2023
Annual Comprehensive Financial Report

YOUR FUTURE IN BLOOM

Grow Your Retirement
Cultivating Your Financial Future

MASSACHUSETTS PORT AUTHORITY EMPLOYEES' RETIREMENT SYSTEM

For the fiscal years ended December 31, 2023 and 2022
BOSTON, MASSACHUSETTS




2023

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BOSTON, MASSACHUSETTS

Issued by John P. Pranckevicius, CPA, Treasurer-Custodian
and Irene E. Moran, Director of Retirement

The Massachusetts Port Authority Employees' Retirement System is governed by, and the terms of the retirement plan are set forth in, Chapter 32 of the Massachusetts General Laws. That statute governs and determines the benefits payable to the members of the Retirement System and nothing contained herein can change or add to the terms of the retirement plan. The description of the plan as set forth herein is necessarily summary and incomplete and intended only to be a general overview of the principal provisions applicable to most members to assist in understanding the financial statements contained herein. In order to determine the benefits applicable to any particular member or class of members, please refer to Chapter 32.

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Introduction

May 13, 2024

Dear Member:

We are pleased to present you with the 2023 Annual Comprehensive Financial Report (ACFR) for the Massachusetts Port Authority Employees' Retirement System (MPAERS, the "System" or the "Plan"). This will be the twenty-fifth consecutive year that our System submits an ACFR to the Government Finance Officers Association's Certificate of Achievement for Excellence in Financial Reporting program. We first submitted an entry in 1999 successfully earning a Certificate of Achievement that year and each year since. We believe this is significant because it demonstrates our commitment to quality and best practices in terms of both delivering services to you and administering the Plan.

On the investment front, 2023 proved to be a successful year for the pension fund in terms of growing the fund and enhancing the security of the Plan. The System's investments produced a solid return of 12.4% (net of fees) which exceeded our policy benchmark by 5.7%. Overall, the System grew in assets by $72.4 million, with total assets of $838.6 million by year-end. The Board continues to closely monitor pension fund investments, meeting with our investment consultant and fund managers at regular intervals. While returns are an important piece of the puzzle, our focus is on the larger task of administering, protecting, and growing the assets of the System and maintaining fund stability for the long-term.

In terms of funded status, our plan as determined by the Frozen Entry-Age Normal cost method, is 92% as of January 1, 2023. This means that the MPAERS is well-funded, in good shape financially and well able to meet its obligations. This is due not only to our solid investment performance but also a balanced investment strategy, the contributions of our members, and of course the consistent financial support of the Authority. Massport contributed $11.4 million to the pension fund last year and we expect the Authority's contributions to be in the $13 to $15 million range over the next few years.

While none of us can predict the future or determine what is in store for the U.S. and world economies, be assured that the Board is steadfast in its duties to protect and grow the assets of the System for the long-term benefit of its members. Safeguarding the pension fund is our main priority and we take that responsibility seriously. We will continue to monitor all pension fund investments, as well as our investment consultant and money managers, to ensure they meet the highest standards as we strive for excellence while upholding the integrity of our pension plan.

We encourage you to contact members of the Board and staff with any questions or concerns. We especially appreciate hearing feedback.

Sincerely,

The Massachusetts Port Authority Employees' Retirement System Board:

James Hoyte   Michael A. Grieco   John P. Pranckevicius   Betsy Taylor   Jon G. Turco

James S. Hoyte
Chairman
Appointed Member

Michael A. Grieco
Vice Chairman
Appointed Member

John P. Pranckevicius, CPA
Treasurer-Custodian
(Ex-officio Member)

Betsy Taylor
Elected Member

Jon G. Turco
Elected Member

massport retirement

Employees' Retirement System
Massachusetts Port Authority
One Harborside Drive Suite 200S
East Boston, MA 02128-2909
Telephone (617) 568-3951
Facsimile (617) 568-3957

James S. Hoyte
Chairman

Michael A. Grieco
Vice Chairman

John P. Pranckevicius, CPA
Treasurer-Custodian

Betsy Taylor
Board Member

Jon G. Turco
Board Member

Irene E. Moran
Director of Retirement

May 13, 2024

Board of Retirement
Massachusetts Port Authority Employees' Retirement System
One Harborside Drive, Suite 200S
East Boston, MA 02128-2909

Dear Board Members:

We are pleased to submit to you the Annual Comprehensive Financial Report ("ACFR" or the "Annual Report") of the Massachusetts Port Authority Employees' Retirement System (the "System", the "Plan", or the "MPAERS"). This report is issued for the years ending December 31, 2023 and 2022. Responsibility for both the accuracy of the financial information contained herein and for the completeness and fairness of the presentation rests with the management of the MPAERS. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of operations of the System.

History of the MPAERS

The Massachusetts Port Authority Employees' Retirement System is a single employer plan established on July 18, 1978, effective January 1, 1979, by enactment of Chapter 487 of the acts of 1978 (an amendment to Chapter 32 of the General Laws of the Commonwealth of Massachusetts). The MPAERS provides retirement benefits for substantially all employees of the Massachusetts Port Authority (the "Authority" or "Massport") and incidental benefits for their surviving spouses and beneficiaries.

Previously, Authority employees were members of the Commonwealth of Massachusetts Contributory Retirement System. Following enactment of the MPAERS, Authority employees' rights and benefits were transferred to the new system, which is a contributory defined benefit plan. The Authority and its employees contribute such amounts as are necessary to provide assets sufficient to meet benefits to be paid to plan participants. The benefit structure is defined by statute and any changes in plan provisions must occur through the legislative process.

The MPAERS administers the plan. The MPAERS Board determines investment objectives, strategies, policies, and general management. The Director of Retirement is accountable for the MPAERS' operations and reports to and advises the five-member Board of Trustees.

Major Initiatives

Benefits

A pension increase adjustment (also known as the cost-of-living adjustment or COLA) was enacted for retirees and survivors effective July 1, 2023. The 3% increase was paid on a base of $14,000.

Additionally, on November 16, 2022 Governor Baker signed into law Chapter 269 of the Acts of 2022, a provision that allowed Massachusetts retirement systems to approve a one-time 5% Cost-of-Living Adjustment (COLA) for retirees, in place of the 3% maximum established under Massachusetts General Law (M.G.L) Chapter 32, Section 103(a). This unprecedented increase was in recognition of the high inflation rate as compared to years past.

Both the Massport Authority Board and Retirement Board voted unanimously to approve this one-time additional 2% pension increase adjustment for Massport retirees retroactive to July 1, 2022. The retroactive increase was included in February 2023 benefit checks for eligible retirees and survivors.

Administration

We are pleased to report that James S. Hoyte was reelected as the Fifth Member and Chairman of the MPAERS Board for a three-year term beginning on January 28, 2024 and ending January 27, 2027. Additionally, Michael A. Grieco was reappointed as Vice Chairman of the Retirement Board for the same three-year term.

Additionally, following Michael P. O'Brien's resignation from Massport and subsequent departure from the MPAERS Board in February 2023, a special election was held to select a member to serve the remainder of Mike's term on the retirement board. Jon G. Turco, Senior Maintenance Foreperson in Massport's Field Maintenance unit, was elected to serve for a term beginning on April 13, 2023 and ending January 10, 2026.

Legislative Changes

Although multiple bills relative to public pensions in Massachusetts are filed each year, there were no bills approved in 2023 specifically impacting our members and the rules governing public pensions.

As previously reported, Chapter 147 of the Acts of 2022 was signed into law in August, 2022. This new law provides that in some circumstances vacation buybacks will be considered regular compensation and included as pensionable earnings in the calculation of a member's final average salary at retirement. Since its enactment, the Board and management worked diligently to determine which members are affected and to develop and receive regulatory approval of a new vacation buyback supplementary regulation from our regulator, the Public Employee Retirement Administration Commission (PERAC).

We are pleased to report that, on October 26, 2023, the MPAERS Board approved the *Supplemental Regulation Concerning Vacation Buybacks* and this new regulation was approved by PERAC on November 16, 2023. Implementation of this supplemental regulation began in January 2024. Members who retired between 2019 and 2023 whose vacation buybacks were not included in their final calculations have been notified of their eligibility and option to submit payment for vacation buyback deductions owed to the retirement system in order to receive benefit increases retroactive to their retirement effective date. Since then, more than two-thirds of these retirees have submitted payment for deductions owed. Staff is working to seek PERAC approval of revised monthly/annual retirement allowances, to update monthly base rates of pay and to calculate retroactive pay adjustments to date of retirement. Active members have also been notified of their eligibility and will be notified of vacation buyback deductions owed to the retirement system later in 2024. Management anticipates full implementation of the vacation buyback regulation in 2025.

Outreach

The MPAERS continues its focus on outreach through the publication of educational materials such as the retirement newsletter, *Outlook*, annual active member comprehensive benefit statements, and through retirement events and seminars including Retirement Information Sessions and our Drop-in Program. We place a special emphasis on providing quality customer service and we continually encourage feedback and welcome new ideas.

Internal and Budgetary Controls

The MPAERS management is responsible for establishing and maintaining an internal structure designed to ensure that the assets of the MPAERS are protected from loss, theft, or misuse, and to ensure that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that first, the cost of a control should not exceed the benefits likely to be derived, and second, the valuation of costs and benefits requires estimates and judgments by management.

The MPAERS budget is presented to and accepted by the board each year and expenditures are reviewed by the board at its monthly meeting.

Accounting

This financial report has been prepared in conformity with accounting principles generally accepted in the United States and reporting guidelines set forth by the Governmental Accounting Standards Board (GASB).

Management's Discussion and Analysis

The Management's Discussion and Analysis (MD&A) can be found within the Financial Section of the Annual Report and contains an introduction to the Financial Statements as well as a narrative of the Plan's financial highlights for 2023. The MD&A begins on page 17.

Investments

Under M.G.L. Chapter 32, Section 23 the retirement board is responsible for overseeing the investments of the pension fund, including the selection and appointment of an investment consultant and management professionals to carry out the board's investment objectives and policies.

The Massport Retirement System closely monitors its investment consultant and money managers. The Board reviews pension fund performance at each monthly meeting. Our consultant, Wilshire Advisors, LLC, presents quarterly investment results to the board and each money manager appears before the board on an annual basis to discuss its firm and fund performance.

Wilshire Advisors performed an Asset Allocation analysis in October 2021 and, on the recommendation of the consultant, the Board adopted a new asset allocation, effective December 31, 2021, consisting of:

27.5%	US Equity
27.5%	International Equity
10.0%	Private Equity
5.0%	Opportunistic Credit
22.5%	US Bonds
7.5%	Real Estate

As a matter of policy, the MPAERS board bases the investment of the assets of the System on a financial plan that considers:

- **a.** the financial condition of the MPAERS;
- **b.** the expected long-term capital market outlook;
- **c.** the MPAERS' risk tolerance;
- **d.** future changes of active and retired participants;
- **e.** projected inflation and the rate of salary increases;
- **f.** cash flow requirements; and
- **g.** the targeted funding level as a percentage of the actuarial funding target.

As of December 31, 2023 the total time-weighted rate of return net of fees was 12.41%. This is as compared to a 9.4% increase in the fiduciary net position of the plan as documented in the Financial Section of this report. For more detailed information regarding the System's investment policies, guidelines, and results please see the Investment Section of the Annual Report.

Actuarial Funding Status

The MPAERS retains an independent actuarial firm, Stone Consulting, Inc., to conduct an annual actuarial valuation to monitor the Plan's funding status. The actuarial methodology required by the MPAERS' charter is the Frozen-Entry-Age Actuarial Cost Method, and the funding status as of January 1, 2023 is 91.7%. However, we believe that when this methodology is applied, the result does not properly reflect the actual funding status of the system. Therefore, two tables are presented in the Actuarial Section. Using the Entry-Age-Normal Actuarial Cost Method, the January 1, 2023 valuation establishes the MPAERS' funding status as 96.8%. We believe that this method of valuation more clearly reflects the actual funding status of our system and also provides a basis of comparison to the funding levels of other Massachusetts public pension plans. Further, the Entry-Age-Normal method is required by the Governmental Accounting Standards Board (GASB) for financial statement reporting purposes.

For more information on the actuarial assumptions of the Plan as part of the January 1, 2023 valuation please see the Summary of Actuarial Methods and Assumptions found in the Actuarial Section of the Annual Report.

Professional Services

An annual audit of the MPAERS was conducted by KPMG LLP, independent auditors. The report of the independent auditors on the MPAERS' financial statements is included in the Financial Section of this report.

The Board issued Requests for Proposals for passive and active management mandates in 2023. Following comprehensive selection processes, the Board selected State Street Global Advisors for the passive large cap core, passive small cap growth and passive international equity mandates, Wellington Management for the active core fixed income mandate, and Pzena Investment Management for the active small cap value mandate.

The Board also issued a Request for Proposals for master custody services and, following a comprehensive selection process, the Board selected Wilmington Trust as the MPAERS' custodian bank.

Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Massachusetts Port Authority Employees' Retirement System for the fiscal year ended December 31, 2022. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports.

A Certificate of Achievement is valid for one year only. We believe that our current Annual Comprehensive Financial Report continues to meet the Certificate of Achievement program requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgements

We are proud to have once again completed a comprehensive document in accordance with the strict guidelines of the GFOA Certificate of Achievement program. Our goal is to present a thorough and accurate annual report that is easy for our members to read and understand. A great deal of hard work and collaboration go into the production of this comprehensive report and we would like to acknowledge the efforts that our team has put forth. In particular, we would like to thank the retirement staff as well as our investment consultant, auditors, actuary, and graphic designer for contributing their talents to this important project.

Respectfully submitted,

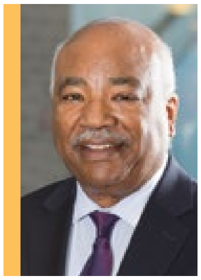
John P. Pranckevicius

John P. Pranckevicius, CPA
Treasurer-Custodian

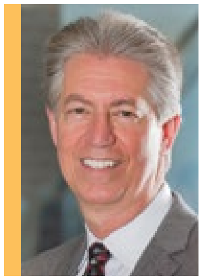
Irene E. Moran

Irene E. Moran
Director of Retirement

Biographies

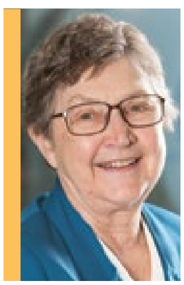


James S. Hoyte was appointed to the retirement board in January 2015. He was Massport's Secretary-Treasurer and Director of Administration and Finance when the MPAERS was established in 1978. Jamie is currently Senior Advisor to the Tremont Strategies Group. He was Massachusetts Secretary of Environmental Affairs, 1983-1988 and Chairman of the Massachusetts Water Resources Authority, 1985-1988. From 1992 to 2009 Jamie served as Associate Vice President and Lecturer in Environmental Sciences and Public Policy at Harvard University. He holds a Bachelor of Arts degree from Harvard College and a Juris Doctor degree from Harvard Law School. He is a member of the Massachusetts Bar.

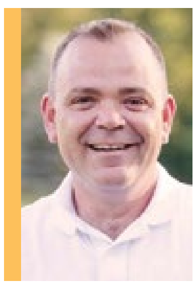


Michael A. Grieco joined the Massachusetts Port Authority in 1990. He was appointed Assistant Secretary-Treasurer in 1993 and served in that position for more than twenty-eight years until his retirement from Massport in 2022. He has served as a Member of the Massport Employees' Retirement Board since 1996 and as the Vice-Chair of the Retirement Board since 2009. He holds a Bachelor of Science degree in finance from Boston College and Juris Doctor and Master of Business Administration degrees from Suffolk University. Michael is also a member of the Massachusetts Bar.

John P. Pranckevicius, CPA is Massport's Chief Financial Officer and Secretary-Treasurer since 2007. John oversees Massport's financial responsibilities including treasury, budgeting, accounting, finance, and debt and risk management. Additionally, John serves as Treasurer-Custodian to over $1.0 billion in invested assets for Massport's employee pension and retiree health care programs. Prior to joining the Authority, John served in various financial roles in the City of Worcester, most recently as the City's Chief Financial Officer. John is a licensed Certified Public Accountant in the Commonwealth and earned his Bachelor's degree in Political Science and his Master's degree in Public Administration from the University of Maine. He holds a Master's Degree in Accounting from Bentley University.



Betsy Taylor was elected as an employee representative to the retirement board in 2013. She joined Massport in 1978 and has held a variety of financial positions. She is a member of the Board of NE-CAT, the New England Culinary Arts Training. Prior to her retirement on April 1, 2015, Betsy held the position of Massport's Director of Finance and Treasury and was responsible for issuing Massport's debt and managing its $800 million cash portfolio. She previously worked at UMass, Smith College and Lesley College. She holds a Bachelor of Arts from Oberlin College and a Masters in Business Administration from Stanford University.



Jon G. Turco has been employed at Massport for 30 years and is currently a Senior Maintenance Foreperson in the Field Maintenance department. Throughout Jon's time at Massport, he has been a proud member of Teamsters Local 25. Jon serves on the Peabody City Council where he is currently serving his fifth term and he is also serving his sixth year on the Council Finance Committee that oversees a $170 million budget. Jon was elected as an employee representative to the Massport Employees' Retirement System Board in April 2023.

Irene E. Moran joined the Massachusetts Port Authority Employees' Retirement System in 1995 as Retirement Board Assistant. She was promoted to the Director of Retirement position in 1997. Prior to her employment at Massport, Irene worked as a Support Manager for DataNational Corporation. She holds a Bachelor of Arts degree from the University of New Hampshire.

Organization Chart

Retirement Board

James S. Hoyte
Chairman, Appointed Member

Michael A. Grieco
Vice Chairman, Appointed Member

John P. Pranckevicius, CPA
Treasurer-Custodian (ex-officio)

Betsy Taylor
Elected Member

Jon G. Turco
Elected Member

Director of Retirement

Irene E. Moran

Retirement Staff

Laura S. Barbosa
Retirement Member Services Specialist

Nancy Bournival
MPAERS Controller

Jan M. Coen
Retirement Board Coordinator

Consulting and Professional Services

Actuary
Stone Consulting, Inc.

Independent Auditors
KPMG LLP

Custodian
Wilmington Trust

Investment Consultant
Wilshire Advisors, LLC

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Massachusetts Port Authority Employees' Retirement System

For its Annual Comprehensive Financial Report For the Fiscal Year Ended

December 31, 2022

Christopher P. Morrill

Executive Director/CEO

Investment Managers

Baillie Gifford

Brandywine Global Investment Management, LLC

Palmer Square Capital Management

Pension Reserves Investment Management Board

Pzena Investment Management, LLC

State Street Global Advisors

Wellington Management Company, LLP

More information about our investment professionals can be found within the Schedules of Fees and Commissions in the Investment Section on pages 47 and 48.

