years to Full Funding	Score
Less than 4	A
4-9	B
10-15	C
16-20	D
More	F

This score should be interpreted narrowly as an indicator of the risk level associated with the funding deadline alone (not overall system condition) and not necessarily as a grade on system administrators’ performance. On one hand, a remote fully-funded deadline may be the result a severely strained current financial condition due to poor financial decisions in the past. On the other, it may be a red flag for unwise financial decisions being made in the present. For example, a nearly fully funded system may choose to amortize a small remaining unfunded liability over a 20-year period. This type of laxity in management signals fiduciary or organizational risk and will accordingly result in a low score on the funding deadline. In either case, a far-off deadline signals elevated risk, which is what the score is supposed to capture.

#### IV. WHAT’S IN STORE FOR 2015

In the first half of 2015, we expect to release our new scoring system, including a new transparency score. We are also developing MassPensions 2, which will provide an enhanced user experience, more detailed data and better visualizations.

Massachusetts will have 104 public pension systems in 2015. In the prior year, the state government approved a petition for the abolition of Athol’s retirement system. Its members and assets will be transferred to the Worcester Regional Retirement System. Other small systems may follow suit to save money and maintain the quality of service. We have analyzed the potential for savings in this [2013 policy brief](#).

This will also be the year when we will see the first significant changes in valuation studies and financial reports as Statements 67, 68 and 71 of the Governmental Accounting Standards Board (GASB) come into full effect. The expected impact of the implementation of the new accounting standards will impair significantly the funded status of some pension plans, especially the most underfunded ones, and the balance sheets of their participating jurisdictions. The new standards do not affect public-pension funding requirements under Massachusetts law, but do change the ARC

reported in official financial statements as well as other accounting practices.

## V. PERAC'S 2013 ANNUAL REPORT

The data disclosed in PERAC's annual reports is limited and the two most important missing pieces are the data on fund expenses and investments. No amount of contributions from employees and taxpayers will be sufficient to keep the systems afloat if the money is being wasted through unwise investments and uncontrolled expenses. Pioneer makes most of the data in PERAC's annual report accessible through [MassPensions.com](http://MassPensions.com).

PERAC publishes separately on its website the last available audit report for each retirement system, which does contain a summary of expenses, albeit not by vendor or employee. Previous audit reports are removed when a new one is certified, which makes it difficult to track fund expenses and other trends. (At any rate, these data typically have a lag of three to five years, which makes them of limited value from an oversight perspective.)

Beginning with 2011, PERAC has stopped disclosing the asset allocations of the retirement boards in its annual report. These allocations are a critical component of pension management and, as such, also an indispensable part of meaningful civic accountability and effective disclosure. It is hard to preempt unwise or overly expensive investment decisions when there is no information available about the portfolios of retirement systems.

Each public retirement board in Massachusetts is statutorily required to submit to PERAC an annual report, containing a number of requisite and informative components, including expense and allocation data. Publishing these reports online would be a significant improvement to transparency and oversight.

With its 2013 report, PERAC has started reporting separately for Boston teachers' pensions. Previously, those were lumped into Boston's retirement system. However, it is the state rather than the city that makes contributions to those

obligations, as with all other teachers. In the analysis below, the values for the Boston teachers have been added to the Massachusetts teachers' retirement system data. For 2012, that was done at a 30% ratio of the data for Boston, as recommended by PERAC, to ensure consistent comparisons.

