



# 2022

## PERAC **ANNUAL REPORT**

OCTOBER 2023





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## CHAIR

**Philip Y. Brown, Esq.**

Principal/Founder, Brown Counsel



## VICE CHAIR

The Honorable **Diana DiZoglio**

Auditor of the Commonwealth



# PERAC Commissioners



**Kathleen M. Fallon**

Practice Area Director  
Public Consulting Group



**Kate Fitzpatrick**

Town Manager  
Town of Needham



**Richard MacKinnon, Jr.**

President, Professional  
Firefighters of Massachusetts



**James J. Guido**

Lieutenant, Chelsea  
Police Department



**Jennifer F. Sullivan, Esq.**

Governor's Appointee  
Investment Professional





# MISSION STATEMENT

“PERAC’s mission is to provide regulatory oversight  
and guidance for the effective, equitable,  
and ethical operation of the Commonwealth of  
Massachusetts’ public pension systems.”



## Letter from the Chair

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### Philip Y. Brown

*“Through remote work, ingenuity, government stimulus and perseverance, we largely weathered what was forecast to be financial Armageddon.”*

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Over the last couple of years, it's only natural to have felt stressed, anxious, nervous, lonely, bored, overwhelmed or a host of other negative emotions as we endured a pandemic without a road map.

Through remote work, ingenuity, government stimulus, and perseverance, we largely weathered what was forecast to be financial Armageddon. It made a terrible situation somewhat more manageable. Investment returns for retirement systems boomed.

In 2022, we finally emerged from the worst of the pandemic with the health crisis largely mitigated and our daily lives returning to normal. However, the economy and financial markets went in the other direction as inflation rose, followed by interest rates, leading to double-digit investment losses for most systems.

It all reminds me of a favorite quote from former Red Sox General Manager Lou Gorman. A child of the Great Depression and a Navy veteran, Gorman brought some larger perspective to the spring of 1987. This was the season after the Red Sox lost a crushing seven-game World Series (which I unfortunately remember all too well) and Roger Clemens was the reigning Most Valuable Player and Cy Young Award winner as the American League's best pitcher. Clemens walked out of spring training in a contract dispute. After fielding questions from frenzied reporters preparing stories on the matter for a frenzied fan base, Gorman tried to bring some calm to the chaos when he said, *“The sun will rise, the sun will set, and I'll have lunch.”*

At the time, Gorman was derided, but Clemens was back with the team in a month and went on to win the Cy Young again in 1987. Life went on. Gorman's humor, perspective, and humanity endure today.

So, while it seems we weathered one storm only to encounter another, we have been here before; we pushed, we endured, we created, we rallied, we collaborated, we united, and we did it. And we will do it again. Already, the markets are showing signs of a bounce back with positive returns in the 1st and 2nd quarters of 2023. Careful and thoughtful long-term planning by retirement boards in vendor procurement, asset allocation, and portfolio structure have protected retirement fund assets as best as possible. Those assets will likewise be poised to recapture the gains.

Despite the market challenges, calendar year 2022 was still a time to celebrate. PERAC's live and in-person Emerging Issues Forum and Administrator Trainings returned and were well attended. We also returned to the much-loved MACRS conferences in Hyannis and Springfield. As much as the substance of each program was stellar, equally as important was reuniting — the human connection of being present with our colleagues who share this noble work of securing the promise of a well-earned retirement for public employees.





## Letter from the Chair [cont'd.]



Our collaborations with the Inspector General, State Comptroller, and Executive Office of Technology Services and Security brought well-done and very welcome cyber security training opportunities. To our state partners and to all who participated, thank you.

State, Teachers', and many local systems enjoyed a 5% COLA thanks to enacted legislation and local approvals. Other legislation held retirees harmless from court decisions involving leave time used while on workers' compensation and payment in lieu of vacation. These measures also saved retirement boards from tasks that would have been extremely arduous, if not outright impossible.

We saw the lifting of temporary orders at two boards that worked diligently to improve their operations. We also saw the creation of an electronic signature regulation and the ongoing development of revised PERAC regulations.

We celebrated the tenures of two valuable contributors to PERAC, State Auditor and Vice Chair Suzanne Bump, and Compliance Director Tom O'Donnell. Thanks to both for their commitment to a fair, uniform, and strong public retirement system. We welcomed new State Auditor Diana DiZoglio to PERAC and embrace her dedication to equitable treatment for all.

Lastly, it's been a long goodbye, but this should be the last Annual Report from 5 Middlesex Avenue, Somerville. We are in the planning stage of an upcoming move and will be sure

to spread the word when plans are finalized and we move into our new space. It will be a time to celebrate for sure.

Thank you to all retirement board members, retirement board staff, PERAC staff, Commissioners, and

all members of the Massachusetts public retirement community for your continued dedication and diligence to operate, and advance, a well-run system.

Here's to you and to making time for lunch. ■

Sincerely,



Philip Y. Brown  
Chair

*“Despite the market challenges, calendar year 2022 was still a time to celebrate. PERAC’s live and in-person Emerging Issues Forum and Administrator Trainings returned and were well attended.”*





## Letter from the Executive Director

### John W. Parsons

*“The challenges brought about by the pandemic have been endless and we are all familiar with them. Again and again, the response of all in the retirement community was to remain focused on the mission of serving members.”*

If ever there was proof of needing to play the long game, and the benefits of playing the long game, the last few years have been it.

The challenges brought about by the pandemic have been endless and we are all familiar with them. Again and again, the response of all in the retirement community was to remain focused on the mission of serving members. There was a collective realization that this too shall pass. In the meantime, actions reflected the dedicated level of commitment to getting checks out, counseling members, and the continued health of the public retirement system. Nothing about it was easy. There weren't any shortcuts. Laws, regulations and policies were followed, new procedures were created and the mission was fulfilled.

After three years of double-digit investment gains, 2022 brought double-digit investment losses. Predictably, the sensational headlines of the money lost in fund balances, the increases in unfunded liability, and the questioning of the need for defined benefit plans followed. Somehow public pension systems are to blame for Russia attacking Ukraine, supply chain issues, inflation, rising interest rates, and the fallout from the pandemic. While market conditions changed – and always will change – nothing else did. There was no

panic. Retirement boards did not waver from their prudent, carefully-constructed investment strategies, asset allocations, and diverse portfolios. There was no chasing the next big thing. Retirees continued to be paid and responsible investment return assumptions and funding schedules were maintained. Already, the 1st and 2nd quarters of 2023 have showed rebounds in returns. In short, the system and the process are working. The long game is prevailing.

A good example of that has been setting the Commonwealth investment return assumption. There was a push to lower the assumption during the period of strong returns, but the Commission held at 7.0% based on the data and recommendation of PERAC's

Actuarial Unit's analysis. Likewise, when the returns declined, there wasn't a kneejerk reaction to lower the assumption. Investment returns, and the strength of the public retirement system, are built for the long haul and to withstand temporary fluctuations.

A contributing factor to this resilience is education. Thanks to our partnership with the Office of the Inspector General, the State Comptroller, and the State Police, we were able to provide in-depth and useful training sessions on areas of need, including cybersecurity and internal controls. Further, a partnership with the Executive Office of Technology Services and Security gave retirement boards the opportunity to enroll in a year-long cybersecurity training program complete with testing of simulated phishing attacks.

We were also excited to bring back our most popular in-person sessions for the first time in three years, the Emerging Issues Forum at Holy Cross and Administrator Trainings in Northampton and Danvers. In addition, MACRS hosted its first two live conferences since the pandemic. Together, all of these events were welcome opportunities to re-connect, share and learn with, and from, our retirement community colleagues.



## Letter from the Executive Director (cont'd.)

Additionally, PERAC joined the newly formed NCPERS Communications Roundtable to learn and share best practices in that space.

It was a busy year on the legislative front with the Legislature and Governor taking action on a number of matters relevant to the retirement community. A final Supreme Judicial Court decision in the *Vemava* case declared that no supplemental payments can be regular compensation when taken in conjunction with workers' compensation and that the decision was retroactive to the start of Chapter 32. Together, PERAC, MACRS, retirement boards, and Mass. Retirees lobbied the Legislature for a correction resulting in Section 149 of Chapter 126 of the Acts of 2022, which held retirees harmless and saved boards an inordinate task.

A second SJC decision, this time the *O'Leary* case, also prompted legislative action. The decision in *O'Leary* declared payments in lieu of vacation were not regular compensation and it was also retroactive. Chapter 107 of the Acts of 2022 created a new Section 106 in Chapter 32, holding retirees harmless and allowing those utilizing the benefit as of May 1, 2018, to continue to do so.

State and Teachers' retirees received a 5% COLA for fiscal year 2023 as a result of language included in the state budget. Many local systems also adopted a 5% COLA after local option legislation passed a couple months after the budget.

At the request of many boards, PERAC promulgated regulations on the use of electronic signatures. From initial internal review, to drafting, to seeking the Commission's approval, to getting signoff from both Administration and Finance and the Legislature, to receiving the valuable input of board staff and members, to re-drafting, it was a lengthy process which required the hard work of many but should have lasting impact. All PERAC regulations are in the process of being reviewed and updated.

*“It was a busy year on the legislative front with the Legislature and Governor taking action on a number of matters relevant to the retirement community.”*

With COVID restrictions lifting, we saw the return of in-person disability medical appointments. On the flip side, a necessity during COVID has proven to serve a purpose and a convenience – remote and hybrid meetings. The Open Meeting Law waivers, which continue to this day, allow for remote participation by board members and the public alike and have increased the public's access while adding flexibility.

Two key PERAC figures, Governor Charlie Baker and State Auditor Suzanne Bump, decided not to run for re-election and left office. They were both strong supporters of the public pension system and their appointments to the Commission have been proof positive. We welcome Governor Maura Healey and State Auditor Diana DiZoglio to the retirement community and look forward to building on the foundation of their predecessors. Additionally, on a staff level, we congratulated Compliance Director Tom O'Donnell on his retirement and his work on the implementation of pension investment reform. We miss his wit and charm and wish him well.

Every year has its hurdles, but we'll be hard pressed to come up with any hurdle higher than what we experienced over the last three years. I commend the boards, staff, practitioners, and PERAC staff for their remarkable performance in the face of adversity and for remaining dedicated and focused to the long-term health of our systems for the benefit of retirees and members.

With that, the Commission and staff are pleased to release this Annual Report on the Massachusetts Public Retirement Systems for 2022. Thank you for your contributions to the Massachusetts public retirement system and I am proud to continue working with you for an effective, equitable, and ethical system for all. ■

Sincerely,



John W. Parsons, Esq.  
Executive Director





# PERAC

## Year in Review



### Staff Update

In 2022, **Tom O'Donnell**, Compliance Director announced his retirement. We wish him a happy retirement. As a result of Tom's retirement, we are happy to announce that **John Galvin** will serve as PERAC's Compliance Manager.

While several PERAC staff resigned to accept other positions at retirement boards and state agencies, we welcomed **John Silva** to serve as a Field Auditor. ■





## Actuarial Unit

As always, actuarial information details the fiscal condition of the systems, which can play a direct role in state and local budgets. The funded ratio indicates the extent to which assets cover system liabilities. When the system will pay off its unfunded liability and what type of funding technique is being used are also noted. PERAC has consistently urged boards to conduct actuarial valuations in order to provide an up-to-date assessment of the fiscal condition of the system.

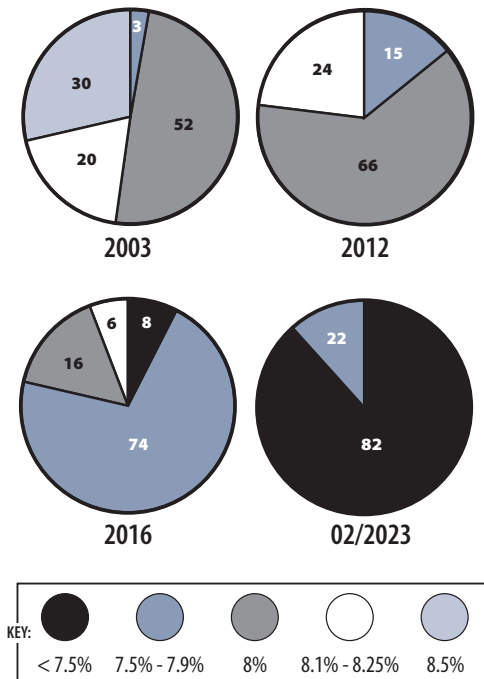
Actuarial Valuations and Funding Schedules (By Year)

YEAR	PERAC VALUATIONS	PRIVATE VALUATIONS	FUNDING SCHEDULES
2022	19	55	68
2021	20	23	38
2020	18	55	69
2019	17	22	36
2018	19	44	63
2017	22	24	46
2016	21	50	62
2015	24	24	40

In the actuarial area, PERAC approved 68 revised funding schedules and completed 19 actuarial valuations in 2022. The valuations complemented the 55 valuations performed by private actuaries. Throughout the year, PERAC responded to legislative and gubernatorial requests for analysis of legislation and made several presentations. ■

## The Massachusetts Investment Return Assumptions from 2003 to present:

Investment Return Assumptions—Massachusetts



## Audits

As in 2021, the audit unit continued to work in a hybrid fashion, but this year worked more in person than remote. PERAC issued 24 audits and 8 follow-up audits in 2022. Appreciation is extended to all retirement boards that underwent audits for their cooperation, courtesy, and accommodations.

We had some staff changes during the year as one auditor retired and one left for other employment. We hired two new auditors to replace them.

The Audit Unit worked closely with PERAC's IT Unit to integrate the Annual Statement submission

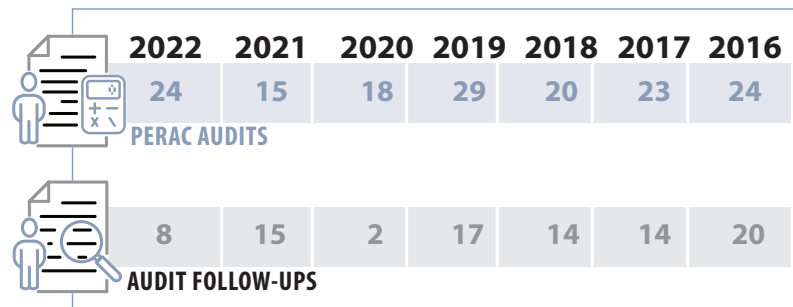
process into PROSPER. All Annual Statements will now be submitted and housed in PROSPER. Our goal is to introduce even more audit functionality into the PROSPER application to streamline the information gathering needed to complete our audits more efficiently.

The Audit Unit also participated in the internal working group reviewing all of

PERAC's regulations, conducted our annual seminar on the preparation and submission of the Annual Statement, presented at the fall MACRS conference and provided technical assistance to dozens of boards.

Monthly meetings of the full audit unit continued to provide opportunities for coaching, troubleshooting, and training for our staff. ■

Total PERAC Audits Conducted (By Year)







## Education

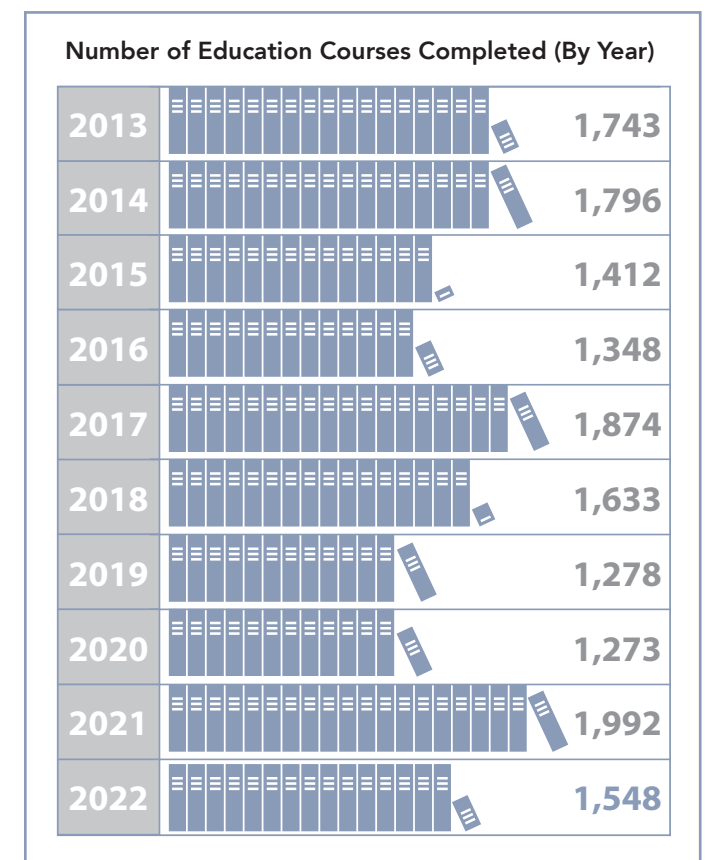
PERAC'S educational offerings began to get a pre-pandemic feel this past year! With the termination of the COVID-19 State of Emergency and the easing of public health guidelines, we were able to bring back several in-person events.

The *New Administrator Training* was held in person for the first time since 2019. This all day event covers topics to help new board staff learn some of the fundamentals of running a retirement system. Three training dates were held in Northampton, Danvers, and Norwood and all sessions were well attended. We plan to repeat these sessions in the upcoming year. Topics covered at last year's training included *Working After Retirement*, *Accidental Disability*, and *Monthly Meetings and Records*, among others.

While we held our annual Emerging Issues Forum virtually in 2020, we had not had an in person event since 2019. We were thrilled to host close to 200 participants at the College of the Holy last September. Please see the full Forum update in the Emerging Issues section.

PERAC staff also participated in the spring and fall MACRS Conferences, which were also held in person for the first time since before the pandemic.

In addition to the in-person events, we continued our virtual educational series with several webinars throughout the year. Our partnership with the Inspector General continued with a webinar on *Fiduciary Duty for Board Members / Fraud Prevention and Awareness* and another webinar on *Contract Administration*. Both sessions were very well attended by board members and staff alike. We hope to continue this partnership in the years to come.



PERAC staff also conducted webinars on *Recent Cases of Interest* and *Annual Statements and Cash Books*. Webinars offered by PERAC are typically recorded and posted to our website for board members to have another opportunity to earn credits if they are unable to attend the live sessions. The recordings are also a great opportunity for board staff to go back and brush up on information they may need for their day to day work.

As we closed out the year, we are appreciative of the steadfast interest in our education program. The improvement of the offerings from year to year is a direct result of the feedback we receive from attendees along with their enthusiastic participation and engagement. ■

(L-R) PERAC's Felicia McGinniss, John Galvin, Bill Keefe, and Chairman Phil Brown with Dr. Michael Goodman at the 2022 Forum.



## Emerging Issues Forum

PERAC held its first in-person Emerging Issues Forum since the start of the pandemic at the College of the Holy Cross in September, 2022. The energy was palpable as almost 200 attendees returned to a familiar site to gather and learn from our guest speakers as well as each other. PERAC Executive Director John Parsons and Commission Chair Phil Brown were happy to welcome everyone back.

Dr. Michael Goodman, co-editor of *MassBenchmarks* and Senior Advisor to the Chancellor for Economic Development and Strategic Initiatives at the University of Massachusetts at Dartmouth was the keynote speaker. Dr. Goodman gave a presentation on *The State of the State Economy*. Attendees appreciated the presentation given the uncertain state of the economy last September. Attendees commented that “the state of the state was very well done, good timely info on the current status of MA,” the “economic update was very helpful” and to “keep the state of the state every year.”

*The Digital Asset Industry: Challenges, Trends, Future Directions* presentation elicited the most commentary and provided insight to the emerging

technology of blockchain and bitcoin. Louis LaValle, Managing Director of 3iQ Digital Assets, David McConico, Trustee of the City of Aurora General Employees' Retirement Plan, and David Wilson, President of Equifinancial, provided a demonstration of how this technology can be utilized and gave some attendees their first introduction to this emerging sector. According to attendees, they “found the digital asset industry [presentation] helpful because it's a new topic that could bring good changes.”

We closed the Forum out with two PERAC presentations. Actuary John Boorack gave a presentation on *Revised*

*ASOP 4 and Applicability to Chapter 32 Systems* that attendees found very helpful. Communications Director Natacha Dunker, along with her counterpart from the Massachusetts Teachers' Retirement System, Scott Olsen, finished out the day with a presentation on *Communications for Retirement Systems*.

It was a great return to in person events for us and based on feedback received, attendees will be back again! One attendee summed it up perfectly: “the entire program was informative and had many highlights! Kudos to all!” ■



Speakers at the 2022 Emerging Issues Forum  
Above: (L-R) David McConico, Louis LaValle, and David Wilson  
Left: Keynote speaker, Michael Goodman





## Legislation

A number of important pieces of legislation impacting the retirement community became law in 2022.

The Open Meeting Law waivers, which have exempted public bodies from having a physical quorum for a meeting and the Chair being physically present as long as there is adequate alternate means of access to the public, were extended twice in 2022. In March, Sections 3, 4 and 5 of Chapter 22 of the Acts of 2022 extended the waivers to July 15, 2022. On July 16, the waivers were again extended to March 31, 2023, with the passage of Section 4 of Chapter 107 of the Acts of 2022. In early 2023, the waivers were extended to March 31, 2025.

The waiver exempting public retirees from the Section 91 hours and earnings limits of public sector work were extended with Chapter 80 of the Acts of 2022 and then expired. The statute passed in June and was made retroactive to January 1, with a termination of the end of the calendar year, or the end of the public health emergency, whichever came first. On December 31, 2022, the exemption ended.

Two Supreme Judicial Court decisions spurred legislative action. Included in the FY 23 budget act passed in July, Section 149 held retirees harmless from the *Vernava* decision, which ruled, retroactively, that accrued leave time taken in conjunction with workers' compensation was not regular compensation.

A week before the August SJC decision in the *O'Leary* case, Chapter 147 of the Acts of 2022 was signed into law and created a new Section 106 in Chapter 32. It also held retirees harmless, ensuring these retirees, with payment in lieu of vacation in their pension calculation, would not have any disruption. Additionally, it set parameters for those receiving the benefit as of May 1, 2018, to continue to do so.

The July FY 23 budget act included a one-time 5% COLA for retirees of the state and teachers' retirement boards. In November, a one-time local option 5% COLA was authorized for all other retirement boards in Chapter 268 of the Acts of 2022.

With the start of a new two-year legislative session beginning in 2023, PERAC filed seven bills in the House of Representatives in November of 2022. Five were refiles from the 2021-2022 session and there were two new bills. An Act to Provide for Payment of Creditable Service would

require the members of a public entity that joins Chapter 32 to purchase their prior service in line with other buybacks. The catalyst for An Act Clarifying the Chapter 32 Definition of Wages was the *Vernava* case, which hinged on the Chapter 32, Section 1 definition of regular compensation being tied to services performed. To ensure that usage of accrued leave time remains treated as regular compensation as it has since the beginning of the public retirement system in 1946, this bill adds vacation, sick and personal time to the definition of wages, excluding when used with workers comp benefits.

Four legislators also sponsored bills that PERAC had filed in the past. Rep. Jerry Parisella and Sen. John Velis, both veterans, filed An Act Relative to Veterans' Buyback. After being passed by the House in July 2022, the Senate passed Veterans' Buyback on the last day of the legislative session in January 2023, but it needed one more procedural vote in each chamber to get to the Governor before the clock ran out.

### PERAC-Filed Bills

1	House 9 - An Act Relative to Pension Forfeiture
2	House 10 - An Act Relative to the Recovery of Overearning
3	House 11 - An Act Relative to Modifications of Retirement Allowances
4	House 12 - An Act Relative to Accidental Disability and Group 1 Emotional Distress
5	House 13 - An Act Providing for Statement of Financial Interests Flexibility
6	House 14 - An Act to Provide for Payment of Creditable Service
7	House 15 - An Act Clarifying the Chapter 32 Definition of Wages

Additionally, Rep. Jay Livingstone and Sen. Pat Jehlen, the authors of the Massachusetts Equal Pay Act which ensures people of different genders are paid comparably, filed An Act to Protect Gender Pay Equity, which would add an exemption to the anti-spiking statute for salary adjustments made in accordance with the Equal Pay Act.

The Actuarial Unit provided cost estimates on two dozen classification bills at the request of the Public Service Committee to aid in their deliberations. PERAC regularly reviewed legislation by legislative request for matters of equity, consistency and technicality. Additionally, PERAC regularly responded to legislative requests regarding retirement-related issues for constituents. ■

### Legislator-Filed Bills

1	House 2588/S 1691 - An Act to Protect Gender Pay Equity
2	House 2627/S 1750 - An Act Relative to Veterans' Buyback

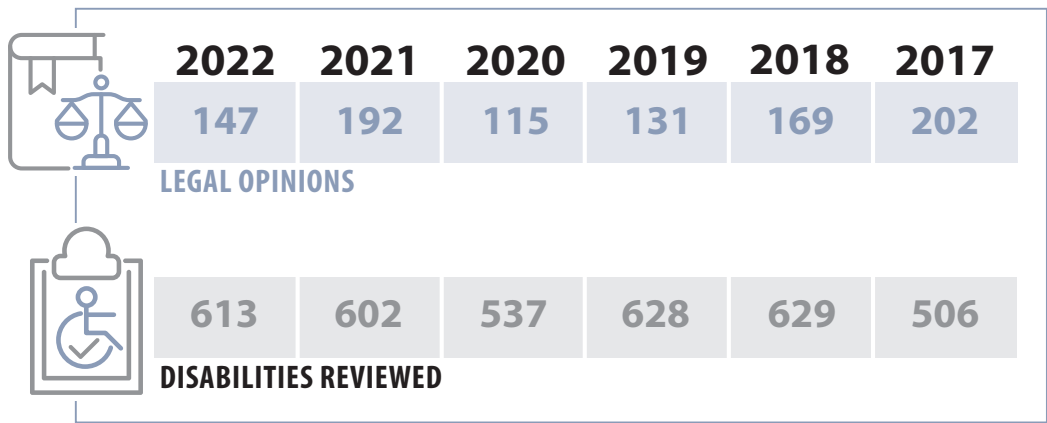


## Legal Unit

PERAC's Legal Unit represented the Commission (both remotely and in person) this past year at the Division of Administrative Law Appeals. Cases also progressed through the Contributory Retirement Appeal Board, and to the Superior Court, where the Legal Unit assisted the Attorney General's office in ongoing cases. The Legal Unit also produced 147 Opinion Letters in 2022, including the statutorily required review of the supplemental

regulations of retirement boards, and conducted the statutory review of all accidental disability, accidental death, ordinary disability, and termination retirement allowance applications approved by the 104 retirement boards. The Legal department reviewed 613 disability transmittals and remanded 37 transmittals. Members of the Legal Unit also participated in, produced, and presented numerous educational webinars, and also returned to in-person training. ■

Total Legal Opinions and Disabilities Reviewed (By Year)



## Information Technology

The Information Technology Unit has been busy with a number of ongoing projects to enhance internal PERAC functionality as well as improve many processes for retirement systems.

The cashbook and Annual statement submission applications have been rolled out for online submission via PROSPER. PERAC IT is looking into further automation of the processes within the PERAC Portal. The PERAC IT unit has also been busy preparing for the upcoming office move. ■











## Medical Panels

In addition to the information detailed in the Profiles, PERAC, as always, has been busy assisting the boards in other areas. In 2022, 703 medical panel requests were initiated and processed. A total of 585 disability applications and 14 accidental death claims were approved in 2022. For Post-Retirement medical reviews, 578 disability retirees were eligible for comprehensive medical evaluations. Occupational Health Physicians conducted comprehensive medical evaluations on 26 retirees and 7 retirees were examined for restoration to service. ■

Medical Panels (By Year)

YEAR	 MEDICAL PANEL REQUESTS	 IN-HOUSE CME REVIEWS	 DISABILITY APPROVALS	 DEATH APPROVALS
2022	703	578	585	14
2021	806	1,116	600	16
2020	470	1,110	494	9
2019	768	1,424	628	23
2018	641	1,312	616	9
2017	523	1,315	456	53
2016	659	1,356	499	76
2015	648	1,398	543	66
2014	669	1,302	573	24

*“In 2022, PERAC analyzed 12,789 earnings reports, 3,304 retirees reported earnings and 108 earned more than the statutory limits. An additional 67 retirees failed to comply with the reporting requirement.”*



## Post-Retirement Earnings

PERAC is responsible for the post-retirement monitoring of disabled retirees. One aspect of that task is enforcing the earnings limits set forth in Chapter 32. In 2022, PERAC analyzed 12,789 earnings reports, 3,304 retirees reported earnings and 108 earned more than the statutory limits. An additional 67 retirees failed to comply with the reporting requirement. This resulted in the identification of \$1,624,757 in excess earnings and \$827,719\* for non-compliance. In addition, 20 retirees waived their allowance, saving \$463,090. ■

Post-Retirement Earnings (By Year)

YEAR	EARNINGS REPORTS ANALYZED	REPORTED EARNINGS	NUMBER OF EXCESS EARNERS	NON-COMPLIANT	WAIVED
2022	12,789	3,304	108	67	20
2021	12,733	3,344	87	178	21
2020	12,783	3,563	87	161	22
2019	12,859	3,473	87	92	23
2018	12,773	3,557	62	73	21
2017	15,576	3,720	59	135	21
2016	15,895	3,849	54	101	37
2015	15,887	3,845	146	84	36

YEAR	EXCESS EARNINGS AMOUNT	NON-COMPLIANCE AMOUNT	WAIVED AMOUNT
2022	\$1,624,757	\$827,719*	\$463,090
2021	\$1,189,525	\$5,624,045	\$438,967
2020	\$1,459,319	\$4,100,425	\$263,238
2019	\$1,222,947	\$2,401,351	\$356,167
2018	\$933,422	\$1,572,729	\$352,691
2017	\$858,781	\$4,418,867	\$400,867
2016	\$839,993	\$2,606,471	\$502,028
2015	\$1,459,550	\$2,176,174	\$556,935

\* Not all boards reported Non-Compliance Amounts



# PROFILES

## MA Contributory Retirement Boards

### Introduction

The Board Profile section of the PERAC Annual Report provides a detailed assessment of some of the important indicators relative to the financial health of the retirement systems. The information provided in this report can enable board members to provide factual comment and advice to policymakers as various proposals relative to the retirement law are assessed. Through this and other studies, PERAC seeks to provide objective, comprehensive, and accurate data for use by all interested parties. All actuarial information in this report is as of the date of the board's most recent valuation as of April 1, 2023.

### Actuarial Valuations and Funding Schedules

The Funding Schedule on the board profile pages reflects the amortization schedule for the Unfunded Actuarial Liability (UAL). For example, "1.5% Increasing" with a year fully funded of 2030, means the UAL is being amortized on a 1.5% annually increasing basis to FY30.

A number of systems utilize phase-in schedules in which payments increase more rapidly over the first few years of the schedule than later in the schedule. We reflect those schedules using the ultimate amortization schedule and note there is a phase-in. For example, "4.0% Increasing Phase-In" with a year fully funded of 2035, means the total appropriation increases by a certain percent per year for a period of time and then the remaining unfunded liability is amortized on a 4% increasing basis until FY35.

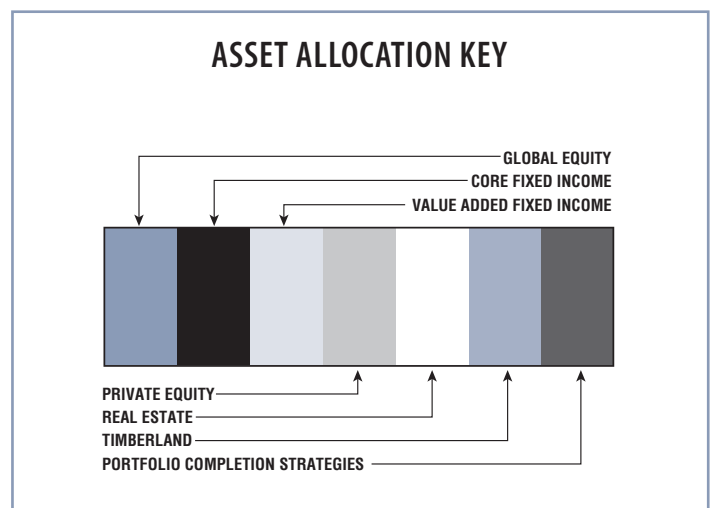
Schedules described as "Total Increasing" mean the annual appropriation increases by the amount indicated, which may vary, for the entire schedule.

### A Word on Portfolio Valuations

In assessing investment performance, PERAC relies on the retirement boards to submit accurate and complete information about investment activity. PERAC numbers might differ from those provided to a board by its consultant because PERAC measures all assets, including monies not committed to investment management.

Asset allocation is presented in graph form. The way a retirement board allocates its assets among the various investment classes available to it has long been recognized as the prime determining factor in the generation of returns. Allocation information reported by the investment consultants advising the retirement boards, or PRIM, forms the basis of these graphs. PERAC has not independently confirmed the accuracy of this data.

### The key used for the Asset Allocation graphs:



**DISCLAIMER:** In publishing this information PERAC makes no comment regarding any retirement board's asset allocation, investment strategy, or manager/fund commitments.



# COMPOSITE

## COMPOSITE INVESTMENT PROFILE

- Commonwealth of Massachusetts
- Public Employee Retirement Systems

**\$108.4 B**  
Market Value

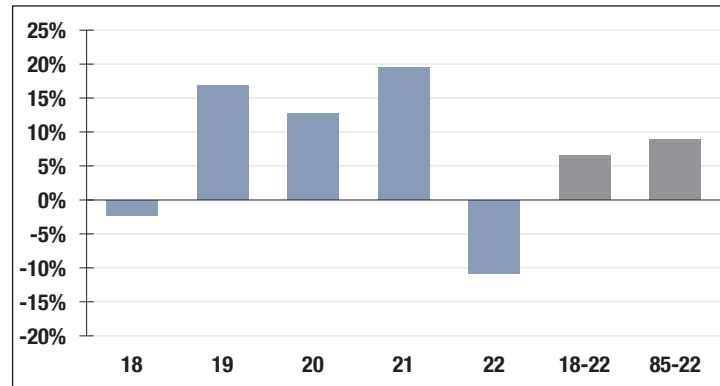
**-10.84%**  
2022 Returns

**8.18%**  
2013-2022  
(Annualized)

**8.99%**  
1985-2022  
(Annualized)

## Investment Returns

(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



# Adams

## CONTACT INFORMATION

44 Spring Street  
Suite 19  
Adams, MA 01220  
Phone 413-743-5575

## BOARD MEMBERS

Crystal Wojcik  
Patricia Wol  
George Haddad  
Holli Havens-Jayko\*  
Beth Matson  
\*indicates Chairperson

## BOARD ADMINISTRATOR

William Flynn

## SYSTEM MEMBERS

Active Members ..... 168  
Total Payroll ..... \$6.8 M  
Average Salary ..... \$40,600  
Average Age ..... 47  
Average Service ..... 9.6

Retired Members ..... 177  
Benefits Paid ..... \$3.6 M  
Average Benefit ..... \$20,300  
Average Age ..... 74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 4  
Reported Earnings ..... 0  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$38.8 M**  
Market Value

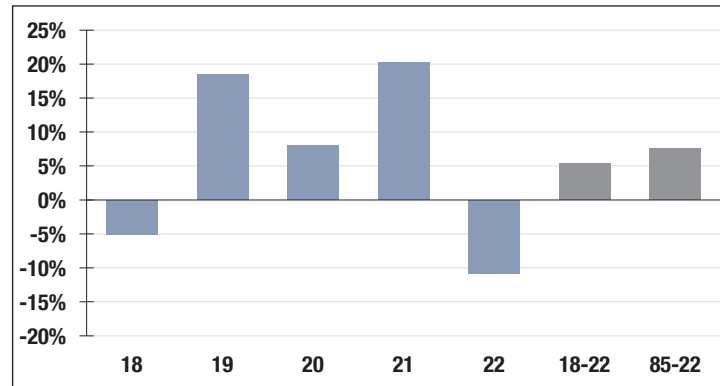
**-10.81%**  
2022 Returns

**6.13%**  
2013-2022  
(Annualized)

**7.55%**  
1985-2022  
(Annualized)

## Investment Returns

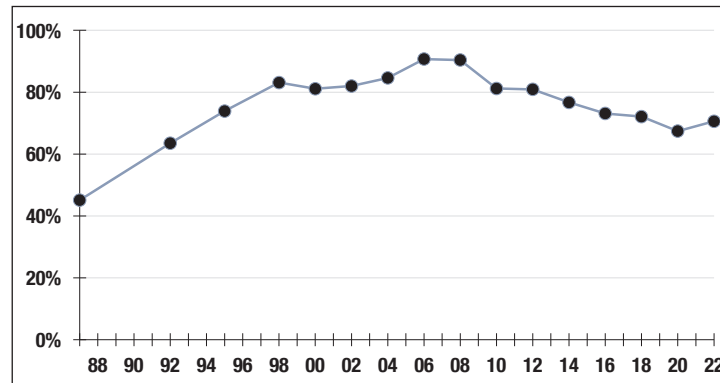
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**70.6%**

Funded Ratio

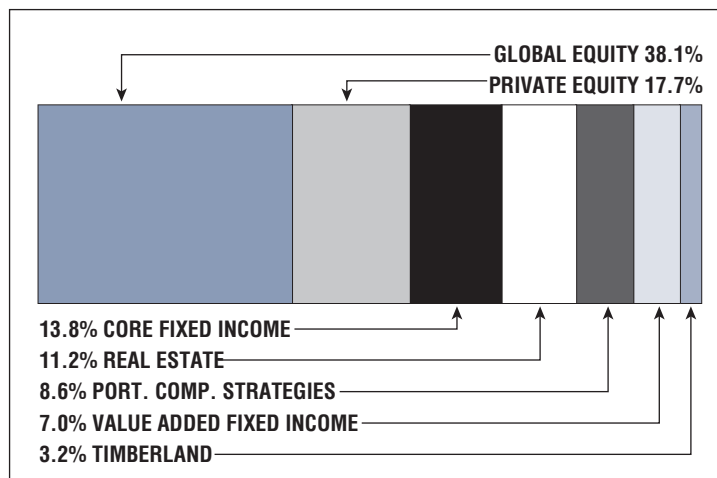
**2036**

Fully Funded

**7.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$16.9 M**

Unfunded Liability

**\$2.1 M**  
(FY2023)

Total Pension  
Appropriation



# Amesbury

## CONTACT INFORMATION

City Hall  
62 Friend Street  
Amesbury, MA 01913-2825  
Phone 978-388-8131  
Fax 978-388-6727

## BOARD MEMBERS

Marisa Batista  
Craig Bailey  
Donna Cornoni\*  
Shaunna Ring  
David Van Dam  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kevin Caira

## SYSTEM MEMBERS

Active Members .....290  
Total Payroll .....\$16.6 M  
Average Salary .....\$57,300  
Average Age .....NA  
Average Service .....NA

Retired Members .....267  
Benefits Paid .....\$7.6 M  
Average Benefit ....\$28,500  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....13  
Reported Earnings .....3  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Sherman



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**\$68.8 M**  
Market Value

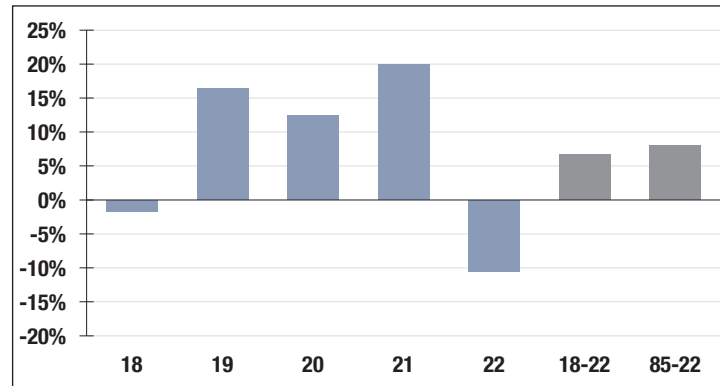
**-10.59%**  
2022 Returns

**8.24%**  
2013-2022  
[Annualized]

**8.00%**  
1985-2022  
[Annualized]

## Investment Returns

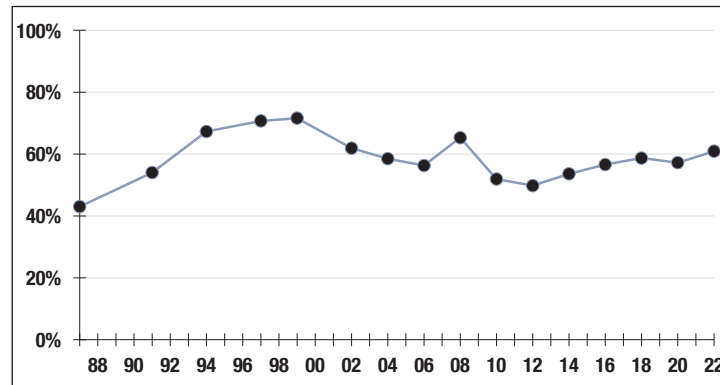
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**60.9%**

Funded Ratio

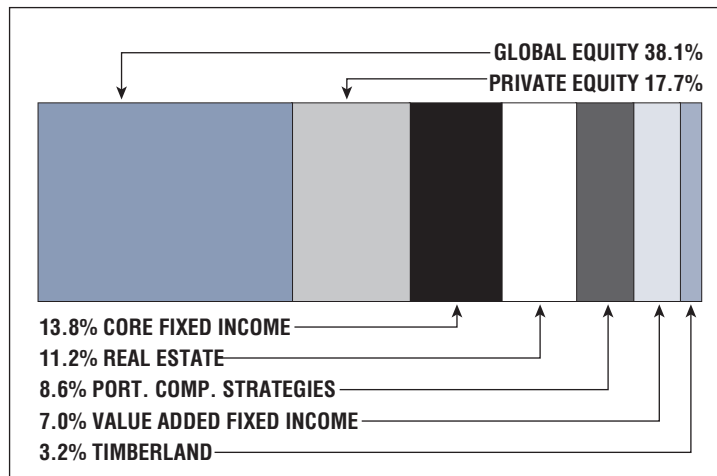
**2035**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$45.2 M**

Unfunded Liability

**\$5.3 M**  
[FY2023]

Total Pension  
Appropriation

# Andover

## CONTACT INFORMATION

Town Offices  
36 Bartlet Street  
Andover, MA 01810  
Phone 978-623-8540  
Fax 978-623-8594

## BOARD MEMBERS

Hayley Green\*  
Deidre Lockhart  
Elena Kothman  
Eric Teichert  
Blackwell Taylor  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Elena Kothman

## SYSTEM MEMBERS

Active Members .....739  
Total Payroll .....\$45.8 M  
Average Salary .....\$62,000  
Average Age .....49  
Average Service .....12.3  
  
Retired Members .....523  
Benefits Paid .....\$16.6 M  
Average Benefit ....\$31,700  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....36  
Reported Earnings .....11  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: KMS



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**\$343.5 M**  
Market Value

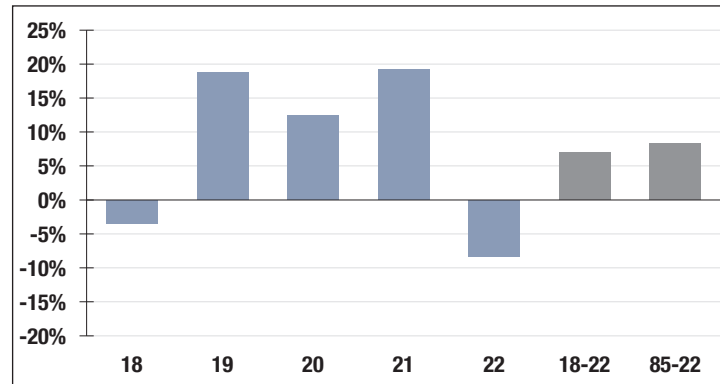
**-8.37%**  
2022 Returns

**8.51%**  
2013-2022  
[Annualized]

**8.36%**  
1985-2022  
[Annualized]

## Investment Returns

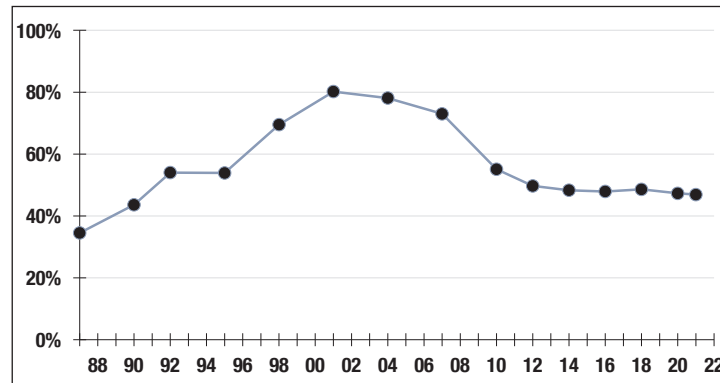
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**5.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**46.9%**

Funded Ratio

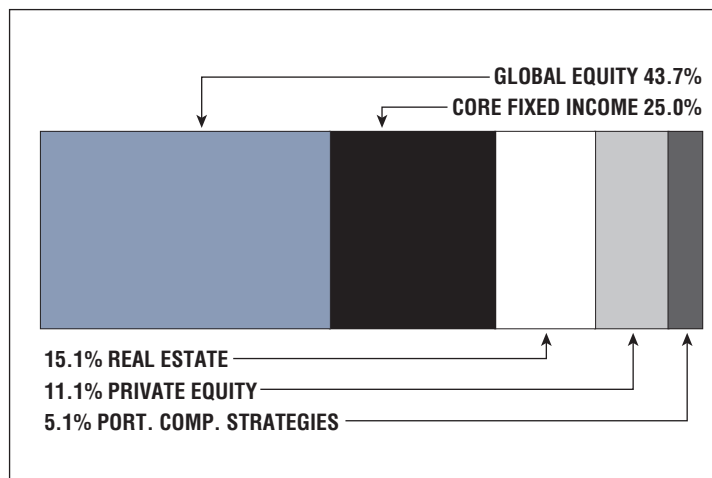
**2040**

Fully Funded

**3.61% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$193.5 M**

Unfunded Liability

**\$6.4 M**  
[FY2023]

Total Pension  
Appropriation



# Arlington

## CONTACT INFORMATION

27 Maple Street  
Room 203  
Arlington, MA 02476  
Phone 781-316-3370  
Fax 781-316-3379

## BOARD MEMBERS

Ida Cody  
Richard Keshian  
Kenneth Hughes\*  
Robert Jefferson  
Alfred Fantini  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Richard Greco

## SYSTEM MEMBERS

Active Members .....808  
Total Payroll .....\$45.2 M  
Average Salary .....\$56,000  
Average Age .....46  
Average Service .....9.3

Retired Members .....619  
Benefits Paid .....\$20.3 M  
Average Benefit ....\$32,900  
Average Age .....75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....74  
Reported Earnings .....25  
Excess Earners .....1  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Stone



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**\$199.0 M**  
Market Value

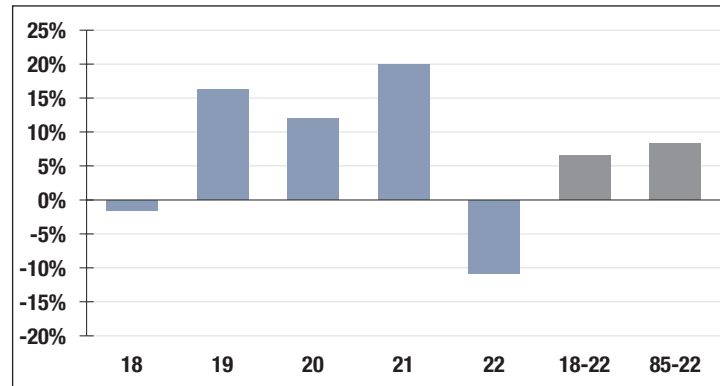
**-10.82%**  
2022 Returns

**8.01%**  
2013-2022  
(Annualized)

**8.26%**  
1985-2022  
(Annualized)

## Investment Returns

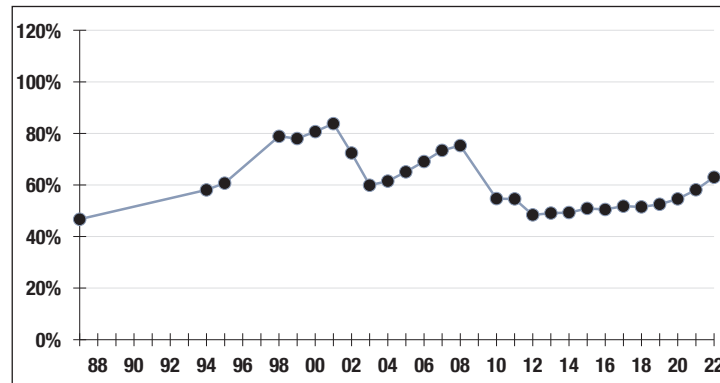
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**63.0%**

Funded Ratio

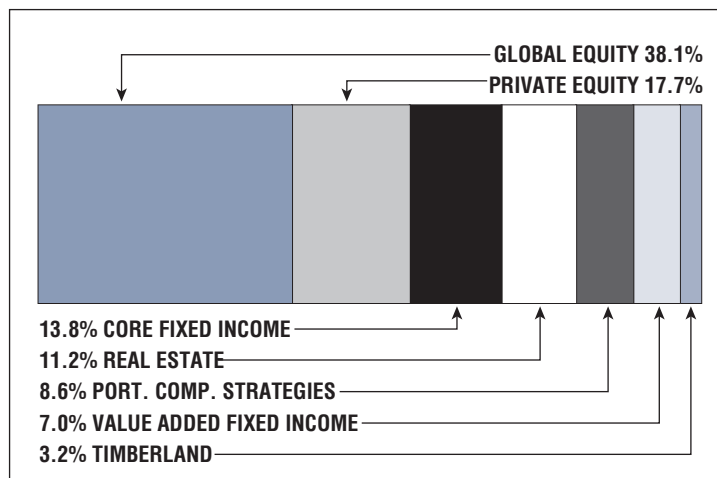
**2033**

Fully Funded

**5.5% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$119.4 M**

Unfunded Liability

**\$15.4 M**  
[FY2023]

Total Pension  
Appropriation

# Attleboro

## CONTACT INFORMATION

77 Park Street  
Attleboro, MA 02703  
Phone 508-223-2222  
Fax 508-223-2063

## BOARD MEMBERS

Deborah Gould  
Barry Lacasse  
Bruce Tondreau\*  
Scott Charette  
Richard Boucher  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kenneth Badertscher

## SYSTEM MEMBERS

Active Members .....712  
Total Payroll .....\$40.2 M  
Average Salary .....\$56,500  
Average Age .....46  
Average Service .....10.8

Retired Members .....485  
Benefits Paid .....\$15.9 M  
Average Benefit ....\$32,800  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....40  
Reported Earnings .....10  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Stone



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**\$180.9 M**  
Market Value

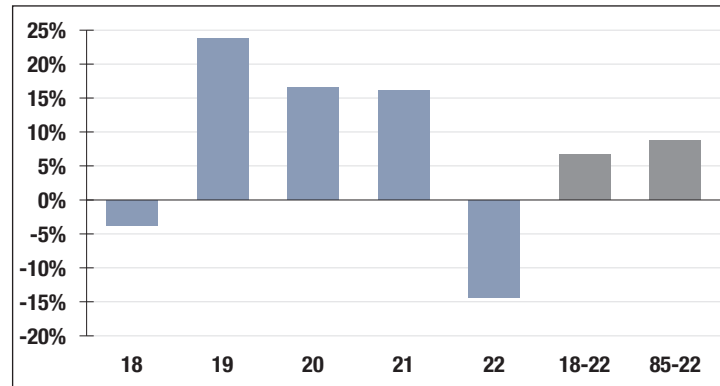
**-14.42%**  
2022 Returns

**8.24%**  
2013-2022  
(Annualized)

**8.72%**  
1985-2022  
(Annualized)

## Investment Returns

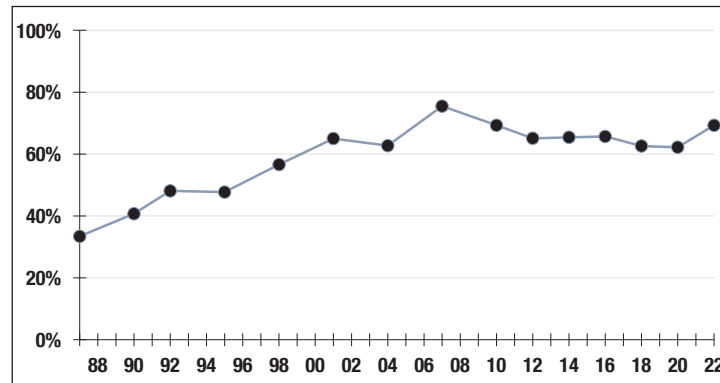
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**69.3%**

Funded Ratio

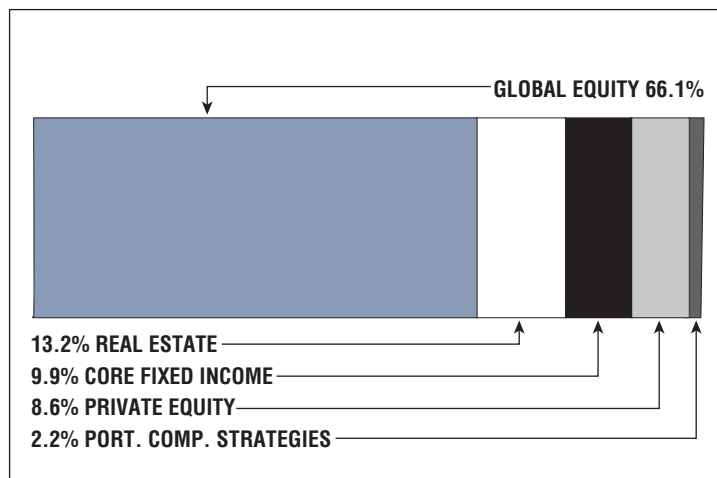
**2037**

Fully Funded

**5.86% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$85.1 M**

Unfunded Liability

**\$9.4 M**  
(FY2023)

Total Pension  
Appropriation

# Barnstable County

## CONTACT INFORMATION

750 Attucks Lane  
Hyannis, MA 02601  
Phone 508-775-1110  
Fax 508-775-1344

## BOARD MEMBERS

Carol Coppola\*  
Ronald Bergstrom  
Harold Brunelle  
Robert Rolanti  
TK Menesale

\*indicates Chairperson

## BOARD ADMINISTRATOR

Susy Bento Holmes

## SYSTEM MEMBERS

Active Members .....4,790  
Total Payroll .....\$307.8 M  
Average Salary .....\$64,300  
Average Age .....48  
Average Service .....11.1

Retired Members .....3,510  
Benefits Paid .....\$113.4 M  
Average Benefit ....\$32,300  
Average Age .....71

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....328  
Reported Earnings .....126  
Excess Earners .....3  
Refund Due .....\$46,189

Last Valuation: 1/1/22  
Actuary: Segal



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**\$1.5 B**  
Market Value

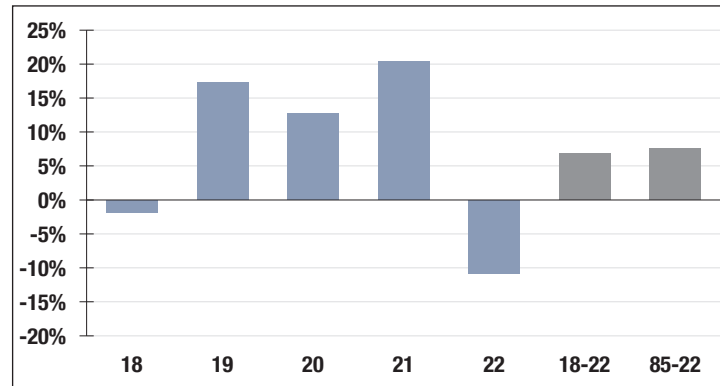
**-10.86%**  
2022 Returns

**8.40%**  
2013-2022  
(Annualized)

**7.60%**  
1985-2022  
(Annualized)

## Investment Returns

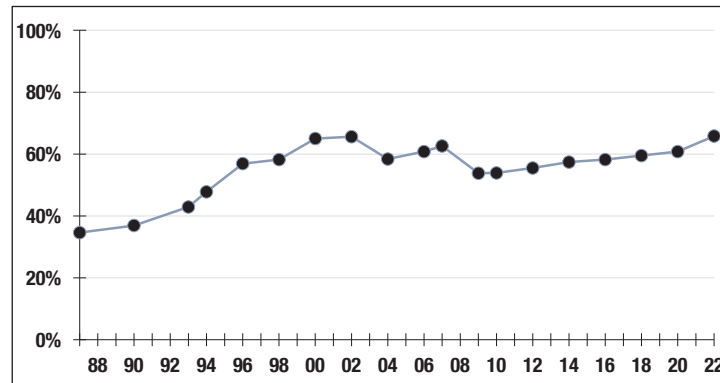
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.90%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**65.8%**

Funded Ratio

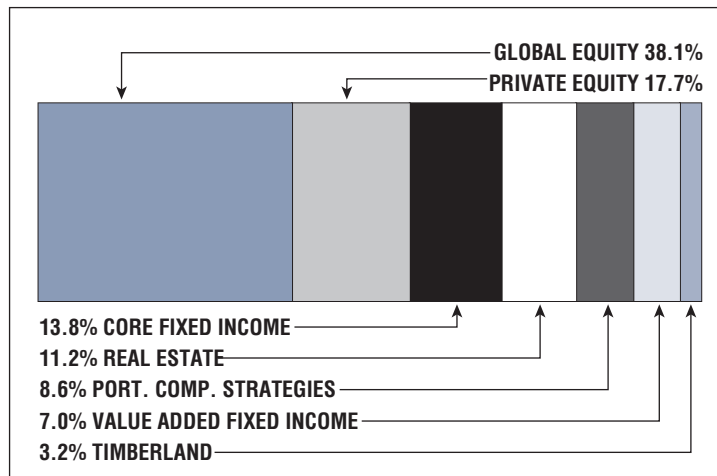
**2037**

Fully Funded

**5.80% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$755.2 M**

Unfunded Liability

**\$78.8 M**  
(FY2023)

Total Pension  
Appropriation



# Belmont

## CONTACT INFORMATION

90 Concord Avenue  
3rd Floor, Suite 3  
Belmont, MA 02478-0900  
Phone 617-993-2792  
Fax 617-993-2793

## BOARD MEMBERS

Donna Tuccinardi  
Brian Antonellis  
Ross Vona  
Walter Wellman  
Thomas Gibson\*

\*indicates Chairperson

## BOARD ADMINISTRATOR

Ryan Horan

## SYSTEM MEMBERS

Active Members .....460  
Total Payroll .....\$28.6 M  
Average Salary .....\$62,200  
Average Age .....48  
Average Service .....11.3

Retired Members .....357  
Benefits Paid .....\$12.4 M  
Average Benefit ....\$34,800  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....38  
Reported Earnings .....9  
Excess Earners .....1  
Refund Due .....\$8,057

Last Valuation: 1/1/22  
Actuary: Segal



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**\$148.9 M**  
Market Value

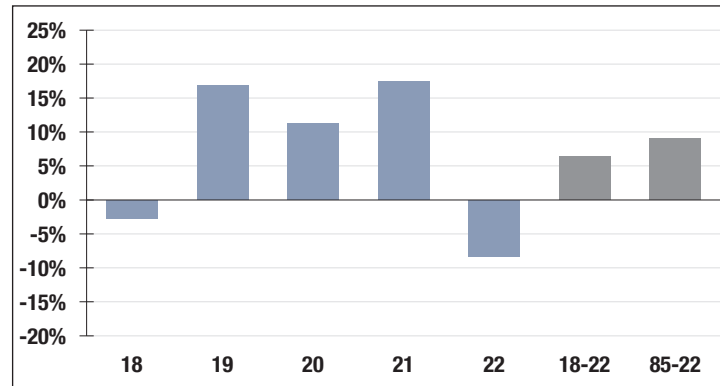
**-8.32%**  
2022 Returns

**7.95%**  
2013-2022  
[Annualized]

**9.07%**  
1985-2022  
[Annualized]

## Investment Returns

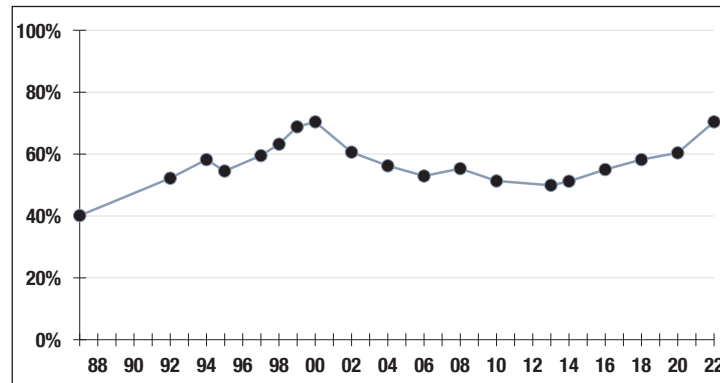
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**70.4%**

Funded Ratio

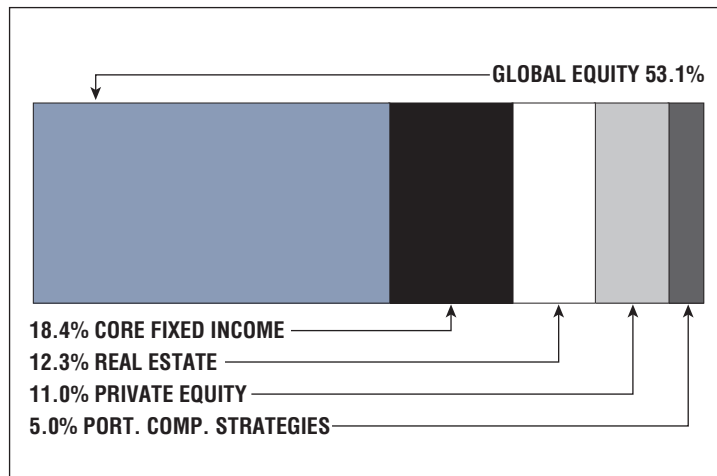
**2030**

Fully Funded

**4.45% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$62.1 M**

Unfunded Liability

**\$11.8 M**  
[FY2023]

Total Pension  
Appropriation

# Berkshire County

## CONTACT INFORMATION

29 Dunham Mall  
Pittsfield, MA 01201  
Phone 413-499-1981  
Fax 413-445-7990

## BOARD MEMBERS

Sue Funk  
Michael Ovitt\*  
Karen Williams  
Mark Bashara  
Beth Matson  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Sheila LaBarbera

## SYSTEM MEMBERS

Active Members ..... 1,172  
Total Payroll ..... \$51.4 M  
Average Salary ..... \$43,800  
Average Age ..... 49  
Average Service ..... 10.5

Retired Members ..... 854  
Benefits Paid ..... \$16.8 M  
Average Benefit ..... \$19,600  
Average Age ..... 73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 24  
Reported Earnings ..... 6  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$315.0 M**  
Market Value

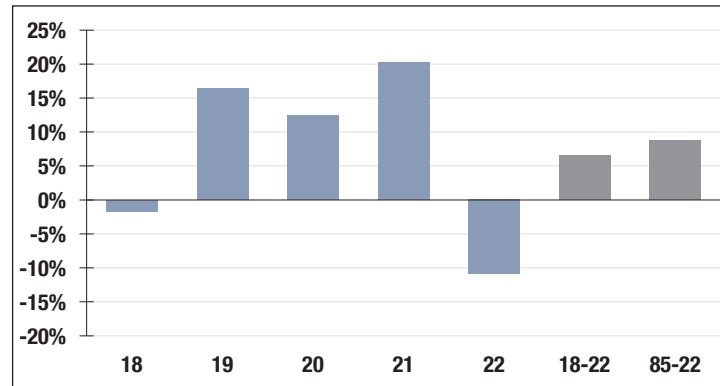
**-10.92%**  
2022 Returns

**8.23%**  
2013-2022  
[Annualized]

**8.84%**  
1985-2022  
[Annualized]

## Investment Returns

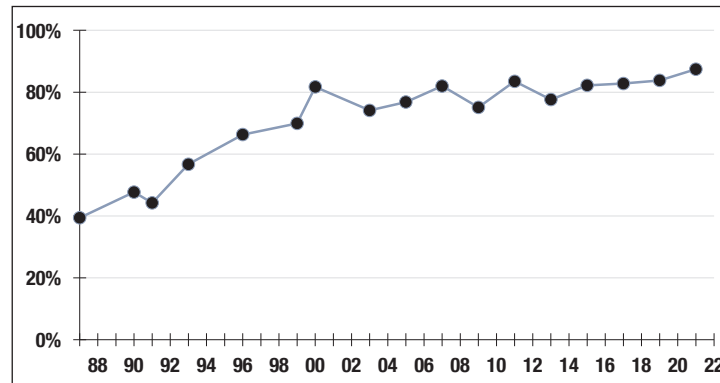
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**87.4%**

