



New York State
Teachers'
Retirement
System

Annual Comprehensive Financial Report

*Over a Century of Providing
Retirement Security*

**Fiscal Years Ended
June 30, 2024 and 2023**



Our Mission

To provide our members with a secure pension.



Our Vision

To be the model for pension fund excellence and exceptional customer service.



Our Values

Respect, Excellence, Diversity, Balance, Integrity,
Resourcefulness, Diligence

Our Strategic Objectives

To Promote Exceptional Governance

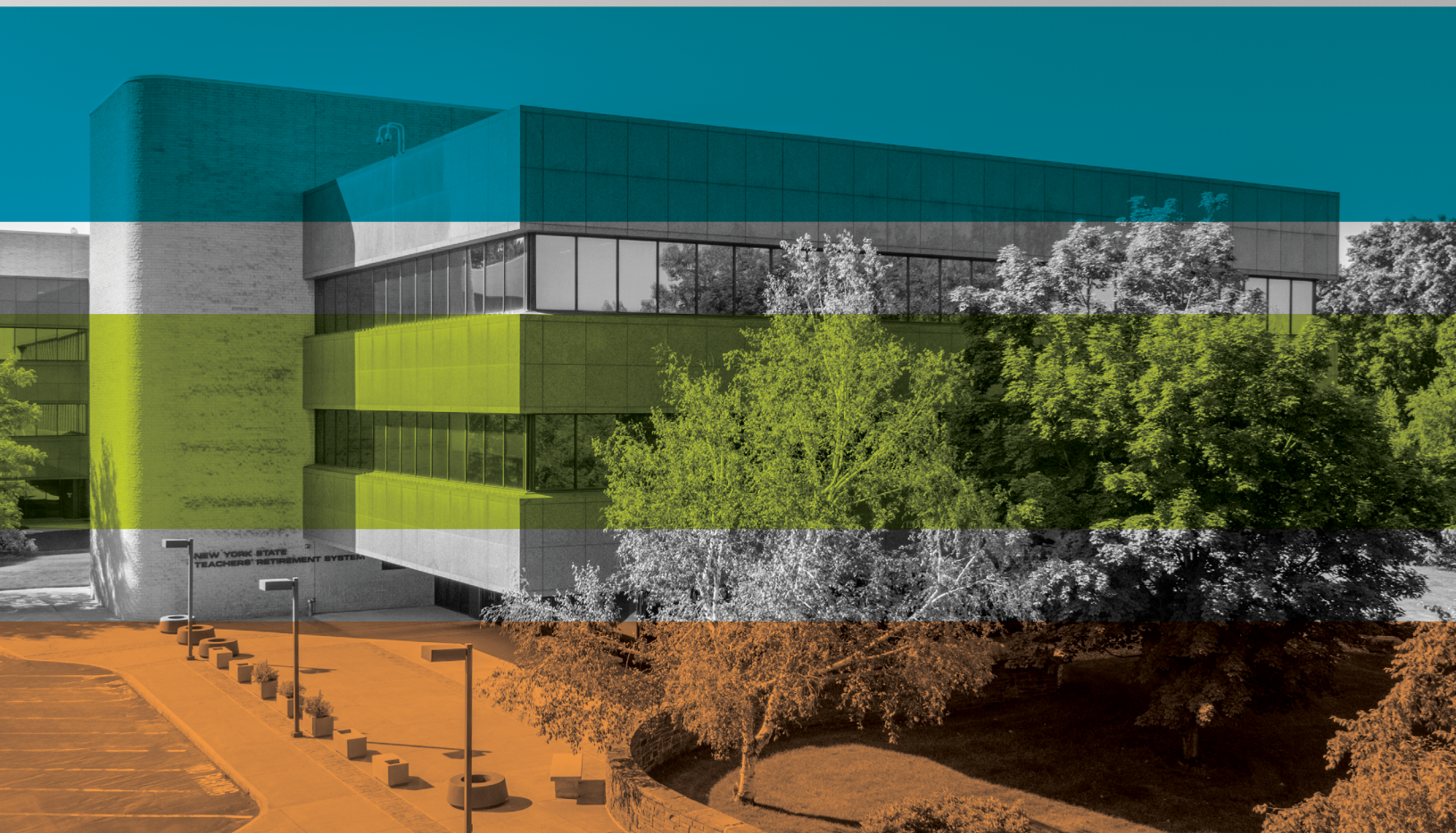
Operating responsibly, ethically, and minimizing exposures to organizational risks to maintain the health and sustainability of the System.

To Provide Exceptional Service

Providing exceptional customer service to our members, colleagues, and all stakeholders.

To Produce Exceptional Teams

Developing and enriching the workforce to elevate a culture that models our values.



Committed to the Highest Ethical Standards of Conduct

NYSTRS strives to model strong ethical values. Our Board and staff take their fiduciary responsibilities seriously and are committed to operating in an environment of transparency.

System staff adhere to the following guiding principles of ethics and conduct.

Ensure compliance with all applicable laws, ethical and professional standards, and NYSTRS' policies and procedures.

Protect the interest of stakeholders, including members, employers and the public.

Act with integrity at all times to prevent a violation of public trust.

Guard the privacy of stakeholder information.

Adhere to NYSTRS' Internal Asset Management Code of Professional Conduct in managing NYSTRS funds.

Acknowledgments

The following departments have assisted with the preparation of this report:

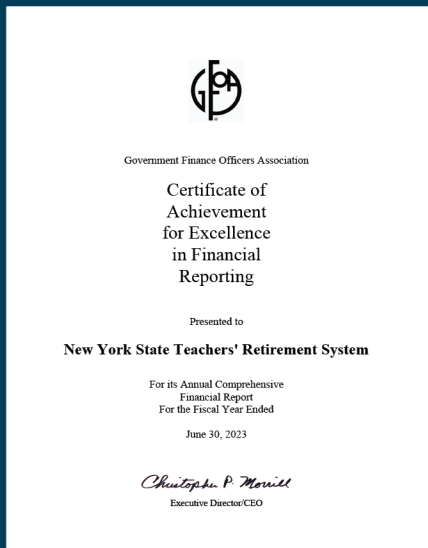
Actuary, Communications & Outreach, Finance, Fixed Income, Internal Audit, Investment Operations, Member Relations, Private Equity, Public Equities, Real Estate

GFOA's Triple Crown Award

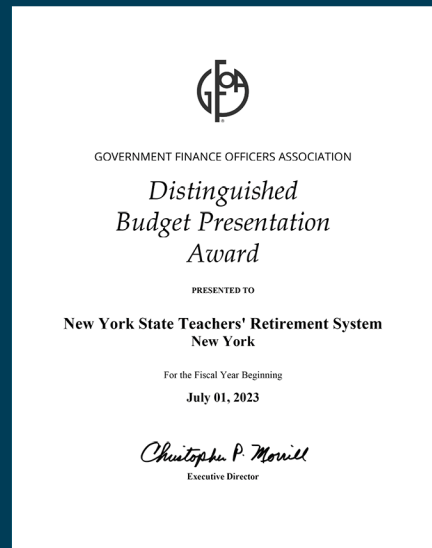
The Government Finance Officers Association (GFOA) is a professional organization representing public finance officials throughout the U.S. and Canada. GFOA's mission is to advance excellence in public finance.

GFOA's Triple Crown recognizes governments that have received GFOA's Certificate of Achievement for Excellence in Financial Reporting, the Distinguished Budget Presentation, and the Popular Annual Financial Reporting Award.

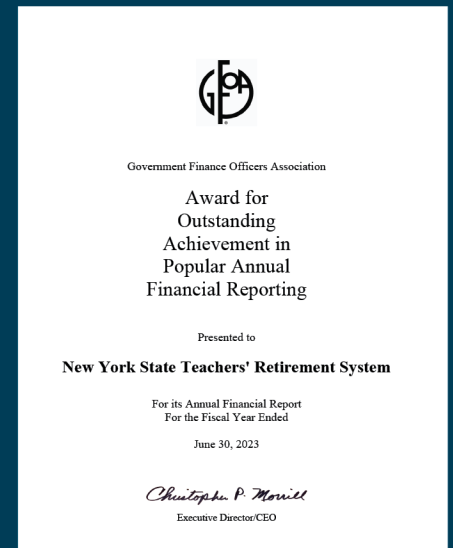
NYSTRS first received this award for its 2019-2020 fiscal year reporting, when the awards program began.



GFOA Certificate of Achievement for Excellence in Financial Reporting



GFOA Distinguished Budget Presentation Award



GFOA Popular Annual Financial Reporting Award



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2023***

Presented to

New York State Teachers' Retirement System

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

A handwritten signature in black ink, reading 'Alan H. Winkle'. The signature is fluid and cursive, with the first name 'Alan' being more prominent than the last name 'Winkle'.

Alan H. Winkle
Program Administrator

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Introduction

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BOARD OF TRUSTEES — as of June 30, 2024**David P. Keefe***President***Hempstead**

Retired Teacher Member
Elected by NYSTRS Retirees
First Elected 2004

**Dr. L. Oliver Robinson***Vice President***Clifton Park**

School Administrator
Appointed by
Commissioner of Education
First Appointed 2010

**Juliet C. Benaquisto****Schenectady**

Teacher Member
Elected by NYSTRS Delegates
First Elected 2021

**Jennifer J. Longtin****Ballston Lake**

School Boards Association Member
Elected by Board of Regents
First Elected 2019

**Paul J. Farfaglia****North Syracuse**

School Boards Association Member
Elected by Board of Regents
First Elected 2023

**Ruth Mahoney****Albany**

Bank Executive
Elected by Board of Regents
First Elected 2021

**Dr. Phyllis S. Harrington****Oceanside**

School Administrator
Appointed by
Commissioner of Education
First Appointed 2010

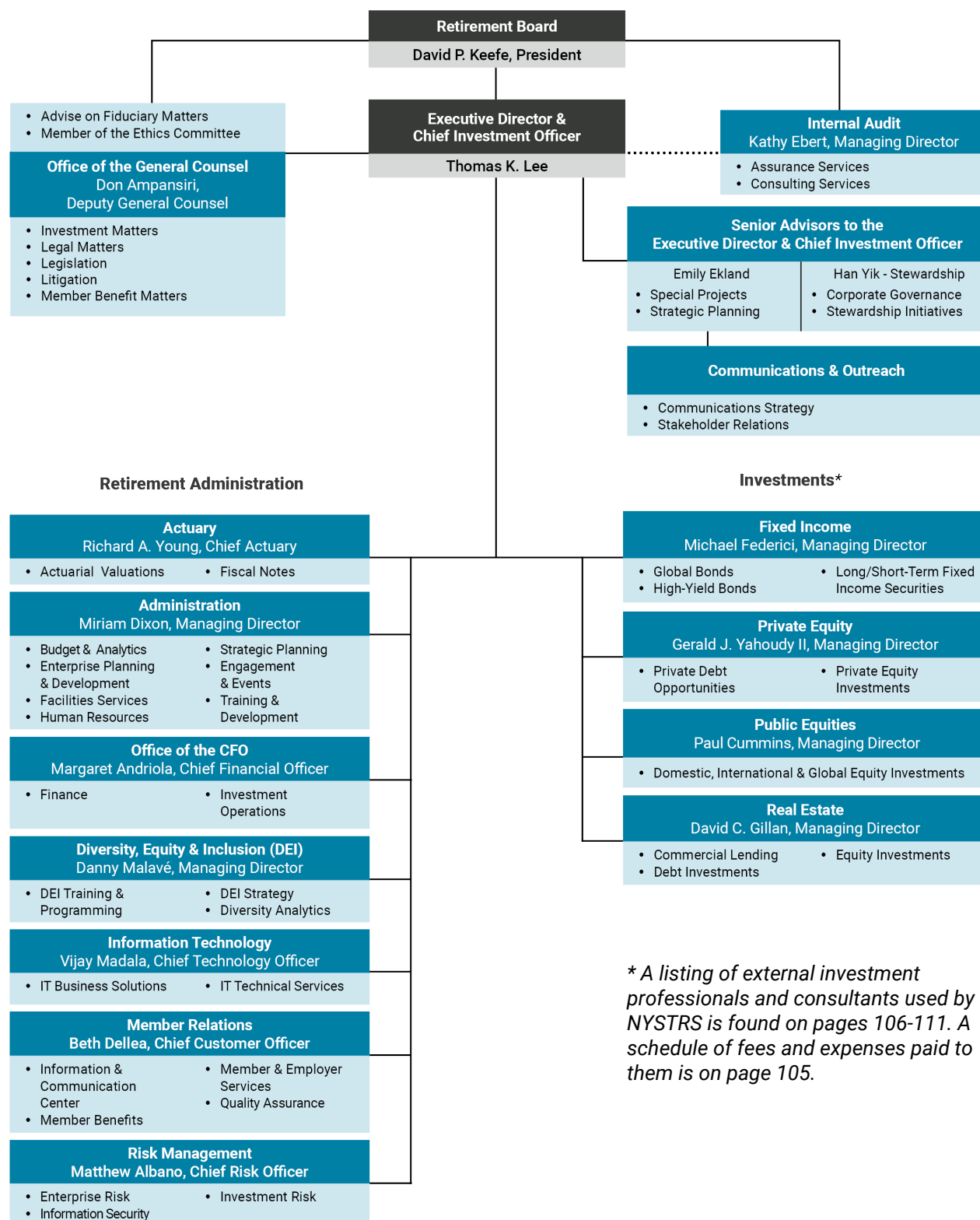
**Nicholas Smirensky****Delmar**

State Comptroller Appointee
First Appointed 2007

**Eric J. Iberger****Bayport-Blue Point**

Teacher Member
Elected by NYSTRS Delegates
First Elected 2021

ORGANIZATIONAL STRUCTURE — as of June 30, 2024



EXECUTIVE STAFF — as of June 30, 2024

**Thomas K. Lee***Executive Director & Chief Investment Officer (CIO)***Matthew Albano**
Chief Risk Officer**Don Ampansiri**
Deputy General Counsel**Margaret Andriola**
Chief Financial Officer**Paul Cummins**
Managing Director of Public Equities**Beth Dellea**
Chief Customer Officer**Miriam Dixon**
Managing Director of Administration**Kathy Ebert**
Managing Director of Internal Audit**Emily Ekland**
Senior Advisor to the Executive Director & CIO**Michael Federici**
Managing Director of Fixed Income**David C. Gillan**
Managing Director of Real Estate**Vijay Madala**
Chief Technology Officer**Danny Malavé**
Managing Director of Diversity, Equity & Inclusion**Gerald J. Yahoudy II**
Managing Director of Private Equity**Han Yik**
Senior Advisor to the Executive Director & CIO - Stewardship**Richard A. Young**
Chief Actuary

LETTER OF TRANSMITTAL



**New York State
Teachers’
Retirement
System**

10 Corporate Woods Drive
Albany, New York 12211
800-348-7298
nystrs.org

RETIREMENT BOARD

- | | |
|---|---|
| David P. Keefe
<i>President, Hempstead</i> | L. Oliver Robinson
<i>Vice President, Clifton Park</i> |
| Juliet C. Benaquisto
<i>Schenectady</i> | Jennifer J. Longtin
<i>Ballston Lake</i> |
| Paul J. Farfaglia
<i>North Syracuse</i> | Ruth Mahoney
<i>Albany</i> |
| Phyllis S. Harrington
<i>Oceanside</i> | Nicholas Smirensky
<i>Delmar</i> |
| Eric J. Iberger
<i>Bayport-Blue Point</i> | |

November 22, 2024

Retirement System Members and the Board:

On behalf of Retirement System staff, it is my pleasure to present you with the Annual Comprehensive Financial Report of the New York State Teachers’ Retirement System (NYSTRS or the System) for the fiscal years ended June 30, 2024 and 2023. This report complies with all requirements governing the preparation and contents of annual reports.

History and Overview

Created in 1921 by an act of the state Legislature, NYSTRS administers the fund from which most New York state public school teachers and administrators receive retirement and ancillary benefits. Retirement benefits are provided in accordance with New York State law and may not under the New York Constitution be diminished or impaired. A summary of NYSTRS benefits is provided on pages 14-15 of this report.

The System is governed by a 10-member Board of Trustees, which sets policy and oversees operations consistent with its fiduciary obligations under applicable law. A staff of 404 is responsible for the day-to-day administration. NYSTRS serves 828 employers – including public school districts, BOCES, institutions of higher education and charter schools that elect to participate. NYSTRS has 454,804 active and retired members, including beneficiaries (*see chart below*).

Membership Figures — as of June 30, 2024

Active Members:	272,363
Retired Members:	175,045
Beneficiaries:	7,396
Total Membership:	454,804

See page 125 for additional membership information.

LETTER OF TRANSMITTAL *(continued)*

The Retirement System is one of the 10 largest public funds in the U.S. based on portfolio size. NYSTRS is also consistently among the top-performing and best-funded public pension plans. Consistent receipt of required employee and employer contributions; a disciplined, risk-controlled investment policy; and partnerships with top-performing fund managers are major contributing factors to this stability. As a long-term investor with liabilities often not payable for three decades or more, Board and staff take a prudent approach to asset management.

Awards

Recognition from various industry organizations further demonstrates the System's commitment to excellence. Honors received within the most recently completed fiscal year include:

Certificate of Achievement for Excellence in Financial Reporting, awarded by the Government Finance Officers Association (GFOA) of the United States and Canada. Given in recognition of the System's 2023 Annual Comprehensive Financial Report, the award certifies the report was prepared in conformity with the highest standards in government accounting and financial reporting.

Award for Outstanding Achievement in Popular Annual Financial Reporting, also awarded by GFOA. The System's 2023 Popular Annual Financial Report was recognized for its high quality and for successfully presenting data from the 2023 Annual Comprehensive Financial Report in a manner easily understandable to the general public.

Distinguished Budget Presentation Award for the fiscal year July 1, 2023 through June 30, 2024, also awarded by GFOA. To be eligible for this recognition, the budget document must meet established criteria as a policy document, operations guide, financial plan and communications device.

Public Pension Standards Award for Funding and Administration, presented by the Public Pension Coordinating Council. The criteria to qualify for this award include compliance with specific principles in the areas of benefits, actuarial valuation, financial reporting, investment and disclosure.

The System was also recognized by GFOA this past year as a *Triple Crown* award winner for receiving all three of GFOA's major fiscal year reporting awards, listed above, in one year.

Legislation

Chapter 717 of the Laws of 2023 amended various provisions of law to require the transfer of employer pension reserves between retirement systems as a required step in completing a transfer of membership between New York state public retirement systems for members with 10 or more years of credited service. This law requires the retirement systems to calculate the actuarial reserve to fund each covered membership being transferred, and to transfer this reserve in addition to the member's own contributions and interest. The provisions exclude members transferring within and between the New York City retirement systems. This legislation does not require any action on the part of transferring members.

Chapter 55 of the Laws of 2024, specifically Part GG, is a one-year extension of Chapter 55 of the Laws of 2023 (Part V), which was due to expire June 30, 2024. This provision amends Section 211 of the Retirement and Social Security Law to allow a NYSTRS retiree to be employed and earn compensation in a position at a school district or board of cooperative educational services (BOCES) without suspension or diminution of their retirement allowance. Earnings received from April 9, 2022 to June 30, 2025 will not be applied to the standard Section 212 earnings after retirement limitation of \$35,000 in New York State public employment per calendar year. Post-retirement employment with a charter school, community college, SUNY, or any other public employment is not covered by this law and is still subject to the \$35,000 calendar year earnings limitation.

Chapter 55 of the Laws of 2024, specifically Part KK, is a two-year extension of Chapter 56 of the Laws of 2022 (Part SS), which was due to expire June 30, 2024. This provision amends the Retirement and Social Security Law to permit the employee contribution rate for Tier 6 members (members with a date of membership on or after April 1, 2012) to be calculated using only a member's annual base wages for contributions to be made during the two fiscal years ending June 30, 2025 and June 30, 2026. Compensation earned for extracurricular programs or any other pensionable earnings paid in addition to the annual base wages will not be included in the employee contribution rate determination, as it ordinarily would.

LETTER OF TRANSMITTAL *(continued)*

Chapter 56 of the Laws of 2024, specifically part QQ, amended the Retirement and Social Security Law to change the definition of final average salary (FAS) for Tier 6 members to be based on the wages earned during any three consecutive years which provide the highest average salary. This legislation also reduces the calculation lookback to the same requirements as applicable to Tier 4; namely, the FAS calculation will exclude any yearly increases in salary that exceeds 10% of the average of the previous two years' salaries.

Noteworthy Actions

Modeling Pension Fund Excellence and Exceptional Customer Service

NYSTRS' vision is to be the model for pension fund excellence and exceptional customer service. While the System has remained steadfastly committed to that vision for 103 years, its visual brand had not kept pace with design trends or the diversity of our membership. After months of diligent research and surveys of our members and other stakeholders, the System launched its rebrand in May 2024. Our reimaged logo, color palette and design elements are more accessible and representative of the System's diverse membership.

A testament of the System's high standard for providing exceptional customer service was evidenced in the response to the Retirement Fund Satisfaction survey of retired members. The annual survey, conducted by Cobalt Community Research, gauges retirees' satisfaction with NYSTRS services and the retirement process. The System scored a 93 on the American Customer Satisfaction Index (ACSI), compared to a 78 average for organizations overall.

NYSTRS' Investment Fellowship Program entered its second year this past fiscal year. The System welcomed four more fellows, bringing the number of employed fellows to eight. The two-year program, open to recent college graduates, is designed to provide six months of hands-on training in each of NYSTRS' four investment departments: Fixed Income, Private Equity, Public Equities and Real Estate. At the conclusion of the program, fellows will have obtained the necessary experience to qualify and apply for a permanent investment officer position at NYSTRS.

Diversity, Equity & Inclusion in the Workplace

NYSTRS' efforts to foster a more diverse and inclusive organization continued in earnest this fiscal year. The Diversity, Equity & Inclusion (DEI) division welcomed a deputy managing director, ensuring continuity and succession planning to support NYSTRS' long-term DEI strategy.

During 2024, NYSTRS implemented an annual Workforce Inclusion and Equity Survey. The 21-question survey examined employee perceptions of workplace psychological safety, inclusion and equity of resource and opportunity access.

NYSTRS also expanded its Employee Networking Group (ENG) infrastructure (also referred to as employee resource groups) by adding two new employee networking groups, establishing pathways for ENG collaboration, and supporting ENG leaders in strategic planning.

In February 2024, NYSTRS expanded its Minority- and Women-Owned Business Enterprises Investments & Professional Services Conference to include an enhanced agenda including sessions dedicated to NYSTRS' internal DEI strategy, as well as a career pathway program for students from our host campus, the University at Albany.

System Governance

Paul J. Farfaglia was elected by the New York State Board of Regents to NYSTRS' Board of Trustees, marking a return to the Board he previously served for a decade until his retirement from teaching in 2019. Mr. Farfaglia, who was recommended by the New York State School Boards Association as mandated by statute, was elected to fill the remainder of the three-year school board member term vacated by Christopher Morin.

Mr. Farfaglia served as an active teacher member on NYSTRS' Board from January 2009 until his retirement in July 2019. He has been a member of the North Syracuse Central School District Board of Education since 2015 and has served as president of the Board since 2019.

Significant Litigation

There was no significant litigation that affected the Retirement System during the fiscal year.

Financial Information

Members of the NYSTRS Board, who serve without pay, have a fiduciary responsibility to safeguard the funds used to pay guaranteed retirement and ancillary benefits to the System's members and beneficiaries. The System's long-term pension

LETTER OF TRANSMITTAL *(continued)*

obligations for this population are well funded. Strict governmental requirements for transparency and public accountability as established by the Governmental Accounting Standards Board (GASB), as well as state and federal laws, are rigorously followed. Consistently favorable audits of System finances from a variety of independent sources affirm this.

The design, implementation and administration of appropriate internal controls protecting the security of assets are the responsibility of System management. The internal control framework has been designed to provide reasonable rather than absolute assurance that the financial statements will be free from material misstatement. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived, and that the valuation of costs and benefits requires estimates and judgments by management. To ensure the validity of these controls, a system of both external and internal checks and balances exists. Financial information and internal controls are subject to audit by the New York State Department of Financial Services and the Retirement System's Internal Audit Department. In addition, Plante Moran, PC, an independent certified public accounting firm, whose unmodified opinion appears on page 19 of this report, audits the financial statements. These oversight mechanisms provide scrupulous and transparent adherence to applicable regulations.

Major System expenses result from retirement benefit payments, death benefits and refunds of contributions to certain eligible members and beneficiaries. The increase in retirement benefit payments from 2023 to 2024 is attributable to a net increase of 1,714 retirees and beneficiaries (details are found on page 28 in the *Notes to Financial Statements-Plan Description*). Also see the *Benefits and Return of Contributions by Type* chart on pages 140-141 for more information.

For an overview of NYSTRS' financial activities for the fiscal year ended June 30, 2024, see *Management's Discussion and Analysis* beginning on page 22. This section provides explanations and further details of the information provided in the financial statements, its notes and required supplementary information.

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with System management. To the best of management's knowledge, 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.

Funding

Funds used to pay promised benefits come from employer contributions, member contributions and investment income. Assets are professionally managed and invested on a long-term basis using sound investment policies. See *Statements of Changes in Fiduciary Net Position* on page 27 for more information.

The employer contribution rate (ECR) — expressed as a uniform percentage of member payroll — is set annually at the level necessary to properly fund benefits. The rate is established in accordance with an actuarial valuation of System assets and liabilities. The most recently adopted ECR of 10.11% will apply to 2024-2025 school year salaries. The payments associated with this rate will be collected in the fall of 2025. These contributions have been collected without fail throughout the System's history, keeping NYSTRS among the most secure plans in the country.

The System's year-end net assets totaled \$145.8 billion. During the same period, benefits paid to retirees and beneficiaries were approximately \$8.4 billion.

The plan's funded ratio as of June 30, 2023, the date of the most-recent annual actuarial valuation and calculated using the Actuarial Value of Assets, was 98.6%. Details of our funding progress may be obtained by turning to page 118.

Investments

The System's assets are invested in the most prudent manner possible in order to achieve optimum long-term total returns with an appropriate level of risk. The System is committed to a disciplined, risk-controlled investment approach that focuses on thoughtful and prudent diversification of assets across a broad spectrum of capital market segments. The allocation of assets within the portfolio, as well as the fund's overall structure, are continuously reviewed and adjusted as appropriate to achieve these goals.

The System's total portfolio returned 11.4%, net of fees, for the fiscal year ended June 30, 2024. Our 30-year rate of return is 8.7%, net of fees.

LETTER OF TRANSMITTAL *(continued)*

Refer to pages 81-112 for further information on NYSTRS' investments. Our quarterly investment holdings can be viewed on our website at nystrs.org/Investments/Portfolio.

Acknowledgments

The content of this Annual Comprehensive Financial Report is the responsibility of System management and is prepared by NYSTRS staff. The System's external auditor audits financial statements within prior to publication. The intent of the publication is to provide complete and reliable information for making management decisions, determining compliance with legal provisions and determining responsible stewardship of System assets.

The report is available on the System's website at nystrs.org. Printed copies are available upon request. A Popular Annual Financial Report that presents information from this report in a format more easily understandable to those without a background in public finance will be published on nystrs.org by December 31, 2024.

This annual report is a testament to the hard work and dedication of NYSTRS' Board and staff to fulfill our mission of providing members with a secure pension. The System's long-term investment philosophy and diversified portfolio ensure that our fund weathers uncertain economic trends and generates returns on our investments. We are proud that the System consistently ranks among the top 10 public pension plans based on assets in the country.

While our look has been updated to reflect the changing times, our vision of being the model for pension fund excellence remains the same. NYSTRS has provided uninterrupted benefits, on time and in full, honoring the work of our members and stewards who have guided the System's success since its founding in 1921. To be sure, just as our members devote their lives to excellence in the classroom as teachers and administrators, NYSTRS provides excellence in the management of the pension fund. We remain committed to our vision of serving as the model for pension fund excellence.

Respectfully submitted,



Thomas K. Lee
Executive Director & Chief Investment Officer

PRESIDENT'S MESSAGE



David P. Keefe

Dear NYSTRS Members, Administrators and Trustees,

As you may have noticed, this Annual Report looks different than those in years past. Its design is a culmination of research and great care that has resulted in a fresh, new look for our 103-year-old Retirement System.

Our re-envisioned brand features a new logo and color palette, illustrations more representative of the System's diverse membership, and more accessible design elements including easy-to-read fonts and a high color contrast for our members with visual impairments.

While our appearance has changed, NYSTRS' commitment to its mission remains unwavering. The Board and staff are as dedicated as ever to providing a reliable, lifelong pension for our members.

Today, the System serves more than 272,000 active members, as well as more than 182,000 retired members and beneficiaries, 289 of whom are over 100 years in age. It is for the benefit of all our members that we strive to capture the best possible investment returns. Our prudent, disciplined and risk-controlled investment approach focuses on long-term stability, allowing the System to withstand market fluctuations.

NYSTRS invests in a well-diversified portfolio across a variety of asset classes. Investment earnings account for 85% of System income and, as of our last actuarial valuation, NYSTRS was 98.2% funded based on a market value of assets and 98.6% funded based on an actuarial value of assets. With net assets of \$145.8 billion, our members can have peace of mind knowing their pension plan remains strong and stable.

It comes as no surprise to me that NYSTRS is one of the most secure and best-funded public pension plans in the country. Highly capable professionals manage our assets prudently. Hard-working staff provide incomparable customer service to our members. The dedicated trustees on our Retirement Board take their role as fiduciaries seriously. Building a strong pension plan is a collaborative effort, and together, we strive to maintain a retirement plan that is a national model for pension fund excellence.

For over a century, this System has been a reliable source of retirement income for New York State's public educators. When NYSTRS was established in 1921 by an act of the New York State Legislature, we had fewer than 20,000 members. Today, that figure has grown twentyfold to nearly 455,000!

Much has changed in the past 100 years, and our new look is yet another way we've adapted to better serve our members. As Board President, I am proud of all NYSTRS has accomplished and as a retired teacher myself, I find great peace of mind knowing the System remains strong and stable.

Sincerely,

A handwritten signature in black ink that reads "David P. Keefe".

David P. Keefe
President

SUMMARY OF BENEFITS

Types of Benefits

NYSTRS provides pension benefits for service, vested and disability retirement, as well as death benefits. Following is a general summary of benefits. Members are advised to refer to the *Active Members' Handbook* at [nystrs.org](https://www.nystrs.org) for complete information on benefit calculation.

Membership Tiers

System members are organized using a tier structure based on date of membership. There are six tiers, each with different benefit structures and eligibility rules.

Tier 1:	Membership prior to 7/1/73	Tier 4:	Membership 9/1/83 — 12/31/09
Tier 2:	Membership 7/1/73 — 7/26/76	Tier 5:	Membership 1/1/10 — 3/31/12
Tier 3:	Membership 7/27/76 — 8/31/83	Tier 6:	Membership on or after 4/1/12

Service Retirement Benefit

A Tier 1 member is eligible to retire at age 55 under the Career Plan without a reduction in benefits if credited with at least 20 years of state service. The pension for 20 years of New York State service rendered after July 1, 1959, is 40% of final average salary. With few exceptions, the maximum pension under the Career Plan is 79% of final average salary. This includes the two years of service added under the Article 19 Benefit Enhancement legislation.

A Tier 2 member may retire at age 55 without a reduction in benefits if credited with at least 30 years of service. The pension for 30 years of service is 60% of final average salary. The maximum pension payable under Tier 2 is also 79% of final average salary, including two years of service added under the Article 19 Benefit Enhancement legislation.

A Tier 4 member, and a Tier 3 member retiring under Tier 4, may retire at age 55 without a reduction in benefits if credited with at least 30 years of service. The pension for 30 years of service is 60% of final average salary. Each year beyond 30 years increases the pension 1.5% of final average salary.