## VI. THE GREAT BIFURCATION

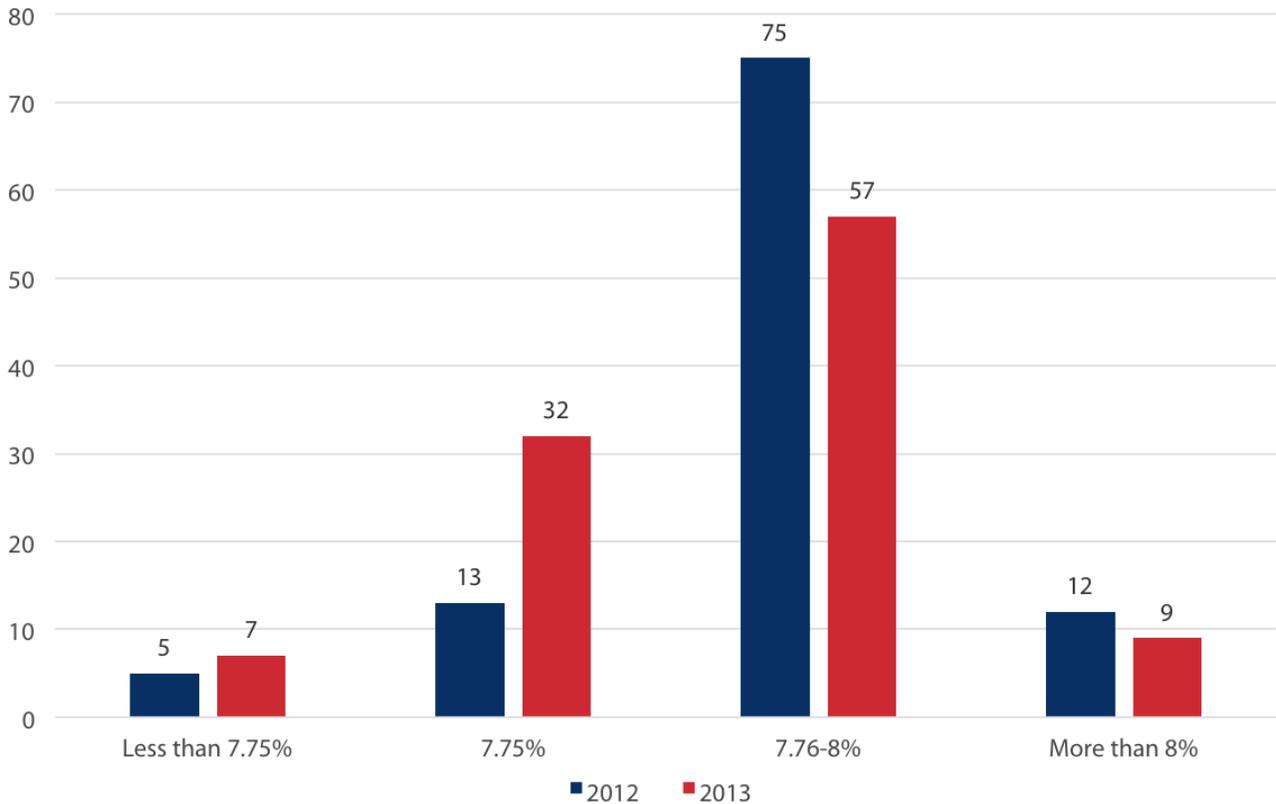
As securities markets recovered to pre-crisis levels about 2011, some systems seemed to experience a slow but steady improvement in funding levels, yet others appeared stuck in the doldrums. This bifurcation became much more pronounced in 2013.

We can generally divide the systems into three groups. The "local leaders" have accelerated their efforts at long-term recovery and sustainability. These efforts are not only deepening but also expanding on new fronts. For example, a system in this group may have been adding to planned contributions in the earlier post-crisis years. In 2013, they would also be lowering their ARRs and bringing in their funding deadlines, leading to a more permanent commitment to better funding.<sup>2</sup> Local leaders are typically based in developed suburbs and coastal towns with educated and well-off populations.

The three large systems – state, teachers' and Boston – are lagging far behind the local leaders when it comes to funding goals, but they retain some chance of survival if action is taken immediately. This is the case because they still have a resilient revenue base and a relatively healthy economy to draw on for resources.

However, there are a set of high-risk local systems that are often even more underfunded, yet cover parts of the commonwealth that have been in secular decline for years, if not decades. These are typically postindustrial cities and their suburbs which have failed to diversify their economies or remote towns with aging and/or declining populations. High-risk systems seem bound on a path to consolidation, local bankruptcy and/or state bailout.

**FIG 1. ARR CHANGES FROM 2012 TO 2013 REPORTING PERIOD**



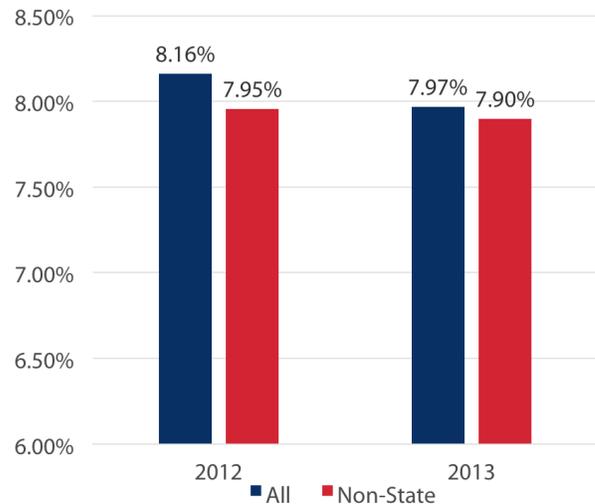
We add to this category Woburn’s retirement system as a special case where recent developments raise red flags about potential governance and/or fiduciary problems with its board.