Financial Section

Independent Auditors' Report

The Massachusetts Port Authority Employees' Retirement System Board:

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the Massachusetts Port Authority Employees' Retirement System (the Plan) as of and for the years ended December 31, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements for the years then ended as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the Plan as of December 31, 2023 and 2022, and the changes in its financial position for the years then ended in accordance with U.S. generally accepted accounting principles.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis and required supplementary information identified in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Plan's basic financial statements. The other supplementary information identified in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the other supplementary information identified in the table of contents is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual comprehensive financial report. The other information comprises the introductory, investment, actuarial, statistical and frequently asked questions sections but does not include the basic financial statements and our auditors' report thereon. Our opinion on the basic financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audits of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated May 13, 2024 on our consideration of the Plan's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Plan's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Plan's internal control over financial reporting and compliance.

KPMG LLP

Boston, Massachusetts
May 13, 2024, except for the Other Information section of our report, as to which the date is June 21, 2024.

Required Supplementary Information

Management's Discussion and Analysis

Years Ended December 31, 2023 and 2022 (Unaudited)

This section presents Management's Discussion and Analysis (MD&A) of the Massachusetts Port Authority Employees' Retirement System's (MPAERS or the Plan) financial activity and performance as of and for the years ended December 31, 2023 and 2022. The MD&A is unaudited and is intended to serve as an introduction to the Plan's basic financial statements, as well as to offer readers of the Plan's financial statements a narrative view and analysis of MPAERS' financial activities.

Financial Highlights

The fiduciary net position of the Plan as of December 31, 2023 totaled $838.6 million, a $72.4 million, or 9.4% increase, due to positive returns in most major asset classes. Fiduciary net position is the residual of the Plan's assets in excess of the Plan's liabilities as of the date of the Statements of Fiduciary Net Position. The Plan's assets are held in trust to meet future benefit payments.

Total Plan additions of $120.0 million, comprised of $26.7 million in contributions and transfers, and $93.3 million in investment gains, were realized for the year ended December 31, 2023. In comparison, the Plan experienced total "additions" of $(107.6) million and $146.9 million for the years ended December 31, 2022 and 2021, respectively. The increase in 2023 is due to investment gains as compared to the previous year. The decrease in 2022 is primarily due to investment losses as compared to the gains of 2021.

For the plan year ended December 31, 2023, total Plan deductions were $47.6 million, an increase of approximately $902,000, or 1.9% over the last year, and are comprised of $45.1 million in benefit payments, $1.1 million in transfers and withdrawals and $1.4 million in administrative expenses. This approximately $902,000 increase is primarily due to new retirements. This is compared to total plan deductions of $46.7 million and $45.6 million for the years ended December 31, 2022 and 2021, respectively.

For reporting purposes in accordance with the Government Accounting Standards Board (GASB), as of December 31, 2023, the Plan's fiduciary net position as a percentage of the total pension liability was 93.2%. As required by the Plan's charter, for funding purposes the Plan uses the Frozen-Entry-Age-Normal actuarial method which differs from that prescribed by GASB. Under the Frozen-Entry-Age-Normal method, the funded ratio of the plan as of January 1, 2023, was 91.7%.

Overview of the Financial Statements

The basic financial statements consist of the: (1) Statements of Fiduciary Net Position; (2) Statements of Changes in Fiduciary Net Position; (3) Notes to Financial Statements; (4) Required Supplementary Information; and (5) Other Supplementary Information.

The Statements of Fiduciary Net Position report the Plan's assets, liabilities, and net position restricted for pensions at the end of the fiscal year calculated using the following formula: Assets – Liabilities = Net position restricted for pensions. The Statements of Fiduciary Net Position report the financial position of the Plan at a given point in time, in this case, December 31. Over time, the increase or decrease in fiduciary net position serves as a useful indicator of the Plan's financial health.

The Statements of Changes in Fiduciary Net Position report additions to and deductions from the Plan during the fiscal year. The formula here is: Additions – Deductions = Net Increase (Decrease) in Plan Fiduciary Net Position. The Statements of Changes in Fiduciary Net Position report activity occurring over a specific period of time, in this case, the year beginning January 1 and ending December 31.

The Notes to the Financial Statements provide additional information that is essential to a full understanding of the data provided in the Plan's financial statements.

The Required Supplementary Information following the Notes to Financial Statements consists of the schedules of changes in net pension (asset) liability and related ratios, investment returns, contributions and notes to schedule of contributions.

Other Supplementary Information details schedules of administrative expenses, investment expenses, and payments to consultants.

These statements and schedules are prepared in conformity with U.S. generally accepted accounting principles, including the accounting and financial reporting requirements found in GASB Statement No. 87.

Financial Analysis

Total assets as of December 31, 2023 and 2022 were $840.6 million and $767.4 million, respectively, and were comprised of cash and cash equivalents; investments; accrued interest and accrued dividends receivables; contributions due from Plan members, other systems, and right of use asset. Total assets increased by $73.2 million or 9.5% from $767.4 million as of December 31, 2023 due to investment gains in most major asset classes. Total assets decreased by $154.4 million or 16.8% from $921.8 million between 2021 and 2022 due to investment losses in all major asset classes.

Total liabilities as of December 31, 2023 were approximately $2.0 million and total liabilities as of December 31, 2022 were approximately $1.2 million. Total liabilities for 2023 were primarily comprised of payables for investment management fees, rent fees, refunds to members, payables to other state retirement plans, and a lease liability. In 2022, total liabilities were primarily comprised of payables for investment management fees, rent fees, refunds to members, a retroactive cost of living adjustment, payables to other state retirement plans, and a lease liability.

Total fiduciary net position held in trust for pension benefits totaled $838.6 million, which represents an increase of $72.4 million or 9.4% over 2022. Fiduciary net position decreased by $154.3 million or 16.8% between 2021 and 2022. The increase in 2023 is due to investment gains in most major asset classes and the decrease in 2022 is due to investment losses in most major asset classes.

Condensed Financial Information

	2023	2022	Total $ Change	Total % Change
Assets				
Cash and cash equivalents	$ 1,506,528	$ 1,112,752	$ 393,776	35.4%
Investments	835,904,151	763,201,659	72,702,492	9.5
Receivables	3,106,582	2,843,125	263,457	9.3
Right of use asset	77,928	264,952	(187,024)	(70.6)
Total Assets	**$ 840,595,189**	**$ 767,422,488**	**$ 73,172,701**	**9.5%**
Liabilities				
Payables	$ 1,922,410	$ 958,180	$ 964,230	100.6%
Lease liability	78,856	266,988	(188,132)	(70.5)
Total Liabilities	**$ 2,001,266**	**$ 1,225,168**	**$ 776,098**	**63.3%**
Fiduciary Net Position	**$ 838,593,923**	**$ 766,197,320**	**$ 72,396,603**	**9.4%**

	2022	As Restated 2021	Total $ Change	Total % Change
Assets				
Cash and cash equivalents	$ 1,112,752	$ 932,542	$ 180,210	19.3%
Investments	763,201,659	918,216,467	(155,014,808)	(16.9)
Receivables	2,843,125	2,248,858	594,267	26.4
Right of use asset	264,952	451,978	(187,026)	(41.4)
Total Assets	**$ 767,422,488**	**$ 921,849,845**	**$ (154,427,357)**	**(16.8)%**
Liabilities				
Payables	$ 958,180	$ 907,971	$ 50,209	5.5%
Lease liability	266,988	453,548	(186,560)	(41.1)
Total Liabilities	**$ 1,225,168**	**$ 1,361,519**	**$ (136,351)**	**(10.0)%**
Fiduciary Net Position	**$ 766,197,320**	**$ 920,488,326**	**$ (154,291,006)**	**(16.8)%**

2021 amounts were restated due to the implementation of GASB Statement No. 87, *Leases.*

Revenues – Additions to Plan Fiduciary Net Position

Additions to MPAERS' Fiduciary net position include plan member and plan sponsor contributions, transfers from other retirement systems and net investment gains (losses). Contributions, net transfers and net investment gains for plan year 2023 totaled approximately $120.0 million as compared to a net loss of approximately $107.6 million in 2022.

In 2023, member contributions increased by approximately $1.3 million or 11.2% primarily due to new hires and salary increases. In 2022, member contributions increased by approximately $936,000 or 8.6% also primarily due to new hires and salary increases.

Plan sponsor contributions of $11.4 million increased by $3.1 million or 37.1%, compared to a decrease of $3.4 million or 28.7% in 2022. The increase in 2023 and decrease in 2022 in the Annual Required Employer Contribution (ARC) are due to fluctuations in funding requirements as determined by the Plan's actuary. Fluctuations in plan sponsor contributions are partially due to the incremental accrual by the Plan's actuary of market gains and losses over multiple years as well as changes to actuarial assumptions including mortality and discount rates.

Net investment gains for the year ending December 31, 2023 was $93.3 million representing a change of $223.8 million or a 171.4% addition compared to 2022. The investment gain in 2023 is the result of a significant increase in market returns as compared to the previous year. Net investment loss for the year ending December 31, 2022 was $130.5 million representing a change of $253.0 million or a 206.6% reduction compared to 2021. The investment loss in 2022 is the result of a decline in investment markets as compared to the previous year.

Condensed Financial Information

	2023	2022	Total $ Change	Total % Change
Additions				
Plan member contributions	$ 13,170,776	$ 11,841,149	$ 1,329,627	11.2%
Plan sponsor contribution	11,438,885	8,340,432	3,098,453	37.1
Net transfers	2,100,977	2,717,068	(616,091)	(22.7)
Net investment gain (loss)	93,251,827	(130,526,209)	223,778,036	171.4
Total Additions	**$ 119,962,465**	**$ (107,627,560)**	**$ 227,590,025**	**211.5%**

	2022	2021	Total $ Change	Total % Change
Additions				
Plan member contributions	$ 11,841,149	$ 10,904,747	$ 936,402	8.6%
Plan sponsor contribution	8,340,432	11,695,314	(3,354,882)	(28.7)
Net transfers	2,717,068	1,814,038	903,030	49.8
Net investment (loss) gain	(130,526,209)	122,485,721	(253,011,930)	(206.6)
Total Additions	**$(107,627,560)**	**$ 146,899,820**	**$(254,527,380)**	**(173.3)%**

Expenses – Deductions from Plan Fiduciary Net Position

Deductions to the Plan include the payment of pension benefits to members and beneficiaries, refunds of contributions to inactive members, transfers of member contributions to other Massachusetts public retirement plans and the cost of administering the Plan. For plan year 2023, the total deductions were $47.6 million, an increase of approximately $902,000 or 1.9% over 2022. For plan year 2022, the total deductions were $46.7 million, an increase of $1.1 million or 2.4% over 2021.

Retirement benefit payments totaled $45.1 million, an increase of approximately $1.4 million or 3.1%. In 2022 retirement benefit payments totaled $43.8 million, an increase of approximately $1.7 million or 4.1% from the previous year. The increases in 2023 and 2022 are primarily due to new retirements but are also, to a lesser extent, attributed to retiree cost-of-living adjustments granted in those respective years. For plan year 2023, withdrawals by inactive members totaled approximately $657,000, a decrease of approximately $122,000 or 15.6%. For plan year 2022, withdrawals by inactive members totaled approximately $778,000, a decrease of approximately $495,000 or 38.9%. The decreases in 2023 and 2022 are due to fewer inactive members withdrawing their contributions from the Plan. Transfers to other Massachusetts public retirement systems totaled approximately $409,000, a decrease of approximately $520,000 or 56.0% from 2022. This is compared to a $167,000, or 15.2% decrease from 2021 to 2022. Year to year changes in transfer rates can be attributed to variations in public sector workforce movement between Massport and other plan eligible government employers.

In 2023, plan administrative expenses totaled approximately $1.4 million, an increase of approximately $187,000 or 15.1%, and in 2022 plan administrative expenses totaled approximately $1.2 million, an increase of approximately $31,000 or 2.6%. The increase in plan administrative expenses in 2023 is due to increases in personnel and professional service costs and rent fees, and the increase in plan administrative expenses in 2022 is also due to increases in personnel service costs and rent fees.

Condensed Financial Information

	2023	2022	Total $ Change	Total % Change
Deductions				
Retirement benefits	$ 45,074,787	$ 43,718,196	$ 1,356,591	3.1%
Withdrawals by inactive members	656,937	778,488	(121,551)	(15.6)
Transfers to other state retirement plans	408,514	928,512	(519,998)	(56.0)
Administrative expenses	1,425,624	1,238,250	187,374	15.1
Total Deductions	**$ 47,565,862**	**$ 46,663,446**	**$ 902,416**	**1.9%**

	2022	As Restated 2021	Total $ Change	Total % Change
Deductions				
Retirement benefits	$ 43,718,196	$ 41,994,872	$ 1,723,324	4.1%
Withdrawals by inactive members	778,488	1,273,538	(495,050)	(38.9)
Transfers to other state retirement plans	928,512	1,095,201	(166,689)	(15.2)
Administrative expenses	1,238,250	1,206,990	31,260	2.6
Total Deductions	**$ 46,663,446**	**$ 45,570,601**	**$ 1,092,845**	**2.4%**

2021 amounts were restated due to the implementation of GASB Statement No. 87, *Leases.*

- Management's Discussion and Analysis, continued -

Changes in Plan Fiduciary Net Position

Changes in fiduciary net position as of December 31, 2023 were $72.4 million, which represents an increase of $226.7 million or 146.9% from 2022. This increase is primarily the result of investment gains. Changes in fiduciary net position as of December 31, 2022 were $(154.3) million, which represents a decrease of $255.6 million or 252.3% from 2021. This decrease is primarily due to investment losses and increases in retirement benefits.

Condensed Financial Information

	2023	2022	Total $ Change	Total % Change
Changes in Plan Fiduciary Net Position				
Total additions	$ 119,962,465	$(107,627,560)	$ 227,590,025	211.5%
Total deductions	47,565,862	46,663,446	902,416	1.9
Change in Plan Fiduciary Net Position	**$ 72,396,603**	**$(154,291,006)**	**$ 226,687,609**	**146.9%**
Fiduciary Net Position	**$ 838,593,923**	**$ 766,197,320**	**$ 72,396,603**	**9.4%**

	2022	As Restated 2021	Total $ Change	Total % Change
Changes in Plan Fiduciary Net Position				
Total additions	$ (107,627,560)	$ 146,899,820	$ (254,527,380)	(173.3)%
Total deductions	46,663,446	45,570,601	1,092,845	2.4
Change in Plan Fiduciary Net Position	**$(154,291,006)**	**$ 101,329,219**	**$(255,620,225)**	**(252.3)%**
Fiduciary Net Position	**$ 766,197,320**	**$ 920,488,326**	**$(154,291,006)**	**(16.8)%**

2021 amounts were restated due to the implementation of GASB Statement No. 87, *Leases.*

Overall Financial Position of the MPAERS

Due to investment gains in most major asset classes the Plan experienced an increase in its investment portfolio for the year ending December 31, 2023. Management believes the Plan remains well funded and able to meet its obligations. As plan sponsor, the Massachusetts Port Authority bears the investment risk. When plan net position declines, the plan sponsor is statutorily obligated to offset the losses by funding the Plan's actuarially determined annual assessment.

Requests for Information

This financial report is designed to provide an overview of MPAERS' finances. Questions concerning any of the information provided in this report should be addressed to Massachusetts Port Authority Employees' Retirement System, One Harborside Drive, Suite 200S, East Boston, MA 02128 or emailed to retirement@massport.com.

Financial Statements

Statements of Fiduciary Net Position

As of December 31	2023	2022
Assets		
Cash and cash equivalents	**$ 1,506,528**	**$ 1,112,752**
Investments, at Fair Value		
Common stocks	$ 13,952,217	$ 11,347,461
Commingled funds:		
Domestic equity	187,249,309	166,941,678
Fixed income	196,025,926	182,173,305
Opportunistic credit	45,693,403	41,011,025
International equity	230,702,175	199,312,874
Real estate	64,611,018	68,914,390
Private equity	97,670,103	93,500,926
Total Investments, at Fair Value	**$ 835,904,151**	**$ 763,201,659**
Receivables		
Plan member contributions	$ 388,427	$ 304,548
Accrued interest and dividends	21,584	20,573
Other state retirement plans	2,661,892	1,853,814
Receivable for securities sold	25,649	622,852
Other	9,030	41,338
Total Receivables	**$ 3,106,582**	**$ 2,843,125**
Right of use Asset	$ 77,928	$ 264,952
Total Plan Assets	**$ 840,595,189**	**$ 767,422,488**
Liabilities		
Payables to other state retirement plans	$ 1,297,471	$ 410,702
Other payables	624,939	547,478
Lease liability	78,856	266,988
Total Plan Liabilities	**$ 2,001,266**	**$ 1,225,168**
Net Position Restricted for Pensions	**$ 838,593,923**	**$ 766,197,320**

The accompanying notes are an integral part of these financial statements.

Statements of Changes in Fiduciary Net Position

For the fiscal year ended December 31	2023	2022
Additions		
Contributions		
Plan members	$ 13,170,776	$ 11,841,149
Plan sponsor	11,438,885	8,340,432
Total Contributions	**$ 24,609,661**	**$ 20,181,581**
Intergovernmental		
Transfers from other state retirement plans	$ 1,502,898	$ 1,136,935
Section 3(8)(c) transfers, net	598,079	1,580,133
Net Intergovernmental	**$ 2,100,977**	**$ 2,717,068**
Investment (Loss) Income		
Interest and dividends	$ 16,867,888	$ 14,379,029
Net appreciation (depreciation) in fair value of investments	79,577,942	(141,684,430)
Less management and related fees	(3,194,003)	(3,220,808)
Net Investment (Loss) Income	**$ 93,251,827**	**$ (130,526,209)**
Total Additions	**$ 119,962,465**	**$ (107,627,560)**
Deductions		
Retirement benefits	$ 45,074,787	$ 43,718,196
Withdrawals by inactive members	656,937	778,488
Transfers to other state retirement plans	408,514	928,512
Administrative expenses	1,425,624	1,238,250
Total Deductions	**$ 47,565,862**	**$ 46,663,446**
Change in Fiduciary Net Position	**$ 72,396,603**	**$ (154,291,006)**
Net Position Restricted for Pensions		
Beginning of year	**$ 766,197,320**	**$ 920,488,326**
End of year	**$ 838,593,923**	**$ 766,197,320**

The accompanying notes are an integral part of these financial statements.