A Tier 5 member may retire at age 57 without a reduction in benefits if credited with at least 30 years of service. The pension for 30 years of service is 60% of final average salary. Each year beyond 30 years increases the pension 1.5% of final average salary.

A Tier 6 member may retire at age 63 without a reduction in benefits. The pension for 20 years of service is 35% of final average salary. Each year beyond 20 years increases the pension 2% of final average salary.

Vested Retirement Benefit

NYSTRS members in Tiers 1-6 who cease employment with five or more years of credited service are eligible for a vested retirement. (Prior to April 9, 2022, Tier 5 and 6 members needed to attain 10 years of state service credit to be vested.) The vested benefit is payable in most cases at age 55 and is calculated using the same factors as a service retirement benefit. Vested Tier 6 members with an inactive membership must be at least 63 to retire – unless they reactivate their membership by earning at least one month of service credit in a position reportable to NYSTRS.

Death Benefits

NYSTRS offers several types of death benefits: In-Service (which includes post-retirement coverage for Tiers 2-6); Accidental; Vested; and Accelerated. Eligibility depends on an individual's membership status and, in certain cases, the cause or timing of death.

SUMMARY OF BENEFITS *(continued)*

Disability Retirement Benefit

Generally, members credited with at least 10 years of New York State service who become disabled, as defined by applicable statute and approved by the Medical Board, are entitled to a disability retirement benefit from the System. In most cases, the minimum disability benefit is one-third of final average salary. For Tier 3-6 members who become disabled as the result of an accident sustained in the performance of their teaching duties, the 10-year eligibility requirement is waived.

The members of the Medical Board are:

STEVEN D. KRONICK, M.D.

Board Certified Psychiatrist; Additional
Qualifications in Geriatric Psychiatry

Psychiatrist
Pine Bush Mental Health, LLP

Psychiatric Consultant
Albany County Community
Mental Health Center

Clinical Assistant Professor of Psychiatry
Albany Medical College

Diplomate of the National
Board of Medical Examiners

Member of the American Board
of Psychiatry and Neurology

Member of the American
Psychiatric Association

RICHARD T. MACDOWELL, M.D.

Attending Surgeon and Professor (Retired)
at Albany Medical College

Fellow of the American
College of Surgeons

Member of the American
Board of Surgery (Retired)

LAURA E. PICA, M.D.

Board Certified in
Internal Medicine General

Diplomate of the American
Board of Internal Medicine

Member Contributions

Tier 3 and 4 members were mandated to contribute 3% of their salary to the Retirement System until they had been members for 10 years or had 10 years of service credit, whichever occurred first. Tier 5 members are required to contribute 3.5% of their salary throughout their active membership. Tier 6 members are required to contribute at a variable rate based on earnings throughout their active membership.

Transfer and Prior Service

Under certain circumstances, members are eligible to transfer membership to or from another New York state public retirement system, or request reinstatement of a former membership in a NYS public retirement system. Credit for NYS public employment prior to joining NYSTRS and active duty military service are also creditable in certain situations.

Retirement Options

At the time of retirement, a member may elect the Maximum retirement benefit with no protection for a beneficiary, or one of many actuarially equivalent options (i.e., lump sum, survivor, guarantee or alternative) providing protection for a beneficiary or beneficiaries.

Cost-of-Living Adjustment (COLA)

All eligible current and future retired members will receive an automatic COLA based on 50% of the Consumer Price Index increase from one March to the next. It will be a minimum of 1% and a maximum of 3% of the first \$18,000 of the retiree's Maximum retirement benefit and is effective each September. Most service retirees must be age 62 and retired five years to be eligible.

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To the Retirement Board
New York State Teachers' Retirement System

Opinion

We have audited the accompanying financial statements of New York State Teachers' Retirement System (the "System") as of and for the years ended June 30, 2024 and 2023 and the related notes to the financial statements, which collectively comprise the System's basic financial statements, as listed in the table of contents.

In our opinion, the accompanying financial statements present fairly, in all material respects, the fiduciary net position of New York State Teachers' Retirement System as of June 30, 2024 and 2023 and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audits of the Financial Statements section of our report. We are required to be independent of the System 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 accounting principles generally accepted in the United States of America 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 System's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's 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 auditor's 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 audits conducted in accordance with GAAS 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 audits in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audits.
- 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 audits 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 System'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 System'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 audits, significant audit findings, and certain internal control-related matters that we identified during the audits.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and other required supplementary information, as 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, which 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 auditing standards generally accepted in the United States of America, 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 an assurance.

Other Supplementary Schedules

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise New York State Teachers' Retirement System's basic financial statements. The supplementary schedules, as identified in the table of contents, are presented for the purpose of additional analysis and are 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 audits 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 auditing standards generally accepted in the United States of America. In our opinion, the supplementary schedules are 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 information included in the pages before the table of contents and the introduction, investments, actuarial, and statistical sections, as identified in the table of contents, but does not include the basic financial statements and our auditor's 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 whether 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.

Plante Moran, PC

October 30, 2024, except for the introduction, investments, actuarial, and statistical sections, as identified in the table of contents of our report, as to which the date is November 22, 2024



MANAGEMENT'S DISCUSSION AND ANALYSIS

June 30, 2024 and 2023

(Unaudited)

The following discussion and analysis of the financial performance of the New York State Teachers' Retirement System (NYSTRS or the System) provides an overview of its activities for the years ended June 30, 2024 and 2023. Its purpose is to provide explanations and insights into the information presented in the financial statements, notes to the financial statements, and required supplementary information.

Financial Highlights

- The net position of the System represents funds available to pay current and future benefits. Net position was \$145.8 billion as of the fiscal year ended 2024, and \$137.2 billion and \$132.0 billion as of the fiscal years ended 2023 and 2022, respectively. The change for the fiscal year ended 2024 was positive \$8.6 billion, or positive 6.3%, and the change for the fiscal year ended 2023 was positive \$5.2 billion, or positive 4.0%.
- The System's investments experienced appreciation of \$12.5 billion in 2024 and appreciation of \$9.0 billion and depreciation of \$12.4 billion in 2023 and 2022, respectively.
- Contributions from employers were \$1.9 billion in 2024, \$1.9 billion in 2023, and \$1.7 billion in 2022, consistent with the change in the employer contribution rate.
- The number of retired members and beneficiaries receiving benefits has been steadily increasing, leading to an increase in the retirement benefits paid. Retirement benefits paid in 2024, 2023, and 2022 were \$8.4 billion, \$8.2 billion, and \$8.0 billion, respectively.
- The System's funded ratio, a comparison of the actuarial value of assets to the accrued pension benefit liability, was 98.6% as of the 2023 valuation. Valuations in 2022 and 2021 resulted in the System's funded ratio of 99.3% and 99.3%.

Overview of Financial Statements

The following discussion and analysis are intended to assist the reader in better understanding the purpose and meaning of each of the key components of NYSTRS' financial statements, which comprise the following:

1. The Statements of Fiduciary Net Position present NYSTRS' assets and deferred outflows of resources and liabilities and deferred inflows of resources by major categories and may serve over time as a useful indicator of the System's financial position. The difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources represents the net position restricted for pensions. The statements also compare assets and deferred outflows of resources and liabilities and deferred inflows of resources by class to the previous year, which offers the reader the opportunity to note changes in each class from year to year.
2. The Statements of Changes in Fiduciary Net Position provide information on the change in the System's net position during the current year. The majority of additions are normally derived from net investment income, primarily in the form of changes in the fair value of assets from the prior year. Deductions include retirement benefit payments, beneficiary payments, return of contributions, and administrative expenses. For comparison purposes, information pertaining to the previous year's Statement of Changes in Fiduciary Net Position is also provided.
3. The Notes to the Basic Financial Statements are an essential part of the basic financial statements. They provide important background and detailed information about NYSTRS, the plan and the basic financial statements themselves.
4. The Required Supplementary Information (RSI) consists of information pertaining to NYSTRS' actuarial methods and assumptions and provides data on changes in the school districts' net pension liability, the composition of the school districts' net pension liability, and the school districts' contributions. Also included is information on NYSTRS' proportionate share of their pension liability to ERS as well as a schedule of their contributions to that plan. Lastly, the RSI includes a schedule of changes in the other post-employment benefits (OPEB) liability and NYSTRS' contributions toward that plan. Supplementary information is also presented and includes the schedules of administrative expenses, investment expenses, and consulting fees.

Financial Analysis

Tables 1 and 2 summarize and compare the System's financial results for the years 2024 and 2023. Investments comprise the overwhelming majority of assets of the System. Investment performance, contributions and benefit payments are the primary drivers of changes in net fiduciary position.

TABLE 1 - SUMMARY OF FIDUCIARY NET POSITION

(dollars in thousands)

	June 30			Amount increase (decrease)	Percentage change	Percentage change of total
	2024	2023	2022	2023 to 2024	2023 to 2024	2023 to 2024
Investments at fair value	\$143,356,932	\$134,826,045	\$129,855,938	\$ 8,530,887	6.3 %	6.2 %
Receivables	2,757,498	2,519,018	2,309,140	238,480	9.5	0.2
Securities lending collateral — invested	324,026	352,050	709,827	(28,024)	(8.0)	0.0
Member Loans	275,963	251,103	232,473	24,860	9.9	0.0
Other Assets	38,519	25,602	31,956	12,917	50.5	0.0
Total Assets	146,752,938	137,973,818	133,139,334	8,779,120	6.4	6.4
Total Deferred Outflows of Resources	27,921	30,470	28,756	(2,549)	(8.4)	0.0
Securities lending collateral — due to borrowers	322,507	350,249	707,887	(27,742)	(7.9)	0.0
Investment Purchases Payable	364,702	188,765	272,354	175,937	93.2	0.1
Other Liabilities	261,855	240,183	176,269	21,672	9.0	0.0
Total Liabilities	949,064	779,197	1,156,510	169,867	21.8	0.1
Total Deferred Inflows of Resources	10,360	3,554	46,998	6,806	191.5	0.0
Net position restricted for pensions	\$145,821,435	\$137,221,537	\$131,964,582	\$ 8,599,898	6.3 %	6.3 %

The increase in the investment value as of June 30, 2024 is attributable to appreciation of the investment portfolio due to particularly strong market performance. The portfolio earned a time-weighted rate of return of positive 11.36%, compared to an assumed rate of return of 6.95%.

The increase in the investment value as of June 30, 2023 is attributable to appreciation of the investment portfolio due to particularly strong market performance. The portfolio earned a time-weighted rate of return of positive 8.99%, compared to an assumed rate of return of 6.95%.

MANAGEMENT'S DISCUSSION AND ANALYSIS *(continued)*

June 30, 2024 and 2023

(Unaudited)

TABLE 2 - SUMMARY OF CHANGES IN FIDUCIARY NET POSITION

(dollars in thousands)

	Years ended June 30			Amount increase (decrease) 2023 to 2024	Percentage change 2023 to 2024	Percentage change of total 2023 to 2024
	2024	2023	2022			
Net appreciation (depreciation) in fair value of investments	\$ 12,517,143	\$ 9,004,904	\$(12,446,619)	\$ 3,512,239	39.0 %	2.6 %
Other investment income	2,467,680	2,434,382	2,367,805	33,298	1.4	0.0
Contributions- Employer and Member	2,149,274	2,131,878	1,934,793	17,396	0.8	0.0
Total additions (deductions)	17,134,097	13,571,164	(8,144,021)	3,562,933	26.3	2.6
Retirement benefits	(8,425,713)	(8,214,698)	(7,961,870)	(211,015)	2.6	(0.2)
Other deductions	(108,486)	(99,511)	(77,984)	(8,975)	9.0	0.0
Total Deductions	(8,534,199)	(8,314,209)	(8,039,854)	(219,990)	2.6	(0.2)
Net increase (decrease) in net position	8,599,898	5,256,955	(16,183,875)	3,342,943	63.6	2.4
Net position, beginning of year	137,221,537	131,964,582	148,148,457	5,256,955	4.0	3.8
Net position, end of year	\$145,821,435	\$137,221,537	\$131,964,582	\$ 8,599,898	6.3 %	6.3 %

Net Investment Income

For the year ended June 30, 2024, NYSTRS reported net investment income of \$15.0 billion compared to net investment income of \$11.4 billion in 2023 and net investment loss of \$10.1 billion in 2022. The strong appreciation in 2024 was due to robust market returns, primarily in the equity segments. The net appreciation (depreciation) by asset class and year is shown in the table below:

TABLE 3 - NET APPRECIATION (DEPRECIATION) ON INVESTMENTS*

(dollars in thousands)

	Years ended June 30			Amount increase (decrease) 2023 to 2024
	2024	2023	2022	
Domestic equity	\$ 9,320,392	\$ 7,017,781	\$ (5,876,449)	\$ 2,302,611
International equity	1,981,364	2,066,564	(5,203,533)	(85,200)
Global equity	860,853	579,639	(947,017)	281,214
Real estate equity	(910,336)	(971,887)	1,780,335	61,551
Private equity	812,437	982,626	917,693	(170,189)
Domestic fixed income	22,725	(514,068)	(2,128,080)	536,793
High-yield bonds	50,991	35,697	(178,770)	15,294
Global bonds	19,386	(63,756)	(391,260)	83,142
Real estate debt	(16,268)	(400,521)	(534,179)	384,253
Private debt	251,478	183,883	117,213	67,595
Cash equivalents	125,827	85,456	3,942	40,371
Other	(1,706)	3,490	(6,514)	(5,196)
Totals	\$ 12,517,143	\$ 9,004,904	\$ (12,446,619)	\$ 3,512,239

*Net of purchases, sales and maturities

MANAGEMENT'S DISCUSSION AND ANALYSIS *(continued)*

June 30, 2024 and 2023
(Unaudited)

Economic Factors

The economic factor that is of primary significance to NYSTRS is the investment rate of return earned in the capital markets. Legislative, demographic, and actuarial assumption changes can also have a significant impact on the net pension liability and funded status of the plan. All of these factors are incorporated into the annual actuarial valuation, which determines the rate at which participating employers must contribute in order to appropriately fund member benefits. In terms of demographics, the System will likely continue to experience a shift toward a greater proportion of retirees relative to active members. This year the System experienced appreciation on investments, primarily driven by strong returns in domestic and international equities. Investment returns are smoothed (averaged) by NYSTRS over a five-year period for purposes of computing the actuarial value of assets used to determine the employer contribution rate. Strong investment returns, offset by salary increases and cost-of-living adjustments, contributed to a decrease in the employer contribution rate, from 10.29% on 2022-23 member salaries to 9.76% on 2023-24 member salaries.

Requests for Information

This financial report is designed to provide active members, retirees, employers, and anyone else who is interested, with a general overview of the financial activities of NYSTRS. Questions about this report or requests for additional financial information should be addressed to the Communications & Outreach department, New York State Teachers' Retirement System, 10 Corporate Woods Drive, Albany, NY 12211, or sent by email to communit@nystrs.org.

STATEMENTS OF FIDUCIARY NET POSITION

June 30, 2024 and 2023

(dollars in thousands)

Assets:	2024	2023
Investments — at fair value (notes 4, 5 and 6):		
Domestic equity	\$ 49,233,792	\$ 45,821,765
International equity	20,560,970	18,712,088
Global equity	5,905,054	4,904,670
Real estate equity	15,647,293	16,469,247
Private equity	14,199,543	15,416,611
Domestic fixed income	21,263,250	18,091,466
High-yield bonds	1,500,238	1,359,383
Global bonds	2,819,075	2,712,085
Real estate debt	7,781,926	7,531,061
Private debt	2,380,787	2,045,645
Cash equivalents	2,065,004	1,762,024
Total investments	143,356,932	134,826,045
Receivables:		
Employer	1,866,574	1,855,257
Member contributions	232,086	197,849
Investment income	395,280	332,408
Investment sales	263,558	133,504
Total receivables	2,757,498	2,519,018
Other assets:		
Securities lending collateral — invested (note 5)	324,026	352,050
Member loans	275,963	251,103
Capital assets, net of depreciation	23,976	19,659
Miscellaneous assets	14,543	5,943
Total other assets	638,508	628,755
Total assets	146,752,938	137,973,818
Deferred outflows of resources:		
Changes in net OPEB liability (note 10)	15,719	15,103
Changes in net pension liability (note 9)	12,202	15,367
Total deferred outflows of resources	27,921	30,470
Liabilities:		
Securities lending collateral — due to borrowers (note 5)	322,507	350,249
Investment purchases payable	364,702	188,765
Mortgage escrows and deposits — net of investments	2	6,269
Net OPEB liability (note 10)	50,668	48,847
Other liabilities (notes 5 and 9)	211,185	185,067
Total liabilities	949,064	779,197
Deferred inflows of resources:		
Changes in net OPEB liability (note 10)	1,280	2,249
Changes in net pension liability (note 9)	9,080	1,305
Total deferred inflows of resources	10,360	3,554
Net position restricted for pensions (note 3)	\$ 145,821,435	\$ 137,221,537

See accompanying notes to financial statements.

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

Fiscal Years Ended June 30, 2024 and 2023

(dollars in thousands)

Additions:	2024	2023
Investment income:		
Net increase in fair value of investments	\$ 12,517,143	\$ 9,004,904
Interest income	1,085,544	882,703
Dividend income	1,336,634	1,412,283
Real estate — net operating income	504,559	540,404
Securities lending — gross earnings	22,692	21,814
Other — net	9,078	2,683
	15,475,650	11,864,791
Less:		
Investment expenses	472,046	408,762
Securities lending:		
Broker rebates	17,790	15,753
Management fees	709	851
Depreciation on collateral	282	139
Net investment income	14,984,823	11,439,286
Contributions:		
Employer (note 1)	1,874,459	1,899,885
Member contributions	258,472	221,152
Transfers (to)/from other systems	16,343	10,841
Total contributions	2,149,274	2,131,878
Net additions	17,134,097	13,571,164
Deductions:		
Retirement benefit payments — periodic	8,352,452	8,135,346
Beneficiary payments	73,261	79,352
Return of contributions	20,444	20,213
Administrative expenses	88,042	79,298
Total deductions	8,534,199	8,314,209
Net increase in net position	8,599,898	5,256,955
Net position restricted for pensions, beginning of year	137,221,537	131,964,582
Net position restricted for pensions, end of year	\$ 145,821,435	\$ 137,221,537

See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS

June 30, 2024 and 2023
(dollars in thousands)

(1) Plan Description

The New York State Teachers’ Retirement System (NYSTRS or the System) was created and exists, pursuant to Article 11 of the New York State Education Law. The System is the administrator of a cost-sharing, multiple-employer, defined benefit public employee retirement system (PERS), administered by a 10-member Board to provide pension benefits for teachers employed by participating employers in the State of New York, excluding New York City. The System’s Board is composed of:

- Three teacher members elected from the active membership.
- One retired member elected by a mail vote of all retired members.
- Two school administrators appointed by the Commissioner of Education.
- Two present or former school board members, experienced in the fields of finance and investment, elected by the Board of Regents. At least one of these individuals must have experience as an executive of an insurance company.
- One present or former bank executive elected by the Board of Regents.
- The State Comptroller or the Comptroller's designee.

Funding of the System is accomplished through member and employer contributions and investment earnings, according to New York State Education Law.

As of June 30, the number of participating employers was:

	2024	2023
Public school districts	679	679
Boards of Cooperative Educational Services (BOCES)	37	37
SUNY	31	31
Community colleges	30	30
Charter schools	33	32
Special act districts	9	9
Other	9	9
Total	828	827

As of June 30, the System’s membership consisted of:

	2024	2023
Retired members and beneficiaries currently receiving benefits	182,441	180,727
Members:		
Active members	261,536	257,494
Terminated members entitled to but not yet receiving benefits	10,827	10,564
Subtotal	272,363	268,058
Total	454,804	448,785

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

(a) Benefits

The benefits provided to members of the System are established by New York State law and may be amended only by the legislature with the governor's approval. Benefit provisions vary depending on date of membership and are subdivided into the following six classes:

Tier 1

Members who last joined prior to July 1, 1973 are covered by the provisions of Article 11 of the Education Law.

Tier 2

Members who last joined on or after July 1, 1973 and prior to July 27, 1976 are covered by the provisions of Article 11 of the Education Law and Article 11 of the Retirement and Social Security Law (RSSL).

Tier 3

Members who last joined on or after July 27, 1976 and prior to September 1, 1983 are covered by the provisions of Article 14 and Article 15 of the RSSL.

Tier 4

Members who last joined on or after September 1, 1983 and prior to January 1, 2010 are covered by the provisions of Article 15 of the RSSL.

Tier 5

Members who joined on or after January 1, 2010 and prior to April 1, 2012 are covered by the provisions of Article 15 of the RSSL.

Tier 6

Members who joined on or after April 1, 2012 are covered by the provisions of Article 15 of the RSSL.

(b) Service Retirement

Tier 1 and 2 members are generally eligible for a service retirement benefit of 2.0% per year of credited service times final average salary (FAS). A 5% reduction generally applies for each full year of state service under 20 years (prorated for partial years with a maximum reduction of 50%). Tier 1 and 2 members may retire as early as age 55 with five or more years of state service credit. Retirement may also occur for Tier 1 members at age 55 with less than five years of service if two years are credited since July 1, 1967, after the current membership date, and since the member turned age 53.

Generally, the maximum pension payable to Tier 1 and 2 members (with two years of credit under the Article 19 Benefit Enhancement law) is 79% of FAS. An age factor applies to Tier 2 members who retire before age 62 with less than 30 years of service. There is no age factor for Tier 1 members.

Tier 3 and 4 members are generally eligible for a service retirement benefit of 1.67% per year of credited service times FAS for less than 20 years of service, 2.0% per year for 20 to 30 years of service, and 60% of FAS plus 1.5% per year for service beyond 30 years. Tier 3 and 4 members may retire as early as age 55 with five years of state service credit. An age factor applies for Tier 3 and 4 members who retire before age 62 with less than 30 years of service.

Tier 5 members are generally eligible for a service retirement benefit of 1.67% per year of credited service times FAS for less than 25 years of service, 2.0% per year for 25 to 30 years of service, and 60% of FAS plus 1.5% per year for service beyond 30 years. Tier 5 members may retire as early as age 55 with five years of state service credit. An age factor applies to Tier 5 members who retire before age 57 or retire between age 57 and 62 with less than 30 years of service.

Tier 6 members are generally eligible for a service retirement benefit of 1.67% per year of credited service times FAS for less than 20 years of service, 1.75% per year for 20 years of service, and 35% of FAS plus 2% per year for service beyond 20 years. Tier 6 members may retire as early as age 55 with five years of state service credit. An age factor applies for Tier 6 members who retire before age 63. In addition, vested Tier 6 members with an inactive membership must be at least 63 to retire.

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

(c) **Vested Benefits**

Retirement benefits for Tiers 1-6 are now vested after five years of credited service. Prior to April 9, 2022, Tier 5 and 6 members needed to attain 10 years of state service credit to be vested. Benefits are payable at age 55 or greater with the limitations noted for service retirements above.

(d) **Disability Retirement**

Members are eligible for disability retirement benefits after 10 years of credited New York State service.

(e) **Death Benefits**

Death benefits are paid to the beneficiary of active members who die in service and certain retirees. For active members, the benefit is based on final salary, age and the number of years of credited service. For retired members, it is also based on the number of years in retirement.

(f) **Prior and Military Service**

After two years of membership, members of all tiers may claim and receive credit for prior New York State public or teaching service. Only Tier 1 and 2 members may, under certain conditions, claim out-of-state service. Certain members may also claim military service credit prior to or interrupting membership.

(g) **Tier Reinstatement**

In accordance with Chapter 640 of the Laws of 1998, any active member who had a prior membership may elect to be reinstated to their original date and tier of membership.

(h) **Employer Contributions**

Pursuant to Article 11 of the New York State Education Law, employers are required to contribute at an actuarially determined rate adopted annually by the Retirement Board. The actuarially determined employer contribution rate applied to 2023-24 and 2022-23 member salaries is 9.76% and 10.29%, respectively. A reconciliation of total required employer contributions presented in the Schedule of the School Districts' Contributions and additions from employer contributions per the System's Statements of Changes in Fiduciary Net Position for fiscal years 2024 and 2023 is as follows:

	June 30	
	2024	2023
Total required employer contributions	\$ 1,863,529	\$ 1,900,474
Miscellaneous billing adjustments	10,930	(589)
Additions from employer contributions	<u>\$ 1,874,459</u>	<u>\$ 1,899,885</u>

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

(i) Member Contributions

Tier 3 and Tier 4 members were required by law to contribute 3% of salary to the System. Effective October 2000, contributions were eliminated for Tier 3 and 4 members with 10 or more years of service or membership. Effective January 1, 2010, Tier 5 members are required by law to contribute 3.5% of salary throughout their active membership. Effective April 1, 2012, Tier 6 members are required by law to contribute between 3.0% and 6.0% of salary throughout their active membership in accordance with a schedule based upon salary earned. Pursuant to Article 14 and Article 15 of the RSSL, those member contributions are used to help fund the benefits provided by the System. However, if a member dies or leaves covered employment with less than five years of credited service for Tiers 3 - 6, the member contributions with interest calculated at 5.0% per annum are refunded to the employee or designated beneficiary. Eligible Tier 1 and Tier 2 members may make member contributions under certain conditions pursuant to the provisions of Article 11 of the Education Law and Article 11 of the RSSL. Upon termination of membership, such accumulated member contributions are refunded. At retirement, such accumulated member contributions can be withdrawn or are paid as a life annuity.

(j) Permanent Cost-of-Living Adjustment (COLA)

Section 532-a of the Education Law provides a permanent cost-of-living benefit to both current and future retired members. This benefit will be paid commencing September of each year to retired members who have attained age 62 and have been retired for five years or attained age 55 and have been retired for 10 years. Disability retirees must have been retired for five years, regardless of age, to be eligible. The annual COLA percentage is equal to 50.0% of the increase in the Consumer Price Index (CPI), not to exceed 3.0% nor be lower than 1.0%. It is applied to the first \$18,000 dollars of the maximum annual benefit. The applicable percentage payable beginning September 2024 and 2023 is 1.8% and 2.5%, respectively.

Members who retired prior to July 1, 1970 are eligible for a minimum benefit of \$17,500 dollars for 35 years of credited full-time New York State service. Certain members who retire pursuant to the provisions of Article 14 of the RSSL are eligible for automatic cost-of-living supplementation based on the increase in the CPI with a maximum per annum increase of 3.0%.

(2) Summary of Significant Accounting Policies**(a) Basis of Accounting**

The System's financial statements are prepared using the economic resource measurement focus and accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has a legal requirement to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment purchases and sales are recorded on a trade-date basis.

(b) Investments

Plan investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Where plan investments do not have a readily determinable fair value, the investment's net asset value per share (or its equivalent) would be used to establish the investment's fair value. Refer to note 6 for more detail regarding the methods used to measure the fair value of investments.

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

(c) System Employees’ Pension Plan and Other Postemployment Benefits

The System offers a defined benefit pension plan to its employees. The System records a net pension liability for the difference between the total pension liability calculated by the actuary and the pension plan’s fiduciary net position. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions and pension expense, information about the fiduciary net position of the Employees Retirement System (ERS) and additions to/deductions from ERS’s fiduciary net position have been determined on the same basis as they are reported for ERS by the New York State and Local Retirement System (NYSLRS).

The System offers a defined benefit other postemployment benefits (OPEB) plan to its employees. The System records a net OPEB liability for the difference between the total OPEB liability calculated by the actuary and the OPEB plan’s fiduciary net position. For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB and OPEB expense, information about the fiduciary net position of the New York State Teachers’ Retirement System Retired Employee Health Benefits Trust (the Trust) and additions to/deductions from the Trust’s fiduciary net position have been determined on the same basis as they are reported for by the Trust.

For these purposes, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms, and investments are reported at fair value for both plans.

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense/expenditure) until then.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period and will not be recognized as an inflow of resources (revenue) until that time.

The System reports deferred outflows of resources and deferred inflows of resources related to their employee’s participation in separate pension and OPEB plans.

(d) Capital Assets

Capital assets with a useful life greater than one year and of one hundred thousand dollars or more are recorded at historical cost and capitalized over their useful life. Depreciation has been provided over the estimated useful lives using the straight-line method. The estimated useful lives are as follows:

	Years
Building	39
Building improvements	15
Roads and shrubbery	10
Office furniture and equipment	7
Computer equipment and software	3 - 5
Automobiles	5

(e) Federal Tax Status

The System is exempt from federal income taxes under Section 501(a) of the IRC.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

(f) Use of Estimates

Management of the System has made a number of estimates and assumptions relating to the reporting of assets and liabilities and in the disclosure of contingencies to prepare these financial statements in conformity with U.S. generally accepted accounting principles. The System's most significant estimates relate to assumptions made about future events as part of the annual actuarial valuation process and the valuation of investments. Due to the inherent nature of these estimates, actual results could differ from those estimates.

(g) Reclassification

Certain amounts in the 2022 and 2023 management's discussion and analysis and basic financial statements have been reclassified to conform to 2024 presentation.

(3) Funds

The following funds were established pursuant to the laws of the State of New York.

(a) Annuity Savings Fund

The fund in which contributions of Tier 1 and 2 members covered by the provisions of Article 11 of the Education Law and Article 11 of the RSSL are accumulated. For reporting purposes below, this fund is combined with the Annuity Reserve Fund.

(b) Annuity Reserve Fund

The fund from which the accumulated contributions of members covered by the provisions of Article 11 of the Education Law and Article 11 of the RSSL are paid as a life annuity. For reporting purposes below, this fund is combined with the Annuity Savings Fund.

(c) Pension Accumulation Fund

The fund in which all reserves for the payment of all benefits are accumulated with the exception of the annuity provided by the accumulated contributions of Tier 1 and 2 members, supplemental retirement allowances, and group term life insurance.

(d) Pension Reserve Fund

The fund that pays pensions with the reserves from the Pension Accumulation Fund.

(e) Group Life Insurance Fund

Pursuant to Article 4-B of the RSSL, the Retirement Board established a Group Life Insurance Fund. The Group Life Insurance Fund provides a group term death benefit not to exceed fifty thousand dollars, payable upon the death of eligible members. Group term death benefits paid for the years ended June 30, 2024 and 2023 were \$26,713 and \$30,590, respectively. For reporting purposes below, this fund is combined with the Pension Accumulation Fund.

(f) CO-ESC Member Contributions Fund

Members covered by the provisions of Article 14 and Article 15 of the RSSL contributed a range of 3% to 6% of salary depending on their tier to the System's CO-ESC Member Contribution Fund. Contributions to this fund were \$207,849 and \$175,481 for the years ended June 30, 2024 and 2023, respectively. For reporting purposes below, this fund is combined with the Pension Accumulation Fund.

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

(g) Administrative Fund

All operating expenses of the System are paid through this fund. The fund receives an allocation from employer contributions, which are designated by law to cover all non-investment-related operating expenses.