**VII. REDUCTION OF ASSUMED RATES OF RETURN (ARRs)**

As of yearend 2013, PERAC had conducted the last actuarial valuation for 41 systems, whereas 64 others employed third-party actuaries for this purpose. Twenty-seven systems had lowered their ARR by 2013 relative to 2012. The typical decrease was from 8 to 7.75% and in the amount of 25 basis points. The state and teachers’ retirement systems backed by the commonwealth were among these 27, lowering their ARR from 8.25 to 8%. Still, only seven systems were in a potentially achievable long-run return range of no more than 7.5% per annum (Fig. 1).<sup>3</sup> The asset-weighted average for all systems ARR fell 19 basis points to 7.97% (Fig. 2).

Three boards revised this actuarial assumption more boldly, probably coming close to discount rates we anticipate in “Market Rates of Return for Effective Financial Management.” Wellesley cut its ARR by 75 basis points, to 7%, while Leominster did so by a whopping 125 basis points,

**FIG 2. ASSET-WEIGHTED ARR AGGREGATES**



to 6.75% - the lowest ARR observed since the beginning of our records in 1985.

Woburn is the only outlier, which instead increased its ARR by 25 basis points, from 8% to 8.25%. The system also extended its funding deadline from 2035 to 2036 and its funded ratio fell despite the changed return assumption and very high returns in 2013, as the average benefit jumped 9.2%. For these inexplicable and sharp turns in the wrong direction, we have designated Woburn as a high-risk system. Paradoxically, one of Woburn's board members is the longtime president of the Massachusetts Association of Contributory Retirement Systems (MACRS).

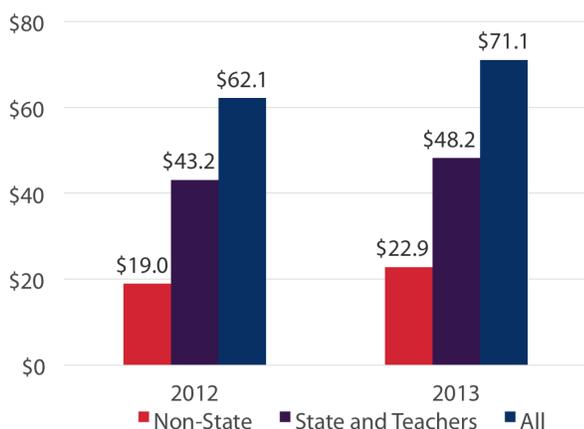
*“Only seven systems were in what we consider even remotely achievable – a long-run return range of no more than 7.5% per annum.”*

### VIII. FUNDING PROGRESS

Five years after the financial crisis, system assets have just about recovered to pre-recession highs, while liabilities have increased substantially, in part because of belated updates in actuarial assumptions. The state and the teachers' retirement systems pose increasing fiscal risks as the next recession approaches.

Overall assets increased sharply because of both increasing contributions and relatively good

**FIG 3. SYSTEM ASSETS (DOLLARS IN BILLIONS)**



investment returns in 2013 (Fig. 3). The two commonwealth plans gained 11.6% in assets, while the total for the remaining 103 boards rose 15.3%. About \$58 billion of over \$71 billion in statewide assets were managed by the Pension Reserves Investment Management Board (PRIM) at yearend 2013.

Ten local systems and the state and teachers' boards compressed their funding deadlines by between one and seven years in 2013. However, another 22 local systems extended their schedules by one to eight years; only six of those 22 also lowered their ARRs. In terms of scores, little was changed from 2012 under our updated methodology (Table 2). Two boards moved up a notch from the C to the B category, but two others slipped from C to D, reflecting the bifurcation mentioned earlier.

**TABLE 2. DEADLINE SCORES 2012-2013**

Risk Score	2012	2013
A	2	2
B	2	4
C	18	14
D	40	42
F	43	43

### IX. BENEFITS

Overall membership in the 105 systems inched up about 1% from 501,700 in 2012 to 506,308, which is about 7.6% of the commonwealth's estimated population in 2013. Members' average pay and benefits rose by more than 3% while total direct pay and pensions increased by over 4%, from \$22.6 billion to \$23.6 billion (Table 3). These figures correspond to roughly 5% of gross state income.