Funded Ratio

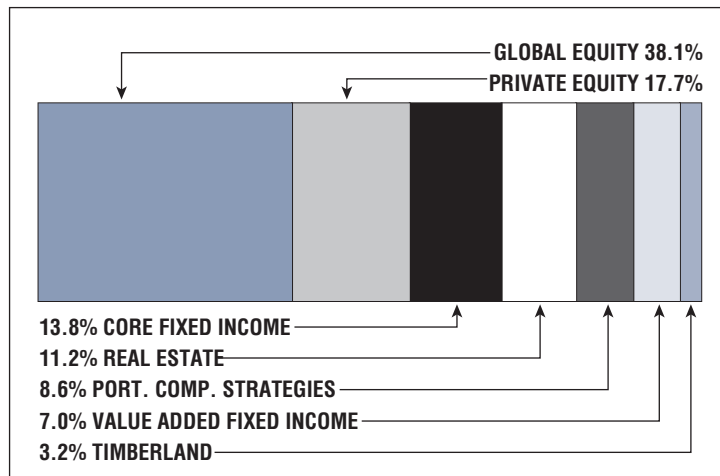
**2028**

Fully Funded

**7.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$40.6 M**

Unfunded Liability

**\$12.5 M**  
[FY2023]

Total Pension  
Appropriation

# Beverly

## CONTACT INFORMATION

City Hall  
191 Cabot Street  
Beverly, MA 01915  
Phone 978-605-2370  
Fax 978-921-8582

## BOARD MEMBERS

Carol Augulewicz  
Bryant Ayles\*  
D. Wesley Slate  
Kevin Smith  
Adam Travinski  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Barbara Wells

## SYSTEM MEMBERS

Active Members .....596  
Total Payroll .....\$33.3 M  
Average Salary .....\$55,800  
Average Age .....48  
Average Service .....11.1

Retired Members .....476  
Benefits Paid .....\$14.8 M  
Average Benefit ....\$31,100  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....45  
Reported Earnings .....15  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$168.6 M**  
Market Value

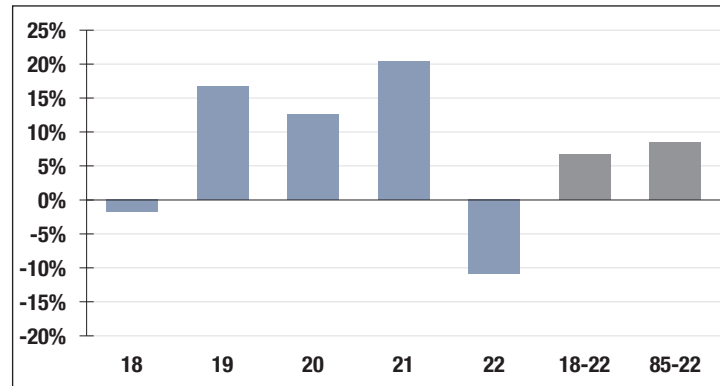
**-10.91%**  
2022 Returns

**8.34%**  
2013-2022  
(Annualized)

**8.49%**  
1985-2022  
(Annualized)

## Investment Returns

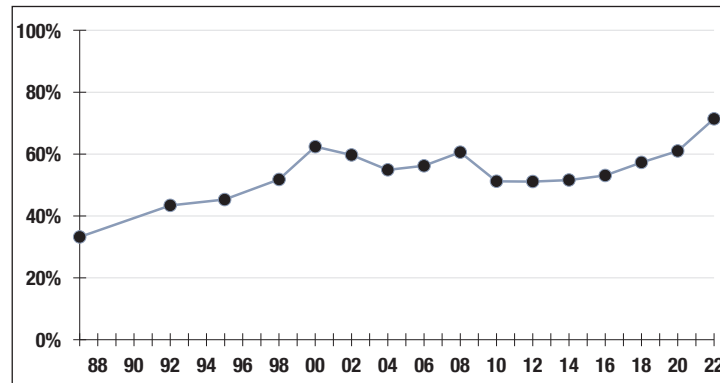
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**71.4%**

Funded Ratio

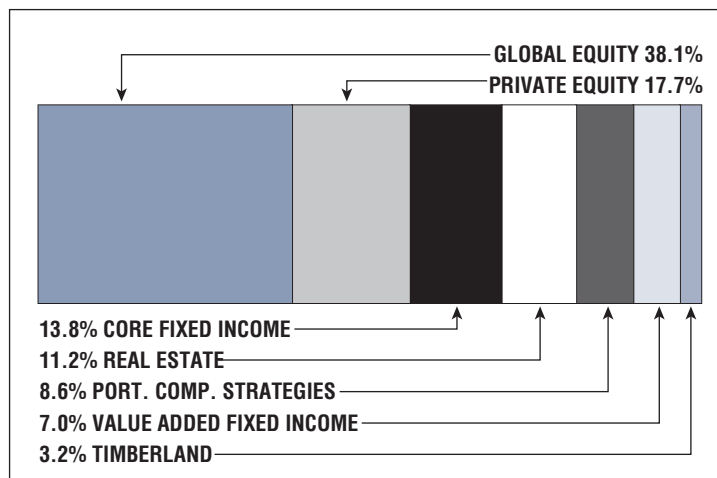
**2031**

Fully Funded

**4.5% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$70.7 M**

Unfunded Liability

**\$13.1 M**  
(FY2023)

Total Pension  
Appropriation



# Blue Hills Regional Vocational School

## CONTACT INFORMATION

Employees' Retirement Board  
800 Randolph Street  
Canton, MA 02021  
Phone 781-828-5800  
Fax 781-828-0794

## BOARD MEMBERS

Charles Gisondi\*  
Steven Moore  
Kathleen Manning  
Patricia Brooks  
Lisa Maloney

\*indicates Chairperson

## BOARD ADMINISTRATOR

Frank Zecha

## SYSTEM MEMBERS

Active Members .....48  
Total Payroll .....\$2.6 M  
Average Salary .....\$54,400  
Average Age .....51  
Average Service .....10.4  
  
Retired Members .....47  
Benefits Paid .....\$1.1 M  
Average Benefit ....\$22,900  
Average Age .....78

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....0  
Reported Earnings .....0  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22

Actuary: PERAC



Click/Scan for Website

**\$13.8 M**  
Market Value

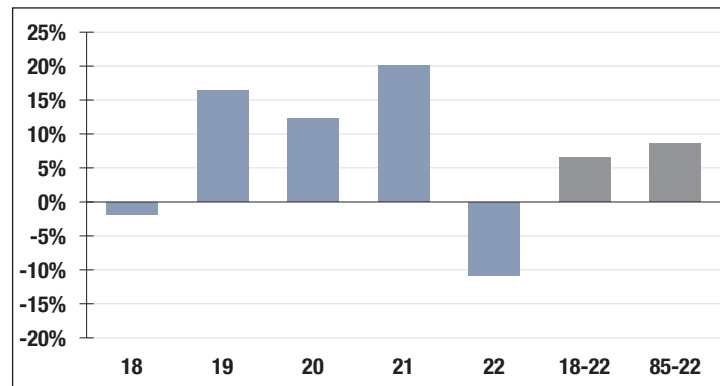
**-10.85%**  
2022 Returns

**8.20%**  
2013-2022  
(Annualized)

**8.55%**  
1985-2022  
(Annualized)

## Investment Returns

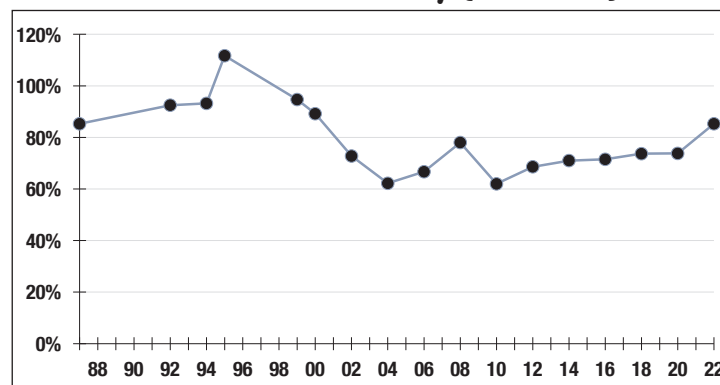
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**85.3%**

Funded Ratio

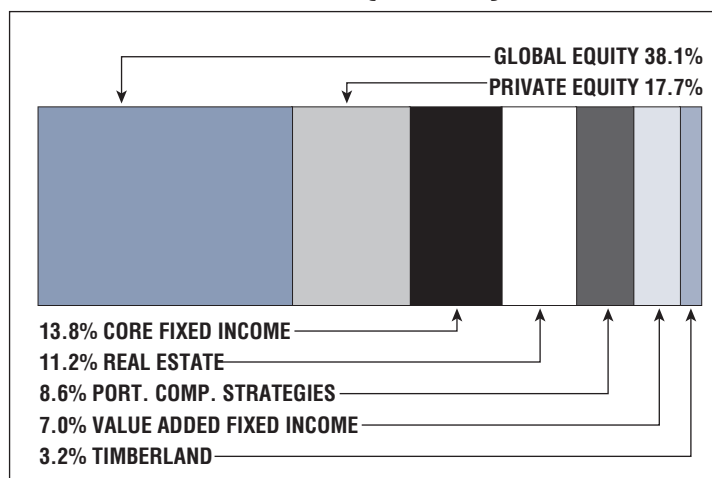
**2029**

Fully Funded

**7.1% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$2.5 M**

Unfunded Liability

**\$686 K**  
(FY2023)

Total Pension  
Appropriation

# Boston (City)

## CONTACT INFORMATION

City Hall, Room 816  
Boston, MA 02201  
Phone 617-635-4305  
Fax 617-635-4318

## BOARD MEMBERS

Maureen Joyce  
Daniel Greene\*  
Karen Cross  
Michael O'Reilly  
Thomas Jackson  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Timothy Smyth

## SYSTEM MEMBERS

Active Members ..... 14,581  
Total Payroll ..... \$1.1 B  
Average Salary ..... \$77,500  
Average Age ..... 46  
Average Service ..... 12.6

Retired Members ..... 9,898  
Benefits Paid ..... \$418.6 M  
Average Benefit ..... \$42,300  
Average Age ..... 74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 1,495  
Reported Earnings ..... 245  
Excess Earners ..... 13  
Refund Due ..... \$272,813

Last Valuation: 1/1/22  
Actuary: Segal



Click/Scan for Website

**\$6.4 B**  
Market Value

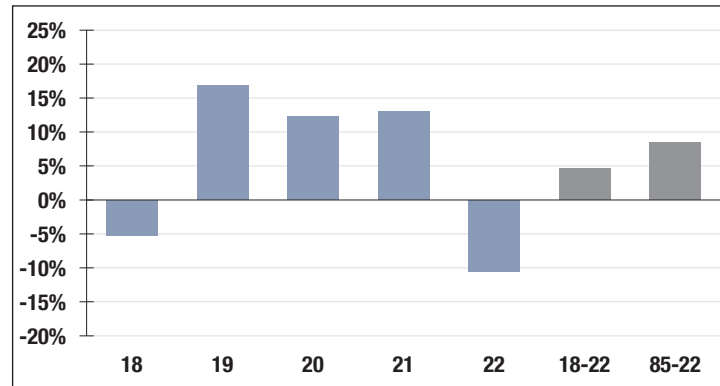
**-10.55%**  
2022 Returns

**6.71%**  
2013-2022  
(Annualized)

**8.47%**  
1985-2022  
(Annualized)

## Investment Returns

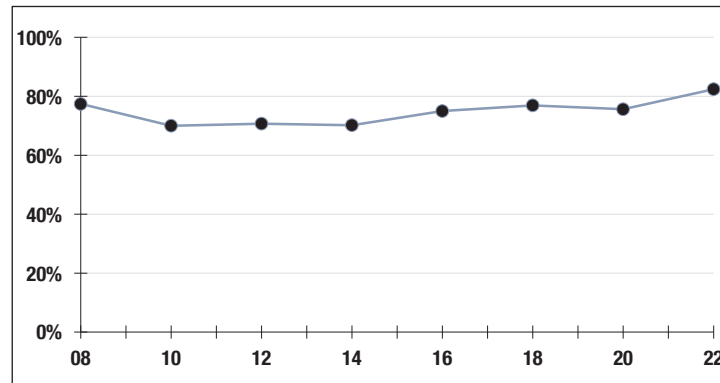
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.90%**

Assumed Rate  
of Return

## Funded Ratio History (2008-2022)



**82.4%**

Funded Ratio

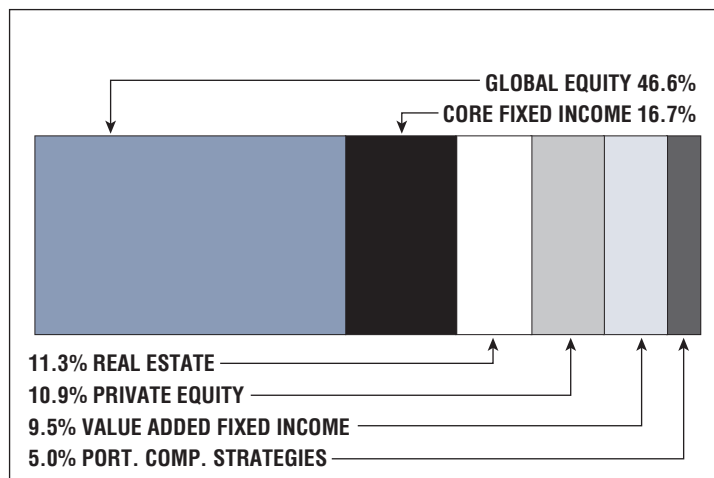
**2027**

Fully Funded

**8.85% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$1.4 B**

Unfunded Liability

**\$403.7 M**  
(FY2023)

Total Pension  
Appropriation

# Boston (Teachers)

## CONTACT INFORMATION

See Boston (City)

## SYSTEM MEMBERS

Active Members .....6,659  
Total Payroll .....\$667.0 M  
Average Salary ...\$100,200  
Average Age .....43  
Average Service .....10.2

Retired Members .....4,816  
Benefits Paid .....\$269.1 M  
Average Benefit ....\$55,900  
Average Age .....74

Last Valuation: 1/1/22

Actuary: PERAC

## NOTES ON BOSTON (CITY) & BOSTON (TEACHERS):

The results for Boston Teachers and non-teachers (City) are separated in this report.

The liability for Boston Teachers has always been the responsibility of the Commonwealth.

In 2010, legislation was enacted that allocated assets to Boston Teachers and separate accounts have been maintained since that date. The actuarial information for the City now solely reflects liability that is the responsibility of the City.

The Funded Ratio chart for the City reflects information available since that allocation.

Please note the following when reviewing the charts on these pages:

- Boston Teachers' assets prior to 2010 were estimated as approximately 30% of Boston (System) total assets.
- The information with respect to Disability Retirees on the City Board Profile page reflects the entire system, including Boston Teachers.
- The information with respect to Investment Return History for the City reflects actual returns for Boston (City) for 2017-2021 and total returns for the Boston System prior to 2011.

**\$2.1 B**  
Market Value

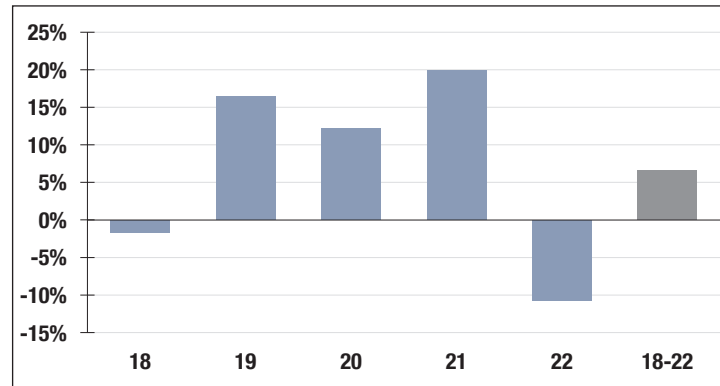
**-10.70%**  
2022 Returns

**8.21%**  
2013-2022  
(Annualized)

**NA**  
1985-2022  
(Annualized)

## Investment Returns

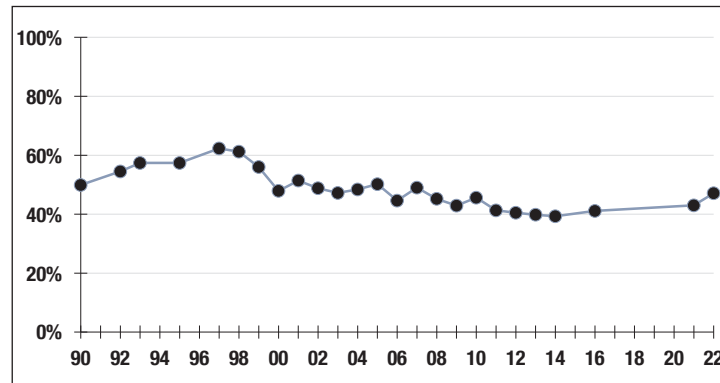
(2018-2022 & 5-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1990-2022)



**47.1%**

Funded Ratio

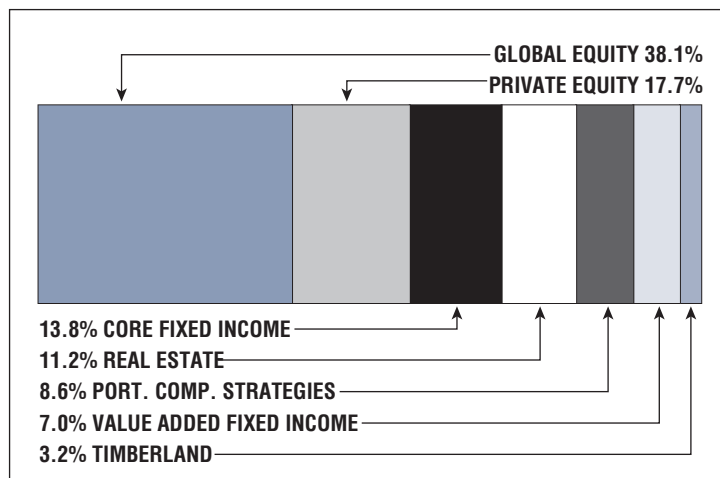
**2036**

Fully Funded

**9.63% Increasing  
Phase-In**

Funding Schedule

## Asset Allocation (12/31/22)



**\$2.4 B**

Unfunded Liability

**\$196.8 M**  
(FY2023)

Total Pension  
Appropriation



# Braintree

## CONTACT INFORMATION

74 Pond Street  
2nd Floor  
Braintree, MA 02184  
Phone 781-794-8211  
Fax 781-794-8407

## BOARD MEMBERS

Edward Spellman  
Joseph Driscoll  
Frederick Viola  
Gerald Kenny\*  
David DelGallo

\*indicates Chairperson

## BOARD ADMINISTRATOR

Dennis Gallagher

## SYSTEM MEMBERS

Active Members .....790  
Total Payroll .....\$52.7 M  
Average Salary .....\$66,800  
Average Age .....49  
Average Service .....11.9

Retired Members .....568  
Benefits Paid .....\$20.5 M  
Average Benefit ....\$36,000  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....54  
Reported Earnings .....15  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22

Actuary: KMS



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**\$252.0 M**  
Market Value

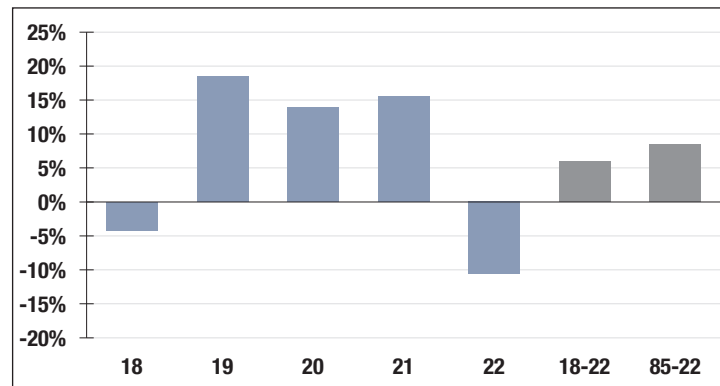
**-10.62%**  
2022 Returns

**7.25%**  
2013-2022  
(Annualized)

**8.41%**  
1985-2022  
(Annualized)

## Investment Returns

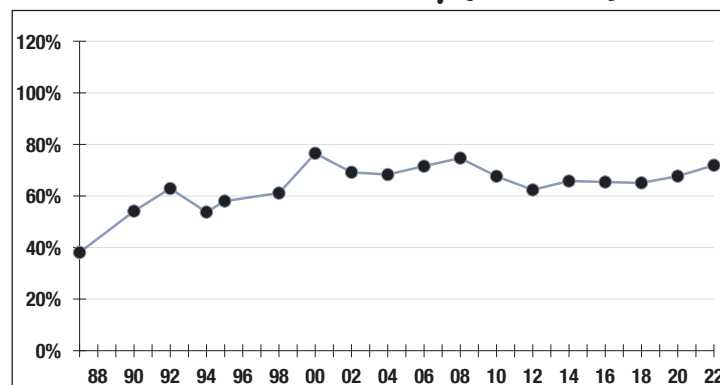
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**71.9%**

Funded Ratio

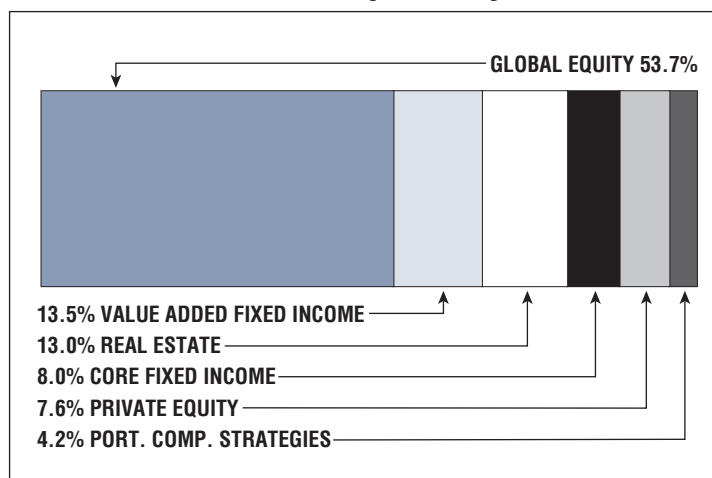
**2033**

Fully Funded

**7.38% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$102.5 M**

Unfunded Liability

**\$13.6 M**  
(FY2023)

Total Pension  
Appropriation

# Bristol County

## CONTACT INFORMATION

County Crossing  
645 County Street  
Taunton, MA 02780  
Phone 508-824-4029  
Fax 508-880-8749

## BOARD MEMBERS

Christopher Saunders\*  
John Saunders  
Stephen Rivard  
William Downey  
Christine DeFontes  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Roxanne Donovan

## SYSTEM MEMBERS

Active Members .....3,349  
Total Payroll .....\$185.7 M  
Average Salary .....\$55,500  
Average Age .....48  
Average Service .....11.3

Retired Members .....2,743  
Benefits Paid .....\$75.4 M  
Average Benefit ....\$27,500  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....219  
Reported Earnings .....59  
Excess Earners .....2  
Refund Due .....\$5,757

Last Valuation: 1/1/22  
Actuary: Stone



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**\$837.1 M**  
Market Value

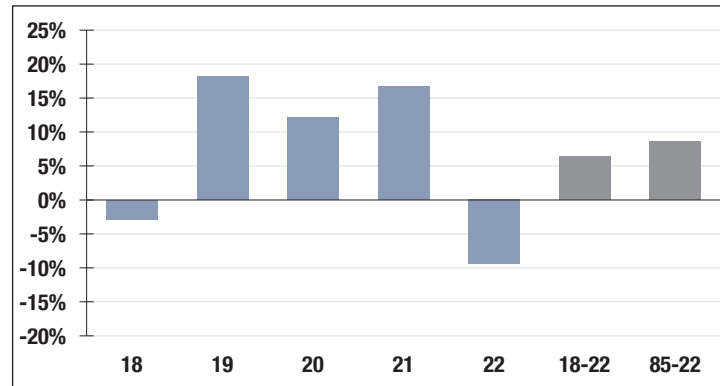
**-9.46%**  
2022 Returns

**7.88%**  
2013-2022  
[Annualized]

**8.66%**  
1985-2022  
[Annualized]

## Investment Returns

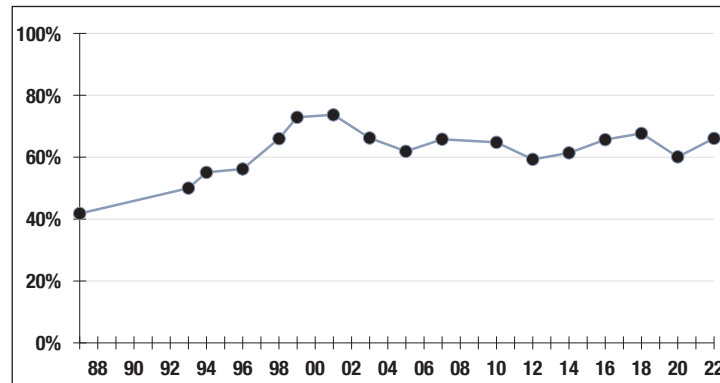
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.35%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**66.1%**

Funded Ratio

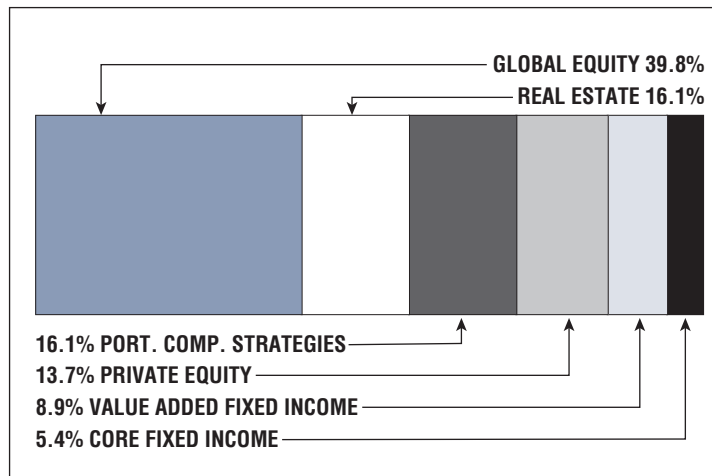
**2034**

Fully Funded

**5.08% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$440.9 M**

Unfunded Liability

**\$51.8 M**  
[FY2023]

Total Pension  
Appropriation

# Brockton

## CONTACT INFORMATION

1322 Belmont Street  
Suite 101  
Brockton, MA 02301  
Phone 508-580-7847  
Fax 508-559-0559

## BOARD MEMBERS

Karen Preval  
John Condon  
Archie Gormley  
Scott Albanese  
William Farmer\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Jeanne Martineau

## SYSTEM MEMBERS

Active Members ..... 1,948  
Total Payroll ..... \$117.4 M  
Average Salary ..... \$60,200  
Average Age ..... 46  
Average Service ..... 10.2

Retired Members ..... 1,319  
Benefits Paid ..... \$47.9 M  
Average Benefit .... \$36,300  
Average Age ..... 74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 155  
Reported Earnings ..... 36  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22  
Actuary: KMS



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**\$740.1 M**  
Market Value

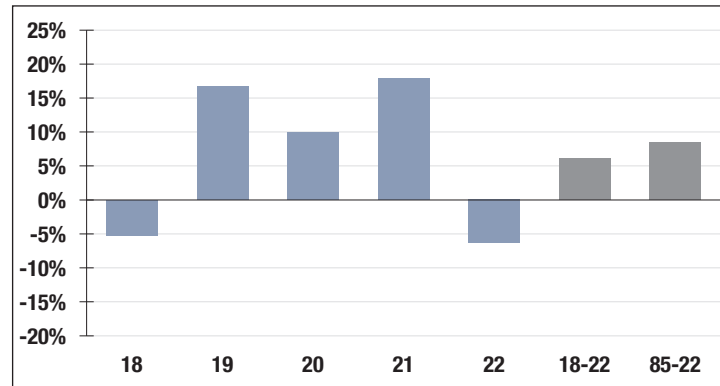
**-6.33%**  
2022 Returns

**7.13%**  
2013-2022  
(Annualized)

**8.46%**  
1985-2022  
(Annualized)

## Investment Returns

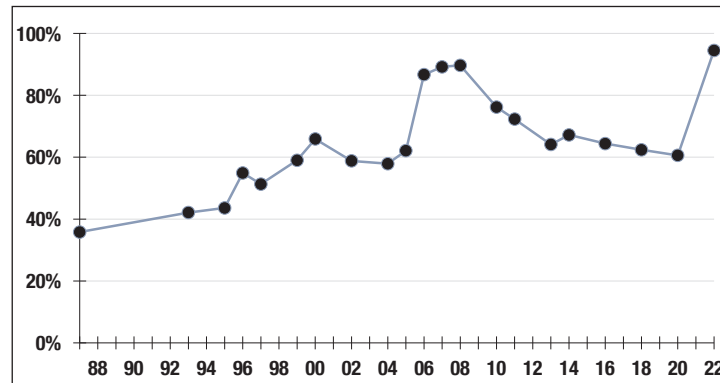
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**94.5%**

Funded Ratio

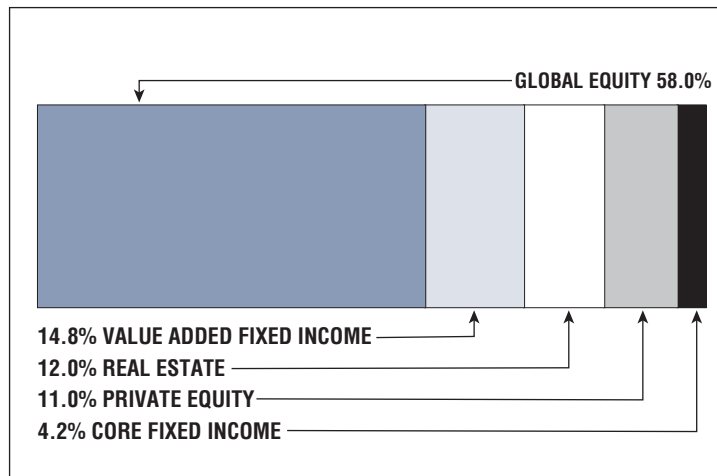
**2035**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$46.1 M**

Unfunded Liability

**\$9.8 M**  
(FY2023)

Total Pension  
Appropriation



# Brookline

## CONTACT INFORMATION

Public Health Bldg.  
Ground Floor  
11 Pierce Street  
Brookline, MA 02445  
Phone 617-730-2028  
Fax 617-730-2298

## BOARD MEMBERS

Michael DiPietro  
Lincoln Heineman  
John Canney  
Robert Ward  
Gary Altman\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Frank Zecha

## SYSTEM MEMBERS

Active Members ..... 1,347  
Total Payroll ..... \$81.2 M  
Average Salary ..... \$60,300  
Average Age ..... 43  
Average Service ..... 10.1

Retired Members ..... 891  
Benefits Paid ..... \$33.5 M  
Average Benefit ..... \$37,600  
Average Age ..... 74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 148  
Reported Earnings ..... 35  
Excess Earners ..... 1  
Refund Due ..... \$22,538

Last Valuation: 1/1/22  
Actuary: Segal



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**\$428.4 M**  
Market Value

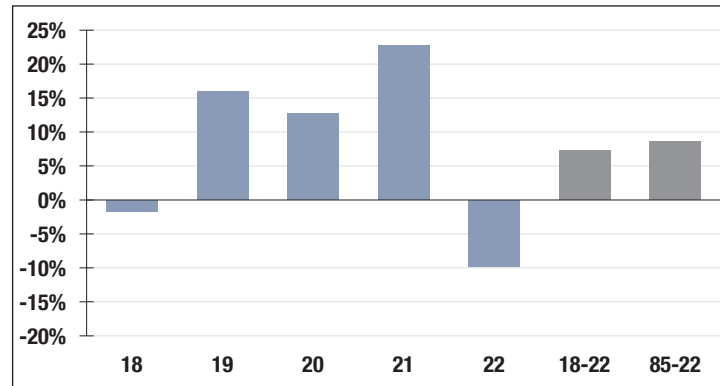
**-9.75%**  
2022 Returns

**8.01%**  
2013-2022  
(Annualized)

**8.58%**  
1985-2022  
(Annualized)

## Investment Returns

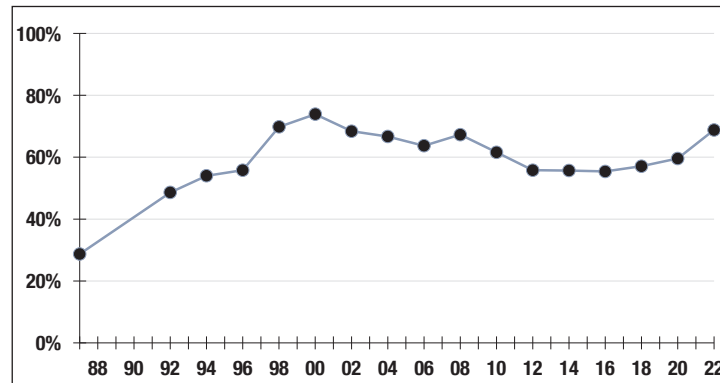
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.90%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**68.8%**

Funded Ratio

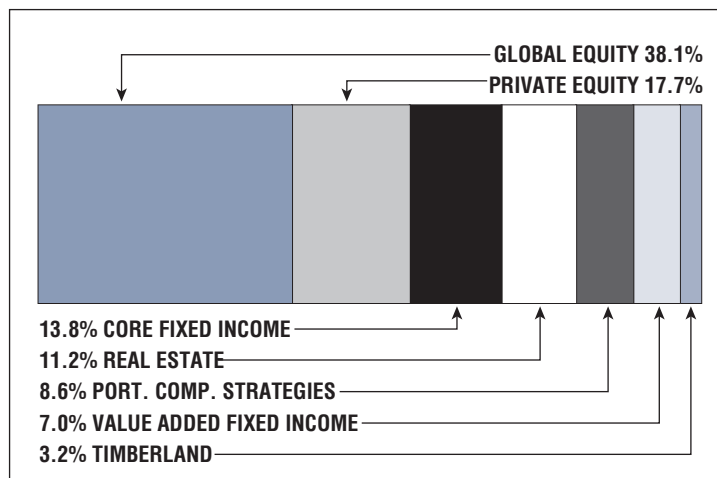
**2030**

Fully Funded

**7.85% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$188.2 M**

Unfunded Liability

**\$31.9 M**  
[FY2023]

Total Pension  
Appropriation

# Cambridge

## CONTACT INFORMATION

125 CambridgePark Drive  
Suite 104  
Cambridge, MA 02140-2369  
Phone 617-868-3401  
Fax 617-868-3477

## BOARD MEMBERS

Joseph McCann  
Michael Gardner  
Francis Murphy\*  
James Monagle  
Nadia Chamblin-Foster  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Ellen Philbin

## SYSTEM MEMBERS

Active Members .....3,156  
Total Payroll .....\$247.8 M  
Average Salary .....\$78,500  
Average Age .....46  
Average Service ..... 12.9

Retired Members .....2,306  
Benefits Paid .....\$96.6 M  
Average Benefit ....\$41,900  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....219  
Reported Earnings .....45  
Excess Earners .....1  
Refund Due .....\$51,280

Last Valuation: 1/1/22  
Actuary: Segal



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**\$1.6 B**  
Market Value

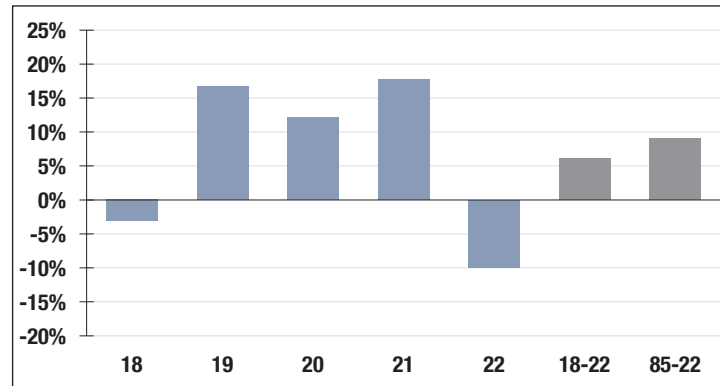
**-9.99%**  
2022 Returns

**8.22%**  
2013-2022  
[Annualized]

**9.00%**  
1985-2022  
[Annualized]

## Investment Returns

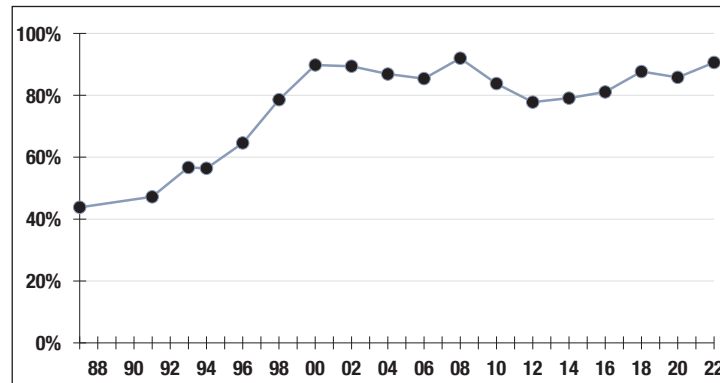
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.10%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**90.6%**

Funded Ratio

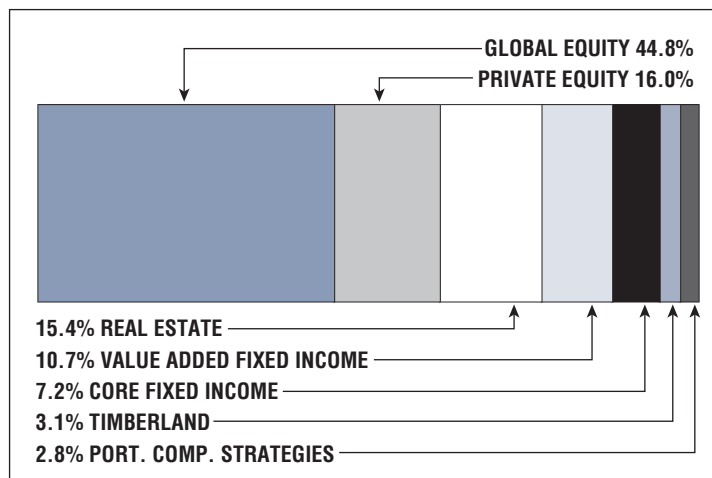
**2026**

Fully Funded

**12.1% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$175.4 M**

Unfunded Liability

**\$60.4 M**  
[FY2023]

Total Pension  
Appropriation

# Chelsea

## CONTACT INFORMATION

90 Everett Ave  
Suite 5  
Chelsea, MA 02150  
Phone 857-776-6544  
Fax 617-466-4234

## BOARD MEMBERS

Edward Dunn  
Cheryl Watson Fisher  
Joseph Siewko\*  
Richard Carroccino  
Carolyn Russo  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Michael Nicolazzo

## SYSTEM MEMBERS

Active Members .....758  
Total Payroll .....\$44.1 M  
Average Salary .....\$58,200  
Average Age .....45  
Average Service .....11.9

Retired Members .....395  
Benefits Paid .....\$12.6 M  
Average Benefit ....\$31,800  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....59  
Reported Earnings .....17  
Excess Earners .....1  
Refund Due .....\$4,470

Last Valuation: 1/1/21

Actuary: PERAC



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**\$248.6 M**  
Market Value

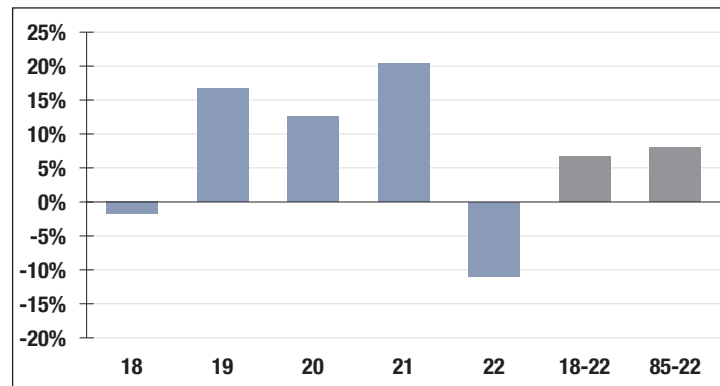
**-11.01%**  
2022 Returns

**8.30%**  
2013-2022  
(Annualized)

**7.97%**  
1985-2022  
(Annualized)

## Investment Returns

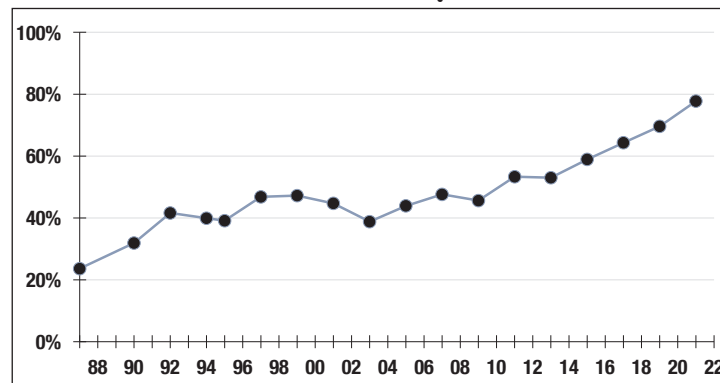
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**77.7%**

Funded Ratio

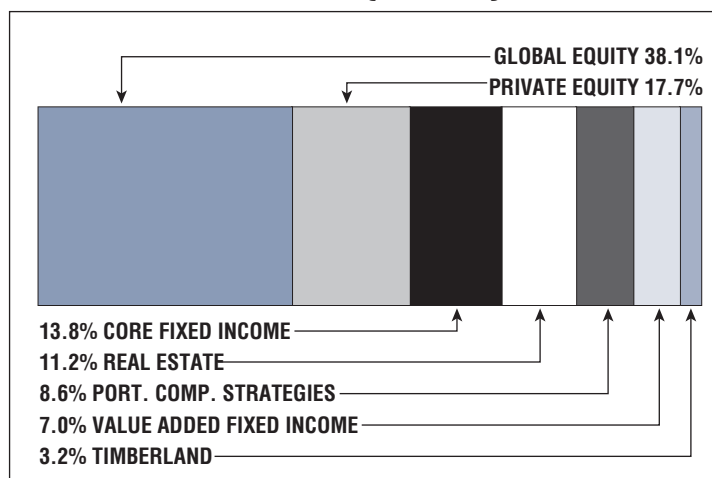
**2028**

Fully Funded

**5.05% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$60.5 M**

Unfunded Liability

**\$15.2 M**  
(FY2023)

Total Pension  
Appropriation

# Chicopee

## CONTACT INFORMATION

274 Front Street  
City Hall, Market Square  
Chicopee, MA 01013  
Phone 413-594-1542  
Fax 413-594-1544

## BOARD MEMBERS

Sharyn Riley  
Debra Boronski  
Paul Mailhott  
Timothy O'Shea\*  
David Ference  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Ana Gomes

## SYSTEM MEMBERS

Active Members .....1,177  
Total Payroll .....\$59.7 M  
Average Salary .....\$50,700  
Average Age .....47  
Average Service .....12.9

Retired Members .....885  
Benefits Paid .....\$25.1 M  
Average Benefit ....\$28,300  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....91  
Reported Earnings .....25  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Stone



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**\$409.9 M**  
Market Value

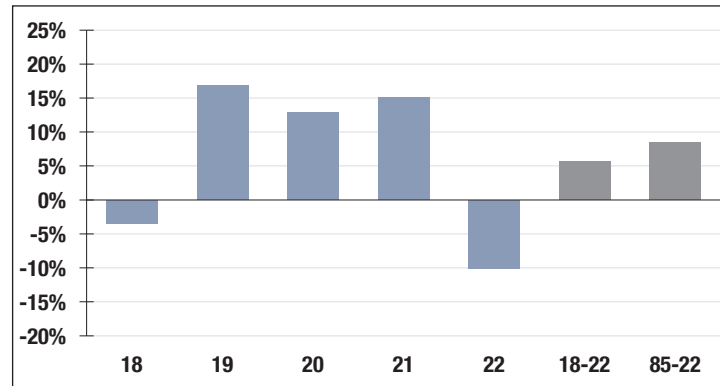
**-10.04%**  
2022 Returns

**7.88%**  
2013-2022  
[Annualized]

**8.43%**  
1985-2022  
[Annualized]

## Investment Returns

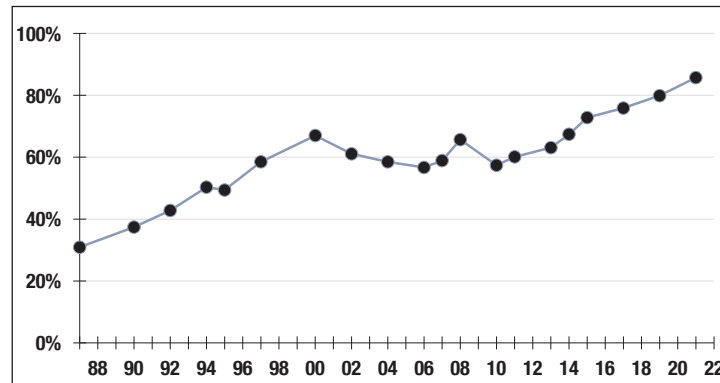
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**85.7%**

Funded Ratio

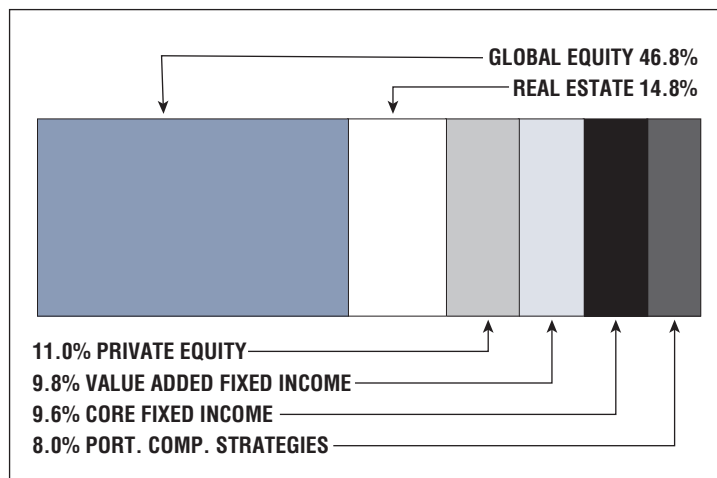
**2026**

Fully Funded

**3.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$63.7 M**

Unfunded Liability

**\$20.6 M**  
[FY2023]

Total Pension  
Appropriation



# Clinton

## CONTACT INFORMATION

242 Church Street  
Clinton, MA 01510  
Phone 978-365-4118  
Fax 978-612-0215

## BOARD MEMBERS

Diane Magliozzi  
David Baird  
James McNamara  
Joseph Casasanto  
Paul Cherubini\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Patricia Hazel

## SYSTEM MEMBERS

Active Members .....247  
Total Payroll .....\$12.0 M  
Average Salary .....\$48,500  
Average Age .....48  
Average Service .....11.8  
  
Retired Members .....138  
Benefits Paid .....\$4.0 M  
Average Benefit .....\$29,000  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....12  
Reported Earnings .....3  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



Click/Scan for Website

**\$68.6 M**  
Market Value

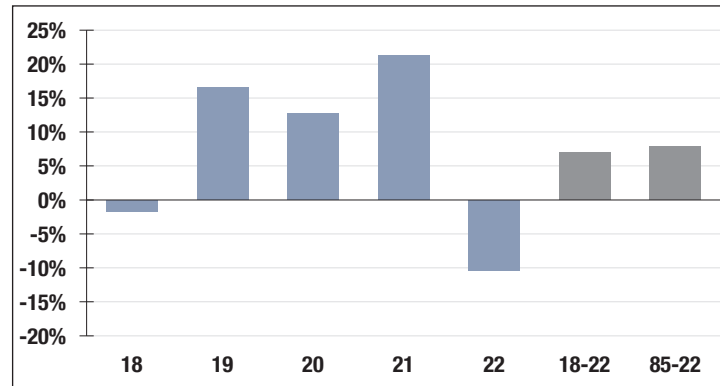
**-10.44%**  
2022 Returns

**8.46%**  
2013-2022  
(Annualized)

**7.81%**  
1985-2022  
(Annualized)

## Investment Returns

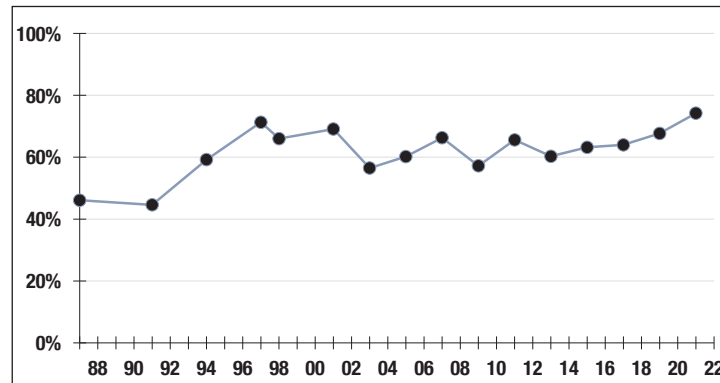
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**74.2%**

Funded Ratio

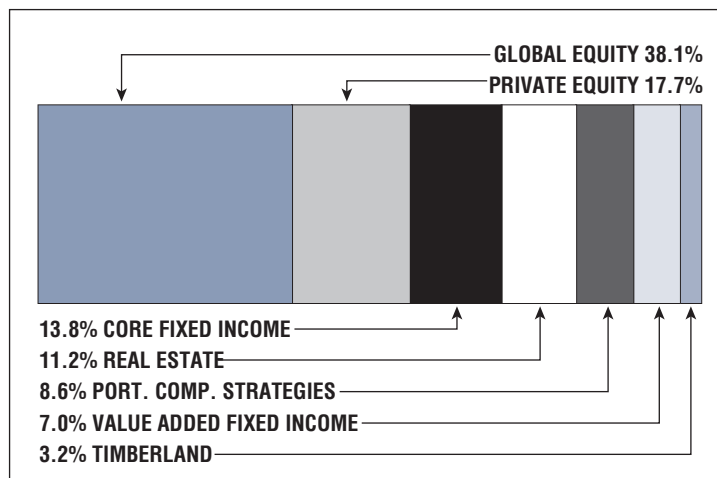
**2034**

Fully Funded

**5.10% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$20.7 M**

Unfunded Liability

**\$3.5 M**  
(FY2023)

Total Pension  
Appropriation

# Concord

## CONTACT INFORMATION

2250 Main Street  
West Concord, MA 01742  
Phone 978-759-6057  
Fax 978-610-6778

## BOARD MEMBERS

Mary Barrett  
Gail Dowd  
Brian Whitney  
Peter Fulton\*  
Eric Macy  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Linda Boucher

## SYSTEM MEMBERS

Active Members .....567  
Total Payroll .....\$37.7 M  
Average Salary .....\$66,400  
Average Age .....48  
Average Service .....10.1  
  
Retired Members .....351  
Benefits Paid .....\$11.3 M  
Average Benefit ....\$32,100  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....18  
Reported Earnings .....6  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Stone



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**\$205.0 M**  
Market Value

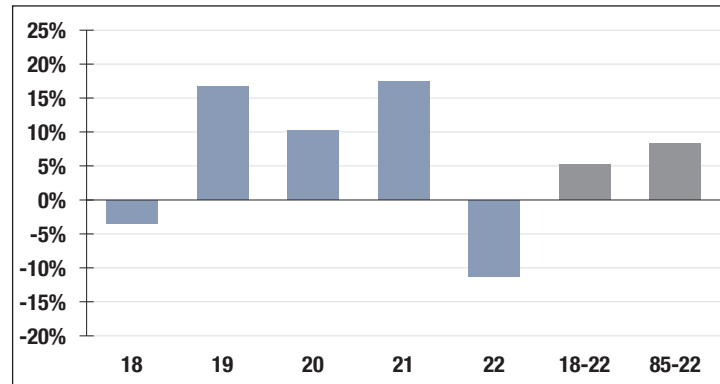
**-11.27%**  
2022 Returns

**7.53%**  
2013-2022  
(Annualized)

**8.30%**  
1985-2022  
(Annualized)

## Investment Returns

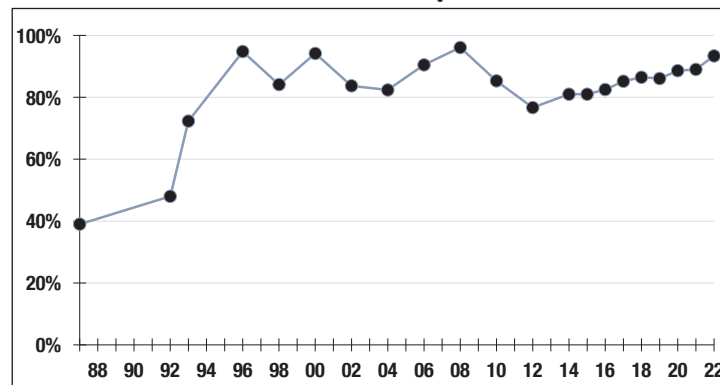
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**93.4%**

Funded Ratio

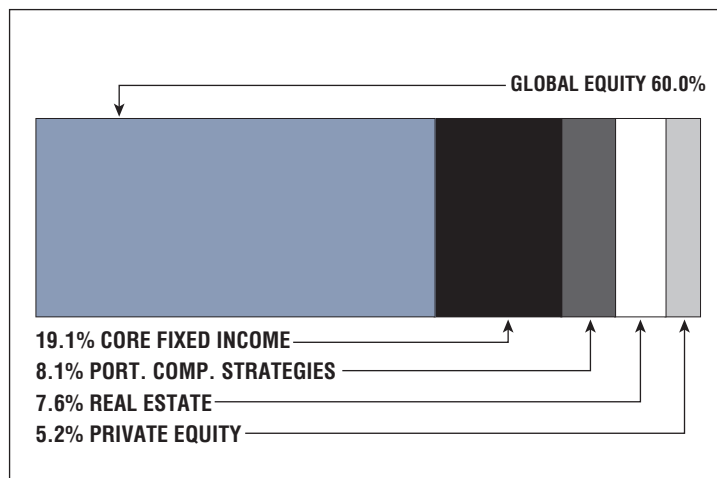
**2028**

Fully Funded

Level Dollar

Funding Schedule

## Asset Allocation (12/31/22)



**\$15.0 M**

Unfunded Liability

**\$6.7 M**  
(FY2023)

Total Pension  
Appropriation

# Danvers

## CONTACT INFORMATION

Town Hall  
1 Sylvan Street  
Danvers, MA 01923  
Phone 978-777-0001  
Fax 978-406-4196

## BOARD MEMBERS

Heather Varney  
Rodney Conley  
Dana Hagan  
Joseph Collins\*  
Stephen Swanson  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Corinna Grace

## SYSTEM MEMBERS

Active Members .....466  
Total Payroll .....\$30.9 M  
Average Salary .....\$66,400  
Average Age .....48  
Average Service ..... 12.5  
  
Retired Members .....418  
Benefits Paid .....\$13.6 M  
Average Benefit ....\$32,600  
Average Age .....75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....28  
Reported Earnings .....8  
Excess Earners ..... 1  
Refund Due .....\$9,895

Last Valuation: 1/1/22

Actuary: KMS



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**\$132.8 M**  
Market Value

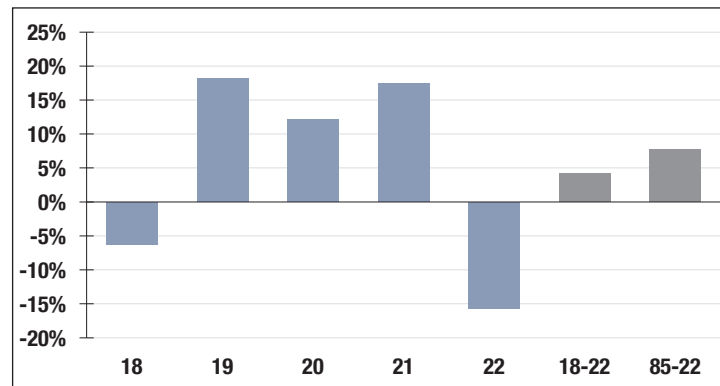
**-15.68%**  
2022 Returns

**6.69%**  
2013-2022  
[Annualized]

**7.68%**  
1985-2022  
[Annualized]

## Investment Returns

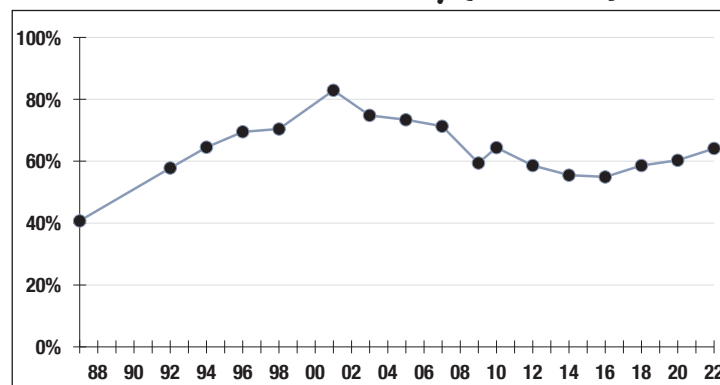
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.13%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**64.1%**

Funded Ratio

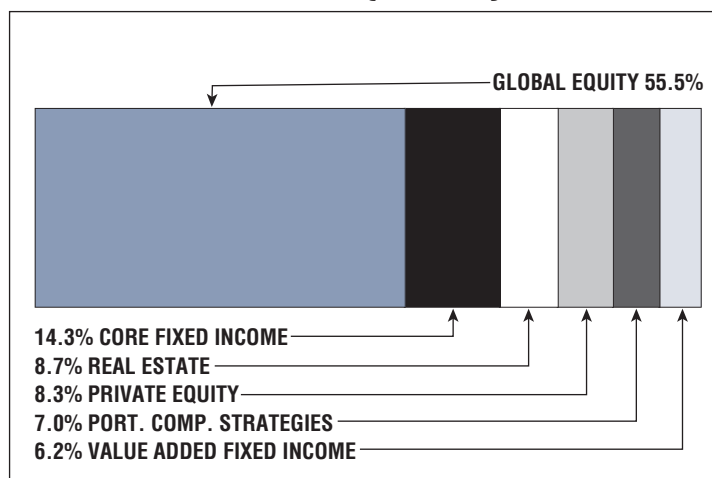
**2035**

Fully Funded

**4.0% Increasing  
Phase-In**

Funding Schedule

## Asset Allocation (12/31/22)



**\$82.4 M**

Unfunded Liability

**\$9.3 M**  
[FY2023]

Total Pension  
Appropriation

# Dedham

## CONTACT INFORMATION

202 Bussey St.  
Suite 101  
Dedham, MA 02026  
Phone 781-326-7693  
Fax 781-329-4123

## BOARD MEMBERS

Shannon MacKenzie  
Adam Satriano  
Michael Doyle  
Stephen MacDougall  
Thomas Rorrie\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Barbara Isberg

## SYSTEM MEMBERS

Active Members .....476  
Total Payroll .....\$29.5 M  
Average Salary .....\$62,000  
Average Age .....47  
Average Service ..... 10.6  
  
Retired Members .....326  
Benefits Paid .....\$10.8 M  
Average Benefit ....\$33,200  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....42  
Reported Earnings .....7  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Segal



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**\$175.3 M**  
Market Value

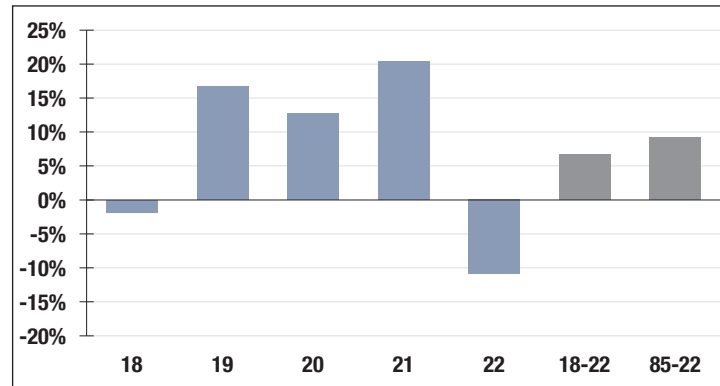
**-10.91%**  
2022 Returns

**8.38%**  
2013-2022  
(Annualized)

**9.29%**  
1985-2022  
(Annualized)

## Investment Returns

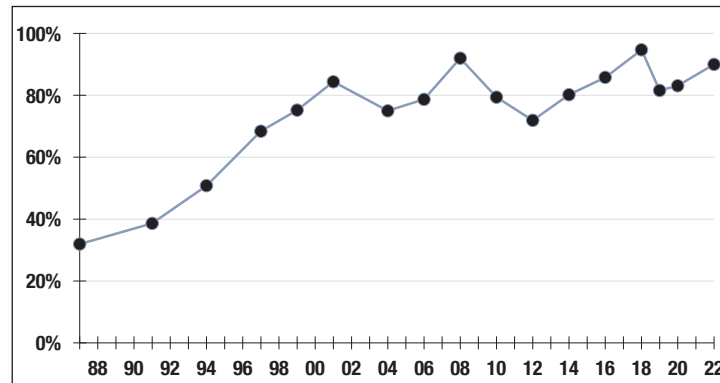
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**90.0%**

Funded Ratio

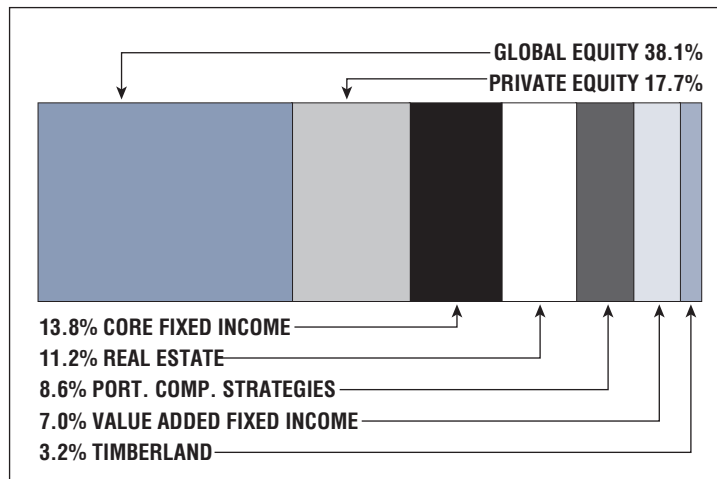
**2029**

Fully Funded

**2.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$20.2 M**

Unfunded Liability

**\$4.7 M**  
(FY2023)

Total Pension  
Appropriation



# Dukes County

## CONTACT INFORMATION

9 Airport Road  
Suite 1  
Vineyard Haven, MA 02568  
Phone 508-696-3846  
Fax 508-696-3847

## BOARD MEMBERS

Judith Soules\*  
James Hagerty  
David Rossi  
Jo Ann Murphy  
Jonathan Snyder  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kelly McCracken

## SYSTEM MEMBERS

Active Members .....665  
Total Payroll .....\$46.3 M  
Average Salary .....\$69,600  
Average Age .....49  
Average Service .....10.1

Retired Members .....398  
Benefits Paid .....\$12.3 M  
Average Benefit ....\$30,900  
Average Age .....71

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....30  
Reported Earnings .....11  
Excess Earners .....2  
Refund Due .....\$29,855

Last Valuation: 1/1/22  
Actuary: KMS



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**\$210.3 M**  
Market Value