Notes to Financial Statements

A. Plan Description

The Massachusetts Port Authority Employees' Retirement System (the Plan) is a single employer plan established on July 18, 1978, effective January 1, 1979, by enactment of Chapter 487 (an amendment to Chapter 32) of the General Laws of The Commonwealth of Massachusetts to provide retirement benefits for substantially all employees of the Massachusetts Port Authority (the Authority), and incidental benefits for their surviving spouses, beneficiaries and contingent annuitants. Prior to this enactment, Authority employees were members of the Commonwealth of Massachusetts Contributory Retirement System and the funding of the pension liability was on a pay-as-you-go method. Pursuant to this enactment, the employees' then present rights and benefits were transferred to the new retirement system. The Plan is a contributory defined benefit plan to which the Authority and its employees contribute such amounts as are necessary to provide assets sufficient to meet benefits to be paid to plan participants. The Plan is administered by the Massachusetts Port Authority Employees' Retirement System Board (the Board), consisting of five members including one ex-officio member, two elected members, one member appointed by the Massachusetts Port Authority and one member appointed by the other four board members.

At January 1, 2023 and 2022, the Plan's membership consisted of:

	2023	2022
Retirees and beneficiaries receiving benefits	996	976
Inactive members entitled to benefits but not yet receiving them	83	78
Current members:		
Active	1,145	1,094
Inactive	211	258
Total Membership	**2,435**	**2,406**

Benefits are paid by the Plan from plan assets available for plan benefits. Plan participants are entitled at normal retirement age to benefit payments based upon age at retirement, length of service, and earnings levels. Vesting occurs after 10 years of service. Optional payment methods may be elected, including the contingent annuitant method which provides for reduced payments during the life of the plan participant and continued payments to the participant's beneficiary after the death of the participant.

Benefits to participants who retired prior to January 1, 1979 are paid by the Massachusetts State Board of Retirement. The Massachusetts State Board of Retirement is reimbursed for all such benefits paid after December 31, 1978 as these benefits represent obligations of the Plan.

Under Chapter 32, Section 3(8)(c), of the General Laws of The Commonwealth of Massachusetts (Chapter 32), the Plan is reimbursed for benefits paid to participants entitled to receive benefits for previous participation in other Massachusetts Chapter 32 plans. The Plan is also obligated to pay a proportionate share of benefits to participants entitled to receive benefits for subsequent participation in other Massachusetts Chapter 32 plans.

Also under Chapter 32, for members leaving the Authority's employment to work for other Massachusetts governmental units, the Plan transfers their accumulated account balances and creditable service to the retirement system of the new employer. Other such retirement systems are in turn required to make comparable transfers to the Plan for employees coming to work for the Authority.

B. Contributions Required and Contributions Made

Contributions are made by the Authority based on amounts required to be funded as determined by annual actuarial valuations and are designed to fund the Plan on a level cost basis, as a percentage of pay, over the average remaining working lifetime of the active participants and to fund operating costs of the Plan. For the years ended December 31, 2023, 2022, and 2021, the Authority was required to contribute to the Plan $11,438,885, $8,340,432, and $11,695,314, respectively. The Authority bears the risk that plan assets might decline due to fluctuations in the fair value of the Plan's investments requiring future contributions by the Authority to increase.

Employees who became members prior to January 1, 1975 contribute 5% of their regular compensation through payroll deductions. Employees whose membership commenced on or after January 1, 1975 but prior to January 1, 1984 contribute 7%. Those employees

– Notes to Financial Statements, continued –

whose membership began on or after January 1, 1984 but prior to July 1, 1996 contribute 8%. Employees hired after July 1, 1996 contribute 9% of their regular compensation. Employees who are hired after December 31, 1978 contribute an additional 2% of regular compensation over $30,000. Employee contributions accumulate and, subject to certain restrictions set forth in Chapter 32, are refundable to employees upon termination of employment by the Authority or payable to another retirement system should the employee transfer to another government unit covered by Chapter 32 of the General Laws of The Commonwealth of Massachusetts.

Contributions totaling $24,609,661 ($11,438,885 employer and $13,170,776 employee) and $20,181,581 ($8,340,432 employer and $11,841,149 employee) were recognized by the Plan for plan years 2023 and 2022, respectively.

C. Summary of Significant Accounting Policies

Basis of Accounting

These financial statements have been prepared with an "economic resources" measurement focus on the accrual basis of accounting in accordance with generally accepted governmental accounting principles.

Cash and Cash Equivalents

Cash and cash equivalents are considered to be cash on deposit, and highly liquid short-term investments with original maturities of three months or less from the date of acquisition.

Investment Valuation

Investments are reported at fair value. Securities traded on a national or international securities exchange are valued at the last reported sales price on the last business day of the plan year; investments traded on a national securities exchange for which no sale was reported on that date and investments in common and preferred stocks traded in over-the-counter markets are valued at the mean of the last reported bid and asked prices, or the last reported bid price. Mutual funds and commingled funds, including real estate and private equity investments, are valued based on net asset value (NAV) or unit value at year-end. Changes in fair value are included in investment (loss) income in the statement of changes in fiduciary net position.

Contributions

Employer contributions are recognized when legally due. Member contributions are recognized by the Plan as compensation is earned by the Authority's employees.

Retirement Benefits

Retirement benefits and refunds are recorded when due and payable in accordance with the terms of the Plan.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the dates of the financial statements and the reported amounts of additions and deductions during the reporting periods. Actual results could differ from estimates. Fair values of real estate and private equity holdings are generally estimated absent readily available fair values, and such estimates may be materially different than values that would have been used if a ready market existed.

Other

Purchases and sales of securities are reflected on a trade-date basis. Gain or loss on sales of securities is based on average cost.

Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned on an accrual basis. Income from venture capital limited partnerships is recorded using the equity method of accounting.

The Plan presents in its Statements of Changes in Fiduciary Net Position the net (depreciation) appreciation in the fair value of its investments, which consists of the net realized gains and losses during the year and the change in unrealized appreciation and depreciation during the year on those investments.

Investment Policy

The provisions of Massachusetts General Laws (M.G.L.) Chapter 32, Section 23(2) and the Board approved investment policy govern the Plan's investment practice.

Diversification is attained through varied investment management styles that comply with Massachusetts state law. This is accomplished through the retention of investment managers that adhere to M.G.L. Chapter 32, Section 23(3), the "Prudent Person" rule.

The Plan has retained an investment consultant to work with the Board in a fiduciary capacity to assure that strategic investment diversification is attained, to employ investment managers with expertise in their respective asset classes, and to closely monitor the implementation and performance of the respective investment strategies.

The Plan is currently invested in stocks (domestic and international), fixed income securities (domestic and international), opportunistic credit, real estate and private equity.

The target allocation for each major asset class is summarized in the following table:

	Target Allocation	
Asset Class	2023	2022
Domestic Equity	27.5%	27.5%
International Equity	27.5	27.5
Fixed Income	22.5	22.5
Opportunistic Credit	5.0	5.0
Real Estate	7.5	7.5
Private Equity	10.0	10.0
Total	**100.0%**	**100.0%**

The Board's current rebalancing policy states that "The Board shall rebalance to the established targets during the quarter following the quarter ended whenever the asset class allocation falls outside the allowable ranges."

Leases (Lessee)

The System is a lessee for a noncancellable lease of space and recognizes a lease liability and an intangible right-to-use lease asset.

The System initially measured the lease liability at the present value of payments expected to be made during the lease term. Subsequently, the lease liability is reduced by the principal portion of lease payments made. The lease asset is initially measured as the initial amount of the lease liability. Subsequently, the lease asset is amortized into administration expense on a straight-line basis over the lease term.

The lease term expires in 2024. The discount rate used for the calculation of the lease liability is 0.84%. Interest expense from this lease totaled $1,519 and $3,092 for the years ended December 31, 2023 and 2022, respectively.

Future annual lease payments are as follows:

Year ending December 31:	Principal	Interest	Total
2024	$ 78,856	$166	$ 79,022
Total	**$ 78,856**	**$166**	**$ 79,022**

D. Deposit and Investment Risks

The following discusses the Plan's exposure to common deposit and investment risks related to custodial credit, credit, concentration of credit, interest rate and foreign currency risks as of December 31, 2023 and 2022.

Custodial Credit Risk

Custodial credit risk is the risk that, in the event of a failure of a depository financial institution, the Plan deposits may not be returned. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Plan and are held by either the depository financial institution or the depository financial institution's trust department or agent but not in the Plan's name.

– Notes to Financial Statements, continued –

Although there is no Plan-wide policy for custodial credit risk associated with deposits, the Plan's investments are held by the Plan's custodian and registered in the Plan's name. All of the Plan's securities are held by the Plan's custodial bank in the Plan's name, except for investments in mutual and commingled funds, real estate properties, and limited partnerships, which by their nature, are not required to be categorized. Investments in the Short-Term Investment Funds (STIF) are held in a SEC-registered pooled fund that is managed by the master custodian bank. The fair value of the position in the pool equals the value of the pool shares.

Credit Risk

Credit risk exists when there is a possibility the issuer or other counterparty to an investment may be unable to fulfill its obligations.

For the years ended December 31, 2023 and 2022, the System's fixed income and opportunistic credit investments totaled $241,719,329 and $223,184,330, respectively. These investments are split among three commingled funds. The funds are not rated.

There are no Plan-wide policy limitations for credit risk exposures within the portfolio. The Plan's three fixed income investments are managed in accordance with an investment contract that is specific as to permissible credit quality ranges and the average credit quality of the overall portfolio.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss that may be attributed to the magnitude of a government's investment in a single issuer. The Plan has no investments, at fair value, that exceed 5% of the Plan's total investments as of December 31, 2023 and 2022 other than pooled investments.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed within the portfolio using the effective duration methodology. It is widely used in the management of fixed income portfolios in that it quantifies to a much greater degree the risk of interest rate changes. While there are no Plan-wide policy limitations as to the degree of interest rate risk taken, the Plan's one actively managed fixed income portfolio has guidelines which specify that the average duration of the Portfolio ranges between plus or minus 1.5 years of the average duration of the Bloomberg Barclays US Aggregate Bond Index. The other two opportunistic credit income portfolios, one domestic and the other global, are in actively managed funds and the investment objectives of these funds are to outperform the Credit Suisse Leveraged Loan Index and Bloomberg Global Aggregate (Hedged US) Index, respectively. It is believed that the reporting of effective and spread durations found in the tables below quantifies to the fullest extent possible the interest rate risk of the Plan's fixed income assets.

Interest Rate Sensitivity – Effective Duration

December 31, 2023	Fair Value	Effective Duration (in years)
Commingled funds:		
Fixed income - actively managed	$196,025,926	6.51
Opportunistic credit - actively managed - domestic	13,967,933	3.03
Opportunistic credit - actively managed - global	31,725,470	6.70
Total	**$241,719,329**	

December 31, 2022	Fair Value	Effective Duration (in years)
Commingled funds:		
Fixed income - actively managed	$182,173,305	6.87
Opportunistic credit - actively managed - domestic	11,708,910	4.42
Opportunistic credit - actively managed - global	29,302,115	7.50
Total	**$223,184,330**	

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. From time to time, the Plan's external managers may or may not hedge the portfolio's foreign currency exposures with currency forward contracts depending on their views on a specific foreign currency relative to the U.S. dollar. While there are no Plan-wide policy limitations related to foreign currency risk, the Plan will not manage currency as a separate asset class or enter into speculative currency positions in its portfolios, except as it relates to specific cross-hedging activity, which may be permitted in certain investment manager guidelines. While the System has no investments denominated in foreign currencies, the following represents the investments denominated in U.S. dollars that can be subject to fluctuations in foreign currencies:

Currency	2023	2022
International equity pooled funds (various currencies)	$ 230,702,175	$199,312,874

Rate of Return

For the years ended December 31, 2023 and 2022, the annual money-weighted rate of return on plan investments, net of plan investment expenses was 12.45% and (14.41)%, respectively. The money-weighted rate of return expresses investment performance net of investment expenses adjusted for the changing amounts actually invested.

Fair Value Hierarchy

GAAP establishes a fair value hierarchy for investments that prioritizes inputs used to measure fair value into three levels:

- Level 1 – quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities;
- Level 2 – observable prices that are based on inputs not quoted in active markets, but corroborated by market data;
- Level 3 – unobservable inputs that are used when little or no market data is available.

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs. In determining fair value, the Plan utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible.

Investments held through commingled funds for which fair value is estimated using net asset values (NAVs) as a practical expedient are not categorized in the fair value hierarchy.

The Plan uses an independent pricing source to determine the fair value of investments at quoted market prices.

– Notes to Financial Statements, continued –

The Plan has the following Fair Value measurements as of December 31, 2023 and 2022:

2023	Fair Value	Level 1	Level 2	Level 3
Investments by Fair Value Level				
Equities	$ 13,952,217	$ 13,952,217	—	—
Total	**$ 13,952,217**	**$ 13,952,217**	—	—
Investments measured at NAV				
Commingled Equity Funds				
Large Cap	$ 177,212,179	—	—	—
Small Cap	10,037,130	—	—	—
International	230,702,175	—	—	—
Commingled Fixed Income Funds				
Core Bond	196,025,926	—	—	—
Commingled Opportunistic Credit Funds	45,693,403	—	—	—
Total	**$ 659,670,813**	—	—	—
Other Investments at Fair Value				
PRIT Real Estate Fund	$ 64,611,018	—	—	—
PRIT Private Equity	97,670,103	—	—	—
Total	**$ 162,281,121**	—	—	—
Total Investments	**$ 835,904,151**	**$ 13,952,217**	—	—

2022	Fair Value	Level 1	Level 2	Level 3
Investments by Fair Value Level				
Equities	$ 11,347,461	$11,347,461	—	—
Total	**$ 11,347,461**	**$11,347,461**	—	—
Investments measured at NAV				
Commingled Equity Funds				
Large Cap	$ 158,484,748	—	—	—
Small Cap	8,456,930	—	—	—
International	199,312,874	—	—	—
Commingled Fixed Income Funds				
Core Bond	182,173,305	—	—	—
Commingled Opportunistic Credit Funds	41,011,025	—	—	—
Total	**$ 589,438,882**	—	—	—
Other Investments at Fair Value				
PRIT Real Estate Fund	$ 68,914,390	—	—	—
PRIT Private Equity	93,500,926	—	—	—
Total	**$ 162,415,316**	—	—	—
Total Investments	**$ 763,201,659**	**$11,347,461**	—	—

The Plan categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. The Plan has no securities classified in Level 2 or Level 3.

The PRIT real estate and private equity funds are external investment pools that are not registered with the Securities and Exchange Commission, but are subject to oversight by the Pension Reserves Investment Management Board (the PRIM Board). The PRIM Board was created by legislation to provide general supervision of the investments and management of PRIT. The PRIT real estate and private equity funds are not rated funds. The fair value of the PRIT real estate and private equity funds are based on unit value as reported by management of the PRIT funds. The PRIT funds issue separately available audited financial statements with a year-end of June 30. The Plan is required to provide a 24-hour redemption notice for the PRIT Real Estate fund. The PRIT Private Equity fund is not redeemable until notified by the PRIM Board.

The following represents the significant investment strategies and terms on which the Plan may redeem investments for those investments measured at the NAV (or its equivalent) as a practical expedient:

Investments Measured at NAV

	2023	2022	Redemption Frequency	Redemption Notice Period
Commingled equity funds[1]	$417,951,484	$366,254,552	Daily to Thrice Monthly	1-30 days
Commingled fixed income funds[2]	$196,025,926	$182,173,305	Daily	1-30 days
Commingled opportunistic credit funds[3]	$ 45,693,403	$ 41,011,025	Daily to Quarterly	10-90 days

1 Commingled equity funds: This type includes five funds that invest primarily in U.S. large and small cap equity funds and international equity funds.
2 Commingled fixed income fund: This type includes one fixed income fund that invests in U.S. corporate bonds, U.S. government bonds, U.S. asset-backed securities and foreign bonds.
3 Commingled opportunistic credit funds: This type includes two opportunistic credit funds that invest in domestic and global credit-related instruments.

E. Operating Expenses

The Plan's administrative expenses as shown on the Statements of Changes in Plan Fiduciary Net Position are borne by the Plan and financed with investment income. These expenses include personnel and professional services, member communication and education, and other miscellaneous administrative expenses. Operating expenses are billed back to the Authority dollar for dollar as part of the annual assessment.

F. General Termination Policy

Under Chapter 465, Section 25 of the General Laws of The Commonwealth of Massachusetts, in the event of dissolution of the Authority by the General Court, participants of the Plan who do not transfer to or enter service in a governmental plan in which a contributory retirement system was established under Chapter 32 shall continue as a member of the Massachusetts Port Authority Employees' Retirement System and shall be entitled to benefits as outlined in the Plan. Effective upon the date of dissolution of the Authority, or default of its obligations under Chapter 32 of the General Laws, benefits to be paid to participants would become obligations of the Commonwealth of Massachusetts.

– Notes to Financial Statements, continued –

G. Legally Required Reserve Accounts

The balances in the Plan's legally required reserves at December 31, 2023 and 2022 were as follows:

All reserve accounts are funded at levels required by state statute.

	2023	2022	Purpose
Annuity Savings Fund	$ 138,974,446	$ 129,836,474	Active members' contribution balance
Annuity Reserve Fund	49,832,572	53,550,603	Retired members' contribution account
Pension Reserve Fund	537,421,177	547,285,649	Remaining net assets
Pension Fund	112,286,643	35,458,859	Amounts appropriated to fund retirement benefits
Military Service Fund	79,085	65,735	Amount appropriated to fund military service time
Total	**$838,593,923**	**$766,197,320**	

H. Related-Party Transactions

The Plan invests certain cash in a money market fund, the M&T Bank Short-Term Investment Fund, which is sponsored by the Plan's custodial bank. The total value of funds held at December 31, 2023 and 2022 was $1,506,528 and $1,112,752, respectively.

I. Net Pension Liability (Asset)

The components of the Net Pension Liability (Asset) of the System as of December 31, 2023 and 2022, is as follows:

	2023	2022
Total Pension Liability	$899,718,366	$ 858,104,731
Fiduciary Net Position	838,593,923	766,197,320
Plan's Net Pension Liability (Asset)	**$ 61,124,443**	**$ 91,907,411**
Fiduciary Net Position as a Percentage of the Total Pension Liability	93.21%	89.29%

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of January 1, 2023 and update procedures were used to roll forward the total pension liability from the valuation date (1/1/23) to the measurement date (12/31/23). The following actuarial assumptions were applied to the periods included in the measurement for 2023 and 2022:

- Inflation – 2.5%
- Salary increases – 4.25% for 2023 and 2022
- Investment rate of return, net of plan investment expense – 6.75% for 2023 and 2022
- Cost-of-Living increases – 3.0% on a maximum base of $14,000. Annual cost of living increases are assumed to be 3% of the lesser of the base or annual benefits, following a one time 5% increase for FY23.
- Mortality – 2023 and 2022:
  - Pre-Retirement: Pub-2010 Table Healthy Employees (sex-distinct) projected with MP2021 Generational Mortality. Separate tables for Groups 1 & 2 (General Employees) and for Group 4 (Public Safety).
  - Post-Retirement: Pub-2010 healthy annuitant Table (sex-distinct) projected with MP2021 Generational Mortality. Group distinctions apply as with actives.
  - Disabled: Pub-2010 Table for disabled lives (sex-distinct) projected with MP2021 Generational Mortality was used. Mortality for accidental disability is assumed to be 50% from the same cause as the disability. Separate tables for Groups 1 & 2 and for Group 4.