While teachers are paid more than most on average and retire with better benefits than other Massachusetts government employees, raises in the system reflect the aberrant nature of teacher

**TABLE 3. MASSACHUSETTS PUBLIC-EMPLOYEE PAYMENTS**

	Employees	Retirees	Average Pay	Average Benefit	Payroll (\$mn)	Pensions (\$mn)
2012	302,111	199,589	\$55,759	\$29,007	\$16,845	\$5,789
2013	303,776	202,532	\$57,611	\$29,913	\$17,501	\$6,058
Increase	1,665	2,943	\$1,852	\$906	\$655	\$269
Increase %	0.55%	1.47%	3.32%	3.12%	3.89%	4.64%

compensation (Table 4). The average teacher benefit increased at nearly twice the rate of active teachers' pay, which just about kept with inflation. A system so heavily tilted towards banking retirement benefits may not be as competitive in its recruitment of high-class teachers.

*“Overall membership in the 105 systems inched up about 1% from 501,700 in 2012 to 506,308, which is about 7.6% of the commonwealth’s estimated population in 2013.”*

Aggregate retiree numbers in the teachers' and local retirement systems rose at more than twice the rate of those systems' active-member figures. The state retirement system was the exception, where active enrollment (i.e., current employees)

increased at almost the same rate as retired memberships. State employees' average pay and benefits also rose much faster than those for teachers and locals (Table 5).

Taken together, teacher and employee payrolls in calendar 2013 gobbled up nearly \$11 billion, which is almost a third of the state budget for fiscal 2013. In the same calendar year, pension payments from the two commonwealth systems reached almost \$4 billion or about 36% of payroll for fiscal 2013. This is more than twice the state's pension contribution of \$1.8 billion budgeted for fiscal 2015. These figures underscore yet again the state government's precarious budgetary position related to underfunding the commonwealth's pension obligations in the past, but also in the present and the foreseeable future.

**TABLE 4. MASSACHUSETTS TEACHER PAYMENTS**

	Employees	Retirees	Average Pay	Average Benefit	Payroll (\$mn)	Pensions (\$mn)
2012	86,860	57,406	\$65,100	\$39,400	\$5,655	\$2,262
2013	87,765	59,019	\$65,900	\$40,300	\$5,784	\$2,378
Increase	905	1,613	\$800	\$900	\$129	\$117
Increase %	1.04%	2.81%	1.23%	2.28%	2.28%	5.16%

**TABLE 5. MASSACHUSETTS STATE-EMPLOYEE PAYMENTS**

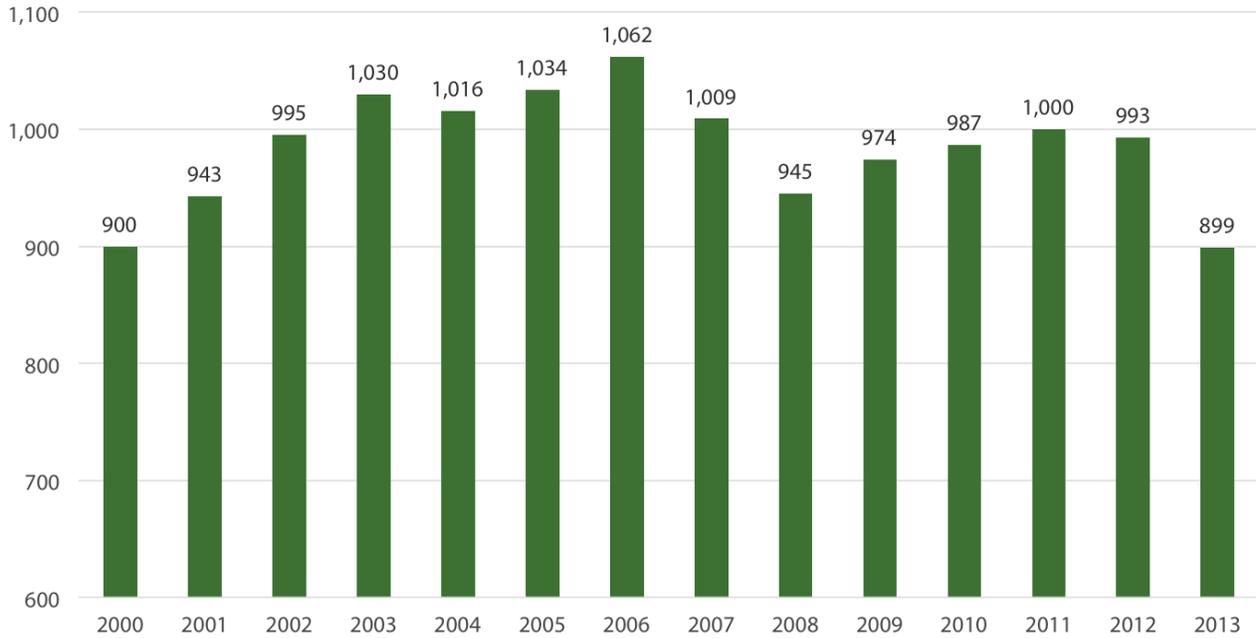
	Employees	Retirees	Average Pay	Average Benefit	Payroll (\$mn)	Pensions (\$mn)
2012	85,935	54,544	\$57,300	\$27,400	\$4,924	\$1,495
2013	87,175	55,383	\$59,500	\$28,600	\$5,187	\$1,584
Increase	1,240	839	\$2,200	\$1,200	\$263	\$89
Increase %	1.44%	1.54%	3.84%	4.38%	5.34%	5.99%