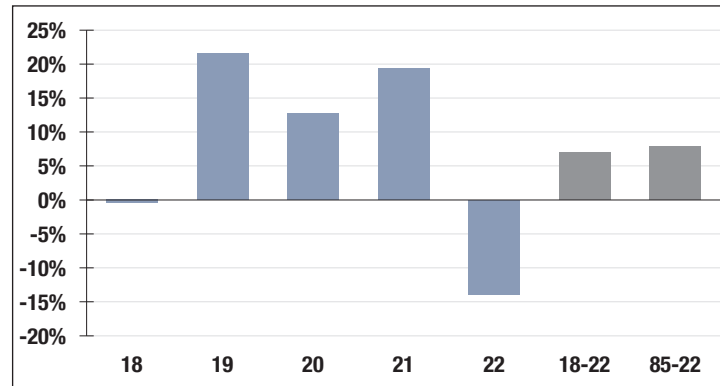
**-13.86%**  
2022 Returns

**9.02%**  
2013-2022  
[Annualized]

**7.91%**  
1985-2022  
[Annualized]

## Investment Returns

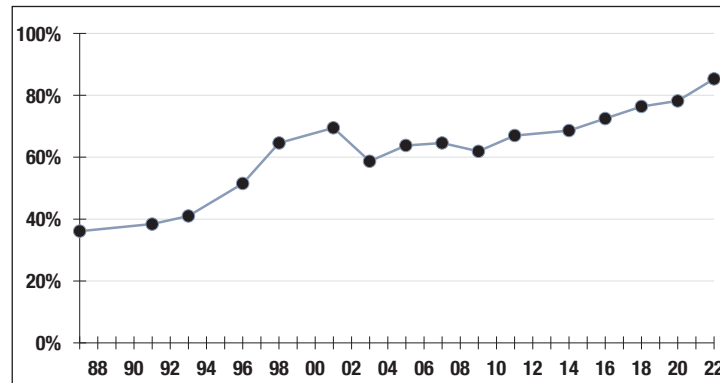
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**85.3%**

Funded Ratio

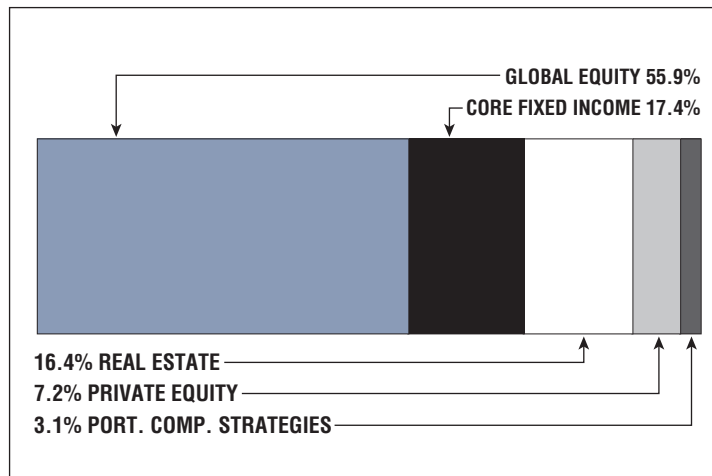
**2031**

Fully Funded

**4.51% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$37.6 M**

Unfunded Liability

**\$8.5 M**  
[FY2023]

Total Pension  
Appropriation

# Easthampton

## CONTACT INFORMATION

199 Northampton Street  
Easthampton, MA 01027  
Phone 413-203-1307  
Fax 413-203-1308

## BOARD MEMBERS

Hetal Patel  
Jessica Hebert  
David Mottor  
Donald Emerson\*  
Cornelius Sullivan  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kymme Wood

## SYSTEM MEMBERS

Active Members .....256  
Total Payroll .....\$12.8 M  
Average Salary .....\$49,900  
Average Age .....44  
Average Service .....9.4  
  
Retired Members .....188  
Benefits Paid .....\$5.1 M  
Average Benefit ....\$27,100  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....16  
Reported Earnings .....5  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$69.1 M**  
Market Value

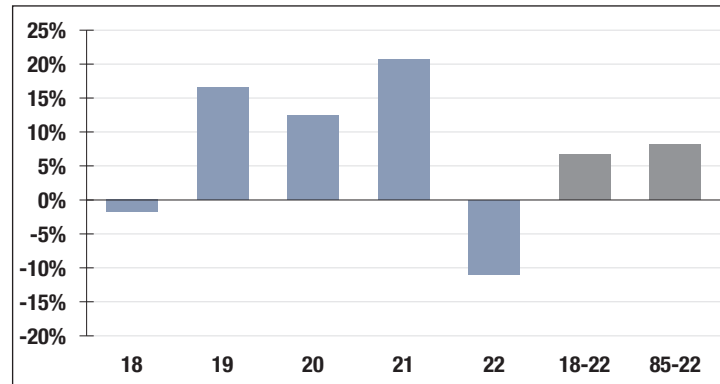
**-10.97%**  
2022 Returns

**8.31%**  
2013-2022  
(Annualized)

**8.23%**  
1985-2022  
(Annualized)

## Investment Returns

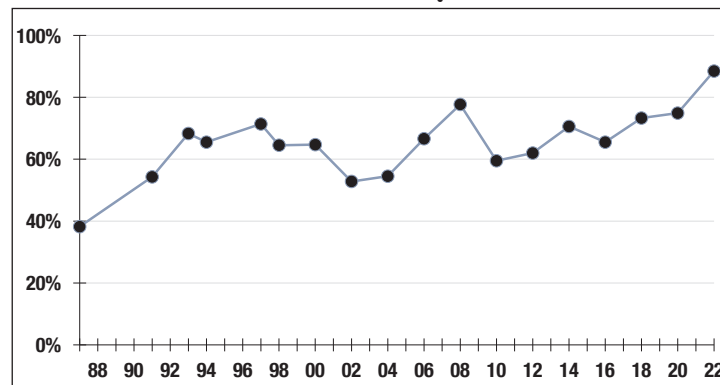
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.85%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**88.5%**

Funded Ratio

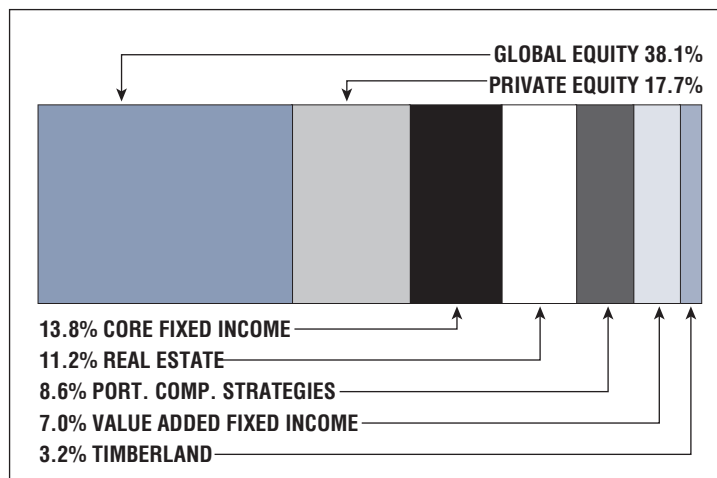
**2028**

Fully Funded

**5.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$10.2 M**

Unfunded Liability

**\$3.7 M**  
(FY2023)

Total Pension  
Appropriation

# Essex Regional

## CONTACT INFORMATION

491 Maple Street  
Building 200, Suite 202  
Danvers, MA 01923  
Phone 978-739-9151  
Fax 978-750-0745

## BOARD MEMBERS

Tracy Blais  
Kevin Merz  
Katherine Carleton  
Susan Yaskell\*  
Vincent Malgeri  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Charles Kostro

## SYSTEM MEMBERS

Active Members .....2,933  
Total Payroll .....\$160.0 M  
Average Salary .....\$54,600  
Average Age .....48  
Average Service .....10.3

Retired Members .....2,000  
Benefits Paid .....\$82.6 M  
Average Benefit ....\$41,300  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....107  
Reported Earnings .....26  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22

Actuary: Segal



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**\$626.7 M**  
Market Value

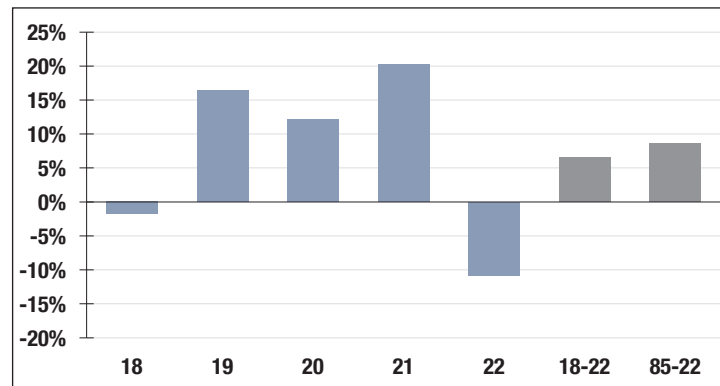
**-10.80%**  
2022 Returns

**8.34%**  
2013-2022  
[Annualized]

**8.62%**  
1985-2022  
[Annualized]

## Investment Returns

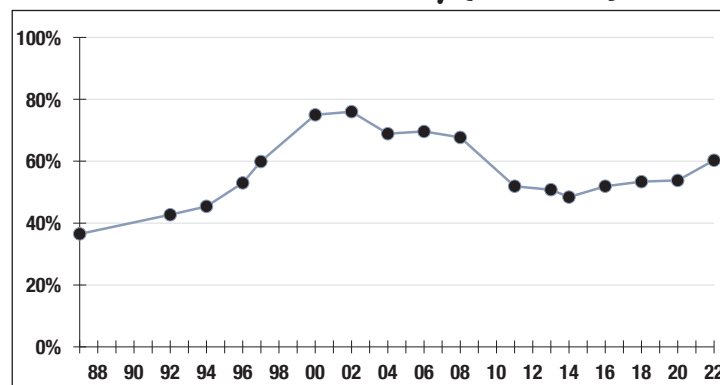
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**60.3%**

Funded Ratio

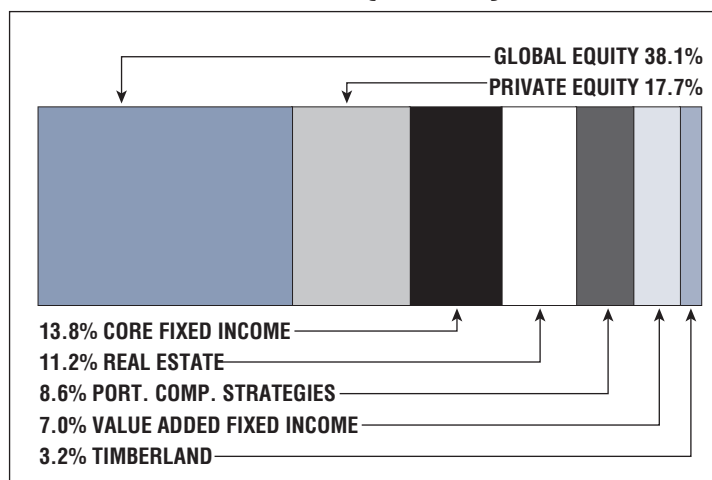
**2035**

Fully Funded

Varies Increasing  
Phase-In

Funding Schedule

## Asset Allocation (12/31/22)



**\$417.8 M**

Unfunded Liability

**\$44.5 M**  
[FY2023]

Total Pension  
Appropriation

# Everett

## CONTACT INFORMATION

City Hall  
484 Broadway, Room 30  
Everett, MA 02149  
Phone 617-394-2310  
Fax 617-381-7016

## BOARD MEMBERS

Eric Demas  
Keith Slattery  
Maria Bussell  
William Pierce\*  
Peter Cocciardi  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Robert Shaw

## SYSTEM MEMBERS

Active Members .....716  
Total Payroll .....\$51.2 M  
Average Salary .....\$71,500  
Average Age .....46  
Average Service .....11.2

Retired Members .....512  
Benefits Paid .....\$16.3 M  
Average Benefit ....\$31,900  
Average Age .....75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....55  
Reported Earnings .....12  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$242.5 M**  
Market Value

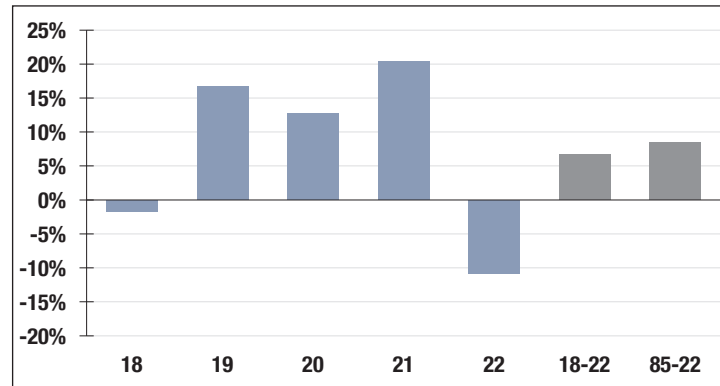
**-10.82%**  
2022 Returns

**8.40%**  
2013-2022  
[Annualized]

**8.40%**  
1985-2022  
[Annualized]

## Investment Returns

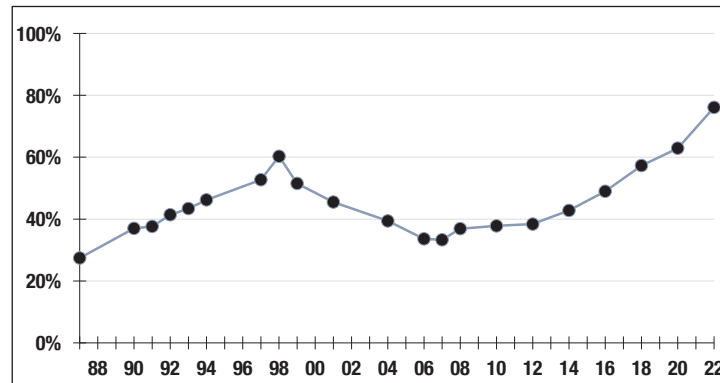
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**76.1%**

Funded Ratio

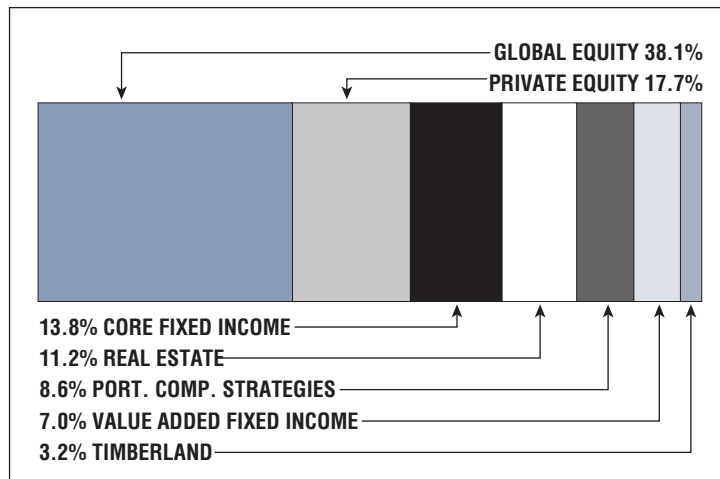
**2028**

Fully Funded

**5.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$75.2 M**

Unfunded Liability

**\$19.1 M**  
[FY2023]

Total Pension  
Appropriation



# Fairhaven

## CONTACT INFORMATION

Town Hall  
40 Centre Street  
Fairhaven, MA 02719  
Phone 508-979-4023  
Fax 508-993-9486

## BOARD MEMBERS

Anne Carreiro\*  
Mark Rees  
Timothy Cox  
Wally Therrien  
Alfred Robichaud  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Mary Sturgeon

## SYSTEM MEMBERS

Active Members .....259  
Total Payroll .....\$14.0 M  
Average Salary .....\$54,200  
Average Age .....46  
Average Service .....11.8  
  
Retired Members .....204  
Benefits Paid .....\$5.0 M  
Average Benefit ....\$24,600  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....24  
Reported Earnings .....10  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$82.5 M**  
Market Value

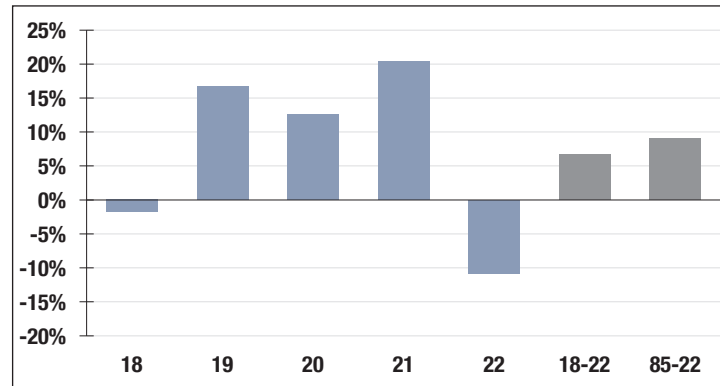
**-10.87%**  
2022 Returns

**8.30%**  
2013-2022  
(Annualized)

**9.10%**  
1985-2022  
(Annualized)

## Investment Returns

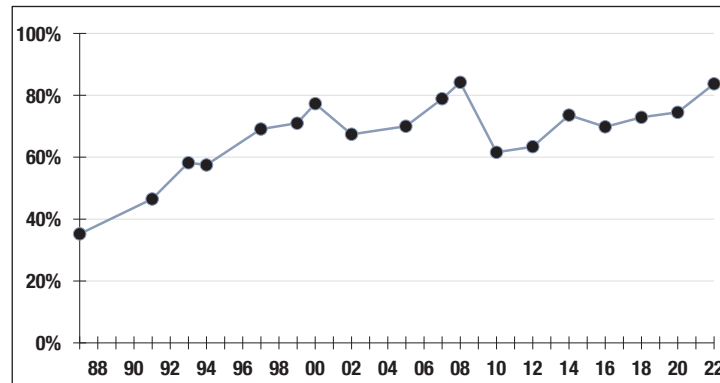
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**83.7%**

Funded Ratio

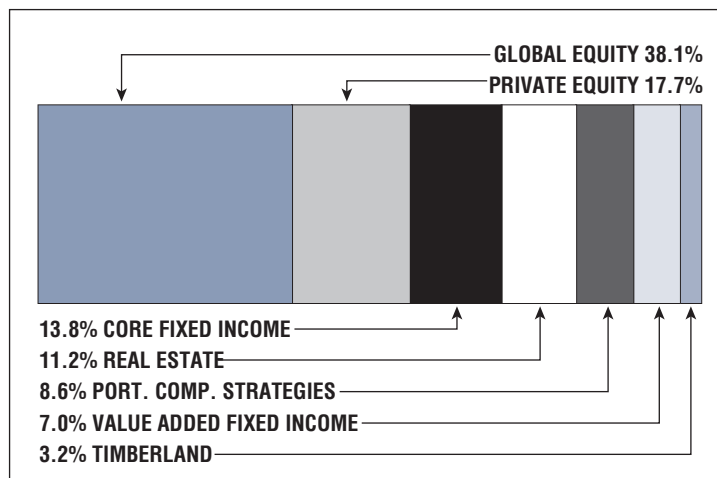
**2031**

Fully Funded

**5.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$16.4 M**

Unfunded Liability

**\$3.9 M**  
(FY2023)

Total Pension  
Appropriation

# Fall River

## CONTACT INFORMATION

21 Father Devalles Blvd.  
Suite GR1, Box 14  
Fall River, MA 02723  
Phone 508-646-9120  
Fax 508-646-9123

## BOARD MEMBERS

Bridget Almon  
Mark Nassiff  
James Machado  
Robert Camara  
Arthur Viana\*

\*indicates Chairperson

## BOARD ADMINISTRATOR

Michael Pasternak

## SYSTEM MEMBERS

Active Members ..... 1,662  
Total Payroll ..... \$84.6 M  
Average Salary ..... \$50,900  
Average Age ..... 45  
Average Service ..... 11.7

Retired Members ..... 1,533  
Benefits Paid ..... \$43.0 M  
Average Benefit .... \$28,000  
Average Age ..... 73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 191  
Reported Earnings ..... 51  
Excess Earners ..... 4  
Refund Due ..... \$127,239

Last Valuation: 1/1/21

Actuary: PERAC



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**\$336.6 M**  
Market Value

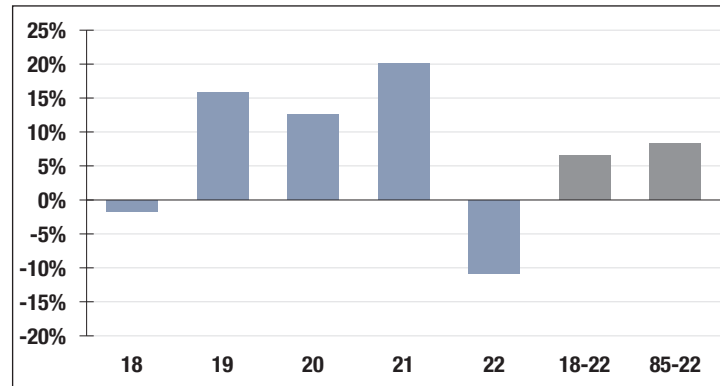
**-10.82%**  
2022 Returns

**8.11%**  
2013-2022  
(Annualized)

**8.28%**  
1985-2022  
(Annualized)

## Investment Returns

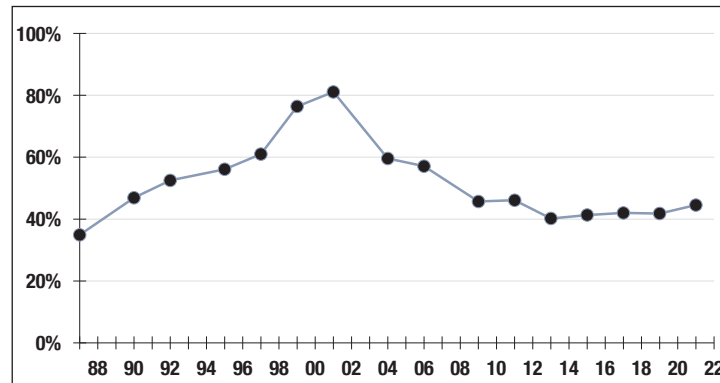
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**44.5%**

Funded Ratio

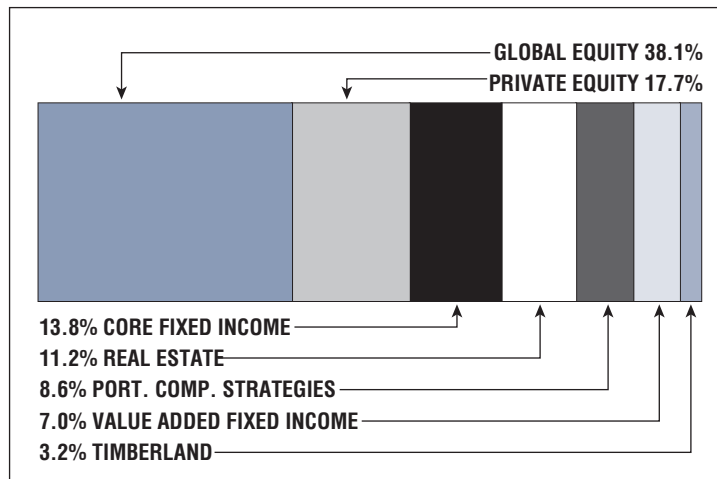
**2035**

Fully Funded

**7.5% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$396.6 M**

Unfunded Liability

**\$40.5 M**  
(FY2023)

Total Pension  
Appropriation

# Falmouth

## CONTACT INFORMATION

80 Davis Straits  
Suite 102  
Falmouth, MA 02540  
Phone 508-457-0578  
Fax 508-540-9962

## BOARD MEMBERS

Victoria Rose  
Paul Slivinski  
Craig O'Malley  
Scott Starbard  
Ellen Philbin\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Francis St. Germaine

## SYSTEM MEMBERS

Active Members .....644  
Total Payroll .....\$35.7 M  
Average Salary .....\$55,400  
Average Age .....48  
Average Service .....11.4

Retired Members .....435  
Benefits Paid .....\$13.7 M  
Average Benefit ....\$31,500  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....39  
Reported Earnings .....14  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$181.7 M**  
Market Value

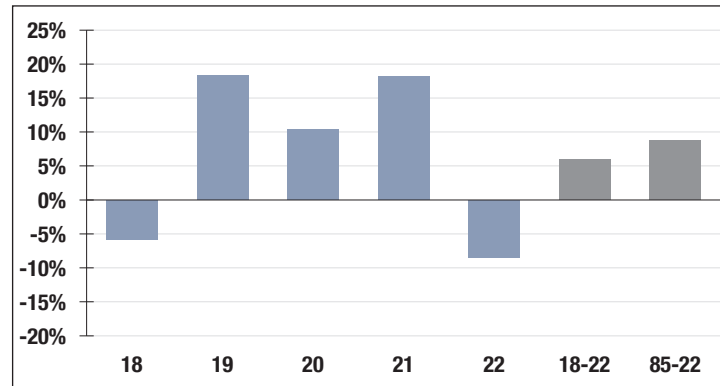
**-8.49%**  
2022 Returns

**8.09%**  
2013-2022  
(Annualized)

**8.73%**  
1985-2022  
(Annualized)

## Investment Returns

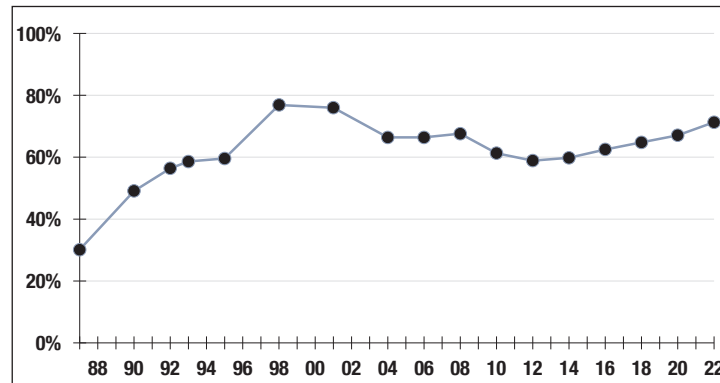
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**71.3%**

Funded Ratio

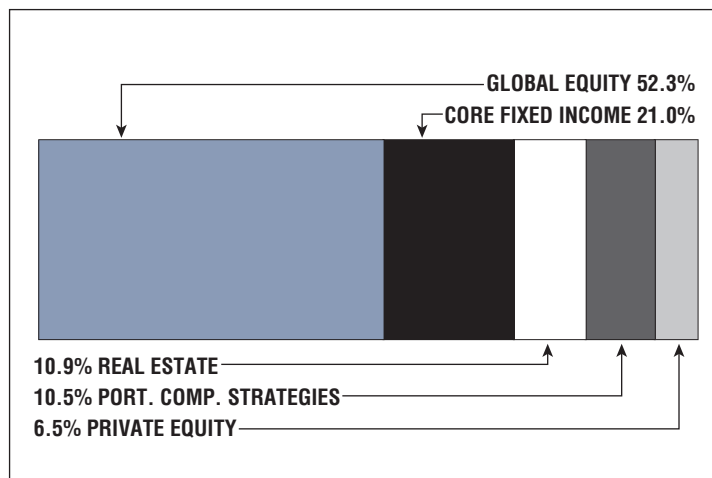
**2033**

Fully Funded

**Varies Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$72.7 M**

Unfunded Liability

**\$10.4 M**  
(FY2023)

Total Pension  
Appropriation

# Fitchburg

## CONTACT INFORMATION

718 Main Street  
Fitchburg, MA 01420  
Phone 978-829-1843  
Fax 978 829-1973

## BOARD MEMBERS

Jacquelyn Cronin  
Mary Cringan  
Anna Farrell  
Thomas Dateo\*  
John Brown

\*indicates Chairperson

## BOARD ADMINISTRATOR

Tina Schneider

## SYSTEM MEMBERS

Active Members .....643  
Total Payroll .....\$34.5 M  
Average Salary .....\$53,700  
Average Age .....46  
Average Service .....11

Retired Members .....601  
Benefits Paid .....\$18.5 M  
Average Benefit ....\$30,800  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....55  
Reported Earnings .....14  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Stone



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**\$157.3 M**  
Market Value

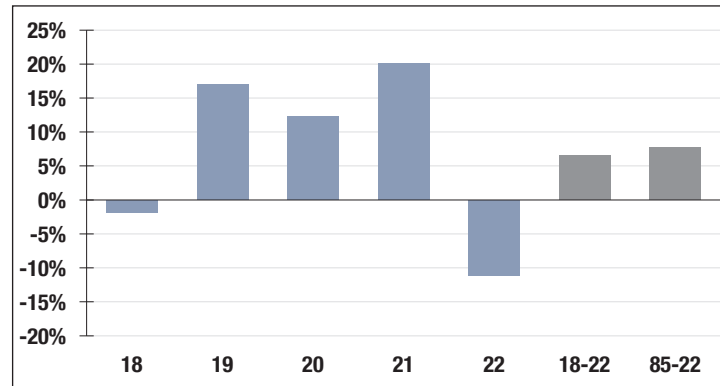
**-11.12%**  
2022 Returns

**8.15%**  
2013-2022  
[Annualized]

**7.68%**  
1985-2022  
[Annualized]

## Investment Returns

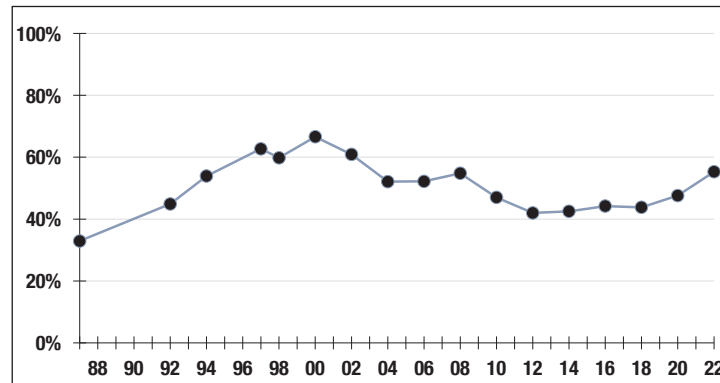
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**55.3%**

Funded Ratio

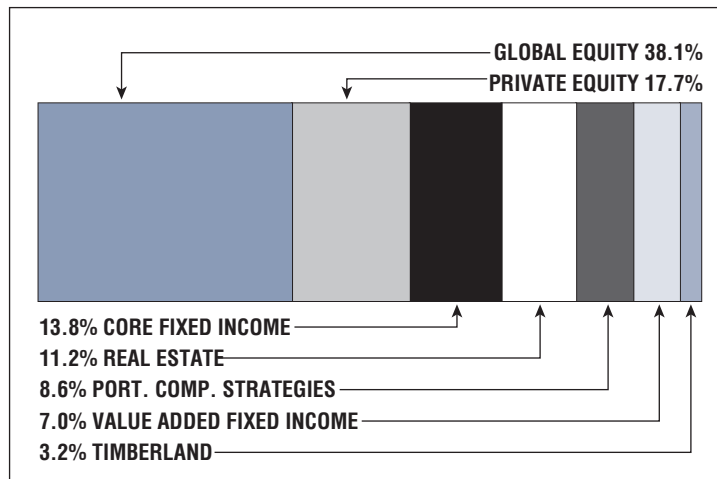
**2033**

Fully Funded

**5.5% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$132.4 M**

Unfunded Liability

**\$16.2 M**  
[FY2023]

Total Pension  
Appropriation



# Framingham

## CONTACT INFORMATION

150 Concord Street  
Memorial Bldg, Room B-31  
Framingham, MA 01702  
Phone 508-532-5465  
Fax 508-532-5757

## BOARD MEMBERS

Louise Miller  
Joseph Fonseca  
Peter Rovinelli  
John White  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Laurie Lizak

## SYSTEM MEMBERS

Active Members ..... 1,271  
Total Payroll ..... \$74.6 M  
Average Salary ..... \$58,700  
Average Age ..... 46  
Average Service ..... 10.2

Retired Members ..... 901  
Benefits Paid ..... \$29.1 M  
Average Benefit ..... \$32,300  
Average Age ..... 73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 64  
Reported Earnings ..... 16  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22  
Actuary: PERAC



Click/Scan for Website

**\$410.6 M**  
Market Value

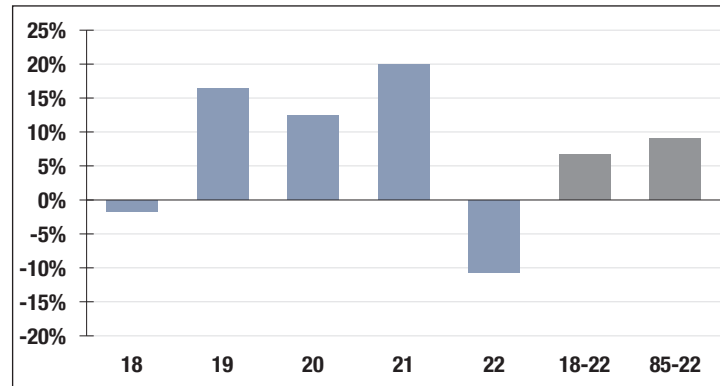
**-10.65%**  
2022 Returns

**8.26%**  
2013-2022  
[Annualized]

**9.07%**  
1985-2022  
[Annualized]

## Investment Returns

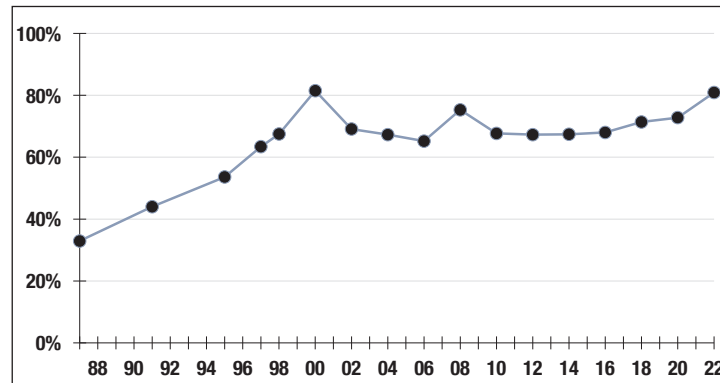
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**80.9%**

Funded Ratio

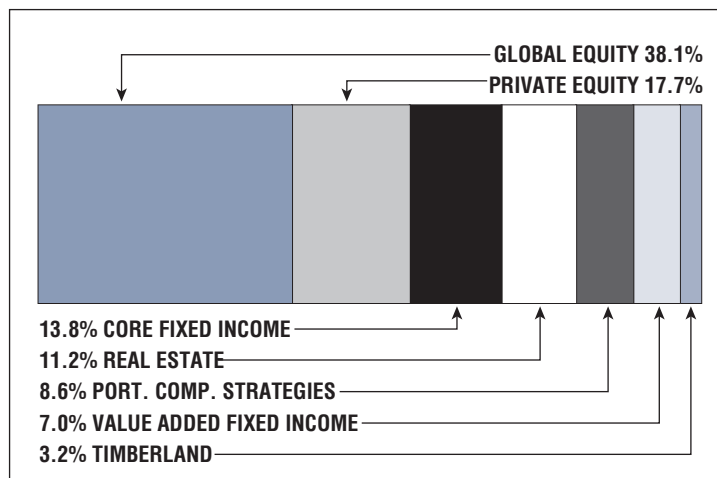
**2030**

Fully Funded

**5.5% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$98.4 M**

Unfunded Liability

**\$21.2 M**  
[FY2023]

Total Pension  
Appropriation

# Franklin Regional

## CONTACT INFORMATION

101 Munson Street  
Suite 108  
Greenfield, MA 01301  
Phone 413-774-4837

## BOARD MEMBERS

Sandra Hanks\*  
Angel Bragdon  
Gabriele Voelker  
Mary Stokarski  
Paul Mokrzecki  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Dale Kowacki

## SYSTEM MEMBERS

Active Members .....993  
Total Payroll .....\$41.3 M  
Average Salary .....\$41,600  
Average Age .....48  
Average Service .....9.5

Retired Members .....675  
Benefits Paid .....\$12.3 M  
Average Benefit ....\$18,300  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....25  
Reported Earnings .....4  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: KMS



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**\$178.6 M**  
Market Value

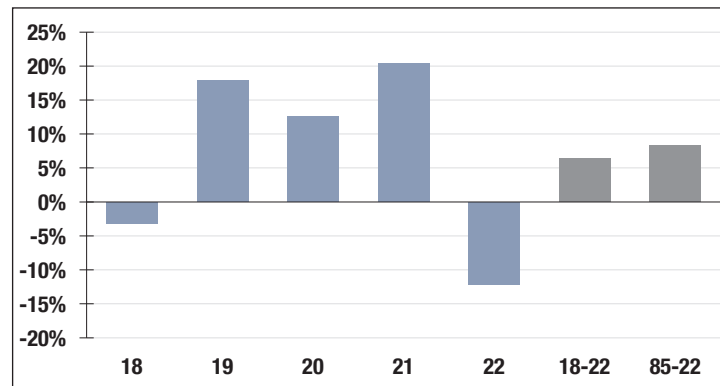
**-12.16%**  
2022 Returns

**8.45%**  
2013-2022  
[Annualized]

**8.28%**  
1985-2022  
[Annualized]

## Investment Returns

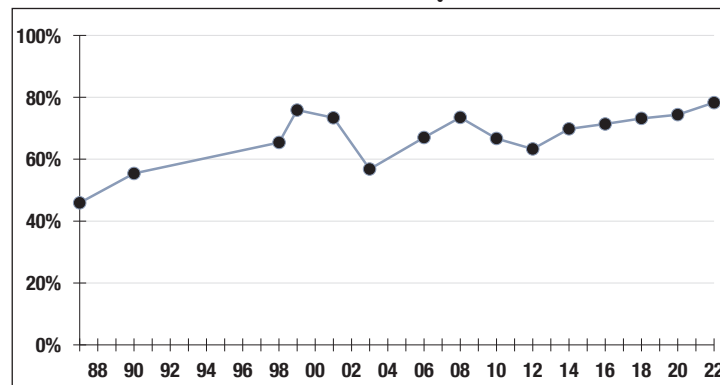
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**78.3%**

Funded Ratio

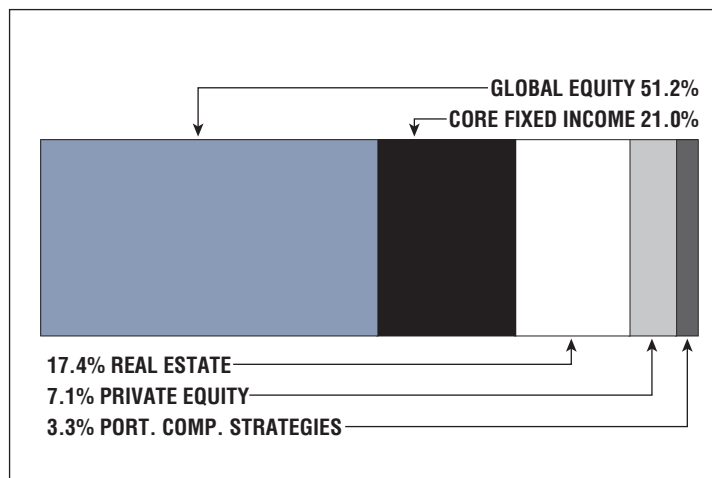
**2034**

Fully Funded

**5.94% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$50.9 M**

Unfunded Liability

**\$8.3 M**  
[FY2023]

Total Pension  
Appropriation

# Gardner

## CONTACT INFORMATION

City Hall, Room 17  
95 Pleasant Street  
Gardner, MA 01440  
Phone 978-630-4006  
Fax 978-630-4012

## BOARD MEMBERS

John Richard  
Kevin McInerney  
Denise Merriam\*  
Robert Newton  
Neil Janssens  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Cheryl Bosse

## SYSTEM MEMBERS

Active Members .....313  
Total Payroll .....\$15.5 M  
Average Salary .....\$49,500  
Average Age .....44  
Average Service .....8.9

Retired Members .....268  
Benefits Paid .....\$7.0 M  
Average Benefit ....\$26,200  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....19  
Reported Earnings .....4  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22

Actuary: Stone



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**\$69.0 M**  
Market Value

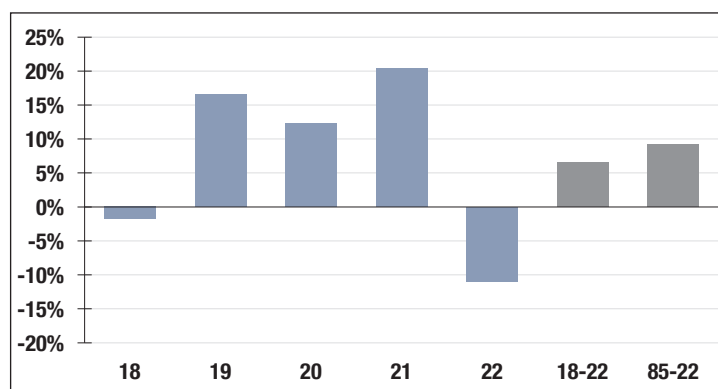
**-11.04%**  
2022 Returns

**8.27%**  
2013-2022  
(Annualized)

**9.17%**  
1985-2022  
(Annualized)

## Investment Returns

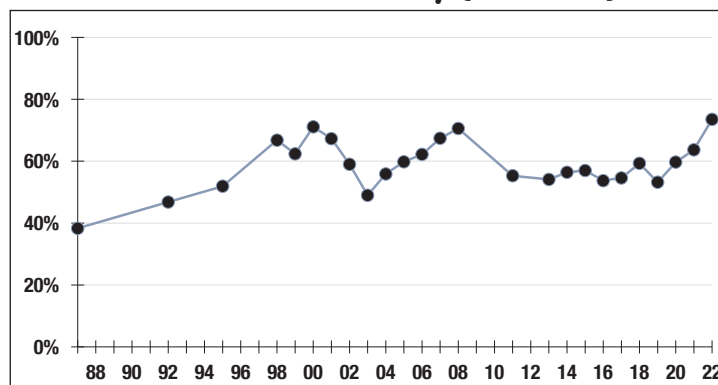
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**73.5%**

Funded Ratio

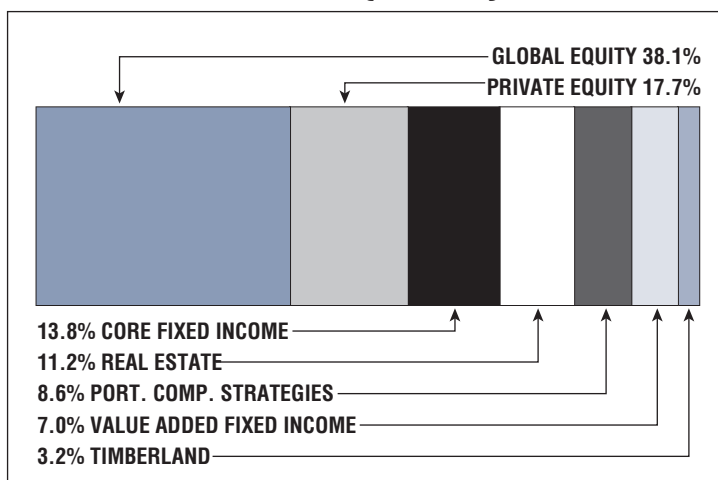
**2029**

Fully Funded

**7.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$28.4 M**

Unfunded Liability

**\$5.4 M**  
(FY2023)

Total Pension  
Appropriation

# Gloucester

## CONTACT INFORMATION

P.O. Box 114  
Gloucester, MA 01931  
Phone 978-281-9744  
Fax 978-281-9817

## BOARD MEMBERS

Kenny Costa  
Donna Leete  
Douglas MacArthur\*  
James Hannon  
Juanita Escobar  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Patricia Ivas

## SYSTEM MEMBERS

Active Members .....555  
Total Payroll .....\$34.8 M  
Average Salary .....\$62,700  
Average Age .....49  
Average Service .....11.8

Retired Members .....491  
Benefits Paid .....\$14.4 M  
Average Benefit ....\$29,400  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....35  
Reported Earnings .....7  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Segal



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**\$143.3 M**  
Market Value

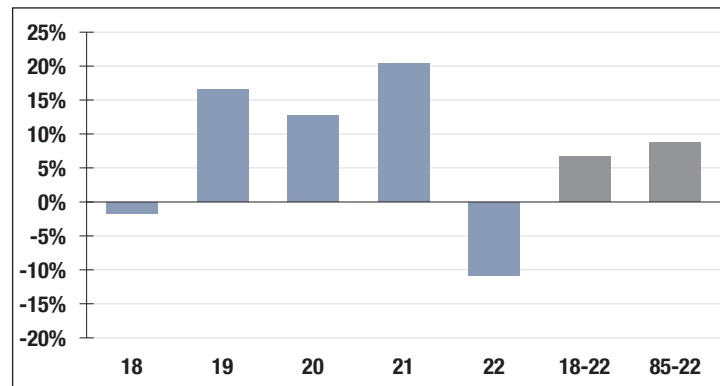
**-10.78%**  
2022 Returns

**8.34%**  
2013-2022  
[Annualized]

**8.74%**  
1985-2022  
[Annualized]

## Investment Returns

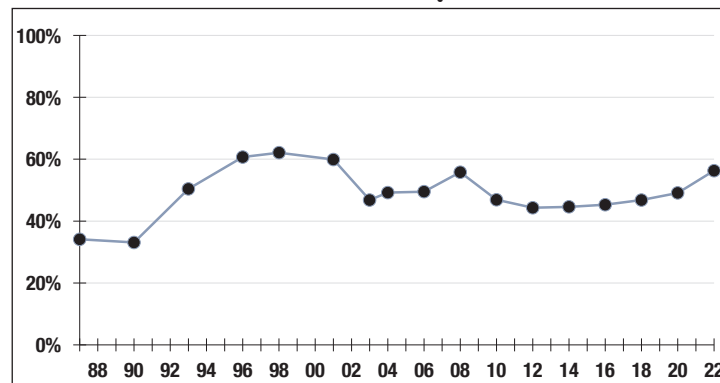
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**56.3%**

Funded Ratio

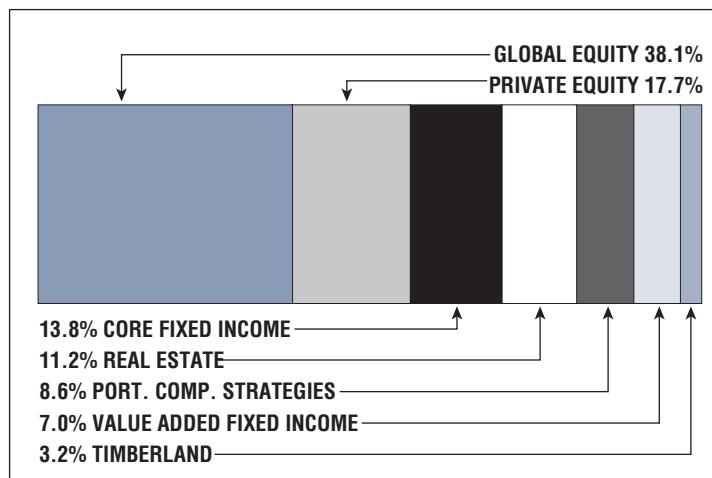
**2034**

Fully Funded

**6.8% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$112.6 M**

Unfunded Liability

**\$12.4 M**  
[FY2023]

Total Pension  
Appropriation

# Greater Lawrence Sanitary District

## CONTACT INFORMATION

240 Charles Street  
P.O. Box 187  
North Andover, MA 01845  
Phone 978-689-9464  
Fax 978-685-7790

## BOARD MEMBERS

Joseph Quartarone  
Laurie Elliott  
Michael Gagnon  
Sandra Grenier\*  
Ronald Pollone

\*indicates Chairperson

## BOARD ADMINISTRATOR

Heather Thibeault

## SYSTEM MEMBERS

Active Members .....40  
Total Payroll .....\$2.8 M  
Average Salary .....\$69,400  
Average Age .....48  
Average Service .....13.3  
  
Retired Members .....38  
Benefits Paid .....\$1.2 M  
Average Benefit ....\$31,800  
Average Age .....70

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....1  
Reported Earnings .....0  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21

Actuary: PERAC



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**\$22.4 M**  
Market Value

**-17.25%**  
2022 Returns

**8.99%**  
2013-2022  
(Annualized)

**7.78%**  
1985-2022  
(Annualized)

## Investment Returns

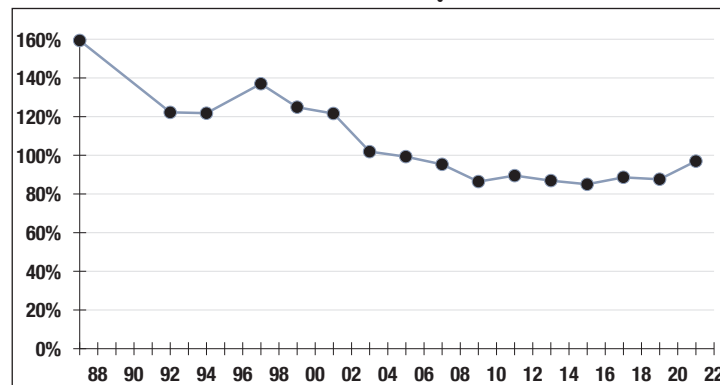
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**97.0%**

Funded Ratio

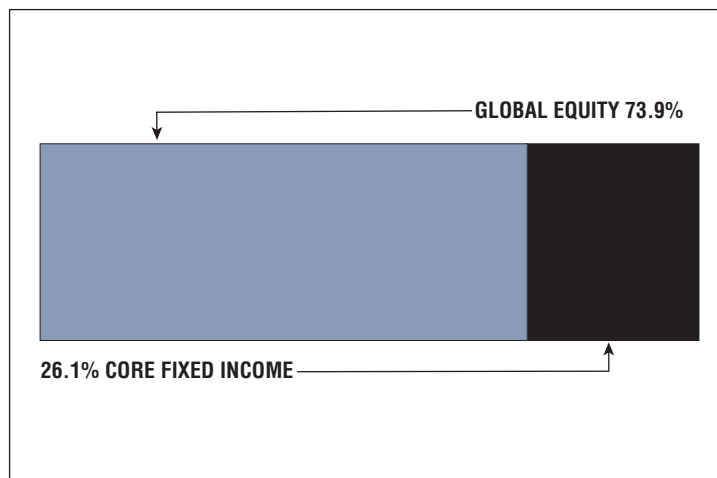
**2027**

Fully Funded

**9.73% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$687 K**

Unfunded Liability

**\$472 K**  
(FY2023)

Total Pension  
Appropriation



# Greenfield

## CONTACT INFORMATION

Town Hall  
14 Court Square  
Greenfield, MA 01301  
Phone 413-772-1503  
Fax 413-772-1582

## BOARD MEMBERS

Angelica Desroches  
Marianne Fiske  
Kyle Phelps  
William Devino\*  
Deborah Frentzos  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Shari Hildreth

## SYSTEM MEMBERS

Active Members .....451  
Total Payroll .....\$20.0 M  
Average Salary .....\$44,300  
Average Age .....46  
Average Service .....9  
  
Retired Members .....308  
Benefits Paid .....\$7.8 M  
Average Benefit ....\$25,400  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....18  
Reported Earnings .....8  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$90.2 M**  
Market Value

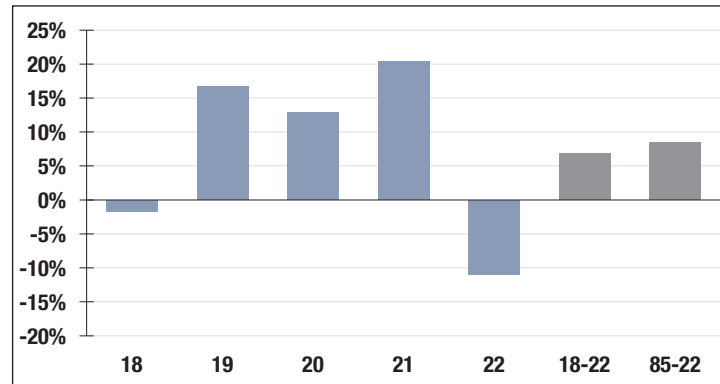
**-10.95%**  
2022 Returns

**8.39%**  
2013-2022  
(Annualized)

**8.44%**  
1985-2022  
(Annualized)

## Investment Returns

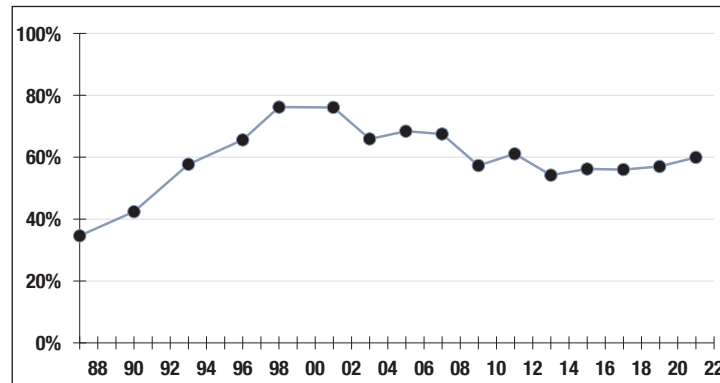
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**59.9%**

Funded Ratio

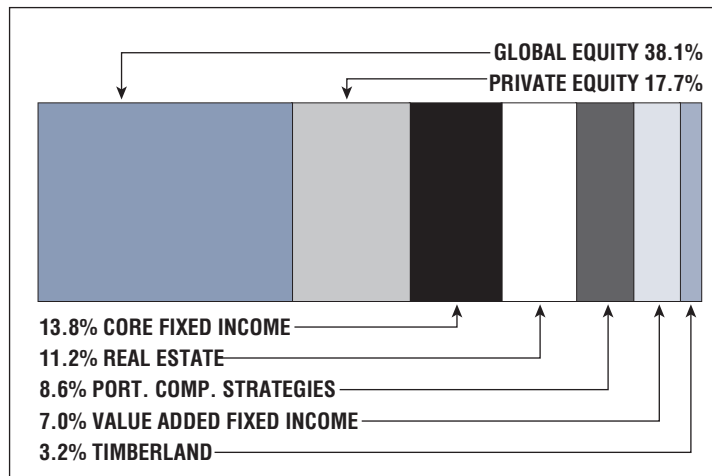
**2035**

Fully Funded

**7.1% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$54.3 M**

Unfunded Liability

**\$6.5 M**  
(FY2023)

Total Pension  
Appropriation

# Hampden County

## CONTACT INFORMATION

Agawam Corporate Center  
67 Hunt Street, Suite 116  
Agawam, MA 01001  
Phone 413-737-1344  
Fax 413-732-7999

## BOARD MEMBERS

Karl Schmaelzle\*  
Michelle Hill  
Robert Taylor  
Thomas Sullivan  
Patrick O'Neil

\*indicates Chairperson

## BOARD ADMINISTRATOR

Karen Martin

## SYSTEM MEMBERS

Active Members .....2,824  
Total Payroll .....\$120.1 M  
Average Salary .....\$42,500  
Average Age .....48  
Average Service ..... 10.7

Retired Members .....1,952  
Benefits Paid .....\$48.6 M  
Average Benefit ....\$24,900  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....102  
Reported Earnings .....27  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22

Actuary: Segal



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**\$476.0 M**  
Market Value

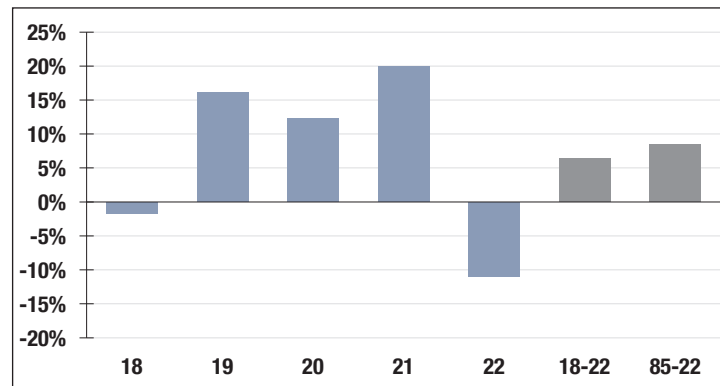
**-10.94%**  
2022 Returns

**8.11%**  
2013-2022  
(Annualized)

**8.47%**  
1985-2022  
(Annualized)

## Investment Returns

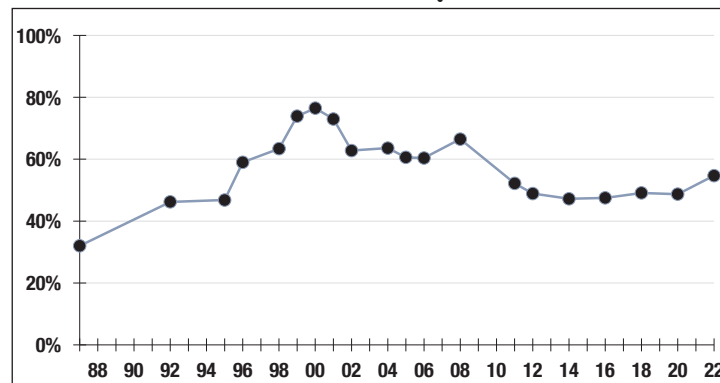
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**54.7%**

Funded Ratio

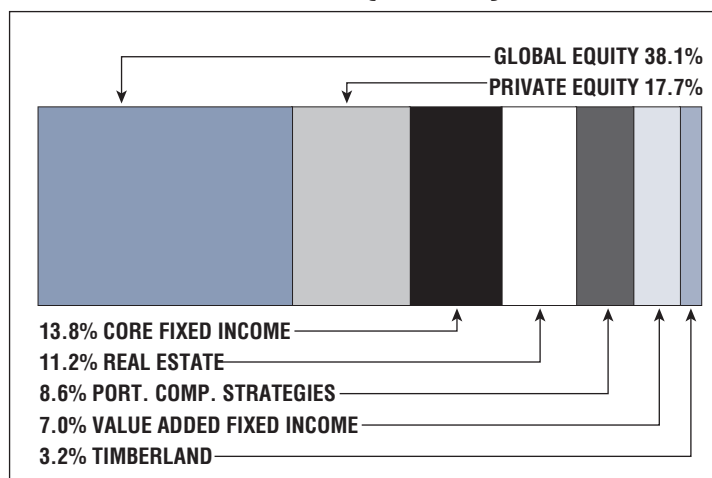
**2036**

Fully Funded

**Varies Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$401.7 M**

Unfunded Liability

**\$39.6 M**  
(FY2023)

Total Pension  
Appropriation

# Hampshire County

## CONTACT INFORMATION

99 Industrial Drive  
Suite 2  
Northampton, MA 01060-2326  
Phone 413-584-9100  
Fax 413-587-9396

## BOARD MEMBERS

Patrick Brock\*  
Jane Wolfe  
Harry Chadwick  
Sean Mangano  
Joe Cook  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Mary Baronas

## SYSTEM MEMBERS

Active Members ..... 1,981  
Total Payroll ..... \$96.0 M  
Average Salary ..... \$48,500  
Average Age ..... 47  
Average Service ..... 10.1

Retired Members ..... 1,392  
Benefits Paid ..... \$33.4 M  
Average Benefit .... \$24,000  
Average Age ..... 72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 77  
Reported Earnings ..... 29  
Excess Earners ..... 2  
Refund Due ..... \$32,941

Last Valuation: 1/1/22

Actuary: KMS



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**\$427.4 M**  
Market Value

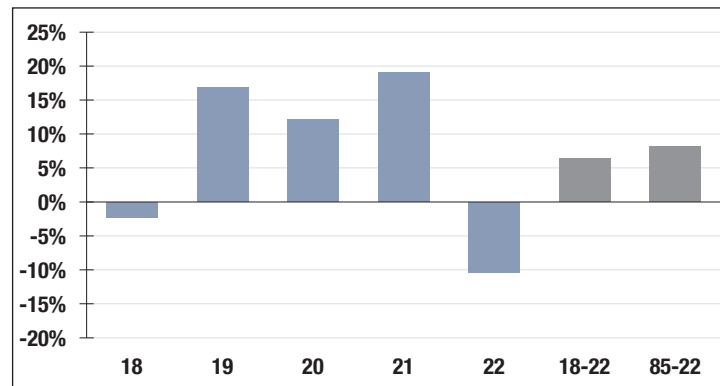
**-10.39%**  
2022 Returns

**7.44%**  
2013-2022  
(Annualized)

**8.18%**  
1985-2022  
(Annualized)

## Investment Returns

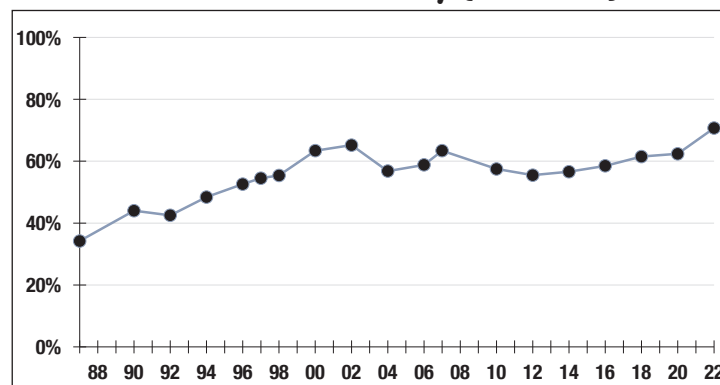
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.90%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**70.7%**

Funded Ratio

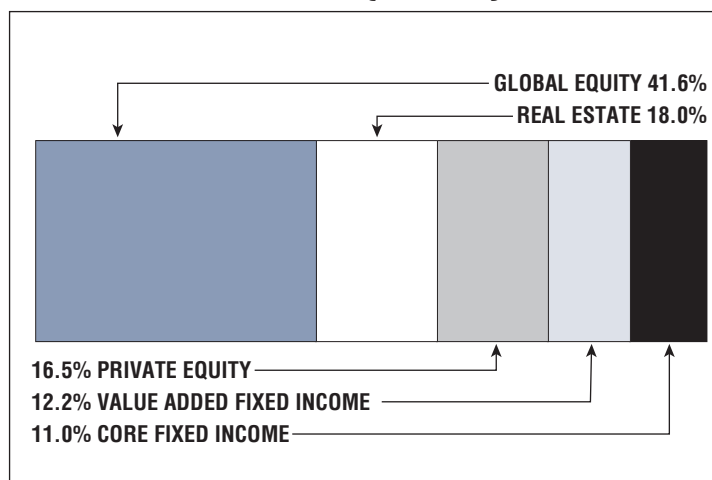
**2032**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$177.4 M**

Unfunded Liability

**\$30.7 M**  
(FY2023)

Total Pension  
Appropriation

# Haverhill

## CONTACT INFORMATION

4 Summer Street  
Room 303  
Haverhill, MA 01830-5843  
Phone 978-374-2358  
Fax 978-374-2353

## BOARD MEMBERS

Angel Perkins  
Richard MacDonald  
Anthony Haugh  
William Klueber\*  
James Cleary  
\*indicates Chairperson

## BOARD ADMINISTRATOR

David Van Dam

## SYSTEM MEMBERS

Active Members ..... 1,063  
Total Payroll ..... \$53.7 M  
Average Salary ..... \$50,500  
Average Age ..... 46  
Average Service ..... 10

Retired Members ..... 1,064  
Benefits Paid ..... \$27.8 M  
Average Benefit .... \$26,100  
Average Age ..... 74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 57  
Reported Earnings ..... 15  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22  
Actuary: KMS



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**\$263.8 M**  
Market Value

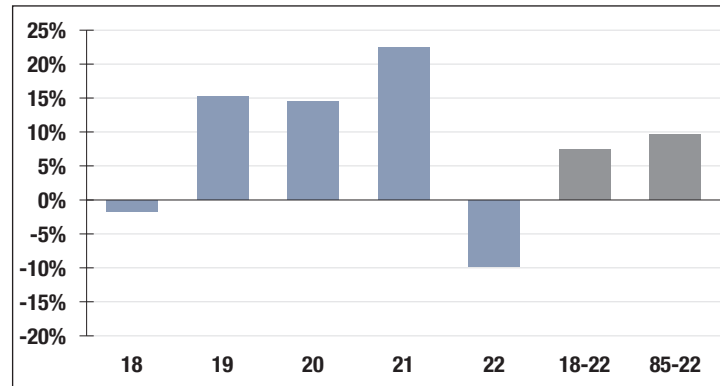
**-9.75%**  
2022 Returns

**8.49%**  
2013-2022  
[Annualized]

**9.71%**  
1985-2022  
[Annualized]

## Investment Returns

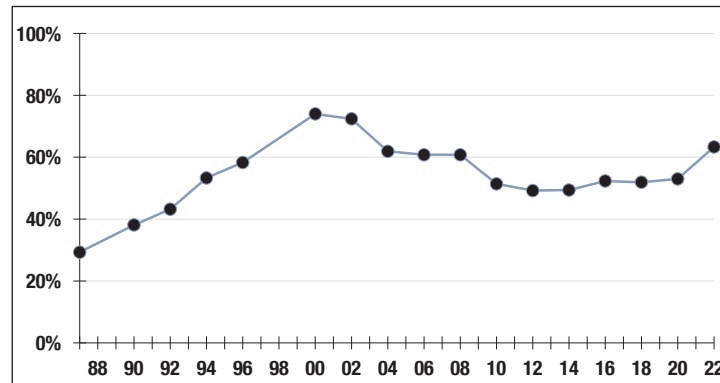
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**63.3%**