(h) Summary of Fund Balances

Net position restricted for pensions at June 30, 2024 and 2023 consist of the following:

	2024	2023
Administrative fund	\$ 63,364	\$ 58,923
Annuity savings and reserve funds	46,982	55,230
Pension accumulation, group life insurance and CO-ESC funds	66,373,982	62,608,589
Pension reserve fund	79,337,107	74,498,795
Total	<u>\$ 145,821,435</u>	<u>\$ 137,221,537</u>

(4) Pension Plan Investments

(a) Investment Policy

The System has been authorized by the New York State Legislature pursuant to the Banking Law, Section 235; the Education Law, Article 11, Section 508; and the RSSL, Article 4-A, Sections 176 and 177, to invest in stocks, bonds, mortgages, real estate, and other investments. A specific investment within these broad asset classes may be subject to particular restrictions or limitations contained in the applicable statutory provision. The Leeway Clause of Section 177 provides that, subject to guidelines adopted by the Retirement Board, up to 35.0% of assets may be invested in types of assets not otherwise specifically authorized, provided the Retirement Board is satisfied such investments were made with the care, skill, prudence and diligence of a prudent person acting in a like capacity and familiar with such matters. Pursuant to regulations promulgated by the New York State Department of Financial Services, investments must be made in a manner consistent with those of a reasonably prudent person exercising care, skill and caution. In addition to applicable legal constraints, the Retirement Board has adopted policies governing the investments made by the System.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

(b) Asset Allocation

The System's asset allocation policy as of June 30, 2024 and 2023, as adopted by the Retirement Board is as follows:

Asset Class	Target June 30, 2024	Target June 30, 2023	Range June 30, 2024	Range June 30, 2023
Domestic equity	33%	33%	29-37%	29-37%
International equity	15	15	11-19	11-19
Global equity	4	4	0-8	0-8
Real estate equity	11	11	6-16	6-16
Private equity	9	9	4-14	4-14
Total equity	72	72		
Domestic fixed income	16	16	12-20	12-20
High-yield bonds	1	1	0-3	0-3
Global bonds	2	2	0-4	0-4
Real estate debt	6	6	2-10	2-10
Private debt	2	2	0.5-5	0.5-5
Cash equivalents	1	1	1-4	1-4
Total debt	28	28		
Total	100%	100%		

(c) Rate of Return

The annual money-weighted rate of return on System investments, net of pension plan investment expense, was 9.16% for the year ended June 30, 2023, and was 11.08% for the year ended June 30, 2024. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

(5) Deposit and Investment Risk Disclosure

(a) Credit Risk

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at June 30, 2024 and 2023 are as follows:

Quality rating	2024		2023	
	Fair value	Percentage of portfolio	Fair value	Percentage of portfolio
Short-term:				
P-1	\$ 1,652,790	5.4 %	\$ 1,374,692	5.3 %
Long-term:				
Aaa	2,795,803	9.2	2,985,151	11.4
Aa	5,439,406	17.8	1,459,860	5.6
A	4,137,543	13.6	3,566,063	13.7
Baa	3,293,480	10.8	2,731,261	10.5
Ba	1,001,069	3.3	637,300	2.4
B	676,327	2.2	729,693	2.8
Caa	148,954	0.5	77,288	0.3
Other	115,300	0.4	375,576	1.4
Total credit risk debt securities	19,260,672	63.2	13,936,884	53.4
U.S. government fixed income securities*	11,226,000	36.8	12,175,886	46.6
Total fixed income securities**	\$ 30,486,672	100.0 %	\$ 26,112,770	100.0 %

* Obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk and do not have purchase limitations.

** Cash equivalents, real estate debt, high-yield and global bond on the Statements of Fiduciary Net Position at June 30, 2024 and 2023 include \$171,795 and \$183,177, respectively, in cash and commingled commercial mortgage backed securities.

Additionally, as of June 30, 2024 and 2023, the System held mortgages, secured by a lien of the properties, valued at \$2.1 billion and \$2.6 billion, respectively, that are not publicly traded assets and are not rated by the rating agencies.

(b) Custodial Credit Risk

Custodial credit risk is the risk that, in the event of a failure of the counterparty, the System will not be able to recover the value of its deposit or investment, or collateral securities that are in the possession of an outside party. Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System, and are held by either the counterparty or the counterparty's trust department or agent but not in the System's name.

The head of the Division of the Treasury in the New York State Department of Taxation and Finance (the Treasurer) is the statutory custodian of the funds of the System and, in this capacity, has arranged to have bank accounts collateralized. Collateral is held in the name of the Treasurer, as custodian for the System, by a bank that does not act as an agent for the System. The System's bank accounts were fully collateralized during the year. At June 30, 2024 and 2023, the System's bank balance was a negative \$4,402 and a negative \$3,899, respectively, representing a managed overdraft. Consistent with the System's investment policy, all of the System's securities are held by the System's custodial bank in the System's name.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

(c) Concentration of Investment and Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer.

As of June 30, 2024 and 2023, the System did not hold investments in any one issuer that would represent 5.0% or more of fiduciary net position. Obligations issued or explicitly guaranteed by the U.S. government and pooled investments are not considered subject to concentration of credit risk.

Issuer limits for investments held by the System are established for each investment area by the RSSL Article 4-A, Sections 176-179.

Short-term fixed income investments are generally limited to the following investment types maturing in one year or less:

- Obligations of the U.S. or those for which the faith of the United States is pledged to provide for the payment of the interest and principal.
- Obligations issued by any Federal Home Loan Bank or obligations fully guaranteed as to principal and interest by Fannie Mae or Freddie Mac.
- Commercial Paper, Certificates of Deposit, and Supranational obligations that have the highest rating by two nationally recognized rating services.
- Other securities meeting legal investment criteria.

Fixed income securities are generally limited to the following investment types with maturities longer than one year:

- Obligations payable in U.S. dollars issued by any department, agency or political subdivision of the U.S. government or issued by any corporation, company or other issuer of any kind or description created or existing under the laws of the U.S.; any state of the U.S., District of Columbia or Commonwealth of Puerto Rico; and obligations of Canada or any province or city of Canada, provided each obligation shall be rated investment grade by two nationally recognized rating services. The aggregate investment by the System in the obligations of any one issuer shall not exceed 2.0% of the assets of the System or 5.0% of the direct liabilities of the issuer.
- Notwithstanding the 2.0% limitation stated above, the System may invest not more than 2.5% of its assets in the obligations of any one railroad or industrial corporation; or any one corporation engaged directly and primarily in the production, transportation, distribution or sale of electricity or gas; or the operations of telephone and telegraph systems or waterworks or in some combination thereof.
- In no event may more than 30.0% of the System's assets be invested in bonds of electric and gas corporations. Equipment trust certificates, subject to the provisions of the law, are not to exceed 5.0% of the assets of the System.
- Obligations issued or guaranteed by the Inter-American Development Bank, Asian Development Bank, the African Development Bank or the Youth Facilities Project Guarantee Fund and participations therein.
- Obligations of the Dominion of Canada, of any province of the Dominion of Canada, and of any city of the Dominion of Canada, payable in U.S. funds, provided that the aggregate unpaid principal amount of all such obligations at any time held by the System shall not exceed 5.0% of the System's assets.
- Bonds of the Savings and Loan Bank of the State of New York, Federal Land Bank, Federal Intermediate Credit Banks, and Banks for Cooperatives.
- Bonds of Freddie Mac, Federal Home Loan Banks, Tennessee Valley Authority, Fannie Mae, and the United States Postal Service.
- Obligations issued or guaranteed by the International Bank for Reconstruction and Development, provided the aggregate unpaid principal amount of such obligations at any time held by the System shall not exceed 5.0% of the System's assets.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

- Bonds and notes of any bank, trust company, savings bank, or savings and loan association organized under the laws of New York State having a net worth of at least \$10 million, which meet all applicable statutes, provided the aggregate unpaid principal amount of bonds and notes secured by conventional mortgages shall not exceed 5.0% of the assets of the System.
- Mortgage pass-through certificates, provided the certificates evidence ownership of undivided interests in pools or mortgage loans secured by first mortgages on real property located in New York state improved by one-to-four family residential dwellings, which meet all applicable statutes. The aggregate unpaid principal on conventional mortgages securing mortgage pass-through certificates cannot exceed 10.0% of the assets of the System nor can the total unpaid principal on any single pool of conventional mortgages securing mortgage pass-through certificates exceed 1.0% of the assets of the System.
- Collateralized Mortgage Obligations, which meet the requirements of applicable statutes.
- Private placements, where the purchase of unrated obligations is authorized by the Banking Law or the RSSL governing fixed income obligations; if not so provided, private placements as well as other domestic fixed income not otherwise provided for may be purchased under the Leeway Clause.

The System may invest in domestic equity securities and interest-bearing obligations payable in U.S. funds, which are convertible into equity securities of any corporation created or existing under the laws of the U.S., any state of the U.S., District of Columbia, and the Commonwealth of Puerto Rico; or any investment company, as defined by, and which is registered under, an act of Congress of the United States, entitled to the Investment Company Act of 1940, as amended, subject to certain limitations.

The System's international equity investments may not exceed 10.0% of the System's assets including emerging market equity securities. To the extent the 10.0% limitation is exceeded, the System's international equity securities may be invested in Leeway investments (which amount shall not exceed 35.0% of System assets).

The maximum amount invested within the System's equities, including domestic and international, may not exceed, in any one year, 15.0% of System assets or 70.0% of the total System assets in aggregate. The System may not own more than 5.0% of the total issued and outstanding equity securities of any one corporation.

The System's real estate investments will be diversified across geographic regions to allow for competitive portfolio performance in the event of a temporary weakness in any one region and to allow for differing urban and suburban market trends within any region. The System may invest in certain conventional mortgages constituting a first lien upon real property located in the U.S. pursuant to statute subject to certain provisions. The value of all real property held by the System shall not exceed ten percent (10.0%) of System assets and the cost of each parcel of real property shall not exceed two percent (2.0%) of the System's assets.

Alternative investments are made pursuant to the Leeway Clause of the RSSL.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the investment. The System is exposed to interest rate risk at June 30, 2024 and 2023 as follows:

Investment type	2024		2023	
	Fair value	Duration (in years)	Fair value	Duration (in years)
Mortgages	\$ 2,057,535	1.610	\$ 2,624,241	1.510
Cash equivalents*	2,065,004	0.068	1,762,024	0.068
Domestic fixed income	21,263,250	4.859	18,091,466	4.298
CMBS	3,010,900	0.442	2,370,989	0.465
High-yield bonds	1,500,238	0.178	1,359,383	0.219
Global bonds	2,819,075	6.350	2,712,085	6.720
Total fair value	\$ 30,658,467		\$ 26,295,947	
Cash equivalents and fixed income portfolio modified duration		5.190		6.850

*Commercial paper, negotiable certificates of deposit and U.S. Treasury, agency, supranational and floating debt issues.

Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates. The greater the duration, the greater its price volatility will be in response to a change in interest rates and vice versa.

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

(d) Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The System has exposure through global and international holdings in commingled investment trust funds and separate accounts, global real estate investment trusts (REITs), global bonds, and alternatives. The “alternatives” represent private equity and real estate investments denominated in foreign currency. With respect to global bond investments, the majority of currency risk inherent in non-U.S. dollar denominated bonds owned by the System in a separate account is hedged away by the managers through currency forwards. The System has an exposure to foreign currency fluctuation at June 30, 2024 and 2023 as follows:

	2024		2023	
	Equity Securities and REITs	Alternatives, Cash, and Global Bonds	Equity Securities and REITs	Alternatives, Cash, and Global Bonds
Currency:				
Euro Currency	\$ 5,074,382	\$ 1,125,879	\$ 4,826,322	\$ 1,828,225
Japanese Yen	3,336,712	135,230	3,185,753	134,881
Pound Sterling	2,187,663	642,588	2,047,293	908,112
Canadian Dollar	1,373,499	64,619	1,329,407	70,136
New Taiwan Dollar	1,249,575	2	859,938	(21)
Indian Rupee	1,213,941	(15)	782,723	—
Swiss Franc	1,114,780	4,675	1,131,053	7,190
China Renminbi	1,023,786	20	1,014,328	59
Australian Dollar	888,627	132,103	862,285	198,436
Hong Kong Dollar	999,217	24	1,078,430	29
South Korean Won	804,827	42,309	692,837	45,476
Danish Krone	560,072	13,293	418,145	1,844
Swedish Krona	555,757	7,018	495,057	14,010
Brazilian Real	290,409	17,365	323,093	12,226
Saudi Riyal	186,462	—	176,922	—
Other	1,345,402	89,365	1,214,769	123,089
Totals	\$ 22,205,111	\$ 2,274,475	\$ 20,438,355	\$ 3,343,692

(e) Securities Lending Transactions

The Retirement and Social Security Law authorizes the System to enter into agreements to loan securities. Agreements to lend a security must be with a broker dealer or with New York State or nationally chartered banks and must not exceed a period of one year. The fair value of securities loaned may not exceed 20% of the fair value of the System’s invested assets. The System lends domestic and international bonds and equities. Initial collateral of at least 102% of fair value of loaned securities is received from the borrower for domestic securities and 105% for international securities. Securities on loan are marked to market daily and collateral for the loan is required not to fall below 100%. The fair value of invested cash collateral is reported as an asset and cash collateral due to borrowers is reported as a liability on the Statement of Fiduciary Net Position. The fair value of the cash collateral invested exceeded the amount the System owed borrowers by approximately \$1.5 million as of June 30, 2024 and \$1.8 million as of June 30, 2023. Non-cash collateral is not reported on the Statement of Fiduciary Net Position as the System does not have the ability to pledge or sell collateral securities without a borrower default. For each year end, the System had limited credit risk exposure to borrowers because the amounts the System owes the borrowers (the collateral) exceeds the amounts the borrowers owe the System (the loaned securities).

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

As of June 30, 2024 and 2023, JP Morgan Chase Bank, N.A. (JP Morgan) acted as agent for the domestic equity and fixed income securities lending program while Bank of New York Mellon (BNY Mellon) acted as agent for the international equity, global bond, and global equity securities lending program. Under the terms of the contracts with the lending agents, the System is fully indemnified against losses resulting from the failure of the borrowers to return the loaned securities (to the extent the collateral is inadequate to replace the loaned securities) or failure to pay the System for income distributions by the securities' issuers while the securities are on loan. There were no significant violations of legal or contractual provisions, no borrower or lending agent defaults, and no material recoveries of prior period losses during the year. The majority of securities on loan can be recalled by the System on demand or returned by the borrower at any time. Cash collateral is invested by the System's lending agents, in short term investment funds managed by the agent lenders pursuant to System approved investment guidelines. There is no direct match of the maturities of the collateral investments with the maturities of the securities loans. Investments are restricted to issuers with a short-term credit rating issued by Standard & Poor's and Moody's Investors Service, not lower than A-1/P-1 or long-term ratings not lower than A/A2, respectively, or the equivalent thereof. Non-cash collateral received is limited to high quality U.S. treasuries, agency securities and agency mortgage-backed securities. At June 30, 2024 and 2023, the average effective duration of the fund managed by JP Morgan was three and nine days, respectively, and that managed by BNY Mellon was eight and four days, respectively. Security loans and related collateral investments are monitored daily to ensure compliance with collateral requirements, limitations, and cash collateral investment guidelines.

Securities Lending Program	2024	2023
Fair value of securities on loan — cash collateral	\$ 299,918	\$ 334,223
Fair value of securities on loan — non-cash collateral	991,242	824,246
Total fair value of securities on loan	<u>\$ 1,291,160</u>	<u>\$ 1,158,469</u>
Fair value of liabilities to borrowers — cash collateral	\$ 322,507	\$ 350,249
Fair value of liabilities to borrowers — non-cash collateral	1,014,559	841,887
Total collateral due to borrowers	<u>\$ 1,337,066</u>	<u>\$ 1,192,136</u>
Fair value of cash collateral invested by System	\$ 324,026	\$ 352,050
Fair value of non-cash collateral held by System	1,014,559	841,887
Total collateral invested and held by the System	<u>\$ 1,338,585</u>	<u>\$ 1,193,937</u>

(6) Fair Value Measurement

NYSTRS' investments measured and reported at fair value are classified according to the following hierarchy in which the levels are based on the nature of inputs used to measure the fair value of the investment:

Level 1 – Investments' fair values based on prices quoted in active markets for identical assets.

Level 2 – Investments' fair values based on observable inputs for the assets either directly or indirectly, other than those considered Level 1 inputs, which may include quoted prices for identical assets in markets that are not considered to be active, and quoted prices of similar assets in active or inactive markets.

Level 3 – Investments' fair values based upon unobservable inputs.

The categorization of investments within the hierarchy above is based solely upon the objectivity of the inputs used in the measurement of fair value of the investments and does not reflect the level of risk associated with the investments.

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

Investments classified in Level 1 of the fair value hierarchy are valued from predetermined external pricing vendors or primary dealers who source quoted prices in active markets which are readily attainable exit values of these securities. Investments classified in Level 2 are subject to alternative pricing sources, including a combination of price sources, descriptive data and pricing models based on attributes such as spread data, sector, quality, duration, and prepayment characteristics. Investments classified as Level 3 are valued using best available sources such as property appraisals, discounted cash flow models and public market comparables of similar assets where applicable. The values are supplied by advisers or general partners who hold those or similar assets in investments vehicles they oversee. These pricing sources may or may not be indicative of realizable exit value attainable for the assets.

NYSTRS' investments and securities lending collateral reinvested have the following fair value measurements or net asset values (NAV) as of June 30, 2024 and 2023, respectively:

Investments by Fair Value Level	June 30, 2024	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Domestic equity	\$ 49,233,777	\$ 49,227,655	\$ 6,066	\$ 56
International equity	19,352,364	19,210,370	141,581	413
Global equity	5,882,303	5,799,904	82,385	14
Real estate equity:				
Direct equity real estate and joint venture investments	4,818,189	—	—	4,818,189
Real estate alternative investments	240,604	—	—	240,604
Domestic REIT	2,025,674	1,916,020	109,654	—
Global REIT	709,810	702,483	7,293	34
Total real estate equity	\$ 7,794,277	\$ 2,618,503	\$ 116,947	\$ 5,058,827
Domestic fixed income	21,263,250	73,274	21,189,976	—
High-yield bonds	1,498,118	294	1,497,256	568
Global bonds	2,787,120	15,605	2,771,515	—
Real estate debt:				
Domestic commercial mortgage backed securities	3,005,571	—	2,996,685	8,886
Real estate alternative investments	450,347	—	—	450,347
Mortgages	2,057,535	—	—	2,057,535
Total real estate debt	\$ 5,513,453	\$ —	\$ 2,996,685	\$ 2,516,768
Cash Equivalents*	2,049,485	—	2,049,485	—
Securities Lending Collateral, Invested	324,026	—	322,909	1,117
Total investments by fair value level	\$ 115,698,173	\$ 76,945,605	\$ 31,174,805	\$ 7,577,763

*Commercial paper, negotiable certificates of deposit and U.S. Treasury, agency, supranational and floating debt issues.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

Investments Measured at the NAV	June 30, 2024	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Commingled international equity funds (1)	1,085,941	—	Daily or Monthly	5-30 days
Privately held real estate investment trusts (2)	1,412,118	85,000	NA	NA
Real estate equity funds (3)				
Closed-end funds	5,433,309	3,660,033	NA	NA
Open-end funds	1,005,823	13,777	Quarterly	30-120 days
Private equity closed-end funds (4)	14,199,543	5,927,077		
Real estate debt funds (5)				
Closed-end funds	2,167,413	1,758,284	NA	NA
Open-end funds	95,731	—	Quarterly	90 days
Private debt closed-end funds (6)	2,380,787	1,692,093	NA	NA
Total investments measured at the NAV	<u>\$ 27,780,665</u>	<u>\$ 13,136,264</u>		
Investment related cash, receivables and payables not included in above	<u>202,119</u>			
Total investments and securities lending collateral reinvested	<u><u>\$ 143,680,958</u></u>			

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

Investments by Fair Value Level	June 30, 2023	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Domestic equity	\$ 45,821,761	\$ 45,816,070	\$ 5,635	\$ 56
International equity	17,706,996	17,596,650	109,479	867
Global equity	4,950,959	4,886,258	64,193	508
Real estate equity:				
Direct equity real estate and joint venture investments	5,193,752	—	—	5,193,752
Real estate alternative investments	312,177	—	—	312,177
Domestic REIT	2,158,483	2,031,426	127,057	—
Global REIT	953,986	944,989	8,995	2
Total real estate equity	\$ 8,618,398	\$ 2,976,415	\$ 136,052	\$ 5,505,931
Domestic fixed income	18,091,466	146,789	17,944,677	—
High-yield bonds	1,359,125	581	1,358,472	72
Global bonds	2,684,126	(3,851)	2,687,977	—
Real estate debt:				
Domestic commercial mortgage backed securities	2,370,989	—	2,370,988	1
Real estate alternative investments	574,830	—	—	574,830
Mortgages	2,624,241	—	—	2,624,241
Total real estate debt	\$ 5,570,060	\$ —	\$ 2,370,988	\$ 3,199,072
Cash Equivalents*	1,745,825	—	1,745,825	—
Securities Lending Collateral, Invested	352,050	—	350,721	1,329
Total investments by fair value level	\$ 106,900,766	\$ 71,418,912	\$ 26,774,019	\$ 8,707,835

*Commercial paper, negotiable certificates of deposit and U.S. Treasury, agency, supranational and floating debt issues.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

Investments Measured at the NAV	June 30, 2023	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Commingled international equity funds (1)	949,615	—	Daily or Monthly	5-30 days
Privately held real estate investment trusts (2)	1,522,739	85,000	NA	NA
Real estate equity funds (3)				
Closed-end funds	5,119,291	4,088,706	NA	NA
Open-end funds	1,205,272	42,198	Quarterly	30-120 days
Private equity closed-end funds (4)	15,416,611	6,352,804		
Real estate debt funds (5)				
Closed-end funds	1,855,743	1,683,381	NA	NA
Open-end funds	105,258	—	Quarterly	90 days
Private debt closed-end funds (6)	2,045,645	1,230,603	NA	NA
Total investments measured at the NAV	<u>\$ 28,220,174</u>	<u>\$ 13,482,692</u>		
Investment related cash, receivables and payables not included in above	<u>57,154</u>			
Total investments and securities lending collateral reinvested	<u><u>\$ 135,178,095</u></u>			

- (1) Commingled international equity funds consist of three commingled investment vehicles which invest primarily in publicly traded global equity securities. The funds are valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.
- (2) Privately held real estate investment trusts consist of one trust which primarily invest in U.S. commercial real estate. The fair value of the investment in this group have been determined using the net asset value of units held at the end of the period based upon the property appraisals of the underlying assets. The trust is perpetual in nature, making periodic operating distributions to shareholders. Capital calls and redemptions are determined by a unanimous vote of the trust board members.
- (3) Real estate equity funds invest primarily in U.S. commercial real estate with some investing in global commercial real estate. The investment structures are either open-end funds or closed-end funds. In these structures, NYSTRS commits funds along with other investors to create a pool of capital that the fund manager then invests according to an agreed-upon strategy such as core, value add or opportunistic. The fair values of the investments in this group have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital. Open-end funds may be redeemed on a quarterly basis with notice. Closed-end funds are not redeemable; however, distributions will be received as the underlying investments of the funds are liquidated, which on average can occur over the span of eight to ten years after final closing.
- (4) Private equity funds include buyout, growth equity, venture capital, co-investment, and turnaround/restructuring strategies. These investments are accessed through primary commitments to commingled funds, secondary funds, fund of funds and separately managed accounts. The fair values have been determined using the NAV per share (or its equivalent) of the Plan's ownership interest in partners' capital.
- (5) Real estate debt funds invest primarily in transitional first mortgage, mezzanine, and subordinate debt positions. The fair values of the investments in this group have been determined using the NAV per share (or its equivalent) of the Plan's ownership, interest in partners' capital. Open-end funds may be redeemed on a quarterly basis with notice.

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023
(dollars in thousands)

Closed-end funds are not redeemable; however, distributions will be received as the underlying investments of the funds are liquidated, which on average can occur over the span of eight to ten years after final closing.

- (6) Private debt funds consist of direct lending, mezzanine, distressed and special situations. These investments are accessed through primary commitments to closed-end commingled funds and evergreen funds. The fair values have been determined using the NAV per share (or its equivalent) of the Plan’s ownership interest in partners’ capital.

(7) Net Pension Liability (Asset) of NYSTRS Participating School Districts

The components of the net pension liability (asset) of the NYSTRS participating school districts at June 30, 2024 and 2023 were as follows:

	2024	2023
Total pension liability	\$ 142,837,827	\$ 138,365,122
Plan fiduciary net position	145,821,435	137,221,537
School districts’ net pension liability (asset)	<u>\$ (2,983,608)</u>	<u>\$ 1,143,585</u>
Plan fiduciary net position as a percentage of total pension liability	102.1%	99.2%

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

(a) Actuarial Methods and Assumptions

The total pension liability at June 30, 2024 was determined using an actuarial valuation as of June 30, 2023, with update procedures used to roll forward the total pension liability to June 30, 2024. The total pension liability at June 30, 2023 was determined using an actuarial valuation as of June 30, 2022, with update procedures used to roll forward the total pension liability to June 30, 2023. These actuarial valuations applied the following actuarial methods and assumptions:

Actuarial cost method	Entry age normal
Inflation	2.40% for June 30, 2024 and June 20, 2023
Projected salary increases	Rates of increase differ based on service They have been calculated based upon recent NYSTRS member experience.

<u>Service</u>	<u>Rate</u>
5	5.18%
15	3.64
25	2.50
35	1.95

Projected COLAs	1.3% for June 30, 2024 and June 30, 2023
Investment rate of return	6.95% for June 30, 2024 and June 30, 2023 measurement of total pension liability. The rates are compounded annually, net of pension plan investment expense, including inflation.
Mortality	Annuitant and active mortality rates are based on plan member experience, with adjustments for mortality improvements based on Society of Actuaries Scale MP2021 for June 30, 2024 and June 30, 2023, applied on a generational basis.
Experience Period	Assumptions were computed by the Actuary and were adopted by the Retirement Board in October 2021. They are based upon recent NYSTRS member experience. Detailed assumption information may be found in NYSTRS' annual Actuarial Valuation Report.

The long-term expected rate of return on pension plan investments was determined in accordance with Actuarial Standard of Practice (ASOP) No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations* and generally accepted accounting principles. ASOP No. 27 provides guidance on the selection of an appropriate assumed investment rate of return. Consideration was given to expected future real rates of return (expected returns, net of pension plan investment expense and inflation) for each major asset class as well as historical investment data and plan performance.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

The Long-Term Expected Real Rates of Return are presented by asset allocation classification. Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation as of the measurement date of June 30, 2024 and June 30, 2023 (see the discussion of the pension plan's investment policy) are summarized in the following table:

Long-Term Expected Real Rate of Return*		
Asset Class	2024	2023
Domestic equity	6.6%	6.8%
International equity	7.4	7.6
Global equity	6.9	7.2
Real estate equity	6.3	6.3
Private equity	10.0	10.1
Domestic fixed income	2.6	2.2
Global bonds	2.5	1.6
Private debt	5.9	6.0
Real estate debt	3.9	3.2
High-yield bonds	4.8	4.4
Cash equivalents	0.5	0.3

*Real rates of return are net of pension plan investment expenses and long-term inflation expectations.

(b) Discount Rate

The discount rate used to measure the total pension liability was 6.95% as of June 30, 2024 and June 30, 2023. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from school districts will be made at statutorily required rates, actuarially determined. Based on those assumptions, the System'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 pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

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

The following presents the net pension liability (asset) of the NYSTRS participating school districts calculated using the discount rate of 6.95% for June 30, 2024 and 6.95% for June 30, 2023, as well as what the school districts' 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:

System's Net Pension Liability (Asset)						
		1% Decrease (5.95%)		Current Discount Rate (6.95%)		1% Increase (7.95%)
June 30, 2024	\$	\$13,781,459	\$	\$(2,983,608)	\$	\$(17,083,480)
June 30, 2023	\$	\$17,417,380	\$	\$1,143,585	\$	\$(12,543,380)

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

(8) Commitments and Contingencies

The System, in the normal course of business, enters into commitments with off-balance-sheet risk. The System adheres to the same credit policies, financial and administrative controls, and risk limiting and monitoring procedures for commitments as for on-balance-sheet investments.

The commitments for loans on real estate or purchases of real estate are subject to satisfactory appraisals prior to closing. Once investments are made, the System's exposure to potential loss is determined by the value of the underlying collateral.

The future financial commitments outstanding at June 30, 2024 and 2023, respectively, were: real estate and real estate alternative investments of \$3.9 billion and \$4.4 billion; mortgages and real estate debt funds of \$1.8 billion and \$1.7 billion; CMBS \$286.6 million and \$13.8 million; private equity \$5.9 billion and \$6.4 billion; and private debt investments of \$1.7 billion and \$1.2 billion.

(9) System Employees' Pension Plan**(a) Plan Description**

As an employer, the System participates in ERS, a cost-sharing, multiple-employer defined benefit pension plan which falls under NYSLRS and is administered by the Comptroller of the State of New York. ERS provides retirement, disability, withdrawal, and death benefits to plan members and beneficiaries as authorized by the RSSL of the State of New York. Benefits are guaranteed by the state Constitution and cannot be diminished or impaired. Benefits can be reduced for future members only by an act of the state Legislature. NYSLRS issues a publicly available financial report that contains financial statements and required supplementary information for ERS. The report may be obtained on the Comptroller's website at www.osc.state.ny.us/pension.

(b) Benefits

The classes of employees covered under ERS range from Tiers 1–6. In order to be eligible for retirement, all members must be at least age 55 and have a minimum of five years of service. There is no minimum service requirement for Tier 1 members. Generally, all members are eligible for early retirement at age 55 with a benefit calculation of 1.67% of final average salary. Benefit calculations for Tier 1–5 members with greater than 20 years of service credit are 2.0% of final average salary. Tier 3–5 members are eligible for an additional 1.5% of final average salary applied to each year of service over 30 years. Generally, Tier 6 member retirement benefits are 1.8% of final average salary with 20 years of service, with an additional 2.0% of final average salary for each year of service over 20 years.

For Tiers 1–6, final average salary is the average of the wages earned in the three highest consecutive years of employment.

Other benefits provided under ERS include ordinary disability, accidental disability and post-retirement benefit increases.

(c) Funding Policy

Funding of ERS is accomplished through member and employer contributions and investment earnings, according to the New York State RSSL.

Plan members are required to contribute between 0% and 6% throughout active service. Employers are required to contribute at an actuarially determined rate. An average employer contribution rate for the tiers of 15.3% and 13.1% was applicable to the annual covered payroll for the years ended March 31, 2024 and March 31, 2023, respectively. The contributions paid to ERS during the System's years ended June 30, 2024 and 2023 were \$5.4 million and \$3.9 million, respectively, and were 100% of the contributions required.

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

(d) Pension Liabilities, Pension Expense, Deferred Outflows of Resources, and Deferred Inflows of Resources Related to Pensions

At June 30, 2024 and 2023, the System reported a liability of \$16.8 million and \$24.8 million, respectively, for its proportionate share of the ERS net pension liability measured as of March 31, 2024 and 2023, respectively. The balance is reported within "other liabilities."

NYSTRS' proportion of the ERS net pension liability was based on the projection of the long-term share of contributions to ERS relative to the projected contributions of all participating employers, actuarially determined. At March 31, 2024, the System's proportion was 0.1142988% and was 0.1158665% at March 31, 2023.

For the years ended June 30, 2024 and 2023, the System recognized pension expense of \$7.3 million and \$8.8 million, respectively.

Deferred outflows of resources were \$12.2 million and \$15.4 million at June 30, 2024 and 2023, respectively. Deferred inflows of resources were \$9.1 million and \$1.3 million at June 30, 2024 and 2023, respectively.