- Long-term Expected Rate of Return:
  - The long-term expected rate of return on plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The best estimates of geometric long-term expected real rates of return for each major asset class are summarized in the following table:

	Long-term Expected Real Rate of Return	
Asset Class	**2023***	**2022***
Domestic Equity	2.69%	4.71%
International Equity	4.01	5.37
Fixed Income	2.44	2.42
Opportunistic Credit	3.88	4.20
Real Estate	3.96	4.54
Private Equity	6.21	7.72

*Amounts are net of inflation assumption of 2.34% and 2.38%, respectively.

Discount Rate

The discount rate used to measure the total pension liability as of December 31, 2023 and 2022 was 6.75%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on the plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Change in Benefit Terms

As of January 1, 2023 the retiree benefit reflects a one time 5% COLA that was granted for FY23 (an additional 2% compared to the typical 3% increase).

In 2018, there was a change to plan provisions resulting in a $4.9 million reduction of the net pension liability. Due to a decision by the Contributory Retirement Appeal Board (CRAB), vacation buybacks were not included in pensionable earnings when estimating the projected benefit payments. In August 2022, Chapter 147 of the Acts of 2022 was signed into law. This new law provides that in some circumstances vacation buybacks will be considered regular compensation and included as pensionable earnings. Since its enactment, the Board and management worked with our regulator, the Public Employee Retirement Administration Commission (PERAC) to determine which members were affected and to develop and receive regulatory approval of a vacation buyback supplemental regulation. On October 26, 2023 the MPAERS board approved the "Supplemental Regulation Concerning Vacation Buybacks" and on November 16, 2023 PERAC approved it. Implementation of this supplemental regulation began in 2024.

Impacted retirees were notified in January 2024 of their option to submit payment for vacation buyback deductions owed in order to receive retroactive benefit increases. Retirees were given a deadline of April 5, 2024 to elect whether or not to participate and a deadline of January 5, 2025 to make payment.

These additional liabilities for vacation buyback retiree benefit adjustments will be recognized as of the December 31, 2024 measurement period when results are known. Additional analysis will be required to determine whether or not this change in benefit terms for eligible active members will result in additional liabilities. Management anticipates this assessment will occur as part of the January 1, 2025 valuation.

– Notes to Financial Statements, continued –

Sensitivity of the Net Pension Liability (Asset) to Changes in the Discount Rate

The following presents the net pension liability (asset) of the Plan as of December 31, 2023 and 2022, calculated using the current discount rate, as well as what the net pension liability (asset) would be if it were calculated using a discount rate that is one-percentage point lower or one-percentage point higher than the current rate:

2023	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
Plan's Net Pension Liability (Asset)	$166,697,697	$ 61,124,443	$ (27,700,490)

2022	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
Plan's Net Pension Liability (Asset)	$193,513,079	$ 91,907,411	$ 7,362,432

Required Supplementary Information (Unaudited)

Schedule of Changes in Net Pension (Asset) Liability and Related Ratios

As of December 31	2023	2022	As Restated 2021
Total Pension Liability			
Service cost	$ 17,560,989	$ 19,438,506	$ 18,994,468
Interest	57,621,111	56,300,284	55,139,792
Change of benefit terms	2,709,195	—	—
Differences between expected and actual experience	7,761,601	(28,553,747)	(463,175)
Change of assumptions	—	17,633,974	14,880,700
Benefits payments	(45,074,787)	(43,718,196)	(41,994,872)
Other	1,035,526	1,010,069	(554,701)
Net Change in Total Pension Liability	**$ 41,613,635**	**$ 22,110,890**	**$ 46,002,212**
Total Pension Liability – beginning of year	$ 858,104,731	$ 835,993,841	$ 789,991,629
Total Pension Liability – end of year (a)	**$ 899,718,366**	**$ 858,104,731**	**$ 835,993,841**
Change in Fiduciary Net Position			
Contributions – employer	$ 11,438,885	$ 8,340,432	$ 11,695,314
Contributions – employees	13,170,776	11,841,149	10,904,747
Net investment income (loss)	93,251,827	(130,526,209)	122,485,721
Benefits payments	(45,074,787)	(43,718,196)	(41,994,872)
Administrative expenses	(1,425,624)	(1,238,250)	(1,206,990)
Other	1,035,526	1,010,068	(554,701)
Net Change in Fiduciary Net Position	**$ 72,396,603**	**$(154,291,006)**	**$ 101,329,219**
Fiduciary Net Position – beginning of year	$ 766,197,320	$ 920,488,326	$ 819,159,107
Fiduciary Net Position – end of year (b)	**$ 838,593,923**	**$ 766,197,320**	**$ 920,488,326**
Net Pension (Asset) Liability – end of year (a)–(b)	**$ 61,124,443**	**$ 91,907,411**	**$(84,494,485)**
Fiduciary Net Position as a Percentage of the Total Pension Liability	93.2%	89.3%	110.1%
Covered Payroll	$ 120,627,833	$ 112,199,412	$ 126,886,615
Net Pension (Asset) Liability as a Percentage of Covered Payroll	**50.7%**	**81.9%**	**(66.6)%**

2021 amounts were restated due to the implementation of GASB Statement No. 87, *Leases.*
See accompanying Independent Auditors' Report.

Notes to Schedule:

Benefit Changes

2023: As of January 1, 2023 the retiree benefits reflects a 5% COLA that was granted for FY23 (an additional 2% compared to the typical 3% increase), resulting in an increased net pension liability totaling $2.7 million.

2018: Cost-of-living adjustments increased, resulting in an increased net pension liability totaling $3.0 million. Additionally, vacation buybacks were no longer includable in pensionable earnings, resulting in a decreased net pension liability.

Changes of Assumptions

2022: The interest rate was changed from 7.0% to 6.75%. The mortality assumption was changed to the Pub-2010 Tables. This assumption change resulted in an increased net pension liability totaling $17.6 million.

2021: The mortality improvement scale was changed from MP2018 to MP2021. Rates of retirement and withdrawal rates were adjusted for 2021 only to reflect the impact of the COVID-19 pandemic. The net of these changes resulted in an increased total pension liability totaling $14.9 million.

2020: The interest rate was changed to 7.0% from 7.25%. The salary increase assumption was changed to 4.25% from 4.5%. Compensation limits under Section 401(a) were recognized. The net of these changes resulted in an increased total pension liability totaling $15.6 million.

2020	2019	2018	2017	2016	2015	2014
$ 17,335,130	$ 17,529,241	$ 16,774,393	$ 16,419,396	$ 15,920,199	$ 14,875,343	$ 13,055,819
53,203,718	51,734,212	49,569,214	47,341,133	44,961,249	41,160,193	40,955,958
—	—	(4,891,422)	—	—	—	—
5,845,991	15,434	748,729	(1,474,367)	2,591,721	(1,394,849)	1,929,282
15,573,525	(13,789,423)	—	—	(1,478,780)	24,097,914	—
(36,624,674)	(35,377,808)	(33,648,705)	(31,000,590)	(28,430,589)	(26,457,593)	(24,498,778)
(327,323)	2,277,196	561,899	269,347	(173,330)	351,309	141,411
$ 55,006,367	**$ 22,388,852**	**$ 29,114,108**	**$ 31,554,919**	**$ 33,390,470**	**$ 52,632,317**	**$ 31,583,692**
$ 734,985,262	$ 712,596,410	$ 683,482,302	$ 651,927,383	$ 618,536,913	$ 565,904,596	$ 534,320,904
$ 789,991,629	**$ 734,985,262**	**$ 712,596,410**	**$ 683,482,302**	**$ 651,927,383**	**$ 618,536,913**	**$ 565,904,596**
$ 14,641,803	$ 12,029,098	$ 13,043,069	$ 13,362,268	$ 13,552,303	$ 10,845,396	$ 11,146,319
13,100,494	12,576,329	11,559,077	11,242,327	10,659,615	9,947,598	9,627,879
113,320,740	118,234,705	(31,212,130)	92,225,853	42,565,124	(4,572,336)	31,932,249
(36,624,674)	(35,377,808)	(33,648,705)	(31,000,590)	(28,430,589)	(26,457,593)	(24,498,778)
(1,152,471)	(1,215,774)	(1,182,153)	(1,148,892)	(1,189,467)	(1,188,190)	(1,287,785)
(327,323)	2,277,196	561,899	269,347	(173,330)	351,309	141,411
$ 102,958,569	**$ 108,523,746**	**$ (40,878,943)**	**$ 84,950,313**	**$ 36,983,656**	**$ (11,073,816)**	**$ 27,061,295**
$ 716,200,538	$ 607,676,792	$ 648,555,735	$ 563,605,422	$ 526,621,766	$ 537,695,582	$ 510,634,287
$ 819,159,107	**$ 716,200,538**	**$ 607,676,792**	**$ 648,555,735**	**$ 563,605,422**	**$ 526,621,766**	**$ 537,695,582**
$ (29,167,478)	**$ 18,784,724**	**$ 104,919,618**	**$ 34,926,567**	**$ 88,321,961**	**$ 91,915,147**	**$ 28,209,014**
103.7%	97.4%	85.3%	94.9%	86.5%	85.1%	95.0%
$ 128,612,917	$ 119,261,835	$ 114,541,433	$ 110,173,417	$ 106,443,913	$ 99,190,353	$ 94,339,891
(22.7)%	**15.8%**	**91.6%**	**31.7%**	**83.0%**	**92.7%**	**29.9%**

Changes of Assumptions, continued

2019: The mortality assumption was changed to the RP2014 at 2006 Table Healthy Employees (sex-distinct) projected with MP2018 Generational Mortality. The withdrawal, retirement and disability assumptions were also changed. These assumption changes resulted in a decreased net pension liability totaling $13.8 million.

2016: Interest rate changed to 7.25% (from 7.5%). The minimum retirement age increased to age 60 for post 9/30/2009 hires, resulting in a decreased net pension liability totaling $1.5 million.

2015: Discount rate decreased from 7.625% to 7.5%, resulting in an increased net pension liability totaling $24.1 million.

Schedule of Investment Returns

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense*	12.45%	(14.41)%	16.13%	16.14%	19.64%	(4.83)%	16.51%	8.14%	(0.82)%	6.36%

*This calculation uses a mid-month assumption for all cash flows.
See accompanying Independent Auditors' Report.

Schedule of Contributions

Year	Actuarially Determined Contribution	Actual Contribution in Relation to Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2023	$11,438,885	$11,438,885	—	$120,627,833	9.5%
2022	8,340,432	8,340,432	—	112,199,412	7.4
2021	11,695,314	11,695,314	—	126,886,615	9.2
2020	14,641,803	14,641,803	—	128,612,917	11.4
2019	12,029,098	12,029,098	—	119,261,835	10.1
2018	13,043,069	13,043,069	—	114,541,433	11.4
2017	13,362,268	13,362,268	—	110,173,417	12.1
2016	13,552,303	13,552,303	—	106,443,913	12.7
2015	10,845,396	10,845,396	—	99,190,353	10.9
2014	11,146,319	11,146,319	—	94,339,891	11.8

See accompanying Independent Auditors' Report.

– Required Supplementary Information, continued –

Notes to Schedule of Contributions

Methods and Assumptions used to determine contribution rates:	
Valuation Date	Actuarially determined contribution rates are calculated as of January 1, 18 months prior to the end of the fiscal year in which contributions are reported. The January 1, 2022 valuation established the rate for the fiscal year 2023 contribution and the January 1, 2023 valuation established the fiscal year 2024 contribution. The following assumptions were used for the periods included in the funding for 2023 and 2022:
Actuarial Cost Method	Frozen-Entry-Age-Normal
Amortization Method	20 year level, closed
Asset Valuation Method	5-year smoothed market
Inflation	2.5%
Salary Increases	4.25% for 2023 and 2022
Investment Rate of Return	6.75% net of plan investment expenses for 2023 and 2022
Retirement Benefits	Depending on age at retirement and “Group” classification 0.1% – 2.5% per year of service times highest three-year average salary. A five-year average salary is used for those hired after April 1, 2012.
Post-Retirement Cost-of-Living Increases	The Cost-of-Living base is assumed to be $14,000. Annual Cost-of-Living increases are assumed to be 3.0% of the lesser of the base or annual benefits, following a 5% increase for FY23.
Withdrawal Prior to Retirement	The rates shown at the following sample ages illustrate the ultimate withdrawal assumption. There is a 10 year select period for Groups 1 and 2. For 2023 rates are multiplied by 3.75 (less than 10 years of service) and by 3.20 (attained age 40 or over).

Rate of Withdrawal

Age	Groups 1 & 2	Group 4
25	7.0%	6.0%
30	7.0	0.5
35	6.0	0.5
40	4.0	0.4
45	3.0	0.1
50	0.5	N/A
55	0.5	N/A

Groups discussed at left include the following categories of employees:

- **Group 1** includes general employees including clerical, administrative and technical workers, laborers and all others not otherwise classified.
- **Group 2** includes airport gate guards and maritime port officers.
- **Group 4** includes firefighters, licensed electricians, first- and second-class stationary engineers, watch engineers, steam firemen, utility technicians and their supervisors.

Mortality – 2023 and 2022

Pre-Retirement: Pub-2010 Table Healthy Employees (sex-distinct) projected with MP2021 Generational Mortality. Separate tables for Groups 1 & 2 (General Employees) and for Group 4 (Public Safety).

Post-Retirement: Pub-2010 healthy annuitant Table (sex-distinct) projected with MP2021 Generational Mortality. Group distinctions apply as with actives.

Disabled: Pub-2010 Table for disabled lives (sex-distinct) projected with MP2021 Generational Mortality was used.

Mortality for accidental disability is assumed to be 50% from the same cause as the disability. Separate tables for Groups 1 & 2 and for Group 4.

See accompanying Independent Auditors’ Report

Other Supplementary Information

Schedule of Administrative Expenses

As of December 31	2023	2022
Personnel Services		
Staff salaries	$ 526,606	$ 485,610
Board member stipend	21,600	22,500
Benefits	137,747	116,158
Total Personnel Services	**$ 685,953**	**$ 624,268**
Professional Services		
Actuarial	$ 44,450	$ 49,800
Audit	86,900	83,900
Legal counsel	72,950	69,166
Total Professional Services	**$ 204,300**	**$ 202,866**
Communication		
Printing	$ 10,570	$ 9,587
Postage	18,505	10,214
Education and training	11,944	8,880
Member services	27,409	8,185
Total Communication	**$ 68,428**	**$ 36,866**
Miscellaneous		
General and administrative	$ 61,301	$ 25,246
Rent and other	321,218	309,315
Technology system support	84,424	39,689
Total Miscellaneous	**$ 466,943**	**$ 374,250**
Total Administrative Expenses	**$ 1,425,624**	**$ 1,238,250**

See accompanying Independent Auditors' Report.

– Other Supplementary Information, continued –

Schedule of Investment Expenses and Payments to Consultants

As of December 31	2023	2022
Schedule of Investment Expenses		
Investment management fees	$2,992,158	$3,029,100
Investment consultant fees	159,675	150,000
Custodial fees	42,170	41,708
Total Investment Expenses	**$3,194,003**	**$3,220,808**
Schedule of Payments to Consultants*		
Independent auditors	$ 86,900	$ 83,900
Actuary	44,450	49,800
Legal	72,950	69,166
Total Payments to Consultants	**$ 204,300**	**$ 202,866**

*These payments are presented for analytical purposes; each amount is already included in schedules of administrative or investment expenses.
See accompanying Independent Auditors' Report.

Investment Section

Report on Investment Activity

The information contained in the Investment Section of the Annual Comprehensive Financial Report has been prepared by Wilshire Advisors, LLC. acting as the investment consultant to the Massachusetts Port Authority Employees' Retirement System (MPAERS). All investment information herein is unaudited; however, it has been reconciled between the trustee of the MPAERS, the investment managers hired by the MPAERS, and Wilshire Advisors, LLC. The investment returns presented herein were calculated utilizing the Modified Bank Administration Institute (BAI) methodology, which is a time-weighted rate of return approximation that weighs cash flows according to their timing between monthly fair values.

The overall goal of the MPAERS is to provide benefits, as anticipated under the MPAERS' governing plan document, to its participants and their beneficiaries through a carefully planned and executed investment program. Through this program, the MPAERS seeks to produce a return on investment commensurate with levels of liquidity and investment risk that are prudent and reasonable given the financial status of the MPAERS and the prevailing capital market conditions. While the MPAERS recognizes the importance of the preservation of capital, it also recognizes the critical importance of a reasonable investment return in meeting the long-term financial requirements of the MPAERS. It adheres to the theory of capital market pricing that maintains that varying degrees of investment risk should be rewarded with compensating returns. Consequently, prudent risk-taking is both necessary and justifiable.

The asset allocation policy is based on data and calculations resulting from the Actuarial Valuation conducted by Stone Consulting, Inc. effective January 1, 2021 and the subsequent Asset/Liability study conducted by the investment consultant, presented October 28, 2021.

Overall MPAERS Performance Objectives

The asset allocation policy that was in effect from January 1, 2013 through December 30, 2021 is outlined in the first table. Following the Asset/Liability Study presented by the investment consultant on October 28, 2021, the MPAERS elected to change the asset allocation policy as outlined in the second table. This allocation went into effect on December 31, 2021.

The expected return in excess of inflation is 4.01% for 2024 and the actuarial assumed rate of return is 6.75%.