Funded Ratio

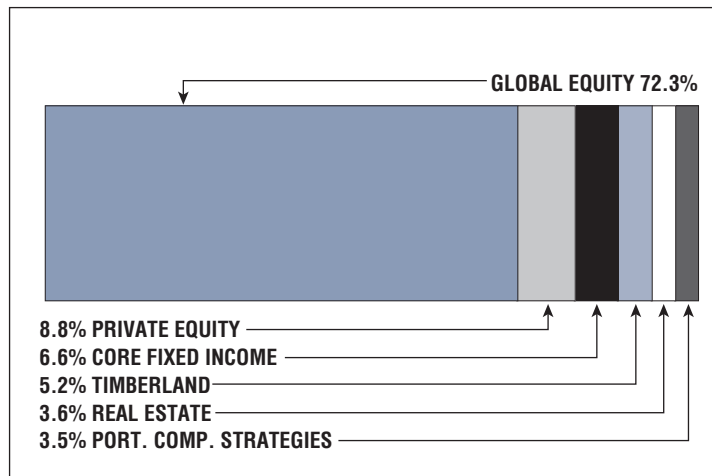
**2032**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$153.8 M**

Unfunded Liability

**\$23.6 M**  
[FY2023]

Total Pension  
Appropriation

# Hingham

## CONTACT INFORMATION

210 Central Street  
Hingham, MA 02043-2758  
Phone 781-804-2478  
Fax 781-804-2444

## BOARD MEMBERS

Susan Nickerson\*

Eileen McCracken

David Jones

Jean Montgomery

Charles Cristello

\*indicates Chairperson

## BOARD ADMINISTRATOR

Maressa Orellana

## SYSTEM MEMBERS

Active Members .....610  
Total Payroll .....\$35.7 M  
Average Salary .....\$58,600  
Average Age .....48  
Average Service .....10.1

Retired Members .....359  
Benefits Paid .....\$10.9 M  
Average Benefit ....\$30,300  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....10  
Reported Earnings .....1  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: KMS



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**\$153.1 M**  
Market Value

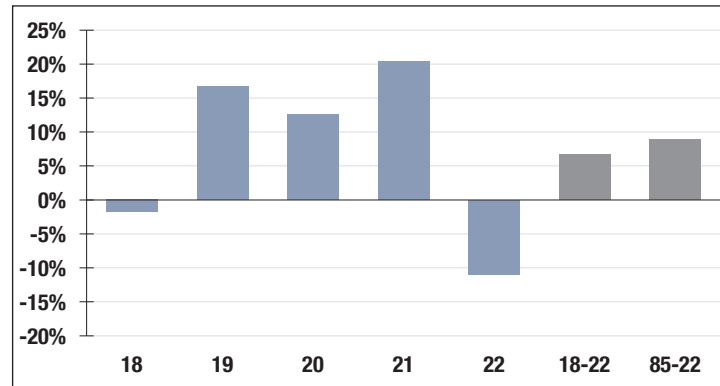
**-10.94%**  
2022 Returns

**7.85%**  
2013-2022  
(Annualized)

**8.93%**  
1985-2022  
(Annualized)

## Investment Returns

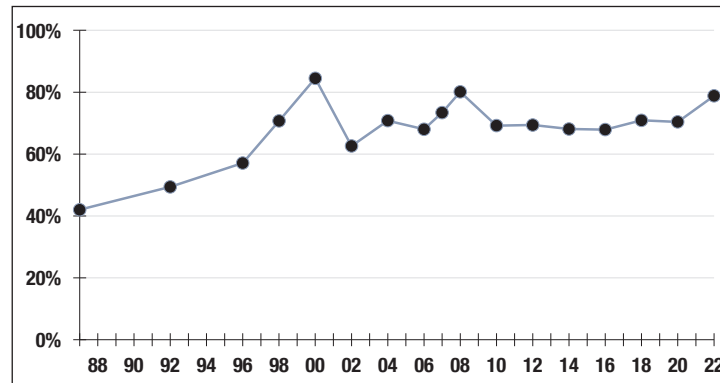
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**78.8%**

Funded Ratio

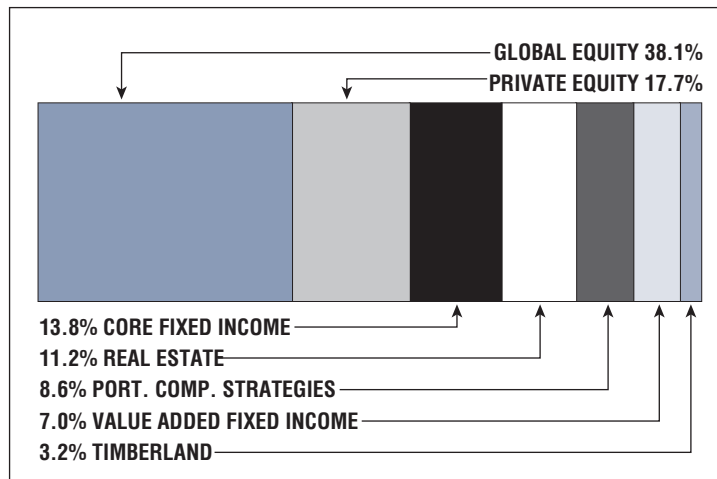
**2033**

Fully Funded

**4.0% Increasing  
Phase-In**

Funding Schedule

## Asset Allocation (12/31/22)



**\$42.2 M**

Unfunded Liability

**\$6.6 M**  
(FY2023)

Total Pension  
Appropriation



# Holyoke

## CONTACT INFORMATION

20 Korean Veterans Plaza  
Room 207  
Holyoke, MA 01040-5044  
Phone 413-322-5590  
Fax 413-322-5591

## BOARD MEMBERS

Tanya Wdowiak  
Todd McGee  
Cheryl Dugre  
John McCarthy\*  
Michele Aubrey  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Anthony Dulude

## SYSTEM MEMBERS

Active Members ..... 1,168  
Total Payroll ..... \$66.2 M  
Average Salary ..... \$56,700  
Average Age ..... 44  
Average Service ..... 11

Retired Members ..... 980  
Benefits Paid ..... \$29.7 M  
Average Benefit .... \$30,300  
Average Age ..... 73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 74  
Reported Earnings ..... 15  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22  
Actuary: Segal



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**\$370.2 M**  
Market Value

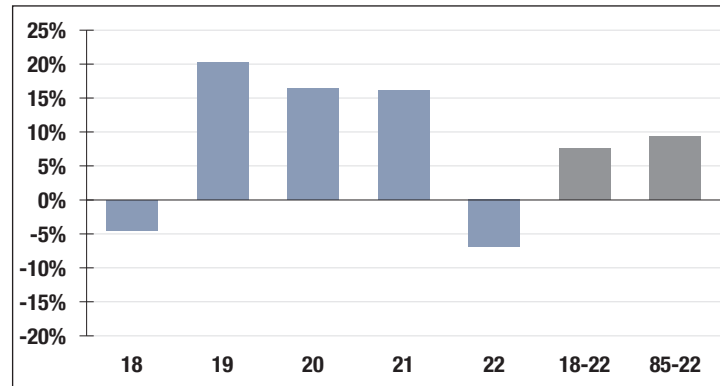
**-6.92%**  
2022 Returns

**9.37%**  
2013-2022  
[Annualized]

**9.32%**  
1985-2022  
[Annualized]

## Investment Returns

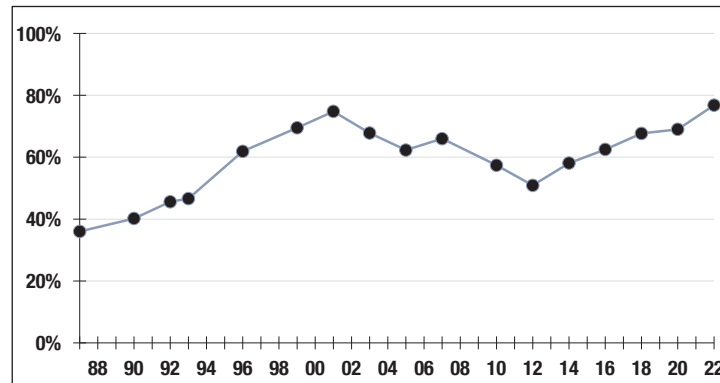
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**76.8%**

Funded Ratio

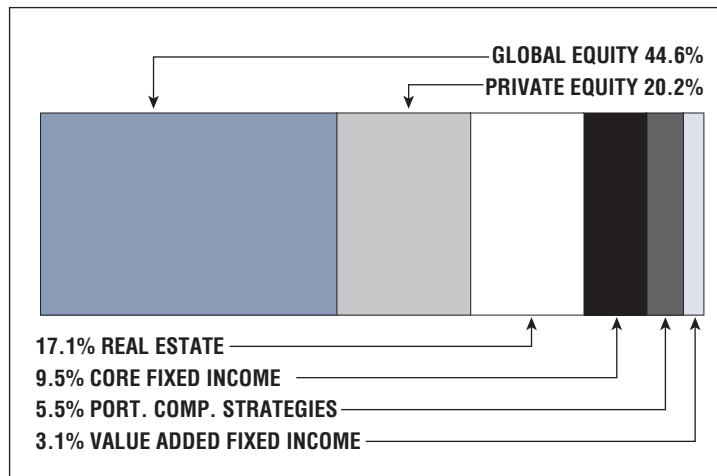
**2033**

Fully Funded

**1.75% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$113.8 M**

Unfunded Liability

**\$18.4 M**  
[FY2023]

Total Pension  
Appropriation

## CONTACT INFORMATION

253 Atlantic Avenue  
2nd Floor  
Hull, MA 02045  
Phone 781-925-2282  
Fax 781-925-8509

## BOARD MEMBERS

J. Michael Buckley\*  
Eileen White  
Bartley Kelly  
Jason Harris  
Gregory Galvin  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Darrell Bright

## SYSTEM MEMBERS

Active Members ..... 166  
Total Payroll ..... \$11.0 M  
Average Salary ..... \$66,100  
Average Age ..... 50  
Average Service ..... 11.8

Retired Members ..... 152  
Benefits Paid ..... \$5.2 M  
Average Benefit .... \$33,900  
Average Age ..... 72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 15  
Reported Earnings ..... 5  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22

Actuary: PERAC



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**\$65.9 M**  
Market Value

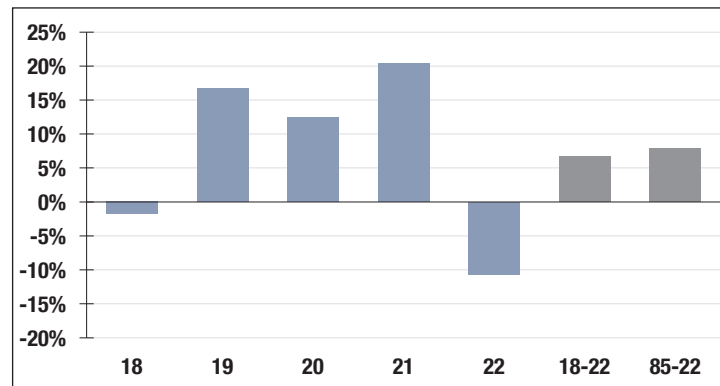
**-10.70%**  
2022 Returns

**8.33%**  
2013-2022  
(Annualized)

**7.94%**  
1985-2022  
(Annualized)

## Investment Returns

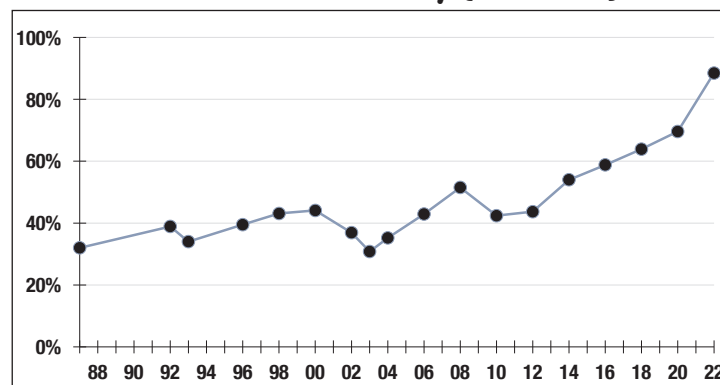
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.40%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**88.5%**

Funded Ratio

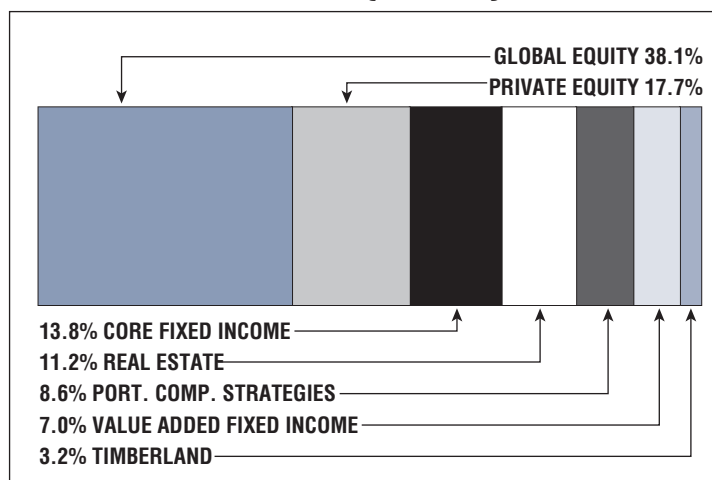
**2030**

Fully Funded

**4.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$9.6 M**

Unfunded Liability

**\$4.2 M**  
(FY2023)

Total Pension  
Appropriation

# Lawrence

## CONTACT INFORMATION

354 Merrimack Street  
Suite 302, Entry C  
Lawrence, MA 01843  
Phone 978-620-3570  
Fax 978-722-9490

## BOARD MEMBERS

Ramona Ceballos\*  
Pascual Ruiz  
Diane Cockroft  
Robert Wilson  
Sheryl Wright

\*indicates Chairperson

## BOARD ADMINISTRATOR

Gina Rizzo

## SYSTEM MEMBERS

Active Members ..... 1,554  
Total Payroll ..... \$83.7 M  
Average Salary ..... \$53,800  
Average Age ..... 45  
Average Service ..... 10.4

Retired Members ..... 912  
Benefits Paid ..... \$22.9 M  
Average Benefit .... \$25,100  
Average Age ..... 73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 103  
Reported Earnings ..... 23  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22

Actuary: KMS



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**\$303.5 M**  
Market Value

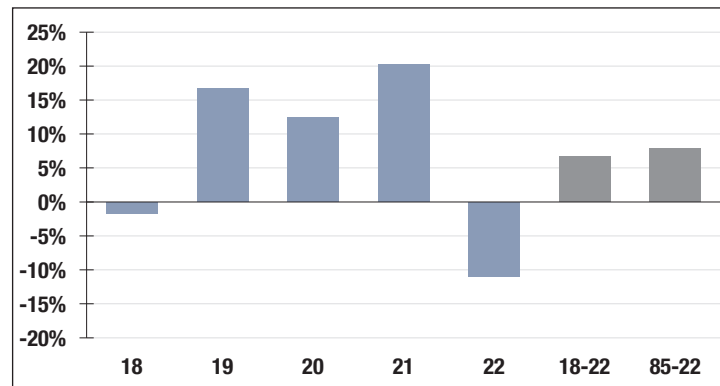
**-11.02%**  
2022 Returns

**8.26%**  
2013-2022  
[Annualized]

**7.82%**  
1985-2022  
[Annualized]

## Investment Returns

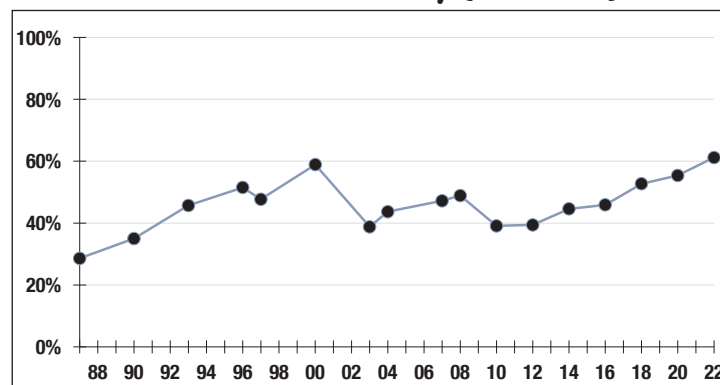
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**61.2%**

Funded Ratio

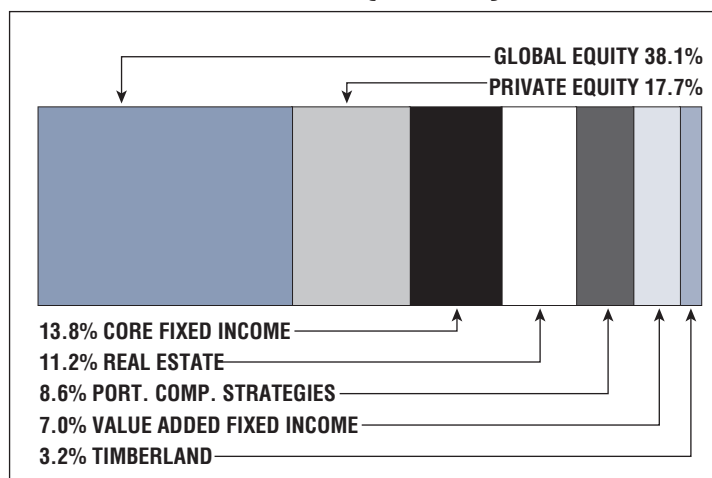
**2036**

Fully Funded

**3.8% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$194.2 M**

Unfunded Liability

**\$23.6 M**  
[FY2023]

Total Pension  
Appropriation

# Leominster

## CONTACT INFORMATION

City Hall, Room 15  
25 West Street  
Leominster, MA 01453  
Phone 978-962-3539  
Fax 978-534-7508

## BOARD MEMBERS

Jennifer Reddington  
David Laplante\*  
Jonathan Campagna  
Shayne Newton  
Douglas Farwell  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Erin Hunt

## SYSTEM MEMBERS

Active Members .....646  
Total Payroll .....\$33.5 M  
Average Salary .....\$51,900  
Average Age .....44  
Average Service .....9.7

Retired Members .....438  
Benefits Paid .....\$12.2 M  
Average Benefit ....\$27,800  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....36  
Reported Earnings .....19  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Stone



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**\$258.3 M**  
Market Value

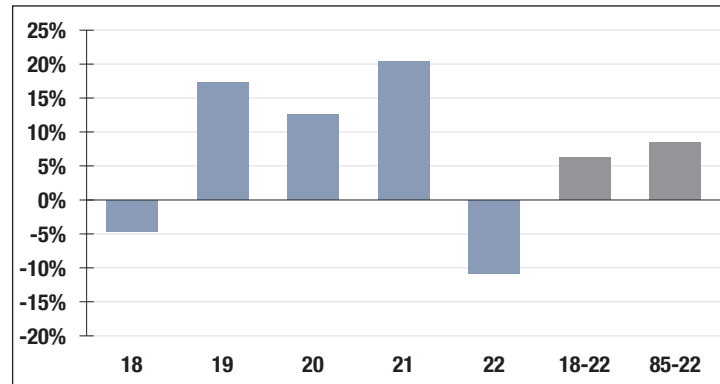
**-10.85%**  
2022 Returns

**8.74%**  
2013-2022  
(Annualized)

**8.48%**  
1985-2022  
(Annualized)

## Investment Returns

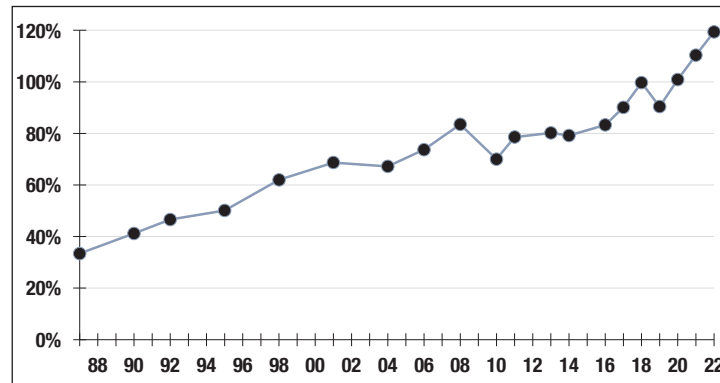
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**5.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**119.4%**

Funded Ratio

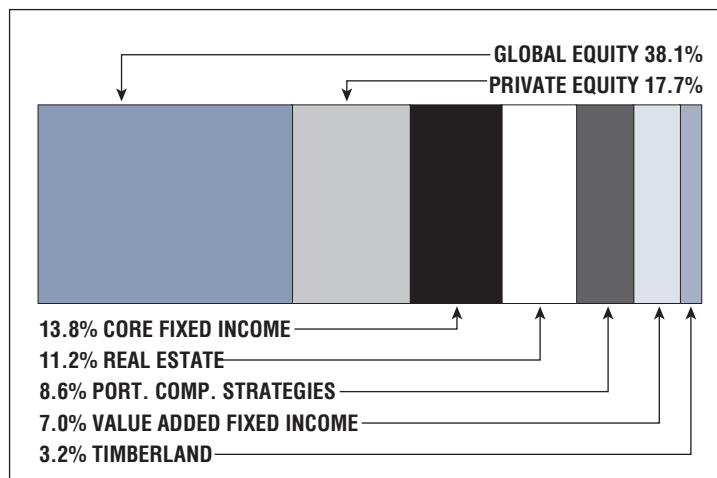
**NA**

Fully Funded

Fully Funded/  
Normal Cost

Funding Schedule

## Asset Allocation (12/31/22)



**-\$48.7 M**

Unfunded Liability

**\$2.0 M**  
(FY2023)

Total Pension  
Appropriation

# Lexington

## CONTACT INFORMATION

1625 Massachusetts Avenue  
Lexington, MA 02420  
Phone 781-861-2720  
Fax 781-861-2794

## BOARD MEMBERS

Carolyn Kosnoff  
Frederick Weiss  
Joseph Foley  
Robert Cunha\*  
Alan Fields

\*indicates Chairperson

## BOARD ADMINISTRATOR

Michelle Malone

## SYSTEM MEMBERS

Active Members .....757  
Total Payroll .....\$45.7 M  
Average Salary .....\$60,400  
Average Age .....46  
Average Service .....9.9

Retired Members .....457  
Benefits Paid .....\$13.8 M  
Average Benefit ....\$30,200  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....23  
Reported Earnings .....10  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Stone



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**\$191.0 M**  
Market Value

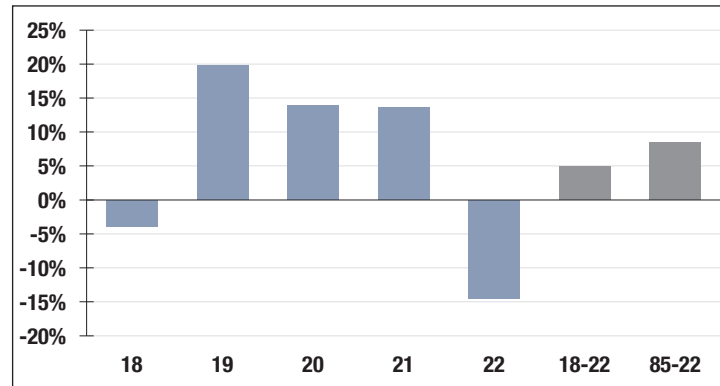
**-14.47%**  
2022 Returns

**7.16%**  
2013-2022  
(Annualized)

**8.42%**  
1985-2022  
(Annualized)

## Investment Returns

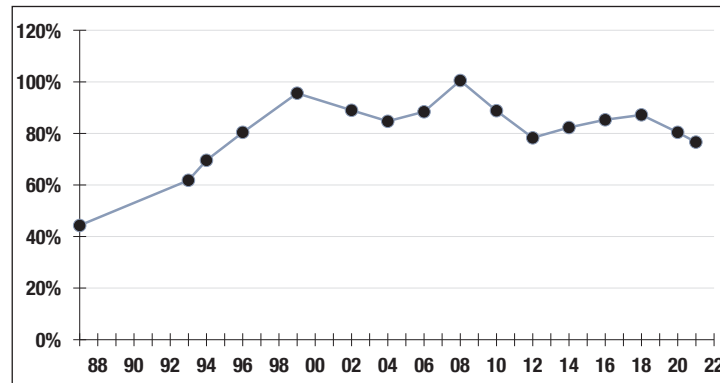
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**76.6%**

Funded Ratio

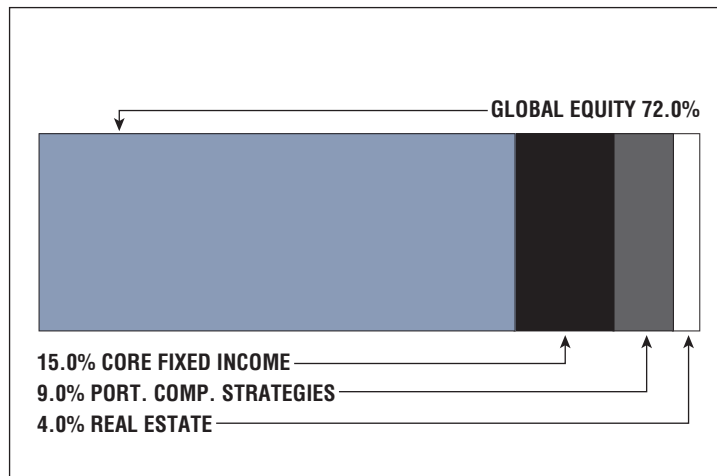
**2030**

Fully Funded

**Varies Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$59.3 M**

Unfunded Liability

**\$8.3 M**  
(FY2023)

Total Pension  
Appropriation



# Lowell

## CONTACT INFORMATION

City Hall, Room 3  
375 Merrimack Street  
Lowell, MA 01852-5998  
Phone 978-674-4094  
Fax 978-446-7019

## BOARD MEMBERS

Kelly Oakes  
David Keene  
Robert Littlefield  
William Desrosiers\*  
Michael Brennan

\*indicates Chairperson

## BOARD ADMINISTRATOR

Shannon Dowd

## SYSTEM MEMBERS

Active Members ..... 1,693  
Total Payroll ..... \$106.0 M  
Average Salary ..... \$62,600  
Average Age ..... 46  
Average Service ..... 12.3

Retired Members ..... 1,288  
Benefits Paid ..... \$42.4 M  
Average Benefit .... \$32,900  
Average Age ..... 72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 157  
Reported Earnings ..... 37  
Excess Earners ..... 1  
Refund Due ..... \$38,942

Last Valuation: 1/1/21  
Actuary: KMS



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**\$482.6 M**  
Market Value

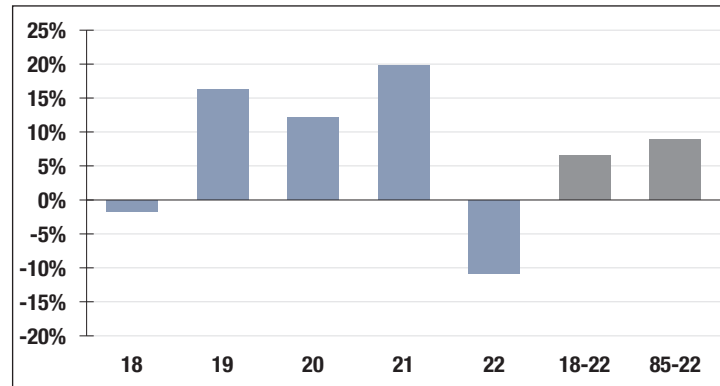
**-10.80%**  
2022 Returns

**8.06%**  
2013-2022  
(Annualized)

**8.87%**  
1985-2022  
(Annualized)

## Investment Returns

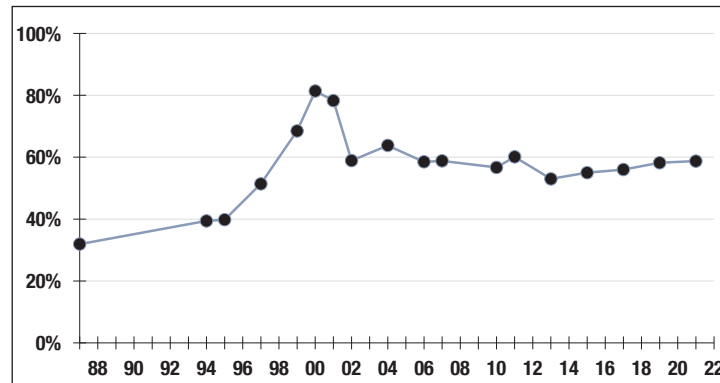
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.10%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**58.7%**

Funded Ratio

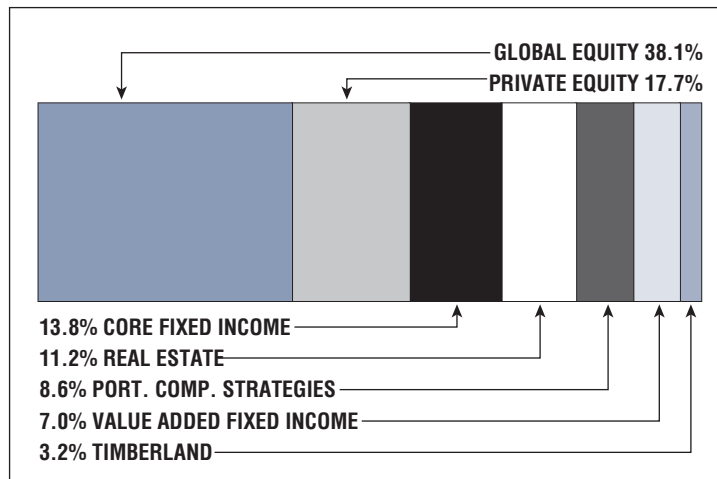
**2037**

Fully Funded

**5.2% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$312.5 M**

Unfunded Liability

**\$33.4 M**  
(FY2023)

Total Pension  
Appropriation

## CONTACT INFORMATION

3 City Hall Square  
Room 106  
Lynn, MA 01901  
Phone 781-586-6897  
Fax 781-595-9101

## BOARD MEMBERS

Stephen Spencer  
Frank Valeri  
Richard Biagiotti  
Robert Mullins  
Michael Marks\*

\*indicates Chairperson

## BOARD ADMINISTRATOR

Gary Brenner

## SYSTEM MEMBERS

Active Members ..... 1,325  
Total Payroll ..... \$83.5 M  
Average Salary ..... \$63,100  
Average Age ..... 48  
Average Service ..... 14.1

Retired Members ..... 1,201  
Benefits Paid ..... \$42.8 M  
Average Benefit .... \$35,700  
Average Age ..... 74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 143  
Reported Earnings ..... 35  
Excess Earners ..... 1  
Refund Due ..... \$6,113

Last Valuation: 1/1/21

Actuary: PERAC



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**\$488.6 M**  
Market Value

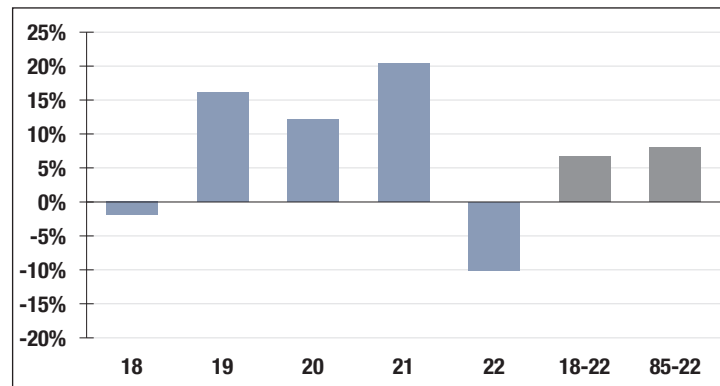
**-10.04%**  
2022 Returns

**8.32%**  
2013-2022  
(Annualized)

**8.01%**  
1985-2022  
(Annualized)

## Investment Returns

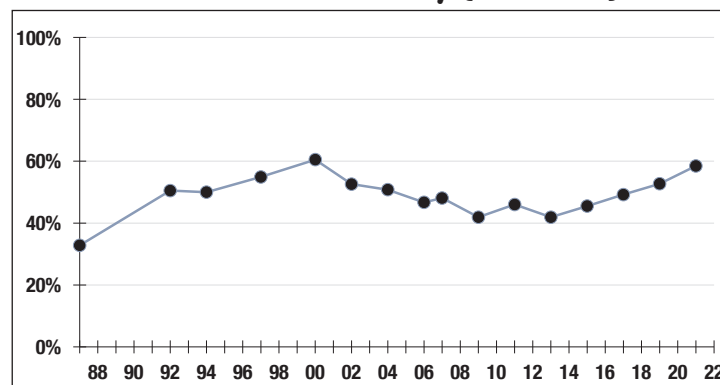
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**58.5%**

Funded Ratio

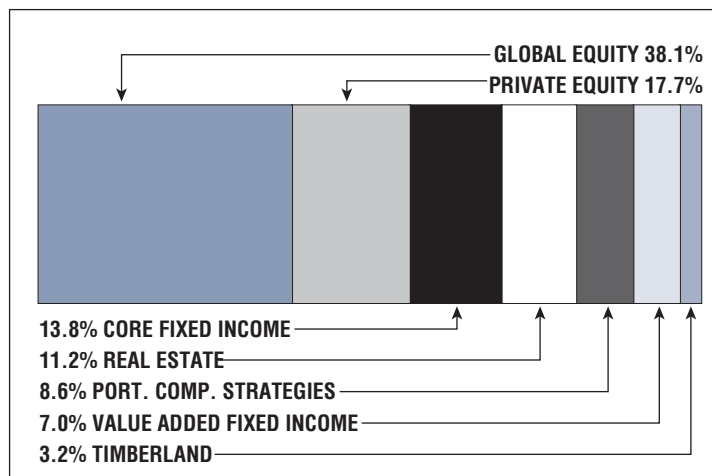
**2033**

Fully Funded

**Varies Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$303.8 M**

Unfunded Liability

**\$40.4 M**  
(FY2023)

Total Pension  
Appropriation

# Malden

## CONTACT INFORMATION

215 Pleasant Street  
5th Floor  
Malden, MA 02148  
Phone 781-397-7086

## BOARD MEMBERS

Charles Ranaghan  
Domenic Fermano  
Donald Boyce  
Warren Atkinson\*  
Scott Lucey  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Robert Soohoo

## SYSTEM MEMBERS

Active Members .....775  
Total Payroll .....\$46.8 M  
Average Salary .....\$60,400  
Average Age .....48  
Average Service .....13  
  
Retired Members .....706  
Benefits Paid .....\$22.5 M  
Average Benefit .....\$31,800  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....75  
Reported Earnings .....19  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Stone



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**\$291.6 M**  
Market Value

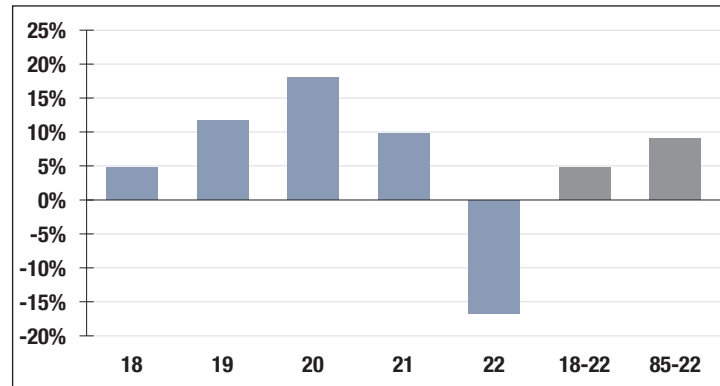
**-16.68%**  
2022 Returns

**6.98%**  
2013-2022  
[Annualized]

**9.02%**  
1985-2022  
[Annualized]

## Investment Returns

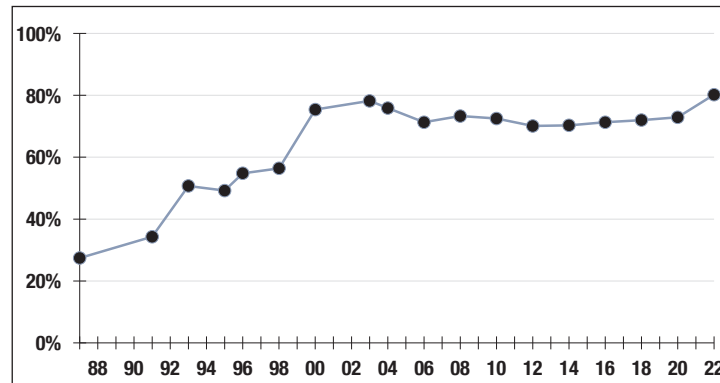
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**80.2%**

Funded Ratio

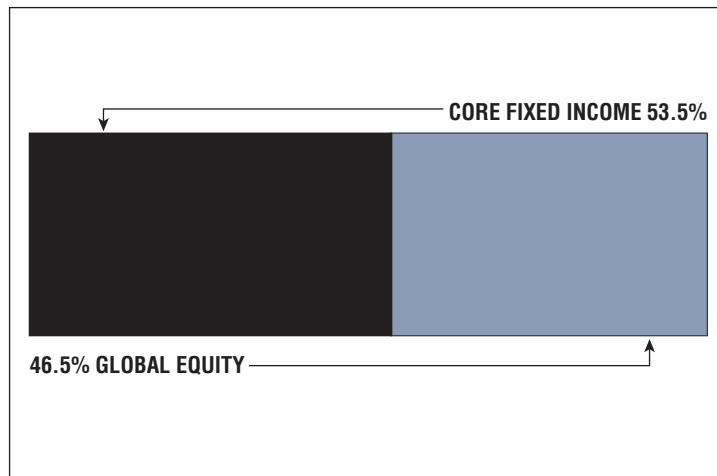
**2030**

Fully Funded

**4.1% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$81.1 M**

Unfunded Liability

**\$16.5 M**  
[FY2023]

Total Pension  
Appropriation

# Marblehead

## CONTACT INFORMATION

Mary Alley Building  
7 Widger Road  
Marblehead, MA 01945  
Phone 781-639-3418  
Fax 781-631-2617

## BOARD MEMBERS

Aleesha Nunley Benjamin  
Charles Gessner  
Jason Gilliland  
Douglas Knowles  
Robert Peck\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Linda Gifford

## SYSTEM MEMBERS

Active Members .....378  
Total Payroll .....\$22.3 M  
Average Salary .....\$58,900  
Average Age .....50  
Average Service .....11.5  
  
Retired Members .....346  
Benefits Paid .....\$10.0 M  
Average Benefit ....\$29,100  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....18  
Reported Earnings .....8  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$115.5 M**  
Market Value

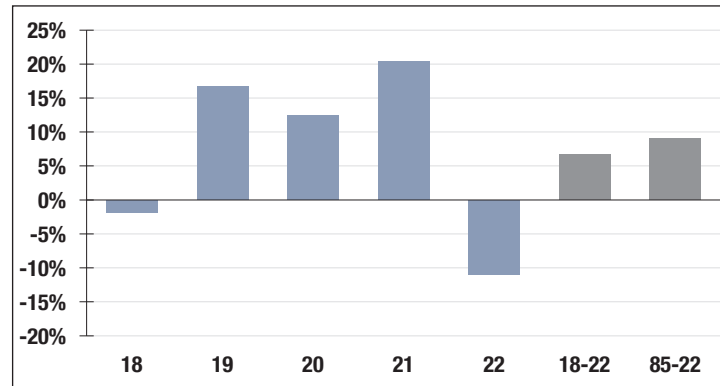
**-10.98%**  
2022 Returns

**8.30%**  
2013-2022  
(Annualized)

**9.03%**  
1985-2022  
(Annualized)

## Investment Returns

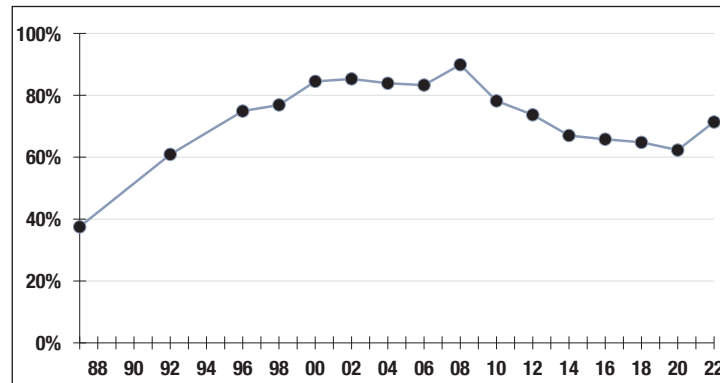
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**71.4%**

Funded Ratio

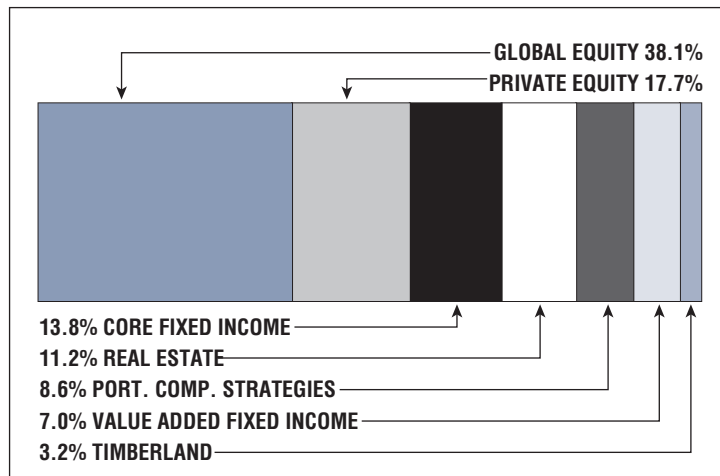
**2036**

Fully Funded

**8.6% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$48.3 M**

Unfunded Liability

**\$5.2 M**  
(FY2023)

Total Pension  
Appropriation

# Marlborough

## CONTACT INFORMATION

289 Elm Street  
Suite 111  
Marlborough, MA 01752-3812  
Phone 508-460-3760

## BOARD MEMBERS

Diane Smith  
Daniel Stanhope  
Gregory Brewster\*  
William Taylor  
Robert Gustafson  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Beth Matson

## SYSTEM MEMBERS

Active Members .....640  
Total Payroll .....\$38.1 M  
Average Salary .....\$59,500  
Average Age .....NA  
Average Service .....NA  
  
Retired Members .....456  
Benefits Paid .....\$14.7 M  
Average Benefit ....\$32,100  
Average Age .....71

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....33  
Reported Earnings .....9  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Sherman



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**\$204.7 M**  
Market Value

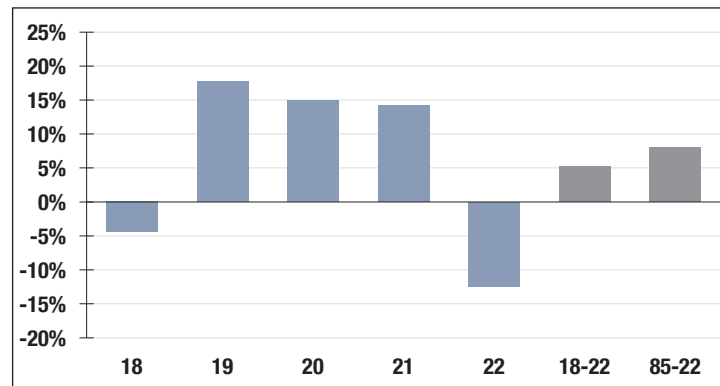
**-12.42%**  
2022 Returns

**6.73%**  
2013-2022  
(Annualized)

**8.04%**  
1985-2022  
(Annualized)

## Investment Returns

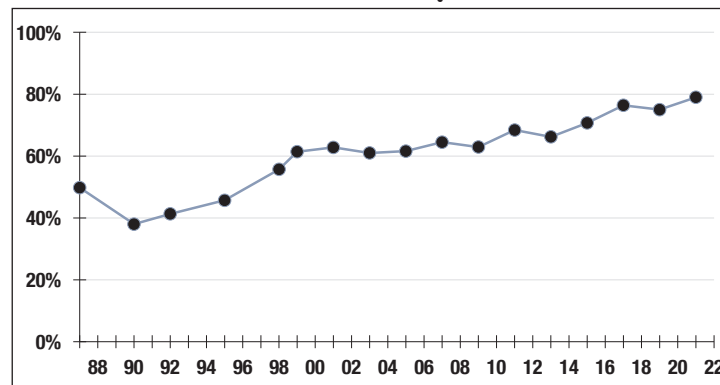
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**79.0%**

Funded Ratio

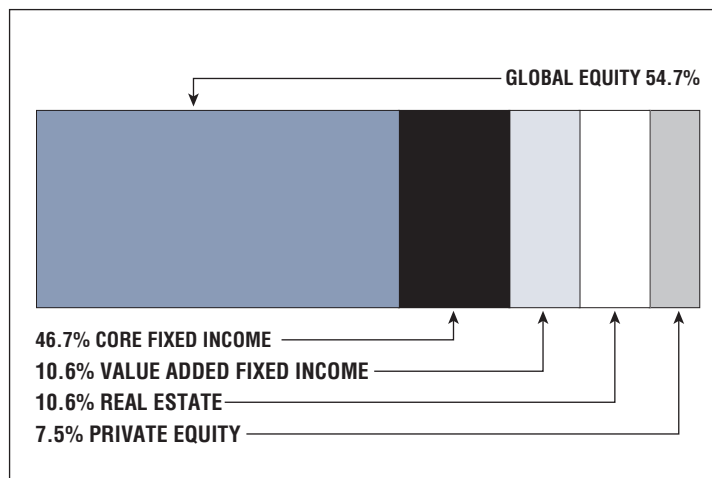
**2028**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$52.9 M**

Unfunded Liability

**\$10.3 M**  
(FY2023)

Total Pension  
Appropriation



# MHFA (Mass. Housing Finance Agency)

## CONTACT INFORMATION

One Beacon Street  
Boston, MA 02108  
Phone 617-854-1871  
Fax 617-854-1027

## BOARD MEMBERS

Thomas Flynn  
Antonio Torres  
Michael Fitzmaurice\*  
Paul Hynes  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Joseph Petty

## SYSTEM MEMBERS

Active Members .....312  
Total Payroll .....\$34.0 M  
Average Salary ...\$108,900  
Average Age .....50  
Average Service ..... 15.2

Retired Members .....194  
Benefits Paid .....\$9.4 M  
Average Benefit ....\$48,600  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....1  
Reported Earnings .....0  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Stone



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**\$220.0 M**  
Market Value

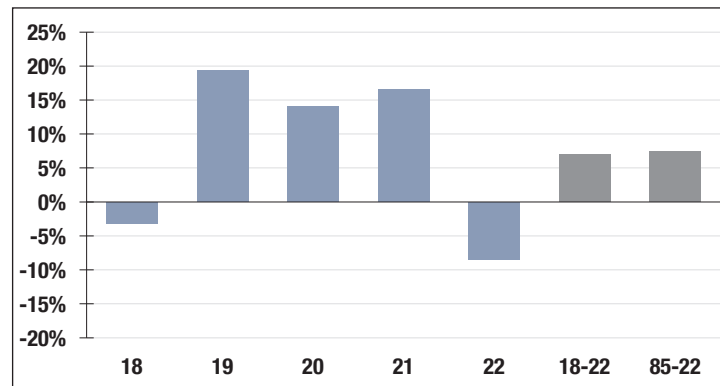
**-8.46%**  
2022 Returns

**7.30%**  
2013-2022  
(Annualized)

**7.52%**  
1985-2022  
(Annualized)

## Investment Returns

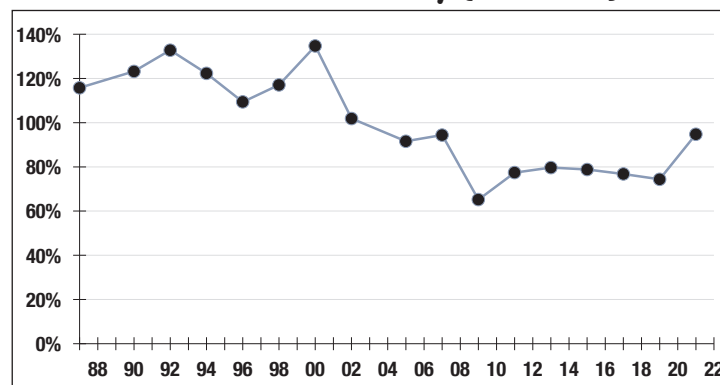
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**94.8%**

Funded Ratio

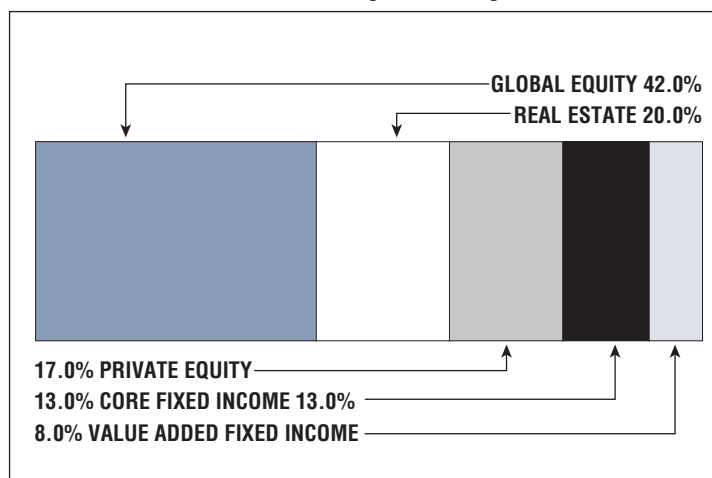
**2021**

Fully Funded

Fully Funded/  
Normal Cost

Funding Schedule

## Asset Allocation (12/31/22)



**\$11.5 M**

Unfunded Liability

**\$1.1 M**  
(FY2023)

Total Pension  
Appropriation

# MassPort

## CONTACT INFORMATION

One Harborside Drive  
Suite 200S  
East Boston, MA 02128  
Phone 617-568-3951  
Fax 617-568-3957

## BOARD MEMBERS

John Prankevicius  
Michael Grieco  
Betsy Taylor  
Jon Turco  
James Hoyte\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Irene Moran

## SYSTEM MEMBERS

Active Members .....1,094  
Total Payroll .....\$107.6 M  
Average Salary .....\$98,400  
Average Age .....48  
Average Service .....13.8  
  
Retired Members .....976  
Benefits Paid .....\$42.6 M  
Average Benefit ....\$43,700  
Average Age .....70

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....43  
Reported Earnings .....8  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Stone



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**\$764.3 M**  
Market Value

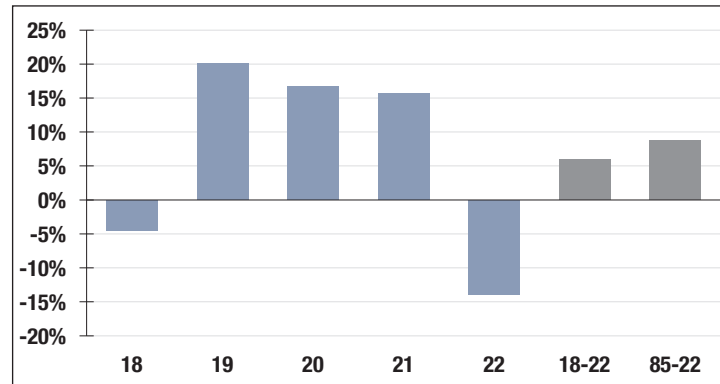
**-13.96%**  
2022 Returns

**7.57%**  
2013-2022  
[Annualized]

**8.72%**  
1985-2022  
[Annualized]

## Investment Returns

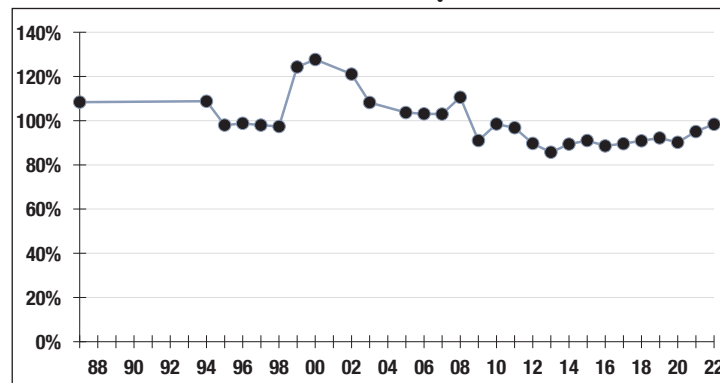
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**98.4%**

Funded Ratio

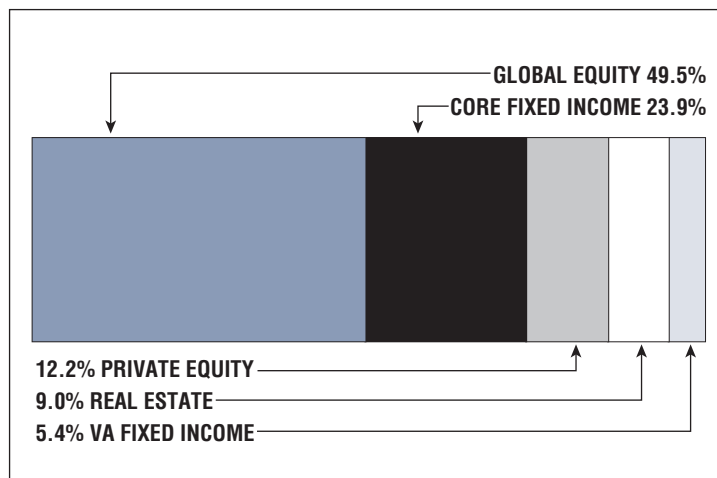
**NA**

Fully Funded

Frozen Entry Age

Funding Schedule

## Asset Allocation (12/31/22)



**\$13.2 M**

Unfunded Liability

**\$8.3 M**  
[FY2023]

Total Pension  
Appropriation

# MTRS (Mass. Teachers)

## CONTACT INFORMATION

500 Rutherford Avenue  
Suite 210  
Charlestown, MA 02129  
Phone 617-679-6877  
Fax 617-679-1661

## BOARD MEMBERS

State Treasurer,  
Deborah B. Goldberg  
State Auditor,  
Diana DiZoglio  
Ventura Rodriguez\*  
Anne Wass  
Dennis Naughton  
Jacqueline Gorrie  
Richard Liston  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Erika Glaster

## SYSTEM MEMBERS

Active Members .....98,926  
Total Payroll ..... \$7.7 B  
Average Salary .....\$77,900  
Average Age .....44  
Average Service ..... 13.2

Retired Members....69,727  
Benefits Paid ..... \$3.3 B  
Average Benefit....\$47,400  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees.....513  
Reported Earnings .....110  
Excess Earners.....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$34.7 B**  
Market Value

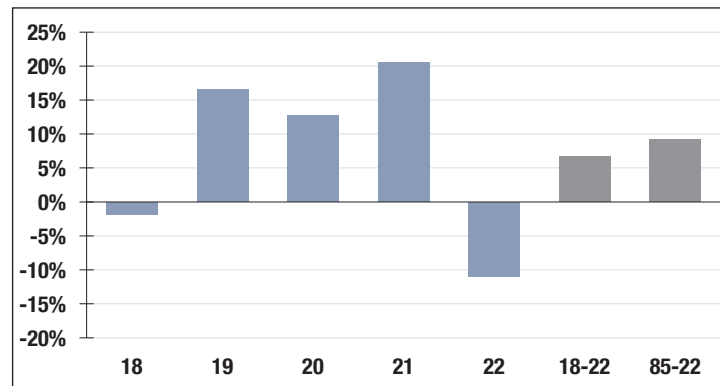
**-10.98%**  
2022 Returns

**8.36%**  
2013-2022  
(Annualized)

**9.24%**  
1985-2022  
(Annualized)

## Investment Returns

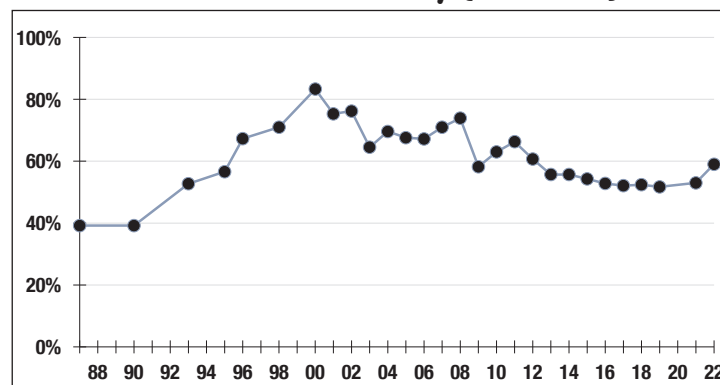
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**59.0%**

Funded Ratio

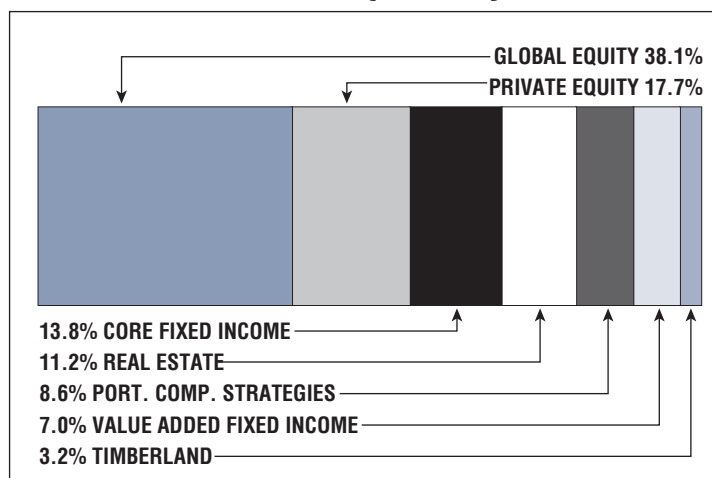
**2036**

Fully Funded

**9.63% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$24.7 B**

Unfunded Liability

**\$2.1 B**  
(FY2023)

Total Pension  
Appropriation

# MWRA (Mass. Water Resources Authority)

## CONTACT INFORMATION

Two Griffin Way  
Chelsea, MA 02150  
Phone 617-305-5595  
Fax 617-371-1616

## BOARD MEMBERS

Brian Pena  
Matthew Horan  
James Fleming\*  
Kevin McKenna  
Frank Zecha  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Carolyn Russo

## SYSTEM MEMBERS

Active Members .....1,044  
Total Payroll .....\$103.8 M  
Average Salary .....\$99,400  
Average Age .....51  
Average Service .....17.2

Retired Members .....763  
Benefits Paid .....\$33.1 M  
Average Benefit ....\$43,300  
Average Age .....71

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....74  
Reported Earnings .....16  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Segal



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**\$630.2 M**  
Market Value

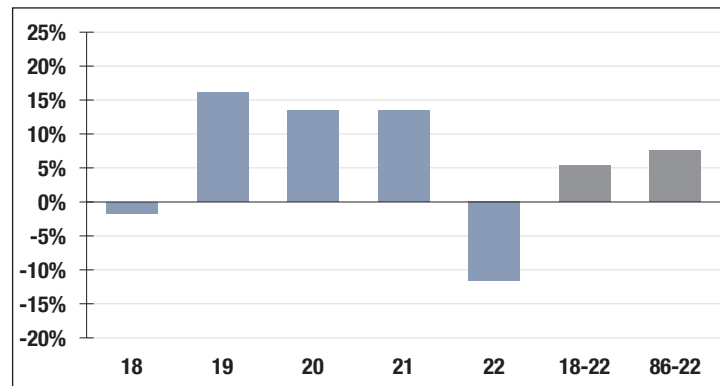
**-11.64%**  
2022 Returns

**6.97%**  
2013-2022  
(Annualized)

**7.87%**  
1986-2022  
(Annualized)

## Investment Returns

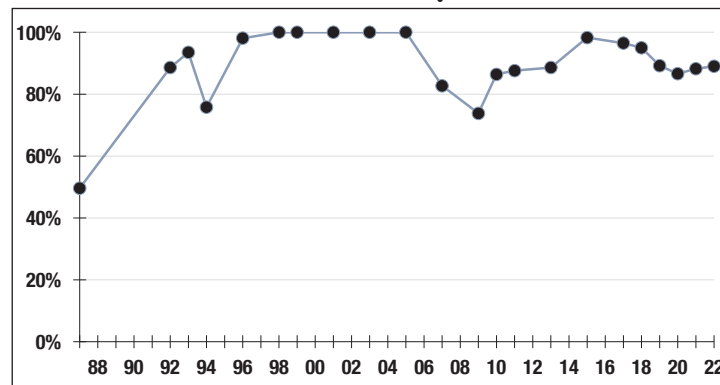
(2018-2022, 5-Year & 37-Year Averages, as of 12/31/22)



**6.90%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**89.0%**

Funded Ratio

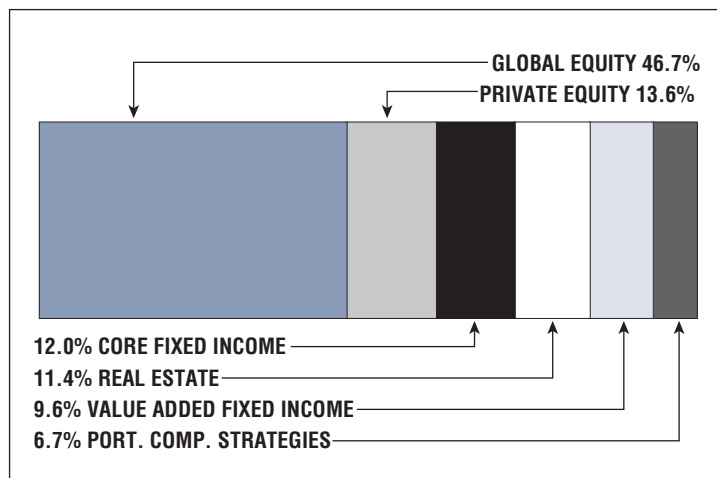
**2030**

Fully Funded

**12.05% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$82.0 M**

Unfunded Liability

**\$12.6 M**  
(FY2023)

Total Pension  
Appropriation

# Maynard

## CONTACT INFORMATION

195 Main Street  
Maynard, MA 01754  
Phone 978-897-1820  
Fax 978-897-1013

## BOARD MEMBERS

Kevin Petersen  
Clifford Wilson  
Patrick Hakey  
Christopher Connolly\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kenneth DeMars

## SYSTEM MEMBERS

Active Members .....186  
Total Payroll .....\$9.8 M  
Average Salary .....\$52,900  
Average Age .....46  
Average Service .....10

Retired Members .....136  
Benefits Paid .....\$3.9 M  
Average Benefit ....\$28,500  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....5  
Reported Earnings .....3  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$56.3 M**  
Market Value

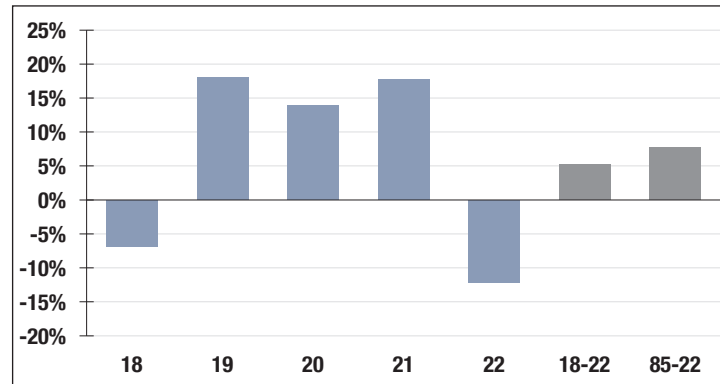
**-12.16%**  
2022 Returns

**7.98%**  
2013-2022  
[Annualized]

**7.77%**  
1985-2022  
[Annualized]

## Investment Returns

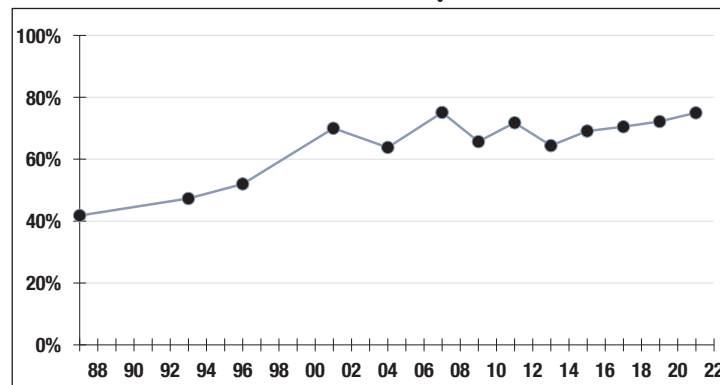
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**75.0%**