The following presents a summary of deferred outflows of resources and deferred inflows of resources at June 30, 2024 and 2023:

	2024	2023
Deferred outflows of resources:		
Difference between expected and actual experience	\$ 5,421	\$ 2,646
Changes of assumptions	6,363	12,067
Changes in proportion and differences between employer contributions and proportionate share of contributions	418	654
	<u>\$ 12,202</u>	<u>\$ 15,367</u>
Deferred inflows of resources:		
Difference between expected and actual experience	\$ 459	\$ 698
Net differences between projected and actual investment earnings on pension plan investments	8,221	146
Changes of assumptions	—	133
Changes in proportion and differences between employer contributions and proportionate share of contributions	400	328
	<u>\$ 9,080</u>	<u>\$ 1,305</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources at June 30, 2024 related to pensions will be recognized in pension expense as follows:

Year Ended June 30:

2025	\$ (3,064)
2026	3,274
2027	4,767
2028	(1,855)

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023

(dollars in thousands)

(e) Actuarial Assumptions

The total pension liability for the March 31, 2024 measurement date was determined by using an actuarial valuation as of April 1, 2023, with update procedures used to roll forward the total pension liability to March 31, 2024. The total pension liability for the March 31, 2023 measurement date was determined by using an actuarial valuation as of April 1, 2022, with update procedures used to roll forward the total pension liability to March 31, 2023. These actuarial valuations applied the following actuarial assumptions:

	2024	2023
Inflation	2.9%	2.9%
Salary scale	4.4%, indexed by service	4.4%, indexed by service
Investment rate of return, including inflation	5.9% compounded annually, net of investment expenses	5.9% compounded annually, net of investment expenses
Cost of living adjustments	1.5% annually	1.5% annually
Decrement	Developed from the Plan's experience study of the period April 1, 2015 through March 31, 2020	Developed from the Plan's experience study of the period April 1, 2015 through March 31, 2020
Mortality improvement	Society of Actuaries Scale MP-2021	Society of Actuaries Scale MP-2021

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected return, net of investment expenses 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 target allocation and best estimates of arithmetic real rates of return for each major asset class for the measurement period March 31, 2024 and 2023 are summarized in the following table:

Asset class	2024		2023	
	Target allocation	Long-term expected real rate of return	Target allocation	Long-term expected real rate of return
Domestic equity	32 %	4.00 %	32 %	4.30 %
International equity	15	6.65	15	6.85
Private equity	10	7.25	10	7.50
Real estate	9	4.60	9	4.60
Opportunistic/ARS portfolio	3	5.25	3	5.38
Credit	4	5.40	4	5.43
Real assets	3	5.79	3	5.84
Fixed income	23	1.50	23	1.50
Cash	1	0.25	1	—
	<u>100 %</u>		<u>100 %</u>	

(f) Discount Rate

The discount rate used to calculate the total pension liability was 5.9% for years ending March 31, 2024 and 2023. The projection of cash flows used to determine the discount rate assumes that contributions from plan members will be made at the current contribution rates and that contributions from employers will be made at statutorily required rates, actuarially determined. Based upon those assumptions, the ERS' fiduciary net position was projected to be available to

NOTES TO FINANCIAL STATEMENTS (continued)

June 30, 2024 and 2023
(dollars in thousands)

make all projected future benefit payments of current plan members. Therefore the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

(g) Sensitivity of the System’s Proportionate Share of the ERS Net Pension Liability

The following presents the System’s proportionate share of the ERS net pension liability calculated using the discount rate of 5.9% for the years ending June 30, 2024 and 2023, as well as what the System’s proportionate share of the ERS net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

System’s net pension liability (asset)					
	1% Decrease (4.9%)		Current discount rate (5.9%)		1% Increase (6.9%)
June 30, 2024	\$	52,913	\$	16,829	\$ (13,308)
June 30, 2023	\$	60,043	\$	24,846	\$ (4,565)

(10) System Employees’ Other Post-Employment Benefits

(a) Plan Description

The System’s Board established the Trust in 2008 to provide post-employment health insurance benefits. Contributions from the System to the Trust are irrevocable.

The Trust is a defined-benefit, single-employer other post-employment benefit (OPEB) plan that accumulates resources to pay current and future health insurance premiums for retired System employees and beneficiaries. The Trust is administered by a 10-member Board whose members are the same as the System Board. The Trust is a legally separate entity with standalone financial statements and required supplementary information, which can be found on the System’s website at nystsr.org. The fiduciary net position of the OPEB and changes in fiduciary net position of the OPEB have been determined on the same basis as they are reported in the financial statements of the Trust.

(b) Benefits

Pursuant to contractual agreement and policy, the System provides post-employment healthcare benefits to eligible System employees who retire from the System and reimburses Medicare-eligible retirees for their Medicare Part B premiums. The System is a voluntary participating employer in the New York State Health Insurance Program (NYSHIP), administered by the State of New York. Article XI of the New York State Civil Service Law assigns the authority to NYSHIP to establish and amend the benefit provisions of the plan and to establish maximum obligations of the plan members to contribute to the plan. The System’s Board is authorized to establish the contribution rates of System employees and retirees up to those set by Civil Service Law, and they are set as part of the collective bargaining process.

In order to be eligible, employees must have worked for at least 10 years for the System, retire directly from System employment, and commence receipt of their pension from ERS. Dependents may also be covered.

System retirees are required to contribute toward the cost of their coverage. Employees who retire on or after July 1, 1985 contribute an amount equal to the percentage dictated in the following rate schedule of the medical premium paid by the System, subject to a maximum retiree contribution related to pay at retirement. Retirees pay 10% of the vision plan premium.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

Effective Period	Retiree Contribution
January 1, 2020 to December 31, 2023	14%
January 1, 2024 and after	15%

Employees who retire on or after April 1, 1991 are eligible to have accumulated unused sick leave converted into a credit to offset their contribution requirement.

As of June 30, 2024, 705 participants including 386 current employees and 319 retired and/or spouses of retired employees participated in the healthcare plan. As of June 30, 2023, 689 participants including 371 current employees and 318 retired and/or spouses of retired employees participated in the healthcare plan.

(c) Employer Contribution

The employer contribution, or funding, of the System's OPEB obligation is at the discretion of the System's management and Board. The System's current policy is to prefund benefits by contributing an amount that is, at a minimum, equal to the ADC. At June 30, 2024 and 2023, the Trust recognized contributions of \$6.9 million and \$6.4 million, respectively, which were approximately 100.0% and 100.0% of the ADC or 19.2% and 18.0% of covered payroll, respectively.

(d) OPEB Liabilities, OPEB Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

At June 30, 2024 and 2023, the System reported a net OPEB liability of \$50.7 million and \$48.8 million, respectively. The June 30, 2024 OPEB liability was determined using an actuarial valuation as of July 1, 2022, with update procedures used to roll forward the total OPEB liability to the measurement date of June 30, 2023. The total OPEB liability at June 30, 2023 was determined using an actuarial valuation as of July 1, 2021, with update procedures used to roll forward the total OPEB liability to June 30, 2022.

For the years ended June 30, 2024 and 2023, the System recognized OPEB expense of \$7.1 million and \$5.1 million, respectively.

Deferred outflows of resources were \$15.7 million for June 30, 2024 and \$15.1 million for June 30, 2023. Deferred inflows of resources were \$1.3 million at June 30, 2024 and \$2.2 million at June 30, 2023.

The following presents a summary of deferred outflows of resources and deferred inflows of resources at June 30, 2024 and 2023:

Reporting Date	2024	2023
Deferred outflows of resources:		
Difference between expected and actual experience	\$ 2,118	\$ 1,842
Changes in assumptions	5,429	2,387
Net difference between projected and actual earnings	1,262	4,480
Contributions subsequent to the measurement date	6,910	6,394
	<u>\$ 15,719</u>	<u>\$ 15,103</u>
Deferred inflows of resources:		
Difference between expected and actual experience	\$ 27	\$ 240
Changes in assumptions	1,253	2,009
Net difference between projected and actual earnings	—	—
	<u>\$ 1,280</u>	<u>\$ 2,249</u>

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

Amounts reported as deferred outflows and deferred inflows of resources will be recognized in OPEB expense as follows:

Year ended June 30:

2025 \$	1,765
2026 \$	1,429
2027 \$	2,993
2028 \$	410
2029 \$	932
Thereafter \$	—

(e) Actuarial Assumptions

	2024	2023
Valuation date	July 1, 2022	July 1, 2021
Investment rate of return	6.50%	6.50%
Payroll increase rate	3.00%	3.00%
Salary increase rate	Varies by service from 3.00%-8.00%	Varies by service from 3.00%-8.00%
Maximum retiree contribution based on salary at retirement	Increase \$100 per year after 2024	Increase \$100 per year after 2025
Healthcare cost and premium trend rates:		
Non-Medicare	6.50% in 2023, 8.0% in 2024 graded to 4.14% over 19 years	7.40% graded to 4.34% over 19 years
Medicare	6.90% in 2023, 8.82% in 2024 graded to 4.31% over 19 years	8.45% graded to 4.34% over 19 years
Medicare Part B	5.00% graded to 3.50% over 20 years	3.50%
Blended Medicare	6.50% graded to 4.14% over 20 years	7.41% graded to 4.16% over 19 years
Pre-retirement mortality	The Pub-2010 General Employee Headcount-Weighted Mortality table [PubG.H-2010 Employee] as published by the SOA with an 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020. All pre-retirement deaths are assumed ordinary deaths.	The Pub-2010 General Employee Headcount-Weighted Mortality table [PubG.H-2010 Employee] as published by the SOA with an 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020. All pre-retirement deaths are assumed ordinary deaths.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

Post-retirement mortality

- **Healthy Retirees:** The Pub-2010 General Healthy Retiree Headcount-Weighted Mortality table [PubG.H-2010 Healthy Retiree] as published by the SOA with a 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020.
- **Beneficiaries:** Pub-2010 General Contingent Survivors Headcount-Weighted Mortality [PubG.H-2010 Contingent Survivors] as published by the SOA with a 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020.
- **Disabled Retirees:** The Pub-2010 General Disabled Retiree Headcount-Weighted Mortality table [PubG.H-2010 Disabled Retiree] as published by the SOA with a 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020.

Banked sick leave

Participants are assumed to accrue 4.74 days of unused sick leave per year and use 100% of accumulated leave at retirement for the sick leave offset.

Participants are assumed to accrue 4.74 days of unused sick leave per year and use 100% of accumulated leave at retirement for the sick leave offset.

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best estimate ranges of expected future rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These returns 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.

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation as of June 30, 2023 and June 30, 2022 are summarized in the following table:

Long-Term Expected Real Rate of Return*		
Asset Class	2023	2022
Domestic equity	5.41 %	5.62 %
International equity	6.27	6.49
Domestic fixed income	-0.21	-0.25
Cash equivalents	-0.70	-0.69

* Real rates of return are net of the long-term inflation assumption of 2.70% and 2.60% for 2023 and 2022, respectively.

(f) Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

Healthcare cost trend rates measure the anticipated overall rate at which health plan costs are expected to increase in future years. The following presents the net OPEB liability of the System using the healthcare cost trend rates presented previously in the actuarial assumptions, as well as what the System's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the applied healthcare cost trend rates:

System's Net OPEB Liability			
Reporting Date	1% Decrease	Current Healthcare Cost Trend Rates	1% Increase
June 30, 2024	\$ 35,140	\$ 50,668	\$ 69,772
June 30, 2023	35,496	48,847	65,199

(g) Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2024 and 2023 was 6.50%. The projection of cash flows used to determine the discount rate assumed that contributions would be made at rates equal to the actuarially determined contribution rates. Based on these assumptions, the OPEB Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan participants. Therefore, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

(h) Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the System as well as what the System's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the applied rate:

System's Net OPEB Liability			
Reporting Date	1% Decrease	Current Discount Rate	1% Increase
June 30, 2024	\$ 66,907	\$ 50,668	\$ 37,291
June 30, 2023	63,460	48,847	36,788

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

(11) Risk Management

The System is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; job-related illnesses or injuries to employees; and certain natural disasters for which the System carries commercial insurance. There were no settlements in the past three years that exceeded coverage. Management of the System believes there would be no material adverse effect on the financial statements as a result of the outcome of these matters if they occur.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE SCHOOL DISTRICTS' NET PENSION LIABILITY (ASSET) (UNAUDITED)

(Last Ten Fiscal Years)

(dollars in thousands)

	2024	2023	2022	2021	2020
Total pension liability					
Service cost ¹	\$ 1,871,743	\$ 1,809,524	\$ 1,751,453	\$ 1,755,405	\$ 1,563,222
Interest	9,556,552	9,259,036	8,959,475	8,752,345	8,418,885
Changes of benefit terms	54,880	12,101	10,091	—	678
Differences between expected and actual experience	1,435,687	1,635,898	251,733	558,905	1,169,842
Changes of assumptions	—	—	69,931	4,241,884	(285,424)
Benefit payments, incl. refunds of member contributions	(8,446,157)	(8,234,911)	(7,978,624)	(7,731,900)	(7,503,901)
Net change in total pension liability	4,472,705	4,481,648	3,064,059	7,576,639	3,363,302
Total pension liability — beginning	138,365,122	133,883,474	130,819,415	123,242,776	119,879,474
Total pension liability — ending (a)	\$ 142,837,827	\$ 138,365,122	\$ 133,883,474	\$ 130,819,415	\$ 123,242,776
Plan fiduciary net position					
Contributions — employer	\$ 1,874,459	\$ 1,899,885	\$ 1,735,255	\$ 1,618,437	\$ 1,504,688
Contributions — member	258,472	221,152	190,853	159,874	145,034
Net investment income	14,984,823	11,439,286	(10,078,814)	33,668,008	3,923,633
Benefit payments, incl. refunds of member contributions	(8,446,157)	(8,234,911)	(7,978,624)	(7,731,900)	(7,503,901)
Administrative expenses	(88,042)	(79,298)	(61,230)	(55,492)	(71,385)
Other	16,343	10,841	8,685	10,025	3,955
Net change in plan fiduciary net position	8,599,898	5,256,955	(16,183,875)	27,668,952	(1,997,976)
Plan fiduciary net position — beginning	137,221,537	131,964,582	148,148,457	120,479,505	122,477,481
Cumulative effect of change in accounting principle	—	—	—	—	—
Beginning balance as restated	137,221,537	131,964,582	148,148,457	120,479,505	122,477,481
Plan fiduciary net position — ending (b)	\$ 145,821,435	\$ 137,221,537	\$ 131,964,582	\$ 148,148,457	\$ 120,479,505
School districts' net pension liability (asset) — ending (a) — (b)	\$ (2,983,608)	\$ 1,143,585	\$ 1,918,892	\$ (17,329,042)	\$ 2,763,271

See accompanying independent auditors' report.

¹Service cost includes the normal cost attributable to employee contributions.

REQUIRED SUPPLEMENTARY INFORMATION (continued)

SCHEDULE OF CHANGES IN THE SCHOOL DISTRICTS' NET PENSION LIABILITY (ASSET)

(UNAUDITED) (continued)

(Last Ten Fiscal Years)

(dollars in thousands)

	2019	2018	2017	2016	2015
Total pension liability					
Service cost ¹	\$ 1,528,402	\$ 1,319,513	\$ 1,292,143	\$ 1,181,609	\$ 1,396,824
Interest	8,189,405	8,224,221	7,988,167	7,809,566	7,611,757
Changes of benefit terms	815	—	—	—	—
Differences between expected and actual	753,802	964,258	727,895	(111,652)	(161,043)
Changes of assumptions	(1,392,886)	—	3,045,909	7,085,423	—
Benefit payments, incl. refunds of member contributions	(7,307,318)	(7,108,999)	(6,923,037)	(6,719,866)	(6,531,140)
Net change in total pension liability	1,772,220	3,398,993	6,131,077	9,245,080	2,316,398
Total pension liability — beginning	118,107,254	114,708,261	108,577,184	99,332,104	97,015,706
Total pension liability — ending (a)	\$ 119,879,474	\$ 118,107,254	\$ 114,708,261	\$ 108,577,184	\$ 99,332,104
Plan fiduciary net position					
Contributions — employer	\$ 1,774,646	\$ 1,597,139	\$ 1,857,359	\$ 2,046,562	\$ 2,633,682
Contributions — member	136,610	131,595	129,770	124,587	119,411
Net investment income	8,023,180	9,928,011	12,951,892	2,392,354	5,400,265
Benefit payments, incl. refunds of member contributions	(7,307,318)	(7,108,999)	(6,923,037)	(6,719,866)	(6,531,140)
Administrative expenses	(74,242)	(60,610)	(61,611)	(60,426)	(56,948)
Other	9,087	9,278	7,845	4,014	3,213
Net change in plan fiduciary net position	2,561,963	4,496,414	7,962,218	(2,212,775)	1,568,483
Plan fiduciary net position — beginning	119,915,518	115,468,360	107,506,142	109,718,917	108,155,083
Cumulative effect of change in accounting principle	—	(49,256)	—	—	(4,649)
Beginning balance as restated	119,915,518	115,419,104	107,506,142	109,718,917	108,150,434
Plan fiduciary net position — ending (b)	\$ 122,477,481	\$ 119,915,518	\$ 115,468,360	\$ 107,506,142	\$ 109,718,917
School districts' net pension liability (asset) — ending (a) — (b)	\$ (2,598,007)	\$ (1,808,264)	\$ (760,099)	\$ 1,071,042	\$ (10,386,813)

See accompanying independent auditors' report.

¹Service cost includes the normal cost attributable to employee contributions.

REQUIRED SUPPLEMENTARY INFORMATION *(continued)*

SCHEDULE OF THE SCHOOL DISTRICTS' NET PENSION LIABILITY (ASSET) (UNAUDITED)

(Last Ten Fiscal Years)

(dollars in thousands)

	2024	2023	2022	2021	2020
Total pension liability	\$ 142,837,827	\$ 138,365,122	\$ 133,883,474	\$ 130,819,415	\$ 123,242,776
Plan fiduciary net position	145,821,435	137,221,537	131,964,582	148,148,457	120,479,505
School districts' net pension liability (asset)	<u>\$ (2,983,608)</u>	<u>\$ 1,143,585</u>	<u>\$ 1,918,892</u>	<u>\$ (17,329,042)</u>	<u>\$ 2,763,271</u>
Plan fiduciary net position as a percentage of the total pension liability	102.1%	99.2%	98.6%	113.2%	97.8%
Covered payroll	\$19,093,538	\$18,469,130	\$17,715,273	\$16,973,207	\$16,973,171
School districts' net pension liability (asset) as a percentage of covered payroll	(15.6)%	6.2%	10.8%	(102.1)%	16.3%

SCHEDULE OF THE SCHOOL DISTRICTS' CONTRIBUTIONS (UNAUDITED)

(Last Ten Fiscal Years)

(dollars in thousands)

	2024	2023	2022	2021	2020
Actuarially determined contribution	\$ 1,863,529	\$ 1,900,474	\$ 1,736,097	\$ 1,617,547	\$ 1,503,823
Contributions in relation to the actuarially determined contribution	1,863,529	1,900,474	1,736,097	1,617,547	1,503,823
Contribution deficiency	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Covered payroll	\$ 19,093,538	\$ 18,469,130	\$ 17,715,273	\$ 16,973,207	\$ 16,973,171
Contributions as a percentage of covered payroll	9.76%	10.29%	9.80%	9.53%	8.86%

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION *(continued)***SCHEDULE OF THE SCHOOL DISTRICTS' NET PENSION LIABILITY (ASSET) (UNAUDITED)** *(continued)*

(Last Ten Fiscal Years)

(dollars in thousands)

	2019	2018	2017	2016	2015
Total pension liability	\$ 119,879,474	\$ 118,107,254	\$ 114,708,261	\$ 108,577,184	\$ 99,332,104
Plan fiduciary net position	122,477,481	119,915,518	115,468,360	107,506,142	109,718,917
School districts' net pension liability (asset)	<u>\$ (2,598,007)</u>	<u>\$ (1,808,264)</u>	<u>\$ (760,099)</u>	<u>\$ 1,071,042</u>	<u>\$ (10,386,813)</u>
Plan fiduciary net position as a percentage of the total pension liability	102.2%	101.5%	100.7%	99.0%	110.5%
Covered payroll	\$16,691,626	\$16,288,884	\$15,846,705	\$15,431,009	\$15,021,357
School districts' net pension liability (asset) as a percentage of covered payroll	(15.6)%	(11.1)%	(4.8)%	6.9%	(69.1)%

SCHEDULE OF THE SCHOOL DISTRICTS' CONTRIBUTIONS (UNAUDITED) *(continued)*

(Last Ten Fiscal Years)

(dollars in thousands)

	2019	2018	2017	2016	2015
Actuarially determined contribution	\$ 1,772,651	\$ 1,596,311	\$ 1,857,234	\$ 2,046,152	\$ 2,633,244
Contributions in relation to the actuarially determined contribution	1,772,651	1,596,311	1,857,234	2,046,152	2,608,266
Contribution deficiency	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 24,978</u>
Covered payroll	\$ 16,691,626	\$ 16,288,884	\$ 15,846,705	\$ 15,431,009	\$ 15,021,357
Contributions as a percentage of covered payroll	10.62%	9.8%	11.72%	13.26%	17.36%

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION *(continued)*

SCHEDULE OF INVESTMENT RETURNS (UNAUDITED)

(Last Ten Fiscal Years)

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Annual money-weighted rate of return, net of investment expense	11.08%	9.16%	(7.12)%	28.97%	3.32%	6.93%	8.95%	13.05%	2.28%	5.18%

See accompanying independent auditors' report.

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REQUIRED SUPPLEMENTARY INFORMATION *(continued)*

SCHEDULE OF NYSTRS' PROPORTIONATE SHARE OF THE NET PENSION LIABILITY NEW YORK STATE AND LOCAL EMPLOYEES' RETIREMENT SYSTEM (ERS)

(Last Ten Fiscal Years)

(dollars in thousands)

	2024	2023	2022	2021	2020
System's proportion of the net pension liability	0.1142988 %	0.1158665 %	0.1207750 %	0.1108277 %	0.1120455 %
System's proportionate share of the net pension (asset) liability	\$ 16,829	\$ 24,846	\$ (9,873)	\$ 110	\$ 29,670
System's covered payroll	36,267	33,958	33,723	33,483	31,107
System's proportionate share of the net pension liability as a percentage of covered payroll	46.4 %	71.9 %	(29.0)%	— %	94.3 %
ERS fiduciary net position as a percentage of the total pension liability	93.88 %	90.78 %	103.65 %	99.95 %	86.39 %

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION *(continued)***SCHEDULE OF NYSTRS' PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
NEW YORK STATE AND LOCAL EMPLOYEES' RETIREMENT SYSTEM (ERS)** *(continued)*

(Last Ten Fiscal Years)

(dollars in thousands)

	2019	2018	2017	2016	2015
System's proportion of the net pension liability	0.1095732 %	0.1115115 %	0.1098533 %	0.1095719 %	0.1028788 %
System's proportionate share of the net pension (asset) liability	\$ 7,764	\$ 3,599	\$ 10,322	\$ 17,587	\$ 3,475
System's covered payroll	30,235	29,464	28,749	28,074	27,295
System's proportionate share of the net pension liability as a percentage of covered payroll	25.4 %	12.1 %	35.6 %	62.3 %	12.4 %
ERS fiduciary net position as a percentage of the total pension liability	96.27 %	98.24 %	94.70 %	90.70 %	97.90 %

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION (continued)

SCHEDULE OF NYSTRS' CONTRIBUTIONS (UNAUDITED)
NEW YORK STATE AND LOCAL EMPLOYEES' RETIREMENT SYSTEM (ERS)

(Last Ten Fiscal Years)

(dollars in thousands)

	2024	2023	2022	2021	2020
Actuarially determined contribution	\$ 4,416	\$ 3,860	\$ 5,377	\$ 4,499	\$ 4,360
Contributions in relation to the actuarially determined contribution	4,416	3,860	5,377	4,499	4,360
Contribution deficiency	\$ —	\$ —	\$ —	\$ —	\$ —
Covered payroll	\$ 36,267	\$ 34,551	\$ 34,055	\$ 33,718	\$ 31,466
Contributions as a percentage of covered payroll	12.18 %	11.17 %	15.79 %	13.34 %	13.86 %

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION *(continued)*

SCHEDULE OF NYSTRS' CONTRIBUTIONS (UNAUDITED)

NEW YORK STATE AND LOCAL EMPLOYEES' RETIREMENT SYSTEM (ERS) *(continued)*

(Last Ten Fiscal Years)

(dollars in thousands)

	2019	2018	2017	2016	2015
Actuarially determined contribution	\$ 4,308	\$ 4,310	\$ 4,318	\$ 5,289	\$ 5,131
Contributions in relation to the actuarially determined contribution	4,308	4,310	4,318	5,289	5,131
Contribution deficiency	\$ —	\$ —	\$ —	\$ —	\$ —
Covered payroll	\$ 30,546	\$ 29,728	\$ 28,994	\$ 28,251	\$ 28,067
Contributions as a percentage of covered payroll	14.10 %	14.50 %	14.89 %	18.72 %	18.28 %

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION (continued)

SCHEDULE OF CHANGES IN THE SYSTEM'S NET OPEB LIABILITY AND RELATED RATIOS (UNAUDITED)

(Last Eight Fiscal Years)

(dollars in thousands)

Reporting Date:	2024	2023	2022	2021	2020
Measurement Date:	2023	2022	2021	2020	2019
Total OPEB liability:					
Service cost	\$ 3,376	3,069	2,985	\$ 2,915	\$ 2,907
Interest	6,958	6,588	6,586	6,622	6,169
Changes of benefit terms	(622)	—	—	(9,789)	—
Differences between expected and actual experience	916	870	1,259	79	714
Changes of assumptions	4,678	—	(2,450)	4,039	1,102
Benefit payments	(5,439)	(4,835)	(4,527)	(4,413)	(3,965)
Net change in total OPEB liability	9,867	5,692	3,853	(547)	6,927
Total OPEB liability - beginning	106,355	100,663	96,810	97,357	90,430
Total OPEB liability - ending (a)	\$ 116,221	106,355	100,663	\$ 96,810	\$ 97,357
Plan fiduciary net position:					
Contributions - employer	\$ 6,394	6,000	6,261	\$ 6,004	\$ 5,500
Net investment income	7,105	(9,584)	14,535	2,673	3,155
Benefit payments	(5,439)	(4,835)	(4,527)	(4,413)	(3,965)
Professional fees and services	(14)	56	(20)	(66)	(19)
Net change in plan fiduciary net position	8,046	(8,363)	16,248	4,199	4,671
Plan fiduciary net position - beginning	57,508	65,871	49,622	45,424	40,752
Plan fiduciary net position - ending (b)	\$ 65,553	57,508	65,871	\$ 49,622	\$ 45,424
System's net OPEB liability - ending (a) - (b)	\$ 50,668	48,847	34,792	\$ 47,187	\$ 51,933
Plan fiduciary net position as a percentage of the total OPEB liability	56.40 %	54.07 %	65.44 %	51.26 %	46.66 %
Covered payroll	\$ 35,579	35,423	33,142	\$ 32,125	\$ 31,189
System's net OPEB liability as a percentage of covered payroll	142.41 %	137.90 %	104.98 %	146.89 %	166.51 %

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION *(continued)*SCHEDULE OF CHANGES IN THE SYSTEM'S NET OPEB LIABILITY AND RELATED RATIOS
(UNAUDITED) *(continued)*

(Last Eight Fiscal Years)

(dollars in thousands)

Reporting Date:	2019	2018	2017
Measurement Date:	2018	2017	2016
Total OPEB liability:			
Service cost	\$ 2,604	\$ 2,491	\$ 2,579
Interest	5,747	5,959	5,589
Changes of benefit terms	6,211	—	—
Differences between expected and actual experience	(842)	(2,166)	400
Changes of assumptions	(878)	(5,849)	—
Benefit payments	(3,757)	(3,412)	(2,980)
Net change in total OPEB liability	9,085	(2,977)	5,589
Total OPEB liability - beginning	81,344	84,321	78,732
Total OPEB liability - ending (a)	\$ 90,430	\$ 81,344	\$ 84,321
Plan fiduciary net position:			
Contributions - employer	\$ 5,500	\$ 5,500	\$ 5,500
Net investment income	3,213	4,212	382
Benefit payments	(3,757)	(3,412)	(2,980)
Professional fees and services	(53)	(15)	(13)
Net change in plan fiduciary net position	4,902	6,285	2,890
Plan fiduciary net position - beginning	35,850	29,565	26,675
Plan fiduciary net position - ending (b)	\$ 40,752	\$ 35,850	\$ 29,565
System's net OPEB liability - ending (a) - (b)	\$ 49,677	\$ 45,494	\$ 54,756
Plan fiduciary net position as a percentage of the total OPEB liability	45.07 %	44.07 %	35.06 %
Covered payroll	\$ 30,683	\$ 29,753	\$ 29,087
System's net OPEB liability as a percentage of covered payroll	161.90 %	152.91 %	188.25 %

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION *(continued)*

SCHEDULE OF SYSTEM AND OTHER CONTRIBUTING ENTITY CONTRIBUTIONS (UNAUDITED)

(Last Ten Fiscal Years)

(dollars in thousands)

	2024	2023	2022	2021	2020
Actuarially determined contribution	\$ 6,910	\$ 6,394	\$ 5,340	\$ 5,822	\$ 5,958
Contributions in relation to the actuarially determined contribution:					
System	6,910	6,394	6,000	6,261	6,004
Other contributing entity	—	—	—	—	—
Total contributions	6,910	6,394	6,000	6,261	6,004
Contribution deficiency (excess)	\$ —	\$ —	\$ (660)	\$ (439)	\$ (46)
Covered payroll	\$ 35,992	\$ 35,579	\$ 35,423	\$ 33,142	\$ 32,125
Contributions as a percentage of covered payroll	19.20 %	17.97 %	16.94 %	18.89 %	18.69 %

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION *(continued)*

SCHEDULE OF SYSTEM AND OTHER CONTRIBUTING ENTITY CONTRIBUTIONS (UNAUDITED)

(continued)

(Last Ten Fiscal Years)

(dollars in thousands)

	2019	2018	2017	2016	2015
Actuarially determined contribution	\$ 5,349	\$ 5,279	\$ 5,374	\$ 4,782	\$ 4,542
Contributions in relation to the actuarially determined contribution:					
System	5,500	5,500	5,500	5,500	5,500
Other contributing entity	—	—	—	—	—
Total contributions	5,500	5,500	5,500	5,500	5,500
Contribution deficiency (excess)	\$ (151)	\$ (221)	\$ (126)	\$ (718)	\$ (958)
Covered payroll	\$ 31,189	\$ 30,683	\$ 29,753	\$ 29,087	\$ 26,507
Contributions as a percentage of covered payroll	17.63 %	17.93 %	18.49 %	18.91 %	20.75 %

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION (continued)

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) (Last Ten Fiscal Years)

Method and assumptions used in calculations of school districts' Total Pension Liability (TPL)

Changes of benefit terms. Effective with the 2024 actuarial valuation, the following plan change was effective: Chapter 56 of the Laws of 2024 amended Section 512 of Retirement and Social Security Law to change the definition of final average salary (FAS) for Tier 6 members to be based on the wages earned during any three consecutive years which provide the highest average wages, instead of five years. This legislation also reduced the lookback to the same requirements as applicable to Tier 4; namely, the FAS calculation will exclude any yearly increases in salary that exceeds 10% of the average of the previous two years' salaries.

Changes of assumptions. Actuarial assumptions are revised periodically to more closely reflect actual, as well as anticipated future experience. The actuarial assumptions were revised and adopted by the Retirement Board on October 28, 2021 and first used in the 2021 determination of the Total Pension Liability.

The System's long-term rate of return assumption for purposes of the NPL is 6.95%, effective with the 2021 actuarial valuation. For the 2020 and 2019 actuarial valuations, the System's long-term rate of return assumption was 7.10%. For the 2018 and 2017 actuarial valuations, the System's long-term rate of return assumption was 7.25%. For the 2016 actuarial valuation, the System's long-term rate of return assumption was 7.50%. Prior to the 2016 actuarial valuation, the System's long-term rate of return was 8.00%.

The System's assumed annual inflation rate is 2.40%. For the 2019 and 2020 actuarial valuations, the System's annual inflation assumption was 2.20%. For the 2018 and 2017 actuarial valuations, the System's annual inflation assumption was 2.25%. For the 2016 actuarial valuation, the System's annual inflation assumption was 2.50%. Prior to the 2016 actuarial valuation, the System's annual inflation assumption was 3.00%.

Effective with the 2019 actuarial valuation, the COLAs are projected to increase at a rate of 1.30% annually. Effective with the 2015 actuarial valuation, COLAs were projected to increase at a rate of 1.50% annually. Prior to the 2015 actuarial valuation, COLAs were projected to increase at a rate of 1.625% annually.