Asset Allocation Policy in effect January 1, 2013 through December 30, 2021

Asset Class	%	Benchmark
U.S. Stocks	27.5	DJ Wilshire 5000
International Stocks	27.5	MSCI ACWI ex U.S. (N)*
U.S. Bonds	30.0	Bloomberg Barclays US Aggregate Bond Index
Real Estate	7.5	Real Estate Policy Benchmark**
Private Equity	7.5	DJ Wilshire 5000

Asset Allocation Policy in effect as of December 31, 2021

Asset Class	%	Benchmark
U.S. Stocks	27.5	DJ Wilshire 5000
International Stocks	27.5	MSCI ACWI ex U.S. (N)*
U.S. Bonds	22.5	Bloomberg Barclays US Aggregate Bond Index
Opportunistic Credit	5.0	Opportunistic Credit Policy Benchmark***
Real Estate	7.5	Real Estate Policy Benchmark**
Private Equity	10.0	DJ Wilshire 5000

*International Stocks benchmark changed from MSCI EAFE (N) to MSCI ACWI ex U.S. (N) effective January 1, 2011

**The Real Estate policy benchmark is comprised of the following:

80% NCREIF Property Index Lagged
20% FTSE EPRA/NAREIT Dev (N)

***The Opportunistic Credit policy benchmark is comprised of the following:

75% Bloomberg Global Aggregate Index (Hedged)
25% Credit Suisse Leveraged Loan Index

Expected return relative to inflation: 4.01% in excess of Consumer Price Index
Actuarial assumed rate of return: 6.75% per year

A. Outline of Investment Policies

The policies and procedures of the investment program guide its implementation and outline the specific responsibilities of the MPAERS. Therefore, it is the policy of the MPAERS to:

1. Base the investment of the assets of the MPAERS on a financial plan that will consider:

    a. the financial condition of the MPAERS;
    b. the expected long-term capital market outlook;
    c. the MPAERS' risk tolerance;
    d. future changes of active and retired participants;
    e. projected inflation and the rate of salary increases;
    f. cash flow requirements; and
    g. the targeted funding level as a percentage of the actuarial funding target.

    In developing its financial plan, the board has relied on the MPAERS' investment consultant, as one of the MPAERS' expert fiduciaries, to advise the board as to the long-term capital outlook and the board's options available to meet the MPAERS' investment objectives in light of that investment outlook. The investment consultant has advised the board as to the potential impact on the funding level of private equity policies in terms of risk and return based on various levels of asset diversification and the current and projected liability structure of the MPAERS. Based on this advice, the board has adopted an overall investment performance goal commensurate with the level of risk necessary to reach those goals.

2. Based on the financial plan and the advice of the investment consultant, the board shall determine the specific allocation of the investments among the various asset classes considered prudent given the MPAERS' liability structure. The long-term asset allocation shall be expressed in terms of a target and ranges for each asset class to provide sufficient flexibility to take advantage of short-term market opportunities as they may occur. Allocation shall be sufficiently diversified to maintain a prudent level of risk, as determined by the board, based on the investment consultant's expert opinion and projections that utilize reasonable, generally accepted capital market assumptions to ensure the current asset mix has a high probability of achieving the long-term goals of the retirement program.

3. In accordance with the asset allocation guidelines so adopted, the MPAERS' investment consultant shall advise and recommend to the board, external investment managers with demonstrated experience and expertise whose investment styles collectively will implement the planned asset allocation. Based on these recommendations, the board will select the investment advisors that it deems most capable of carrying out the MPAERS' investment objectives. Upon the advice of the investment consultant, the board will set guidelines for these managers and regularly review their investment performance against stated objectives.

4. It is the responsibility of the board to administer the investments of the MPAERS at the lowest reasonable cost, taking into account the need to ensure quality. These costs include, but are not limited to, management and custodial fees, consulting fees, transaction costs, and other administrative costs chargeable to the MPAERS.

    Under Section 23 of Chapter 32, the board has general supervision of the investment and reinvestment of the funds of the MPAERS (the "Funds") created pursuant to Chapter 32, Section 22 of such laws. The specific investment-related duties of the board and, by delegation, of its investment consultant and advisors, include but are not limited to:

    1. selection and appointment of investment consultant and management professionals to assist the board to carry out its duties under Chapter 32 and the Public Employee Retirement Administration Commission's Investment Regulations;
    2. establishment and implementation of the investment policy with the advice and assistance of the board's investment consultant and investment advisors; and
    3. review and general supervision of the activities of the board's investment consultant and investment advisors with regard to the MPAERS' assets.

B. Investment Results

Portfolio	Returns for periods ending December 31						
	Annualized Returns		Annual Returns*				
	3-Year	5-Year	2023	2022	2021	2020	2019
Total Fund	**4.63%**	**9.77%**	**12.41%**	**-11.57%**	**15.25%**	**16.28%**	**19.68%**
Policy Benchmark**	3.30	8.39	15.19	-14.23	11.56	13.34	19.77
Peer Universe Median Return	3.67	8.67	13.22	-12.81	13.59	12.16	18.47
Domestic Equity Composite	**8.67%**	**14.74%**	**26.05%**	**-18.84%**	**25.42%**	**19.01%**	**30.25%**
Wilshire 5000	8.97	15.42	26.14	-19.04	26.70	20.82	31.02
Peer Universe Median Return	7.93	13.06	18.51	-16.59	26.18	15.98	28.53
International Equity Composite	**-1.28%**	**7.85%**	**15.54%**	**-20.71%**	**5.06%**	**19.35%**	**27.11%**
MSCI ACWI ex U.S. (N)	1.55	7.08	15.62	-16.00	7.82	10.65	21.51
Peer Universe Median Return	2.53	7.95	16.97	-16.40	10.03	13.89	22.55
Fixed Income Composite	**-3.09%**	**1.80%**	**7.42%**	**-14.24%**	**-1.17%**	**9.40%**	**9.79%**
Bloomberg Barclays US Aggregate Bond Index	-3.31	1.10	5.53	-13.01	-1.55	7.51	8.72
Peer Universe Median Return	-0.95	2.01	6.01	-9.49	-0.03	7.10	8.72
Private Equity Composite	**23.39%**	**21.14%**	**5.42%**	**6.71%**	**67.00%**	**24.86%**	**11.22%**
Wilshire 5000	8.97	15.42	26.14	-19.04	26.70	20.82	31.02
Real Estate Composite	**8.50%**	**7.29%**	**-6.24%**	**6.99%**	**27.34%**	**0.62%**	**10.60%**
Real Estate Policy Benchmark***	5.43	5.19	-4.71	6.96	15.00	0.52	9.31
Peer Universe Median Return	4.06	3.81	-11.35	6.26	29.85	1.86	7.14
Opportunistic Credit Composite	**N/A**	**N/A**	**11.42%**	**-8.42%**	**N/A**	**N/A**	**N/A**
Opportunistic Credit Policy Benchmark****	N/A	N/A	8.63	-8.74	N/A	N/A	N/A
Peer Universe Median Return	N/A	N/A	12.54	-1.45	N/A	N/A	N/A

*Annual return figures have been adjusted to reflect returns net of fees.

**The present policy benchmark is comprised of the following:

From 1/1/2013 – 12/30/2021
35.0% DJ Wilshire 5000
27.5% MSCI ACWI ex U.S. (N)
30.0% Bloomberg Barclays US Aggregate Bond Index
7.5% Real Estate Policy Benchmark

From 12/31/2021 – Present
37.5% DJ Wilshire 5000
27.5% MSCI ACWI ex U.S. (N)
22.5% Bloomberg Barclays US Aggregate Bond Index
7.5% Real Estate Policy Benchmark
5.0% Opportunistic Credit Policy Benchmark

***The Real Estate policy benchmark is comprised of the following:

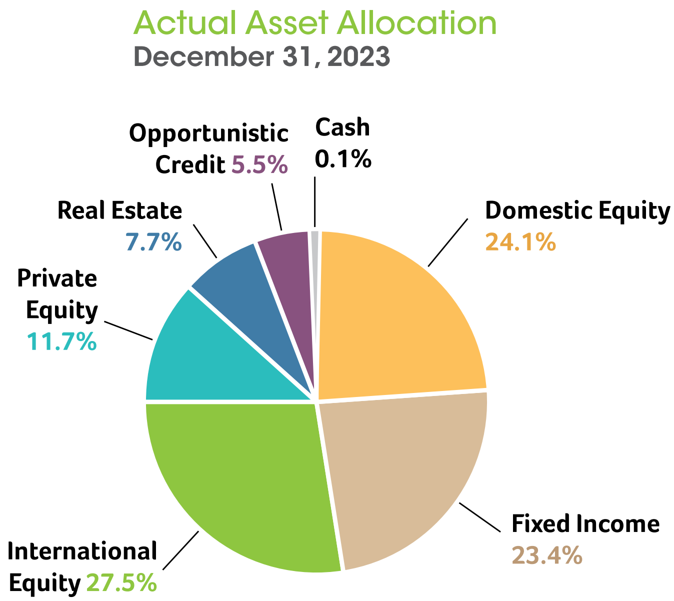
From 4/1/2005 – Present
80% NCREIF Property Index Lagged
20% FTSE EPRA/NAREIT Dev (N)

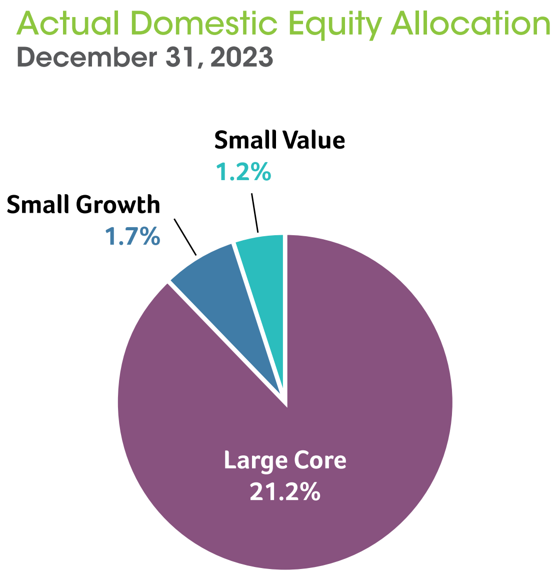
****The Opportunistic Credit policy benchmark is comprised of the following:

From 1/1/2022 – Present
75% Bloomberg Global Aggregate Index (Hedged)
25% Credit Suisse Leveraged Loan Index

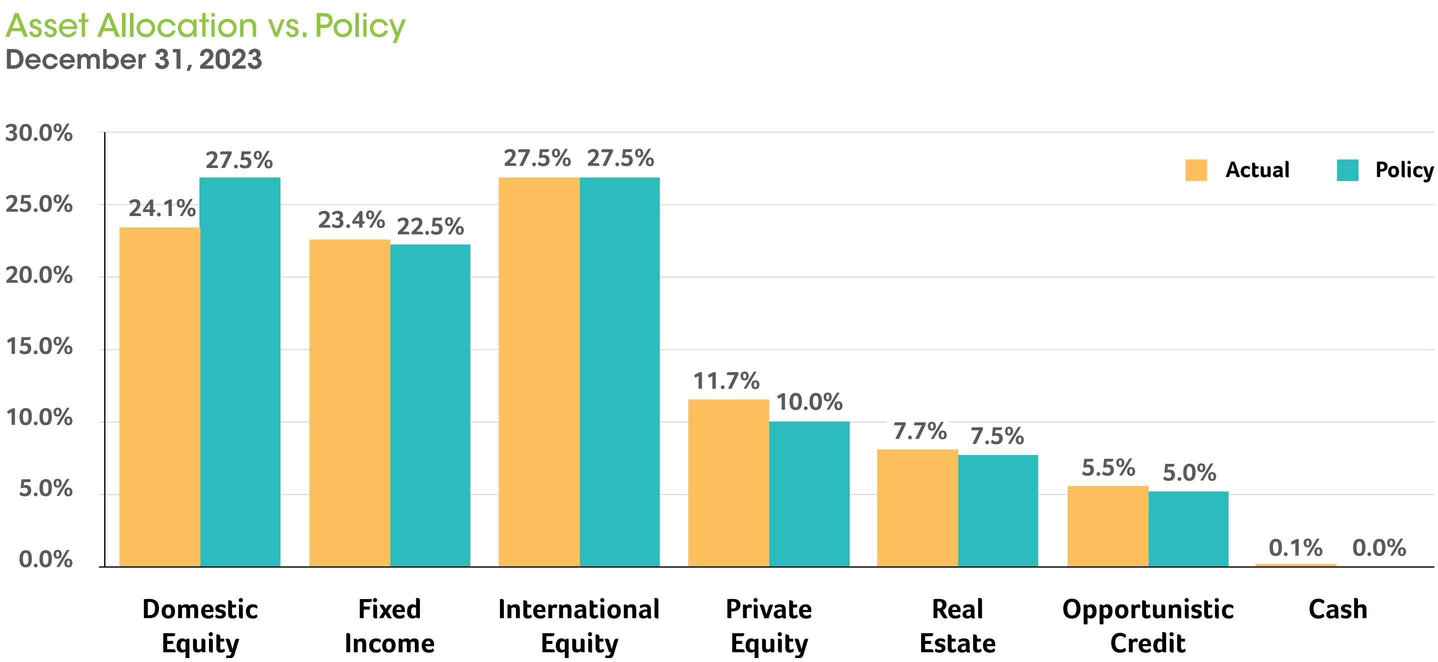
The MPAERS' historical policy benchmark is a weighted average of the representative asset class benchmarks. Returns are calculated utilizing the Modified BAI methodology, which is a time-weighted rate of return approximation that weighs cash flows according to their timing between monthly fair values.

C. Asset Allocation





The current policy asset allocation depicted below has been in place since December 31, 2021.



The private equity allocation will be implemented over time. Any shortfall in the private equity allocation due to anticipated future commitments, or current commitments that have yet to be called will be invested in the System's U.S. Stock Large Core Index Fund until such time as funds are committed and/or drawn down. Likewise, any overweight to private equities due to market appreciation will be netted against the System's U.S. Stock Large Core Index Fund.

The Board's current rebalancing policy states that "The Board shall rebalance to the established targets during the quarter following the quarter-ended whenever the asset class allocation falls outside the allowable ranges." Target ranges are +/- 5% for Private Equities, +/- 3% for Domestic Equities and International Equities, +/- 2.5% for Fixed Income and Opportunistic Credit, and +/- 2.5% for Real Estate.

D. List of Largest Assets Held

The following tables present the largest assets held by the MPAERS by asset class either individually or through a mutual fund.

Largest U.S. Equity Holdings (by Fair Value)

December 31, 2023

	Shares	Stock	Fair Value ($000's)	% of U.S. Security**	% of all Assets**
1	59,635	Apple Inc	$ 11,481	5.69%	1.37%
2	30,096	Microsoft Corp	11,317	5.61	1.35
3	44,339	Alphabet Inc	6,219	3.08	0.74
4	36,436	Amazon.com Inc	5,536	2.74	0.66
5	9,610	NVIDIA Corporation	4,759	2.36	0.57
6	8,947	Meta Platforms Inc	3,167	1.57	0.38
7	11,161	Tesla Inc	2,773	1.37	0.33
8	7,407	Berkshire Hathaway Inc	2,642	1.31	0.32
9	3,419	Eli Lilly and Co	1,993	0.99	0.24
10	11,677	JPMorgan Chase & Co	1,986	0.98	0.24
		Total Top Ten	**$ 51,874**	**25.69%**	**6.19%**
		Total fair value of domestic equities*	$ 201,907		
		Total fair value of all assets*	$ 837,453		

Largest Non-U.S. Equity Holdings (by Fair Value)

December 31, 2023

	Shares	Stock	Fair Value ($000's)	% of Non-U.S. Security**	% of all Assets**
1	359,854	Taiwan Semiconductor Manufacturing Co Ltd	$ 6,953	3.01%	0.83%
2	2,173	MercadoLibre Inc	3,415	1.48	0.41
3	50,288	Samsung Electronics Co Ltd	3,065	1.33	0.37
4	16,846	SAP SE	2,596	1.13	0.31
5	81,742	Reliance Industries Ltd	2,539	1.10	0.30
6	21,067	Nestle SA, Cham Und Vevey	2,441	1.06	0.29
7	16,443	Ryanair Holdings PLC	2,193	0.95	0.26
8	248,361	AIA Group Ltd	2,164	0.94	0.26
9	30,960	CRH PLC	2,135	0.93	0.25
10	21,233	Novartis AG	2,123	0.92	0.25
		Total Top Ten	**$ 29,624**	**12.84%**	**3.54%**
		Total fair value of non-U.S. equities*	$ 230,702		
		Total fair value of all assets*	$ 837,453		

*Assets as presented herein do not include the effects of accruals which are reflected in the audited financial statements.
**Percentage totals are rounded to two decimal places.

Largest Bond Holdings (by Fair Value)
December 31, 2023

	Security	Yield-to-Worst	Due	Rating	Fair Value ($000's)	% of Total Bonds**	% of Total Assets**
1	UMBS	5.61%	1/1/2054	AAA	$ 14,046	7.17%	1.68%
2	US Treasury	4.20	5/15/2048	AAA	7,387	3.77	0.88
3	UMBS	5.41	1/1/2054	AAA	7,017	3.58	0.84
4	US Treasury	4.06	8/15/2052	AAA	4,326	2.21	0.52
5	US Treasury	4.19	11/15/2048	AAA	4,159	2.12	0.50
6	UMBS	4.93	1/1/2054	AAA	3,710	1.89	0.44
7	US Treasury	3.83	7/15/2029	AAA	3,216	1.64	0.38
8	US Treasury	4.03	8/15/2053	AAA	2,560	1.31	0.31
9	US Treasury	4.16	2/15/2050	AAA	1,948	0.99	0.23
10	US Treasury	3.86	8/15/2033	AAA	1,935	0.99	0.23
				Total Top Ten	**$ 50,304**	**25.66%**	**6.01%**
				Total fair value of bonds	$ 196,026		
				Total fair value of all assets*	$ 837,453		

*Assets as presented herein do not include the effects of accruals which are reflected in the audited financial statements.
**Percentage totals are rounded to two decimal places.

These holdings represent a sample of the total holdings of the MPAERS and complete portfolios are available on request.

E. Schedules of Fees and Commissions

The following table outlines the schedule of fees that were paid by the MPAERS for the year ending December 31, 2023.

Schedule of Investment Service Fees for 2023

Investment Manager		Assets Under Management	Fees
Baillie Gifford		$ 76,320,477	$ 361,577
WTC-CIF II (Daily)		196,025,926	314,994
WTC-CIF International Opportunity		77,304,971	402,264
SSGA Russell 2000 Growth		10,037,130	10,000
SSGA Russell 1000		177,212,179	66,554
SSGA MSCI ACWI xUS Index (N)		77,076,728	49,706
Pzena		14,657,816	122,818
Palmer Square Opportunistic Credit		13,967,933	129,149
Brandywine Global Multi-Sector Income		31,725,470	106,921
PRIT Private Equity VY 2000		28,660	13
PRIT Private Equity VY 2001		60,363	24
PRIT Private Equity VY 2002		1,753	2
PRIT Private Equity VY 2003		53,720	22
PRIT Private Equity VY 2004		12,809	6
PRIT Private Equity VY 2005		55,263	88
PRIT Private Equity VY 2006		423,370	207
PRIT Private Equity VY 2007		419,422	1,494
PRIT Private Equity VY 2008		1,769,339	1,636
PRIT Private Equity VY 2009		150,960	247
PRIT Private Equity VY 2010		1,781,762	3,370
PRIT Private Equity VY 2011		2,836,499	22,447
PRIT Private Equity VY 2012		2,129,750	21,434
PRIT Private Equity VY 2013		4,895,743	38,596
PRIT Private Equity VY 2014		7,428,761	56,769
PRIT Private Equity VY 2015		9,717,496	85,541
PRIT Private Equity VY 2016		4,967,069	68,731
PRIT Private Equity VY 2017		13,397,520	134,732
PRIT Private Equity VY 2018		14,290,953	145,444
PRIT Private Equity VY 2019		12,560,727	127,130
PRIT Private Equity VY 2020		9,120,639	143,896
PRIT Private Equity VY 2021		8,230,245	177,479
PRIT Private Equity VY 2022		2,724,318	62,697
PRIT Private Equity VY 2023		612,962	1,461
PRIT Core Real Estate		64,611,018	334,708
Other		843,275	
	Total	**$ 837,453,026***	**$2,992,158**
Custodian fees			$ 42,170
Investment consulting fees			$ 159,675
	Total other fees		**$ 201,845**
	Total investment services fees		**$3,194,003**

*Total assets under management as presented herein do not include the effects of accruals which are reflected in the audited financial statements.