Funded Ratio

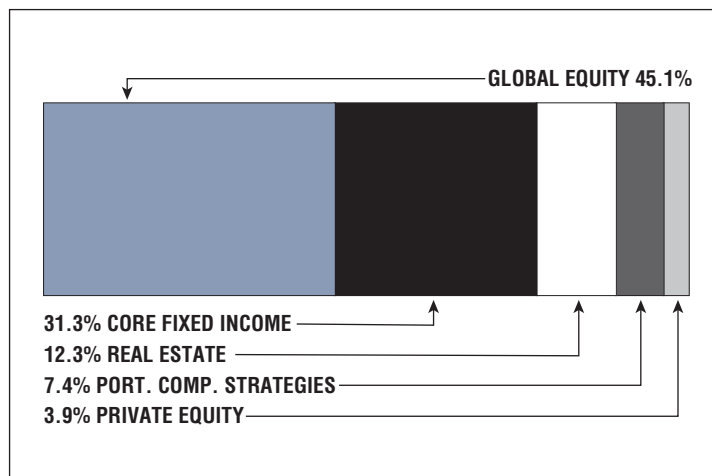
**2035**

Fully Funded

**6.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$17.4 M**

Unfunded Liability

**\$2.9 M**  
[FY2023]

Total Pension  
Appropriation

# Medford

## CONTACT INFORMATION

City Hall, Room 215  
85 George P. Hassett Drive  
Medford, MA 02155  
Phone 781-393-2517  
Fax 781-393-2522

## BOARD MEMBERS

Robert Dickinson  
Robert Maiocco  
Patrick Ripley  
Rick Jordan\*  
James Vieira

\*indicates Chairperson

## BOARD ADMINISTRATOR

Mark Minervini

## SYSTEM MEMBERS

Active Members .....742  
Total Payroll .....\$47.6 M  
Average Salary .....\$64,100  
Average Age .....NA  
Average Service .....NA

Retired Members .....620  
Benefits Paid .....\$22.6 M  
Average Benefit ....\$36,500  
Average Age .....75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....91  
Reported Earnings .....12  
Excess Earners .....1  
Refund Due .....\$55,023

Last Valuation: 1/1/22

Actuary: Sherman



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**\$227.4 M**  
Market Value

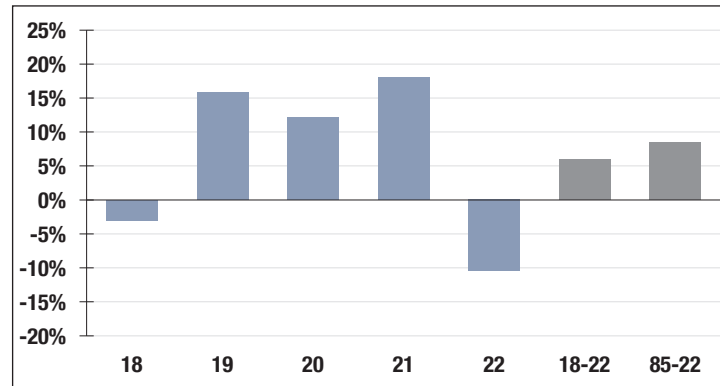
**-10.45%**  
2022 Returns

**6.62%**  
2013-2022  
(Annualized)

**8.45%**  
1985-2022  
(Annualized)

## Investment Returns

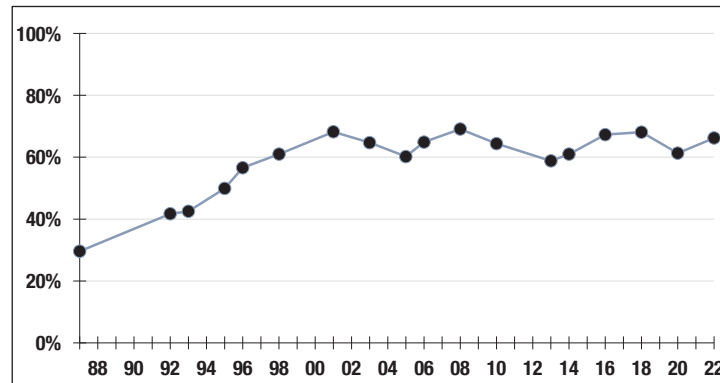
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**66.2%**

Funded Ratio

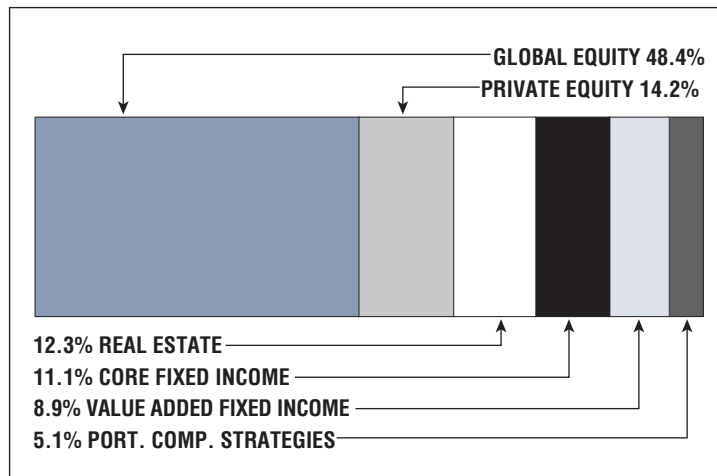
**2032**

Fully Funded

**6.9% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$117.6 M**

Unfunded Liability

**\$15.2 M**  
(FY2023)

Total Pension  
Appropriation



# Melrose

## CONTACT INFORMATION

City Hall  
562 Main Street  
Melrose, MA 02176  
Phone 781-979-4151  
Fax 781-979-4206

## BOARD MEMBERS

Patrick Dello Russo\*  
Kerriann Golden  
Michael Lyle  
Scott Colborne  
John McLaughlin  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Adam Travinski

## SYSTEM MEMBERS

Active Members .....406  
Total Payroll .....\$22.7 M  
Average Salary .....\$56,000  
Average Age .....47  
Average Service .....10.2

Retired Members .....397  
Benefits Paid .....\$9.9 M  
Average Benefit ....\$24,900  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....26  
Reported Earnings .....4  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Stone



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**\$107.0 M**  
Market Value

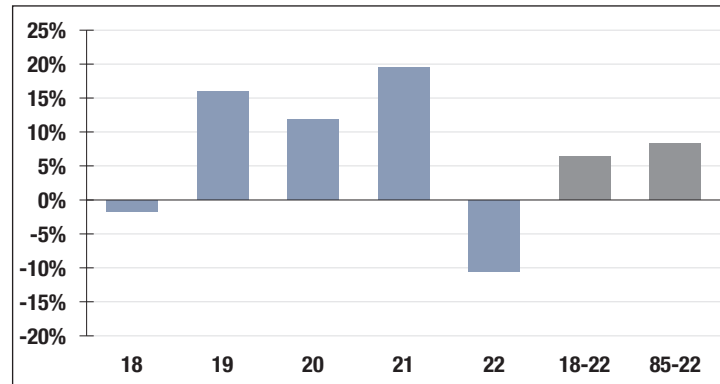
**-10.53%**  
2022 Returns

**7.88%**  
2013-2022  
(Annualized)

**8.25%**  
1985-2022  
(Annualized)

## Investment Returns

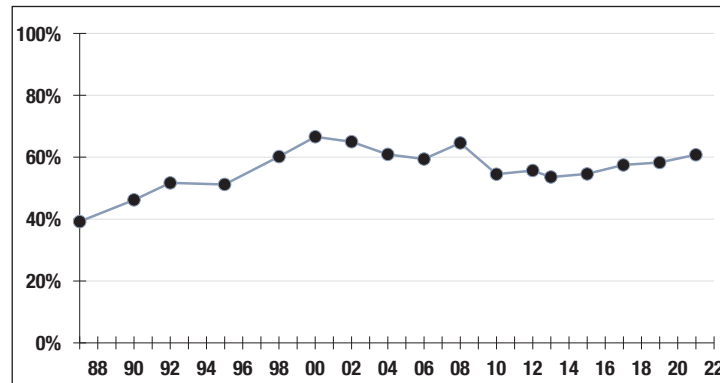
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**60.8%**

Funded Ratio

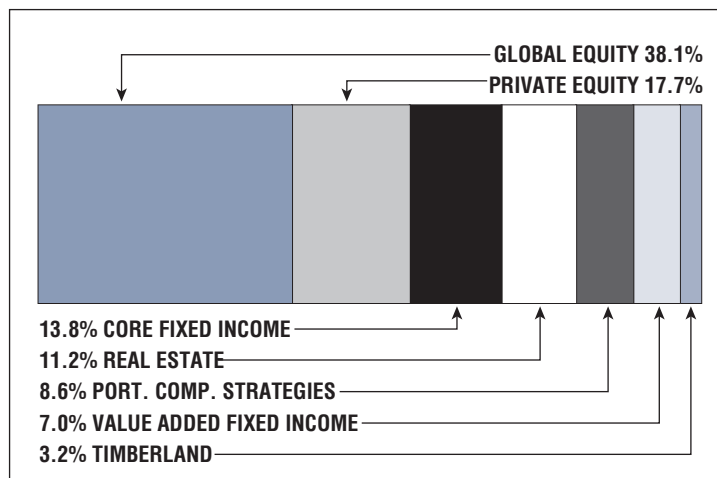
**2037**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$64.1 M**

Unfunded Liability

**\$7.2 M**  
(FY2023)

Total Pension  
Appropriation

# Methuen

## CONTACT INFORMATION

41 Pleasant Street  
Suite 313  
Methuen, MA 01844  
Phone 978-983-8620  
Fax 978-983-8972

## BOARD MEMBERS

Kathleen Beam  
John Sheehy  
Albert Trott  
Michael Hennessy\*  
Robert Sheehan  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kaitlyn Doucette

## SYSTEM MEMBERS

Active Members .....664  
Total Payroll .....\$39.2 M  
Average Salary .....\$59,000  
Average Age .....48  
Average Service .....12.2  
  
Retired Members.....478  
Benefits Paid .....\$17.2 M  
Average Benefit ....\$36,000  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....48  
Reported Earnings .....15  
Excess Earners.....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$214.7 M**  
Market Value

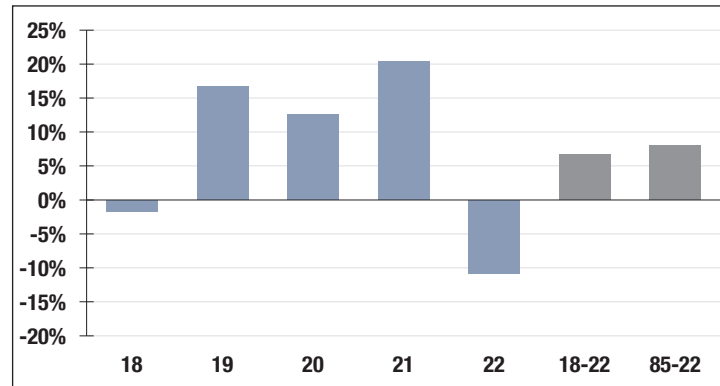
**-10.81%**  
2022 Returns

**8.58%**  
2013-2022  
[Annualized]

**8.02%**  
1985-2022  
[Annualized]

## Investment Returns

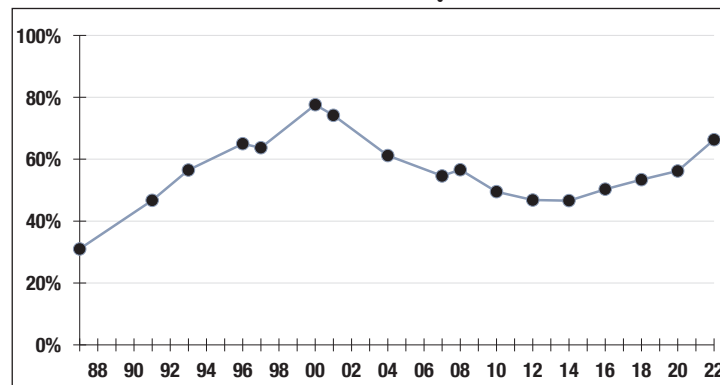
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**66.3%**

Funded Ratio

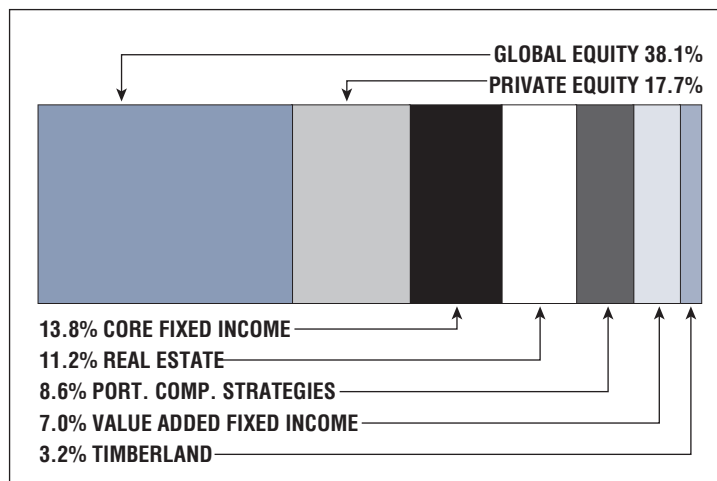
**2034**

Fully Funded

**5.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$109.5 M**

Unfunded Liability

**\$15.5 M**  
[FY2023]

Total Pension  
Appropriation

# Middlesex County

## CONTACT INFORMATION

25 Linnell Circle  
P.O. Box 160  
Billerica, MA 01865  
Phone 978-439-3000  
Fax 978-439-3050

## BOARD MEMBERS

Thomas Gibson\*  
Brian Curtin  
John Brown  
Joseph Kearns  
Robert Healy  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Lisa Maloney

## SYSTEM MEMBERS

Active Members .....9,432  
Total Payroll .....\$519.2 M  
Average Salary .....\$55,100  
Average Age .....47  
Average Service .....10.6

Retired Members .....6,284  
Benefits Paid .....\$184.4 M  
Average Benefit ....\$29,300  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....360  
Reported Earnings .....122  
Excess Earners .....4  
Refund Due .....\$37,570

Last Valuation: 1/1/22  
Actuary: Segal



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**\$1.9 B**  
Market Value

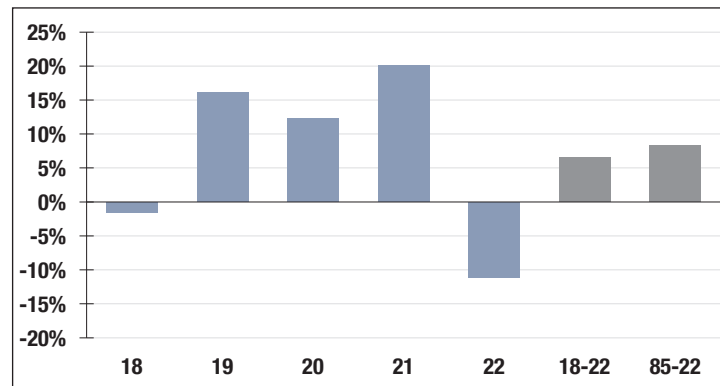
**-11.11%**  
2022 Returns

**7.95%**  
2013-2022  
[Annualized]

**8.28%**  
1985-2022  
[Annualized]

## Investment Returns

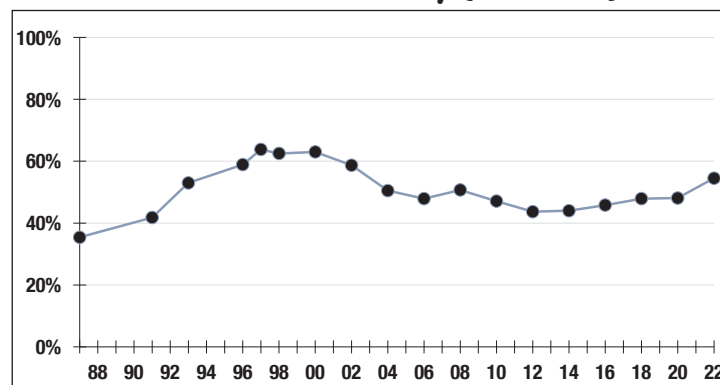
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.15%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**54.5%**

Funded Ratio

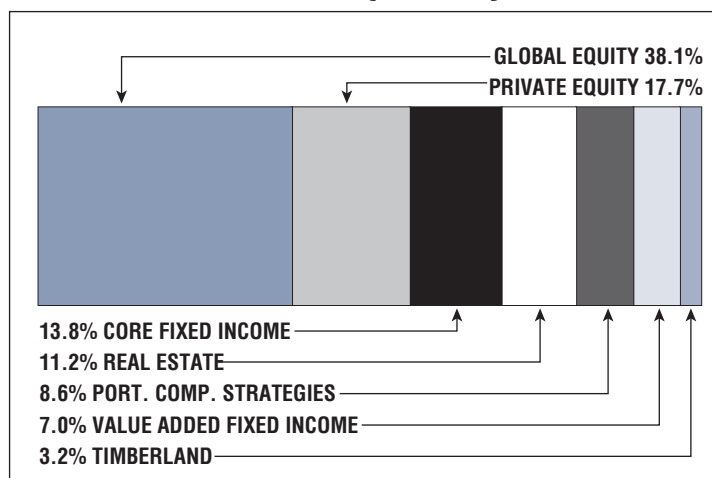
**2036**

Fully Funded

**4.0% Increasing  
Phase-In**

Funding Schedule

## Asset Allocation (12/31/22)



**\$1.6 B**

Unfunded Liability

**\$156.4 M**  
[FY2023]

Total Pension  
Appropriation

# Milford

## CONTACT INFORMATION

60 N. Bow Street  
Senior Center  
Milford, MA 01757  
Phone 508-634-2321  
Fax 508-634-0902

## BOARD MEMBERS

Zachary Taylor\*  
Christopher Pilla  
James Curley  
Richard Villani  
Martha White  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kelly Capece

## SYSTEM MEMBERS

Active Members .....512  
Total Payroll .....\$24.2 M  
Average Salary .....\$47,300  
Average Age .....48  
Average Service .....10.8

Retired Members .....329  
Benefits Paid .....\$9.6 M  
Average Benefit ....\$29,200  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....31  
Reported Earnings .....12  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$122.5 M**  
Market Value

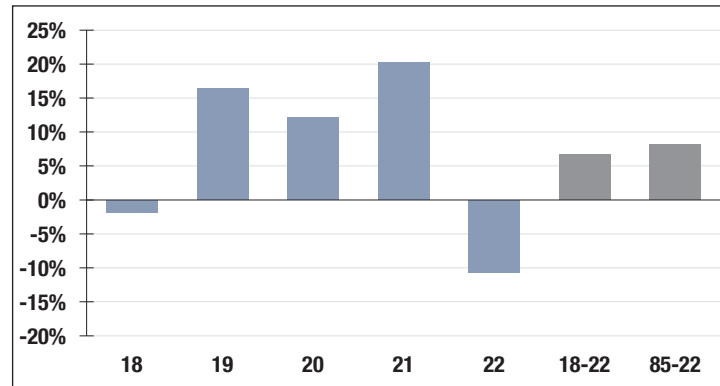
**-10.68%**  
2022 Returns

**8.23%**  
2013-2022  
(Annualized)

**8.17%**  
1985-2022  
(Annualized)

## Investment Returns

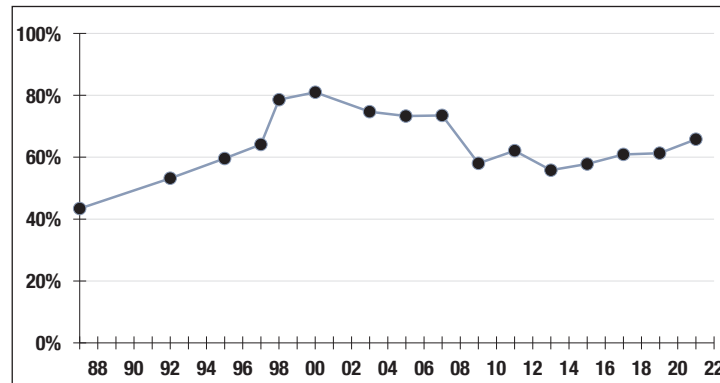
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**65.8%**

Funded Ratio

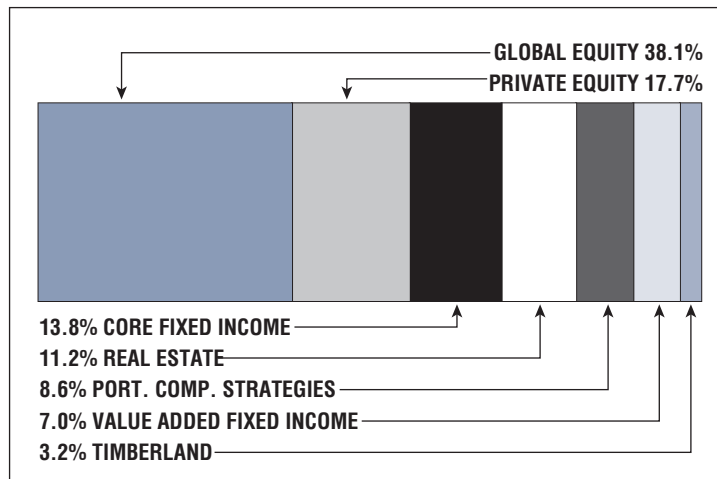
**2035**

Fully Funded

**7.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$57.2 M**

Unfunded Liability

**\$6.9 M**  
(FY2023)

Total Pension  
Appropriation

# Milton

## CONTACT INFORMATION

40 Willard Street  
Suite G102  
Quincy, MA 02169  
Phone 617-770-5970  
Fax 617-770-5971

## BOARD MEMBERS

Amy Dexter  
Paige Eppolito\*  
Thomas Cicerone  
William Murphy  
Robert O'Melia  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Jeanne Darcy

## SYSTEM MEMBERS

Active Members .....402  
Total Payroll .....\$26.8 M  
Average Salary .....\$66,800  
Average Age .....47  
Average Service .....11.7

Retired Members .....280  
Benefits Paid .....\$9.4 M  
Average Benefit ....\$33,600  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....22  
Reported Earnings .....5  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21

Actuary: PERAC



Click/Scan for Website

**\$179.8 M**  
Market Value

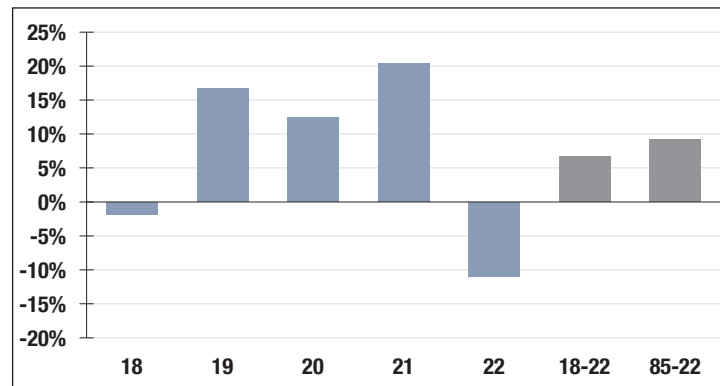
**-10.97%**  
2022 Returns

**8.29%**  
2013-2022  
[Annualized]

**9.15%**  
1985-2022  
[Annualized]

## Investment Returns

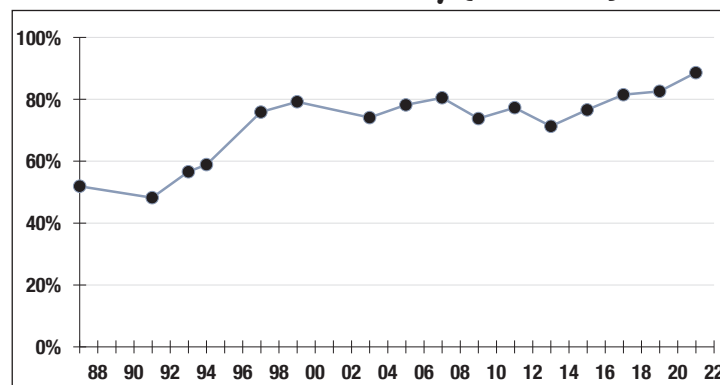
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**88.6%**

Funded Ratio

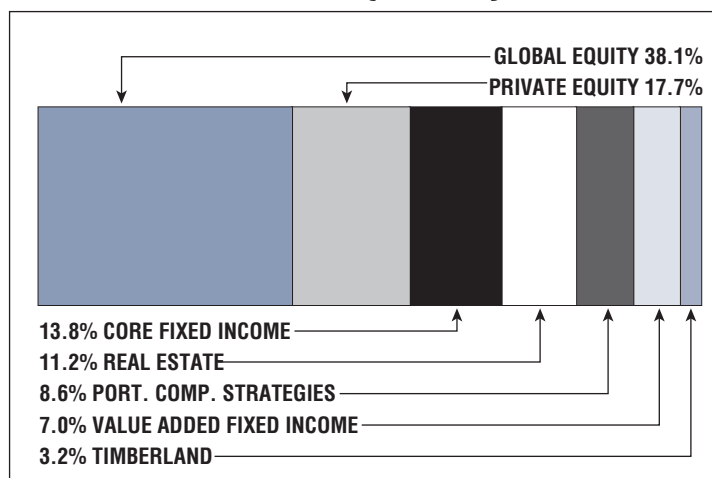
**2026**

Fully Funded

**6.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$20.4 M**

Unfunded Liability

**\$7.9 M**  
[FY2023]

Total Pension  
Appropriation

# Minuteman Regional School District

## CONTACT INFORMATION

758 Marrett Road  
Lexington, MA 02421  
Phone 781-861-6500  
Fax 781-863-1747

## BOARD MEMBERS

Laurie Elliott\*  
Nikki Andrade  
Cheryl Mixon  
Maria Oliveira  
Norman Cohen  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Sandor Zapolin

## SYSTEM MEMBERS

Active Members .....35  
Total Payroll .....\$2.0 M  
Average Salary .....\$58,000  
Average Age .....48  
Average Service .....7.6

Retired Members .....39  
Benefits Paid .....\$1.0 M  
Average Benefit .....\$26,800  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....1  
Reported Earnings .....0  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



Click/Scan for Website

**\$15.4 M**  
Market Value

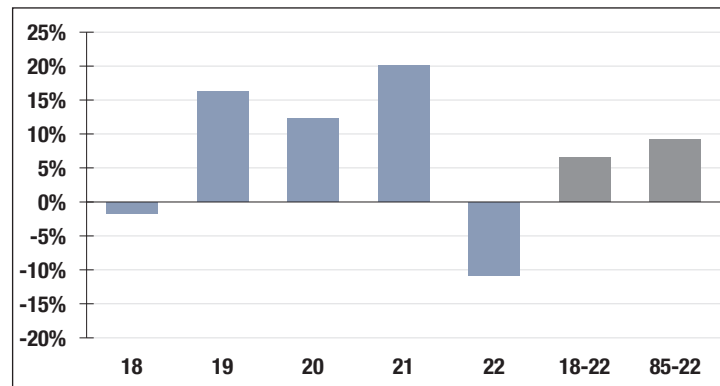
**-10.84%**  
2022 Returns

**8.07%**  
2013-2022  
(Annualized)

**9.19%**  
1985-2022  
(Annualized)

## Investment Returns

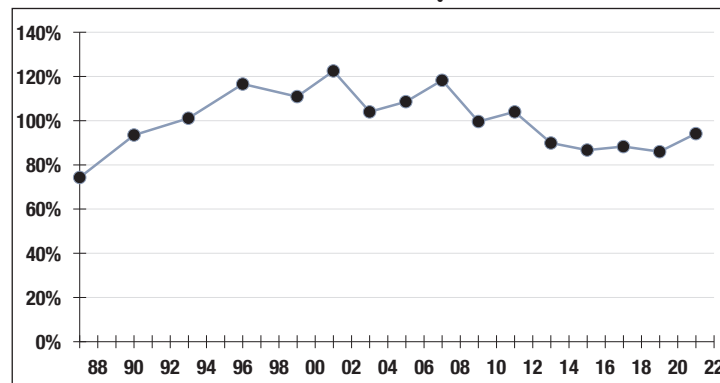
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**94.2%**

Funded Ratio

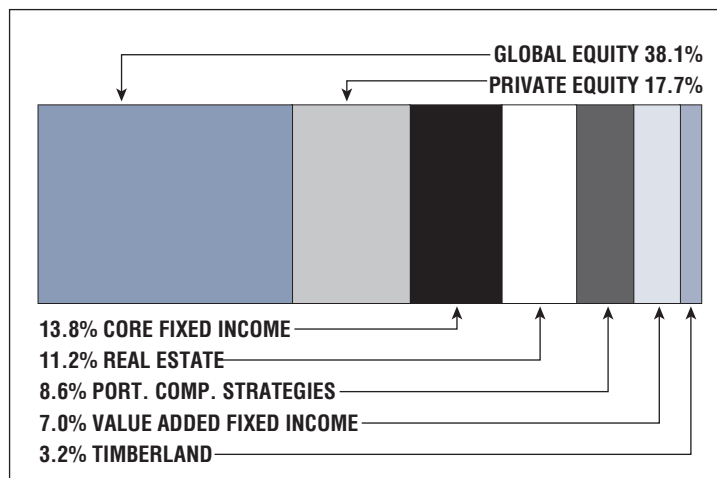
**2027**

Fully Funded

**10.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$911 K**

Unfunded Liability

**\$359 K**  
(FY2023)

Total Pension  
Appropriation



# Montague

## CONTACT INFORMATION

One Avenue A  
Turners Falls, MA 01376  
Phone 413-863-3200  
Fax 833-719-1294

## BOARD MEMBERS

Carolyn Olsen\*  
Steven Ellis  
Cheryl Clark  
David Dion  
Marianne Fiske  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Debra Underhill

## SYSTEM MEMBERS

Active Members ..... 194  
Total Payroll ..... \$8.1 M  
Average Salary ..... \$41,900  
Average Age ..... 46  
Average Service ..... 9.4

Retired Members ..... 164  
Benefits Paid ..... \$3.8 M  
Average Benefit ..... \$22,900  
Average Age ..... 72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 14  
Reported Earnings ..... 2  
Excess Earners ..... 1  
Refund Due ..... \$6,784

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$54.0 M**  
Market Value

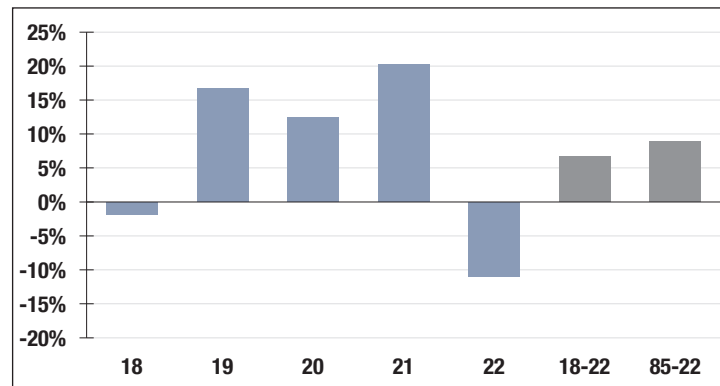
**-10.97%**  
2022 Returns

**8.26%**  
2013-2022  
[Annualized]

**8.94%**  
1985-2022  
[Annualized]

## Investment Returns

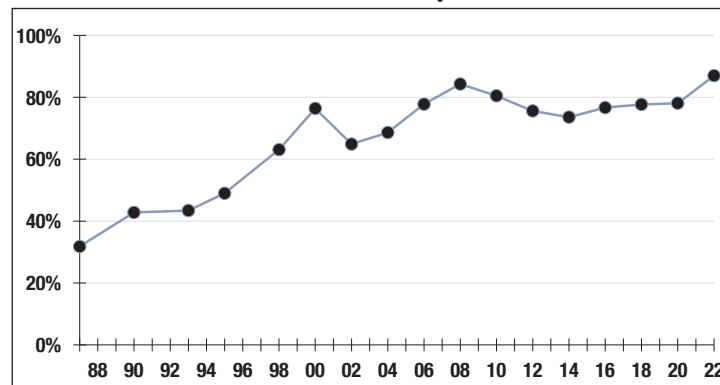
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.85%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**87.0%**

Funded Ratio

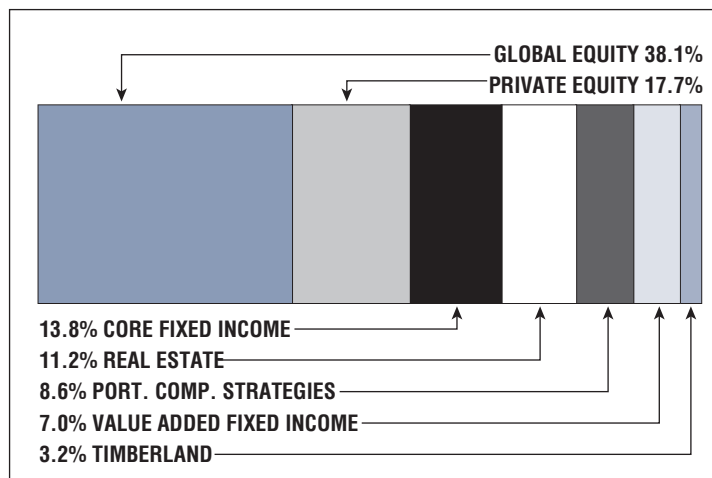
**2030**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$8.4 M**

Unfunded Liability

**\$2.3 M**  
[FY2023]

Total Pension  
Appropriation

# Natick

## CONTACT INFORMATION

13 East Central Street  
Natick, MA 01760  
Phone 508-647-6440  
Fax 508-647-6443

## BOARD MEMBERS

Michelle Laramee  
Eliot Lurier  
Michael Melchiorri\*  
Nicholas Mabardy  
B. Michael Reardon  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kathleen Bacon

## SYSTEM MEMBERS

Active Members .....635  
Total Payroll .....\$38.0 M  
Average Salary .....\$59,900  
Average Age .....47  
Average Service .....11.3  
  
Retired Members .....414  
Benefits Paid .....\$13.6 M  
Average Benefit ....\$32,800  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....13  
Reported Earnings .....4  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Segal

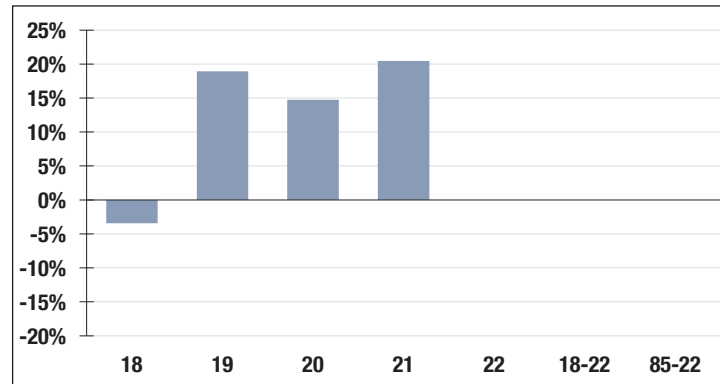


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2022 investment return data not available at time of publication.

## Investment Returns

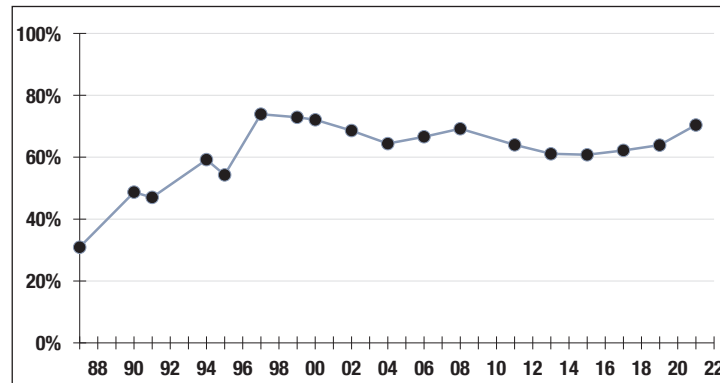
(2018-2021 Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**70.4%**

Funded Ratio

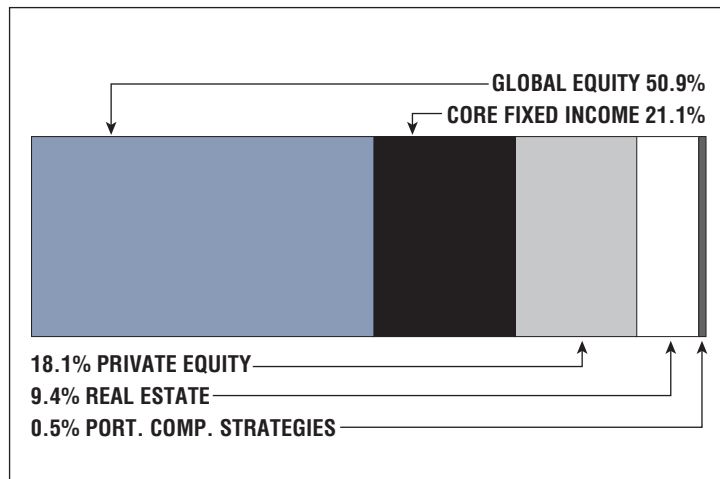
**2030**

Fully Funded

**Varies Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$75.4 M**

Unfunded Liability

**\$13.0 M**  
[FY2023]

Total Pension  
Appropriation

# Needham

## CONTACT INFORMATION

Town Hall  
1471 Highland Avenue  
Needham, MA 02492  
Phone 781-455-7500  
Fax 781-449-4569

## BOARD MEMBERS

Michelle Vaillancourt  
Sandra Cincotta\*  
John Krawiecki  
Robert Papetti  
Robert Mearls  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Jacob Cole

## SYSTEM MEMBERS

Active Members .....727  
Total Payroll .....\$44.5 M  
Average Salary .....\$61,200  
Average Age .....47  
Average Service .....10.6  
  
Retired Members.....472  
Benefits Paid .....\$14.6 M  
Average Benefit ....\$30,900  
Average Age .....76

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....26  
Reported Earnings .....4  
Excess Earners.....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: KMS



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**\$213.9 M**  
Market Value

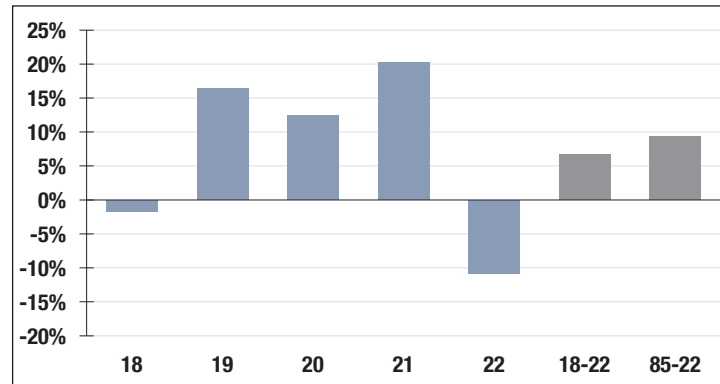
**-10.82%**  
2022 Returns

**8.22%**  
2013-2022  
(Annualized)

**9.37%**  
1985-2022  
(Annualized)

## Investment Returns

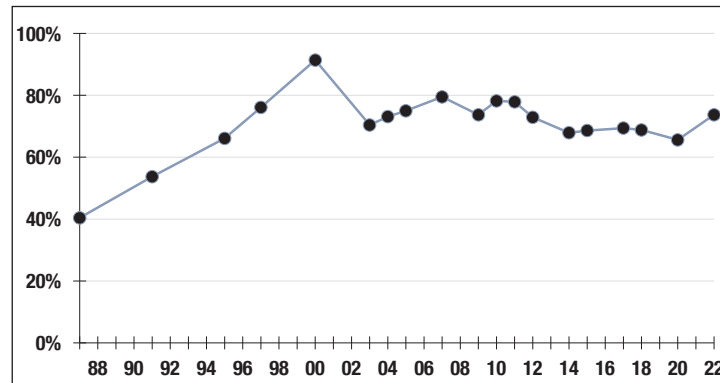
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**73.7%**

Funded Ratio

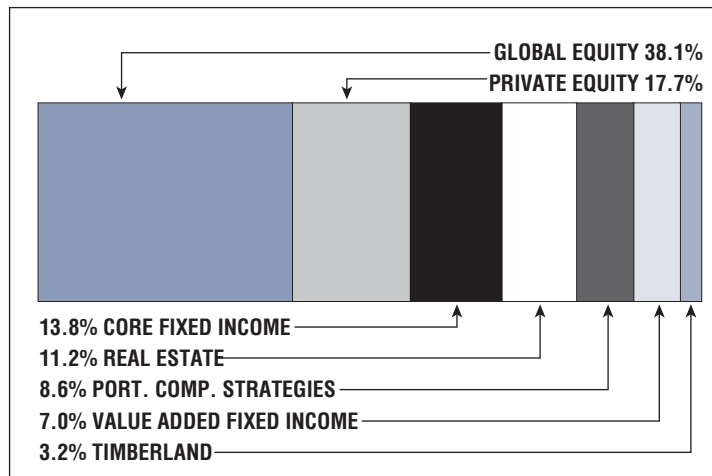
**2033**

Fully Funded

**4.0% Increasing  
Phase-In**

Funding Schedule

## Asset Allocation (12/31/22)



**\$75.9 M**

Unfunded Liability

**\$11.4 M**  
(FY2023)

Total Pension  
Appropriation

# New Bedford

## CONTACT INFORMATION

651 Orchard Street  
#203A  
New Bedford, MA 02744-1008  
Phone 508-979-1538  
Fax 508-979-1799

## BOARD MEMBERS

Emily Arpke  
Angela Natho  
James Kummer  
Leonard Baillargeon\*  
Susan Thompson  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Eric Cohen

## SYSTEM MEMBERS

Active Members .....2,217  
Total Payroll .....\$115.3 M  
Average Salary .....\$52,000  
Average Age .....44  
Average Service .....10.7

Retired Members .....1,813  
Benefits Paid .....\$50.3 M  
Average Benefit ....\$27,700  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....260  
Reported Earnings .....55  
Excess Earners .....3  
Refund Due .....\$17,241

Last Valuation: 1/1/22  
Actuary: KMS



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**\$416.2 M**  
Market Value

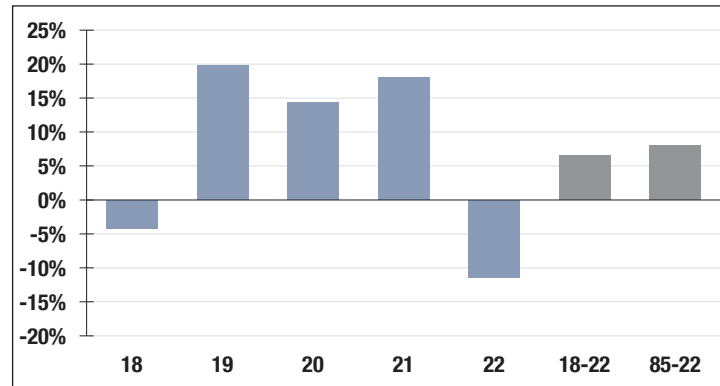
**-11.43%**  
2022 Returns

**8.32%**  
2013-2022  
[Annualized]

**8.07%**  
1985-2022  
[Annualized]

## Investment Returns

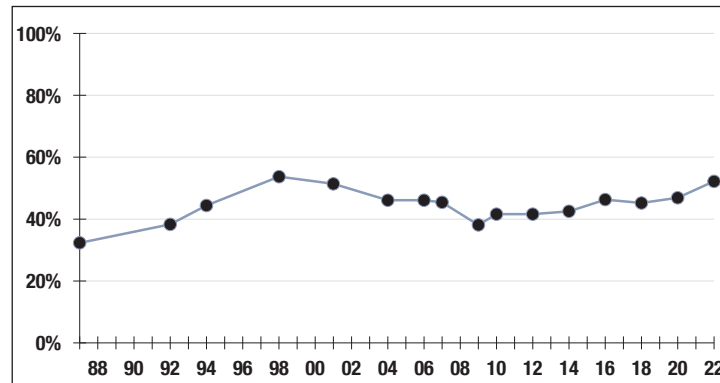
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**52.2%**

Funded Ratio

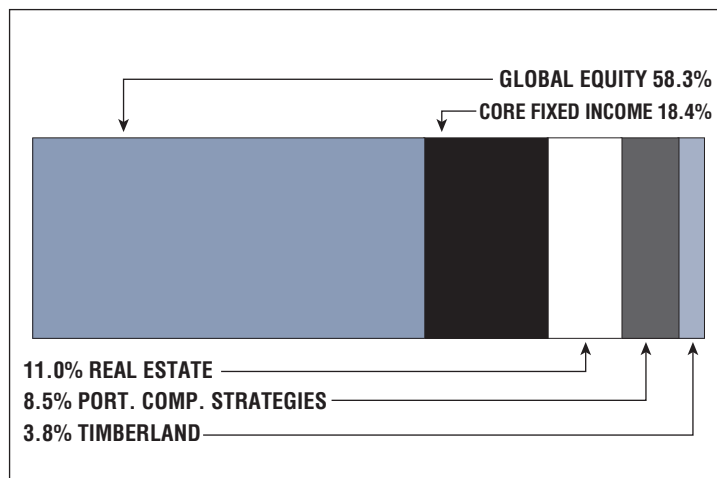
**2035**

Fully Funded

**6.18% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$389.5 M**

Unfunded Liability

**\$40.8 M**  
[FY2023]

Total Pension  
Appropriation

# Newburyport

## CONTACT INFORMATION

16 Unicorn Street  
Newburyport, MA 01950  
Phone 978-465-6619  
Fax 978-462-4042

## BOARD MEMBERS

Ethan Manning  
John Moak  
Jeffrey Cutter  
Joseph Spaulding\*  
Larry Giunta  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Laurie Burton

## SYSTEM MEMBERS

Active Members .....370  
Total Payroll .....\$21.1 M  
Average Salary .....\$57,000  
Average Age .....49  
Average Service .....11.7

Retired Members .....267  
Benefits Paid .....\$8.3 M  
Average Benefit ....\$31,100  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....22  
Reported Earnings .....7  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$109.6 M**  
Market Value

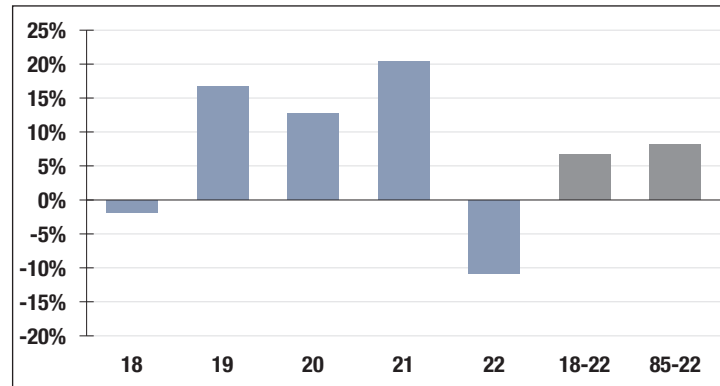
**-10.85%**  
2022 Returns

**8.21%**  
2013-2022  
[Annualized]

**8.17%**  
1985-2022  
[Annualized]

## Investment Returns

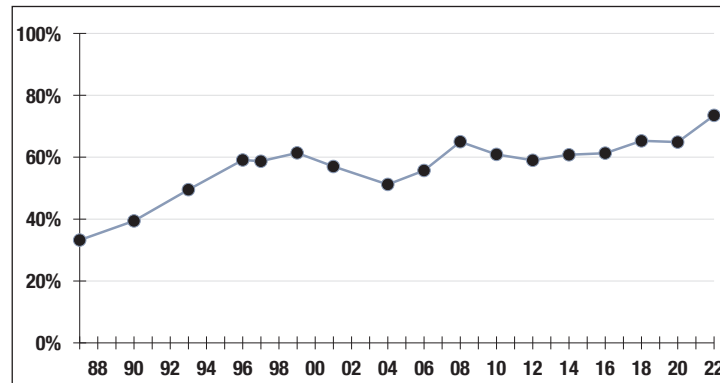
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**73.5%**

Funded Ratio

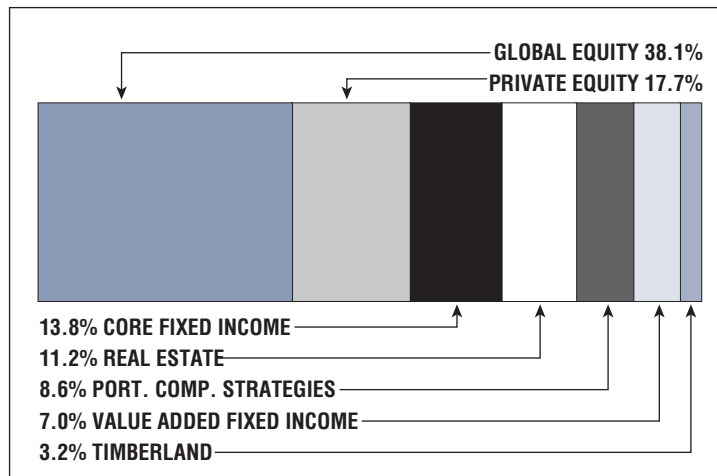
**2036**

Fully Funded

**5.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$40.4 M**

Unfunded Liability

**\$5.9 M**  
[FY2023]

Total Pension  
Appropriation

# Newton

## CONTACT INFORMATION

City Hall  
1000 Commonwealth Avenue  
Newton Centre, MA 02459-1449  
Phone 617-796-1095  
Fax 617-796-1098

## BOARD MEMBERS

Stephen Curley  
Anthony Logalbo  
Kelly Byrne  
Thomas Lopez\*  
Lisa Maloney  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Barbara O'Brien

## SYSTEM MEMBERS

Active Members ..... 1,555  
Total Payroll ..... \$112.0 M  
Average Salary ..... \$72,000  
Average Age ..... 46  
Average Service ..... 12.1

Retired Members ..... 1,334  
Benefits Paid ..... \$44.8 M  
Average Benefit .... \$33,600  
Average Age ..... 75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 122  
Reported Earnings ..... 27  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22  
Actuary: Segal



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**\$473.8 M**  
Market Value

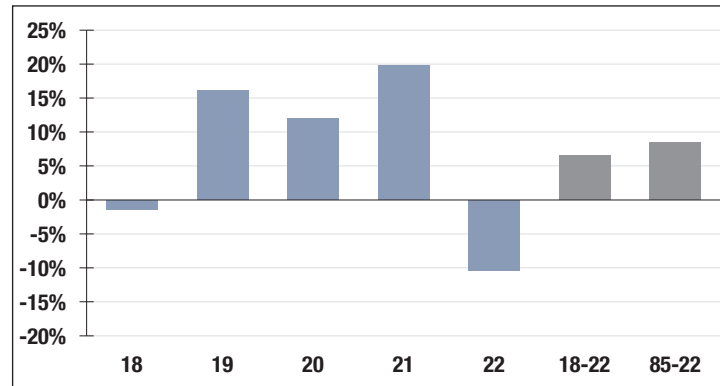
**-10.44%**  
2022 Returns

**8.15%**  
2013-2022  
(Annualized)

**8.50%**  
1985-2022  
(Annualized)

## Investment Returns

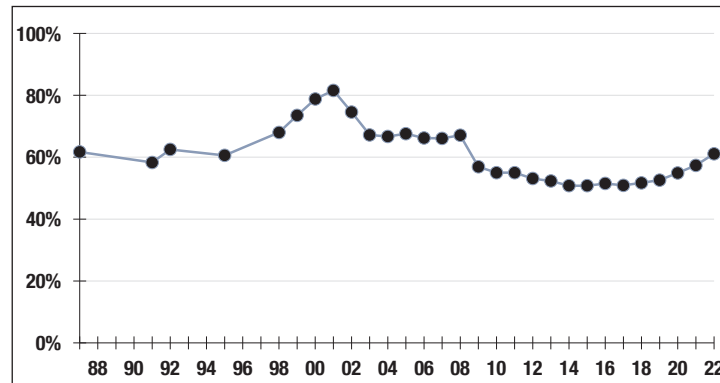
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.90%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**61.1%**

Funded Ratio

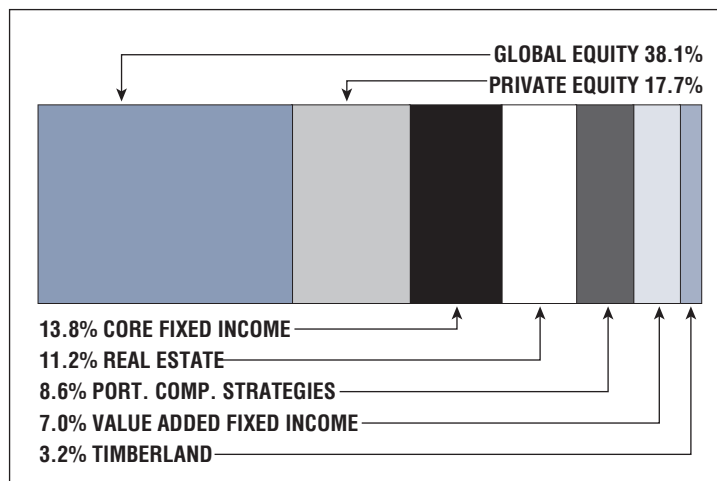
**2030**

Fully Funded

**9.6% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$301.2 M**

Unfunded Liability

**\$40.8 M**  
[FY2023]

Total Pension  
Appropriation



# Norfolk County

## CONTACT INFORMATION

480 Neponset Street  
Bldg. 15  
Canton, MA 02021  
Phone 781-821-0664  
Fax 781-821-0981

## BOARD MEMBERS

Michael Bellotti\*  
Paul Connors  
Edwin Little  
Josephine Shea  
Lisa Sinkus  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kathleen Kiely-Becchetti

## SYSTEM MEMBERS

Active Members .....5,801  
Total Payroll .....\$339.6 M  
Average Salary .....\$58,500  
Average Age .....NA  
Average Service .....NA

Retired Members .....3,717  
Benefits Paid .....\$111.1 M  
Average Benefit ....\$29,900  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....313  
Reported Earnings .....90  
Excess Earners .....5  
Refund Due .....\$39,895

Last Valuation: 1/1/22

Actuary: Sherman



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**\$1.3 B**  
Market Value

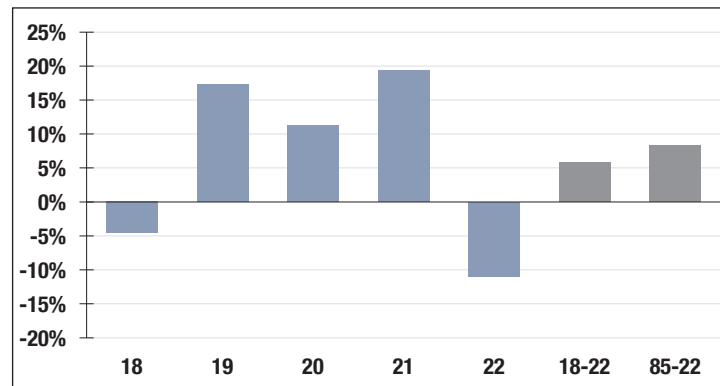
**-10.98%**  
2022 Returns

**7.53%**  
2013-2022  
[Annualized]

**8.36%**  
1985-2022  
[Annualized]

## Investment Returns

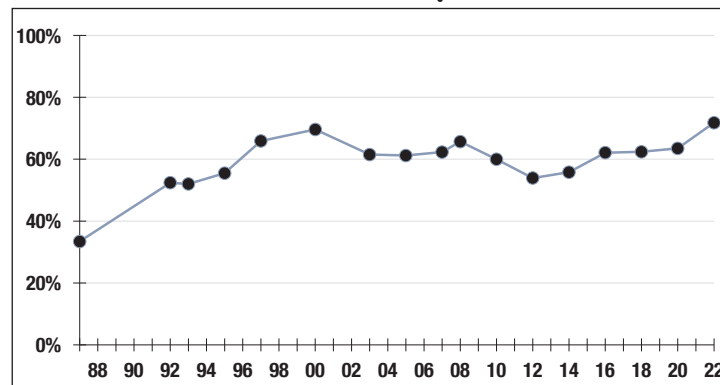
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**71.8%**

Funded Ratio

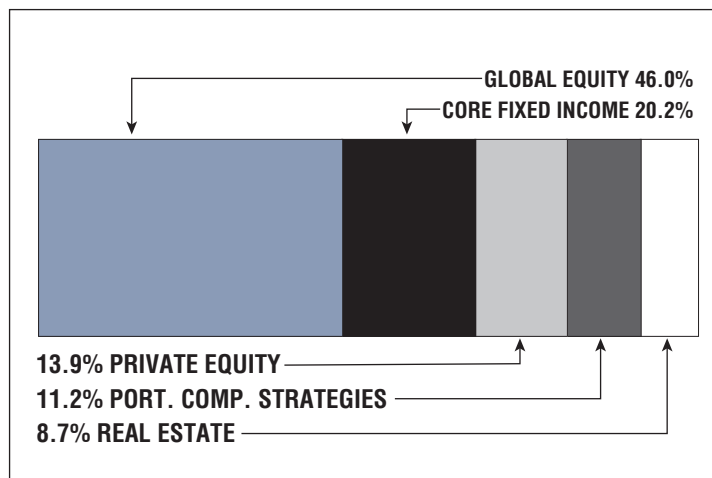
**2029**

Fully Funded

**4.5% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$505.4 M**

Unfunded Liability

**\$93.5 M**  
[FY2023]

Total Pension  
Appropriation

# North Adams

## CONTACT INFORMATION

61 Main Street  
Suite 247  
North Adams, MA 01247  
Phone 413-663-5185  
Fax 413-664-9412

## BOARD MEMBERS

Beverly Cooper  
Kathleen Wall  
Lawrence O'Brien\*  
Matthew LaBonte  
Fred Thompson  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Shawn Flynn

## SYSTEM MEMBERS

Active Members .....312  
Total Payroll .....\$11.8 M  
Average Salary .....\$37,800  
Average Age .....46  
Average Service .....10.7

Retired Members .....241  
Benefits Paid .....\$5.3 M  
Average Benefit ....\$22,200  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....33  
Reported Earnings .....15  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$73.6 M**  
Market Value

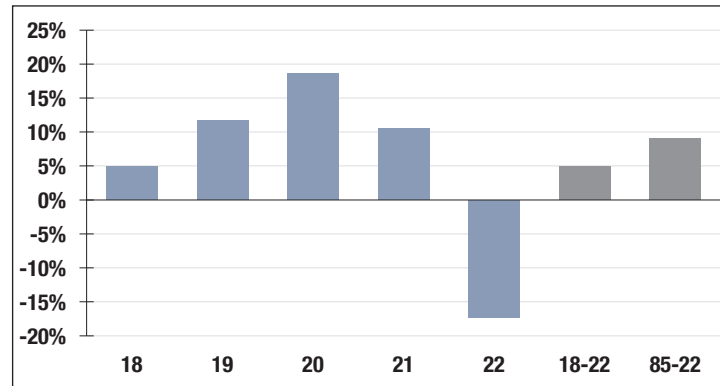
**-17.35%**  
2022 Returns

**7.40%**  
2013-2022  
[Annualized]

**9.01%**  
1985-2022  
[Annualized]

## Investment Returns

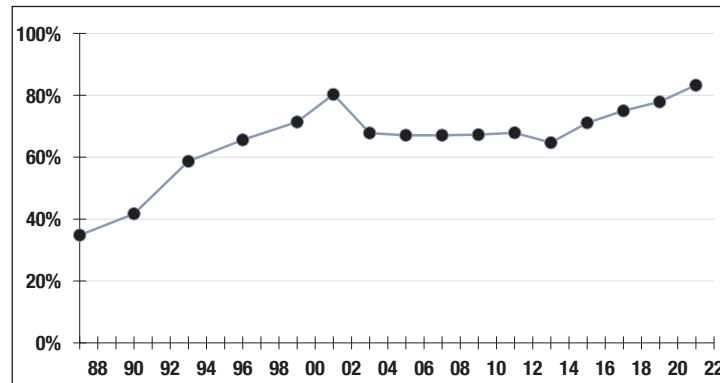
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**83.3%**

Funded Ratio

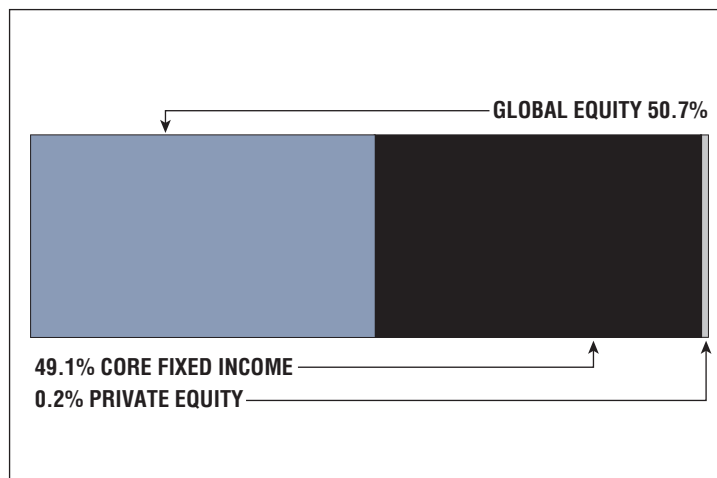
**2029**

Fully Funded

**4.9% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$15.1 M**

Unfunded Liability

**\$3.9 M**  
[FY2023]

Total Pension  
Appropriation

# North Attleboro

## CONTACT INFORMATION

500 East Washington Street,  
2nd Floor  
North Attleboro, MA 02760  
Phone 508-699-0119  
Fax 508-699-0127

## BOARD MEMBERS

Linda Catanzariti  
Pedro Alves  
Brian Brousseau  
Craig Chapman\*  
Lauren Durham  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Juanita Escobar

## SYSTEM MEMBERS

Active Members .....509  
Total Payroll .....\$27.3 M  
Average Salary .....\$53,700  
Average Age .....48  
Average Service .....11.3  
  
Retired Members .....325  
Benefits Paid .....\$9.7 M  
Average Benefit ....\$30,000  
Average Age .....71

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....27  
Reported Earnings .....11  
Excess Earners .....2  
Refund Due .....\$5,344

Last Valuation: 1/1/22  
Actuary: Segal



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**\$140.3 M**  
Market Value

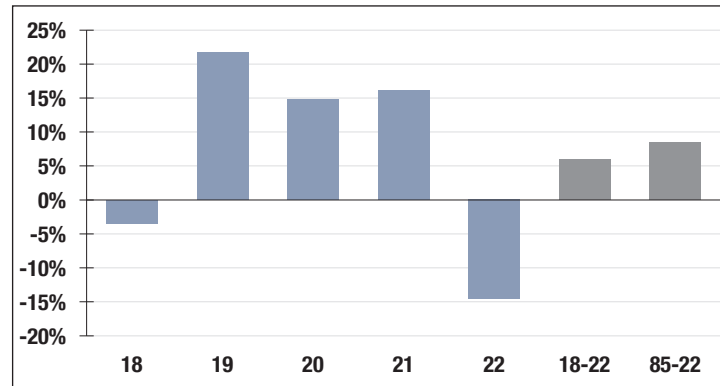
**-14.59%**  
2022 Returns

**8.25%**  
2013-2022  
(Annualized)

**8.42%**  
1985-2022  
(Annualized)

## Investment Returns

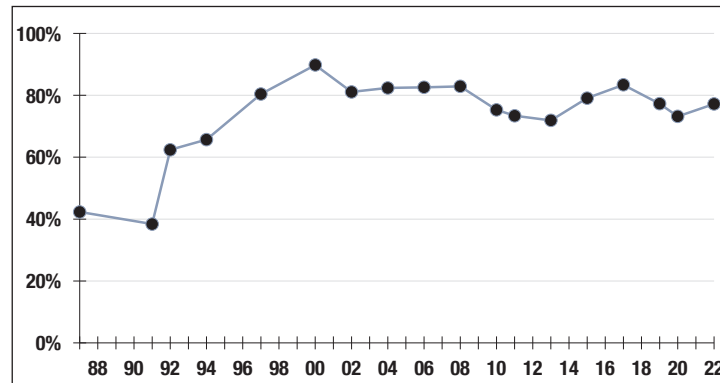
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**77.2%**