## X. INVESTMENT

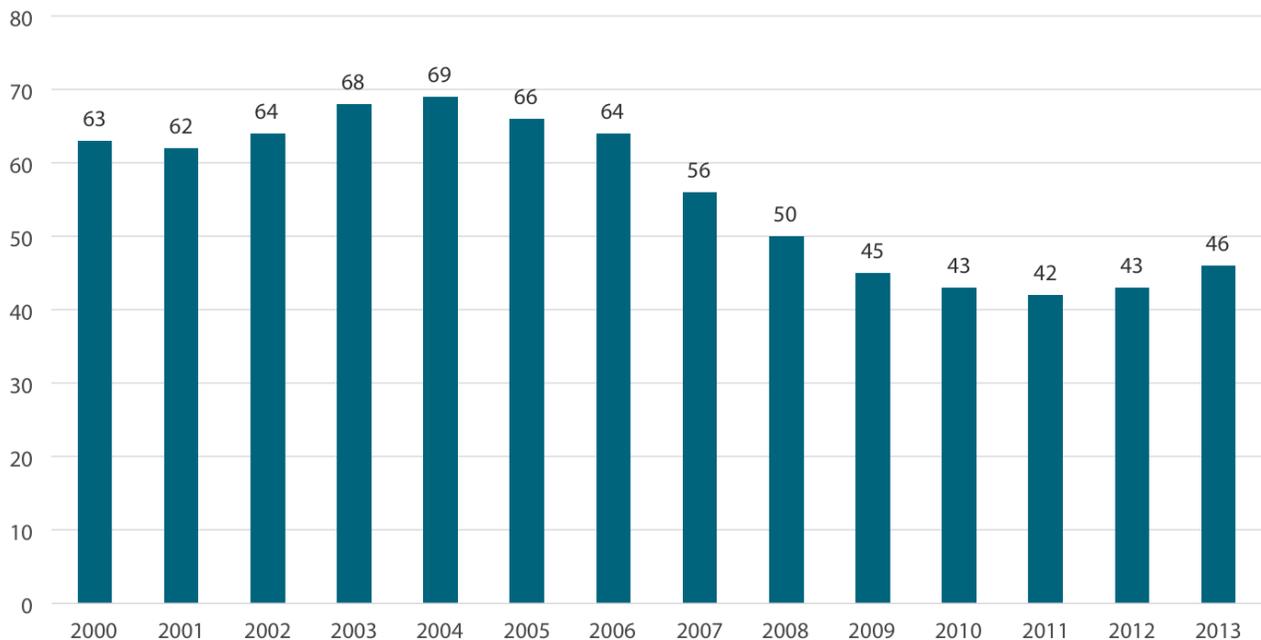
There were 899 investment-management relationships reported by PERAC for 2013, down a hefty 10% from 993 the prior year (Fig. 8). These numbers include investment in PRIM (i.e., PRIT is counted for every system that either participates

fully or in some of its segmented offerings) as a manager, but do not count PRIM's own third-party managers, or each individual contract (i.e., if a fund has several contracts with the same manager, that is typically reflected as a single management relationship).