Commissions Paid to Brokers

The commissions that were paid to brokers by the MPAERS' separate account manager, Pzena Investment Management, during 2023 are presented in the following table.

Brokerage Firm	Shares	Total Commissions (agency trades)*	Commissions per Share (agency trades)
Bank of Montreal	29,864	$ 977	0.0330
Barclays Capital Inc.	1,400	49	0.0350
Cantor Fitzgerald	11,712	117	0.0100
Citigroup Global Markets Inc.	600	19	0.0320
Credit Suisse Securities	200	7	0.0350
Evercore Group LLC	10,076	353	0.0350
Exane Inc.	2,618	60	0.0230
Goldman Sachs & Co.	1,658	58	0.0350
J.P. Morgan Securities LLC	19,721	647	0.0330
Jefferies LLC	13,094	446	0.0340
Jones Trading	1,433	14	0.0100
Keefe Bruyette & Woods Inc.	4,745	166	0.0350
Liquidnet Inc.	1,486	15	0.0100
Macquarie Capital (USA) Inc.	800	14	0.0180
Merrill Lynch	3,998	140	0.0350
Mizuho Securities USA Inc.	1,859	58	0.0310
Morgan Stanley & Co.	850	29	0.0340
Northern Trust	1,536	27	0.0180
Robert W. Baird & Co. Inc	4,521	88	0.0190
Royal Bank of Canada	36,727	961	0.0260
Sanford C. Bernstein & Co.	8,279	238	0.0290
Stifel Nicolaus & Company	3,550	124	0.0350
Tourmaline Partners LLC	121,770	794	0.0070
Wall Street Access	2,114	21	0.0100
Wells Fargo Securities	11,907	208	0.0180
Grand Total	**296,518**	**$5,631**	

*Total commissions are rounded to the nearest dollar.

F. Investment Summary by Type as of December 31, 2023

Type of Investment	Sector/Country	% Weight of Portfolio*	Fair Value ($000's)	% of Total Fair Value*
Domestic Equity				
	Communication Services	7.0%	$ 14,133	1.7%
	Consumer Discretionary	11.2	22,614	2.7
	Consumer Staples	5.6	11,307	1.4
	Energy	3.8	7,672	0.9
	Financials	13.8	27,863	3.3
	Health Care	12.2	24,633	2.9
	Industrials	11.3	22,815	2.7
	Information Technology	26.3	53,103	6.3
	Materials	3.4	6,865	0.8
	Real Estate	2.7	5,451	0.7
	Utilities	2.1	4,240	0.5
	Other	0.6	1,211	0.1
	Total Domestic Equity	**100%**	**$201,907**	**24.1%**
Fixed Income				
	UST / Agency Bonds	23.5%	$ 46,066	5.5%
	Corporate Bonds	33.6	65,864	7.9
	Mortgage Bonds	10.4	20,387	2.4
	Municipal Bonds	1.2	2,352	0.3
	Foreign Issues	3.1	6,077	0.7
	Miscellaneous/Cash	13.8	27,052	3.2
	Asset Backed Securities	14.4	28,228	3.4
	Total Fixed Income	**100%**	**$196,026**	**23.4%**
International Equity				
	Total Europe	53.5%	$123,426	14.7%
	Total Americas	8.9	20,532	2.5
	Total Pacific Basin	34.9	80,515	9.6
	Other Markets	2.7	6,229	0.7
	Total International Equity	**100%**	**$230,702**	**27.5%**
Opportunistic Credit				
	Opportunistic Credit		$ 45,693	5.5%
Private Equity				
	Private Equity		$ 97,670	11.7%
	Real Estate		$ 64,611	7.7%
Cash/Other				
	Cash/Other		$ 843	0.1%
	Total Assets**		**$837,453**	**100.0%**

* Percentage totals are rounded to one decimal place.
** Total assets under management as presented herein do not include the effects of accruals which are reflected in the audited financial statements.

Actuarial Section

Actuary's Certification

July 21, 2023

Massachusetts Port Authority Employees' Retirement Board
One Harborside Drive, Suite 200S, East Boston, MA 02128-2909

Dear Members of the Board:

Stone Consulting, Inc. has performed a January 1, 2023 actuarial valuation of the Massachusetts Port Authority Employees' Retirement System (the "System", the "Plan" or the MPAERS). This valuation and report were prepared using generally accepted actuarial principles and practices. To the best of our knowledge, this report is complete and accurate, and the assumptions used were chosen by the Retirement Board in conjunction with Stone Consulting Inc.'s recommendations. We believe the assumptions represent a reasonable estimate of anticipated experience of the system. The assumptions and methods used for funding purposes in this valuation meet the parameters set by the Actuarial Standards of Practice as set forth by the Actuarial Standards Board.

As part of performing the valuation, Stone Consulting, Inc. was furnished member data by the administrative staff of the MPAERS. Although examined for general reasonableness, the data was not audited by the actuary. In addition, the administrative staff furnished financial statements that were not audited by the actuary or by the plan's auditors.

This report was prepared using our proprietary valuation model and DBVAL version 12.24. In our professional judgment, this software has the capability to provide results which are consistent with the purposes of the valuation. Output from the software is tested to ensure that the model reasonably represents that which is intended to be modeled. The valuation output is prepared and analyzed using proprietary Excel spreadsheets followed by a final review by an actuary.

Stone Consulting, Inc. prepares an actuarial valuation of the MPAERS annually. This satisfies the requirements under Chapter 32 of the Massachusetts General Laws.

The funding objective of the plan is to provide for the current cost of benefits (i.e., normal cost) as a level percentage of payroll over time and this objective is currently being realized. The employer contribution rate is determined by adding the normal cost plus a level dollar amortization of the frozen-entry-age liability. The normal cost is projected to remain at a level percentage of payroll. While the statute which created the MPAERS did not anticipate the effect of assumption or plan changes on the funding schedule, we have amortized these effects over 20 years, consistent with the original amortization period contained in the Enabling Act of the Massachusetts Port Authority Employees' Retirement System.

The MPAERS experienced investment losses in calendar 2022. Net of investment expenses, the actual return on the market value of assets was -14.38% as compared to the prior valuation's expected return of 6.75%; the return on the actuarial value of assets was 5.83%. The Massachusetts Port Authority (the "Authority")'s FY2024 (7/1/2023) contribution of $11,438,885 is $3,098,453 more than the Authority's FY2023 contribution and $3,538,885 more than the expected contribution based upon last year's actuarial valuation. The increase is mainly due to investment losses.

Prepared and included in the actuarial valuation report for use in the Actuarial Section of the Annual Comprehensive Financial Report are the following:

- Schedule of Active Member Valuation Data;
- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls;
- Solvency Test; and
- Schedules of Funding Progress.

Additionally, for use in the Statistical Section of the Annual Report, we have included and prepared the following:

- Distribution of Plan Members;
- Schedule of Average Benefit Payments; and
- Schedule of Benefit Recipients by Type and Option.

We are pleased to present the results of this valuation. If the MPAERS Board has any questions on the content of this report, we would be glad to respond. Please note that this report is meant to be used in its entirety. Use of excerpts of this report may result in a misleading or inaccurate understanding of the results.

The undersigned are consultants for Stone Consulting, Inc. and are members of the American Academy of Actuaries; they meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,
STONE CONSULTING, INC.
Actuaries for the Plan

Joan Moreau, ASA, FCA, MAAA
Member, American Academy of Actuaries

Colin Edgar, ASA, MAAA
Member, American Academy of Actuaries

Summary of Actuarial Methods and Assumptions

The assumptions used for the actuarial valuation are recommended by the actuary and adopted by the Retirement Board on an annual basis in conjunction with guidance provided by the actuary. Refer to the Recent Changes of this section to see changes in assumptions and methods. In addition, Massachusetts State Law specifies the actuarial cost method to be used.

Actuarial Methods

Actuarial Cost Method

The Frozen-Entry-Age Actuarial Cost Method has been used in this valuation. Under this method, the present value of all future benefits is determined for each individual participant as of each valuation date. The unfunded frozen actuarial liability represents the unfunded portion of the initial actuarial accrued liability as adjusted for plan changes and changes in assumptions. The annual normal cost is then determined as the amount necessary to fund, as a level percentage of pay of the participants included in the valuation, the excess of the present value of future benefits over the sum of the assets and the unfunded actuarial accrued liability. Actuarial gains and losses are not directly recognized under this method, but are spread over future years as a portion of the annual normal cost.

Asset Valuation Method

The Asset Valuation Method is the market value of assets (adjusted by payables and receivables) adjusted to phase in investment gains or losses above or below the expected rate of investment return. A five-year rolling period is used. The phase-in is 20% for year one, 40% for year two, 60% for year three, 80% for year four and 100% for year five. The actuarial value of assets must be within a corridor of 85% to 115% of the adjusted market value of assets.

Actuarial Assumptions

Investment Return Rate

6.75% per year

Mortality

- Pre-Retirement: Pub-2010 Table Healthy Employees (sex-distinct) projected with MP2021 Generational Mortality. Separate tables for Groups 1 & 2 (General Employees) and for Group 4 (Public Safety).
- Post-Retirement: Pub-2010 healthy annuitant and contingent survivor Tables (sex-distinct) projected with MP2021 Generational Mortality. Group distinctions apply as with actives.
- Disabled: Pub-2010 Table for disabled lives (sex-distinct) projected with MP2021 Generational Mortality was used. Mortality for accidental disability is assumed to be 50% from the same cause as the disability. Separate tables for Groups 1 & 2 and for Group 4.

Rates of Retirement

Group 1, 2 and 4 employees are assumed to retire at the following rates upon attainment of 10 years of service. If hired after 9/30/2009 and not eligible for post-retirement medical insurance until age 60, retirement begins at age 60 with 10 years of service.

Rates of Retirement

(Employees hired prior to April 2, 2012)

Age	Group 1*	Group 2*	Group 4*
50	2%	2%	2%
51	2	2	2
52	2	2	2
53	3	3	3
54	3	3	5
55	5	5	9
56	5	5	9
57	5	5	11
58	7	7	13
59	7	7	13
60	15	15	20
61	18	18	15
62	18	18	15
63	18	18	20
64	15	15	20
65	30	35	100
66	35	35	N/A
67	35	35	N/A
68	35	35	N/A
69	35	35	N/A
70	100	100	N/A

Rates of Retirement

(Employees hired after April 1, 2012)

Age	Group 1*	Group 2*	Group 4*
50	-	-	-
51	-	-	-
52	-	-	-
53	-	-	-
54	-	-	-
55	-	10%	3%
56	-	6	3
57	-	5	9
58	-	7	11
59	-	9	13
60	22%	12	20
61	18	15	15
62	18	23	15
63	19	19	20
64	15	16	20
65	15	30	100
66	20	35	N/A
67	35	35	N/A
68	35	35	N/A
69	35	35	N/A
70	100	100	N/A

* Groups 1, 2 and 4 are assigned based on employee class as described in the Summary of Principal Plan Provisions on pages 60-62.

Withdrawal Prior to Retirement

The rates shown at the following sample ages illustrate the ultimate withdrawal assumption. There is a 10-year select period for Groups 1 and 2.

Rate of Withdrawal

Age	Groups 1 and 2*	Group 4*
25	7.0%	6.0%
30	7.0	0.5
35	6.0	0.5
40	4.0	0.4
45	3.0	0.1
50	0.5	N/A
55	0.5	N/A

* Groups 1, 2 and 4 are assigned based on employee class as described in the Summary of Principal Plan Provisions on pages 60-62.

Disability Prior to Retirement

The rates shown at the following sample ages illustrate the assumption regarding the incidence of disability:

Rate of Disability

Age	Group 1*	Group 2*	Group 4*
25	.01%	.01%	.40%
30	.01	.01	.40
35	.34	.34	.40
40	.68	.68	.40
45	.10	.10	.50
50	.133	.133	.65
55	.14	.14	.65
60	.12	.12	.20

* Groups 1, 2 and 4 are assigned based on employee class as described in the Summary of Principal Plan Provisions on pages 60-62.

Disability is assumed to be 25% ordinary and 75% accidental for Groups 1 and 2 and 10% ordinary and 90% accidental for Group 4.

Salary Increases

4.25% per year.

Regular Interest Rate Credited to Annuity Savings Account

2% per year.

Family Composition

Members are assumed to be married with two dependent children – one male and one female both age 15; age difference between member and spouse assumed to be three years (the male being the older).

Pension Increase Adjustments

For purposes of the valuation, it is assumed that the Massachusetts Port Authority Employees' Retirement Board will fund 3% annual pension increase adjustments (cost-of-living increases).

Pension Increase Adjustment Base

The pension increase adjustment base (cost-of-living base) is assumed to be $14,000.

Expenses

Budgeted amount for the fiscal year, excluding investment management fees and custodial fee, is added to the Normal Cost.

Credited Service

An active member's credited service is attributed to Massachusetts Port Authority employment.

Vacation Buybacks

Vacation Buybacks were not assumed to be regular compensation and were not considered in the calculation of future retirement benefits. A liability of $290,734 was assumed to reflect the value of return of employee contributions that were previously taken on vacation buybacks.

Valuation Date

January 1, 2023.

Inflation Rate Assumption

2.5%

Recent Changes

- As of January 1, 2023 the retiree benefits reflect a 5% COLA that was granted for FY23 (an additional 2% compared to the typical 3% increase).
- As of January 1, 2022 the interest rate changed to 6.75% (from 7.00%) and the mortality assumption was changed to the Pub-2010 Table with MP2021 generational mortality projection.
- As of January 1, 2021 the mortality projection was changed to MP2020 (from 2018) and the retirement and withdrawal rates were modified by adding a multiplier for the 2021 year to reflect short-term experience expected due to the impact of financial stress on the Authority arising from the SARS-CoV-2 pandemic. Rates in 2022 onward were not changed.
- As of January 1, 2020 the interest rate changed to 7.00% (from 7.25%) and the salary rate changed to 4.25% (from 4.50%). The salary maximum under section 401(a)(17) was recognized.
- As of January 1, 2019 the mortality assumption was changed to the RP2014 at 2006 Table Healthy Employees (sex-distinct) projected with MP2018 Generational Mortality. The withdrawal, retirement and disability assumptions were also changed. Vacation buybacks were assumed not to be regular compensation.
- As of January 1, 2018 the pension increase adjustment base (cost-of-living or COLA base) was increased to $14,000 (from $13,000).
- As of January 1, 2016 the interest rate changed to 7.25% (from 7.50%) and employees hired after 9/30/2009 and not eligible for post-retirement medical insurance until age 60, retirement begins at age 60 with 10 years of service.
- As of January 1, 2015 the interest rate changed to 7.50% (from 7.625%).

Date of Adoption

All assumptions and methods were adopted by the MPAERS Board on April 25, 2023 for use in the January 1, 2023 actuarial valuation and thereafter.

Contribution Timing

Contributions are assumed to be made at the beginning of the fiscal year, July 1.

Schedule of Active Member Valuation Data

Valuation Date	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
1/1/2023	1,145	$115,710,152	$101,057	2.7%
1/1/2022	1,094	107,625,335	98,378	2.1
1/1/2021	1,263	121,713,779	96,369	5.4
1/1/2020	1,348	123,193,742	91,390	4.5
1/1/2019	1,304	114,017,778	87,437	2.2
1/1/2018	1,288	110,221,357	85,576	2.7
1/1/2017	1,268	105,659,425	83,328	1.4
1/1/2016	1,245	102,262,879	82,139	2.5
1/1/2015	1,191	95,475,718	80,164	2.3
1/1/2014	1,161	90,979,477	78,363	2.1

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

Valuation Date	Added to Rolls		Removed from Rolls		Rolls - End of Year		% Increase in Annual Allowances	Average Annual Allowances
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances		
1/1/2023	46	$ 2,422,926	26	$1,002,900	996	$ 44,587,488	4.6%	$ 44,767
1/1/2022	85	3,931,490	39	1,330,086	976	42,618,818	6.7	43,667
1/1/2021	93	4,946,456	35	1,337,745	930	39,938,345	10.9	42,944
1/1/2020	40	1,754,095	26	982,527	872	35,998,539	3.3	41,283
1/1/2019	56	2,864,801	24	773,963	858	34,856,114	7.1	40,625
1/1/2018	75	3,373,043	28	853,171	826	32,553,942	9.3	39,412
1/1/2017	47	2,447,748	17	470,350	779	29,780,717	8.3	38,229
1/1/2016	52	2,312,489	21	676,452	749	27,498,124	7.1	36,713
1/1/2015	51	2,070,732	19	586,503	718	25,678,308	7.4	35,764
1/1/2014	45	1,763,845	14	361,877	686	23,904,002	7.6	34,845

Notes:
Additional changes to annual retirement allowances can be due to various factors including:

1. Cost-of-living increases under Massachusetts General Laws Chapter 103;
2. Retroactive benefit changes;
3. Post-retirement COLA under Massachusetts General Laws Chapter 32, Sections 90A, 90C and 90D;
4. Suspension of benefits;
5. Changes in worker's compensation offsets;
6. Data corrections; and
7. Change in dependents' allowance due to dependents exceeding age limit.

Solvency Test

A solvency test is a method of checking the short-term progress towards funding. The plan's present actuarial value of assets is compared to:

1. Active members' contributions;
2. Liabilities for retirees and beneficiaries; and
3. Liabilities for service accrued for active members and inactive members.