Funded Ratio

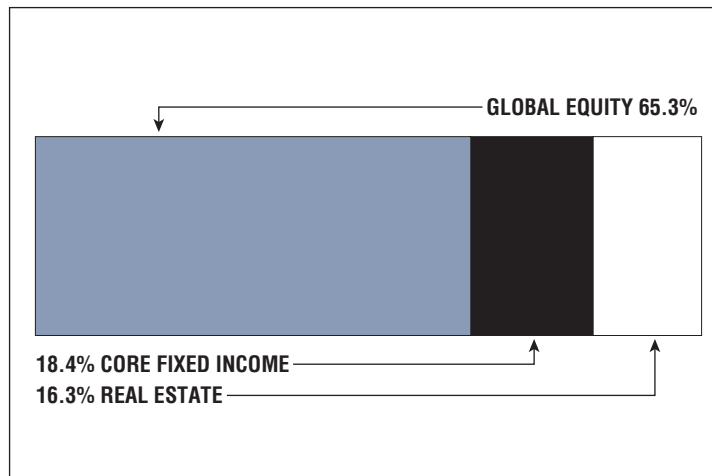
**2034**

Fully Funded

**6.13% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$44.4 M**

Unfunded Liability

**\$4.7 M**  
(FY2023)

Total Pension  
Appropriation

# Northampton

## CONTACT INFORMATION

240 Main Street  
First Floor  
Northampton, MA 01060  
Phone 413-587-1211  
Fax 413-587-1278

## BOARD MEMBERS

Joyce Karpinski  
Charlene Nardi\*  
Karen Lafleche  
Tammy Suprenant  
Thomas Sullivan  
\*indicates Chairperson

## BOARD ADMINISTRATOR

David Shipka

## SYSTEM MEMBERS

Active Members .....682  
Total Payroll .....\$33.9 M  
Average Salary .....\$49,600  
Average Age .....46  
Average Service .....9.7

Retired Members .....471  
Benefits Paid .....\$12.3 M  
Average Benefit ....\$26,100  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....30  
Reported Earnings .....11  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Stone



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**\$145.4 M**  
Market Value

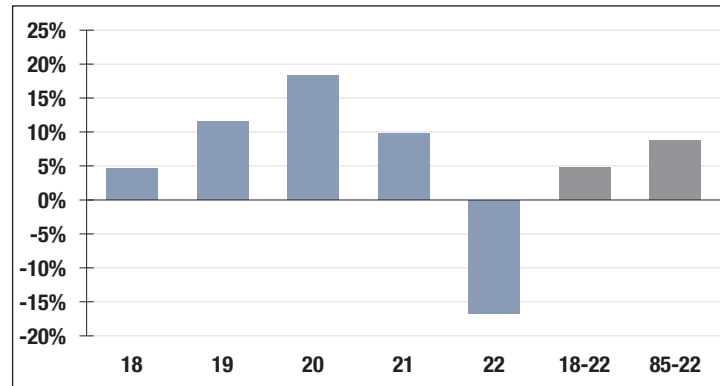
**-16.76%**  
2022 Returns

**7.37%**  
2013-2022  
(Annualized)

**8.84%**  
1985-2022  
(Annualized)

## Investment Returns

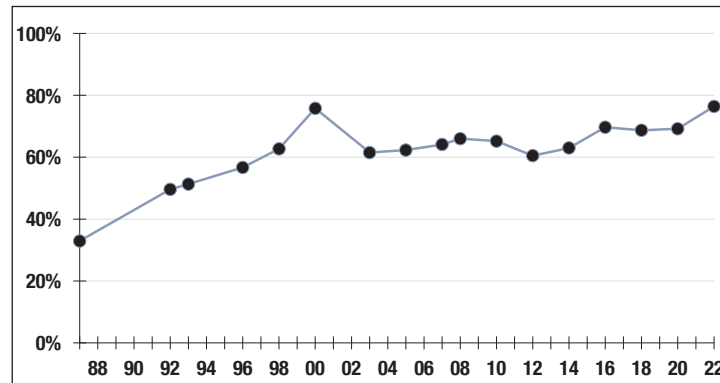
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.90%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**76.4%**

Funded Ratio

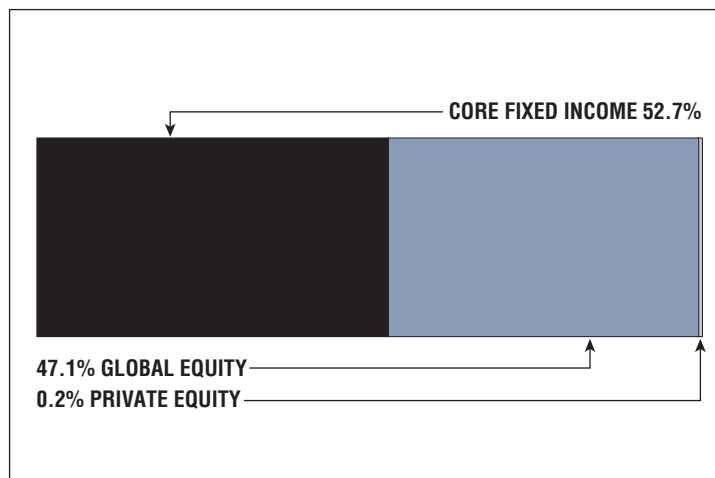
**2035**

Fully Funded

**3.45% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$51.4 M**

Unfunded Liability

**\$7.5 M**  
(FY2023)

Total Pension  
Appropriation

# Northbridge

## CONTACT INFORMATION

7 Main Street  
Town Hall  
Whitinsville, MA 01588  
Phone 508-234-0820  
Fax 508-234-5834

## BOARD MEMBERS

Sharon Emerick  
Sharon Susienka  
George Murray  
John Meagher\*  
Thomas Frieswyk  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Caitlin Leahey

## SYSTEM MEMBERS

Active Members .....218  
Total Payroll .....\$9.9 M  
Average Salary .....\$45,500  
Average Age .....45  
Average Service .....9.5

Retired Members .....115  
Benefits Paid .....\$2.9 M  
Average Benefit ....\$24,800  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....10  
Reported Earnings .....4  
Excess Earners .....1  
Refund Due .....\$1,537

Last Valuation: 1/1/22  
Actuary: Stone



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**\$47.6 M**  
Market Value

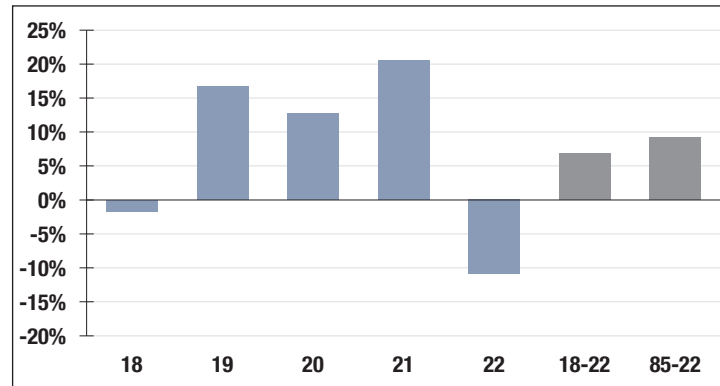
**-10.90%**  
2022 Returns

**8.37%**  
2013-2022  
(Annualized)

**9.15%**  
1985-2022  
(Annualized)

## Investment Returns

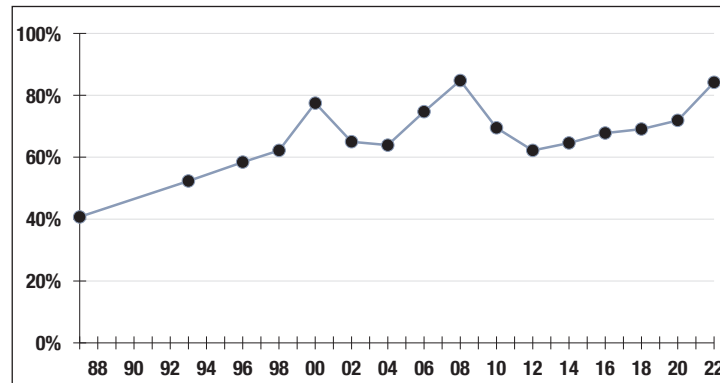
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**84.2%**

Funded Ratio

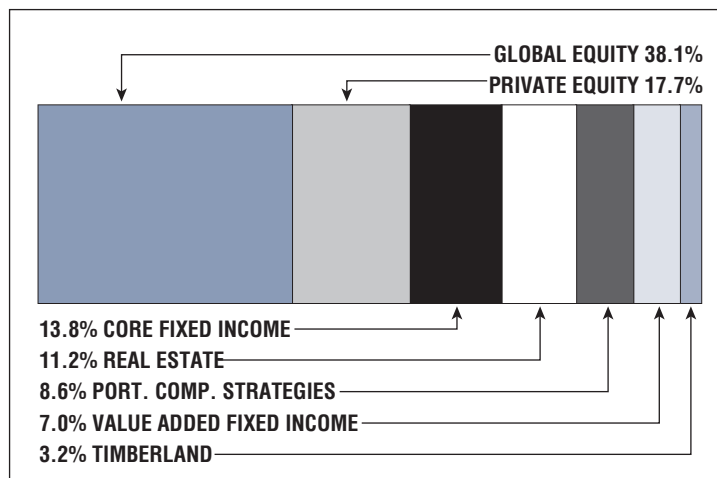
**2031**

Fully Funded

**2.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$9.2 M**

Unfunded Liability

**\$2.1 M**  
(FY2023)

Total Pension  
Appropriation

# Norwood

## CONTACT INFORMATION

566 Washington Street  
Norwood, MA 02062  
Phone 781-762-1240  
Fax 781-278-3024

## BOARD MEMBERS

Edmund Mulvehill\*

Eileen Hickey

Thomas O'Toole

Thomas Rorrie

\*indicates Chairperson

## BOARD ADMINISTRATOR

Debra Wilkes

## SYSTEM MEMBERS

Active Members .....650  
Total Payroll .....\$40.6 M  
Average Salary .....\$62,400  
Average Age .....48  
Average Service .....10.6

Retired Members .....439  
Benefits Paid .....\$13.5 M  
Average Benefit ....\$30,800  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....30  
Reported Earnings .....10  
Excess Earners .....1  
Refund Due .....\$48,409

Last Valuation: 1/1/22

Actuary: Segal



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**\$209.5 M**  
Market Value

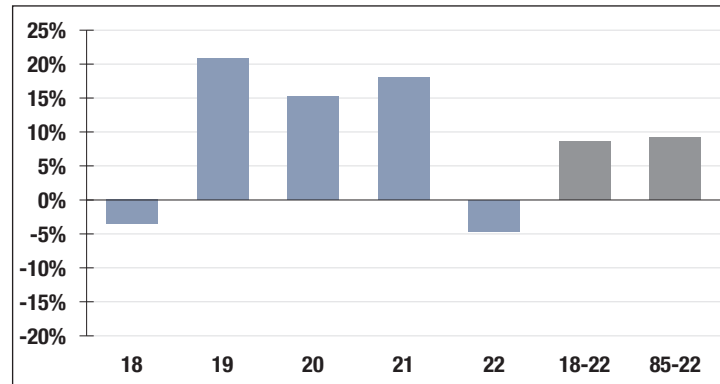
**-4.61%**  
2022 Returns

**9.24%**  
2013-2022  
(Annualized)

**9.19%**  
1985-2022  
(Annualized)

## Investment Returns

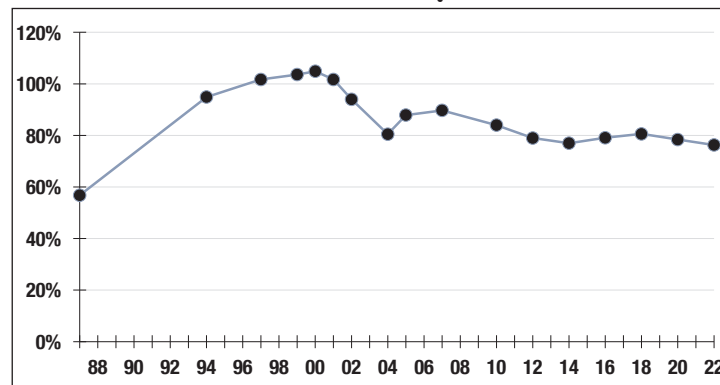
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**76.3%**

Funded Ratio

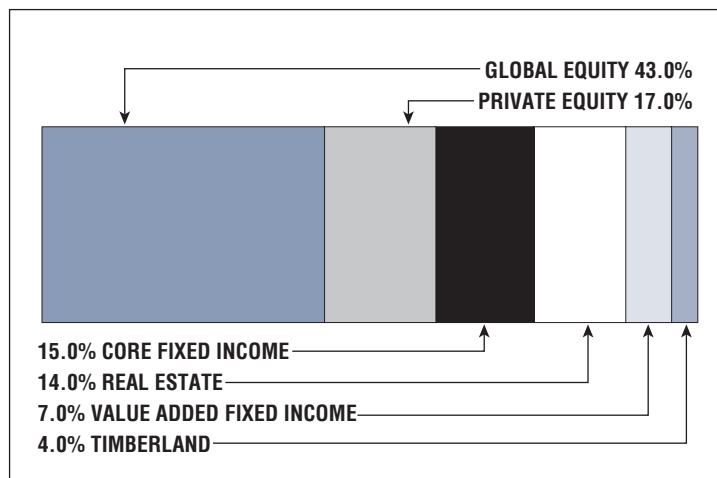
**2038**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$63.0 M**

Unfunded Liability

**\$6.2 M**  
(FY2023)

Total Pension  
Appropriation



# Peabody

## CONTACT INFORMATION

City Hall  
24 Lowell Street  
Peabody, MA 01960  
Phone 978-538-5911  
Fax 978-560-0955

## BOARD MEMBERS

Michael Gingras  
Edward Lomasney  
Andrea Trefry  
Henry Hogan  
Richard Yagjian\*

\*indicates Chairperson

## BOARD ADMINISTRATOR

James Freeman

## SYSTEM MEMBERS

Active Members .....835  
Total Payroll .....\$50.4 M  
Average Salary .....\$60,300  
Average Age .....NA  
Average Service .....NA

Retired Members .....769  
Benefits Paid .....\$21.8 M  
Average Benefit ....\$28,400  
Average Age .....75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....41  
Reported Earnings .....8  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22

Actuary: Sherman



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**\$183.6 M**  
Market Value

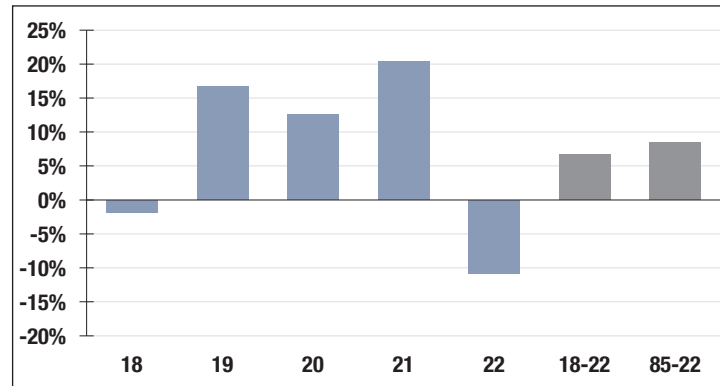
**-10.88%**  
2022 Returns

**8.32%**  
2013-2022  
[Annualized]

**8.53%**  
1985-2022  
[Annualized]

## Investment Returns

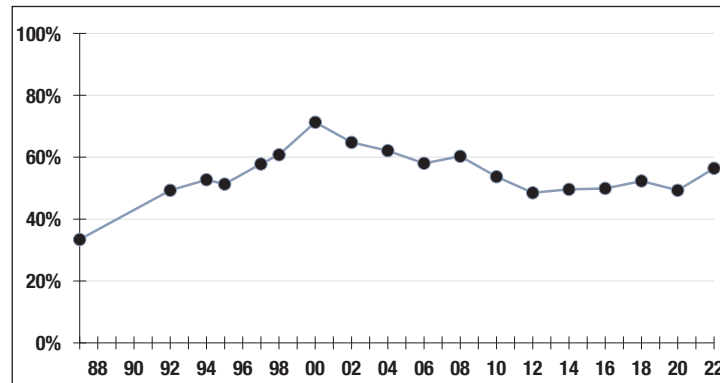
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**56.4%**

Funded Ratio

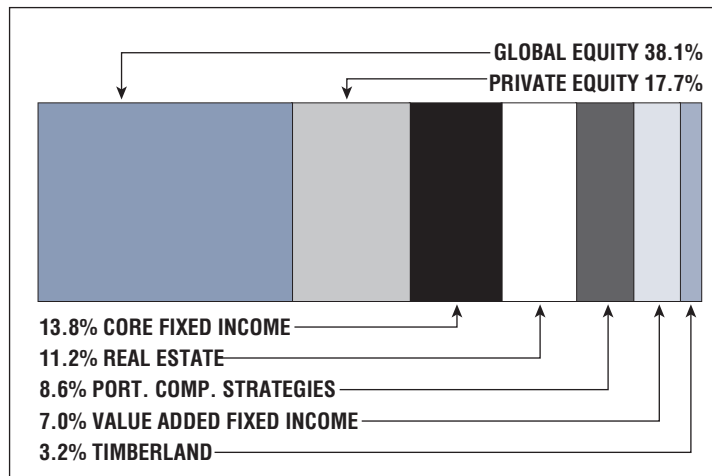
**2036**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$150.4 M**

Unfunded Liability

**\$15.4 M**  
[FY2023]

Total Pension  
Appropriation

# Pittsfield

## CONTACT INFORMATION

114 Fenn Street  
Pittsfield, MA 01201  
Phone 413-499-9468  
Fax 413-499-9328

## BOARD MEMBERS

Matthew Kerwood\*  
Bonnie Galant  
Timothy Bartini  
Timothy Hannigan  
William Flynn  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Karen Lancto

## SYSTEM MEMBERS

Active Members .....861  
Total Payroll .....\$37.2 M  
Average Salary .....\$43,200  
Average Age .....48  
Average Service .....11.1

Retired Members .....792  
Benefits Paid .....\$19.4 M  
Average Benefit ....\$24,500  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....65  
Reported Earnings .....14  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$175.0 M**  
Market Value

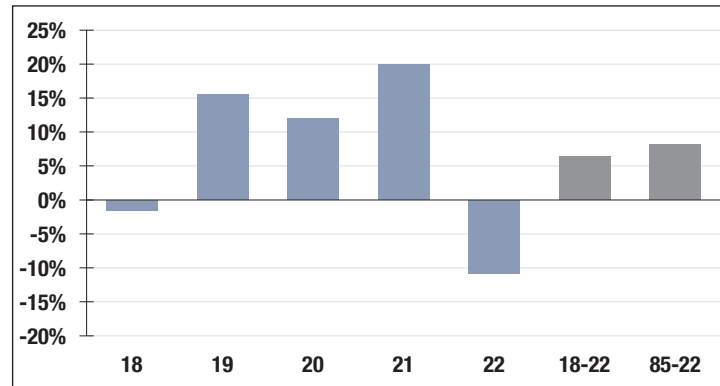
**-10.80%**  
2022 Returns

**8.07%**  
2013-2022  
[Annualized]

**8.11%**  
1985-2022  
[Annualized]

## Investment Returns

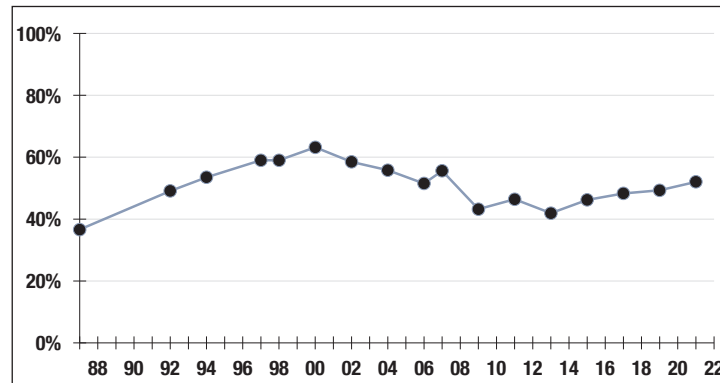
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**52.0%**

Funded Ratio

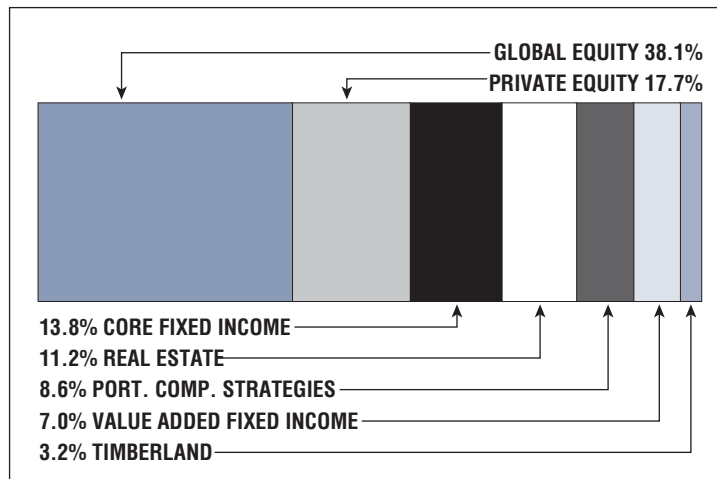
**2037**

Fully Funded

**5.2% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$146.8 M**

Unfunded Liability

**\$16.3 M**  
[FY2023]

Total Pension  
Appropriation

# Plymouth

## CONTACT INFORMATION

212 South Meadow Road  
Unit #3  
Plymouth, MA 02360  
Phone 508-830-4170  
Fax 508-830-4019

## BOARD MEMBERS

Lynne Barrett  
Sharon LaRosa  
Dale Webber  
Thomas Kelley\*  
Robert Ness

\*indicates Chairperson

## BOARD ADMINISTRATOR

Wendy Cherry

## SYSTEM MEMBERS

Active Members .....901  
Total Payroll .....\$53.6 M  
Average Salary .....\$59,500  
Average Age .....48  
Average Service .....11.3

Retired Members .....817  
Benefits Paid .....\$22.4 M  
Average Benefit ....\$27,500  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....81  
Reported Earnings .....31  
Excess Earners .....1  
Refund Due .....\$43,302

Last Valuation: 1/1/22  
Actuary: KMS



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**\$228.7 M**  
Market Value

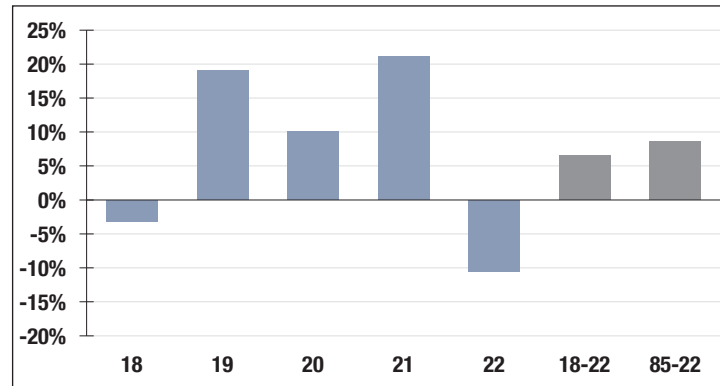
**-10.55%**  
2022 Returns

**8.59%**  
2013-2022  
(Annualized)

**8.68%**  
1985-2022  
(Annualized)

## Investment Returns

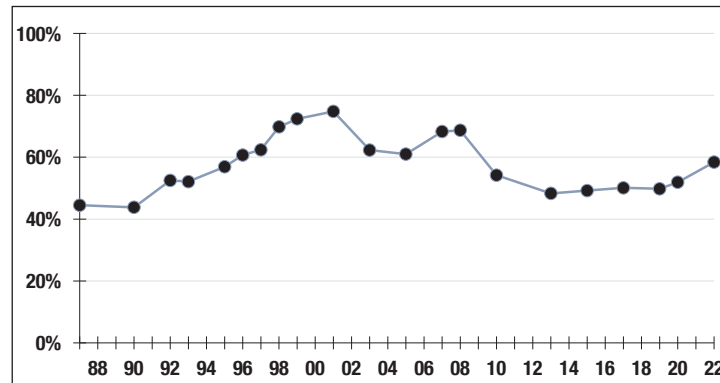
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**58.4%**

Funded Ratio

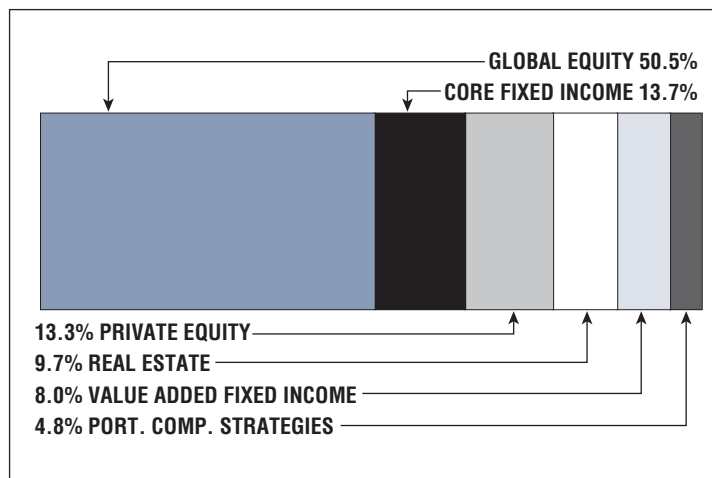
**2035**

Fully Funded

**Varies Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$165.2 M**

Unfunded Liability

**\$17.4 M**  
[FY2023]

Total Pension  
Appropriation

# Plymouth County

## CONTACT INFORMATION

60 Industrial Park Road  
Plymouth, MA 02360  
Phone 508-830-1803  
Fax 508-830-1875

## BOARD MEMBERS

Thomas O'Brien\*  
James Harrington  
John Sciara  
Joseph McDonough  
Pamela Avitabile  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Padraic Lydon

## SYSTEM MEMBERS

Active Members .....5,824  
Total Payroll .....\$316.7 M  
Average Salary .....\$54,400  
Average Age .....NA  
Average Service .....NA

Retired Members .....4,546  
Benefits Paid .....\$124.4 M  
Average Benefit ....\$27,400  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....308  
Reported Earnings .....107  
Excess Earners .....3  
Refund Due .....\$22,826

Last Valuation: 1/1/22  
Actuary: Sherman



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**\$1.3 B**  
Market Value

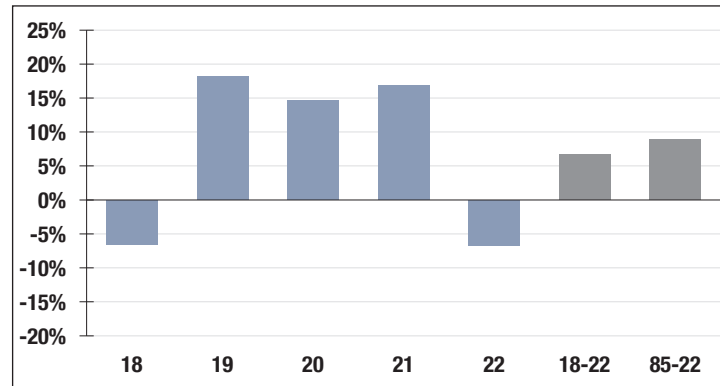
**-6.68%**  
2022 Returns

**8.02%**  
2013-2022  
(Annualized)

**8.91%**  
1985-2022  
(Annualized)

## Investment Returns

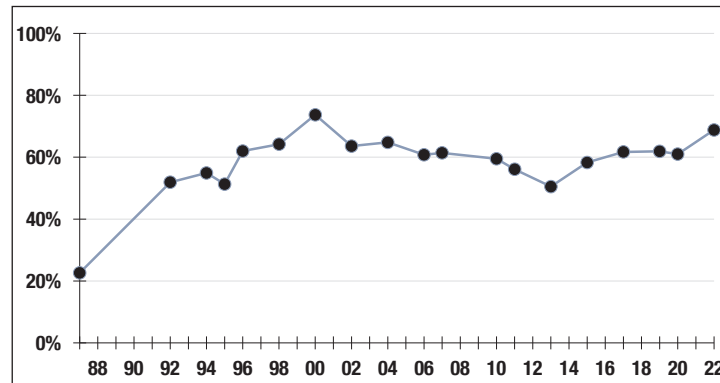
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.88%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**68.8%**

Funded Ratio

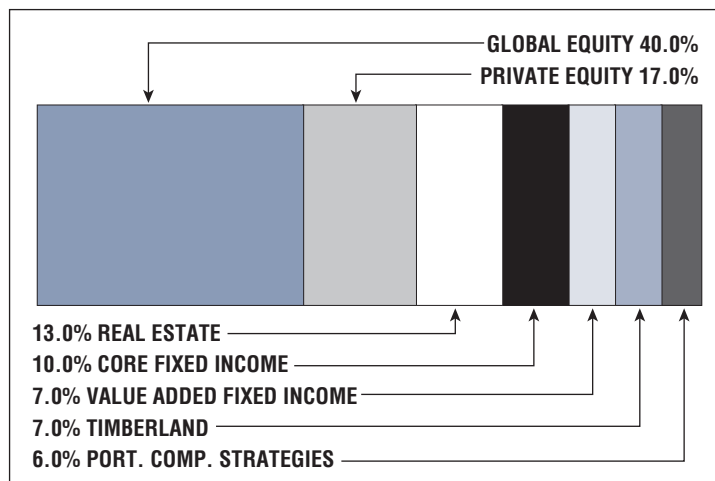
**2029**

Fully Funded

Varies Total  
Increasing

Funding Schedule

## Asset Allocation (12/31/22)



**\$594.4 M**

Unfunded Liability

**\$94.7 M**  
(FY2023)

Total Pension  
Appropriation

# Quincy

## CONTACT INFORMATION

1212 Hancock Street  
Suite 210A  
Quincy, MA 02169  
Phone 617-376-1075  
Fax 617-376-1149

## BOARD MEMBERS

Susan O'Connor\*  
Michael McFarland  
Ernest Arienti  
Paul Brown  
Richard Fitzpatrick  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Brad Croall

## SYSTEM MEMBERS

Active Members ..... 1,575  
Total Payroll ..... \$107.7 M  
Average Salary ..... \$68,400  
Average Age ..... 49  
Average Service ..... 12

Retired Members ..... 1,496  
Benefits Paid ..... \$51.1 M  
Average Benefit .... \$34,200  
Average Age ..... 75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 135  
Reported Earnings ..... 27  
Excess Earners ..... 1  
Refund Due ..... \$1,167

Last Valuation: 1/1/22

Actuary: Stone



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**\$793.9 M**  
Market Value

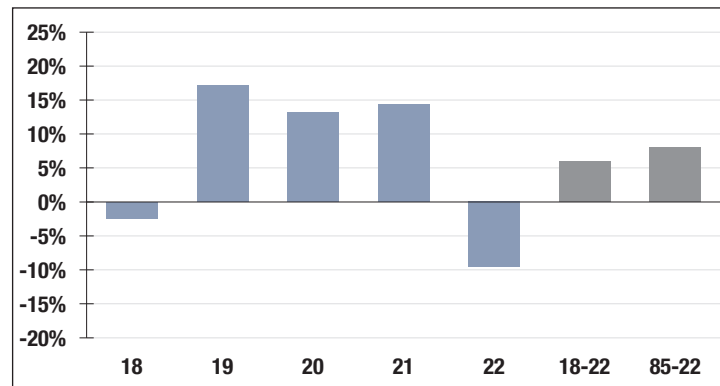
**-9.60%**  
2022 Returns

**7.02%**  
2013-2022  
(Annualized)

**8.00%**  
1985-2022  
(Annualized)

## Investment Returns

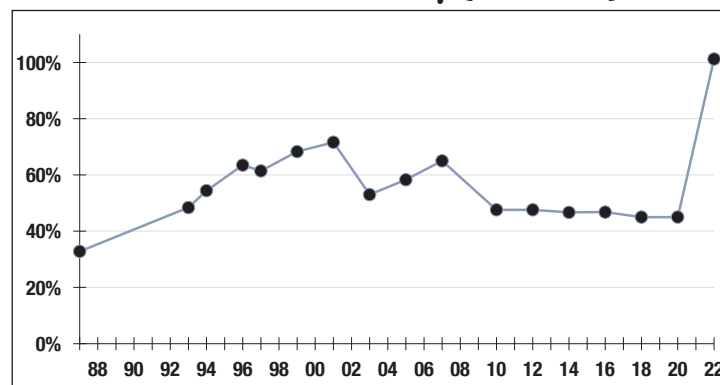
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**101.2%**

Funded Ratio

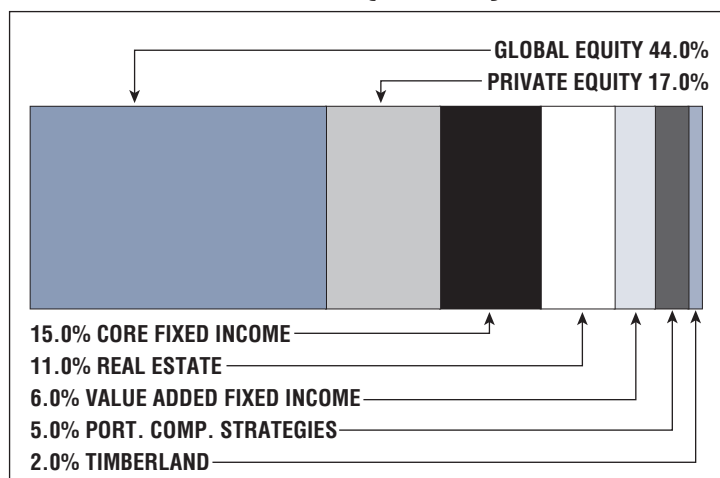
**NA**

Fully Funded

**Fully Funded,  
Housing FY35**

Funding Schedule

## Asset Allocation (12/31/22)



**-\$10.1 M**

Unfunded Liability

**\$9.2 M**  
(FY2023)

Total Pension  
Appropriation

# Reading

## CONTACT INFORMATION

2 Haven Street  
Unit 307  
Reading, MA 01867  
Phone 781-942-9007  
Fax 781-623-3053

## BOARD MEMBERS

Sharon Angstrom  
Carol Roberts  
David Gentile\*  
Robert Beck  
John Halsey

\*indicates Chairperson

## BOARD ADMINISTRATOR

Colleen Loughlin

## SYSTEM MEMBERS

Active Members .....355  
Total Payroll .....\$29.6 M  
Average Salary .....\$83,400  
Average Age .....47  
Average Service .....12.7

Retired Members .....366  
Benefits Paid .....\$12.3 M  
Average Benefit ....\$33,600  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....29  
Reported Earnings .....8  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21

Actuary: KMS



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**\$175.2 M**  
Market Value

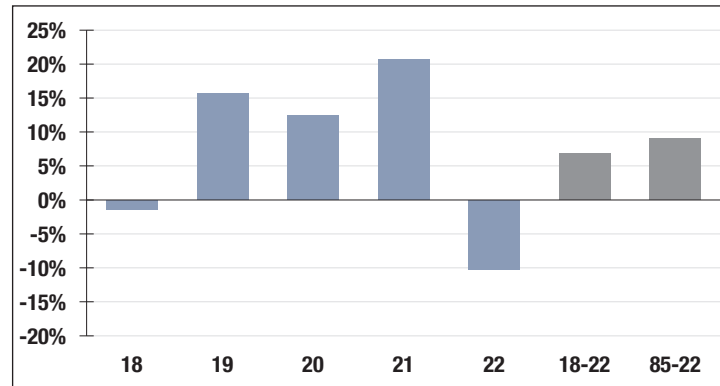
**-10.26%**  
2022 Returns

**8.35%**  
2013-2022  
[Annualized]

**9.08%**  
1985-2022  
[Annualized]

## Investment Returns

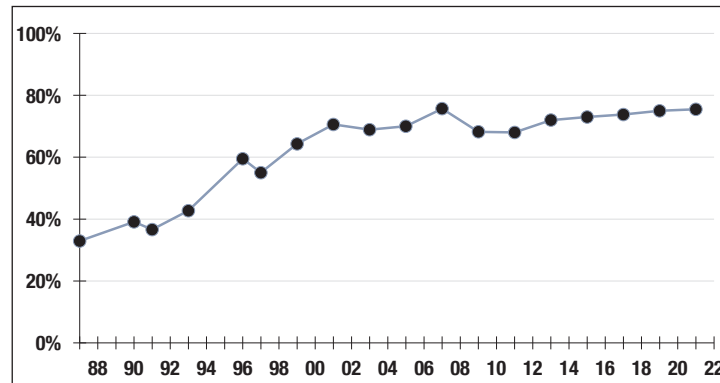
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**75.5%**

Funded Ratio

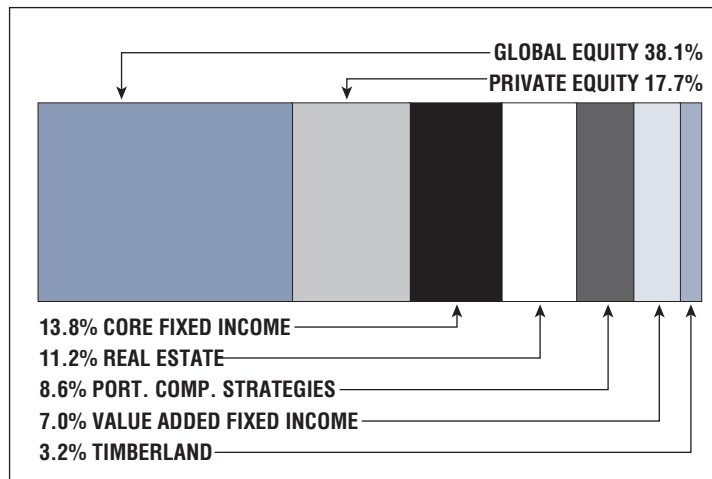
**2031**

Fully Funded

**6.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$52.2 M**

Unfunded Liability

**\$8.5 M**  
[FY2023]

Total Pension  
Appropriation



# Revere

## CONTACT INFORMATION

14 Yeamans Street  
Unit C2  
Revere, MA 02151  
Phone 781-286-8173  
Fax 781-286-3316

## BOARD MEMBERS

Richard Viscay\*  
Ida Cody  
James Cullen  
Sean Manion  
Gennaro Cataldo  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Scott Provensal

## SYSTEM MEMBERS

Active Members .....622  
Total Payroll .....\$43.3 M  
Average Salary .....\$69,600  
Average Age .....47  
Average Service .....11.9

Retired Members .....490  
Benefits Paid .....\$17.2 M  
Average Benefit ....\$35,000  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....91  
Reported Earnings .....23  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$221.8 M**  
Market Value

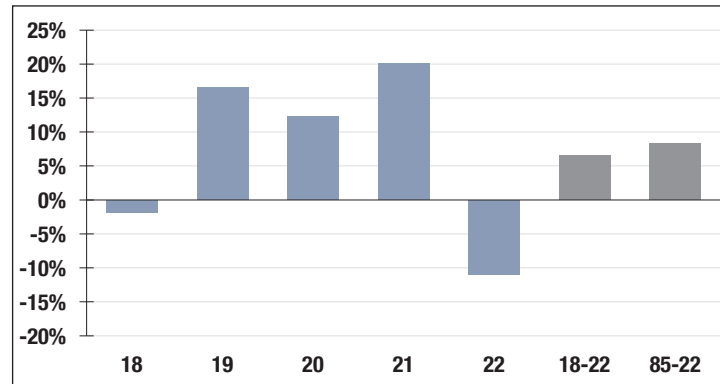
**-10.93%**  
2022 Returns

**8.19%**  
2013-2022  
[Annualized]

**8.30%**  
1985-2022  
[Annualized]

## Investment Returns

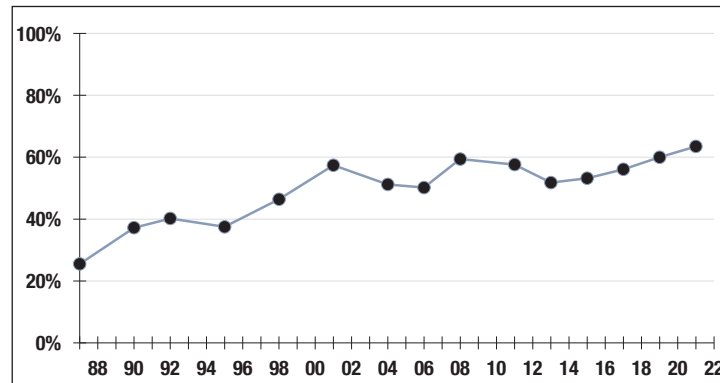
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**63.5%**

Funded Ratio

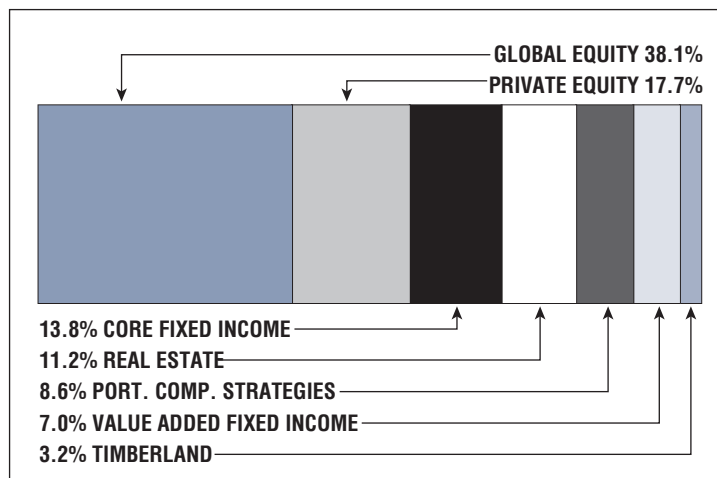
**2033**

Fully Funded

**6.32% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$111.2 M**

Unfunded Liability

**\$16.0 M**  
[FY2023]

Total Pension  
Appropriation

# Salem

## CONTACT INFORMATION

20 Central Street  
Suite 110  
Salem, MA 01970  
Phone 978-745-8983  
Fax 978-745-4216

## BOARD MEMBERS

Anna Freedman\*  
Lisa Peterson  
Robert Callahan  
Sarah Hayes  
Matthew Veno  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Paul Findlen

## SYSTEM MEMBERS

Active Members .....919  
Total Payroll .....\$55.7 M  
Average Salary .....\$60,600  
Average Age .....47  
Average Service ..... 10.4

Retired Members .....636  
Benefits Paid .....\$20.1 M  
Average Benefit ....\$31,600  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....48  
Reported Earnings .....15  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Segal



Click/Scan for Website

**\$247.0 M**  
Market Value

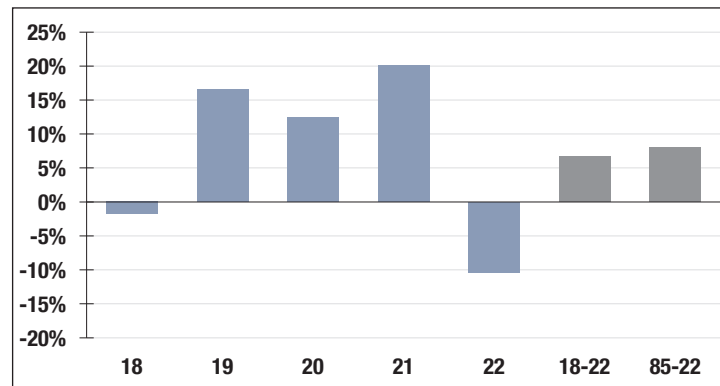
**-10.41%**  
2022 Returns

**8.17%**  
2013-2022  
[Annualized]

**8.09%**  
1985-2022  
[Annualized]

## Investment Returns

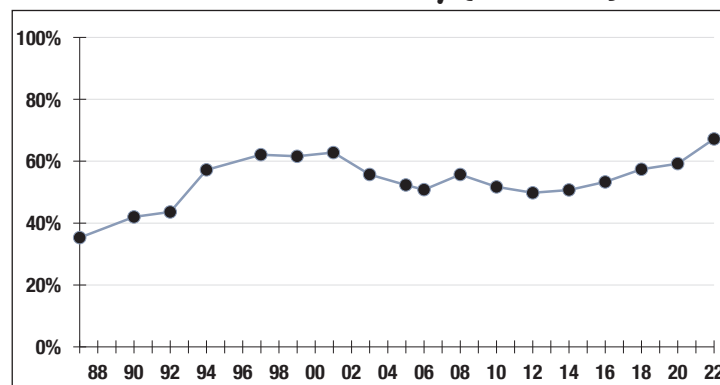
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.90%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**67.2%**

Funded Ratio

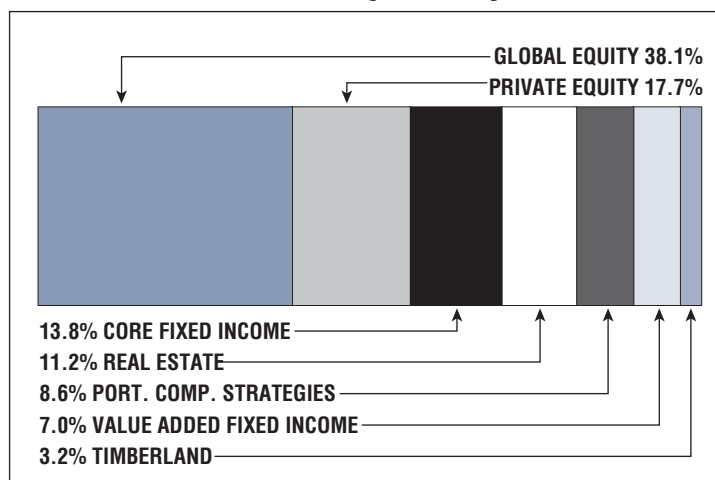
**2032**

Fully Funded

**5.55% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$120.0 M**

Unfunded Liability

**\$17.2 M**  
[FY2023]

Total Pension  
Appropriation

# Saugus

## CONTACT INFORMATION

25R Main Street  
Town Hall Annex  
Saugus, MA 01906  
Phone 781-558-2903  
Fax 781-666-3218

## BOARD MEMBERS

Donna Matarazzo  
Eugene Decareau  
Mark Gannon  
William Cross\*  
Doreen DiBari

\*indicates Chairperson

## BOARD ADMINISTRATOR

Ann Quinlan

## SYSTEM MEMBERS

Active Members .....340  
Total Payroll .....\$20.4 M  
Average Salary .....\$60,000  
Average Age .....46  
Average Service .....11.8

Retired Members .....302  
Benefits Paid .....\$8.7 M  
Average Benefit ....\$28,900  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....26  
Reported Earnings .....5  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21

Actuary: PERAC



Click/Scan for Website

**\$139.1 M**  
Market Value

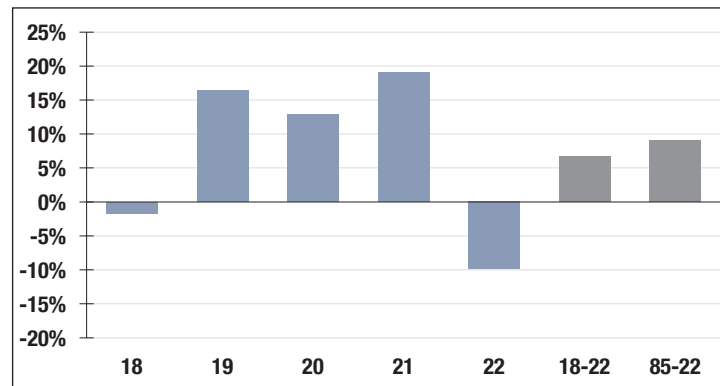
**-9.86%**  
2022 Returns

**8.34%**  
2013-2022  
(Annualized)

**9.03%**  
1985-2022  
(Annualized)

## Investment Returns

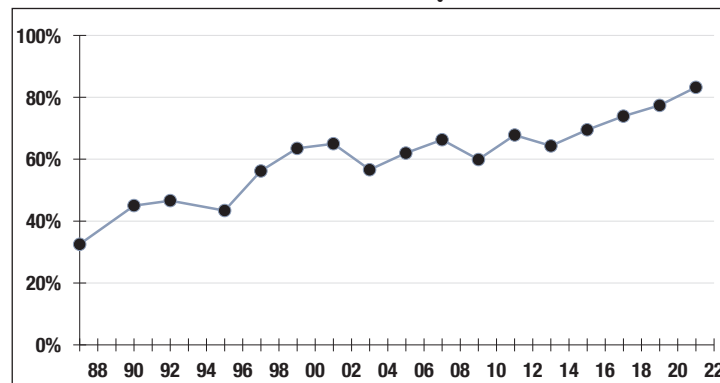
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**83.2%**

Funded Ratio

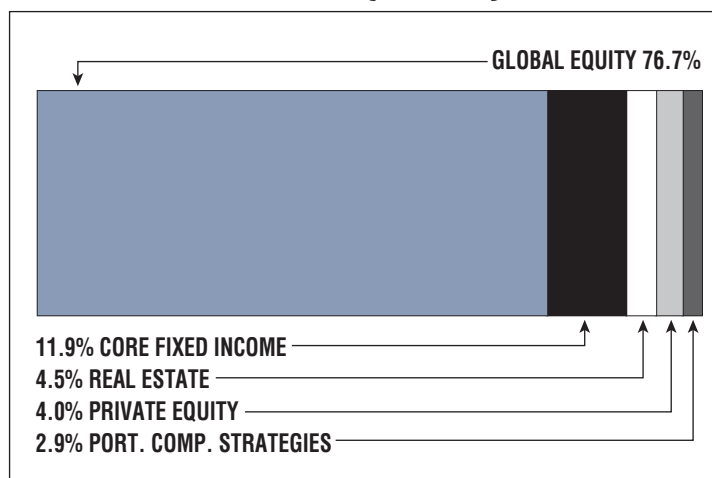
**2027**

Fully Funded

**5.2% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$25.3 M**

Unfunded Liability

**\$8.3 M**  
(FY2023)

Total Pension  
Appropriation

# Shrewsbury

## CONTACT INFORMATION

100 Maple Avenue  
Shrewsbury, MA 01545  
Phone 508-841-8510  
Fax 508-842-0587

## BOARD MEMBERS

Amy Li  
Michael Hale  
Mary Thompson  
Ralph Iaccarino  
Alice Ferro

## BOARD ADMINISTRATOR

Gregory Gatsogiannis

## SYSTEM MEMBERS

Active Members .....433  
Total Payroll .....\$27.2 M  
Average Salary .....\$62,900  
Average Age .....NA  
Average Service .....NA

Retired Members .....305  
Benefits Paid .....\$9.5 M  
Average Benefit .....\$31,100  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....20  
Reported Earnings .....7  
Excess Earners .....1  
Refund Due .....\$1,545

Last Valuation: 1/1/22  
Actuary: Sherman



Click/Scan for Website

**\$155.4 M**  
Market Value

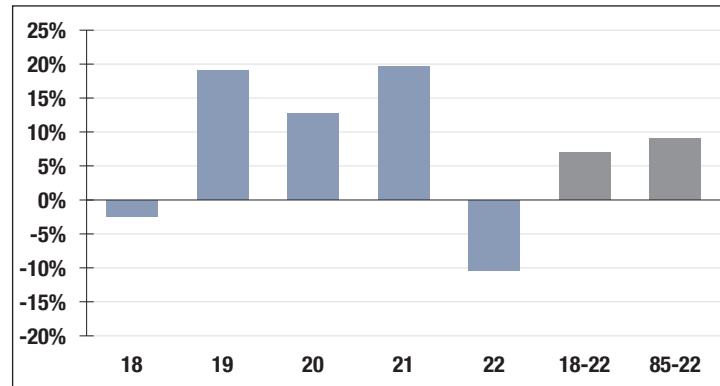
**-10.40%**  
2022 Returns

**8.91%**  
2013-2022  
(Annualized)

**9.00%**  
1985-2022  
(Annualized)

## Investment Returns

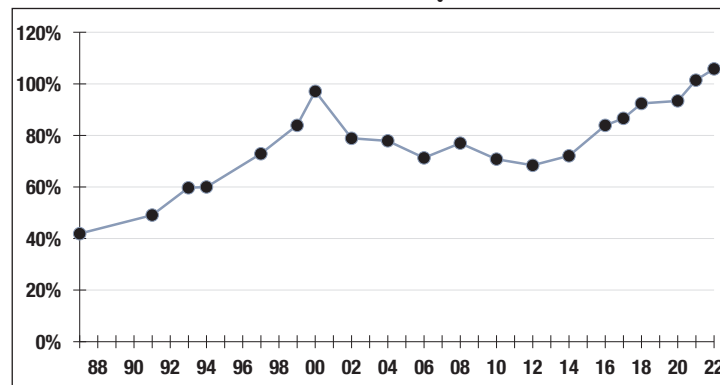
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**105.8%**

Funded Ratio

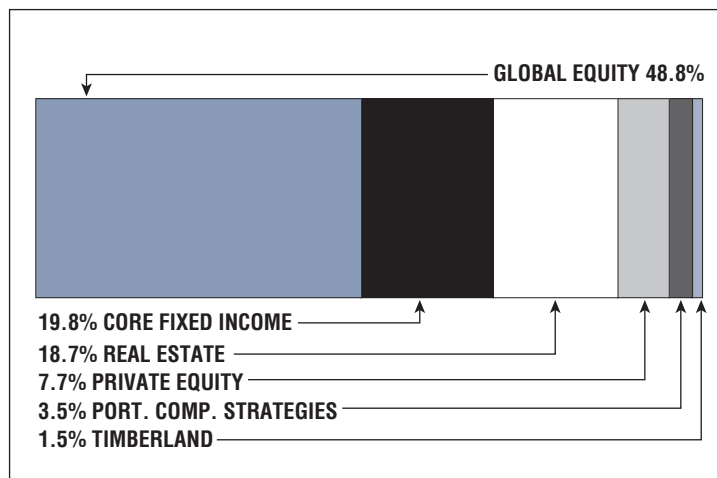
**NA**

Fully Funded

**Fully Funded**

Funding Schedule

## Asset Allocation (12/31/22)



**-\$9.0 M**

Unfunded Liability

**\$1.1 M**  
(FY2023)

Total Pension  
Appropriation

# Somerville

## CONTACT INFORMATION

323 Broadway  
Somerville, MA 02145  
Phone 617-764-3811  
Fax 617-591-3211

## BOARD MEMBERS

Edward Bean\*  
Michael Mastrobuoni  
John Memory  
Thomas Ross  
David Castellarin  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Michael Pasquariello

## SYSTEM MEMBERS

Active Members ..... 1,266  
Total Payroll ..... \$93.8 M  
Average Salary ..... \$74,100  
Average Age ..... NA  
Average Service ..... NA

Retired Members ..... 958  
Benefits Paid ..... \$32.3 M  
Average Benefit ..... \$33,700  
Average Age ..... 74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 103  
Reported Earnings ..... 27  
Excess Earners ..... 0  
Refund Due ..... \$0

Last Valuation: 1/1/22  
Actuary: Sherman



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**\$343.5 M**  
Market Value

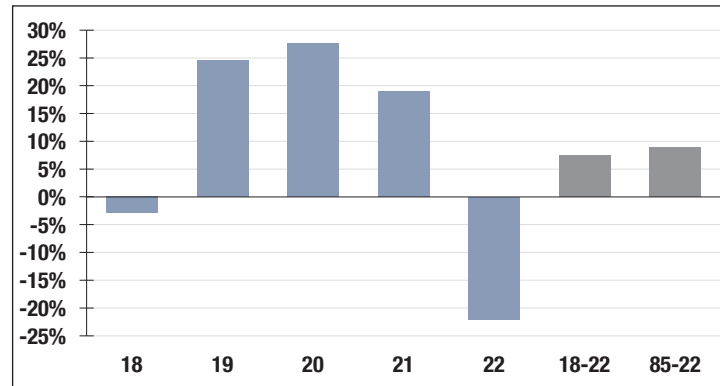
**-22.06%**  
2022 Returns

**8.62%**  
2013-2022  
[Annualized]

**8.85%**  
1985-2022  
[Annualized]

## Investment Returns

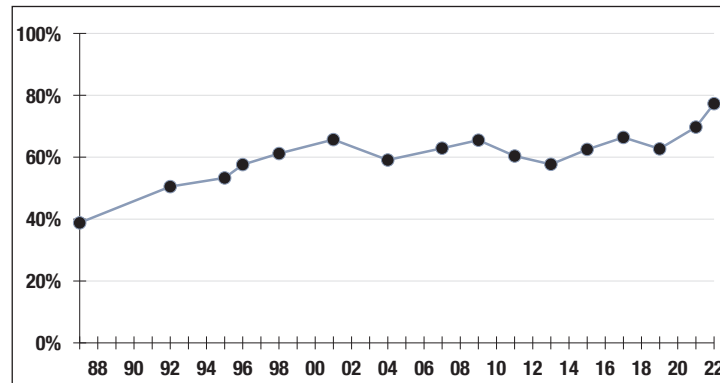
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**77.3%**

Funded Ratio

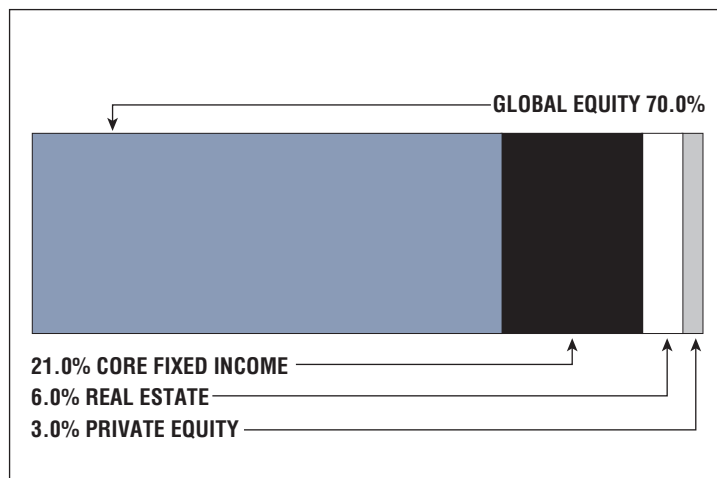
**2033**

Fully Funded

**2.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$119.5 M**

Unfunded Liability

**\$17.2 M**  
[FY2023]

Total Pension  
Appropriation

# Southbridge

## CONTACT INFORMATION

Town Hall  
41 Elm Street  
Southbridge, MA 01550  
Phone 508-765-4903  
Fax 508-765-0902

## BOARD MEMBERS

Kristine Russell  
Julie Pena  
Wilfrid Cournoyer  
Pamela Leduc\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Yolanda Alvarado

## SYSTEM MEMBERS

Active Members .....398  
Total Payroll .....\$19.7 M  
Average Salary .....\$49,400  
Average Age .....44  
Average Service .....8.7

Retired Members .....187  
Benefits Paid .....\$5.0 M  
Average Benefit .....\$26,900  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....17  
Reported Earnings .....8  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$74.9 M**  
Market Value

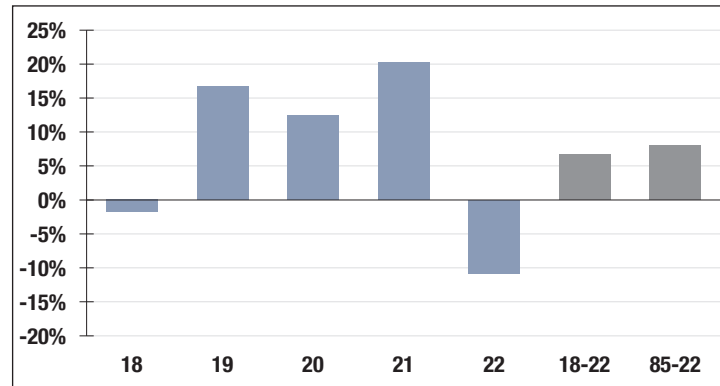
**-10.88%**  
2022 Returns

**8.24%**  
2013-2022  
[Annualized]

**8.03%**  
1985-2022  
[Annualized]

## Investment Returns

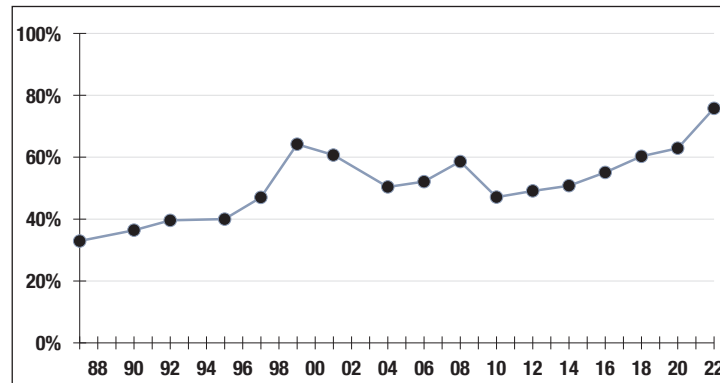
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**75.8%**

Funded Ratio

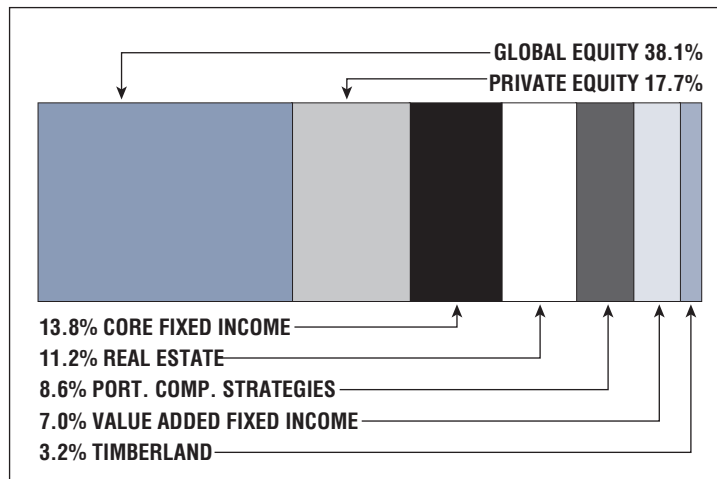
**2032**

Fully Funded

**5.5% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$24.1 M**

Unfunded Liability

**\$5.0 M**  
[FY2023]

Total Pension  
Appropriation



# Springfield

## CONTACT INFORMATION

70 Tapley Street  
Springfield, MA 01104  
Phone 413-787-6090  
Fax 413-787-6046

## BOARD MEMBERS

Patrick Burns  
Haskell Kennedy  
Robert Moynihan  
Thomas Scanlon\*  
Karl Schmaelzle  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Susana Baltazar

## SYSTEM MEMBERS

Active Members .....3,327  
Total Payroll .....\$176.8 M  
Average Salary .....\$53,100  
Average Age .....44  
Average Service .....10.9

Retired Members .....2,812  
Benefits Paid .....\$85.9 M  
Average Benefit .....\$30,500  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....388  
Reported Earnings .....133  
Excess Earners .....6  
Refund Due .....\$45,868

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$509.2 M**  
Market Value

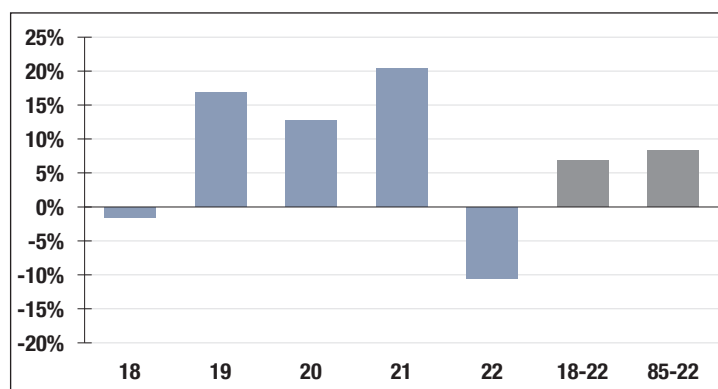
**-10.55%**  
2022 Returns

**8.52%**  
2013-2022  
(Annualized)

**8.36%**  
1985-2022  
(Annualized)

## Investment Returns

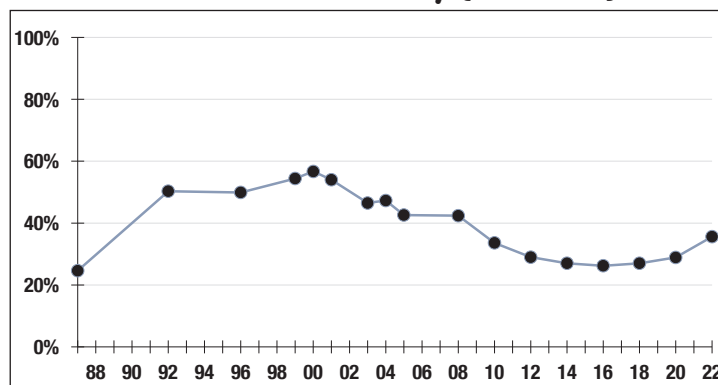
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**35.6%**