Effective with the 2022 actuarial valuation, the assumed scale for mortality improvement was changed from MP2020 to MP2021. Effective with the 2021 actuarial valuation, the assumed scale for mortality improvement was changed from MP2019 to MP2020. Effective with the 2020 actuarial valuation, the assumed scale for mortality improvement was changed from MP2018 to MP2019. Effective with the 2019 actuarial valuation, the assumed scale for mortality improvement was changed from MP2014 to MP2018.

See accompanying independent auditors' report.

REQUIRED SUPPLEMENTARY INFORMATION (continued)**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)** (continued)
(Last Ten Fiscal Years)*Method and assumptions used in calculations of school districts' actuarially determined contributions*

The actuarially determined contribution rates in the schedule of school districts' contributions are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine school districts' contributions in 2024. For assumptions and plan provisions used in contributions reported for years prior to 2024, refer to the Annual Actuarial Report for two years prior to the end of the fiscal year in which contributions are reported.

Valuation Date	June 30, 2022										
Actuarial cost method	Aggregate (level percent of payroll)*										
Amortization method	n/a*										
Remaining amortization period	n/a*										
Asset valuation method	Five-year phased-in deferred recognition of each year's net investment income/loss in excess of (or less than) the assumed valuation rate of interest at a rate of 20.0% per year, until fully recognized after 5 years.										
Inflation	2.40%										
Projected salary increases	Rates of increase differ based on service. They have been calculated based upon recent NYSTRS member experience.										
	<table> <tr> <th><u>Service</u></th><th><u>Rate</u></th></tr> <tr> <td>5</td><td>5.18%</td></tr> <tr> <td>15</td><td>3.64</td></tr> <tr> <td>25</td><td>2.50</td></tr> <tr> <td>35</td><td>1.95</td></tr> </table>	<u>Service</u>	<u>Rate</u>	5	5.18%	15	3.64	25	2.50	35	1.95
<u>Service</u>	<u>Rate</u>										
5	5.18%										
15	3.64										
25	2.50										
35	1.95										
Projected COLAs	1.3% compounded annually										
Valuation rate of interest	6.95% compounded annually, net of pension plan investment expense.										

**The System is funded in accordance with the Aggregate Cost Method, which does not identify or separately amortize unfunded actuarial liabilities. Costs are determined by amortizing the unfunded present value of benefits over the average future working lifetime of active plan members, which currently for NYSTRS is approximately 12.50 years.*

Base Rates of Mortality: Rates differ by member status, age and gender. They have been calculated based upon recent NYSTRS member experience.

Base Rates of Mortality*					
Active Members			Retired Members		
Age	Male	Female	Age	Male	Female
30	0.03%	0.02%	60	0.35%	0.26%
40	0.05	0.03	70	0.94	0.62
50	0.10	0.07	80	3.84	2.62
60	0.26	0.16	90	13.57	10.98
Disabled Members			Survivor and Beneficiaries		
Age	Male	Female	Age	Male	Female
30	0.47%	0.34%	30	0.04%	0.02%
40	0.77	0.72	40	0.07	0.04
60	2.65	2.14	60	0.64	0.41
80	6.96	5.95	80	4.52	3.27

Key Methods and Assumptions Used to Determine OPEB Contribution Rates:

Asset Valuation Method:	Market Value
Amortization Method:	30-Year Closed Amortization, level percentage of payroll
Remaining Amortization Period:	23 years as of July 1, 2023
Discount Rate:	6.50% per annum
Expected Return on Assets:	6.50% per annum
Salary Increases:	Varies by service from 3.00%-8.00%
Healthcare cost and premium trend rates:	
Non-Medicare	6.50% in 2023, 8.0% in 2024 graded to 4.14% over 19 years
Medicare	6.90% in 2023, 8.8% in 2024 graded to 4.31% over 19 years
Medicare Part B	5.00% graded to 3.50% over 20 years
Blended Medicare	6.50% graded to 4.14% over 20 years
Pre-Retirement Mortality:	The Pub-2010 General Employee Headcount-Weighted Mortality table [PubG.H-2010 Employee] as published by the SOA with an 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020. All pre-retirement deaths are assumed ordinary deaths.
Healthy Retirees Mortality:	The Pub-2010 General Healthy Retiree Headcount-Weighted Mortality table [PubG.H-2010 Healthy Retiree] as published by the SOA with a 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020.
Beneficiaries:	The Pub-2010 General Contingent Survivors Headcount-Weighted Mortality [PubG.H-2010 Contingent Survivors] as published by the SOA with a 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020.
Disabled Retirees:	The Pub-2010 General Disabled Retiree Headcount-Weighted Mortality table [PubG.H-2010 Disabled Retiree] as published by the SOA with a 98.75% adjustment for both males and females, and with future improvement from the base year of 2010 on a generational basis using SOA's Scale MP-2020.

See accompanying independent auditors' report.

OTHER SUPPLEMENTARY SCHEDULES

SCHEDULES OF ADMINISTRATIVE EXPENSES

Years ended June 30, 2024 and 2023

(dollars in thousands)

	2024	2023
Salaries and benefits:		
Salaries	\$ 42,492	\$ 37,245
Civil service	59	63
Employees retirement	6,116	5,286
Health and dental insurance	15,056	13,517
Overtime salaries	85	58
Social Security	3,004	2,594
Total salaries and benefits	66,812	58,763
Building occupancy expenses:		
Building, grounds and equipment	\$ 1,683	\$ 2,660
Depreciation - building and improvements	1,991	1,954
Depreciation - equipment	109	126
Office supplies and expenses	176	185
Utilities and municipal assessments	983	1,101
Total building occupancy expenses	4,942	6,026
Computer expenses:		
Amortization/depreciation - computer equipment	\$ 1,052	\$ 906
Computer hardware and software	6,292	4,908
Computer maintenance and supplies	—	—
Total computer expenses	7,344	5,814
Personnel and meeting expenses:		
Board - meetings, travel and education	\$ 71	\$ 83
Delegates meeting	101	632
Pre-retirement seminars	58	5
Professional development	1,119	855
Travel and automobile expense	304	211
Other personnel expenses	198	170
Total personnel and meeting expenses	1,851	1,956
Professional and governmental services:		
Auditors - financial*	\$ 259	\$ 461
Auditors - Department of Financial Services	—	—
Disability medical examinations	80	80
Postage and cartage	1,035	863
Professional fees and outside services	1,219	1,322
Publications	215	255
Statutory custodian charges	146	141
Project Costs - Professional Fees	978	—
Total professional and governmental services	3,932	3,122
Total administrative fund expenses	84,881	75,681
Reconciliation of contribution expense to pension and OPEB expense	3,161	3,617
Total Administrative Expenses	\$ 88,042	\$ 79,298

*Presented on an accrual basis for 2023. Expenses incurred in fiscal year 2024 when services performed.

See accompanying independent auditors' report.

OTHER SUPPLEMENTARY SCHEDULES *(continued)*

SCHEDULES OF INVESTMENT EXPENSES

Years ended June 30, 2024 and 2023

(dollars in thousands)

Investment Category	2024		2023	
	Fair Value of Assets Serviced or Under Management	Expenses	Fair Value of Assets Serviced or Under Management	Expenses
Externally managed/serviced assets:				
International equity	\$ 20,493,824	\$ 30,073	\$ 18,647,679	\$ 27,619
Real estate equity	15,642,343	152,193	16,464,297	128,485
Private equity	14,199,543	172,236	15,416,611	155,204
Real estate debt	6,398,587	28,752	6,050,162	24,817
Global equity	5,905,054	21,155	4,904,670	18,234
Global bonds	2,819,075	5,375	2,714,220	3,712
Domestic equity	1,795,269	3,375	1,397,214	2,792
Private debt	2,380,787	38,234	2,045,645	27,217
High-yield bonds	1,500,237	4,348	1,359,492	4,317
Sub-total	71,134,719	455,741	68,999,990	392,397
General expenses	—	16,305	—	16,365
Totals	\$ 71,134,719	\$ 472,046	\$ 68,999,990	\$ 408,762

See accompanying independent auditors' report.

OTHER SUPPLEMENTARY SCHEDULES *(continued)***SCHEDULE OF PROFESSIONAL FEES***

Year ended June 30, 2024

Fees in excess of \$5,000 for professional services other than those related to investments**

Name	Amount	Nature
Plante Moran PLLC	\$ 259,410	Accounting Services
INS Regulatory Insurance Services, Inc.	113,679	Regulatory Audit
CBIZ, Inc.	98,216	Insurance Consulting
NYS Department of Financial Services	44,555	Regulatory Audit
Independent Medical Evaluation Company, LLC	25,565	Independent Medical Examiners
Bolton Partners, Inc.	25,283	Actuarial Consulting
WCGS Architects, P.C.	22,982	Architectural and Engineering Services
Milliman, Inc.	20,038	Actuarial Consulting***
Quantum Engineering Co. P.C.	18,720	Architectural and Engineering Services
Stockbridge Risk Management Inc.	16,000	Insurance Consulting
Dr. Rajendra Singh, MD	14,906	Independent Medical Examiners
Cheiron, Inc.	12,150	Actuarial consulting
Groom Law Group, Chartered	9,504	Legal Services
Goldberger & Kremer	8,800	Legal Services
Bond, Schoeneck & King PLLC	6,548	Legal Services

*This schedule reflects fees paid for certain professional services and is not reflective of all outside services paid by NYSTRS.

**Information on investment advisors and investment fees can be found in the Annual Comprehensive Financial Report.

***Actuarial Services paid in conjunction with NYSTRS' regulatory audit by the NYS Department of Financial Services.

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REPORT ON INVESTMENT ACTIVITY FOR FISCAL YEAR ENDING JUNE 30, 2024

Overall Objectives and Performance

The Retirement System is committed to a disciplined, risk-controlled investment approach that focuses on thoughtful and prudent diversification of assets across a broad spectrum of capital market segments. The Retirement System's long-term investment philosophy has enabled us to provide retirement security to our members since 1921.

The Retirement System's net position at fiscal year-end was \$145.8 billion, and its funded ratio was 98.6% based on the June 30, 2023 actuarial value of assets.

The System's total fund return, net of fees, for the fiscal year ended June 30, 2024 was 11.4%, compared to the assumed rate of return of 6.95%. The System's 10-year and 30-year annualized net rates of return were 7.8% and 8.7%, respectively.

Fiscal Year in Review

Early in the System's 2024 fiscal year, the Federal Reserve increased its benchmark interest rate 25 basis points to a range of 5.25% to 5.50% where it stayed throughout the year. During this time, U.S. inflation remained elevated, but it continued to moderate from post-pandemic highs. The Federal Reserve remained committed to ensuring inflation was on a sustained path toward its 2% target without causing a significant worsening of the employment and growth outlook.

The domestic labor market continued to be tight as evidenced by the recent low, albeit rising, unemployment rate, which ended the fiscal year at 4.1%. Various measures of wage growth continued to be elevated relative to the pre-COVID period. U.S. economic growth was resilient despite the past two years of tightening monetary policy, supported by personal consumption, domestic investment and government spending.

With inflation measures trending toward target and the outlook for employment and growth softening, the Federal Reserve shifted the focus of its dual mandate toward full employment. Projections made by members of the Federal Open Market Committee, the monetary policy-setting arm of the Federal Reserve, indicated the outlook for its benchmark interest rate is lower over the coming years to address the risks of rising unemployment and lower growth.

In addition to maintaining a high policy rate, the Federal Reserve continued to remove accommodative monetary policy by reinvesting fewer maturing U.S. Treasury and mortgage-backed securities, which resulted in a \$1.1 trillion decline in its balance sheet.

Bond market volatility remained elevated during the fiscal year due to the shift in the outlook for inflation and the expected monetary policy response. Equity market volatility remained low due to continued earnings growth and declining recession fears.

Apart from the Bank of Japan, major global central banks were considering easier monetary policy or already cutting policy rates late in the System's fiscal year. During the System's 2025 fiscal year, the extent of monetary policy easing will depend on a continued gradual decline in inflation and the degree of weakness in labor markets.

Basis of Presentation

Following is an overview of how each asset class performed during the past fiscal year. Performance calculations are prepared using time-weighted rates of return and are net of fees unless otherwise indicated. Returns for periods of longer than one year are annualized.

Public Equities

Global equity markets maintained their strong upward momentum during the 2024 fiscal year as inflation returned to near-normal levels. Robust economic growth in the U.S. saw the S&P 1500 index, the System's policy benchmark for domestic equities, reach a new all-time high rising 23.5% for the period. Market leadership was concentrated in the largest technology stocks as investors remained confident in the prospects for artificial intelligence. International markets also posted gains for the fiscal year.

REPORT ON INVESTMENT ACTIVITY FOR FISCAL YEAR ENDING JUNE 30, 2024 *(continued)*

with the System's policy benchmark for international equities, the MSCI All Country World Ex-U.S. index, rising 11.6% over the period.

Staff responded to strong markets throughout the fiscal year, rebalancing the portfolio in accordance with NYSTRS' strategic asset allocation and providing liquidity for the System. At the end of the period, the public equity asset classes were close to their respective targets and remain well within their specified ranges.

Portfolio performance for the period was exceptional both in absolute and relative terms. A significant portion of the System's domestic and international equity allocations is invested in passive broad-market strategies that, as expected, generated returns in line with their respective policy benchmarks. The remaining assets, including the System's allocation to global equities, are invested in actively managed strategies that seek to generate returns in excess of the benchmark. These strategies, including those managed internally by staff, collectively outperformed for the period generating additional returns for the System.

The domestic equities allocation, which represented 34.3% of System assets at end of the fiscal year, generated a return of 23.9%. The international equities allocation, which represented 14.4% of System assets, returned 12.7%. The global equities allocation, which represented 4.1% of System assets, returned 19.5%.

Overall, NYSTRS' public equity investments generated a return of 20.4% for the fiscal year, net of fees. Over the past five years, the System's public equity investments have generated an average return of 11.9% per year.

Private Equity

The target allocation for private equity is 9.0% with a range of 4.0% to 14.0%. The System invests through partnership structures that generally cover periods of 10 years or more with the goal to achieve higher long-term returns than available through public markets. The program seeks to outperform the S&P 500 by 5% over the long term. The System is focused on investing with disciplined top-performing managers who have demonstrated an ability to prudently invest across varying macroeconomic backdrops and cycles while maintaining a strong alignment of interest with NYSTRS.

The System's private equity portfolio is comprised of buyout, growth/venture capital, co-investment and turnaround strategies that are accessed through a variety of vehicles including, but not limited to, commingled funds, fund of funds, secondary funds, and separately managed accounts.

The System has a mature private equity program diversified by investment strategy, industry and geographic focus. The program continues to focus on recommitting to its top-performing partnerships, while strategically adding new relationships that provide increased exposure to strategies with a track record of strong performance. The System will opportunistically seek to rebalance the private equity portfolio through secondary markets should pricing become compelling.

By fiscal year-end, the System had active commitments of \$21.0 billion and was valued at \$14.2 billion, representing 9.9% of the System's total assets. Unfunded commitments totaled \$5.9 billion. Over the last fiscal year, the private equity program returned 4.5%, versus the stated benchmark of 29.6%. Over the last 20 years, the private equity program returned 14.2%, versus the stated benchmark of 15.3%.

REPORT ON INVESTMENT ACTIVITY FOR FISCAL YEAR ENDING JUNE 30, 2024 *(continued)***Real Estate Equity**

The target allocation for real estate equity is 11.0% with a range of 6.0% to 16.0%. The System invests in equity real estate through privately owned properties, commingled funds, and public real estate securities. The portfolio is diversified by geography, property type and investment structures that provide various levels of liquidity. As of June 30, 2024, the actual amount of System assets invested was 10.9%. The equity real estate portfolio returned negative 3.6% for the fiscal year compared to the policy benchmark of negative 10.0%.

The unlevered private NCREIF Property Index (NPI) returned negative 5.3% for the fiscal year. All property types had valuation declines during the year but to varying degrees. Similar to last fiscal year, office properties continue to be the worst-performing sector. Property values declined 18.7% on top of the 18.4% drop in the prior fiscal year. The negative office returns have been driven by the continued impact of work from home and tenants occupying smaller footprints as building owners offer shared amenities to attract tenants. The decrease in tenant demand for space and the elevated level of vacancies has led owners to decrease rental rates and increase move-in allowances to attract tenants. Some tenants are also using this opportunity to move into newer buildings with more robust tenant amenities, which is creating a bifurcated market between these buildings and the older commodity buildings.

After significant increases in rental rates during the pandemic, residential properties have seen flat or declining rents coupled with increases in expenses due in large part to labor and insurance costs. With the higher costs of new construction, deliveries of new residential properties are expected to decline next year which may provide for some recovery in residential income and valuations.

Industrial properties also showed value declines as demand for space decreased at the same time as substantial new product was delivered. With secular trends continuing toward online shopping and companies returning to just-in-time warehouse inventories, we expect a tepid recovery in income and values as the new space is absorbed.

Similar to last year, retail property values remained relatively stable for grocery-anchored and necessity-based shopping centers. The high cost of debt continues to have an overarching impact on values of all property types, which has impacted the volume of transactions in the market. These conditions, however, have had a limited effect on property operating earnings.

The System's Real Estate department continues to focus on long-term demand drivers to identify property sectors and geographic regions poised to provide the strongest long-term earnings and overall risk-adjusted returns.

Fixed Income

NYSTRS manages its fixed income investments with a focus on preserving capital and generating cash flow to meet the System's current and growing \$8.4 billion annual retirement benefit obligation. These goals are accomplished by seeking returns with appropriate levels of risk. In order to mitigate risk, the System's internally and externally managed fixed income portfolios are well diversified by sector, issuer, and interest rate exposure. In addition, the System's internal and external portfolio managers actively monitor and manage risk while striving to generate returns in excess of their benchmarks and taking advantage of market opportunities as they arise.

The domestic, investment grade fixed income market, as measured by the Bloomberg U.S. Aggregate Float Adjusted Index, generated returns of 2.7% during the fiscal year. Short maturity issues outperformed and the yield curve steepened as the market priced in the beginning of a Federal Reserve easing cycle. Lower-rated and corporate sector issues also performed well with credit spreads continuing to tighten over the course of the year.

As of June 30, 2024, the internally managed domestic fixed income portfolio represented approximately 14.9% of System investments. The System's long-term bond portfolio's annualized return was 3.3% for the one-year period ended June 30, 2024 and 0.3% for the five-year period ended June 30, 2024. This compares to annualized benchmark returns of 2.7% for the one-year period and negative 0.2% for the five-year period. The one-year outperformance was largely attributable to the portfolio's lower interest rate risk and higher exposure to the corporate bond sector versus the benchmark.

REPORT ON INVESTMENT ACTIVITY FOR FISCAL YEAR ENDING JUNE 30, 2024 *(continued)*

In the global bond universe measured by the Bloomberg Global Aggregate Float Adjusted Ex-CNY Hedged to USD Bond Index, returns were 3.8% for the fiscal year ended June 30, 2024. Shorter maturity, lower rated, and credit sensitive issuers performed the best while longer maturity and global government bonds detracted from performance. European bond markets outperformed those in the U.S. and Asia.

As of June 30, 2024, approximately 1.9% of System assets were invested in externally managed global bond portfolios predominately hedged to U.S. dollars. Net of fees, for the one- and five-year periods, global bonds returned an annualized 4.1% and 0.3%, respectively. This compares to the annualized benchmark returns of 3.8% for the one-year period and negative 0.2% for the five-year period. For fiscal year 2024, the portfolio's overweight to spread product, lower credit quality tilt and shorter duration positioning contributed to the outperformance.

In the high-yield space, returns as measured by the ICE BofA BB-B U.S. High Yield Constrained Index were 10.1%. Long maturity and lower quality securities drove performance while the financial sector outperformed industrials and utilities.

As of June 30, 2024, approximately 1.1% of System assets were invested in externally managed high-yield portfolios. Net of fees for the one-year and five-year periods, the System's high-yield portfolio's annualized returns were 9.8% and 3.6%, respectively. Comparable annualized returns for the benchmark were 10.1% and 3.7%. Security selection drove underperformance for the fiscal year.

Private Debt

As of fiscal year-end, the target allocation for private debt was 2.0% with a range of 0.5% to 5.0% of total plan assets. Partnership structures typically cover periods of 10 years or more, with the objective of achieving a higher current yield than available through core/investment grade fixed income and high-yield securities. The program seeks to outperform the Morningstar LSTA U.S. Leveraged Loan Index by 3.0% over the long term.

The Retirement System's strategic focus is on small-to-middle market lenders who seek outsized returns through highly negotiated situations. Given the risk-return characteristics available in the marketplace, NYSTRS will continue to target U.S. dollar-denominated investment strategies to avoid taking currency risk.

The System's private debt portfolio is comprised of direct lending, mezzanine, and special situations investments accessed through a variety of investment vehicles including, but not limited to, commingled funds, separately managed accounts, and evergreen structures.

By fiscal year-end, the System had active commitments of \$4.4 billion and was valued at \$2.4 billion, representing 1.7% of the System's total assets. Unfunded commitments totaled \$1.7 billion. Over the last fiscal year, the private debt program returned a time-weighted one-year return of 10.0% versus the stated benchmark time-weighted one-year return of 14.1%. Over the last five years, the private debt program returned 9.2% versus the stated benchmark of 8.5%.

Real Estate Debt

As of fiscal year-end, the target allocation for real estate debt was 6.0% with a range of 2.0% to 10.0%. The System invests in real estate debt through directly held first mortgages, public real estate debt securities, and private subordinate/mezzanine positions. The portfolio is diversified by geography, property type, and investment structures that provide various types of liquidity. As of June 30, 2024, the actual amount of System assets invested in real estate debt was 5.4%. The real estate debt portfolio returned 5.7% for the fiscal year compared to the policy benchmark of 4.8%.

The System's directly held mortgage portfolio consists of a diverse group of first mortgage investments collateralized by high-quality, stabilized commercial properties. Due to increases in U.S. Treasury yield over the past year, all-in yields for high quality mortgages ended the fiscal year at 5.25% to 5.50%. As such, the System has been actively pursuing first mortgages and closing new mortgage originations.

The public commercial mortgage-backed securities (CMBS) portfolio started the fiscal year with relatively wide credit spreads and muted new issuance. However, with the start of 2024 the tone changed significantly as new capital previously held on the sidelines came flooding into the market, causing credit spreads to compress. All-in yields, however, were still well above 5%.

REPORT ON INVESTMENT ACTIVITY FOR FISCAL YEAR ENDING JUNE 30, 2024 *(continued)*

The System focuses on higher yielding single-asset/single-borrower CMBS securities and given the continued volatility surrounding the real estate markets, the CMBS portfolio was focused on higher rated AAA and AA securities that had a significant amount of credit enhancement and equity subordinate to our positions. The underlying collateral of these securities include high-quality properties with a conservative loan-to-value of last dollar exposure.

To supplement the direct first mortgage and CMBS portfolios, the System continues to invest in senior mezzanine and bridge mortgage loans on transitional assets with experienced, well-capitalized borrowers. These shorter-term investments have generated yields at a 250-300 basis points premium to the direct first mortgage and CMBS markets. Our loan proceeds remain at conservative levels relative to property valuations.

Cash Equivalents

The System's short-term fixed income portfolio consists of high-quality securities, which can easily be converted into cash for the purposes of making monthly payment of pension benefits, facilitating asset allocation, or supporting the operating commitments of the System. Securities held in this portfolio generally mature in 12 months or less.

The System's short-term portfolio has an asset allocation target of 1.0%. As of June 30, 2024, the portfolio represented 1.4% of total invested System assets, within the allowable range of 0.0% to 4.0%. At fiscal year-end, the portfolio's weighted average maturity and weighted average life were 24 and 25 days. For the one- and five-year periods ended June 30, 2024, the System's short-term portfolio's annualized returns were 5.5% and 2.3%, respectively. This compares to its iMoneyNet Money Fund Averages/All-Taxable Index benchmark returns of 5.1% and 2.0% for the comparable periods. The portfolio benefited from its short maturities, which allowed for reinvestment at higher interest rates as the market consistently priced future rate cuts further out the money market yield curve.

Other Programs**Securities Lending**

The System's securities lending program generates incremental income by lending in-demand domestic and international equity and fixed income securities against approved forms of collateral. The System uses multiple agent lenders to manage the securities lending program. Each lending program is proactively monitored by NYSTRS staff to ensure it is managed in compliance with the System's contractual, statutory and risk guidelines.

As of June 30, 2024, 1.35% of the System's assets available to lend were on loan and collateralized at 102.4%. Utilization was stable from the prior year end as issues trading special remained limited and the program continued to focus on intrinsic value lending while mitigating reinvestment risk. Borrower demand generated the majority of securities lending income, which totaled \$4.2 million for the fiscal year, compared to \$5.2 million for the fiscal year ended June 30, 2023. The unrealized gain on investments in the System's cash collateral reinvestment portfolio decreased from the 2023 fiscal year, settling at \$1.5 million (including unpaid income) as of June 30, 2024.

For information describing the securities lending process, please see the Notes to Financial Statements under the heading "Securities Lending Transactions."

This Report on Investment Activity was prepared by the following NYSTRS executive staff members:

Paul Cummins
Managing Director of Public Equities

Michael Federici
Managing Director of Fixed Income

David C. Gillan
Managing Director of Real Estate

Gerald J. Yahoudy II
Managing Director of Private Equity

ASSET ALLOCATION — as of June 30, 2024

The most significant contributor to a fund's long-term investment performance is the allocation decision among the various asset classes, including equities, fixed income and real estate. The allocation process helps control risk and sets guidelines to diversify the System's portfolio. The asset allocation policy adopted by the Board allows ranges around an optimal target allocation. The Retirement Board, with the assistance of an external consultant, reviews the asset allocation policy on an annual basis to analyze recent and historical investment experience. Since this is a long-term plan, adjustments to the allocation are usually made on an annual basis when necessary. The current targets, ranges and actual allocations are detailed below:

	Target	Range	Actual
Equity			
Domestic Equity	33 %	29-37%	34.3 %
International Equity	15 %	11-19%	14.4 %
Global Equity	4 %	0-8%	4.1 %
Real Estate Equity	11 %	6-16%	10.9 %
Private Equity	9 %	4-14%	9.9 %
Total Equity	72 %		73.6 %
Debt			
Domestic Fixed Income	16 %	12-20%	14.9 %
High-Yield Bonds	1 %	0-3%	1.1 %
Global Bonds	2 %	0-4%	1.9 %
Real Estate Debt	6 %	2-10%	5.4 %
Private Debt	2 %	0.5-5%	1.7 %
Cash Equivalents	1 %	1-4%	1.4 %
Total Debt	28 %		26.4 %

CHANGES IN NET ASSET VALUE (dollars in thousands)

The fair value of investments presented below are based on net asset value which differs from the financial statement presentation.

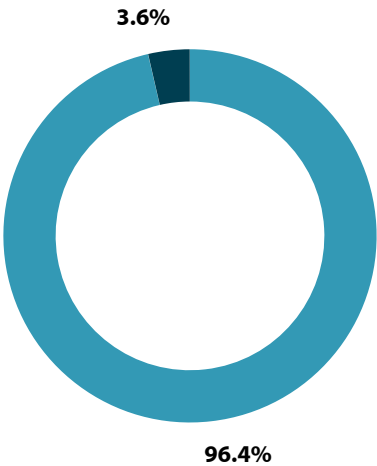
Asset Class	Net Asset Value 6/30/2023	Net Income	Net Appreciation (Depreciation)	Net Cash Inflows (Outflows)	Net Asset Value 6/30/2024
Equity					
Domestic Equity	\$ 45,854,871	\$ 710,686	\$ 9,320,392	\$ (6,617,407)	\$ 49,268,541
International Equity	18,812,576	381,307	1,979,911	(500,706)	20,673,088
Global Equity	4,926,176	124,600	860,659	—	5,911,435
Real Estate Equity	16,482,638	373,743	(910,228)	(279,313)	15,666,840
Private Equity	15,416,611	(172,236)	811,743	(1,856,575)	14,199,543
Total Equity	101,492,872	1,418,100	12,062,477	(9,254,001)	105,719,447
Debt					
Domestic Fixed Income	18,179,270	611,853	22,725	2,560,625	21,374,474
High-Yield Bonds	1,381,448	89,667	50,991	—	1,522,106
Global Bonds	2,697,024	90,960	19,378	—	2,807,362
Real Estate Debt	7,532,011	447,889	(16,269)	(192,089)	7,771,542
Private Debt	2,045,645	(38,234)	251,438	121,937	2,380,786
Cash Equivalents	1,765,697	16,394	125,799	159,574	2,067,464
Total Debt	33,601,095	1,218,529	454,062	2,650,047	37,923,734
Total	\$ 135,093,967	\$ 2,636,629	\$ 12,516,539	\$ (6,603,954)	\$ 143,643,181

DIVERSIFICATION OF INVESTMENTS – as of June 30, 2024 (dollars in thousands)

Asset Class	Net Asset Value 6/30/2024	Percent	Net Asset Value 6/30/2023	Percent
Equity:				
Public Equity (Domestic Equity, International Equity and Global Equity)				
Communications Services	\$5,931,512		\$5,038,641	
Consumer Discretionary	8,035,041		7,845,618	
Consumer Staples	4,420,451		4,737,018	
Energy	3,402,525		3,151,648	
Financials	11,806,402		10,156,218	
Health Care	8,167,405		8,379,808	
Industrials	8,181,885		7,677,622	
Information Technology	19,521,733		15,802,291	
Materials	2,663,625		2,759,931	
Other	438,754		672,574	
Real Estate	1,563,006		1,638,776	
Utilities	1,720,725		1,733,478	
Total Public Equity	75,853,064	52.8%	69,593,623	51.5%
Real Estate Equity				
Core Funds	1,449,065		1,666,549	
Direct Properties/Other Real Estate Owned	6,230,307		6,716,491	
Opportunistic Funds	3,283,828		3,015,020	
Real Estate Investment Trusts (REITs)	2,756,797		3,129,407	
Timber	240,605		312,177	
Value Added Funds	1,706,238		1,642,994	
Total Real Estate Equity	15,666,840	10.9	16,482,638	12.2
Private Equity				
Co-Investments	1,197,265		1,199,325	
Fund of Funds	669,758		700,052	
LBO/MBO	9,841,442		10,637,431	
Other	—		—	
Secondary Funds	98,186		136,821	
Turnaround	682,154		1,223,866	
Venture Capital	1,710,738		1,519,116	
Total Private Equity	14,199,543	9.9	15,416,611	11.4
Total Equity	105,719,447	73.6%	101,492,872	75.1%
Debt:				
Fixed Income (Domestic Fixed Income, High-Yield Bonds, Global Bonds)				
Corporate	8,292,802		7,300,744	
Global Government Bonds	10,890,372		9,370,360	
Government Related	1,361,416		1,319,650	
Other	117,008		138,732	
Securitized	5,042,344		4,128,256	
Total Fixed Income	25,703,942	17.9	22,257,742	16.5
Real Estate Debt				
Commercial Mortgage Backed Securities (CMBS)	3,000,517		2,371,939	
Core Plus	1,995,362		1,872,312	
Direct Mortgages	2,057,535		2,624,241	
Opportunistic	718,128		663,519	
Total Real Estate Debt	7,771,542	5.4	7,532,011	5.6
Private Debt				
Direct Lending	1,583,843		1,190,713	
Mezzanine	247,448		278,888	
Special Situation	549,495		576,044	
Total Private Debt	2,380,786	1.7	2,045,645	1.5
Cash Equivalents				
Corporate	900,445		731,928	
Global Government Bonds	359,008		214,363	
Government Related	222,233		391,905	
Other	15,519		16,200	
Securitized	570,259		411,301	
Total Cash Equivalents	2,067,464	1.4	1,765,697	1.3
Total Debt	37,923,734	26.4%	33,601,095	24.9%
Total	\$ 143,643,181	100.0%	\$ 135,093,967	100.0%

The above schedule is presented at net asset value which differs from the financial statement presentation.