	Actuarial Accrued Liability (AAL)				Portion of AAL Covered by Assets		
Valuation Date	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active/Inactive Members (Employer Financed)	Actuarial Value of Assets	(1)	(2)	(3)
1/1/2023	$ 115,444,633	$488,141,162	$311,538,926	$839,625,273	100%	100%	75.8%
1/1/2022	109,611,292	484,407,070	296,325,755	815,123,599	100	100	74.6
1/1/2021	115,968,476	424,960,701	240,501,845	744,137,258	100	100	84.5
1/1/2020	117,046,783	385,176,782	225,696,396	681,448,719	100	100	79.4
1/1/2019	108,465,873	368,316,861	200,464,856	645,818,828	100	100	84.3
1/1/2018	105,900,611	348,123,401	217,426,046	623,436,483	100	100	77.9
1/1/2017	104,130,296	317,558,267	207,117,804	582,816,054	100	100	77.8
1/1/2016	100,448,530	293,058,960	202,549,957	549,104,708	100	100	76.8
1/1/2015	97,096,332	270,897,577	184,650,103	520,740,990	100	100	82.7
1/1/2014	94,361,394	249,709,368	159,403,343	479,181,222	100	100	84.8

Notes:

- Under the Frozen-Entry-Age cost method actuarial accrued liability is not directly calculated. Actuarial accrued liability, as determined here, is that portion of the present value of future benefits that will not be paid by future employer normal costs.
- January 1, 2015 numbers reflect a change in assumptions. The interest rate was changed to 7.50% (from 7.625%).
- January 1, 2016 numbers reflect a change in assumptions. The interest rate was changed to 7.25% (from 7.50%) and retirement age is delayed until age 60 for post 9/30/2009 hires who are not eligible for post-retirement medical insurance until age 60.
- January 1, 2018 numbers reflect a change in the pension increase adjustment base (cost-of-living or COLA Base) to $14,000 (from $13,000).
- January 1, 2019 numbers reflect a change in assumptions. Mortality is based on the RP2014 at 2006 Table Healthy Employees (sex-distinct) projected with MP2018 Generational Mortality and a change to retirement, disability and withdrawal assumptions. Also reflects a change in the treatment of vacation buybacks.
- January 1, 2020 numbers reflect a change in assumptions. The interest rate was changed to 7.00% (from 7.25%). The salary increase assumption was changed to 4.25% (from 4.50%). Compensation limits under Section 401(a)(17) were recognized.
- January 1, 2021 numbers reflect a change in assumptions. The mortality table was changed to MP2020 mortality projection (from MP2018 projection). The withdrawal and retirement rates were also modified.
- January 1, 2022 numbers reflect a change in assumptions. The interest rate was changed to 6.75% (from 7.00%). The mortality table was changed to the Pub-2010 Table with MP2021 mortality projection.
- January 1, 2023 numbers reflect a change in the pension increase adjustment base; for FY23 only, an increase of 5% was granted on a base of $14,000, an increase of 2% compared to the typical 3% increase.

Schedules of Funding Progress (in thousands of dollars)

Year ended December 31, 2022 (Unaudited)

As presented below, the Frozen-Entry-Age Actuarial Cost Method for calculating the Schedules of Funding Progress is the methodology required by the Plan under its charter; however, when this methodology is applied in the presentation of these financial statements, the management of the Plan does not believe that the result properly reflects the actual funding status and has therefore also presented the Entry-Age-Normal Actuarial Cost Method on the adjacent page. Refer to the Schedule of Contributions under Required Supplementary Information in the Financial Section for a 10 year history of actuarially determined contributions and of actual contributions in relation to actuarially determined contributions.

Frozen-Entry-Age Actuarial Cost Method

Actuarial Valuation Date	(a) Actuarial Value of Assets	(b) Actuarial Accrued Liability (AAL)	(b-a) Unfunded Actuarial Liability (UAAL)	(a/b) Funded Ratio	(c) Covered Payroll	(b-a)/(c) UAAL as a Percent of Covered Payroll
1/1/2023	$839,625	$915,125	$75,499	91.7%	$115,710	65.2%
1/1/2022	815,124	890,344	75,221	91.6	107,625	69.9
1/1/2021	744,137	781,431	37,294	95.2	121,714	30.6
1/1/2020	681,449	727,920	46,471	93.6	123,194	37.7
1/1/2019	645,819	677,248	31,429	95.4	114,018	27.6
1/1/2018	623,436	671,450	48,014	92.8	110,221	43.6
1/1/2017	582,816	628,806	45,990	92.7	105,659	43.5
1/1/2016	549,105	596,057	46,953	92.1	102,263	45.9
1/1/2015	520,741	552,644	31,903	94.2	95,476	33.4
1/1/2014	479,181	503,474	24,293	95.2	90,979	26.7

– Schedules of Funding Progress, continued –

The following table for valuation years 2014 through 2023 reflects the Schedules of Funding Progress under the Entry-Age-Normal Actuarial Cost Method which is the required method for all other retirement systems governed by Chapter 32 of the Massachusetts General Laws. The Plan believes that this method of valuation more clearly reflects the actual funding status of the Plan.

Entry-Age-Normal Actuarial Cost Method

	(a)	(b)	(b-a)	(a/b)	(c)	(b-a)/(c)
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Liability (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percent of Covered Payroll
1/1/2023	$839,625	$867,493	$27,868	96.8%	$115,710	24.1%
1/1/2022	815,124	828,358	13,234	98.4	107,625	12.3
1/1/2021	744,137	782,688	38,551	95.1	121,714	31.7
1/1/2020	681,449	755,360	73,911	90.2	123,194	60.0
1/1/2019	645,819	700,694	54,875	92.2	114,018	48.1
1/1/2018	623,436	686,118	62,682	90.9	110,221	56.9
1/1/2017	582,816	650,553	67,737	89.6	105,659	64.1
1/1/2016	549,105	619,650	70,545	88.6	102,263	69.0
1/1/2015	520,741	572,374	51,633	91.0	95,476	54.1
1/1/2014	479,181	536,250	57,069	89.4	90,979	62.7

Analysis of the dollar amounts of net assets available for benefits, Actuarial Accrued Liability (AAL), and assets in excess of AAL in isolation can be misleading. Expressing the Actuarial Value of Assets available for benefits as a percentage of the AAL provides one indication of the Plan's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the Plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the Public Employee Retirement System (PERS). Trends in assets in excess of AAL and annual covered payroll are both affected by inflation. Expressing the AAL in excess of assets as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of progress made in accumulating sufficient assets to pay benefits when due. Generally, the lower this percentage, the stronger the PERS.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, the size or composition of the population covered by the Plan, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the AAL as a factor.

Analysis of Financial Experience

The Frozen-Entry-Age Actuarial Cost Method does not explicitly recognize actuarial gains or losses. Actuarial gains and losses are spread over the future working lifetime of the active members as part of the normal cost. Therefore, an actuarial loss would increase the normal cost as a percentage of payroll while an actuarial gain would lower the normal cost as a percentage of payroll.

Gross Normal Cost as a Percentage of Payroll (prior to Employee Contributions and Expenses)

	1/1/2022	1/1/2023
Prior Year's Gross Normal Cost (1/1/2021, 1/1/2022)	13.71%	9.27%
Increases/(Decreases) due to:		
Liability experience	(2.23)	0.72
Investment experience	(3.25)*	0.64*
Changes in benefits, assumptions and methods	1.04	0.00
Total	**(4.44)%**	**1.36%**
Current Valuation	**9.27%**	**10.63%**

*Includes recognition of previously deferred gains and losses.

Summary of Principal Plan Provisions

Participant

Participation is mandatory for all full-time employees whose employment commences before age 65. There are three classes of members in the retirement system:

- Group 1: general employees
- Group 2: employees in specified hazardous occupations (e.g., guards)
- Group 4: firefighters and electricians

Member Contributions

Member contributions vary depending upon date hired as follows:

Date of Hire	Member Contribution Rate
Prior to 1975	5% of Pay
1975 - 1983	7% of Pay
1984 - June 30, 1996	8% of Pay
After June 30, 1996	9% of Pay

Members hired after 1978 are required to contribute an additional 2% of pay over $30,000.

Pay

a. Pay – Gross regular compensation excluding bonuses, overtime, severance pay, unused sick pay, and other similar compensation.

b. Average Pay – The average of pay during the three consecutive years (five consecutive years if hired after April 1, 2012) that produce the highest average or, if greater, during the last three years (five years if hired after April 1, 2012), whether or not consecutive, preceding retirement.

Credited Service

Period during which an employee contributes to the retirement system plus certain periods of military service and purchased service.

Service Retirement

a. Eligibility – (1) Attainment of age 55 and completion of ten years of credited service or at any age with completion of 20 years of service. If hired prior to 1978 or a member of Group 4, the completion of ten years of service is not required. (2) Hired after April 1, 2012 and Group 1 – age 60 and completion of ten years of credited service. Group 2 – age 55 and completion of ten years of service. Group 4 – age 55.

b. Retirement Allowance – Determined as the product of the member's benefit percentage, average pay and credited service, where the benefit percentage is shown in the tables below (maximum allowance of 80% of average pay).

In addition, veterans receive an additional $15 per year for each year of credited service up to 20 years.

Benefit Percentage	Group 1	Group 2	Group 4
2.5%	65+	60+	55+
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	N/A	49
1.8	58	N/A	48
1.7	57	N/A	47
1.6	56	N/A	46
1.5	55	N/A	45

Benefit Percentage *(Hired after April 1, 2012)**	Group 1	Group 2	Group 4
2.50%	67+	62+	57+
2.35	66	61	56
2.20	65	60	55
2.05	64	59	N/A
1.90	63	58	N/A
1.75	62	57	N/A
1.60	61	56	N/A
1.45	60	55	N/A

* Reduction is .125% for each year early instead of .15% per year for employees with over 30 years of service.

Deferred Vested Retirement

a. Eligibility – Completion of ten years of credited service.

b. Retirement Allowance – Determined in the same manner as "Service Retirement" section with the member eligible to start collecting a benefit at age 55 (age 60 for post-April 1, 2012 hires), or defer until later at his or her discretion.

If a member chooses, his or her contributions with interest may be withdrawn. The amount of interest he or she will receive depends on length of service and whether or not the termination of employment was voluntary.

Ordinary Disability Retirement

a. Eligibility – Non-job related disability after completion of ten years of credited service.

b. Retirement Allowance – Determined in the same manner as "Service Retirement" section and calculated as if the member had attained age 55 (age 60 for those hired after April 1, 2012), if younger. Veterans receive 50% of pay (during final year) plus an annuity based on accumulated member contributions with interest.

Accidental Disability Retirement

a. Eligibility – Disabled as a result of an accident in the performance of duties. No age or service requirement.

b. Retirement Allowance – 72% of pay plus an annuity based on accumulated member contributions with interest. Also, a dependent's allowance per year for each child. Total allowance not to exceed 100% of pay (75% for members hired after 1987).

Non-Occupational Death

a. Eligibility – Dies while in active service, but not due to occupational injury.

b. Retirement Allowance – Benefit as if Option C had been elected (see below) and member had attained age 55 (age 60 for those hired after April 1, 2012) if younger. Minimum monthly benefits provided as follows: spouse – $500, first child – $120, each additional child – $90.

Occupational Death

a. Eligibility – Dies as a result of an occupational injury.

b. Retirement Allowance – 72% of pay plus refund of annuity savings fund balance. In the case of an accidental disability retiree who dies of the same cause, the beneficiary receives 72% of the last 12 months salary or the current pension amount, whichever is greater.

Cost-of-Living Increases

Applied to the first $14,000 of annual benefit. Funded by the Authority.

Payment Options

a. Option A – Allowance payable monthly for the life of the member.

b. Option B – Allowance payable monthly for the life of the member with a guarantee of any remaining member contributions with interest.

c. Option C – Allowance payable monthly for the life of the member with 66-2/3% continuing to the member's beneficiary upon the member's death. If the beneficiary pre-deceases the member, the allowance amount "pops-up" to the non-reduced amount (Option A).

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Statistical Section

Statistical Section

The objectives of the Statistical Section are to provide additional historical perspective, context and detail to assist readers in using the information in the Financial Statements, Notes to Financial Statements, and Required Supplementary Information in order to understand and assess the Plan's economic condition.

Financial Trends

The Schedule of Changes in Fiduciary Net Position presented on page 66 contains historical information related to the Plan's revenues, expenses, changes in net assets and net assets available for benefits. The Schedule of Additions by Source on page 66 provides employer and employee contribution rates and investment income historical information. The schedules of deductions and benefit deductions by type on page 67 provide a history of annual benefit, withdrawal, transfer, and operating expense trends.

Demographic and Economic Information

The schedule of Distribution of Plan Members shown on page 68 provides relevant details about the composition of the Plan's active membership including concentration of members within various age groups.

Operating Information

The Schedule of Average Benefit Payments on page 69 presents average monthly benefits and average final salary information by years of credited service for new benefit recipients within specified plan years. The Schedule of Benefit Recipients by Type and Option on page 70 illustrates the number of participants and total benefit payments by type and option.

Statistical data is provided from both the Plan's internal resources and from Stone Consulting, Inc.

Financial Trends

Schedule of Changes in Fiduciary Net Position

Fiscal Year Ended Dec. 31	Net Position Beginning of Year	Additions	Deductions	Increase (Decrease) in Net Position	Net Position, End of Year
2023	$766,197,320	$ 119,962,465	$ 47,565,862	$ 72,396,603	$838,593,923
2022	920,488,326	(107,627,560)	46,663,446	(154,291,006)	766,197,320
2021 As Restated	819,159,107	146,899,820	45,570,601	101,329,219	920,488,326
2020	716,200,538	142,436,080	39,477,511	102,958,569	819,159,107
2019	607,676,792	146,063,231	37,539,485	108,523,746	716,200,538
2018	648,555,735	(5,110,614)	35,768,329	(40,878,943)	607,676,792
2017	563,605,422	118,611,234	33,660,921	84,950,313	648,555,735
2016	526,621,766	67,829,609	30,845,953	36,983,656	563,605,422
2015	537,695,582	17,732,090	28,805,906	(11,073,816)	526,621,766
2014	510,634,287	53,808,845	26,747,550	27,061,295	537,695,582

2021 amounts were restated due to the implementation of GASB Statement No. 87, *Leases.*

Schedule of Additions by Source

Fiscal Year Ended Dec. 31	Employee Contributions	Employer Contribution	Employer Contribution as a % of Covered Payroll	Investment Income (a)	Other (b)	Total
2023	$13,170,776	$11,438,885	9.9%	$ 93,251,827	$2,100,977	$ 119,962,465
2022	11,841,149	8,340,432	7.7	(130,526,209)	2,717,068	(107,627,560)
2021	10,904,747	11,695,314	9.6	122,485,721	1,814,038	146,899,820
2020	13,100,494	14,641,803	11.9	113,320,740	1,373,043	142,436,080
2019	12,576,329	12,029,098	10.6	118,234,705	3,223,099	146,063,231
2018	11,559,077	13,043,069	11.8	(31,212,130)	1,499,370	(5,110,614)
2017	11,242,327	13,362,268	12.6	92,225,853	1,780,786	118,611,234
2016	10,659,615	13,552,303	13.3	42,565,124	1,052,567	67,829,609
2015	9,947,598	10,845,396	11.4	(4,572,336)	1,511,432	17,732,090
2014	9,627,879	11,146,319	12.3	31,932,249	1,102,398	53,808,845

Contributions were made in accordance with actuarially determined contribution requirements.

(a) Net of investment expenses
(b) Includes state pension reimbursements and transfer of employees' contributions from other public pension plans as defined by Massachusetts General Law, Chapter 32.

Schedule of Deductions by Type

Fiscal Year Ended Dec. 31	Benefits	Operating Expenses	Withdrawals–Separations	Withdrawals–Deaths	Transfers to Other Systems	Total
2023	$45,074,787	$1,425,624	$ 521,520	$135,417	$ 408,514	$47,565,862
2022	43,718,196	1,238,250	778,488		928,512	46,663,446
2021 As Restated	41,994,872	1,206,990	1,273,538		1,095,201	45,570,601
2020	36,624,674	1,152,471	1,047,163		653,203	39,477,511
2019	35,377,808	1,215,774	533,670		412,233	37,539,485
2018	33,648,705	1,182,153	667,246		270,225	35,768,329
2017	31,000,590	1,148,892	1,053,876		457,563	33,660,921
2016	28,430,589	1,189,467	548,846		677,051	30,845,953
2015	26,457,593	1,188,190	711,061		449,062	28,805,906
2014	24,498,778	1,287,785	655,654		305,333	26,747,550

2021 amounts were restated due to the implementation of GASB Statement No. 87, *Leases.*

Schedule of Benefit Deductions by Type

Fiscal Year Ended Dec. 31	Service	Disability	Beneficiary	Total
2023	$38,257,730	$2,637,471	$4,179,586	$45,074,787
2022	37,354,839	2,618,796	3,744,561	43,718,196
2021	35,651,425	2,490,297	3,853,150	41,994,872
2020	30,430,578	2,522,604	3,671,492	36,624,674
2019	29,530,115	2,580,700	3,266,993	35,377,808
2018	27,897,081	2,585,698	3,165,926	33,648,705
2017	25,522,495	2,494,100	2,983,995	31,000,590
2016	23,065,741	2,474,022	2,890,826	28,430,589
2015	21,427,821	2,294,165	2,735,607	26,457,593
2014	19,806,409	2,147,303	2,545,066	24,498,778

Demographic and Economic Information

Distribution of Plan Members as of January 1, 2024 – Active Members

Age	Years of Service 0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 +	Total	Total Compensation	Average Compensation
0-19	-	-	-	-	-	-	-	-	-	-	-	-
20-24	18	-	-	-	-	-	-	-	-	18	$ 1,213,157	$ 67,398
25-29	51	12	-	-	-	-	-	-	-	63	5,039,902	79,998
30-34	65	49	9	-	-	-	-	-	-	123	11,303,160	91,896
35-39	67	66	50	11	-	-	-	-	-	194	19,193,005	98,933
40-44	36	39	34	33	5	-	-	-	-	147	15,379,283	104,621
45-49	26	25	16	26	25	8	-	-	-	126	13,739,186	109,041
50-54	23	35	28	32	26	35	11	2	-	192	21,416,198	111,543
55-59	27	28	16	30	23	26	30	17	-	197	22,259,727	112,994
60-64	9	22	11	23	14	23	13	14	1	130	15,381,188	118,317
65-69	3	7	6	12	3	6	3	-	-	40	4,261,025	106,526
70-74	-	3	3	4	1	2	1	-	-	14	1,827,695	130,550
75-79	-	1	-	-	-	-	-	-	-	1	75,590	75,590
80-84	-	-	-	-	-	-	-	-	-	-	-	-
85+	-	-	-	-	-	-	-	-	-	-	-	-
Total	**325**	**287**	**173**	**171**	**97**	**100**	**58**	**33**	**1**	**1,245**	**$ 131,089,118**	**$ 105,292**