Funded Ratio

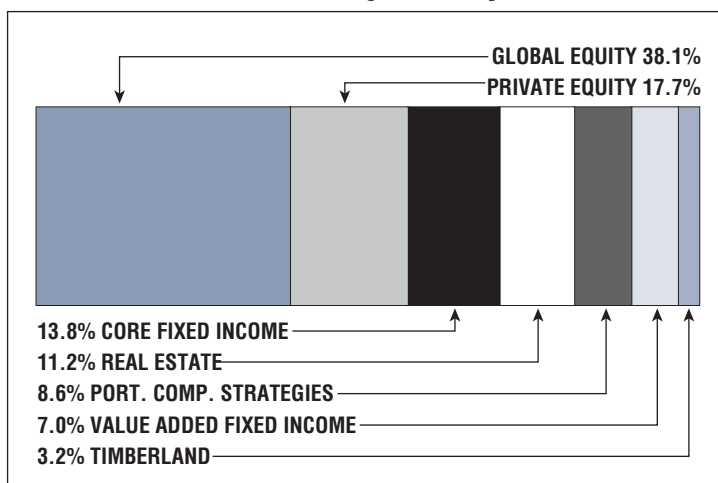
**2033**

Fully Funded

**9.2% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$898.4 M**

Unfunded Liability

**\$93.1 M**  
(FY2023)

Total Pension  
Appropriation

# State

## CONTACT INFORMATION

One Winter Street, 8th floor  
Boston, MA 02108  
Phone 617-367-7770  
Fax 617-723-1438

## BOARD MEMBERS

State Treasurer  
Deborah Goldberg\*  
Maureen Valente  
Frank Valeri  
Theresa McGoldrick  
Archie Gormley  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kathryn Kougias

## SYSTEM MEMBERS

Active Members .....85,999  
Total Payroll ..... \$6.7 B  
Average Salary .....\$77,300  
Average Age .....47  
Average Service ..... 12.2

Retired Members....68,280  
Benefits Paid ..... \$2.7 B  
Average Benefit ....\$39,600  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees.....3,504  
Reported Earnings .....949  
Excess Earners.....36  
Refund Due .....\$532,002

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$33.2 B**  
Market Value

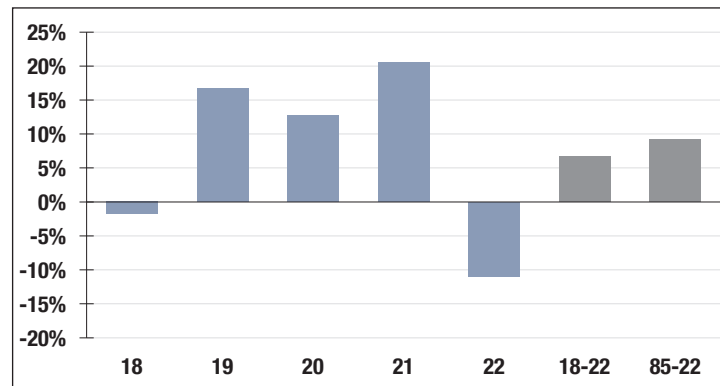
**-10.97%**  
2022 Returns

**8.37%**  
2013-2022  
(Annualized)

**9.23%**  
1985-2022  
(Annualized)

## Investment Returns

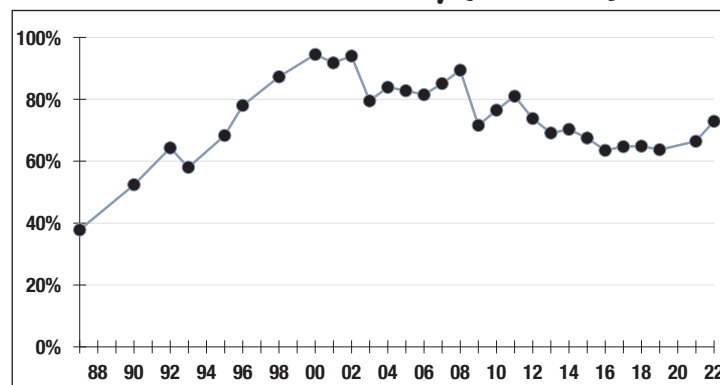
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**72.9%**

Funded Ratio

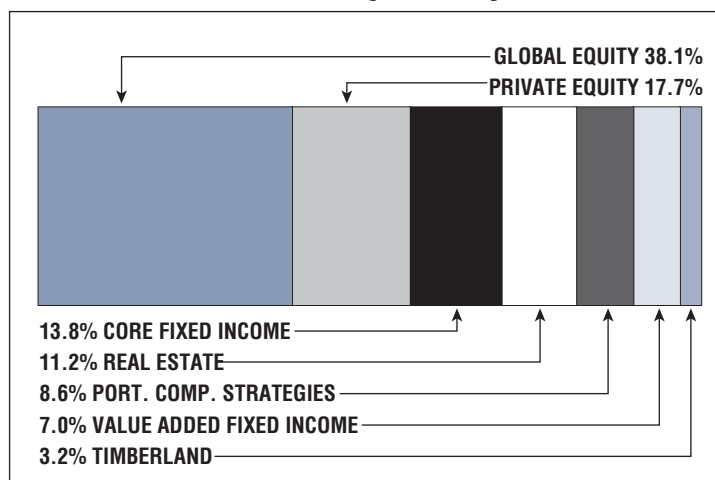
**2036**

Fully Funded

**9.63% Increasing  
Phase-In**

Funding Schedule

## Asset Allocation (12/31/22)



**\$12.8 B**

Unfunded Liability

**\$1.4 B**  
(FY2023)

Total Pension  
Appropriation

# Stoneham

## CONTACT INFORMATION

Town Hall  
35 Central Street  
Stoneham, MA 02180  
Phone 781-279-2635  
Fax 781-438-6906

## BOARD MEMBERS

Lauri Plourde  
Kathleen Sullivan  
Francis Gould  
John Scullin  
Janice Houghton\*

\*indicates Chairperson

## BOARD ADMINISTRATOR

Christopher Delisi

## SYSTEM MEMBERS

Active Members .....309  
Total Payroll .....\$17.2 M  
Average Salary .....\$55,700  
Average Age .....47  
Average Service .....11

Retired Members .....291  
Benefits Paid .....\$8.4 M  
Average Benefit ....\$28,900  
Average Age .....75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....17  
Reported Earnings .....3  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22

Actuary: Stone



Click/Scan for Website

**\$116.5 M**  
Market Value

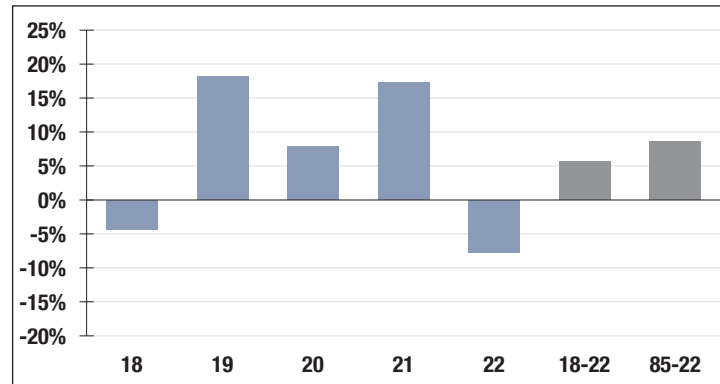
**-7.71%**  
2022 Returns

**7.88%**  
2013-2022  
(Annualized)

**8.57%**  
1985-2022  
(Annualized)

## Investment Returns

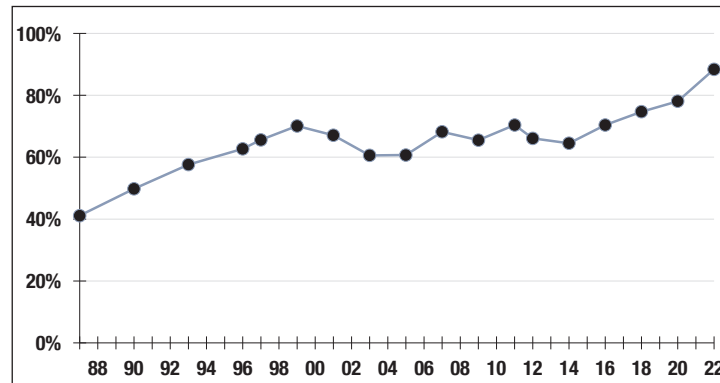
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**88.4%**

Funded Ratio

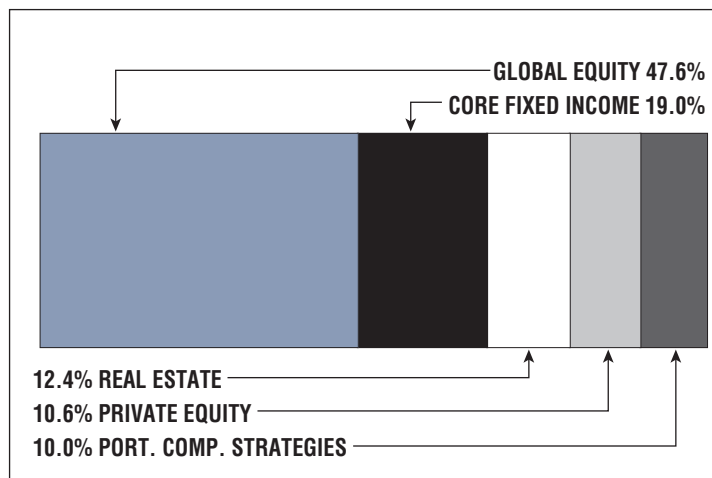
**2026**

Fully Funded

Level Payment

Funding Schedule

## Asset Allocation (12/31/22)



**\$15.4 M**

Unfunded Liability

**\$7.3 M**  
(FY2023)

Total Pension  
Appropriation

# Swampscott

## CONTACT INFORMATION

22 Monument Ave.  
Town Hall  
Swampscott, MA 01907  
Phone 781-596-8827  
Fax 781-394-2668

## BOARD MEMBERS

Amy Sarro  
Thomas Driscoll\*  
John Behen  
Kevin Breen  
Robert Powell  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Nancy Lord

## SYSTEM MEMBERS

Active Members .....249  
Total Payroll .....\$13.2 M  
Average Salary .....\$53,100  
Average Age .....46  
Average Service .....11.6

Retired Members .....235  
Benefits Paid .....\$6.8 M  
Average Benefit ....\$29,100  
Average Age .....75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....18  
Reported Earnings .....4  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Segal



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**\$78.9 M**  
Market Value

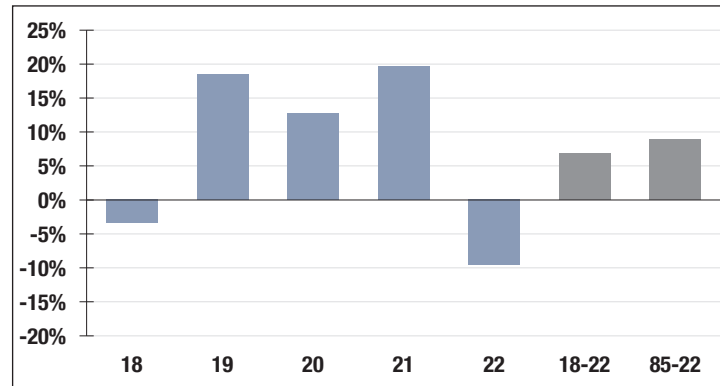
**-9.58%**  
2022 Returns

**8.60%**  
2013-2022  
(Annualized)

**8.91%**  
1985-2022  
(Annualized)

## Investment Returns

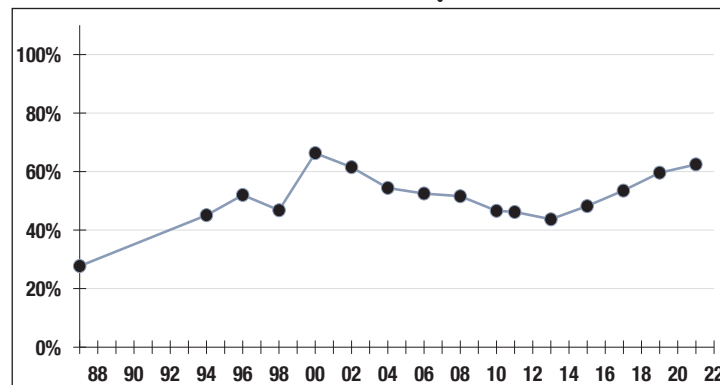
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.13%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**62.4%**

Funded Ratio

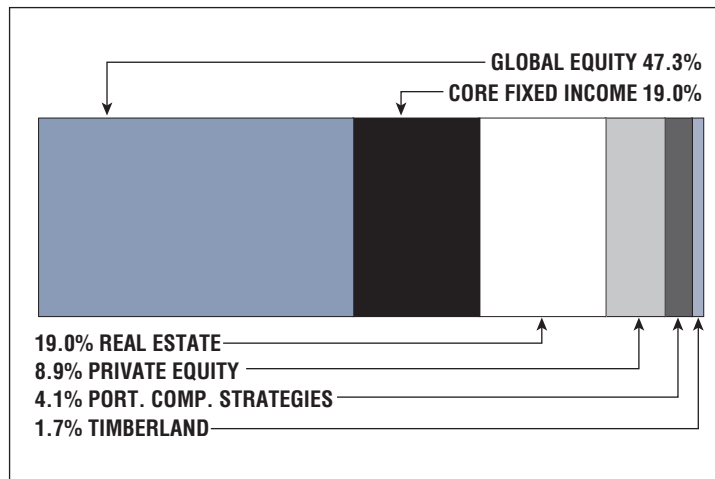
**2031**

Fully Funded

**5.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$42.4 M**

Unfunded Liability

**\$6.0 M**  
(FY2023)

Total Pension  
Appropriation

# Taunton

## CONTACT INFORMATION

104 Dean Street  
Suite 203  
Taunton, MA 02780  
Phone 508-821-1052  
Fax 508-821-1063

## BOARD MEMBERS

Ian Fortes  
Gill Enos  
Dennis Smith\*  
Thomas Bernier  
Barry Amaral  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Paul Slivinski

## SYSTEM MEMBERS

Active Members ..... 1,054  
Total Payroll ..... \$68.0 M  
Average Salary ..... \$64,500  
Average Age ..... 48  
Average Service ..... 12.4

Retired Members ..... 975  
Benefits Paid ..... \$31.9 M  
Average Benefit .... \$32,800  
Average Age ..... 73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees ..... 76  
Reported Earnings ..... 16  
Excess Earners ..... 1  
Refund Due ..... \$6,422

Last Valuation: 1/1/22

Actuary: Buck



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**\$376.9 M**  
Market Value

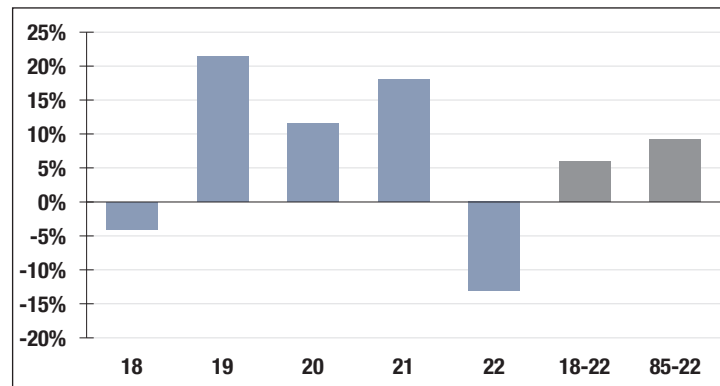
**-13.11%**  
2022 Returns

**8.00%**  
2013-2022  
(Annualized)

**9.20%**  
1985-2022  
(Annualized)

## Investment Returns

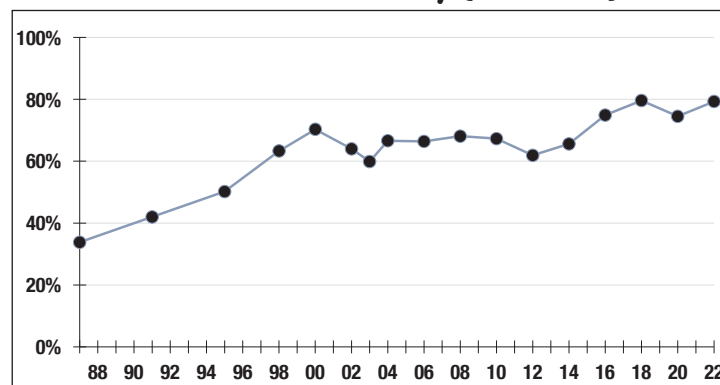
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.60%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**79.3%**

Funded Ratio

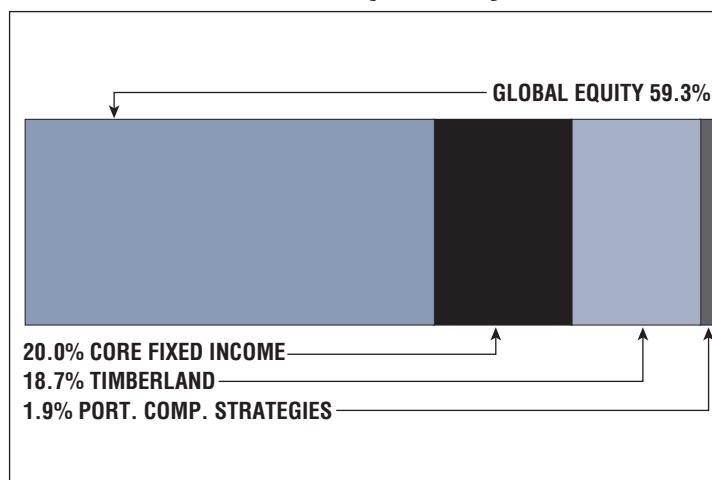
**2030**

Fully Funded

**4.5% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$107.4 M**

Unfunded Liability

**\$19.6 M**  
[FY2023]

Total Pension  
Appropriation

# Wakefield

## CONTACT INFORMATION

1 Lafayette Street  
Wakefield, MA 01880  
Phone 781-246-6352

## BOARD MEMBERS

Kevin Gill\*  
Sherri Dalton  
Dennis Fazio  
Erin Findlen Kokinda  
Daniel Sherman  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Cathy Cheek

## SYSTEM MEMBERS

Active Members .....462  
Total Payroll .....\$31.4 M  
Average Salary .....\$68,100  
Average Age .....48  
Average Service .....12

Retired Members .....372  
Benefits Paid .....\$12.4 M  
Average Benefit ....\$33,400  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....26  
Reported Earnings .....4  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



Click/Scan for Website

**\$153.4 M**  
Market Value

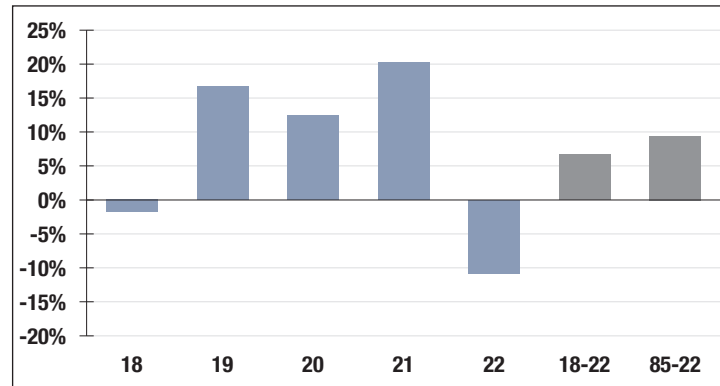
**-10.83%**  
2022 Returns

**8.34%**  
2013-2022  
(Annualized)

**9.39%**  
1985-2022  
(Annualized)

## Investment Returns

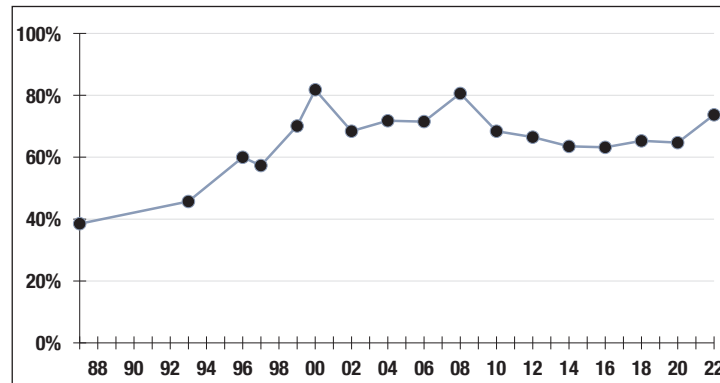
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.40%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**73.7%**

Funded Ratio

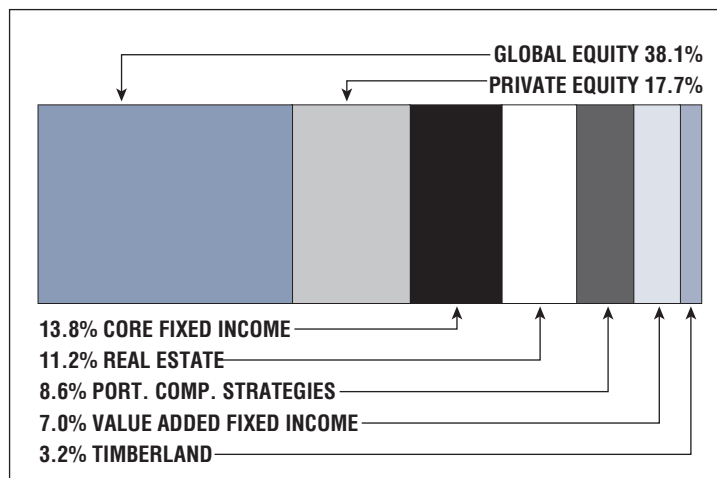
**2036**

Fully Funded

**5.65% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$56.1 M**

Unfunded Liability

**\$7.6 M**  
(FY2023)

Total Pension  
Appropriation



# Waltham

## CONTACT INFORMATION

25 Lexington Street  
2nd Floor  
Waltham, MA 02452  
Phone 781-314-3230  
Fax 781-314-3236

## BOARD MEMBERS

Paul Centofanti  
Elizabeth Arnold  
Scott Hovsepian  
William MacDonald\*  
Mary Rosen  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Andrew Malis

## SYSTEM MEMBERS

Active Members .....915  
Total Payroll .....\$66.6 M  
Average Salary .....\$72,800  
Average Age .....NA  
Average Service .....NA

Retired Members .....796  
Benefits Paid .....\$28.3 M  
Average Benefit ....\$35,600  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....68  
Reported Earnings .....19  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Sherman



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**\$301.2 M**  
Market Value

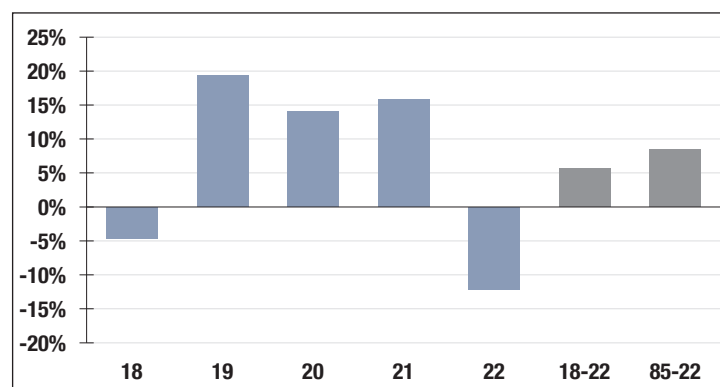
**-12.16%**  
2022 Returns

**7.83%**  
2013-2022  
(Annualized)

**8.41%**  
1985-2022  
(Annualized)

## Investment Returns

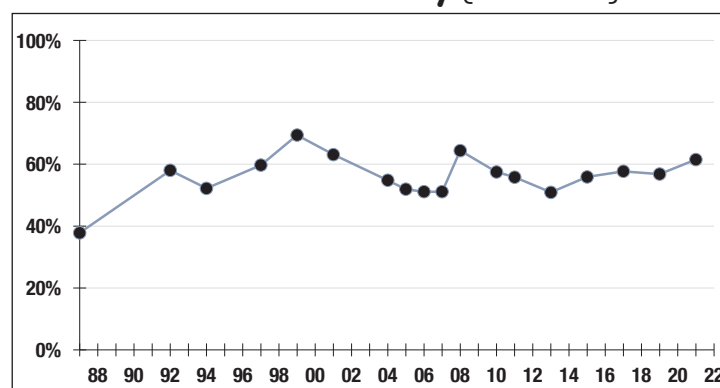
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**61.5%**

Funded Ratio

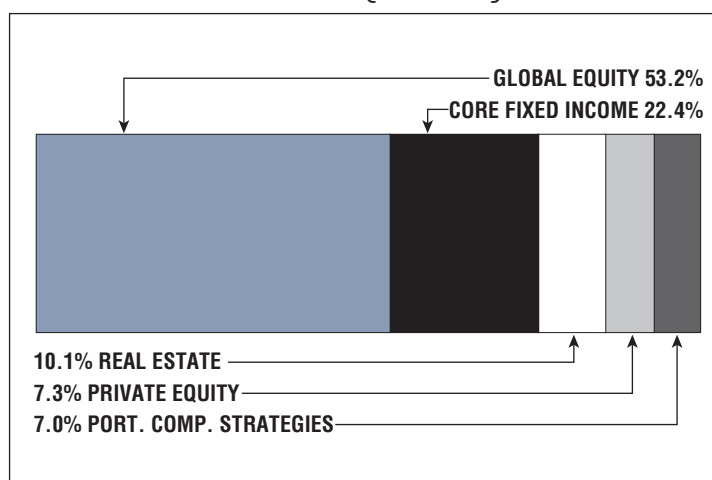
**2032**

Fully Funded

**Varies Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$181.0 M**

Unfunded Liability

**\$21.0 M**  
(FY2023)

Total Pension  
Appropriation

# Watertown

## CONTACT INFORMATION

149 Main Street  
Watertown, MA 02472  
Phone 617-972-6456  
Fax 617-923-3531

## BOARD MEMBERS

Megan Langan  
John Loughran  
Domenic Arone  
Thomas Thibaut\*  
Kathleen Kiely-Becchetti  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kayla Sheehan

## SYSTEM MEMBERS

Active Members .....525  
Total Payroll .....\$38.2 M  
Average Salary .....\$72,700  
Average Age .....NA  
Average Service .....NA  
  
Retired Members .....418  
Benefits Paid .....\$15.0 M  
Average Benefit .....\$35,900  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....43  
Reported Earnings .....7  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Sherman



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**\$240.6 M**  
Market Value

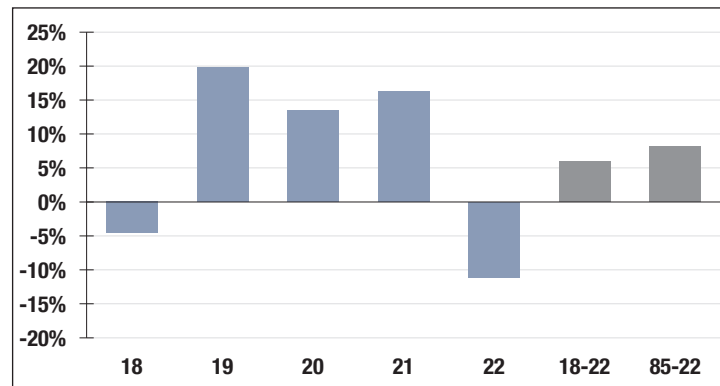
**-11.19%**  
2022 Returns

**7.82%**  
2013-2022  
(Annualized)

**8.14%**  
1985-2022  
(Annualized)

## Investment Returns

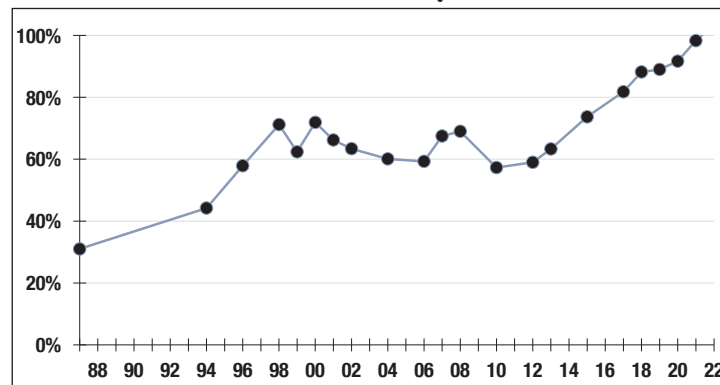
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.70%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**103.6%**

Funded Ratio

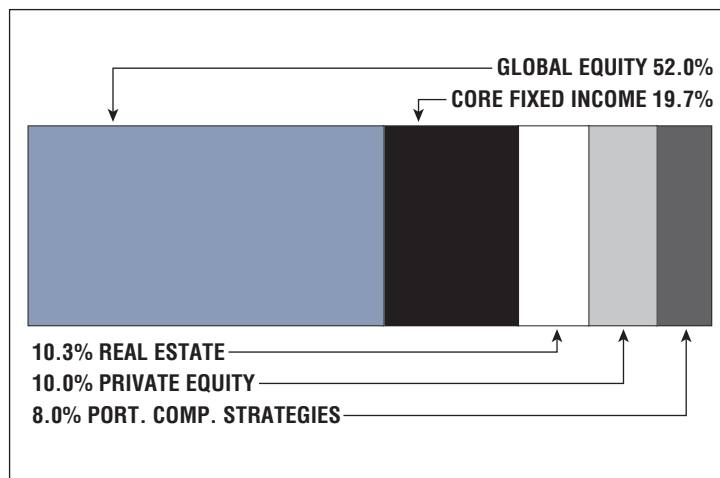
**NA**

Fully Funded

**Fully Funded**

Funding Schedule

## Asset Allocation (12/31/22)



**-\$9.1 M**

Unfunded Liability

**\$1.3 M**  
(FY2023)

Total Pension  
Appropriation

# Webster

## CONTACT INFORMATION

350 Main Street  
Suite 5  
Webster, MA 01570  
Phone 508-949-3800  
Fax 508-949-3826

## BOARD MEMBERS

Timothy Bell  
Eleanor Doros  
James Hoover  
Robert Craver\*  
Brian Perry  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Kristin LaPlante

## SYSTEM MEMBERS

Active Members .....275  
Total Payroll .....\$13.4 M  
Average Salary .....\$48,900  
Average Age .....46  
Average Service ..... 10.4

Retired Members .....150  
Benefits Paid .....\$4.2 M  
Average Benefit ....\$28,000  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....7  
Reported Earnings .....1  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: PERAC



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**\$53.7 M**

Market Value

**-9.46%**

2022 Returns

**7.53%**

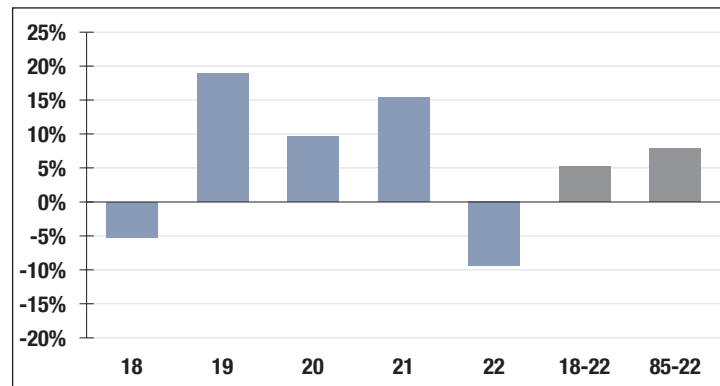
2013-2022  
[Annualized]

**7.91%**

1985-2022  
[Annualized]

## Investment Returns

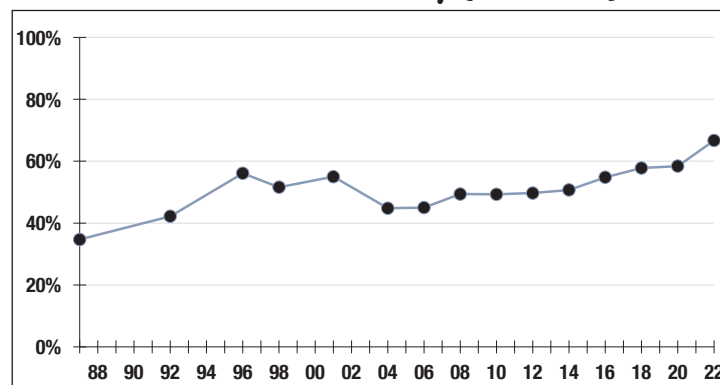
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.10%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**66.7%**

Funded Ratio

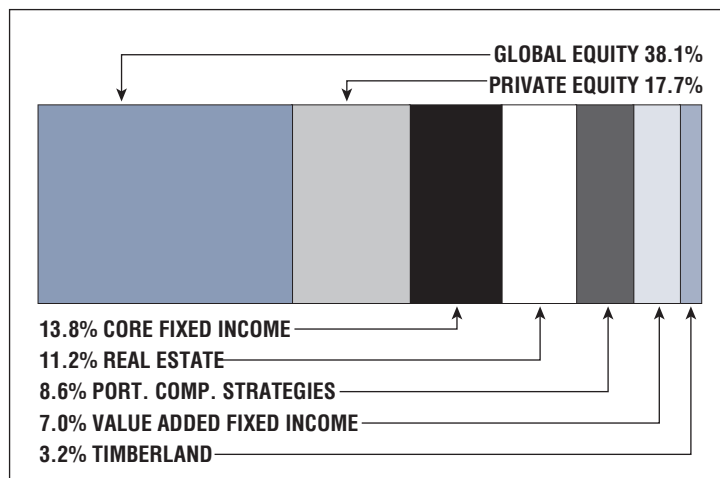
**2032**

Fully Funded

**6.5% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$26.6 M**

Unfunded Liability

**\$4.4 M**  
[FY2023]

Total Pension  
Appropriation

## CONTACT INFORMATION

Town Hall  
888 Worcester Street  
Wellesley, MA 02482  
Phone 781-489-4238  
Fax 781-431-8643

## BOARD MEMBERS

Sheryl Strother  
David Kornwitz\*  
Michael Leach  
Timothy Barros  
Charles Cahill  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Lynn Whynot

## SYSTEM MEMBERS

Active Members .....691  
Total Payroll .....\$40.9 M  
Average Salary .....\$59,200  
Average Age .....46  
Average Service .....10.5  
  
Retired Members .....426  
Benefits Paid .....\$13.3 M  
Average Benefit ....\$31,100  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....29  
Reported Earnings .....7  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: Segal



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**\$256.6 M**  
Market Value

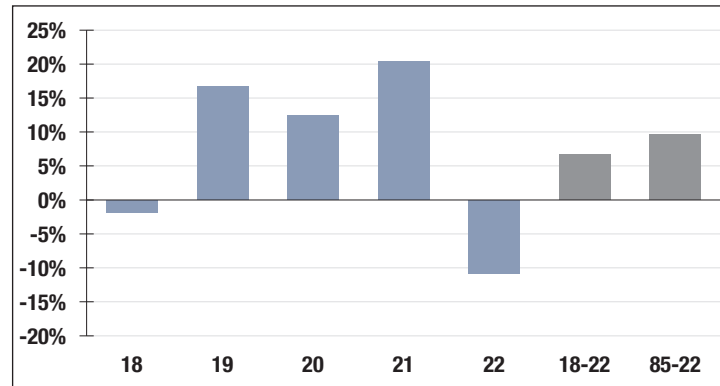
**-10.87%**  
2022 Returns

**8.34%**  
2013-2022  
[Annualized]

**9.64%**  
1985-2022  
[Annualized]

## Investment Returns

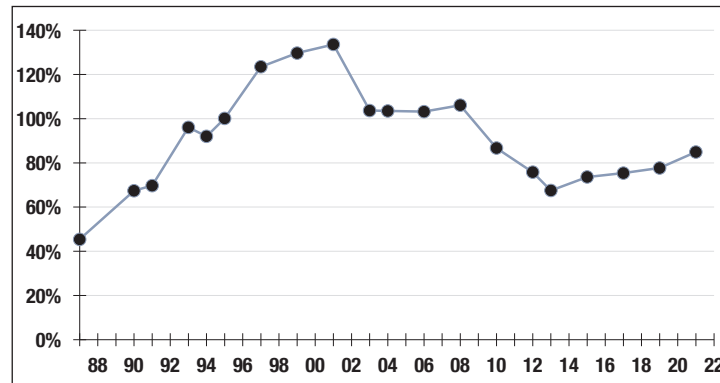
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**84.9%**

Funded Ratio

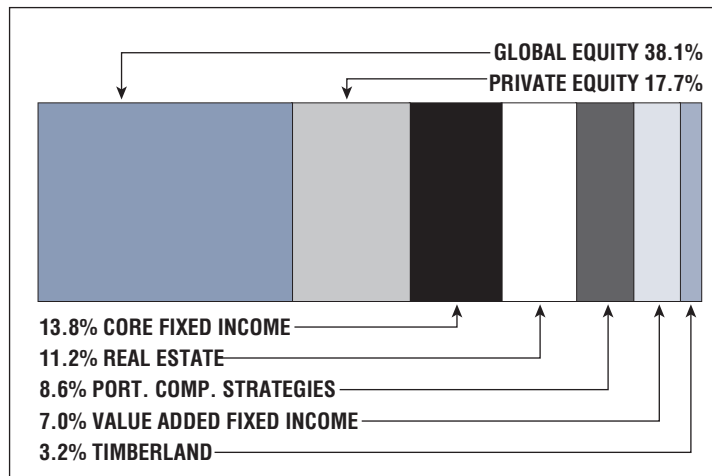
**2030**

Fully Funded

**3.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$43.1 M**

Unfunded Liability

**\$10.0 M**  
[FY2023]

Total Pension  
Appropriation

# West Springfield

## CONTACT INFORMATION

26 Central Street  
Suite 26  
West Springfield, MA 01089  
Phone 413-495-1891

## BOARD MEMBERS

Sharon Wilcox\*  
Thomas Cummings  
Gwen Keough  
William Flaherty  
Daniel Marini  
\*indicates Chairperson

## BOARD ADMINISTRATOR

James Lovotti

## SYSTEM MEMBERS

Active Members .....625  
Total Payroll .....\$30.5 M  
Average Salary .....\$48,800  
Average Age .....45  
Average Service .....10.1

Retired Members .....452  
Benefits Paid .....\$12.0 M  
Average Benefit ....\$26,600  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....32  
Reported Earnings .....15  
Excess Earners .....1  
Refund Due .....\$27,137

Last Valuation: 1/1/22  
Actuary: Stone



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**\$135.0 M**  
Market Value

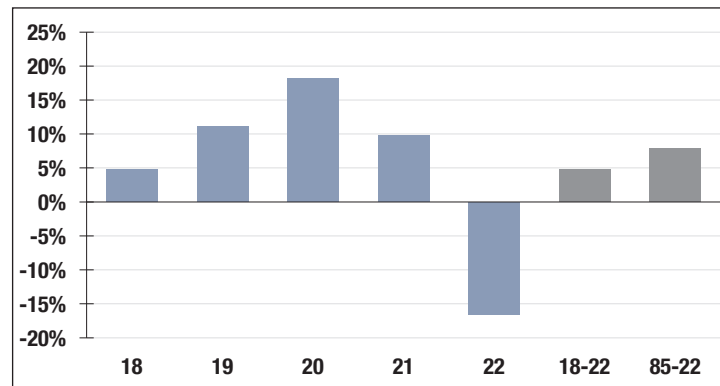
**-16.61%**  
2022 Returns

**7.25%**  
2013-2022  
[Annualized]

**7.81%**  
1985-2022  
[Annualized]

## Investment Returns

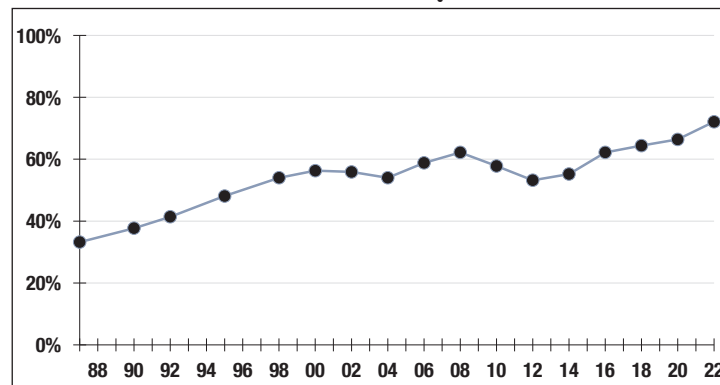
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**72.1%**

Funded Ratio

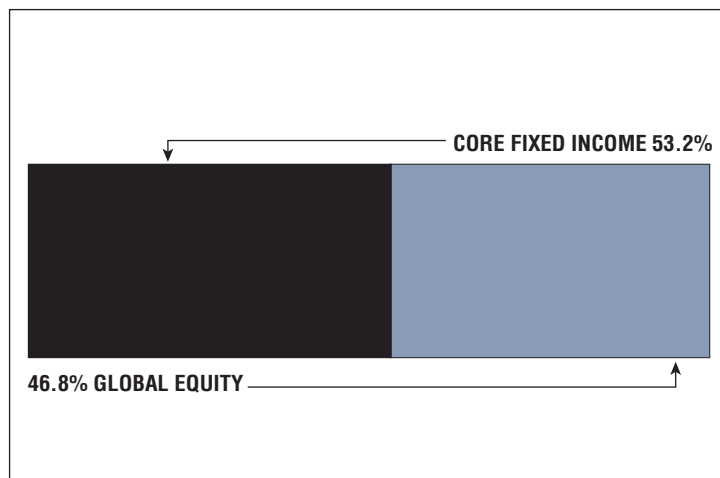
**2033**

Fully Funded

**4.0% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$60.7 M**

Unfunded Liability

**\$8.2 M**  
[FY2023]

Total Pension  
Appropriation

# Westfield

## CONTACT INFORMATION

59 Court Street  
P.O. Box 106  
Westfield, MA 01086  
Phone 413-572-6239  
Fax 413-642-9410

## BOARD MEMBERS

Vicki Moro  
Edward Murphy  
Christopher Kane  
Mark Devine\*  
Dennis Powers  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Liam Browne

## SYSTEM MEMBERS

Active Members .....831  
Total Payroll .....\$43.8 M  
Average Salary .....\$52,700  
Average Age .....47  
Average Service .....12

Retired Members .....719  
Benefits Paid .....\$21.0 M  
Average Benefit ....\$29,200  
Average Age .....72

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....50  
Reported Earnings .....10  
Excess Earners .....0  
Refund Due .....\$0

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$289.2 M**  
Market Value

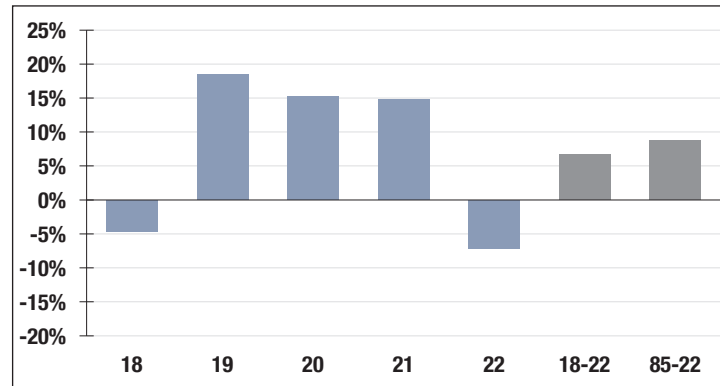
**-7.21%**  
2022 Returns

**9.09%**  
2013-2022  
[Annualized]

**8.72%**  
1985-2022  
[Annualized]

## Investment Returns

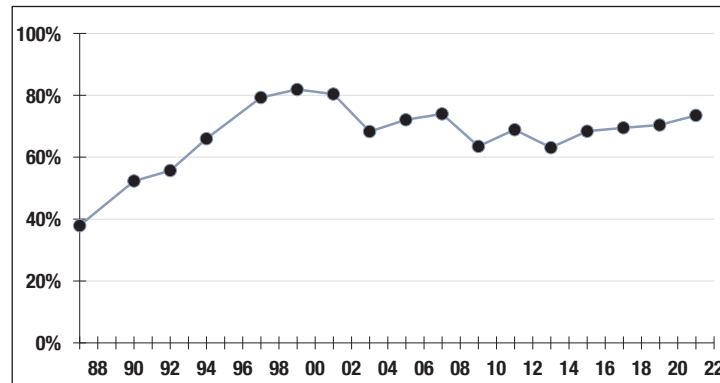
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**73.5%**

Funded Ratio

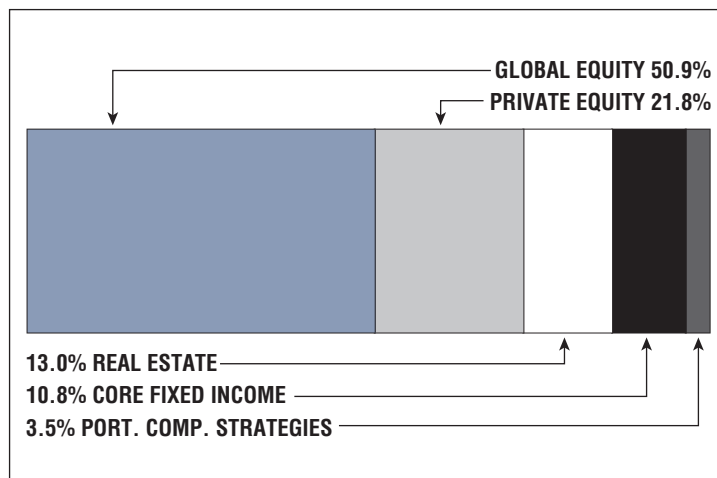
**2036**

Fully Funded

**4.96% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$94.7 M**

Unfunded Liability

**\$13.0 M**  
[FY2023]

Total Pension  
Appropriation



# Weymouth

## CONTACT INFORMATION

807 Broad Street  
Weymouth, MA 02189  
Phone 781-331-8721  
Fax 781-331-3005

## BOARD MEMBERS

Brent Lydon  
Greg Hargadon  
Joseph Davis\*  
Richard Hayes  
Barbara Costa  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Edward Masterson

## SYSTEM MEMBERS

Active Members .....878  
Total Payroll .....\$48.6 M  
Average Salary .....\$55,300  
Average Age .....46  
Average Service .....11

Retired Members .....659  
Benefits Paid .....\$20.3 M  
Average Benefit .....\$30,800  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....78  
Reported Earnings .....23  
Excess Earners .....1  
Refund Due .....\$8,078

Last Valuation: 1/1/22  
Actuary: Stone



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**\$239.8 M**  
Market Value

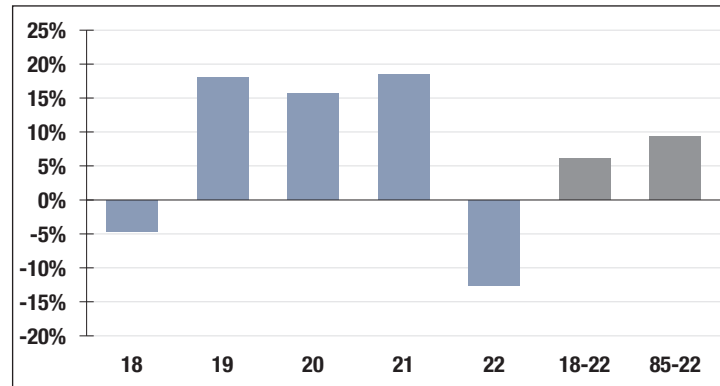
**-12.58%**  
2022 Returns

**7.93%**  
2013-2022  
(Annualized)

**9.44%**  
1985-2022  
(Annualized)

## Investment Returns

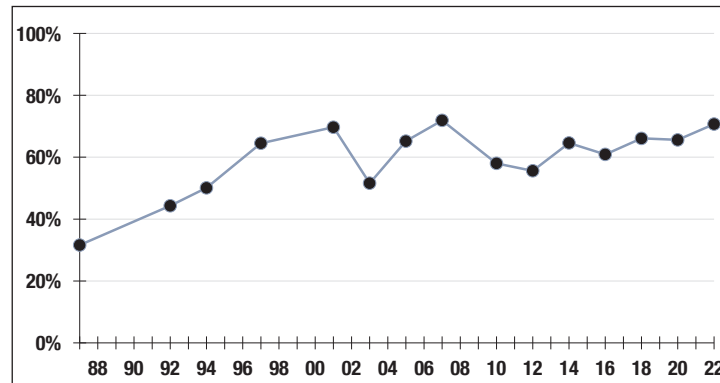
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**70.7%**

Funded Ratio

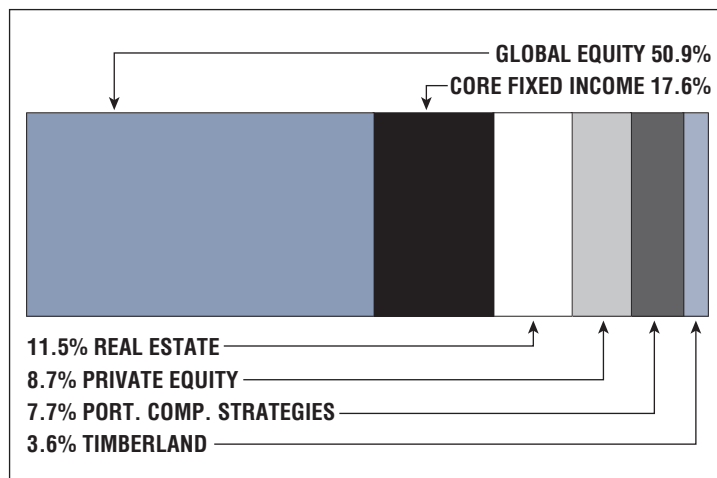
**2035**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$104.3 M**

Unfunded Liability

**\$13.8 M**  
(FY2023)

Total Pension  
Appropriation

# Winchester

## CONTACT INFORMATION

71 Mount Vernon Street  
Winchester, MA 01890  
Phone 781-721-7127  
Fax 781-721-7156

## BOARD MEMBERS

Stacie Ward  
Michael Lucas  
Philip Ciampa  
Robert Frary\*  
Thomas Tracy  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Karen Manchuso

## SYSTEM MEMBERS

Active Members .....393  
Total Payroll .....\$23.5 M  
Average Salary .....\$59,700  
Average Age .....48  
Average Service .....11.9  
  
Retired Members .....281  
Benefits Paid .....\$8.8 M  
Average Benefit .....\$31,200  
Average Age .....76

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....15  
Reported Earnings .....4  
Excess Earners .....1  
Refund Due .....\$9,608

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$156.1 M**  
Market Value

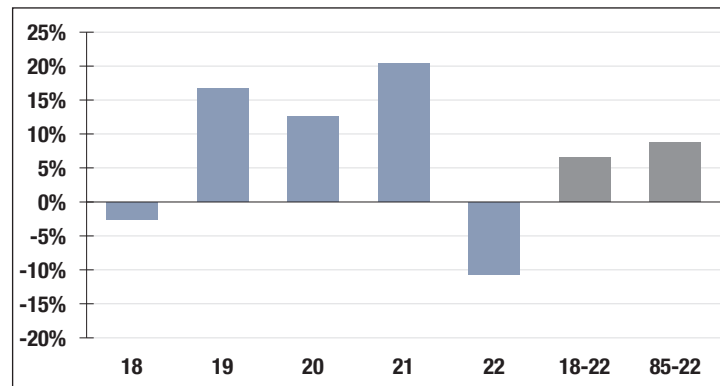
**-10.73%**  
2022 Returns

**7.59%**  
2013-2022  
(Annualized)

**8.77%**  
1985-2022  
(Annualized)

## Investment Returns

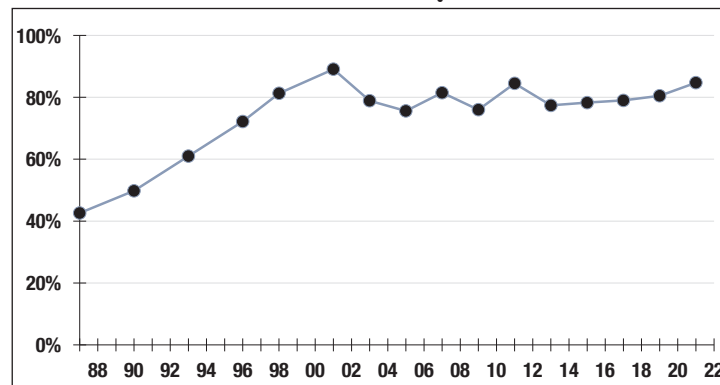
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.00%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**84.7%**

Funded Ratio

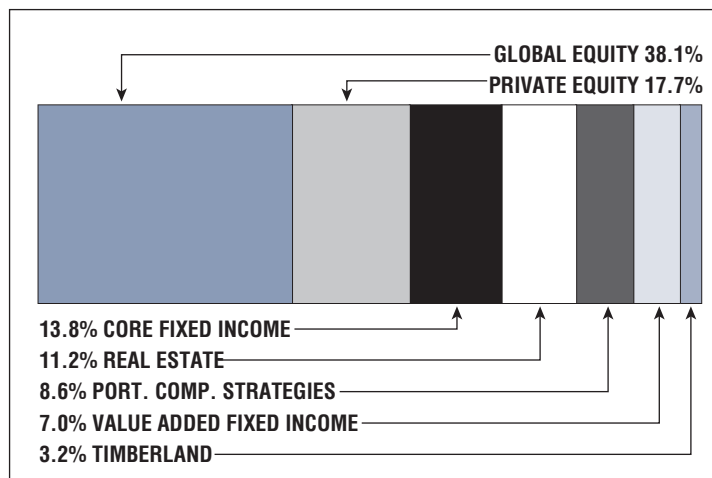
**2029**

Fully Funded

**7.7% Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$25.1 M**

Unfunded Liability

**\$6.5 M**  
(FY2023)

Total Pension  
Appropriation

# Winthrop

## CONTACT INFORMATION

Town Hall  
1 Metcalf Square  
Winthrop, MA 02152  
Phone 617-539-5750

## BOARD MEMBERS

Dylan Cook  
Terence Delehanty  
Dennis Boudrow  
James Feeley  
Karin Chavis\*  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Michelle Church

## SYSTEM MEMBERS

Active Members .....251  
Total Payroll .....\$13.0 M  
Average Salary .....\$51,800  
Average Age .....49  
Average Service .....11.4  
  
Retired Members .....193  
Benefits Paid .....\$4.8 M  
Average Benefit ....\$24,900  
Average Age .....75

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....10  
Reported Earnings .....1  
Excess Earners .....1  
Refund Due .....\$34,195

Last Valuation: 1/1/21  
Actuary: PERAC



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**\$93.9 M**  
Market Value

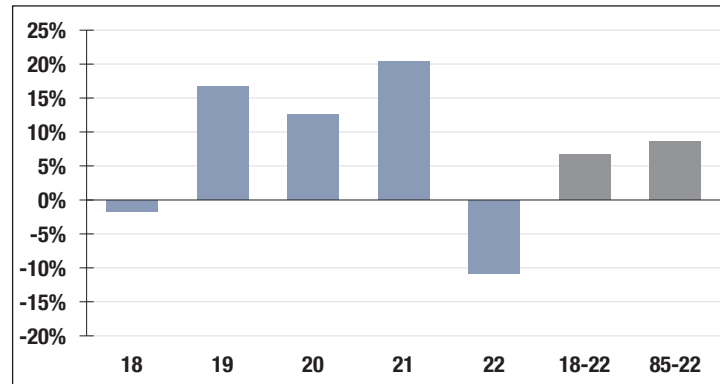
**-10.78%**  
2022 Returns

**8.28%**  
2013-2022  
[Annualized]

**8.55%**  
1985-2022  
[Annualized]

## Investment Returns

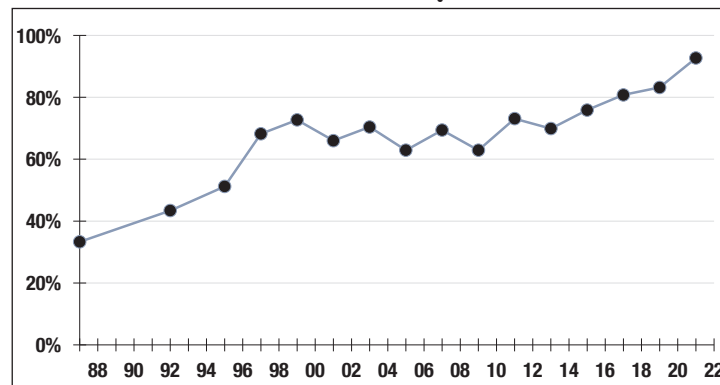
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.75%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**92.7%**

Funded Ratio

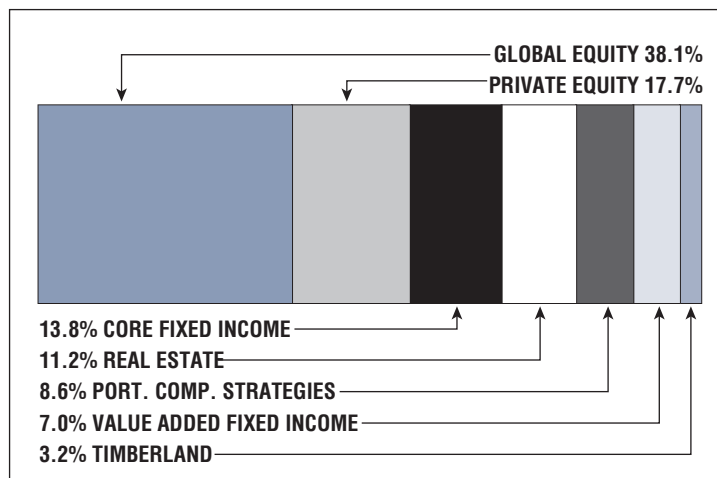
**2026**

Fully Funded

Level  
Appropriation

Funding Schedule

## Asset Allocation (12/31/22)



**\$6.5 M**

Unfunded Liability

**\$3.9 M**  
[FY2023]

Total Pension  
Appropriation

# Woburn

## CONTACT INFORMATION

City Hall, 2nd Floor  
10 Common Street  
Woburn, MA 01801  
Phone 781-897-5820  
Fax 339-227-4257

## BOARD MEMBERS

Charles Doherty  
Gerald Surette  
Denis Devine\*  
Marilou Lundin  
Michael Gorman  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Anne Speicher

## SYSTEM MEMBERS

Active Members .....529  
Total Payroll .....\$31.7 M  
Average Salary .....\$60,000  
Average Age .....49  
Average Service .....12.4  
  
Retired Members.....492  
Benefits Paid .....\$16.8 M  
Average Benefit ....\$34,100  
Average Age .....NA

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....28  
Reported Earnings .....9  
Excess Earners.....0  
Refund Due .....\$0

Last Valuation: 1/1/22  
Actuary: Buck



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**\$173.4 M**  
Market Value

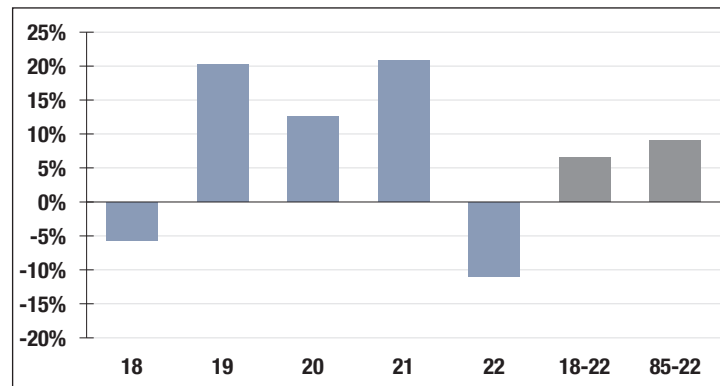
**-10.98%**  
2022 Returns

**8.39%**  
2013-2022  
(Annualized)

**9.14%**  
1985-2022  
(Annualized)

## Investment Returns

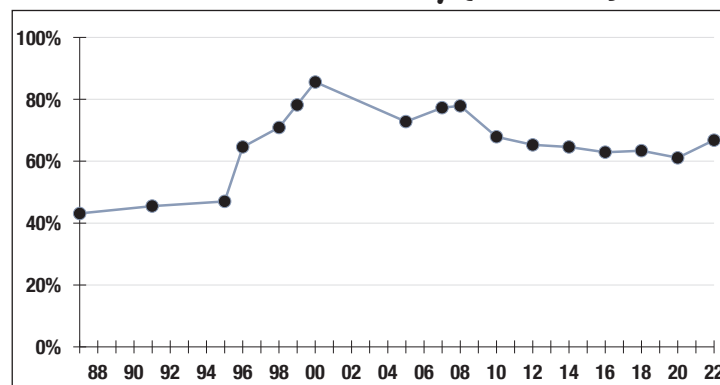
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.50%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**66.8%**

Funded Ratio

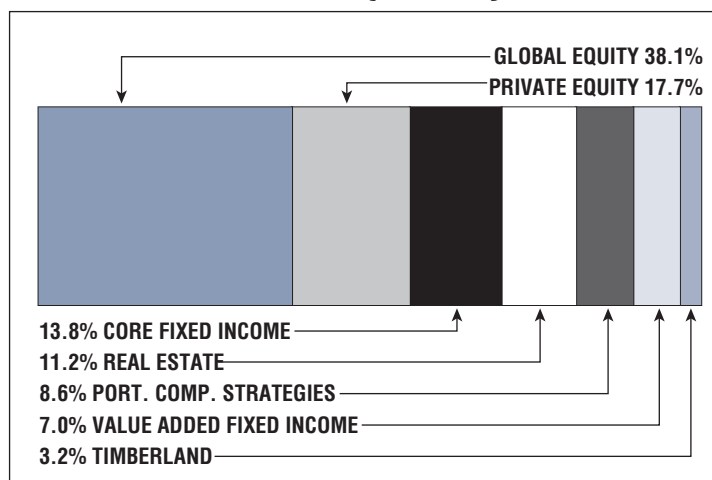
**2035**

Fully Funded

**4.0% Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$90.3 M**

Unfunded Liability

**\$11.5 M**  
(FY2023)

Total Pension  
Appropriation

# Worcester

## CONTACT INFORMATION

City Hall, Room 103  
455 Main Street  
Worcester, MA 01608  
Phone 508-799-1062  
Fax 508-799-1047

## BOARD MEMBERS

Robert Stearns  
Matthew Wally  
Elizabeth Early\*  
John Mahan  
Tamara Cullen  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Lisa Poske

## SYSTEM MEMBERS

Active Members .....3,377  
Total Payroll .....\$200.0 M  
Average Salary .....\$59,200  
Average Age .....46  
Average Service .....12

Retired Members .....2,753  
Benefits Paid .....\$93.2 M  
Average Benefit ....\$33,800  
Average Age .....74

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....331  
Reported Earnings .....52  
Excess Earners .....2  
Refund Due .....\$26,249

Last Valuation: 1/1/22  
Actuary: Segal



Click/Scan for Website

**\$1.2 B**  
Market Value

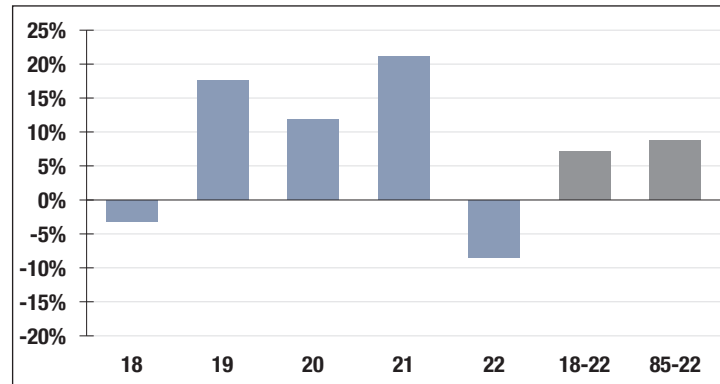
**-8.47%**  
2022 Returns

**7.74%**  
2013-2022  
(Annualized)

**8.70%**  
1985-2022  
(Annualized)

## Investment Returns

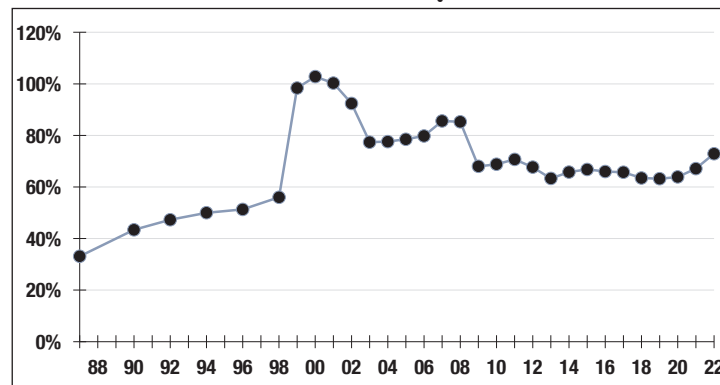
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**6.80%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**72.9%**