**FIG 8. INVESTMENT-MANAGEMENT RELATIONSHIPS AT MASSACHUSETTS PUBLIC RETIREMENT SYSTEMS**



**FIG 9. INVESTMENT-CONSULTING RELATIONSHIPS AT MASSACHUSETTS PUBLIC RETIREMENT SYSTEMS**



The shrinking of investment contracting may be a hopeful sign that more systems are pushing to rationalize their investment policies and reduce fees and expenses. More funds choose or are statutorily required (because of underperformance) to invest through PRIM. Nevertheless, 46 retirement boards retained an investment consultant, up from 43 in 2012 (Fig. 9). The number of consulting contracts bottomed at 42 in the aftermath of the financial crisis after peaking at 69 in 2004.

## **XI. FEEDBACK**

With this report, Pioneer Institute is officially opening a commenting period through the end of May 2015 on two core components of our pension initiative. We would like to hear from [MassPensions.com](http://MassPensions.com) users on any new functionalities or data they may find useful, particularly from public officials and retirement boards.

More importantly, we would also like to solicit ideas from the public on reforming our pensions system – on transparency, accountability, benefits, governance, investments, accounting standards, funding and just about every aspect of law and practice.

Write to [iliya@pioneerinstitute.org](mailto:iliya@pioneerinstitute.org) or 185 Devonshire St, Ste 1101, Boston, MA 02115.

## About the Author

Iliya Atanasov is Pioneer's Senior Fellow on Finance, leading the research tracks on pension portfolio management, infrastructure and municipal performance. Iliya is a PhD candidate in Political Science and Government and a former Presidential Fellow at Rice University. He also holds BAs in Business Administration, Economics and Political Science/International Relations from the American University in Bulgaria.

## About Pioneer

Pioneer Institute is an independent, non-partisan, privately funded research organization that seeks to change the intellectual climate in the Commonwealth by supporting scholarship that challenges the "conventional wisdom" on Massachusetts public policy issues.

## Recent Publications

*Innovation Interrupted: How the Achievement Gap Act of 2010 Has Redefined Charter Public Schooling in Massachusetts*, White Paper, December 2014

*The Logic of Pension Valuation II: A Response to Andrew Biggs*, White Paper, November 2014

*Filling the Skills Gap: Massachusetts Vocational Technical Schools and Business Partnerships*, White Paper, November 2014

*Market Rates of Return for Effective Financial Management*, White Paper, November 2014

*The Revenge of K-12: How Common Core and the New SAT Lower College Standards in the U.S.*, White Paper, September 2014

*Imperiling the Republic: The Fate of U.S. History Instruction under Common Core*, White Paper, September 2014

*Seeds of Achievement: Appletree's Early Childhood D.C. Charter Schools*, White Paper, July 2014

*Hard Lessons for Institutional Investors from the MBTA Retirement Fund*, White Paper, July 2014



## Endnotes

1. Cf. Iliya Atanasov, “The Costs of Delaying the Funding of Public Pensions in Massachusetts,” *Pioneer Institute White Paper* 109 (January 2014); Iliya Atanasov, “The Logic of Pension Valuation I: A Response to Robert Novy-Marx,” *Pioneer Institute White Paper* 107 (November 2013); Iliya Atanasov, “The Logic of Pension Valuation II: A Response to Andrew Biggs,” *Pioneer Institute White Paper* 125 (November 2014).
2. Under 32 MGL, once a scheduled payment is adopted, it cannot be decreased in future years regardless of the funded status of the system.
3. We include in this Massport, which assumed 7.63% in both years.



This report was prepared by Pioneer Institute for Public Policy Research in Boston, Massachusetts, and is for informational purposes only. The information herein is believed to be reliable; all data have been obtained from sources that are believed to be accurate, but Pioneer Institute makes no representation as to their correctness or completeness. This report comes with no warranty, implied or explicit. The opinions, estimates and projections herein are solely those of the respective authors as of the time of its preparation and are subject to change without notice. Past performance does not guarantee future results. Pioneer Institute, its fiduciaries and the authors may engage in financial transactions and employ accounting methods inconsistent with the views taken in this report on others' and on their own behalf.

Copyright © 2014-2015 Pioneer Institute for Public Policy Research. All rights reserved.

**PIONEER INSTITUTE**  
PUBLIC POLICY RESEARCH

185 Devonshire Street, Suite 1101 | Boston, MA 02110 | 617.723.2277  
[www.pioneerinstitute.org](http://www.pioneerinstitute.org) | [Facebook.com/PioneerInstitute](https://www.facebook.com/PioneerInstitute) | [Twitter.com/PioneerBoston](https://twitter.com/PioneerBoston)