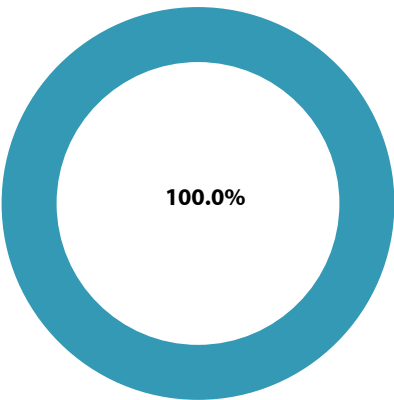
DOMESTIC EQUITY DISTRIBUTION — as of June 30, 2024



● Internal	96.4%
S&P 1500 Index2	78.4%
S&P 100 Index	3.4%
S&P 1500 Value Tilt2	3.3%
S&P 1500 Growth Tilt2	3.4%
S&P 500 Index	3.9%
S&P 600 Index	0.6%
All Cap Disciplined Equity	2.5%
S&P 400 Index	0.9%
● External	3.6%
Large Cap Enhanced	3.6%

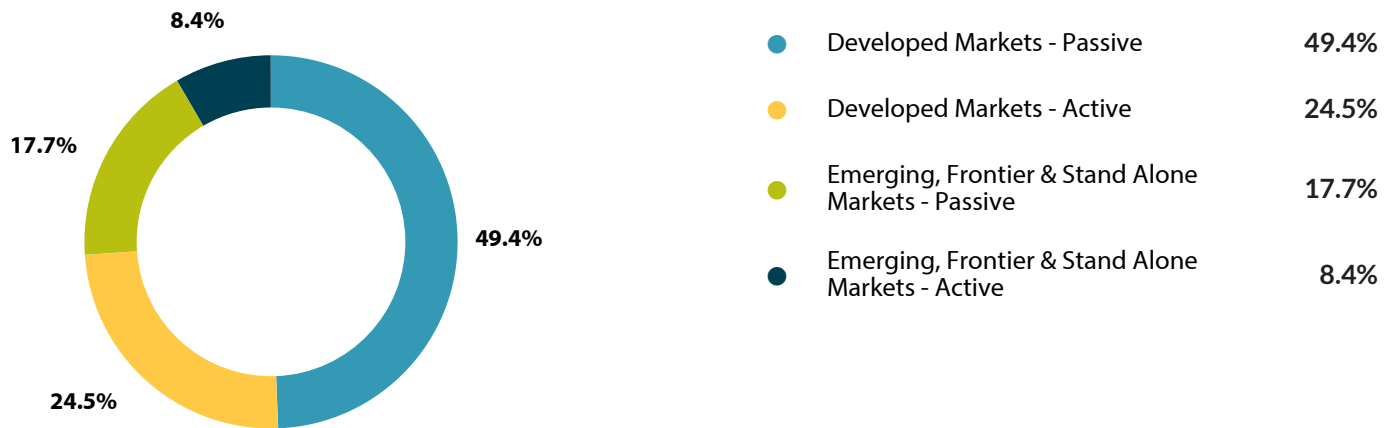
DOMESTIC EQUITY EXTERNALLY MANAGED STYLE DISTRIBUTION

— as of June 30, 2024

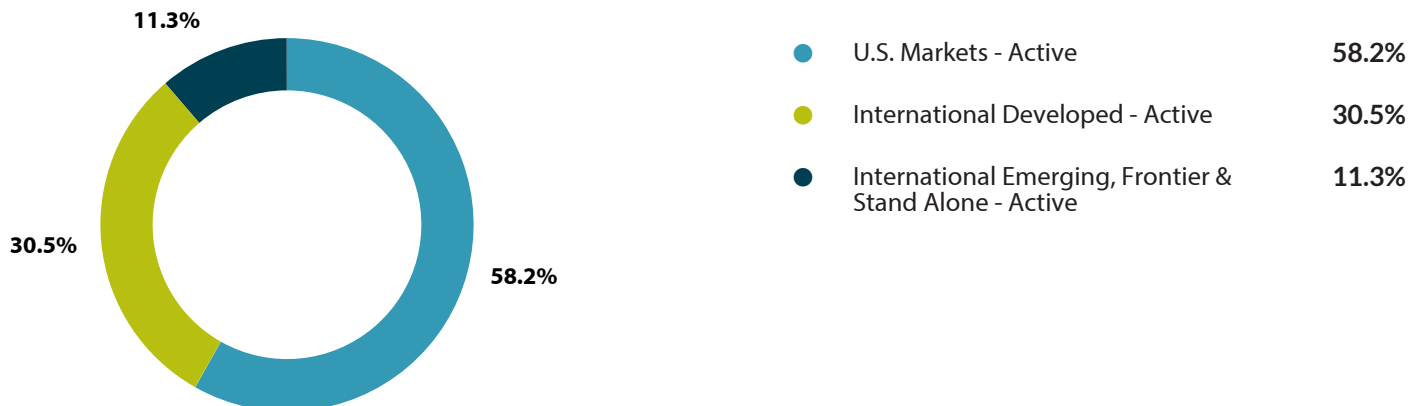


● Large Cap Enhanced	100.0%
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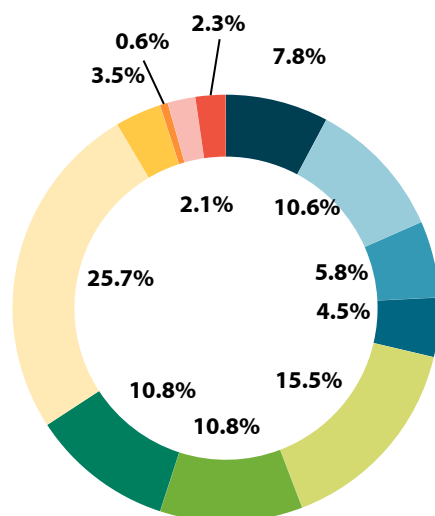
INTERNATIONAL EQUITY STYLE DISTRIBUTION — as of June 30, 2024



GLOBAL EQUITY STYLE DISTRIBUTION — as of June 30, 2024



PUBLIC EQUITY HOLDINGS BY INDUSTRY DISTRIBUTION — as of June 30, 2024



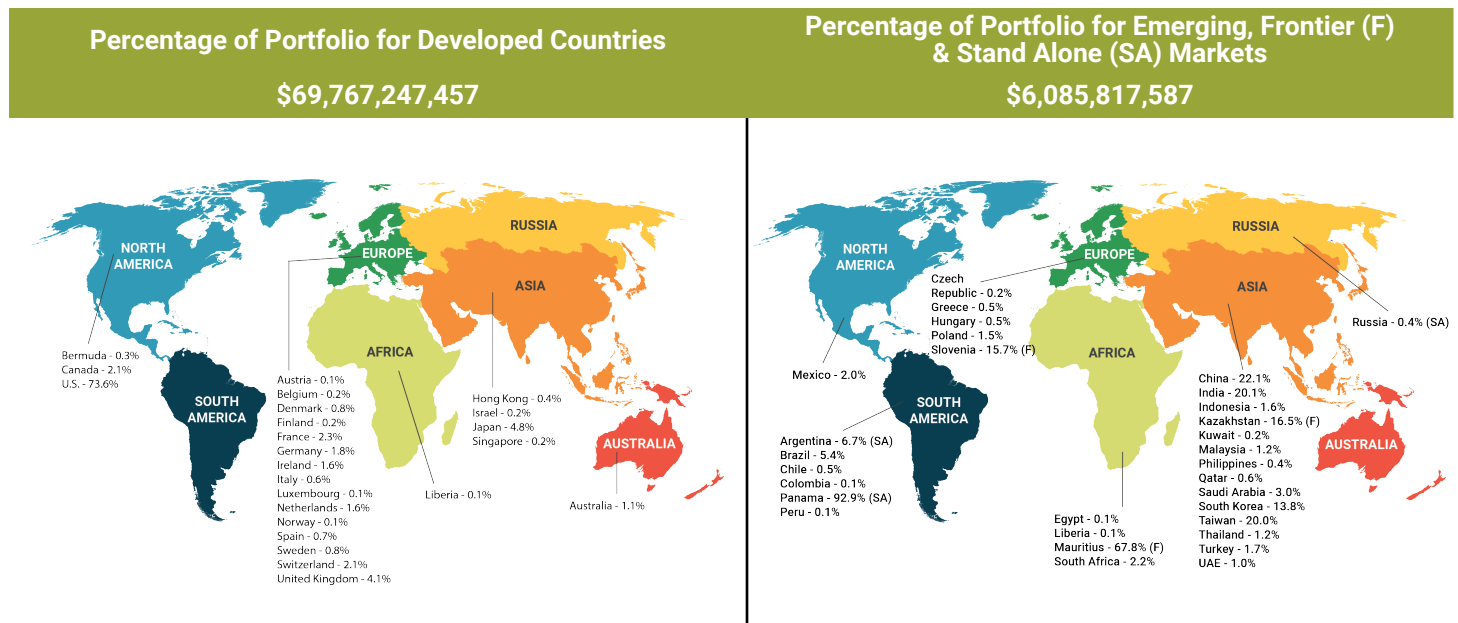
Communications Services	7.8%
Consumer Discretionary	10.6%
Consumer Staples	5.8%
Energy	4.5%
Financials	15.5%
Health Care	10.8%
Industrials	10.8%
Information Technology	25.7%
Materials	3.5%
Other	0.6%
Real Estate	2.1%
Utilities	2.3%

TEN LARGEST PUBLIC EQUITY HOLDINGS — as of June 30, 2024

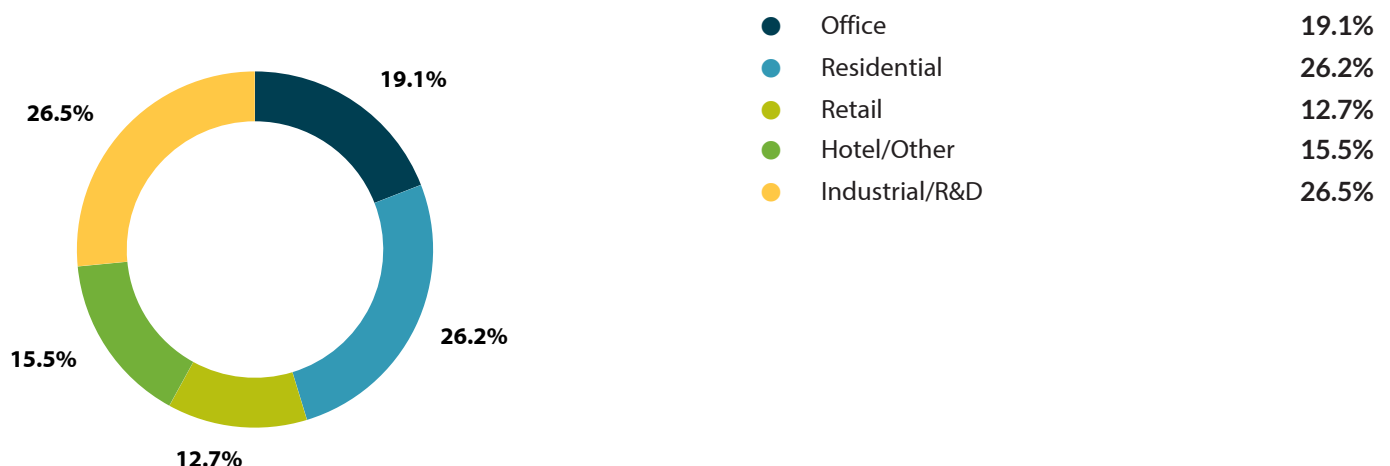
Rank	Company	Cost	Fair Value	Percent of Equities
1	Microsoft Corp.	\$ 320,219,405	\$ 3,563,325,859	4.7 %
2	Apple Inc.	190,713,190	3,190,442,694	4.2
3	Nvidia Corp	116,875,498	3,174,974,788	4.2
4	Alphabet Inc.	193,135,303	2,073,920,549	2.7
5	Amazon.com Inc.	205,061,189	1,874,177,343	2.5
6	Meta Platforms Inc.	224,755,458	1,276,065,354	1.7
7	Eli Lilly and Co.	52,606,471	744,842,545	1.0
8	Berkshire Hathaway Inc.	180,467,740	744,475,730	1.0
9	Broadcom Inc.	89,388,429	735,941,236	1.0
10	JP Morgan Chase and Co.	114,003,093	620,166,174	0.8
Total		\$ 1,687,225,776	\$ 17,998,332,272	23.8 %

A complete list of the System's equity holdings is available at nystsr.org (see About Us/Investments) or through the Communications & Outreach department.

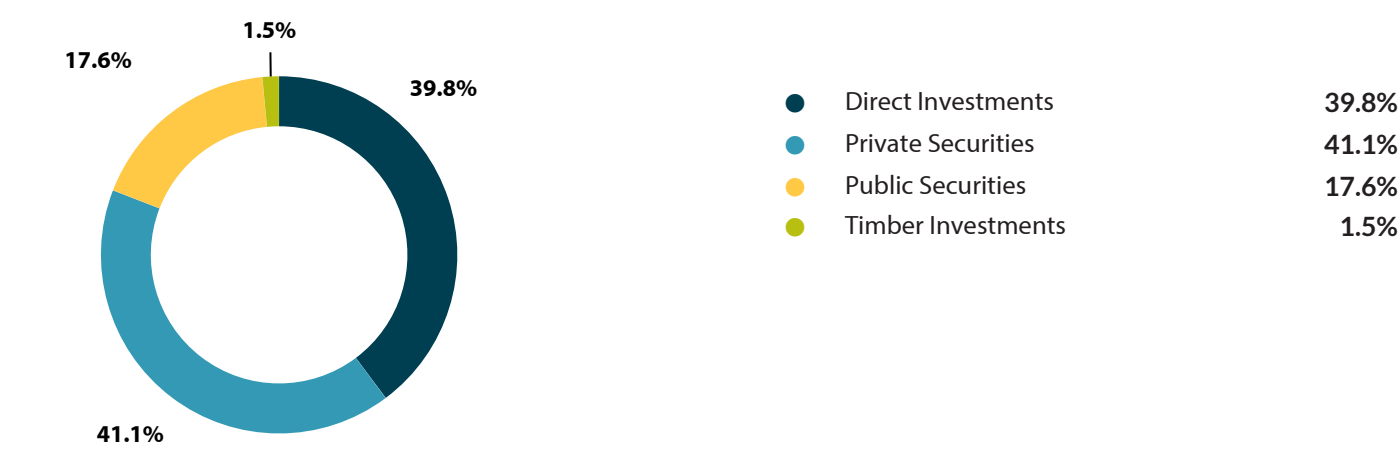
PUBLIC EQUITY COUNTRY EXPOSURE DISTRIBUTION – as of June 30, 2024



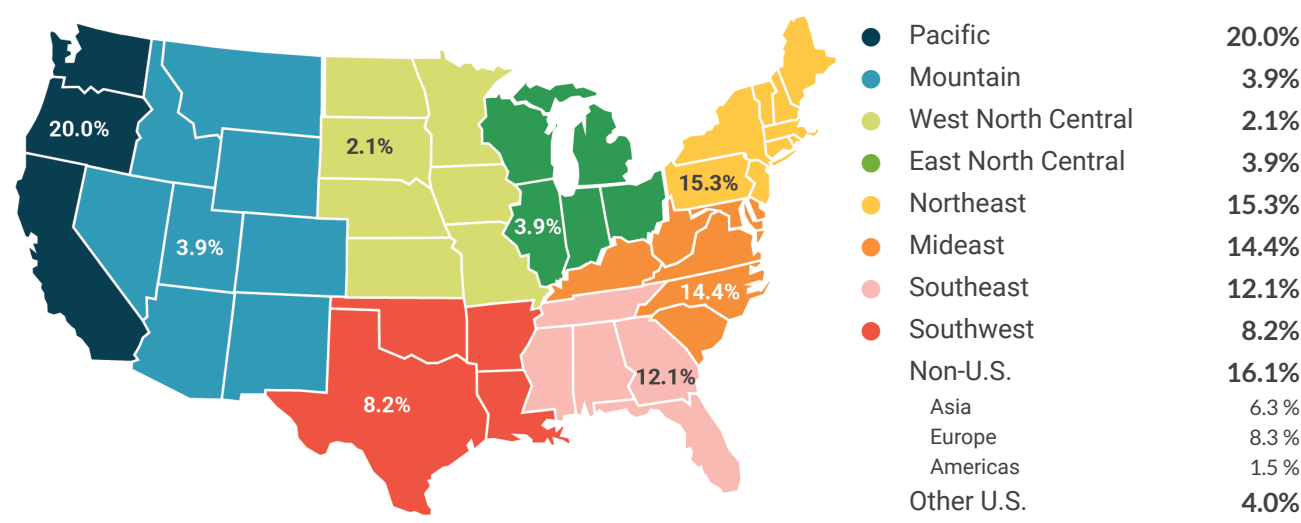
REAL ESTATE EQUITY BY PROPERTY TYPE – as of June 30, 2024



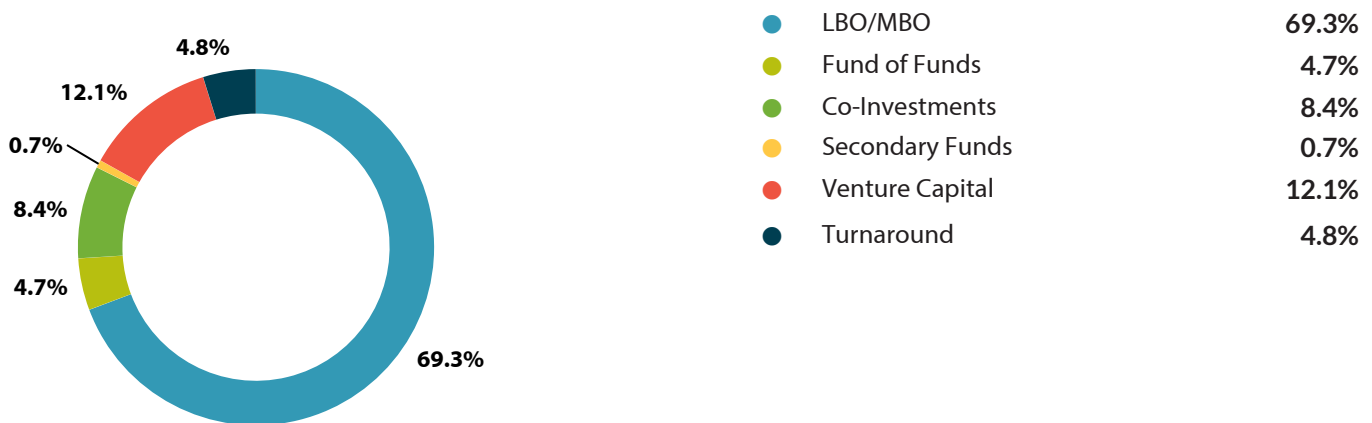
REAL ESTATE EQUITY BY INVESTMENT TYPE — as of June 30, 2024



REAL ESTATE EQUITY GEOGRAPHICAL DISTRIBUTION — as of June 30, 2024



PRIVATE EQUITY BY INVESTMENT TYPE — as of June 30, 2024



PRIVATE EQUITY BY GEOGRAPHY* — as of June 30, 2024

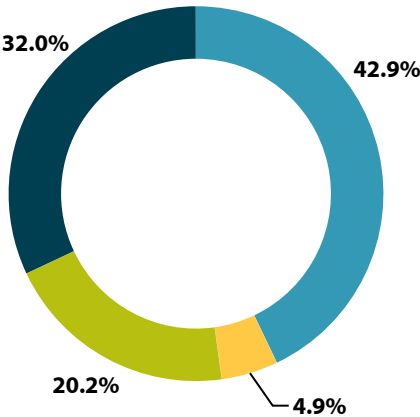


*Excluding fund of funds and secondary funds.

DOMESTIC FIXED INCOME AND HIGH-YIELD BONDS DISTRIBUTION

— as of June 30, 2024

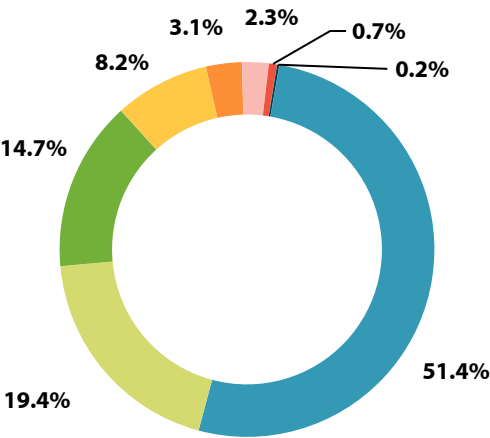
Yield to Maturity 5.1%



	Weight	Yield to Maturity
Treasuries	42.9%	4.5%
Government Related	4.9%	4.8%
Securitized	20.2%	5.5%
Corporate	32.0%	5.7%

DOMESTIC FIXED INCOME AND HIGH-YIELD BONDS QUALITY

DISTRIBUTION — as of June 30, 2024



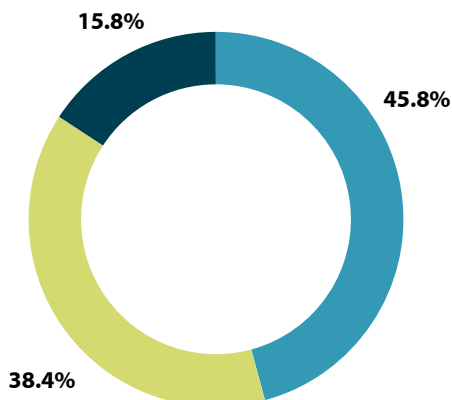
*	Aaa	51.4 %
	Aa	19.4 %
	A	14.7 %
	Baa	8.2 %
	Ba	3.1 %
	B	2.3 %
	Caa & Below	0.7 %
**	Not Rated	0.2 %

*Includes explicitly guaranteed debt issued by the U.S. government and its agencies.

**Includes cash (U.S. dollar equivalents) and State Street Government Short-Term Investment Fund.

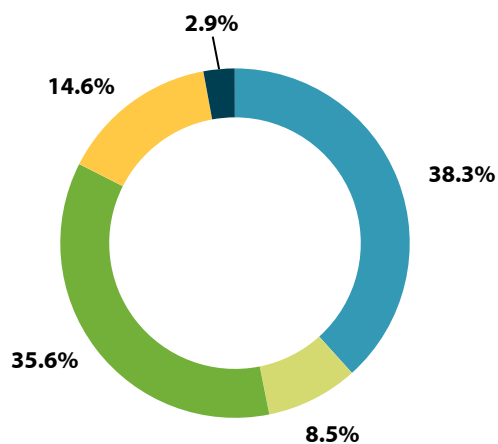
DOMESTIC FIXED INCOME AVERAGE MATURITY — as of June 30, 2024

Effective Duration 5.9 Years



	Weight	Effective Duration in Years
Less than 5 Years	45.8%	2.9
5-10 Years	38.4%	6.3
10+ Years	15.8%	13.6

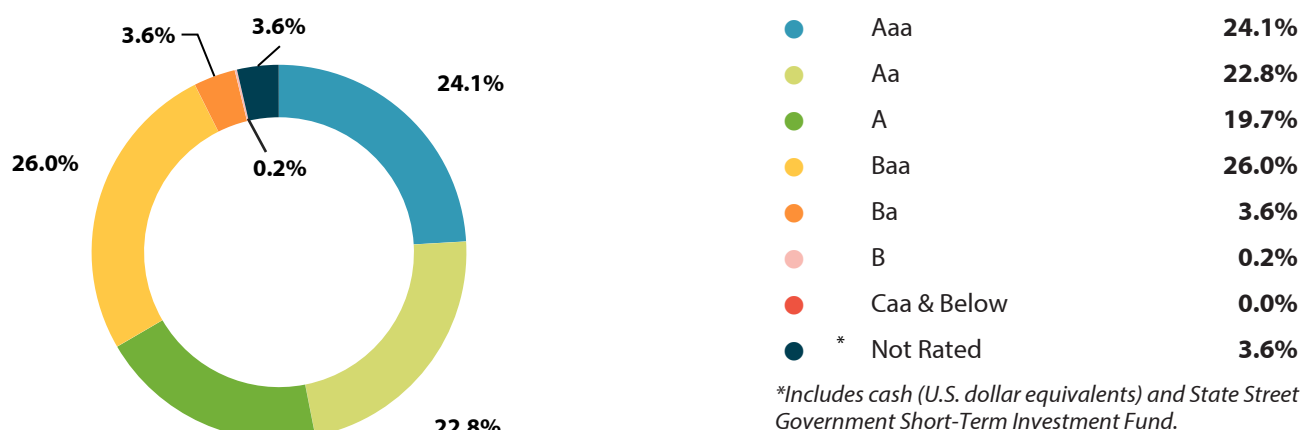
GLOBAL BONDS SECTOR DISTRIBUTION — as of June 30, 2024



Global Government Bonds	38.3%
Government Related	8.5%
Corporate	35.6%
Securitized	14.6%
* Other	2.9%

**Includes cash (U.S. dollar equivalents) and State Street Government Short-Term Investment Fund.*

GLOBAL BONDS QUALITY DISTRIBUTION — as of June 30, 2024

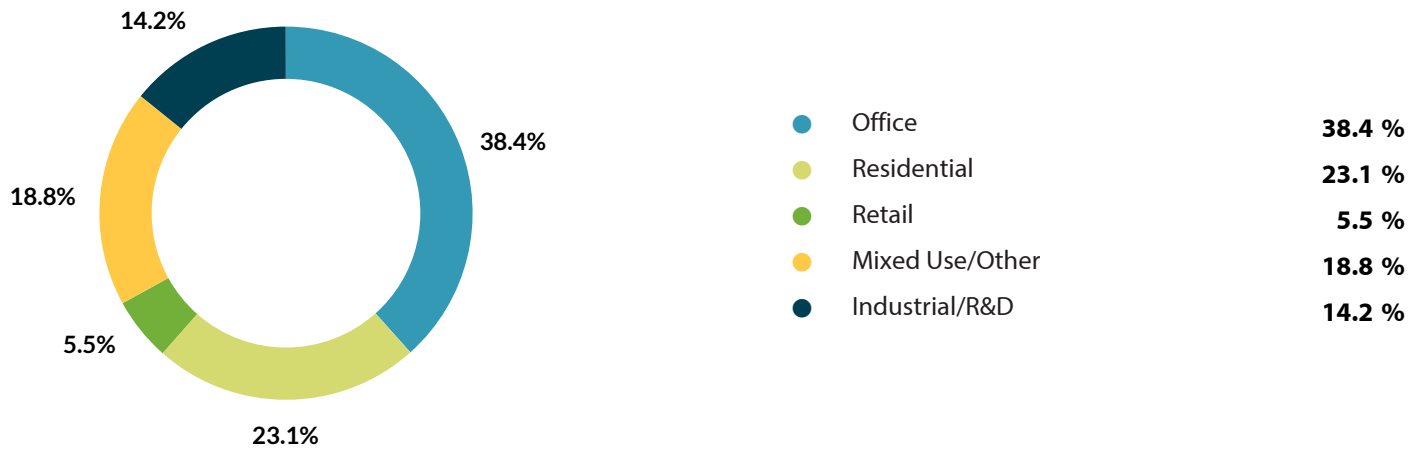
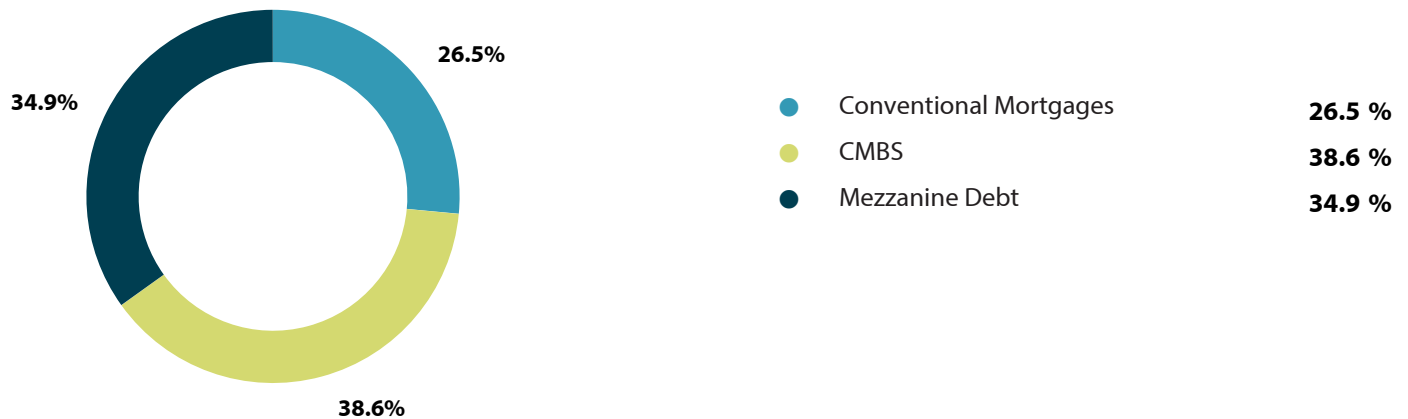


TEN LARGEST FIXED INCOME HOLDINGS* — as of June 30, 2024

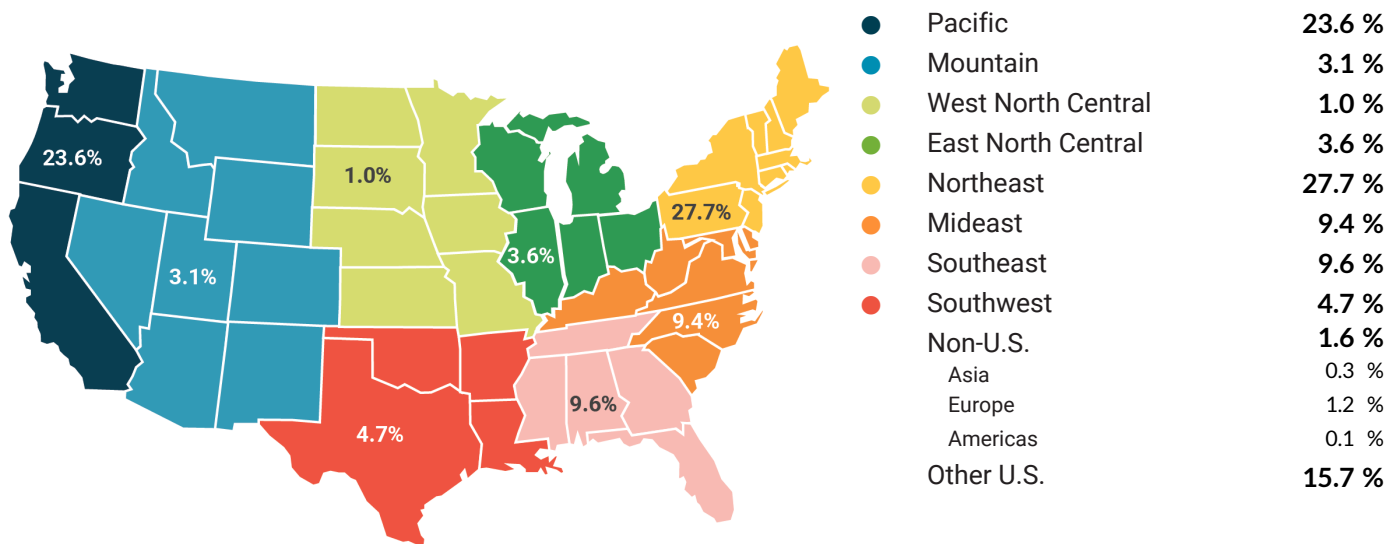
Rank	Issue	Fair Value	Percent Total Fixed Income Fair Value
1	US Treasury Note 4.125% Due 03/31/2031	\$256,577,344	1.0%
2	US Treasury Note 4.000% Due 02/15/2034	242,656,250	0.9%
3	US Treasury Note 1.75% Due 11/15/2029	223,971,679	0.9%
4	US Treasury Bond 3.75% Due 11/15/2043	197,977,499	0.8%
5	US Treasury Note 3.875% Due 08/15/2033	168,336,228	0.7%
6	US Treasury Note 1.125% Due 02/15/2031	163,554,688	0.6%
7	US Treasury Bond 1.75% Due 08/15/2041	157,844,121	0.6%
8	US Treasury Bond 3.125% Due 02/15/2043	153,855,468	0.6%
9	US Treasury Bond 3.875% Due 05/15/2043	153,385,155	0.6%
10	US Treasury Bond 2.375% Due 02/15/2042	149,233,594	0.6%
Total		\$1,867,392,026	7.3%

**Includes internally managed domestic and externally managed high-yield and global bond portfolios; excludes short-term portfolio holdings.*

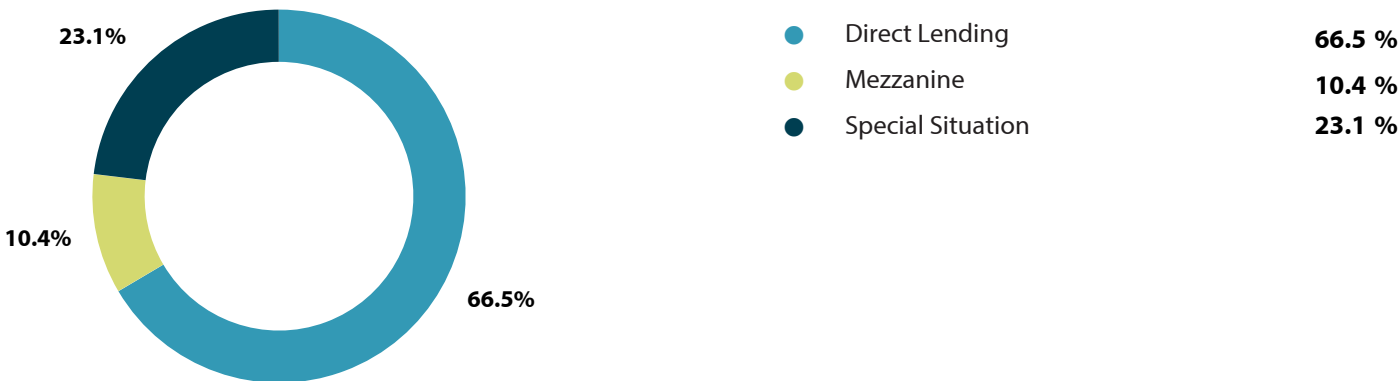
A complete list of the System's fixed income holdings (excluding cash equivalents) is available at nystsr.org (see About Us/Investments) or through the Communications & Outreach department.