Funded Ratio

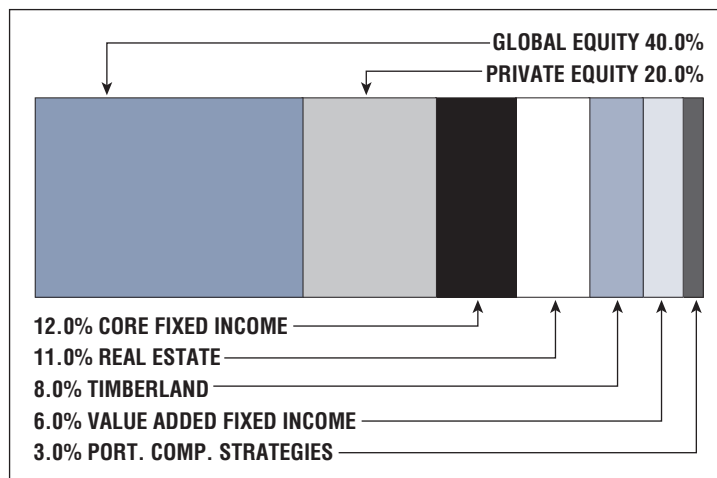
**2034**

Fully Funded

**Varies Total  
Increasing**

Funding Schedule

## Asset Allocation (12/31/22)



**\$447.5 M**

Unfunded Liability

**\$62.8 M**  
(FY2023)

Total Pension  
Appropriation

# Worcester Regional

## CONTACT INFORMATION

Midstate Office Park  
23 Midstate Drive, Suite 106  
Auburn, MA 01501  
Phone 508-832-6314  
Fax 508-832-6318

## BOARD MEMBERS

Kevin Blanchette\*  
Rebecca Tuttle  
Michael Donoghue  
Pauline Lajoie  
Eugene Durgin  
\*indicates Chairperson

## BOARD ADMINISTRATOR

Colleen Canty

## SYSTEM MEMBERS

Active Members .....7,121  
Total Payroll .....\$352.8 M  
Average Salary .....\$49,500  
Average Age .....47  
Average Service .....9.6

Retired Members .....4,112  
Benefits Paid .....\$101.2 M  
Average Benefit ....\$24,600  
Average Age .....73

## 2021 EARNED INCOME OF DISABILITY RETIREES:

Disability Retirees .....246  
Reported Earnings .....82  
Excess Earners .....2  
Refund Due .....\$35,516

Last Valuation: 1/1/22  
Actuary: KMS



Click/Scan for Website

**\$965.8 M**  
Market Value

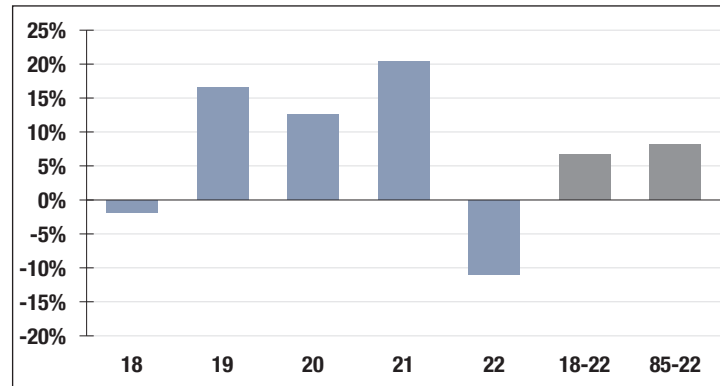
**-11.00%**  
2022 Returns

**8.21%**  
2013-2022  
[Annualized]

**8.13%**  
1985-2022  
[Annualized]

## Investment Returns

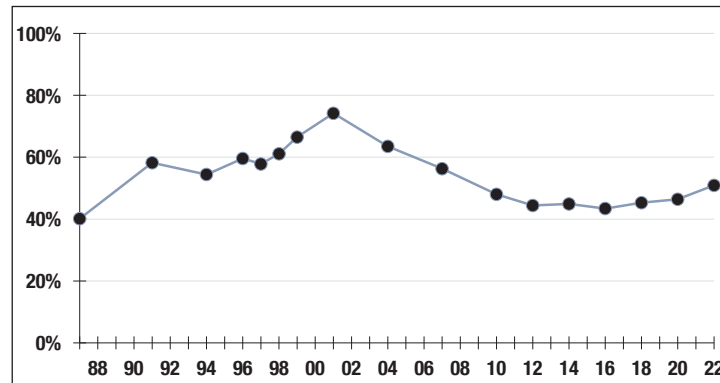
(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



**7.25%**

Assumed Rate  
of Return

## Funded Ratio History (1987-2022)



**50.9%**

Funded Ratio

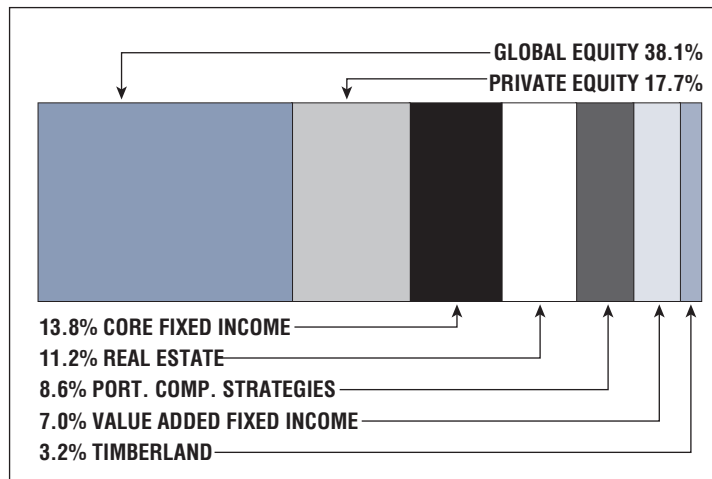
**2036**

Fully Funded

**4.0% Increasing  
Phase-In**

Funding Schedule

## Asset Allocation (12/31/22)



**\$933.9 M**

Unfunded Liability

**\$82.7 M**  
[FY2023]

Total Pension  
Appropriation



## CONTACT INFORMATION

53 State Street  
Suite 600  
Boston, MA 02109  
Phone 617-946-8401  
Fax 617-946-8442

## BOARD MEMBERS

State Treasurer  
Deborah Goldberg\*  
Robert Brousseau  
Ruth Ellen Fitch, Esq.  
Catherine D'Amato  
Theresa McGoldrick, Esq.  
Peter Monaco  
Dennis Naughton  
Carly Rose  
Paul Shanley, Esq.  
\*indicates Chairperson

## EXECUTIVE DIRECTOR/CIO

Michael G. Trotsky, CFA



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**\$91.9 B**

Market Value

**-10.74%**

2022 Returns

**8.35%**

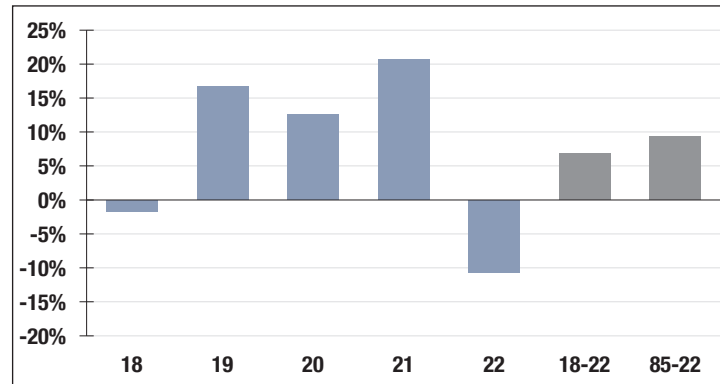
2013-2022  
(Annualized)

**9.31%**

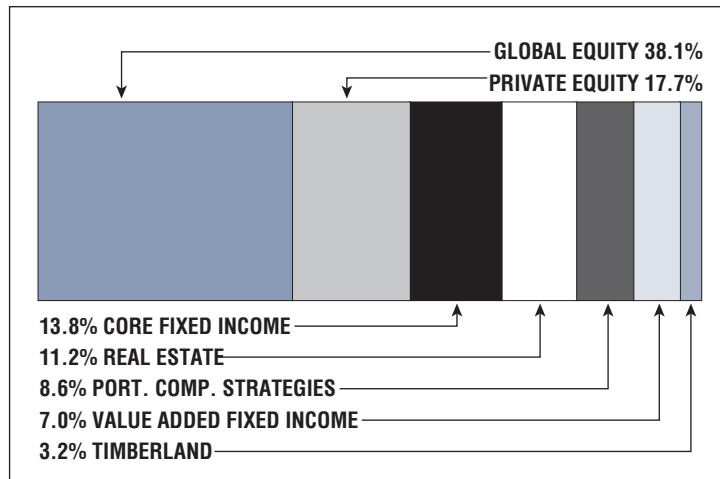
1985-2022  
(Annualized)

## Investment Returns

(2018-2022, 5-Year & 38-Year Averages, as of 12/31/22)



## Asset Allocation (12/31/22)



# Disability Retirement Statistics

[As of 12/31/22]

RETIREMENT BOARDS WITH 1-399 ACTIVE MEMBERS	MEDICAL PANEL REQUESTS	DISABILITY RETIREMENT APPROVALS	ACCIDENTAL DEATH APPROVALS	CME REVIEWS
Adams Retirement Board	0	1	0	0
Amesbury Retirement Board	4	0	0	1
Blue Hills Regional Vocational School Retirement Board	0	0	0	0
Clinton Retirement Board	1	1	0	0
Easthampton Retirement Board	0	0	0	0
Fairhaven Retirement Board	1	1	0	0
Gardner Retirement Board	0	0	0	2
Greater Lawrence Sanitary District Retirement Board	0	0	0	0
Hull Retirement Board	1	0	0	0
Marblehead Retirement Board	1	1	0	0
Mass Housing Finance Agency Retirement Board (MHFA)	0	0	0	0
Maynard Retirement Board	3	1	0	0
Minuteman Regional School District Retirement Board	0	0	0	0
Montague Retirement Board	0	0	0	2
Newburyport Retirement Board	0	0	0	0
North Adams Retirement Board	4	2	0	2
Northbridge Retirement Board	0	0	0	0
Reading Retirement Board	4	3	0	2
Saugus Retirement Board	3	3	0	0
Southbridge Retirement Board	0	0	0	2
Stoneham Retirement Board	2	1	0	1
Swampscott Contributory Retirement Board	1	2	0	1
Webster Retirement Board	0	0	0	1
Winchester Retirement Board	0	1	0	0
Winthrop Retirement Board	0	0	0	0
RETIREMENT BOARDS WITH 400-599 ACTIVE MEMBERS				
Belmont Retirement Board	4	3	0	2
Beverly Retirement Board	0	0	0	1
Concord Retirement Board	0	1	0	0
Danvers Retirement Board	2	3	0	1
Dedham Contributory Retirement Board	5	2	0	0
Gloucester Retirement Board	0	0	0	0
Greenfield Retirement Board	0	0	0	1
Melrose Retirement Board	0	0	0	1
Milford Retirement Board	2	2	1	0
Milton Retirement Boardw	0	0	0	1
North Attleboro Retirement Board	0	0	0	2
Shrewsbury Contributory Retirement Board	2	0	0	1
Wakefield Retirement Board	3	1	2	0
Watertown Retirement Board	1	2	0	1
Woburn Retirement Board	7	4	0	1

# Disability Retirement Statistics

[As of 12/31/22]

RETIREMENT BOARDS WITH 600-899 ACTIVE MEMBERS	MEDICAL PANEL REQUESTS	DISABILITY RETIREMENT APPROVALS	ACCIDENTAL DEATH APPROVALS	CME REVIEWS
Andover Retirement Board	6	3	0	0
Arlington Retirement Board	2	2	0	3
Attleboro Retirement Board	1	2	0	2
Braintree Contributory Retirement Board	4	1	0	2
Chelsea Retirement Board	2	2	0	1
Dukes County Contributory Retirement Board	1	2	0	0
Everett Retirement Board	3	5	1	3
Falmouth Retirement Board	3	2	0	0
Fitchburg Retirement Board	1	2	0	1
Hingham Retirement Board	1	3	0	1
Leominster Retirement Board	9	3	0	2
Lexington Retirement Board	0	0	0	1
Malden Contributory Retirement Board	1	0	0	2
Marlborough Retirement Board	4	1	0	0
Medford Retirement Board	2	4	0	3
Methuen Contributory Retirement Board	2	3	0	6
Natick Retirement Board	1	1	0	1
Needham Contributory Retirement Board	0	0	0	0
Northampton Retirement Board	0	0	0	4
Norwood Contributory Retirement Board	3	1	0	0
Peabody Retirement Board	4	4	0	0
Pittsfield Retirement Board	2	6	0	4
Revere Retirement Board	9	5	1	4
Wellesley Retirement Board	1	0	0	0
West Springfield Retirement Board	2	1	1	1
Westfield Retirement Board	3	1	1	4
Weymouth Retirement Board	8	1	0	0
RETIREMENT BOARDS WITH 900-2,399 ACTIVE MEMBERS				
Berkshire County Retirement Board	3	4	0	2
Brockton Retirement Board	14	12	0	7
Brookline Retirement Board	9	13	0	4
Chicopee Retirement Board	6	2	0	9
Fall River Retirement Board	12	2	0	6
Framingham Retirement Board	2	2	0	2
Franklin Regional Retirement Board	0	0	0	0
Hampshire County Regional Retirement Board	2	2	0	3
Haverhill Retirement Board	6	6	1	0
Holyoke Retirement Board	1	2	0	2
Lawrence Retirement Board	4	4	0	5
Lowell Retirement Board	10	5	1	6
Lynn Retirement Board	5	4	0	10

## Disability Retirement Statistics

[As of 12/31/22]

RETIREMENT BOARDS WITH 900-2,399 ACTIVE MEMBERS (Cont'd)	MEDICAL PANEL REQUESTS	DISABILITY RETIREMENT APPROVALS	ACCIDENTAL DEATH APPROVALS	CME REVIEWS
Mass Port Authority Employees' Retirement Board	4	4	0	0
Mass Water Resources Authority Retirement Board	9	2	0	5
New Bedford Retirement Board	9	12	0	12
Newton Retirement Board	6	7	0	3
Plymouth Contributory Retirement Association	10	9	0	4
Quincy Retirement Board	8	15	0	3
Salem Contributory Retirement Board	9	3	0	3
Somerville Retirement Board	5	4	1	7
Taunton Retirement Board	1	3	0	1
Waltham Retirement Board	1	0	0	3
RETIREMENT BOARDS WITH 2,400-10,000 ACTIVE MEMBERS				
Barnstable County Retirement Board	19	15	0	11
Bristol County Retirement Board	11	10	0	10
Cambridge Retirement Board	14	16	0	15
Essex Regional Retirement Board	6	2	0	5
Hampden County Regional Retirement Board	2	2	0	5
Middlesex County Retirement Board	33	26	0	22
Norfolk County Retirement Board	34	25	2	24
Plymouth County Retirement Board	15	13	1	13
Springfield Retirement Board	13	22	0	20
Worcester Regional Retirement Board	21	9	0	11
Worcester Retirement Board	19	11	0	20
RETIREMENT BOARDS WITH 10,001-100,000 ACTIVE MEMBERS				
Boston (City) Retirement Board	105	85	0	58
Massachusetts Teachers' (MTRS)	33	26	0	12
State Retirement Board	116	116	1	184
<b>Total All Retirement Boards</b>	<b>703</b>	<b>585</b>	<b>14</b>	<b>578</b>

### RESTORATION TO SERVICE STATISTICS (Provided for those boards where a disability retiree has returned to work.)

Fall River 1	Holyoke 1	Lowell 1
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# Investment Vendors

The following is a listing of the investment managers, custodians, and consultants that serve the Massachusetts public pension systems. The listing is based on information supplied by the retirement boards.

Retirement Board	Investment Vendors		
<b>Adams</b>	▪ <b>PRIT Fund</b>		
<b>Amesbury</b>	▪ <b>PRIT Fund</b>		
<b>Andover</b> ▶ <b>Consultant:</b> Dahab Associates	▪ <b>PRIT Fund</b>	• Federated Hermes	• RhumbLine Advisers
<b>Arlington</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust	▪ <b>PRIT Fund</b>		
<b>Attleboro</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Dahab Associates Inc.	• Amalgated Bank • BTG Pactual Timberland Investment Group • Copeland Capital Management • Fidelity Institutional Asset Management • Frontier Capital Management Co., LLC	• Hancock Timber Resource Group, Inc. • Intercontinental Real Estate Corp. • Invesco Private Capital, Inc. • Peregrine Capital	• PRIT Fund • RhumbLine Advisers • State Street Global Advisors • Van Eck
<b>Barnstable County</b>	▪ <b>PRIT Fund</b>		
<b>Belmont</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> NEPC, LLC	▪ <b>PRIT Fund</b>	• AEW Capital Management, LP • Atlanta Capital • Carillon Reams • Goldentree Asset Management, LP • HarbourVest Partners, LLC	• Loomis, Sayles & Company • Pacific Investment Management Company, LLC • RhumbLine Advisers • Rothschild Asset Management Inc.
<b>Berkshire County</b>	▪ <b>PRIT Fund</b>		
<b>Beverly</b>	▪ <b>PRIT Fund</b>		
<b>Blue Hills Regional</b>	▪ <b>PRIT Fund</b>		
<b>Boston (City)</b> ▶ <b>Custodian:</b> State Street Bank & Trust ▶ <b>Consultant:</b> NEPC, LLC	• 57 Stars, LLC • ABS Investment Management, LLC • AEW Capital Management, LP • Aberdeen Asset Management • Alcentra NY, LLC • Allspring Global Investments, Inc. • American Securities • Angelo, Gordon & Co., LP • Apollo Global Management, Inc. • Arclight Capital Partners, LLC • Aristotle Capital Management, LLC • Arsenal Real Estate Funds, LLC • Ascent Venture Partners • Audax Group • Aurora Management Partners • Bain Capital • Bernzott Capital Advisors • BlackRock Advisors, LLC • Blackstone Alternative Asset Management Assoc. • Boston Millennia Partners • Brookfield Asset Management • CCMP Capital Advisors, LLC • Carlyle Realty Partners • Columbia Management Investment Advisors, LLC • Crescent Capital Group, LP • CVC Capital Partners • D.E. Shaw Investment Management, LLC • DRC Capital, LLP • Dune Capital Management, LP	• Energy Spectrum Partners • EnTrust Global Partners • FSN Capital • Goldentree Asset Management, LP • Grosvenor Capital Management, LP • Hamilton Lane • HarbourVest Partners, LLC • H.I.G. Capital • ICONIQ Capital, LLC • Incline Elevate • Income Research & Management • Insight Venture Management • Intercontinental Real Estate Corp. • Invesco Core Real Estate USA, LP • J.F. Lehman & Company, Inc. • J.P. Morgan • Kayne Anderson Capital Advisors, LP • KPS Capital Partners, LP • Lazard Asset Management, LLC • Lexington Partners, LP • Lighthouse Investment Partners • Main Capital Partners B.V. • Mesirov Advanced Strategies, Inc. • MPM Capital, LP • NGP Energy Capital Management, LLC • Oaktree Capital Management, LP • PanAgora Asset Management, Inc. • Perella Weinberg Partners Capital Management, LP • Platinum Equity Advisors, LLC	• Polen Capital Management, LLC • Polunin Capital Partners • Prudential Capital Partners • Prudential Real Estate Investors • RhumbLine Advisers • Roark Capital Partners • Sanderling Ventures • SCP Private Equity Partners • Segall Bryant & Hamill • Siguler Guff Advisers, LLC • SL Capital Partners • State Street Global Advisors • STG Partners, LLC • Sterling Fund Management • Summit Partners, LP • TA Realty • Technology Crossover Ventures • THL Credit Senior Loan Strategies, LLC • Thomas H. Lee Partners, LP • Thoma Bravo, LLC • Todd Asset Management • Tristan Capital Partners • Vontobel Asset Management, Inc. • Western Technology • Westfield Capital Management Company, LP • Westport Capital Partners, LLC • Z Capital Partners, LLC • Zevenbergen Capital Investments, LLC • ZMC Advisors LP

# Investment Vendors

Retirement Board	Investment Vendors		
<b>Boston Teachers</b>	▪ <b>PRIT Fund</b>		
<b>Braintree</b> ▶ <b>Custodian:</b> SEI Private Trust Company	▪ <b>SEI Investments</b>	• Lexington Partners, LP	• PRIT Fund
<b>Bristol County</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Segal Marco Advisors	<ul style="list-style-type: none"> <li>• Aberdeen Asset Management</li> <li>• Arrowstreet Capital, LP</li> <li>• Ashmore Investment Advisors, Ltd.</li> <li>• Bardin Hill Investment Partners</li> <li>• BlackRock Investment Management, LLC</li> <li>• Brookfield Timberlands Management, LP</li> <li>• BTG Pactual Timberland Investment Group</li> <li>• Ceres Partners, LLC</li> <li>• Clearbridge Investments</li> <li>• Columbia Management Investment Advisers, LLC</li> <li>• DN Partners</li> <li>• Dupont Capital Management</li> </ul>	<ul style="list-style-type: none"> <li>• Earnest Partners, LLC</li> <li>• Entrust Global</li> <li>• Fiera Capital Inc.</li> <li>• Fiduciary Trust International</li> <li>• Frontier Capital Management Co., LLC</li> <li>• GCM Customized Fund Investment Group</li> <li>• Goldentree Asset Management, LP</li> <li>• Grosvenor Capital Management, LP</li> <li>• Hancock Timber Resource Group, Inc.</li> <li>• IFM Investors (US) Advisor</li> <li>• Intercontinental Real Estate Corp.</li> <li>• Lazard Asset Management, LLC</li> <li>• LSV Asset Management</li> </ul>	<ul style="list-style-type: none"> <li>• Lyrical Asset Management, LP</li> <li>• Mesiroow Financial Private Equity Advisors, Inc.</li> <li>• Oaktree Capital Management, LP</li> <li>• Northern Trust Investments, Inc.</li> <li>• Pacific Investment Management Company (PIMCO)</li> <li>• Polaris Capital Management, LLC</li> <li>• PRIT Fund</li> <li>• RBC Global Asset Management (U.S.), Inc.</li> <li>• RREEF Management, LLC</li> <li>• Stone Harbor Investment Partners</li> <li>• TerraCap Management, LLC</li> <li>• Timberland Investment Resources, LLC</li> <li>• William Blair Investment Management, LLC</li> </ul>
<b>Brockton</b> ▶ <b>Custodian:</b> SEI Private Trust Company ▶ <b>Consultant:</b> Fiducient Advisors, LLC	▪ <b>SEI Investments</b>	<ul style="list-style-type: none"> <li>• Aberdeen Asset Management</li> <li>• Ascent Venture Partners</li> </ul>	<ul style="list-style-type: none"> <li>• Landmark Partners, LLC</li> <li>• Siguler Guff Advisers, LLC</li> </ul>
<b>Brookline</b>	▪ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• Hancock Timber Resource Group, Inc.</li> <li>• HarbourVest Partners, LLC</li> <li>• Invesco Private Capital, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>• Lexington Partners, LP</li> <li>• Sustainable Woodlands Partners, LLC</li> </ul>
<b>Cambridge</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Segal Marco Advisors	<ul style="list-style-type: none"> <li>• Aberdeen Asset Management</li> <li>• Acadian Asset Management</li> <li>• BlackRock Investment Management, LLC</li> <li>• Campbell Global LLC</li> <li>• Fidelity Institutional Asset Management</li> <li>• Garcia Hamilton &amp; Associates, LP</li> <li>• Hamilton Lane</li> <li>• Hancock Natural Resource Group, Inc.</li> <li>• IFM Investors (US) Advisor, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Income Research &amp; Management</li> <li>• Intercontinental Real Estate Corp.</li> <li>• J.P. Morgan Investment Management</li> <li>• Landmark Partners, LLC</li> <li>• Lazard Asset Management, LLC</li> <li>• Lexington Partners, LP</li> <li>• Loomis Sayles &amp; Co.</li> <li>• Mellon Investments Corporation</li> <li>• Penn Square Global Real Estate Group, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• PineBridge Investments, LLC</li> <li>• Polaris Capital Management, LLC</li> <li>• PRIT Fund</li> <li>• RBC Global Asset Management (U.S.), Inc.</li> <li>• RhumbLine Advisers</li> <li>• Rockwood Capital, LLC</li> <li>• UBS Realty Advisors, LLC</li> <li>• Wellington Management Company</li> </ul>
<b>Chelsea</b>	▪ <b>PRIT Fund</b>		
<b>Chicopee</b> ▶ <b>Custodian:</b> SEI Private Trust Company	▪ <b>SEI Investments</b>	• PRIT Fund	
<b>Clinton</b> ▶ <b>Consultant:</b> Trust Advisory Group, Ltd.	▪ <b>PRIT Fund</b>		
<b>Concord</b> ▶ <b>Custodian:</b> Comerica Bank ▶ <b>Consultant:</b> Fiducient Advisors, LLC	<ul style="list-style-type: none"> <li>• Acadian Asset Management, LLC</li> <li>• BlackRock Advisors, LLC</li> <li>• PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>• Rhumbline Advisers</li> <li>• Russell Investment Group</li> </ul>	• Wellington Management
<b>Danvers</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Segal Marco Advisors	<ul style="list-style-type: none"> <li>• Barings, LLC</li> <li>• BMO Asset Management Corporation</li> <li>• Eagle Capital Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Gerber-Taylor Management Company</li> <li>• Intercontinental Real Estate Corp.</li> <li>• PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>• RhumbLine Advisers</li> <li>• TA Realty</li> <li>• Western Asset Management Co.</li> </ul>



# Investment Vendors

Retirement Board	Investment Vendors		
<b>Dedham</b>	▪ <b>PRIT Fund</b>		
<b>Dukes County</b> ► <b>Custodian:</b> M&T Bank Wilmington Trust ► <b>Consultant:</b> Dahab Associates, Inc.	<ul style="list-style-type: none"> <li>• Aristotle Capital Management, LLC</li> <li>• Atlanta Capital</li> </ul>	<ul style="list-style-type: none"> <li>• Garcia Hamilton &amp; Associates LP</li> <li>• Polen Capital Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• PRIT Fund</li> </ul>
<b>Easthampton</b>	▪ <b>PRIT Fund</b>		
<b>Essex County</b>	▪ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• BlackRock Investment Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Levine Leichtman Capital Partners, Inc..</li> </ul>
<b>Everett</b>	▪ <b>PRIT Fund</b>		
<b>Fairhaven</b>	▪ <b>PRIT Fund</b>		
<b>Fall River</b>	▪ <b>PRIT Fund</b>		
<b>Falmouth</b> ► <b>Custodian:</b> M&T Bank Wilmington Trust ► <b>Consultant:</b> Wainwright Investment Counsel, LLC	<ul style="list-style-type: none"> <li>• Dimensional Fund Advisors, LP</li> <li>• Hamilton Lane</li> <li>• HGK Asset Management, Inc.</li> <li>• Lexington Partners, LP</li> </ul>	<ul style="list-style-type: none"> <li>• LMCG Investments, LLC</li> <li>• Lord Abbett &amp; Co., LLC</li> <li>• Mesirov Financial Private Equity Advisors, Inc.</li> <li>• PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>• Rhumblin Advisers</li> <li>• Siguler Guff Advisers, LLC</li> <li>• State Street Global Advisors</li> <li>• TerraCap Partners</li> </ul>
<b>Fitchburg</b>	▪ <b>PRIT Fund</b>		
<b>Framingham</b>	▪ <b>PRIT Fund</b>		
<b>Franklin County</b> ► <b>Custodian:</b> Comerica Bank ► <b>Consultant:</b> Dahab Associates, Inc.	<ul style="list-style-type: none"> <li>• Aberdeen Asset Management</li> <li>• Chartwell Investment Partners</li> <li>• Copeland Capital Management</li> </ul>	<ul style="list-style-type: none"> <li>• Fiera Capital Inc.</li> <li>• Loomis, Sayles &amp; Company</li> <li>• O'Shaughnessy Asset Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Polen Capital Management, LLC</li> <li>• PRIT Fund</li> </ul>
<b>Gardner</b>	▪ <b>PRIT Fund</b>		
<b>Gloucester</b>	▪ <b>PRIT Fund</b>		
<b>Greater Lawrence</b>	<ul style="list-style-type: none"> <li>• PRIO Wealth, LLC</li> </ul>		
<b>Greenfield</b>	▪ <b>PRIT Fund</b>		
<b>Hampden County</b>	▪ <b>PRIT Fund</b>		
<b>Hampshire County</b> ► <b>Consultant:</b> Dahab Associates, Inc.	▪ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• Glouston Capital Partners, LLC</li> <li>• Lexington Partners, LP</li> </ul>	<ul style="list-style-type: none"> <li>• Portfolio Advisors, LLC</li> </ul>
<b>Haverhill</b> ► <b>Custodian:</b> M&T Bank Wilmington Trust ► <b>Consultant:</b> Wainwright Investment Counsel, LLC	▪ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• Fisher Investments</li> <li>• Global Forest Partners, LP</li> <li>• Globespan Capital Management, Inc.</li> <li>• GrandBanks Capital</li> <li>• Income Research &amp; Management</li> <li>• Mesirov Financial Institutional Real Estate</li> </ul>	<ul style="list-style-type: none"> <li>• Molpus Woodlands Group, LLC</li> <li>• Putnam Advisory Company, LLC</li> <li>• Stafford Private Equity, Inc.</li> <li>• TerraCap Management</li> <li>• The DSF Group</li> </ul>
<b>Hingham</b> ► <b>Consultant:</b> Meketa Investment Group	▪ <b>PRIT Fund</b>		

# Investment Vendors

Retirement Board	Investment Vendors		
<b>Holyoke</b> ▶ <b>Consultant:</b> Segal Marco Advisors	<ul style="list-style-type: none"> <li>Aberdeen Asset Management</li> <li>Acadian Asset Management, LLC</li> <li>Allspring Global Investments, Inc.</li> <li>Aristotle Capital Management</li> <li>Constitution Capital Partners, LLC</li> <li>Entrust Global</li> <li>Fidelity Institutional Asset Management</li> <li>LMCG Investments, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Long Wharf Real Estate Partners, LLC</li> <li>Loomis, Sayles &amp; Company</li> <li>Mesirow Financial Private Equity Advisors, Inc.</li> <li>Monroe Capital</li> <li>Newton Investment Management, LLC</li> <li>Oaktree Capital Management, LP</li> <li>Oberweis Asset Management, Inc.</li> <li>Polaris Capital Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>PRIT Fund</li> <li>Putnam Investment Management, LLC</li> <li>RBC Global Asset Management (U.S.) Inc.</li> <li>Seizert Capital Partners, LLC</li> <li>State Street Global Advisors</li> <li>TerraCap Management, LLC</li> <li>Wasatch Advisors, Inc.</li> <li>Western Asset Management Co.</li> </ul>
<b>Hull</b>	▪ <b>PRIT Fund</b>		
<b>Lawrence</b>	▪ <b>PRIT Fund</b>		
<b>Leominster</b>	▪ <b>PRIT Fund</b>		
<b>Lexington</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Meketa Investment Group, Inc.	<ul style="list-style-type: none"> <li>Acadian Asset Management, LLC</li> <li>Angelo, Gordan &amp; Co., LP</li> <li>Driehaus Capital Management, LLC</li> <li>Fidelity Investments</li> </ul>	<ul style="list-style-type: none"> <li>Golub Capital Partners</li> <li>Kayne Anderson Rudnick Investment Management</li> <li>Matthews International Capital Management, LLC</li> <li>Monroe Capital</li> </ul>	<ul style="list-style-type: none"> <li>PRIT Fund</li> <li>RhumbLine Advisers</li> <li>Wellington Management Company, LLP</li> <li>White Oak Global Advisors, LLC</li> </ul>
<b>Lowell</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust	▪ <b>PRIT Fund</b>		
<b>Lynn</b>	▪ <b>PRIT Fund</b>		
<b>Malden</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust	<ul style="list-style-type: none"> <li>De Burlo Group, Inc.</li> </ul>		
<b>Marblehead</b>	▪ <b>PRIT Fund</b>		
<b>Marlborough</b> ▶ <b>Custodian:</b> Comerica Bank ▶ <b>Consultant:</b> Meketa Investment Group, Inc.	<ul style="list-style-type: none"> <li>Clarion Partners</li> <li>Constitution Capital Partners, LLC</li> <li>Dimensional Fund Advisors LP</li> <li>Driehaus Capital Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Fiduciary Management, Inc.</li> <li>Frontier Capital Management Co., LLC</li> <li>HarbourVest Partners, LLC</li> <li>Payden &amp; Rygel</li> </ul>	<ul style="list-style-type: none"> <li>RhumbLine Advisers</li> <li>Rockwood Capital</li> <li>Shenkman Capital Management, Inc.</li> <li>State Street Global Advisors</li> </ul>
<b>MHFA</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Meketa Investment Group, Inc.	<ul style="list-style-type: none"> <li>Aberdeen Asset Management</li> <li>AEW Capital Management, LP</li> <li>Ascent Venture Partners</li> <li>Constitution Capital Partners, LLC</li> <li>GQC Partners, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Goldman Sachs Asset Management, LP</li> <li>HarbourVest Partners, LLC</li> <li>IFM Investors Advisor</li> <li>Intercontinental Real Estate Corporation</li> <li>Longfellow Investment Management</li> </ul>	<ul style="list-style-type: none"> <li>Lord Abbett &amp; Co., LLC</li> <li>MetLife Investment Management</li> <li>State Street Global Advisors</li> <li>TA Realty</li> </ul>
<b>Massport</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Wilshire Associates	<ul style="list-style-type: none"> <li>Baillie Gifford Overseas Limited</li> <li>PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>Pzena Investment Management, LLC</li> <li>State Street Global Advisors</li> </ul>	<ul style="list-style-type: none"> <li>Wellington Management Company, LLP</li> </ul>
<b>MTRS (Mass Teachers' Retirement System)</b>	▪ <b>PRIT Fund</b>		

# Investment Vendors

Retirement Board	Investment Vendors		
<b>MWRA</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> NEPC, LLC	<ul style="list-style-type: none"> <li>• ABS Investment Management, LLC</li> <li>• Alcentra NY, LLC</li> <li>• Ascent Venture Partners</li> <li>• Axiom International Investors, LLC</li> <li>• Baillie Gifford</li> <li>• Baxter Street</li> <li>• Boston Partners</li> <li>• CarVal Investors</li> <li>• Cerberus Capital Management, LP</li> <li>• Coho Partners, Ltd.</li> <li>• Constitution Capital Partners LLC</li> <li>• Corbin Capital Partners LP</li> <li>• EnTrust Global Partners</li> </ul>	<ul style="list-style-type: none"> <li>• Foundry Group, LLP</li> <li>• Garcia Hamilton &amp; Associates LP</li> <li>• Hamilton Lane</li> <li>• HarbourVest Partners, LLC</li> <li>• J.F. Lehman &amp; Company</li> <li>• Kayne Anderson Capital Advisors, LP</li> <li>• Landmark Partners, LLC</li> <li>• Loomis, Sayles &amp; Company</li> <li>• Lord, Abnett &amp; Co. LLC</li> <li>• Mesirow</li> <li>• Morgan Stanley</li> <li>• Octagon Credit Investors, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Park Square Capital</li> <li>• Pinebridge Investments, LLC</li> <li>• Polen Capital Management, LLC</li> <li>• PRIT Fund</li> <li>• Private Advisors, LLC</li> <li>• RhumbLine Advisers</li> <li>• Schroders Investment Management North America, Inc.</li> <li>• SEI Investments</li> <li>• TA Realty</li> <li>• TerraCap Management, LLC</li> <li>• UBS Hedge Fund Solutions, LLC</li> </ul>
<b>Maynard</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust	■ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• Boston Advisors, LLC</li> </ul>	
<b>Medford</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> NEPC, LLC	<ul style="list-style-type: none"> <li>• Ashmore Investment Advisor Limited</li> <li>• City of London Investment Management</li> <li>• Garcia Hamilton &amp; Associates LP</li> </ul>	<ul style="list-style-type: none"> <li>• Lazard Asset Management, LLC</li> <li>• Loomis, Sayles &amp; Company</li> <li>• PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>• RhumbLine Advisers</li> <li>• William Blair &amp; Company, LLC</li> </ul>
<b>Melrose</b>	■ <b>PRIT Fund</b>		
<b>Methuen</b>	■ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• BlackRock Investment Management, LLC</li> </ul>	
<b>Middlesex County</b>	■ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• Global Forest Partners, LP</li> </ul>	<ul style="list-style-type: none"> <li>• Globespan Capital Management, Inc.</li> </ul>
<b>Milford</b>	■ <b>PRIT Fund</b>		
<b>Milton</b>	■ <b>PRIT Fund</b>		
<b>Minuteman Regional</b>	■ <b>PRIT Fund</b>		
<b>Montague</b>	■ <b>PRIT Fund</b>		
<b>Natick</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Fiducient Advisors, LLC	■ <b>SEI Investments</b>	<ul style="list-style-type: none"> <li>• PRIT Fund</li> </ul>	
<b>Needham</b>	■ <b>PRIT Fund</b>		
<b>New Bedford</b> ▶ <b>Consultant:</b> Segal Marco Advisors	<ul style="list-style-type: none"> <li>• Aberdeen Asset Management, Inc.</li> <li>• Acadian Asset Management, LLC</li> <li>• Constitution Capital Partners LLC</li> <li>• Hamilton Lane</li> <li>• Hancock Natural Resource Group, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>• Intercontinental Real Estate Corp.</li> <li>• Lexington Advisors, Inc.</li> <li>• Loomis, Sayles &amp; Company</li> <li>• Mesirow Private Equity Advisors, Inc.</li> <li>• Newton Investment Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Pacific Investment Management Company, LLC</li> <li>• Neuberger Berman Management</li> <li>• State Street Global Advisors Limited</li> <li>• UBS Realty Investors, LLC</li> <li>• Westfield Capital Management Company, LP</li> </ul>
<b>Newburyport</b>	■ <b>PRIT Fund</b>		
<b>Newton</b>	■ <b>PRIT Fund</b>		

# Investment Vendors

Retirement Board	Investment Vendors		
<b>Norfolk County</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Wainwright Investment Counsel, LLP	<ul style="list-style-type: none"> <li>Amundi Pioneer Institutional Asset Mgmt., Inc.</li> <li>Aristotle Capital Management, LLC</li> <li>Ascend Ventures Group, LLC</li> <li>BNY Mellon Asset Management N.A.</li> <li>Constitution Capital Partners, LLC</li> <li>Corsair Capital LLC</li> <li>D.E. Shaw Investment Management, LLC</li> <li>DSF Group</li> <li>EnTrust Partners, LLC</li> <li>Gamco Asset Management, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>Gerding Edlen Investment Management, LLC</li> <li>Globespan Capital Management, Inc.</li> <li>Goldentree Asset Management, LP</li> <li>Hamilton Lane</li> <li>HarbourVest Partners, LLC</li> <li>Income Research &amp; Management</li> <li>Intercontinental Real Estate Corporation</li> <li>Invesco Private Capital, Inc.</li> <li>LLM Capital Partners</li> <li>LMCG Investments, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Mesirow Capital Partners IX, LP</li> <li>Mesirow Financial Institutional Real Estate</li> <li>MFS International Advisors, Inc.</li> <li>PRIT Fund</li> <li>RhumbLine Advisers</li> <li>Seizert Capital Partners, LLC</li> <li>Siguler Guff Advisors, LLC</li> <li>TA Realty</li> <li>TerraCap Management</li> <li>Wellington Management Company, LLP</li> </ul>
<b>North Adams</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust	<ul style="list-style-type: none"> <li>De Burlo Group, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>PRIT Fund</li> </ul>	
<b>North Attleboro</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Dahab Associates, Inc.	<ul style="list-style-type: none"> <li>Aristotle Capital Management, LLC</li> <li>Atlanta Capital</li> <li>Axiom International Investors, LLC</li> <li>Blackrock Realty Advisors, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>Brandes Investment Partners, LP</li> <li>Davenport &amp; Company, LLC</li> <li>Intercontinental Real Estate Corporation</li> <li>Lazard Asset Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Loomis, Sayles &amp; Company</li> <li>RhumbLine Advisers</li> <li>Vontobel Asset Management, Inc.</li> </ul>
<b>Northampton</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust	<ul style="list-style-type: none"> <li>De Burlo Group, Inc.</li> </ul>	<ul style="list-style-type: none"> <li>PRIT Fund</li> </ul>	
<b>Northbridge</b>	▪ <b>PRIT Fund</b>		
<b>Norwood</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Meketa Investment Group, Inc.	<ul style="list-style-type: none"> <li>Aberdeen Asset Management, Inc.</li> <li>American Funds</li> <li>Aristotle Capital Management, LLC</li> <li>Atlanta Capital</li> <li>Brigade Capital Management</li> <li>Columbia Management Investment Advisors, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Constitution Capital Partners</li> <li>Dimensional Fund Advisors, LP</li> <li>Driehaus Capital Management, LLC</li> <li>HarbourVest Partners, LLC</li> <li>IFM Investors Advisor</li> </ul>	<ul style="list-style-type: none"> <li>Landmark Partners, LLC</li> <li>Newton Investment Management, LLC</li> <li>PRIT Fund</li> <li>RhumbLine Advisers</li> <li>State Street Global Advisors</li> </ul>
<b>Peabody</b>	▪ <b>PRIT Fund</b>		
<b>Pittsfield</b>	▪ <b>PRIT Fund</b>		
<b>Plymouth</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Fiducient Advisors, LLC	<ul style="list-style-type: none"> <li>Acadian Asset Management</li> <li>Aristotle Capital Management, LLC</li> <li>BlackRock Advisors, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Boston Trust Walden</li> <li>Columbia Management Investment Advisors</li> <li>PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>Rhumbline Advisers</li> <li>Wellington Management Company, LLP</li> <li>Westfield Capital Management Company, LP</li> </ul>

# Investment Vendors

Retirement Board	Investment Vendors		
<b>Plymouth County</b> ► <b>Custodian:</b> State Street Bank & Trust ► <b>Consultant:</b> Meketa Investment Group	<ul style="list-style-type: none"> <li>• ABS Investment Management, LLC</li> <li>• AEW Capital Management, LP</li> <li>• Aristotle Capital Management, LLC</li> <li>• Ascent Venture Partners</li> <li>• Audax Management Company (NY), LLC</li> <li>• Basalt Infrastructure Partners</li> <li>• BlackRock Advisors, LLC</li> <li>• BTG Pactual Timberland Investment Group</li> <li>• Carlyle Investment Management</li> <li>• CAI Manager LP</li> <li>• Charlesbank Capital Partners, LLC</li> <li>• Constitution Capital Partners, LLC</li> <li>• DN Partners</li> <li>• Driehaus Capital Management, LLC</li> <li>• Entrust Global Partners</li> <li>• Fisher Investments</li> <li>• First Eagle Investment Management</li> <li>• Freeman Spogoli Management</li> </ul>	<ul style="list-style-type: none"> <li>• Global Infrastructure Management, LLC</li> <li>• Globespan Capital Management, Inc.</li> <li>• HarborVest Partner</li> <li>• IFM Investors Advisor</li> <li>• Income Research &amp; Management</li> <li>• Invesco Trust Company</li> <li>• I Squared Capital</li> <li>• John Hancock Trust Company</li> <li>• J.P. Morgan Investment Management, Inc.</li> <li>• Kohlberg &amp; Co., LLC</li> <li>• Kopernik Global Investors</li> <li>• Landmark Partners, LLC</li> <li>• Lexington Partners, LP</li> <li>• LLR Management</li> <li>• Lord Abbett &amp; Company</li> <li>• Mesirow Financial Capital Partners X, LP</li> <li>• Mesirow Financial Institutional Real Estate</li> </ul>	<ul style="list-style-type: none"> <li>• Newton Investment Management, LLC</li> <li>• Old Farm Partners</li> <li>• PCCP, LLC</li> <li>• RhumbLine Advisers</li> <li>• Ridgemont Equity Partners</li> <li>• Rockpoint Capital</li> <li>• Searchlight Capital Partners</li> <li>• Siguler Guff Advisers, LLC</li> <li>• Summit Partners, LP</li> <li>• Systematic Financial Management</li> <li>• TA Realty</li> <li>• Trilantic Capital Management L.P.</li> <li>• Vulcan Value Partners, LLC</li> <li>• Walter Scott &amp; Partners, Ltd.</li> <li>• Waud Capital Partners</li> <li>• Wellington Management</li> <li>• Wellspring Capital Management, LLC</li> </ul>
<b>Quincy</b> ► <b>Custodian:</b> M&T Bank Wilmington Trust ► <b>Consultant:</b> Meketa Investment Group, Inc.	<ul style="list-style-type: none"> <li>• Acadian Asset Management, LLC</li> <li>• Adams Street Partners, LLC</li> <li>• AEW Capital Management, LP</li> <li>• Axiom</li> <li>• Beach Point Capital Management, LP</li> <li>• Brookfield Asset Management</li> <li>• Brown Advisory, LLC</li> <li>• Charlesbank Capital Partners, LLC</li> <li>• Columbia Management Investment Advisors, LLC</li> <li>• Driehaus Capital Management, LLC</li> <li>• Entrust Permal</li> </ul>	<ul style="list-style-type: none"> <li>• Freeman Spogli Management</li> <li>• Global Infrastructure Management</li> <li>• Goldman Sachs Asset Management, LP</li> <li>• Hancock Timber Resource Group, Inc.</li> <li>• HarborVest Partners</li> <li>• IFM Investors Advisor</li> <li>• J.P. Morgan Investment Management</li> <li>• LLR Management</li> <li>• Loomis, Sayles &amp; Company</li> <li>• Oppenheimer Alternative Investment Management</li> <li>• PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>• RhumbLine Advisers</li> <li>• Ridgemont Equity Partners</li> <li>• Rockwood Capital</li> <li>• Searchlight Capital Partners</li> <li>• SL Capital Partners, LLP</li> <li>• State Street Global Advisors</li> <li>• TerraCap Management, LLC</li> <li>• Torchlight Investors, LLC</li> <li>• Trilantic Capital Management L.P.</li> <li>• UBS Realty Investors, LLC</li> <li>• Wellspring Capital Management</li> </ul>
<b>Reading</b>	■ <b>PRIT Fund</b>		
<b>Revere</b>	■ <b>PRIT Fund</b>		
<b>Salem</b>	■ <b>PRIT Fund</b>		
<b>Saugus</b> ► <b>Custodian:</b> M&T Bank Wilmington Trust ► <b>Consultant:</b> Wainwright Investment Counsel, LLP	■ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• Aristotle Capital Management, LLC</li> <li>• Lord Abbett &amp; Co., LLC</li> <li>• LMCG Investments, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Massachusetts Financial Services Co.</li> <li>• RhumbLine Advisers</li> </ul>
<b>Shrewsbury</b> ► <b>Custodian:</b> M&T Bank Wilmington Trust ► <b>Consultant:</b> Dahab Associates, Inc.	■ <b>PRIT Fund</b>		

# Investment Vendors

Retirement Board	Investment Vendors		
<b>Somerville</b> ▶ <b>Custodian:</b> Comerica Bank	<ul style="list-style-type: none"> <li>• Congress Asset Management Company, LLP</li> <li>• Lazard Asset Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>• Loomis, Sayles &amp; Company</li> <li>• PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>• RhumbLine Advisers</li> <li>• UBS Realty Investors, LLC</li> </ul>
<b>Southbridge</b>	▪ <b>PRIT Fund</b>		
<b>Springfield</b>	▪ <b>PRIT Fund</b>		
<b>State</b>	▪ <b>PRIT Fund</b>		
<b>Stoneham</b> ▶ <b>Consultant:</b> Fiducient Advisors, LLC	▪ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• Russell Investment Group</li> </ul>	
<b>Swampscott</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Dahab Associates	▪ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• Aristotle Capital Management, LLC</li> <li>• Intercontinental Real Estate Corporation</li> </ul>	<ul style="list-style-type: none"> <li>• LMCG Investments, LLC</li> <li>• TA Realty</li> </ul>
<b>Taunton</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Dahab Associates, Inc.	<ul style="list-style-type: none"> <li>• Aberdeen Asset Management</li> <li>• Allspring Global Investments, Inc.</li> <li>• BlackRock Investment Management, LLC</li> <li>• Boston Partners</li> <li>• Ceres Partners, LLC</li> <li>• C.S. Mcke, LP</li> <li>• Frontier Capital Management Co., LLC</li> <li>• GAM International Management Limited</li> </ul>	<ul style="list-style-type: none"> <li>• Intercontinental Real Estate Corporation</li> <li>• John Hancock Trust Company</li> <li>• LMCG Investments, LLC</li> <li>• Mesirow Financial Investment Management, Inc.</li> <li>• Molpus Woodlands Group, LLC</li> <li>• Pacific Investment Management Company, LLC</li> <li>• Polen Capital Management, LLC</li> <li>• PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative Management Association</li> <li>• Rhumbline</li> <li>• State Street Global Advisors</li> <li>• TA Realty</li> <li>• TimberVest, LLC</li> <li>• Vontobel Asset Management, Inc.</li> <li>• Weaver C. Barksdale &amp; Associates</li> </ul>
<b>Wakefield</b>	▪ <b>PRIT Fund</b>		
<b>Waltham</b> ▶ <b>Custodian:</b> SEI Private Trust Company ▶ <b>Consultant:</b> Fiducient Advisors, LLC	▪ <b>SEI Investments</b>	<ul style="list-style-type: none"> <li>• PRIT Fund</li> </ul>	
<b>Watertown</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Fiducient Advisors, LLC	<ul style="list-style-type: none"> <li>• Acadian Asset Management, LLC</li> <li>• American Realty Advisors</li> <li>• Brandywine Global Investment Management, LLC</li> <li>• Columbia Management Investment Advisors, LLC</li> <li>• Eaton Vance Management</li> </ul>	<ul style="list-style-type: none"> <li>• Entrust Global Partners, LLC</li> <li>• Income Research &amp; Management</li> <li>• Massachusetts Financial Services Company</li> <li>• Pinebridge Investment, LLC</li> <li>• PRIT Fund</li> </ul>	<ul style="list-style-type: none"> <li>• RCP Advisors, LLC</li> <li>• TA Realty</li> <li>• TerraCap Management, LLC</li> <li>• Wellington Management Company, LLP</li> </ul>
<b>Webster</b> ▶ <b>Custodian:</b>	▪ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>• HGK Asset Management Inc.</li> </ul>	
<b>Wellesley</b>	▪ <b>PRIT Fund</b>		

# Investment Vendors

Retirement Board	Investment Vendors		
<b>West Springfield</b> ▶ <b>Custodian:</b> Comerica Bank	<ul style="list-style-type: none"> <li>De Burlo Group, Inc.</li> </ul>		
<b>Westfield</b> ▶ <b>Consultant:</b> Fiducient Advisors, LLC	<ul style="list-style-type: none"> <li>AEW Capital Management LP</li> <li>Columbia Management Investment Advisers, LLC</li> <li>Constitution Capital Partners, LLC</li> <li>Hamilton Lane</li> <li>Income Research &amp; Management</li> <li>Intercontinental Real Estate Corporation</li> </ul>	<ul style="list-style-type: none"> <li>Lazard Asset Management</li> <li>LMCG Investments, LLC</li> <li>Long Wharf Real Estate Partners, LLC</li> <li>Loomis, Sayles &amp; Company</li> <li>Pacific Investment Co., LLC</li> <li>Polaris Capital Management, LLC</li> </ul>	<ul style="list-style-type: none"> <li>PRIT Fund</li> <li>RBC Global Asset Management (U.S.), Inc.</li> <li>State Street Global Advisors</li> <li>TerraCap Management</li> <li>Wasatch Advisors, Inc.</li> </ul>
<b>Weymouth</b> ▶ <b>Custodian:</b> Comerica ▶ <b>Consultant:</b> Fiducient Advisors, LLC	<ul style="list-style-type: none"> <li>747 Capital</li> <li>Acadian Asset Management, LLC</li> <li>Adams Street Partners</li> <li>Aristotle Capital Management, LLC</li> <li>Ashmore Investment Advisors</li> <li>BlackRock Advisors, LLC</li> <li>Boston Trust Walden Company</li> <li>Brooke Private Equity Associates Management, LLC</li> <li>Brandywine Global Investment Management, LLC</li> <li>Constitution Capital Partners, LLC</li> </ul>	<ul style="list-style-type: none"> <li>EnTrust Global Partners, LLC</li> <li>Hamilton Lane</li> <li>Harbor Capital Advisors Inc.</li> <li>HarbourVest Partners, LLC</li> <li>Invesco Private Capital, Inc.</li> <li>Landmark Partners, LLC</li> <li>Lazard Asset Management, LLC</li> <li>MIRA, Americas Inc.</li> <li>Newton Investment Management, LLC</li> <li>Oaktree Capital Management, LP</li> </ul>	<ul style="list-style-type: none"> <li>Principal Global Investors LLC</li> <li>PRIT Fund</li> <li>RhumbLine Advisers</li> <li>Riverbridge Partners, LLC</li> <li>Seizert Capital Partners, LLC</li> <li>Sigular Guff Advisers, LLC</li> <li>Stockbridge Core and Value Advisors</li> <li>TerraCap Management, LLC</li> <li>Wasatch Advisors</li> <li>Western Asset Management Co.</li> </ul>
<b>Winchester</b>	▪ <b>PRIT Fund</b>		
<b>Winthrop</b>	▪ <b>PRIT Fund</b>		
<b>Woburn</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust	▪ <b>PRIT Fund</b>	<ul style="list-style-type: none"> <li>Charlesbank Capital Partners, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Stafford Private Equity Inc.</li> </ul>
<b>Worcester</b> ▶ <b>Custodian:</b> M&T Bank Wilmington Trust ▶ <b>Consultant:</b> Meketa Investment Group	<ul style="list-style-type: none"> <li>Acadian Asset Management, LLC</li> <li>AEW Capital Management, LP</li> <li>American Securities, LLC</li> <li>Ascent Venture Partners</li> <li>Boston Millenia Partners</li> <li>BTG Pactual Timberland Investment Group, LLC</li> <li>Capital International, Inc.</li> <li>Charlesbank Capital Partners, LLC</li> <li>Eaton Vance Management</li> </ul>	<ul style="list-style-type: none"> <li>EnTrust Global Partners, LLC</li> <li>Global Infrastructure Management, LLC</li> <li>Hancock Natural Resource Group, Inc.</li> <li>Harvest Partners, LP</li> <li>IFM Investors (US) Advisor, LLC</li> <li>Income Research &amp; Management</li> <li>Lazard Asset Management, LLC</li> <li>Loomis, Sayles &amp; Company</li> <li>Newstone Capital Partners, LLC</li> </ul>	<ul style="list-style-type: none"> <li>Northstar Company, LLC</li> <li>Old Farm Partners LP</li> <li>PRIT Fund</li> <li>Ridgemont Equity Partners</li> <li>Riverside Company</li> <li>SL Capital Partners, LLP</li> <li>State Street Global Advisors</li> <li>TA Associates Management</li> <li>Vitruvian Partners, LLP</li> </ul>
<b>Worcester Regional</b>	▪ <b>PRIT Fund</b>		



# PRIM Investment Vendors

[Organized by Service Provider Type]

## Custodian:

- ▶ BYN Mellon

## External Auditor:

- ▶ KPMG, LLP

## Consultants:

- ▶ Aberdeen Asset Management Inc. - Portfolio Completion Strategies Advisory Services
- ▶ Albourne – Operational Due Diligence Service Provider
- ▶ Callan Associates - Public Market Advisory Services
- ▶ Hamilton Lane - Private Equity Advisory Services
- ▶ International Woodland Company – Timberland Advisory Services
- ▶ NEPC, LLC - Asset Allocation Advisory Services
- ▶ NewAlpha Asset Management – Portfolio Completion Strategies Advisory Services

## Domestic Equity Managers

- Acadian Asset Management, LLC
- Brandywine Global Investment Management
- Driehaus Capital Management, LLC
- Frontier Capital Management

- Goldman Sachs Investment Management
- Lord, Abnett & Co., LLC
- Rhumblin Advisers

- Riverbridge Partners
- State Street Global Advisors
- Summit Creek Advisors

## International Equity Managers

- Acadian Asset Management, LLC
- ARGA Investment Management
- Artisan Partners
- AQR Capital

- Baillie Gifford
- Driehaus Capital Management, LLC
- Marathon Asset Management, LLP
- Mondrian Investment Partners

- Russell Implementation Services
- State Street Global Advisors
- Xponance

## Emerging Market Managers

- Acadian Asset Management, LLC
- AQR Capital
- Baillie Gifford

- Driehaus Capital Management, LLC
- Pzena Investment Management

- T. Rowe Price
- Wasatch Advisors, Inc.

## Core Fixed Income Managers

- AFL-CIO Housing Investment Trust
- Blackrock Financial Management, Inc.
- Loomis, Sayles & Company

- Longfellow Investment Management
- New Century Advisors, LLC

- Pacific Investment Management Company, LLC
- Pugh Capital Management

## Value-Added Fixed Income Managers

- 400 Capital Management, LLC
- Anchorage Capital Group, LLC
- Ashmore Investment Management, Ltd.
- Berkshire Group, LLC
- Eaton Vance Institutional Funds

- Fidelity Management Trust Company
- LibreMax Capital
- Loomis, Sayles & Company, LP
- Mudrick Capital Management, LP

- Newmarket Capital
- Pacific Investment Management Company, LLC
- Shenkman Capital Management
- Voya Financial

## Alternative Investments—Real Estate Managers

- AEW Capital Management
- Berkshire Group, LLC
- Blackstone
- Brookfield Investment Management

- Cambridge Associates
- CBRE Global Investors
- CenterSquare Investment Management
- DivcoWest

- INVESCO Realty Advisors
- LaSalle Investment Management
- Stockbridge

## Alternative Investments—Timberland

- Campbell Group, LLC

- Forest Investment Associates

## Alternative Investments—Portfolio Completion Strategy Managers

- 400 Capital Management
- Aeolus Capital Management Ltd.
- Basswood Capital Management, LLC
- Blackrock Aviation
- Breakout Funds, LLC
- Brigade Capital G.P., LLC
- Cantab Capital Partners, LP
- Canvas Capital
- Capula Management Limited
- Cirera Capital Limited
- CKC Capital, LLC
- Complus Asset Management Limited

- Contrarian Capital Management
- Davidson Kempner Advisors, Inc.
- DLD Asset Management, LP
- East Lodge Capital
- Elliot Capital Advisors, LP
- FIR Tree Capital Management
- GaoFeng Global Asset Management, Ltd.
- Investcorp Investment Advisors, LLC
- JEN Partners, LLC
- Land and Buildings Investment Management
- LMCG Investments, LLC

- Markel CATCo Investment Management
- Mudrick Capital Management, LP
- Mygale, LLP
- North Peak Capital Management
- Pacific Alternative Asset Management Co. (PAAMCO)
- PGIM, Inc.
- Power Pacific Investment Management, Inc.
- RV Capital Management Pvt., Ltd.
- Sightway Capital
- Silver Creek Advisory Partners, LLC
- Summit Partners Public Asset Management, LLC
- Tabor Asset Management

# PRIM Investment Vendors

[Organized by Service Provider Type, Continued]

## Alternative Investments—Private Equity and Distressed Debt Managers

### PRIVATE EQUITY:

- Acon Investments
- Advent International
- Alta Communications
- American Industrial Partners
- American Securities
- Apollo Management Co.
- Ascent Venture Partners
- Austin Ventures
- Bain Capital
- Battery Ventures
- Berkshire Partners
- Blackstone Capital Partners
- Bridgepoint Capital
- Carlyle Partners
- Castille Ventures
- Catalyst Investors
- Centerbridge Capital
- Charlesbank Capital Partners
- Charterhouse Capital
- Chequers Capital
- CVC Capital
- Cypress Group
- Denham Capital Management
- El Dorado Ventures
- Elysian Capital
- Essex Woodlands Health Ventures
- Ethos Private Equity
- Exponent Private Equity
- First Reserve Corporation
- Flagship Pioneering
- Freeman Spogli Equity Partners
- GENSTAR Capital
- Georgian Partners
- Gilde Buy Out Partner AG
- GTCR Golder Rauner

- Hellman & Friedman Capital Partners
- H.I.G. Capital Partners
- Highland Capital
- Hony Capital
- Index Ventures
- Insight Partners
- Institutional Venture Partners
- InterWest Partners
- JMI Equity
- Kelso & Company
- Kepha Partners
- Keytone Ventures
- Kohlberg Kravis Roberts and Co.
- KPS Capital Partners
- Lovell Minnick Partners
- Madison Dearborn Capital Partners
- M/C Venture Partners
- Medicxi Ventures
- Menlo Ventures
- Montagu
- Montreux Equity Partners
- Nautic Partners (Chisholm Management Co.)
- New Enterprise Associates
- Nordic Capital
- Odyssey Investment Partners
- Olympus Partners
- Onex Capital
- Permira Ventures
- Polaris Venture Partners
- Providence Equity Partners
- Providence Strategic Growth
- Quad-C Management
- Quantum Energy Partners
- Rembrandt Venture Partners
- Rhone Group, LLC
- SAIF Partners

- SCP Vitalife
- Sherbrooke Capital
- Sofinnova Ventures, Inc.
- Spark Capital
- Stone Point Capital (Trident Capital)
- Summit Ventures
- SV Life Sciences Advisers
- TA Associates
- Technology Crossover Ventures
- Tenaska Capital
- Texas Pacific Group
- The Gores Group
- Thoma Bravo
- Thoma Cressey Partners
- Thomas H. Lee Equity Partners, LP
- Thompson Street Capital
- Tidemark
- Torquest Partners
- Towerbrook Capital Partners
- TPG Capital
- Union Square Ventures
- VantagePoint Partners
- Vestar Capital Partners
- Vista Equity Partners
- Waterland Private Equity
- WestView Capital Partners
- Xenon Private Equity, LTD

### DISTRESSED DEBT:

- Anchorage Capital
- Avenue Capital Group
- CarVal Investors
- Centerbridge Special Credit
- Crescent Capital Group
- GSO Capital Partners
- Oaktree Capital Management
- Trust Company of the West (TCW)
- Wayzata Investment Partners

## Overlay Managers [Cash]

- Parametric Portfolio Associates, LLC

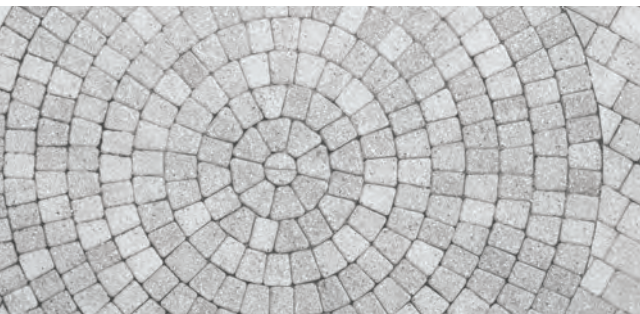
# PERAC Directory

## Units and Staff Members

ADMINISTRATION	ACTUARIAL	AUDIT	COMMUNICATIONS
<b>John W. Parsons, Esq.</b> Executive Director	<b>John Boorack</b> Actuary	<b>Caryn M. Shea, CPA</b> Director of Auditors	<b>Natacha Dunker</b> Communications Director
<b>Caroline J. Garcia</b> Deputy Executive Director	<b>James Lamenzo</b> Actuarial Consultant	<b>Scott Henderson</b> Deputy Chief Auditor	<b>Karen McMahon</b> Graphic Designer/Editor
<b>Kenneth J. Hill, Esq.</b> Assistant Deputy Director	<b>Timothy Larkin</b> Senior Actuarial Analyst	<b>Elaine Pursley, CPA</b> Auditor II	<b>Michael D. Litvack</b> Webmaster/Graphic Design Specialist
<b>Bill Keefe</b> Assistant Deputy Director	<b>Nate Geitz</b> Actuarial Assistant	<b>Naomi Martinez</b> Auditor I	<b>Ben Polatin</b> Communications Specialist
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<b>Ellen Furtado</b> Administrative Assistant	<b>Sherry Brooks-Ross</b> Benefit Calculation Specialist	<b>Carol Poladian, CPA</b> Auditor I	<b>FRAUD PREVENTION</b>
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<b>Patricia Tanso</b> Administrative Assistant		<b>Richard Wrona, CPA</b> Auditor I	
		<b>Junior Yanga</b> Auditor I	
		<b>John Silva</b> Auditor I	

DISABILITY	INFORMATION SYSTEMS	INVESTMENT/COMPLIANCE	LEGAL
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<b>Eileen Tobin, R.N., B.S.N.</b> Nurse Case Manager	<b>Robert Perez</b> Senior Systems Engineer	<b>Kellie-Anne Capurso</b> Compliance Analyst	<b>Felicia McGinnis, Esq.</b> Associate General Counsel
<b>Regina Manning</b> Case Manager I	<b>K-Lone Steele</b> Senior Systems Engineer	<b>Rose Morrison</b> Administrative Assistant	<b>Doreen Duane</b> Executive Assistant
<b>Erin Groesser</b> Administrative Assistant	<b>Stephen Forcucci</b> .net Developer		





## **COMMONWEALTH OF MASSACHUSETTS**

**Public Employee Retirement Administration Commission**

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