Operating Information

Schedule of Average Benefit Payments – New Benefit Recipients

Years of Service	0-5	5-10	10-15	15-20	20-25	25-30	30+	Total
FROM 1/1/2023 – 12/31/2023								
Average Monthly Benefit	—	$ 1,446	$ 1,822	$ 3,834	$ 4,101	$ 3,388	$ 5,562	$ 4,103
Average Final Average Salary	—	$ 87,399	$ 86,012	$112,851	$107,266	$ 85,838	$110,201	$103,850
Number of Retired Members	—	1	6	10	3	4	15	39
FROM 1/1/2022 – 12/31/2022								
Average Monthly Benefit	$ 6,583	—	$ 1,813	$ 3,251	$ 3,408	$ 3,256	$ 6,194	$ 4,514
Average Final Average Salary	$96,277	—	$ 89,907	$105,621	$ 80,213	$ 84,390	$108,577	$ 97,240
Number of Retired Members	1	—	4	8	5	6	19	43
FROM 1/1/2021 – 12/31/2021								
Average Monthly Benefit	—	$ 1,774	$ 2,299	$ 2,688	$ 3,329	$ 4,030	$ 5,539	$ 3,854
Average Final Average Salary	—	$ 85,362	$106,368	$ 97,736	$ 94,927	$ 89,389	$ 99,140	$ 97,803
Number of Retired Members	—	2	14	15	14	11	29	85
FROM 1/1/2020 – 12/31/2020								
Average Monthly Benefit	—	$ 1,202	$ 1,644	$ 2,568	$ 3,132	$ 4,083	$ 5,622	$ 4,432
Average Final Average Salary	—	$104,495	$ 86,546	$ 91,875	$ 87,576	$ 83,044	$101,543	$ 94,289
Number of Retired Members	—	1	7	6	13	18	48	93
FROM 1/1/2019 – 12/31/2019								
Average Monthly Benefit	—	$ 180	$ 2,022	$ 2,227	$ 3,451	$ 3,913	$ 4,836	$ 3,654
Average Final Average Salary	—	$ 72,438	$ 88,401	$105,651	$ 86,567	$ 93,984	$ 93,843	$ 93,472
Number of Retired Members	—	1	4	6	6	8	15	40
FROM 1/1/2018 – 12/31/2018								
Average Monthly Benefit	—	—	$ 1,337	$ 2,386	$ 4,844	$ 4,663	$ 6,126	$ 4,263
Average Final Average Salary	—	—	$ 77,362	$ 80,549	$112,491	$ 87,557	$106,840	$ 95,622
Number of Retired Members	—	—	10	10	8	6	22	56
FROM 1/1/2017 – 12/31/2017								
Average Monthly Benefit	—	$ 1,032	$ 1,442	$ 2,168	$ 4,539	$ 4,408	$ 4,670	$ 3,748
Average Final Average Salary	—	$ 88,228	$ 73,827	$ 74,773	$101,549	$ 91,597	$101,858	$ 92,413
Number of Retired Members	—	2	8	13	7	10	35	75
FROM 1/1/2016 – 12/31/2016								
Average Monthly Benefit	—	$ 1,412	$ 1,606	$ 3,908	$ 3,228	$ 4,438	$ 6,598	$ 4,340
Average Final Average Salary	—	$ 73,015	$ 71,168	$115,891	$ 83,010	$108,241	$110,925	$ 96,970
Number of Retired Members	—	2	6	3	12	8	16	47
FROM 1/1/2015 – 12/31/2015								
Average Monthly Benefit	—	$ 1,558	$ 1,289	$ 2,297	$ 2,703	$ 3,351	$ 5,165	$ 3,706
Average Final Average Salary	—	$ 71,302	$ 62,816	$ 79,463	$ 79,244	$ 80,539	$ 96,127	$ 85,215
Number of Retired Members	—	3	5	4	8	8	24	52
FROM 1/1/2014 – 12/31/2014								
Average Monthly Benefit	—	$ 1,843	$ 1,522	$ 1,976	$ 2,989	$ 4,404	$ 5,176	$ 3,384
Average Final Average Salary	—	$100,847	$ 65,417	$ 77,784	$ 78,703	$100,315	$ 92,326	$ 83,789
Number of Retired Members	—	3	9	6	12	4	17	51

Schedule of Benefit Recipients by Type and Option

December 31, 2023

	Type of Retirement*								Option Selected**				
	Total	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**A**	**B**	**C**	**D**	**Grand Total**
Deferred	86												
$0-$500	6	3	1	0	0	0	0	2			4	2	6
$500-$1,000	49	27	3	0	1	5	1	12	15	3	14	17	49
$1,000-$1,500	62	42	13	1	0	2	0	4	19	4	33	6	62
$1,500-$2,000	96	76	12	1	1	0	1	5	31	14	46	5	96
$2,000-$2,500	128	88	22	1	2	0	9	6	42	18	62	6	128
$2,500-$3,000	82	60	10	0	4	0	2	6	19	10	47	6	82
$3,000-$3,500	91	69	7	0	7	0	6	2	36	15	38	2	91
$3,500-$4,000	76	55	6	2	8	1	3	1	12	15	47	2	76
Over $4,000	415	363	11	0	24	1	9	7	95	42	270	8	415
Total	1,091	783	85	5	47	9	31	45	269	121	561	54	1005

*Type of Retirement

1-Service
2-Survivors from service related retirements
3-Non-occupational disabilty
4-Occupational disability
5-Accidental death
6-Termination Allowance
7-In Service death

**Option Selected by original Retiree

Option A-Life Annuity
Option B-Beneficiary receives lump sum payment of remainder of members contributions
Option C-66 2/3% Joint and survivor annuity
Option D-Life annuity survivor benefit

Frequently Asked Questions

Frequently Asked Questions about Retirement

What are the ground rules?

1. Is membership mandatory for Massport employees?

Yes. Membership in the Massport Employees' Retirement System is required by law for all regularly employed employees who work at least 21 hours per week.

2. How are changes made to the retirement plan?

The Massport Employees' Retirement System is governed by the provisions of M.G.L., Chapter 32, as are most Massachusetts public pension systems. Any changes in the plan must be made through the legislative process.

3. How is my membership date determined?

For most Massport employees, your hire date is your membership date. Technically, it's the date you first began making contributions from your regular compensation into the retirement system. If you have a period of employment with Massport in which you did not make retirement contributions, you may want to contact the retirement office to inquire about purchasing your prior employment as creditable service.

Contributions… How much and how calculated?

4. How much do members contribute to the retirement system?

The amount each employee is required to contribute to the retirement system is set by statute. If you began employment on or after July 1, 1996, you must contribute nine percent of your regular compensation to the retirement system. If you were hired any time between January 1, 1984 and July 1, 1996 your contribution rate is set at eight percent. Members who joined the system any time between 1975 and 1983 contribute seven percent. Those employees who became members prior to 1975 are contributing five percent.

The law also mandates that for members whose employment commenced on or after January 1, 1979, an additional two percent will be withheld on regular compensation over $30,000. This two percent is in addition to the seven, eight or nine percent that is already being deducted from total regular compensation.

5. Do a member's contributions to the retirement system earn interest? If so, how is the interest calculated?

Your contributions are placed in an individual annuity savings fund, which earns annual interest at a rate comparable to that of a passbook savings account. The interest rate is determined by the Public Employee Retirement Administration Commission and the Commissioner of Banks. This annual interest rate is independent of that earned on the retirement system's investments.

6. Does the amount of contributions and interest in a member's annuity savings fund account affect overall retirement benefits?

No. Your future retirement allowance is not based on your annuity savings account balance. It is instead determined by a formula consisting of your age, creditable service, group classification, and salary average at date of retirement. The money in your account is used to fund a portion of this allowance but the value of your account balance at retirement is not used in calculating your total retirement allowance

7. Are employee contributions used to fund the administrative expenses of the retirement system?

No. Employee contributions are never used to fund administrative expenses. Operating expenses, including fees associated with actuarial and audit services, investment management, consultant and custodial fees, are funded solely through the system's investment income.

Benefits… How earned and how allocated?

8. What does it mean to be vested?

When you are vested, you have earned the right to a retirement allowance at a later date. You no longer have to remain in service to be eligible to collect it.

9. When does vesting occur?

You must have ten years of creditable service in order to be considered vested. If you transfer creditable service from another retirement system, or if you buy back prior or military service, such service is added to your Massport service to determine whether you are vested.

10. When is retirement an option?

If your membership date is prior to April 2, 2012 and you are a member classified in Group 1 or Group 2, you are eligible to retire at age 55 or older if you have at least ten years of creditable service. If you are a member classified in Group 4, you are eligible to retire at age 55 or older with no service requirement. If you have 20 years or more of service, you can retire at any age.

If your membership date is April 2, 2012 or later and your position is classified in Group 1, you are eligible to retire at age 60 or older if you have at least ten years of creditable service. If your position is classified in Group 2 you are eligible to retire at age 55 or older if you have at least ten years of service. Members classified in Group 4 are eligible to retire at age 55 or older with no service requirement.

Please note that if you are a member in Group 2 or Group 4 and your membership date is April 2, 2012 or later, the law requires that you must have performed the duties of the Group 2 or Group 4 position for at least 12 months immediately prior to your termination or retirement.

Please see Question 19 for a definition of group classifications.

11. What is the retirement allowance based on? How is it calculated?

Because our plan is a defined benefit plan, your retirement allowance is determined by a mathematical formula and is not based on the balance in your annuity account at the time of retirement. The factors used to determine your retirement allowance are; your age, creditable service, group classification, and an average of your three highest consecutive years* of regular compensation at date of retirement.

* *If your hire date is April 2, 2012 or later, your retirement allowance will be based on a five-year salary average. Please call the retirement office for more information.*

12. Can I purchase creditable service earned in another Massachusetts public retirement system?

If you were a member of another retirement system subject to the provisions of M.G.L., Chapter 32, and you withdrew your retirement funds, it is possible to buy back your prior creditable service. The retirement office will verify your prior service and calculate the amount of your buyback. You must repay the amount withdrawn, plus interest, to the date of repayment. Please note that interest applied to prior service buybacks not initiated within one year of employment will increase by 100%. The current buyback interest rate is 3.375%. The rate after one year of employment will be 6.75%.

You have several payment options when completing a buyback. You may submit a lump sum payment, contribute through payroll deduction over a period of five years or less, or choose to roll over funds from an IRA, 401(k), 403(b), or 457 plan such as Massport's deferred compensation plan.

13. Will prior creditable service affect my membership date or contribution rate in Massport's retirement system?

If you have retirement contributions from a previous public employer directly transferred to our system, you are entitled to maintain the level of contribution you were paying previously. Under current regulations, if you received a refund of retirement contributions from your previous retirement system and later became a member of Massport's system, your contribution rate with Massport will be at the new member rate, regardless of what you were paying in your prior system. If you should later purchase your prior creditable service through a buyback, your contribution level will remain at the new member rate and will not be reduced to your previous rate.

14. If I was a temporary employee at Massport, may I apply that time towards my retirement creditable service?

If you were employed by Massport on a temporary basis, prior to becoming regular, full- or part-time, you may be entitled to purchase this service towards your retirement creditable service. If eligible, you must complete the buyback while you are employed at Massport. Please note that Massport student employment cannot be applied towards a service purchase.

If you had temporary service with another public employer in Massachusetts, you may be entitled to purchase that as well and apply it to your retirement creditable service at Massport. Each member's situation is different and requires research. Please call the retirement office for more information.

15. How is creditable service achieved?

You earn creditable service towards your retirement allowance for the period during which you are contributing to the retirement system. For most full- or part-time employees, this service time starts accruing the day you begin work and continues until the day you separate from service. However, if there is a period of time when you are off the payroll, you should consult with the retirement office as to how this will affect your total creditable service.

16. What if I work part time?

If you are an employee with periods of both part time and full time service, your part time service will be pro-rated based on actual hours worked. This is also the case if your hire date is March 28, 2019 or later and you are a part time employee for your entire career. Those employees with part time service only whose hire date is prior to March 28, 2019 are entitled to receive full creditable service for retirement calculation purposes. Additionally, due to a State Supreme Court decision (*Nancy Madden vs. Contributory Retirement Appeal Board*); if you worked part time before the MPAERS adopted its *Supplementary Regulation on Creditable Service* on April 26, 1993, you may be eligible to receive full time credit for that service. If you are someone who may be affected by the Madden decision, please contact the retirement office for more information about how it will impact your total creditable service.

17. Is regular compensation the same as total compensation?

No. Regular compensation is the portion of your salary that is subject to retirement contributions. Overtime, bonus pay, salary adjustments, severance pay, and any payments made for unused sick or vacation time are not considered regular compensation, are not subject to retirement contributions, and cannot be used towards your final average salary for the purpose of determining your retirement allowance.

18. Does the amount of my vacation buyback count as regular compensation?

It depends. In August 2022, Chapter 147 of the Acts of 2022 was signed into law. This new law provides that in some circumstances vacation buybacks will be considered regular compensation and included as pensionable earnings. Since its enactment, the Board and management worked with our regulator, the Public Employee Retirement Administration Commission (PERAC), to determine which members were affected and to develop and receive regulatory approval of a vacation buyback supplementary regulation. On October 26, 2023 the MPAERS Board approved the *Supplemental Regulation Concerning Vacation Buybacks* and on November 16, 2023 PERAC approved it. This supplemental regulation defines the terms for implementing Chapter 147 for those members potentially impacted by it. If you have questions or are unsure as to whether Chapter 147 applies to you, please contact the retirement office.

19. What are the group classifications within the retirement system?

The law determines your group classification based on your position. When you retire, your group number determines which age rate is used in the calculation of your retirement allowance. The board assigns employees to one of four groups as set forth in M.G.L., Chapter 32, Section 3:

- Group 1 - General employees, including clerical, administrative and technical workers, laborers and all others not otherwise classified. Most of Massport's employees are classified as Group 1.
- Group 2 - Airport gate guards and maritime port officers.
- Group 3 - State Police officers and inspectors.
- Group 4 - Firefighters, licensed electricians, first- and second-class stationary engineers, watch engineers, steam firemen, utility technicians and other supervisors.

If you have periods of service in more than one group classification, new rules apply. Please contact retirement staff for more information.

20. Does my participation in the 457 deferred compensation plan affect my Massport retirement benefit in any way?

No. Your Massport retirement benefit is separate from and not related to participation in the deferred compensation plan. The 457 plan is an optional savings vehicle, which allows you to supplement your retirement savings on a tax-deferred basis. It is strongly recommended that this plan be considered as an additional savings option by members.

Portability issues… What happens upon departure?

21. If I leave my job at Massport, what happens to my contributions?

If you leave your job at Massport and are not going to work for another governmental employer under the provisions of M.G.L., Chapter 32, you may be eligible to receive a refund of your contributions. If you are leaving to accept a position with a Massachusetts political subdivision subject to M.G.L., Chapter 32, your retirement contributions must be directly transferred to your new retirement system.

22. If I leave Massport and decide to take a refund of my contributions, how much interest will I receive?

The amount of interest you will receive depends on your length of service and the nature of your separation from service.

- **Resignation:**
  If you have less than 10 years of creditable service and voluntarily resign, you will receive three percent interest on your contributions for each year.

  If you have 10 or more years of creditable service and voluntarily resign you will receive 100 percent of the accrued "regular interest" for each year. Regular interest is determined annually by the Public Employee Retirement Administration Commission (PERAC) and the Commissioner of Banks and is comparable to that of a passbook savings account. The regular interest rate for 2023 was set at 0.1%. Please note that if you have more than 10 years of creditable service you are vested and potentially eligible for a future retirement allowance. You should carefully consider any decision to withdraw your funds.

  If you do choose to withdraw your funds and later return to work for Massport or another governmental entity subject to the provisions of M.G.L., Chapter 32, your previous employment will not count towards your creditable service in any future retirement calculation unless you repay the amount withdrawn, plus interest, prior to your date of retirement. Please see question 12 for repayment options and interest rate information.

- **Involuntary termination:**
  If you are involuntarily terminated, in most cases, you will receive 100 percent of the accrued regular interest for each year regardless of your length of service. If you have over 10 years of creditable service you could be eligible to receive a future retirement allowance. Contact retirement staff to discuss your options.

23. Is there any time limit after terminating service to request a refund of contributions?

No. You may request a refund of your funds at any time after termination. If you leave your funds on deposit, however, and later seek a refund, your deductions will only earn interest for two years after termination. The previous question outlines the criteria used to determine which interest rate will apply.

24. Can a member who is vested and leaves his or her job at Massport still be eligible for a refund?

Any member who leaves his or her job may be eligible to withdraw his or her retirement funds. If the member is vested and has earned the right to a retirement allowance at a later date, careful consideration should be given to the value of the retirement benefit he or she may be forfeiting in exchange for a refund.

25. If I leave my job at Massport and leave my money in the retirement system, can I retire at a later date?

If you are vested and leave your job at Massport, you can choose to "defer" your retirement by leaving your money in the system until you are ready to retire.

26. Can a member withdraw or borrow money from his or her account in the retirement system without resigning or retiring?

No. There is no loan provision in this plan. An active member cannot withdraw or borrow money from his or her annuity savings fund account under any circumstances.

27. What are the tax consequences if I take a refund of my retirement contributions?

Your contributions and all of the interest you receive from your account are subject to federal income tax. When processing a refund of retirement contributions, the retirement office is required to withhold 20 percent of the taxable portion of your refund for federal tax. This 20 percent tax payment is required only if the refund is made directly to you. If you are younger than 59½, you may also be subject to an additional 10 percent IRS early withdrawal penalty.

To defer taxation, you must make a direct rollover of your retirement funds to an Individual Retirement Account (IRA) or another type of qualifying retirement account with a financial institution. With a direct rollover no tax is withheld and the entire taxable portion of your refund is transferred. If you have both taxable and nontaxable contributions, you may accept receipt of the nontaxable portion of your refund with no tax consequence and the taxable portion may be rolled over.

28. If I die before retirement, what happens to the funds in my account?

If you are married and die before you retire, in most cases, your surviving spouse will have the option of collecting a monthly benefit or receiving a lump sum payment of your contributions.

If you are single, the person you designated on your retirement beneficiary form would be eligible to receive a lump sum payment of your contributions. However, you may want to consider designating an Option D beneficiary which would allow you to provide a lifetime benefit for a child, parent, sibling, or former spouse who has not remarried, in the event that you die prior to retirement. Please contact the retirement office for more information.

29. Where can I get more information about the retirement plan at Massport?

If you have questions about the plan you should contact the retirement staff. To obtain a copy of either the *Massachusetts Public Employee Retirement Guide*, the *Guide to Disability Retirement for Public Employees*, or the *Guide to Survivor Benefits for Public Employees* please contact the retirement office at (617) 568-3951 or access the guides online at https://www.mass.gov/guides/perac-retirement-guides.

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