REAL ESTATE DEBT BY PROPERTY TYPE — as of June 30, 2024**REAL ESTATE DEBT BY INVESTMENT TYPE** — as of June 30, 2024

REAL ESTATE DEBT GEOGRAPHICAL DISTRIBUTION — as of June 30, 2024



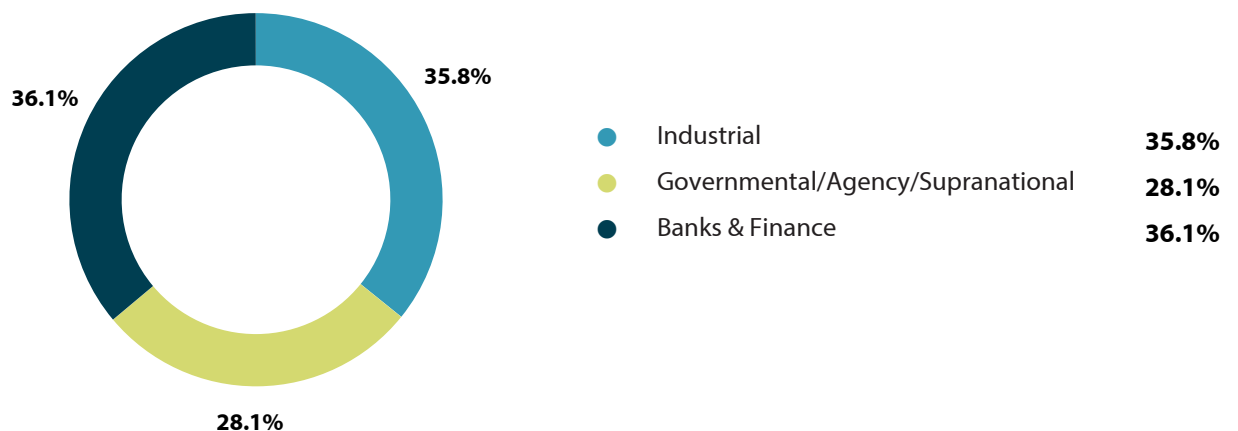
PRIVATE DEBT BY INVESTMENT TYPE — as of June 30, 2024



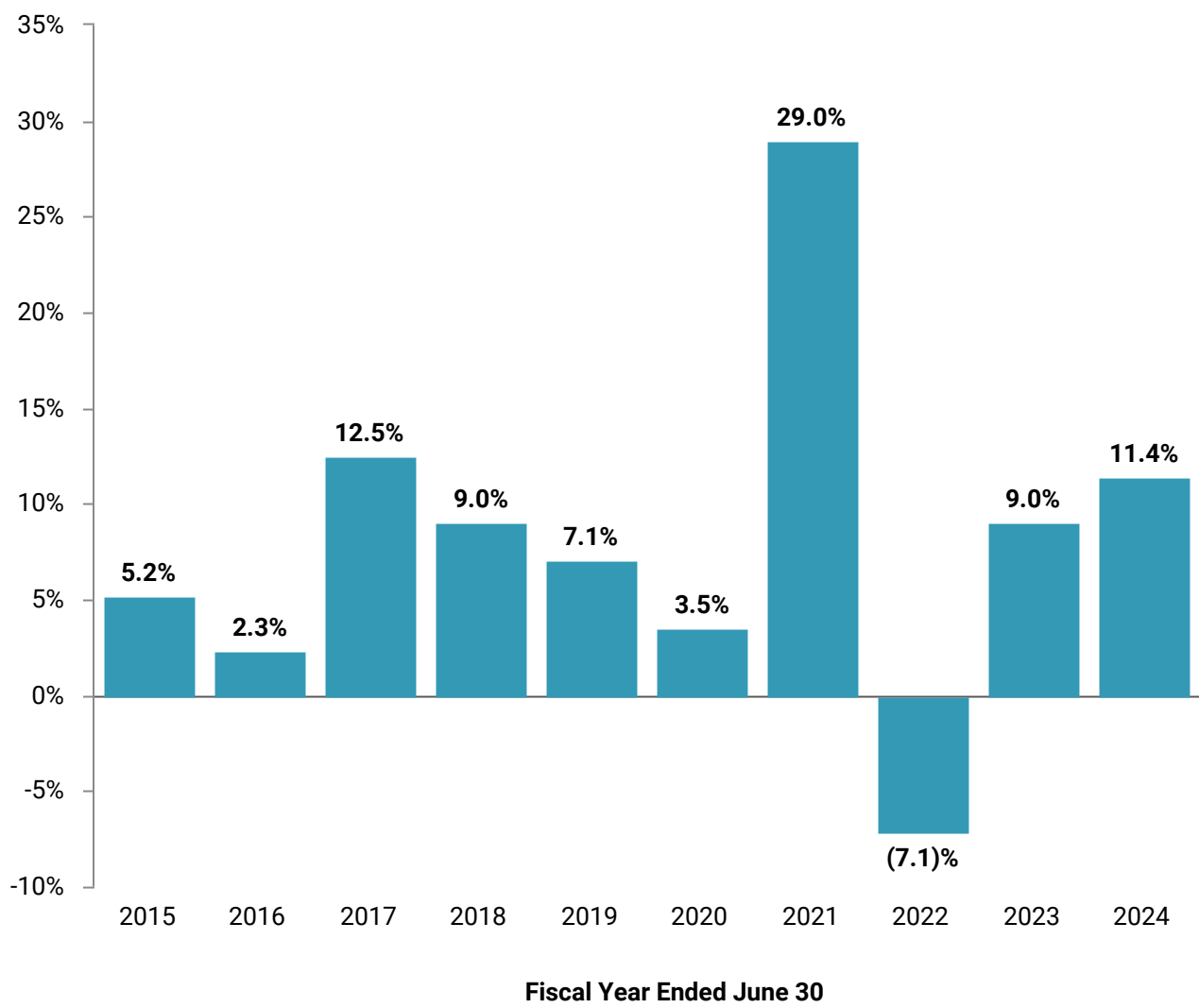
PRIVATE DEBT GEOGRAPHICAL DISTRIBUTION* — as of June 30, 2024



CASH EQUIVALENTS SECTOR DISTRIBUTION — as of June 30, 2024



ANNUAL TOTAL FUND PERFORMANCE HISTORY



INVESTMENT PERFORMANCE RESULTS – as of June 30, 2024

The System is a long-term investor and therefore can withstand some short-term volatility. The liabilities are generally long-term in nature and may not become payable for 30 or more years in the future. The time-weighted performance (net of fees) and associated benchmark returns are shown in the following table. Some benchmarks have varied over time and those shown below are the current policy benchmarks.

	Annualized Rates of Return				
	1-YR	3-YR	5-YR	10-YR	30-YR
Domestic Equity	23.9 %	9.5 %	14.7 %	12.4 %	10.8 %
Benchmark: S&P Composite 1500 Index*	23.5	9.4	14.6	12.5	10.9
International Equity	12.7	0.9	6.3	4.4	5.2
Benchmark: MSCI ACWI Ex-U.S. Index	11.6	0.5	5.5	3.8	4.7
Global Equity	19.5	4.9	11.4	—	—
Benchmark: MSCI ACWI Index	19.4	5.4	10.8	—	—
Real Estate Equity	(3.6)	2.1	4.3	7.1	9.4
Benchmark: NCREIF - ODCE Index	(10.0)	1.0	2.5	5.6	7.5
Private Equity	4.5	4.9	13.9	14.1	13.7
Benchmark: S&P 500 Index plus 5%*	29.6	15.0	20.0	17.9	15.8
Domestic Fixed Income	3.3	(1.9)	0.3	1.4	4.6
Benchmark: Bloomberg U.S. Aggregate Float Adjusted Bond Index*	2.7	(3.0)	(0.2)	1.4	4.6
High-Yield Bonds	9.8	1.8	3.6	—	—
Benchmark: ICE BofA BB-B U.S. High Yield Constrained Index*	10.1	1.6	3.7	—	—
Global Bonds	4.1	(2.3)	0.3	2.1	—
Benchmark: Bloomberg Global Aggregate Float Adjusted Ex-CNY Bond Index (hedged to USD)*	3.8	(2.4)	(0.2)	1.8	—
Real Estate Debt	5.7	1.0	2.6	3.6	6.2
Benchmark: Giliberto-Levy Custom Index	4.8	(0.6)	1.7	3.0	5.7
Private Debt	10.0	9.1	9.2	—	—
Benchmark: Morningstar LSTA Leveraged Loan Index plus 3%	14.1	9.1	8.5	—	—
Cash Equivalents	5.5	3.2	2.3	1.6	2.6
Benchmark: iMoneyNet Money Fund Avg/Taxable (All)	5.1	2.9	2.0	1.3	2.2
Total Fund	11.4	4.1	8.5	7.8	8.7
Benchmark: Blended Benchmark	12.9 %	4.8 %	8.8 %	8.1 %	8.4 %

*See disclaimers on page 112.

MANAGER INVESTMENT PERFORMANCE RESULTS – as of June 30, 2024

The assets under management (at market), time-weighted performance results (unless indicated otherwise) and the appropriate benchmark or equity multiple for each manager/advisor are summarized in the following table.

	Assets Managed (\$ millions)	Rates of Return from Inception ¹	Benchmark from Inception ¹	Equity Multiple ³	Inception Date
Domestic Equity					
Managers					
T. Rowe Price Associates Inc.	\$1,796.2	15.8 %	15.1 %		Jan-09
International Equity					
Managers					
AQR Capital Management LLC	1,221.5	6.4	5.7		Feb-12
Ariel Investments LLC	342.1	4.4	5.6		Apr-17
Arrowstreet Capital LP	1,077.5	10.8	4.7		Jul-17
Baillie Gifford Overseas Ltd.	845.1	7.3	5.9		Sep-11
BlackRock Institutional Trust Co. NA	6,258.6	6.5	6.3		Dec-11
Dimensional Fund Advisors	242.2	4.0	2.8		Feb-13
Goldman Sachs Asset Management LP	145.0	28.4	25.3		Dec-22
LSV Asset Management	1,055.7	5.8	4.4		Jul-11
Marathon Asset Management LLP	575.7	7.1	6.5		Jan-12
RhumbLine Advisors Limited Partnership	1,080.2	8.7	8.5		Jun-20
State Street Global Advisors	6,537.4	6.2	5.9		Jul-12
William Blair Investment Management LLC	859.4	6.6	4.7		Oct-10
Xponance Inc.	364.9	4.9	4.7		May-13
Global Equity					
Managers					
Arrowstreet Capital LP	2,153.5	16.1	11.1		May-19
Harding Loevner LP	1,613.7	8.0	9.3		May-18
Leading Edge Investment Advisors	604.4	11.5	12.8		Jun-20
LSV Asset Management	1,539.9	6.0	9.3		May-18
Real Estate Equity					
Advisors					
BentallGreenOak	1,271.0	11.0	7.1		Apr-95
Cabot Properties LP	355.2	15.2	2.3		May-19
CBRE Investment Management	718.7	11.2	2.4		Nov-18
Clarion Partners	362.4	7.2	5.8		Jun-90
Forest Investment Associates	240.6	5.5	5.8		Dec-98
J.P. Morgan Asset Management	2,814.4	9.0	5.9		Oct-90
Sentinel Real Estate Corporation	703.6	12.0	7.1		Mar-96

¹ Returns for periods greater than 1 year are annualized.

² Return is an IRR (Internal Rate of Return), not time-weighted.

³ Equity multiples are only shown for aggregates where returns are calculated as an IRR.

MANAGER INVESTMENT PERFORMANCE RESULTS — as of June 30, 2024 *(continued)*

	Assets Managed (\$ millions)	Rates of Return from Inception ¹	Benchmark from Inception ¹	Equity Multiple ³	Inception Date
Real Estate Equity <i>(continued)</i>					
Managers					
Adelante Capital Management LLC	\$289.5	9.2 %	8.6 %		Aug-98
AEW Capital Management LP (Domestic)	98.2	(1.1)	(1.3)		Sep-22
AEW Capital Management LP (Global)	229.7	2.2	2.0		Oct-17
Cohen & Steers Capital Management Inc.	1,266.8	8.1	5.5		Feb-18
Dimensional Fund Advisors	305.8	2.9	1.9		Nov-17
Heitman Real Estate Securities LLC (Global)	179.4	2.5	1.9		Sep-17
Heitman Real Estate Securities LLC (Domestic)	82.0	(3.9)	(3.0)		Jan-22
Principal Real Estate Investors LLC	305.1	(4.8)	(4.9)		Mar-22
Fund Investments					
Real Estate Equity Core Funds	1,449.1	5.9	5.9		Jul-85
Real Estate Equity Opportunistic Funds	3,283.8	10.4 ²	—	1.3	Mar-99
Real Estate Equity Value-Added Funds	1,706.2	11.5 ²	—	1.3	Dec-89
Private Equity					
Fund Investments	14,201.2	12.7 ²	—	1.7	Oct-92
High-Yield Bonds					
Managers					
Columbia Management Investment Advisers, LLC	395.3	4.3	4.6		Oct-18
J.P. Morgan Investment Management Inc.	381.0	4.3	4.4		Apr-18
Nomura Corp. Research and Asset Mgt. Inc.	394.0	3.7	4.0		Dec-17
Nomura Corp. Research and Asset Mgt. Inc.	184.4	12.4	11.7		Oct-22
PGIM, Inc.	167.4	9.4	9.6		Apr-23
Global Bonds					
Managers					
Goldman Sachs Asset Management LP	692.7	1.3	0.9		Aug-16
Loomis, Sayles & Company LP	1,139.3	2.4	1.9		Nov-12
Wellington Management Company LLP	660.2	2.1	2.2		Aug-13
Real Estate Debt					
Managers					
BlackRock Financial Management Inc.	1,772.2	4.4	4.4		Apr-01
Blue Owl Real Estate Debt Advisors LLC	1,023.5	4.5	4.1		Nov-03
Raith Capital Partners LLC	204.8	2.8	1.8		Mar-19
Fund Investments					
Real Estate Debt Core Plus Funds	1,995.4	3.6 ²	—	1.1	Dec-04
Real Estate Debt Opportunistic Funds	718.1	1.3 ²	—	1.0	Jun-98
Private Debt					
Fund Investments	2,380.8	10.3 ²	—	1.2	Jul-17

¹ Returns for periods greater than 1 year are annualized.² Return is an IRR (Internal Rate of Return), not time-weighted.³ Equity multiples are only shown for aggregates where returns are calculated as an IRR.

CORPORATE GOVERNANCE

Shareholder responsibility is fundamental to good corporate governance, which recognizes an appropriate balance between the rights of shareholders (the owners of the corporation) and the need for management and the Board to direct the corporation's affairs with a long-term perspective. The System's shareholder voting rights must be managed with the same care as any of its other assets. Therefore, the Retirement Board has established a formal proxy voting policy reflecting three objectives: to protect the System's rights, promote responsible corporate policies and activities, and enhance long-term value.

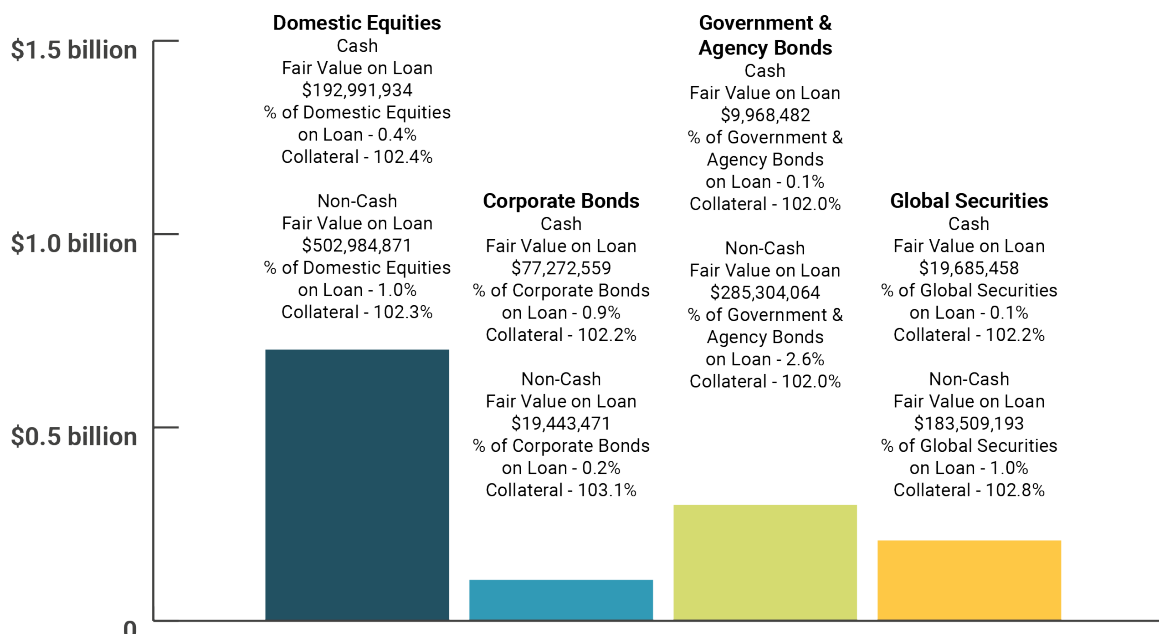
For the 2023 calendar year, a total of 139,571 proposals* were voted, many of which focused on board-related issues, ratification of auditors, and executive compensation. System policy generally supports management if the position is reasonable, not detrimental to the long-term economic prospects of the company, and does not tend to diminish the rights of shareholders.

Domestic & Canadian Portfolios			International & Global Portfolios		
Position	Number of Proposals	Percentage of Proposals	Position	Number of Proposals	Percentage of Proposals
For	18,339	91.9%	For	102,816	85.9%
Against	1,495	7.5%	Against	14,664	12.3%
Abstain	123	0.6%	Abstain	2,134	1.8%
Total	19,957	100.0%	Total	119,614	100.0%

*Proposals at companies held in multiple externally managed international and global portfolios are counted once for each portfolio.

SECURITIES LENDING PROGRAM — as of June 30, 2024

Cash: \$299,918,433 - Non-Cash: \$991,241,599 - Total: \$1,291,160,032



SCHEDULE OF INVESTMENT FEES AND EXPENSES – Year ended June 30, 2024*

(dollars in thousands)

	Assets Managed (\$ millions)	Investment Management Expenses 2023-2024		Investment Management Expenses 2023-2024
Domestic Equity:			Legal Expenses:	
Managers	\$ 1,796	\$ 3,375	Charles Law PLLC	\$ 89
			Hirschler Fleischer	60
International Equity:			K&L Gates LLP	51
Managers	\$ 20,606	\$ 30,073	Morgan, Lewis & Bockius LLP	122
			Nixon Peabody LLP	239
Global Equity:			Seward & Kissel	79
Managers	\$ 5,911	\$ 21,155	Seyfarth Shaw LLP	63
			Other Legal Expenses	47
Real Estate Equity:				
Advisors	\$ 6,466	\$ 47,817		
Managers	2,757	9,684		
Fund Investments	6,439	94,692		
Total Real Estate Equity:	\$ 15,662	\$ 152,193	Total Legal Expenses:	\$ 750
Private Equity:			General Expenses:	
Fund Investments	\$ 14,200	\$ 172,236	Advisory Committee - Investment	\$ 54
			Advisory Committee - Real Estate	71
High-Yield:			Abel Noser Solutions, LLC	48
Managers	\$ 1,522	\$ 4,348	Callan LLC	616
			Callan Associates	662
Global Bonds:			Investment Information Services	10,402
Managers	\$ 2,807	\$ 5,375	Mercer Investments LLC	75
			Real Estate Origination Costs	456
Real Estate Debt:			Real Estate Professional Fees	111
Managers	\$ 3,001	\$ 5,500	Real Estate Service Costs	79
Servicers	674	57	State Street Corporation	1,316
Fund Investments	2,713	23,195	StepStone Group LP	1,665
Total Real Estate Debt:	\$ 6,388	\$ 28,752		
			Total General Expenses:	\$ 15,555
Private Debt:				
Fund Investments	\$ 2,381	\$ 38,234		
Total Investment Manager Fees:		\$ 455,741	Total Investment Fees and Expenses:	\$ 472,046

*The above schedule is presented at net asset value, which differs from financial statement presentation.

INVESTMENT ADVISORY COMMITTEE

Robert Levine, CFA, Chairman

Chief Investment Officer, President & CEO (Retired)
Nomura Corporate Research and Asset Management, Inc.
New York, New York

Howard J. Bicker

Executive Director/CIO (Retired)
Minnesota State Board of Investment
Saint Paul, Minnesota

Daniel J. Bukowski

Managing Partner
Net Alpha Advisors, LLC
Chicago, Illinois

Johanna Fink

President
The Hovenden Group, LLC
Charlestown, Massachusetts

Laura Hotaling

Portfolio Manager
MLC Asset Management
New York, New York

Steven Huber, CFA, FSA

*Portfolio Manager for Global Multi-Sector
Bond Strategies (Retired)*
T. Rowe Price Group, Inc.
Baltimore, Maryland

James W. O'Keefe

Managing Director (Retired)
UBS Global Asset Management
Hartford, Connecticut

June W. Yearwood

Managing Director
The Church Pension Fund
New York, New York

REAL ESTATE ADVISORY COMMITTEE

James W. O'Keefe, Chairman

Managing Director (Retired)
UBS Realty Investors LLC
Hartford, Connecticut

Herman Bulls

Vice Chairman, Americas
JLL
Washington, DC

Eileen Byrne

Managing Director (Retired)
BlackRock Inc.
New York, New York

Paul J. Dolinoy

President (Retired)
Equitable Real Estate/Lend Lease
Atlanta, Georgia

Maureen A. Ehrenberg

President
Lessen
Chicago, Illinois

Jill S. Hatton

Managing Director (Retired)
BlackRock Inc.
Boston, Massachusetts

Daniel J. Hogarty Jr.

President and CEO (Retired)
Troy Savings Bank
Albany, New York

Laura Huntington, CFA

President
Institutional Property Consultants
Lakewood, Washington

INVESTMENT CONSULTANTS

Abel Noser Solutions, LLC/Trading Technologies International Inc.
New York, New York

Callan LLC
San Francisco, California

Mercer Investments LLC
Boston, Massachusetts

StepStone Group LP
La Jolla, California

MASTER CUSTODIAN

State Street Bank & Trust Co.
Boston, Massachusetts

SECURITIES LENDING

JPMorgan Chase Bank N.A.
New York, New York

The Bank of New York Mellon
New York, New York

EXTERNAL INVESTMENT MANAGERS & ADVISORS

Domestic Equity:

T. Rowe Price Associates Inc.

International Equity:

AQR Capital Management LLC
Ariel Investments LLC
Arrowstreet Capital LP
Baillie Gifford Overseas Ltd.
BlackRock Institutional Trust Co. NA
Dimensional Fund Advisors
Goldman Sachs Asset Management LP
LSV Asset Management
Marathon Asset Management LLP (Marathon-London)
RhumbLine Advisors Limited Partnership
State Street Global Advisors
William Blair Investment Management LLC
Xponance Inc. (Manager of Managers)

Global Equity:

Arrowstreet Capital LP
Harding Loevner LP
LSV Asset Management
Leading Edge Investment Advisors (Manager of Managers)

Real Estate Equity:

Advisors:

Abacus Capital Group LLC
BentallGreenOak
Cabot Properties LP
CBRE Investment Management
Clarion Partners
Federal Capital Partners
Forest Investment Associates
J.P. Morgan Asset Management
Sentinel Real Estate Corporation

Managers:

Adelante Capital Management LLC
AEW Capital Management LP
Brookfield Public Securities Group LLC
Cohen & Steers Capital Management Inc.
Dimensional Fund Advisors LP
Heitman Real Estate Securities LLC
Principal Real Estate Investors LLC

Fund Investments:

Abacus Multi-Family Partners III LP
Abacus Multi-Family Partners IV LP
Abacus Multi-Family Partners V LP
Abacus Multi-Family Partners VI LP
Aermont Capital Real Estate Fund IV SCSp
Aermont Capital Real Estate Fund V SCSp
AG Core Plus Realty Fund IV LP
AG Realty Fund VII LP
AG Realty Fund VIII LP
AG Realty Fund IX LP
AG Realty Value Fund X LP
AG Realty Value Fund XI LP
Artemis Real Estate Partners Fund I LP
Artemis Real Estate Partners Fund II LP
Artemis Real Estate Partners Fund III LP
Artemis Real Estate Partners Fund IV LP
BentallGreenOak US Cold Storage LP

EXTERNAL INVESTMENT MANAGERS & ADVISORS (continued)

Real Estate Equity: (continued)

Fund Investments: (continued)

BlackRock Europe Property Fund III LP
 Blackstone BioMed Life Science Real Estate LP
 Blackstone Real Estate Partners Asia LP
 Blackstone Real Estate Partners Asia II LP
 Blackstone Real Estate Partners Asia III LP
 Blackstone Real Estate Partners Europe IV LP
 Blackstone Real Estate Partners Europe V LP
 Blackstone Real Estate Partners Europe Fund VI SCSp
 Blackstone Real Estate Partners V TE2 LP
 Blackstone Real Estate Partners VI TE2 LP
 Blackstone Real Estate Partners VII TE1 LP
 Blackstone Real Estate Partners VIII LP
 Blackstone Real Estate Partners IX LP
 Blackstone Real Estate Partners X LP
 Brockton Capital Fund III LP
 Brookfield DC Office Partners LLC
 Brookfield DTLA Holdings LLC
 Brookfield Properties Office Partners Inc.
 Brookfield Real Estate Secondaries Account (N) LP
 Brookfield Strategic Real Estate Partners III LP
 Brookfield Strategic Real Estate Partners IV LP
 Cabot Industrial Core Fund II LP
 Cabot Industrial Core Fund III LP
 Cabot Industrial Value Fund V LP
 Cabot Industrial Value Fund VI LP
 Cabot Industrial Value Fund VII LP
 CBRE Strategic Partners U.S. Opportunity 5 LP
 Cerberus Institutional Real Estate Partners LP - Series Two
 Cerberus Institutional Real Estate Partners III LP
 Clarion Development Ventures III LP
 DLJ Real Estate Capital Partners III LP
 DLJ Real Estate Capital Partners IV LP
 Excelsior II LLC
 Exeter Europe Industrial Core Fund SCSp
 Exeter Europe Logistics Value Fund IV SCSp
 Exeter Industrial Value Fund III LP
 Exeter Industrial Value Fund IV LP
 Exeter Industrial Value Fund V LP
 EQT Exeter Industrial Value Fund VI LP
 FCP Realty Fund II LP
 FCP Realty Fund III LP
 FCP Realty Fund IV LP
 FCP Realty Fund V LP
 Gateway Real Estate Fund IV LP
 Gateway Real Estate Fund V LP
 Gateway Real Estate Fund VI LP
 GCM Grosvenor - NYSTRS RE Inv. Partners LP
 GCM Grosvenor - NYSTRS RE Inv. Partners LP 2016-1
 GCM Grosvenor - NYSTRS CRE Opportunity Partners LP
 GCM Grosvenor - NYSTRS RE Inv. Partners LP 2018-1
 GCM Grosvenor - NYSTRS RE Inv. Partners LP 2021-1
 GreenOak US III LP
 Harrison Real Estate Partners VIII LP
 Heritage Fields LLC
 LaSalle Asia Opportunity Fund III
 Lone Star Fund IV (U.S.) LP
 Lone Star Fund V (U.S.) LP
 Lone Star Fund VI (U.S.) LP
 Lone Star Fund VII (U.S.) LP
 Lone Star Fund IX (U.S.) LP
 Lone Star Fund X (U.S.) LP
 Lone Star Fund XI LP
 Lone Star Real Estate Fund II (U.S.) LP
 Lone Star Real Estate Fund III (U.S.) LP
 Northwood Real Estate Partners LP - Series VI
 Northwood Real Estate Partners LP - Series VIII
 NYSTRS/FCP Multifamily Preferred Equity and Mezzanine Program
 O'Connor North America Property Partners LP
 O'Connor North America Property Partners II LP
 Pennybacker EIV LP
 Pennybacker V LP
 Pennybacker VI LP
 Penwood Select Industrial Partners IV LP
 Penwood Select Industrial Partners V LP
 Penwood Select Industrial Partners VI LP
 Penwood Select Industrial Partners VII LP
 Perella Weinberg Real Estate Fund II LP
 PGV SCSp
 PRISA I
 PRISA II
 PRISA III
 PW Real Estate Fund III LP
 Rockpoint Growth and Income Real Estate Fund I LP
 Rockpoint Growth and Income Real Estate Fund II LP
 Rockpoint Growth and Income Real Estate Fund III LP
 Rockpoint Real Estate Fund II LP
 Rockpoint Real Estate Fund III LP
 Rockpoint Real Estate Fund IV LP
 Rockpoint Real Estate Fund V LP
 Rockpoint Real Estate Fund VI LP
 Starwood Distressed Opportunity Fund IX LP
 Starwood Global Opportunity Fund VII-A LP
 Starwood Opportunity Fund X Global LP
 Starwood Opportunity Fund XI Global LP
 TA Realty Logistics Fund LP
 TPG Real Estate Partners IV LP
 UBS Trumbull Property Fund
 Walton Street Real Estate Fund VI LP
 Westbrook Real Estate Fund VI LP
 Westbrook Real Estate Fund VII LP
 Westbrook Real Estate Fund VIII LP
 Westbrook Real Estate Fund IX LP
 Westbrook Real Estate Fund X LP
 Westbrook Real Estate Fund XI LP

EXTERNAL INVESTMENT MANAGERS & ADVISORS (continued)

Private Equity:

Fund Investments:

A&M Capital Partners II, LP
 A&M Capital Partners III, LP
 A&M Capital Strategic Investments, LP (AMCSI)
 Abbott Select Buyouts Fund
 Abbott Select Buyouts Fund II
 Abbot Select EM Buyouts LP
 Abbott Select EM II, LP
 ABRY Partners Fund VI
 ABRY Partners Fund VII
 ABRY Partners Fund VIII
 Advent GPE X
 AMCSI Co-Investment Partnership, LP
 Amulet Capital Fund I LP
 Amulet Capital Fund II LP
 Amulet Capital Fund III LP
 BGH Capital Fund I LP
 CapStreet IV LP
 CapStreet V LP
 Carlyle Asia Partners IV LP
 Carlyle Asia Partners V LP
 ChrysCapital VIII LP
 Clearlake Capital Partners III LP
 Clearlake Capital Partners IV LP
 Clearlake Capital Partners V LP
 Clearlake Capital Partners VI LP
 Clearlake Capital Partners VII, LP
 Co-Investment Partners (NY) LP
 Co-Investment Partners (NY) II LP
 Co-Investment Partners (NY) III LP
 Co-Investment Partners Europe LP
 Cortec Group Fund V LP
 Cortec Group Fund VI LP
 Cortec Group Fund VII LP
 Cortec Group Fund VIII LP
 Cressey & Co. V LP
 Cressey & Co. Fund VI LP
 Cressey & Co. Overage Fund VI LP
 Cressey & Co. Fund VII LP
 DCP Capital Partners LP
 DCP Capital Partners II LP
 ECI 11 LP
 ECI 12 LP
 EIV Capital III LP
 EIV Capital Fund IV LP
 EIV Capital Fund V, LP
 EIV Capital IV Top-Up Fund LP
 Fifth Cinven Fund
 GTCR Fund XI
 GTCR Fund XII
 GTCR Fund XIII
 GTCR Fund XIV LP
 Hahn & Company III LP
 Hahn & Company III-S LP
 Hahn & Company IV, LP
 Hahn & Company IV- S, LP
 HarbourVest Partners VII-Venture Fund
 HarbourVest VI - Partnership Fund
 HarbourVest/NYSTRS Co-Investment Fund
 HarbourVest/NYSTRS Co-Investment Fund II
 HarbourVest/NYSTRS Co-Investment Fund III LP
 Hg Genesis 10 A LP
 Hg Saturn 3 A LP
 Hellman & Friedman VII LP
 Hellman & Friedman VIII LP
 HIPEP Select Asia Fund LP
 HIPEP Select Asia II LP
 HIPEP Select Asia III LP
 Inflexion 2010 Buyout Fund
 Inflexion Strategic Partners LP
 JFL Equity Investors V LP
 JFL Equity Investors VI LP
 Kinderhook Capital Fund VI LP
 Kinderhook Capital Fund 7 LP
 Lexington Capital Partners V
 Lexington Capital Partners VI
 Lexington Capital Partners VII
 Lexington Emerging Partners LP
 Lexington Middle Market Investors
 Lexington Middle Market Investors II
 Lightspeed Venture Partners IX LP
 Lightspeed Venture Partners X LP
 Lightspeed Venture Partners Select LP
 Linden Capital Partners Fund IV LP
 Linden Capital Partners Fund V LP
 Livingbridge 7 LP
 Lovell Minnick Partners Fund V LP
 LS Power Equity Partners IV LP
 The Maple Fund (Tranche H1)
 The Maple Fund (Tranche H2)
 The Maple Fund (Tranche H3)
 The Maple Fund (Tranche N1)
 The Maple Fund (Tranche N2)
 The Maple Fund (Tranche N3)
 The Maple Fund (Tranche N4)
 The Maple Fund (Tranche N5)
 The Maple Fund (Tranche N6)
 MBK Partners Fund IV LP
 MBK Partners Fund V LP
 Mill Point Capital Partners II LP
 Monomoy Capital Partners III LP
 Monomoy Capital Partners IV LP
 Monomoy Capital Partners V LP
 Nautic V LP
 Nautic VI LP
 Nautic VII LP
 Nautic Partners VIII LP
 Nautic Partners IX LP
 Nautic Partners X LP
 Nautic Partners XI LP
 NMS Fund III LP
 NMS Fund IV LP
 Olympus Growth Fund V
 Olympus Growth Fund VI
 One Rock Capital Partners II LP
 One Rock Capital Partners III LP
 P123 Ltd.

EXTERNAL INVESTMENT MANAGERS & ADVISORS *(continued)*

Private Equity: *(continued)*

Fund Investments: *(continued)*

PBPE V LP
Pacific Equity Partners Fund V LP
Patria - Private Equity Fund VI LP
Phoenix Equity Partners 2010 Fund
Phoenix Equity Partners 2016 Fund
Phoenix Equity Partners 2022 Fund
Pine Brook Capital Partners II LP
Primavera Capital Fund III LP
Primavera Capital Fund IV LP
Silver Lake Partners III LP
Silver Lake Partners IV LP
Silver Lake Partners V LP
Silver Lake Partners VI LP
Silver Lake Partners VII LP
Siris Partners III LP
Siris Partners IV LP
SK Capital Partners V LP
SK Capital Partners VI LP
SK Capital Partners Overage V LP
SKCP Catalyst Fund I LP
SKCP Catalyst Fund II LP
Sterling Foundation Fund LP
Sterling Group Partners IV LP
Sterling Group Partners V LP
Sterling Group Partners VI LP
Tailwater Energy Fund III LP
Tailwater Energy Fund IV LP
TCV IX LP
TCV X LP
TCV XI LP
Technology Crossover Ventures VII
Tenex Capital Partners II LP
Tenex Capital Partners III LP
The First Capital Access Fund LP
The Veritas Capital Fund VIII LP
Thoma Bravo Discover Fund LP
Thoma Bravo Discover Fund II LP
Thoma Bravo Discover Fund III LP
Thoma Bravo Discover Fund IV LP
Thoma Bravo Fund X
Thoma Bravo Fund XI LP
Thoma Bravo Fund XII LP
Thoma Bravo Fund XIII LP
Thoma Bravo Fund XIV LP
Thoma Bravo Special Opportunities Fund I LP
Thoma Bravo Special Opportunities Fund II LP
TSG6 LP
TSG7 A LP
TSG7 B LP
TSG8 LP
TSG9 LP
Valor Equity Partners Opportunity Fund I LP
Valor Equity Partners IV LP
Valor Equity Partners V LP
Valor Equity Partners VI LP
Veritas Capital Buyout Fund VI LP
Waud Capital Partners III LP
Waud Capital Partners IV LP

High-Yield Bonds:

Columbia Management Investment Advisers LLC
J.P. Morgan Investment Management Inc.
Nomura Corp. Research and Asset Mgt. Inc.
PGIM Inc.

Global Bonds:

BlackRock Financial Management, Inc.
Goldman Sachs Asset Management LP
Loomis, Sayles & Company LP
Pacific Investment Management Company LLC
Wellington Management Company LLP

Real Estate Debt:

Managers:

BlackRock Financial Management Inc.
Blue Owl Real Estate Debt Advisors LLC
Raith Capital Partners LLC

Fund Investments:

Artemis Real Estate Partners Debt Fund LP
Barings Real Estate Credit Strategies Account-NY LP
Blackstone Real Estate Debt Strategies IV LP
Blackstone Real Estate Debt Strategies High-Grade LP
Blue Owl Real Estate Debt Advisors LLC
Brookfield Real Estate Finance Fund IV LP
Brookfield Real Estate Finance Fund V LP
Brookfield Real Estate Finance Fund VI LP
Brookfield Senior Mezzanine Real Estate Finance Fund LP
Brookfield Senior Real Estate Finance Account (N) LP
FCP Freddie Mac K-Series Separate Account
GCM Grosvenor - NYSTRS Debt Inv. Partners LP
GCM Grosvenor - NYSTRS Debt Inv. Partners LP 2018-1
GCM Grosvenor - NYSTRS Debt Inv. Partners LP 2021-1
Madison Realty Capital Debt Fund III LP
PCCP Mezzanine Recovery Partners I LP
Pramerica Real Estate Capital IV LP
Raith Real Estate Debt Separate Account
Sullivan Debt Fund LP
TCI Real Estate Partners Fund II LP

EXTERNAL INVESTMENT MANAGERS & ADVISORS *(continued)***Private Debt:****Fund Investments:**

ABRY Advanced Securities Fund II
 ABRY Advanced Securities Fund III
 ABRY Advanced Securities Fund IV
 ABRY Senior Equity Fund II
 ABRY Senior Equity Fund III
 ABRY Senior Equity Fund IV
 ABRY Senior Equity Fund V
 Blue Torch Credit Opportunities Fund II LP
 Blue Torch Credit Opportunities Fund III LP
 Clearlake Flagship Plus Partners LP
 Clearlake Opportunities Partners LP
 Clearlake Opportunities Partners II LP
 Clearlake Opportunities Partners III LP
 Comvest Credit Partners V LP
 Comvest Credit Partners VI LP
 Comvest Credit Partners VII LP
 Crestline Direct Lending IV (US), LP
 H.I.G. Whitehorse Direct Lending 2020 Fund LP
 H.I.G. Whitehorse Principal Lending Fund
 ICG Europe Fund V
 ICG Europe Fund VI
 ICG Europe Fund VII
 ICG North American Private Debt Fund II LP
 MGG SF Evergreen Fund LP
 MGG Special Opportunities Fund LP
 Monomoy Credit Opportunities Fund II, LP
 OIC Credit Opportunities Fund IV, LP
 Orion Energy Credit Opportunities Fund II LP
 Orion Energy Credit Opportunities Fund III LP
 Peninsula Fund V
 Peninsula Fund VII
 Peninsula Fund VIII

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Actuarial

Actuarial

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ACTUARIAL CERTIFICATION LETTER



**New York State
Teachers'
Retirement
System**

10 Corporate Woods Drive
Albany, New York 12211

800-348-7298
nystrs.org

Office of the Actuary

October 31, 2024

Retirement Board
New York State Teachers' Retirement System
10 Corporate Woods Drive
Albany, New York 12211-2395

Dear Members of the Board:

The financial objective of the New York State Teachers' Retirement System is to properly fund the retirement and ancillary benefits of members to ensure sufficient assets are being accumulated to pay benefits as they become due. The Retirement System is a cost-sharing multiple-employer defined benefit pension plan. Employer contributions are made by participating employers in accordance with an actuarially determined employer contribution rate. This rate is determined by an actuarial valuation made as of each June 30th. Members contribute in accordance with a fixed rate schedule as required by statute.

The most recently completed actuarial valuation was made as of June 30, 2023. This valuation relies on member data provided by the participating employers to the Retirement System. The administrative and actuarial staffs review this data for reasonability as well as reconcile it against prior data. In addition, the valuation relies on financial data provided by the Retirement System's Finance Department. The Retirement System's independent auditors provide reasonable assurances of the data provided by the Finance Department as part of the annual audit. We believe the member and financial data to be reasonable and appropriate for purposes of this valuation. Plan provisions are summarized in both the introduction section and the financial section of this report.

Actuarial assumptions, as adopted by the Retirement Board, are reviewed each year against experience on both an annual and quinquennial basis and changes are recommended when warranted. Assumptions are typically revised every five years. The actuarial assumptions used in the June 30, 2023 valuation were adopted by the Retirement Board in October 2021 and first effective with the June 30, 2021 actuarial valuation.

The actuarial funding method is the Aggregate Cost Method and is specified in statute. In this method, actuarial gains and losses are not separately amortized, but are spread as part of the annual normal rate calculation over the present value of future salaries of active members. This method is an appropriate contribution allocation procedure for the purpose of ongoing plan funding and having sufficient assets to pay benefits as they become due. A summary of the actuarial methods and assumptions used in the actuarial valuation is included later in this section. More detail on the valuation and actuarial methods and assumptions is available in the System's Actuarial Valuation Report. The actuarial cost method for funding differs from that used for financial reporting purposes as required by the Governmental Accounting Standards Board.

ACTUARIAL CERTIFICATION LETTER *(continued)*

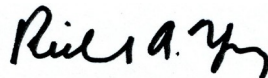
The System's market value rate of return on assets for the fiscal year ending June 30, 2023 was 9.0%. The System's five-year annualized rate of return stood at 7.6%. The June 30, 2023 actuarial valuation produced a required employer contribution rate of 10.11% of payroll, representing an increase of approximately 4% over the prior year's rate of 9.76%. The modest gain on the actuarial value of assets for the year with losses on other assumptions, such as salary scale and COLA, were the primary reasons for the increase in the employer contribution rate. The actuarial value of assets is determined by recognizing gains and losses gradually over a five-year period, thereby moderating their impact on the employer contribution rate.

Looking ahead to next year, the capital markets produced strong returns during the fiscal year ending June 30, 2024. The System's total fund net rate of return was 11.4% for the fiscal year. This will increase the System's five-year annualized rate of return to 8.5%.

The plan's funded ratio, as of June 30, 2023, calculated using the Actuarial Value of Assets (AVA) was 98.6% and calculated using the Market Value of Assets (MVA) was 98.2%. While the funded ratios will fluctuate from year to year, a funded ratio of 100% is desirable and indicative of a well-funded System. The primary reason for this healthy funded ratio is that, in accordance with statute, the System has collected the actuarially required contribution annually from employers. The significance of this cannot be overstated. It does not, however, imply that future contributions will not be required. A 10-year schedule of actuarially determined and actual contributions made are provided as required supplementary information in the financial section. Various exhibits in the actuarial section provide further information on the actuarial assets, liabilities, and the funding level. More detailed information can be found in the System's Actuarial Valuation Report.

All actuarial assumptions and methods used for funding purposes have been determined in accordance with generally accepted actuarial principles, procedures, and Actuarial Standards of Practice as prescribed by the Actuarial Standards Board, and Statements of the Governmental Accounting Standards Board, where applicable. All schedules in the actuarial section were prepared under my direction. Specifically, these schedules consist of the Summary of Actuarial Methods and Assumptions, Actuarial Present Value of Future Benefits, Analysis of Funding Progress, Percent Funded, Solvency Test, Analysis of Financial Experience, History of Member Payroll and the Employer Contribution Rate, and Schedule of Retired Members and Beneficiaries Added to and Removed from the Benefit Payroll. I am a member of the Society of Actuaries and the American Academy of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



Richard A. Young, ASA, EA, MAAA, FCA
Chief Actuary

cc: T. Lee

SUMMARY OF PLAN PROVISIONS AND ACTUARIAL METHODS AND ASSUMPTIONS — as of June 30, 2023

Plan Provisions

Plan Provisions are summarized in the Introduction section and Notes to the Financial Statements. Detailed Plan Provisions are available in the annual Actuarial Valuation Report and online at nystrs.org. All Plan Provisions and all changes in Plan Provisions are valued as part of the Actuarial Valuation.

Methods

Actuarial funding method: Aggregate Cost Method (gains and losses are smoothed over the average future working lifetime of active members). All benefits are included in the actuarial valuation. See *Summary of Benefits* in the Introduction.

Actuarial asset valuation method: Five-year phased-in deferred recognition of each year's net investment income/loss, in excess of (or less than) the assumed gain for each year in the five-year period.

Assumptions

Assumptions are computed by the Actuary and were adopted by the Retirement Board in October 2021. They are based upon recent NYSTRS member experience. Selected sample rates are shown below. Detailed assumption information may be found in NYSTRS' annual Actuarial Valuation Report.

Valuation Rate of Interest 6.95% compounded annually. The valuation rate of interest contains a 2.40% assumed annual rate of inflation.

Projected COLA Rate 1.3% annually

Base Rates of Mortality*					
Active Members			Retired Members		
Age	Male	Female	Age	Male	Female
30	0.03%	0.02%	60	0.35%	0.26%
40	0.05	0.03	70	0.94	0.62
50	0.10	0.07	80	3.84	2.62
60	0.26	0.16	90	13.57	10.98
Disabled Members			Survivor and Beneficiaries		
Age	Male	Female	Age	Male	Female
30	0.47%	0.34%	30	0.04%	0.02%
40	0.77	0.72	40	0.07	0.04
60	2.65	2.14	60	0.64	0.41
80	6.96	5.95	80	4.52	3.27

Rates of Salary Increase Including Cost-of-Living, Merit and Productivity	
Years of Service	Rate
5	5.18%
15	3.64
25	2.50
35	1.95

Rates of Withdrawal	
Years of Service	Male
5	4.67%
15	0.84
20	0.50
25	0.32
Years of Service	Female
5	4.86%
15	0.98
20	0.43
25	0.25

Rates of Service Retirement (By Years of Service)			
Male Age	5 - 20 Years	20 - 30 Years	30+ Years
55	1.69%	3.69%	35.74%
60	3.25	7.49	31.11
65	13.52	28.48	31.11
70	17.84	34.58	25.91
Female Age			
55	2.20%	4.89%	36.05%
60	3.67	8.58	32.94
65	13.46	30.66	34.52
70	16.93	27.62	26.82

Rates of Disability Retirement	
Age	Male
35	0.02%
40	0.03
45	0.06
50	0.10
Age	Female
35	0.02%
40	0.03
45	0.08
50	0.13

No assumption is made for optional forms of benefit available at retirement because options are actuarially equivalent to the single life benefit.

There are no other specific assumptions or significant events that have a material impact on the most recent Actuarial Valuation.

*Future annuitant mortality rates are the annuitant mortality base rates adjusted for mortality improvement using Society of Actuaries Scale MP-2021.

ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS

— as of June 30, 2023 and June 30, 2022
(in thousands)

Each year an actuarial valuation determines the actuarial present value of future benefits (PVB), which is the present value of retirement and ancillary benefit payments, excluding group life insurance benefits, that the Retirement System can expect to pay in the future to current retirees and members. The PVB is based upon both service and salary projected to retirement. The results of the two most recent actuarial valuations are displayed in the following table.

	2023	2022
Present Value of Benefits Currently Being Paid:		
Service Retirement Benefits	\$ 71,434,025	\$ 70,199,316
Disability Retirement Benefits	434,201	422,523
Death Benefits	2,865	2,485
Survivor Benefits	1,318,359	1,248,183
Cost-of-Living Allowance	5,773,246	5,464,928
Total Present Value of Benefits Currently Being Paid	78,962,695	77,337,435
Present Value of Benefits Payable in the Future to Current Active Members:		
Service Retirement Benefits	70,917,847	68,190,109
Disability Retirement Benefits	676,630	655,807
Termination Benefits	1,868,165	1,817,728
Death and Survivor Benefits	535,261	514,797
Cost-of-Living Allowance	1,551,476	1,521,282
Total Active Member Liabilities	75,549,379	72,699,722
Present Value of Benefits Payable in the Future to Current Inactive (Vested) Members:		
Retirement Benefits	583,067	537,273
Death Benefits	297	283
Cost-of-Living Allowance	48,818	45,055
Total Vested Liabilities	632,183	582,611
Unclaimed Funds	27,587	26,678
Total Actuarial Present Value of Future Benefits	\$ 155,171,844	\$ 150,646,447

Note: Totals may not sum due to rounding.

FUNDING PROGRESS

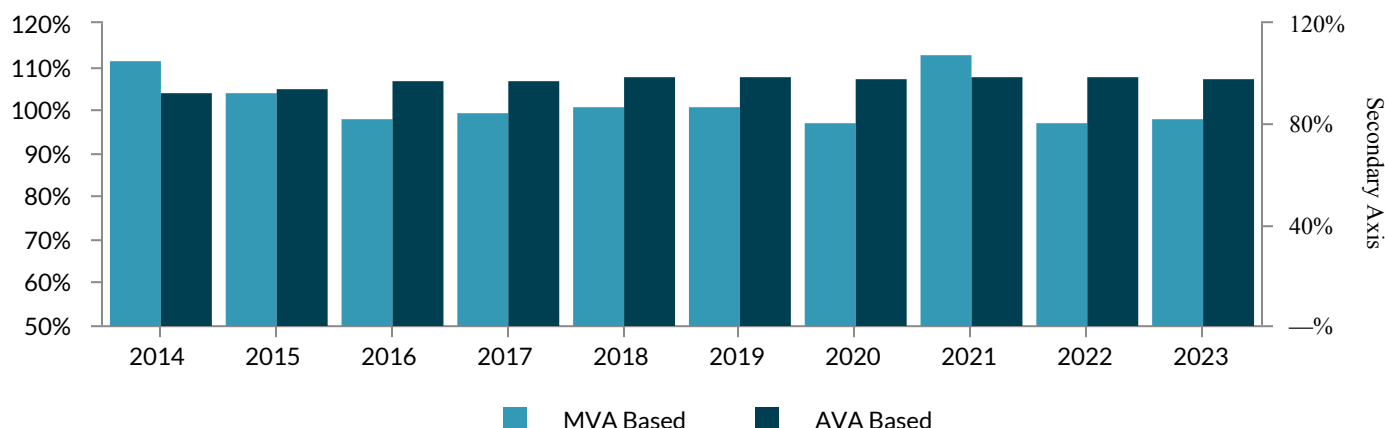
The portion of the actuarial present value of future benefits that is attributed to service rendered as of the valuation date is known as the actuarial accrued liability. In order to effectively assess the funding progress of a retirement system, it is necessary to compare the ratio of plan assets to the actuarial accrued liability over a period of time. Plan assets can be expressed as the market value of assets or as the actuarial value of assets. The market value of assets represents the market value of investments as of a particular date. The actuarial value of assets smooths the volatility inherent in the market value of assets by phasing in unexpected gains and losses over a period of five years, and represents more of an average value. The Retirement System's funding method has allowed the accumulation of assets appropriate for the funding of its liabilities in a systematic and reasonable manner.

ANALYSIS OF FUNDING PROGRESS

(in millions)

Fiscal Year Ended	Market Value of Assets (MVA)	Actuarial Value of Assets (AVA) ¹	Actuarial Accrued Liability ²	Unfunded Actuarial Accrued Liability (Surplus)	Annual Member Payroll	Unfunded Actuarial Accrued Liability as a Percentage of Payroll	Percent Funded Based On	
							MVA	AVA
2014	\$108,155.1	\$90,007.1	\$96,904.5	\$6,897.4	\$14,771.3	46.7 %	111.6 %	92.9 %
2015	109,718.9	99,301.8	105,401.8	6,100.0	15,021.4	40.6	104.1	94.2
2016	107,506.1	107,039.2	109,305.1	2,265.9	15,431.0	14.7	98.4	97.9
2017	115,468.4	113,059.7	115,672.5	2,612.8	15,846.7	16.5	99.8	97.7
2018	119,915.5	117,859.5	118,861.1	1,001.6	16,288.9	6.1	100.9	99.2
2019	122,477.5	120,586.9	121,049.3	462.4	16,691.6	2.8	101.2	99.6
2020	120,479.5	122,400.4	123,801.7	1,401.3	16,973.2	8.3	97.3	98.9
2021	148,148.5	130,173.8	131,077.4	903.6	16,973.2	5.3	113.0	99.3
2022	131,964.6	134,527.0	135,530.9	1,003.9	17,715.3	5.7	97.4	99.3
2023	137,221.5	137,814.2	139,800.8	1,986.6	18,469.1	10.8	98.2	98.6

PERCENT FUNDED



¹ The Retirement System's asset valuation method was changed effective with the June 30, 2015 actuarial valuation.

² Effective June 30, 2006, the Actuarial Accrued Liability is calculated under the Entry Age Normal Cost Method, including the Group Life Insurance Fund, as was required by Governmental Accounting Standards Board (GASB) Statement No. 50 prior to its replacement by GASB Statement No. 67. The System is funded in accordance with the Aggregate Cost Method. GASB Statement No. 50 required that the Entry Age Normal Cost Method be used to calculate the accrued liability for purposes of presenting the funded percentage.

SOLVENCY TEST

(in millions)

Fiscal Year Ended	Aggregate Accrued Liabilities* for:			Actuarial Value of Assets (D)	Percentage of Aggregate Accrued Liabilities Covered by Actuarial Value of Assets		
	Active Member Accumulated Contributions	Current Retired Members and Beneficiaries	Service Rendered by Active Members (Employer-Financed Portion)		(A)	(B)	(C)
	(A)	(B)	(C)				
2014	\$4,457.8	\$59,190.2	\$33,256.5	\$90,007.1	100.0 %	100.0 %	79.3 %
2015	4,555.1	64,504.9	36,341.8	99,301.8	100.0	100.0	83.2
2016	4,657.8	65,858.4	38,788.9	107,039.2	100.0	100.0	94.2
2017	4,751.2	68,736.2	42,185.1	113,059.7	100.0	100.0	93.8
2018	4,844.9	70,128.9	43,887.3	117,859.5	100.0	100.0	97.7
2019	5,114.7	70,971.4	44,963.2	120,586.9	100.0	100.0	99.0
2020	5,397.7	72,839.6	45,564.4	122,400.4	100.0	100.0	96.9
2021	5,696.0	75,887.8	49,493.6	130,173.8	100.0	100.0	98.2
2022	6,041.2	77,980.8	51,508.9	134,527.0	100.0	100.0	98.1
2023	6,428.7	79,663.0	53,709.1	137,814.2	100.0	100.0	96.3

*NYSTRS is funded in accordance with the Aggregate Cost Method. The accrued liabilities in this chart are calculated in accordance with the Entry Age Normal Cost Method for purposes of disclosing the funded ratio.

ANALYSIS OF FINANCIAL EXPERIENCE

The table below shows, for each potentially significant experience source, the effect on the employer contribution rate due to the difference between actual experience and that predicted by the actuarial assumptions. A positive number (+) represents an actuarial loss and the negative numbers (-) represent an actuarial gain.

Experience Source	Change in the Employer Contribution Rate during Fiscal Year Ended	
	June 30, 2023	June 30, 2022
Plan and Assumption Changes:	— %	+0.12%
Net Investment (Gain)/Loss:	-0.45	-1.17
Salary/Service:	+0.36	+0.49
New Entrants:	-0.12	-0.14
Withdrawal:	-0.02	-0.01
Mortality:	-0.01	-0.01
Retirement:	0.00	0.00
Pension Payments:	0.00	-0.07
Cost-of-Living Adjustment:	+0.17	+0.22
Change in the Administrative Rate:	+0.09	-0.01
Miscellaneous:	+0.33	+0.06
Total Change in Employer Contribution Rate	+0.35%	-0.52%
Employer Contribution Rate at Prior Year-End	9.76%	10.29%
Employer Contribution Rate at Year-End	10.11 %	9.76%

HISTORY OF MEMBER PAYROLL AND THE EMPLOYER CONTRIBUTION RATE*

Fiscal Year Ended	Participating Employers	Active Members	Annual Member Payroll (in millions)	Percentage Increase in Annual Member Payroll	Average Full-Time Member Salary	Percentage Increase in Average Full-Time Member Salary	Employer Contribution Rate (Percent of Payroll)**
2015	822	267,715	\$15,021.4	1.7%	\$78,695	1.4%	17.53%
2016	821	266,350	15,431.0	2.7	79,813	1.4	13.26
2017	822	264,761	15,846.7	2.7	80,951	1.4	11.72
2018	824	264,590	16,288.9	2.8	82,071	1.4	9.80
2019	823	263,517	16,691.6	2.5	84,078	2.4	10.62
2020	822	261,232	16,973.2	1.7	84,985	1.1	8.86
2021	821	259,158	16,973.2	0.0	86,307	1.6	9.53
2022	822	263,475	17,715.3	4.4	88,698	2.8	9.80
2023	827	268,058	18,469.1	4.3	90,633	2.2	10.29
2024	828	272,363	19,093.5	3.4	92,883	2.5	9.76

*For recent changes in the actuarial methods and assumptions, plan provisions, or significant events, please refer to the annual Actuarial Valuation Report and the Report on Recommended Actuarial Assumptions.

**For a ten year history by fiscal year of the actuarially determined and actual contribution amounts, see the Financial section of this report, Required Supplementary Information, Schedule of the School Districts' Contributions.

SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES ADDED TO AND REMOVED FROM THE BENEFIT PAYROLL*

Fiscal Year Ended	Number of Retired Members and Beneficiaries		Annual Benefit of Retired Members and Beneficiaries		Total Number of Retired Members and Beneficiaries	Total Annual Benefit**	Percentage Increase in Total Annual Benefit	Average Annual Benefit	Percentage Increase in Average Annual Benefit
	Added During the Year	Removed During the Year	Added During the Year	Removed During the Year					
2015	6,679	4,152	\$314,972,220	\$123,973,317	158,458	\$6,685,491,698	2.9%	\$42,191	1.3%
2016	6,719	4,029	318,693,576	122,540,821	161,148	6,881,644,453	2.9	42,704	1.2
2017	6,880	4,210	332,625,259	131,259,139	163,818	7,083,010,573	2.9	43,237	1.2
2018	6,951	4,484	342,878,955	144,338,778	166,285	7,281,550,750	2.8	43,790	1.3
2019	7,424	4,506	366,842,566	149,818,310	169,203	7,498,575,006	3.0	44,317	1.2
2020	8,205	4,839	417,236,881	163,825,172	172,569	7,751,986,715	3.4	44,921	1.4
2021	8,205	4,984	429,827,431	175,457,944	175,790	8,006,356,202	3.3	45,545	1.4
2022	7,812	5,033	421,461,528	185,748,482	178,569	8,242,069,248	2.9	46,156	1.3
2023	7,318	5,160	445,699,140	199,090,181	180,727	8,488,678,207	3.0	46,970	1.8
2024	6,911	5,197	464,512,897	198,978,904	182,441	8,754,212,200	3.1	47,984	2.2

*Computed on the Maximum annual benefit including supplementation and COLA.

**Annual benefits paid in this chart may differ from retirement benefit payments that appear elsewhere in this report because this chart reflects the rate of annual payment for retired members and their beneficiaries in pay as of the last day of the fiscal year.



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Retirement Board

Re: New York State Teachers' Retirement System:

Contemporaneously with the audit of the financial statements of the New York State Teachers' Retirement System (the System) for the year ended June 30, 2024, an actuary from our firm performed certain procedures to assess the reasonableness of the actuarial assumptions, methods, and procedures used by the System's Actuary to calculate the employer contributions for the System as reported in the System's June 30, 2024 basic financial statements. Specifically, an actuary from our firm reviewed the following for reasonableness as compared to Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations*, as adopted by the Actuarial Standards Board:

- The actuarial assumptions, methods and procedures described in the System's Actuarial Valuation Report as of June 30, 2022, used to derive the resultant employer contribution rate of 9.76% applied to employer payroll for the fiscal year ended June 30, 2024.
- The System's Experience Studies incorporated in the System's Actuarial Report as of June 30, 2022, and the opinions of the System's actuary presented therein.

Based on the results of the above procedures, we determined that the methods, procedures, and actuarial assumptions used to develop the employer contributions reported in the System's 2024 basic financial statements appeared reasonable in the context of ASOP No. 4.

This report is intended solely for the use of the New York State Teachers' Retirement System and should not be used for any other purpose.

Plante Moran, PC

PLANTE MORAN, PC

October 30, 2024



Statistical

Statistical

The objective of the statistical section is to provide financial statement users with historical perspective, context and detail to assist in using the information in the financial statements, notes to financial statements, and required supplementary information to better understand and assess the economic condition of NYSTRS. This section relies on a snapshot of member data provided by the participating employers to the Retirement System taken at the end of each fiscal year.

Demographic & Economic Information

The schedules on pages 125-137 are intended to assist users in understanding the environment within which NYSTRS operates and to provide information that facilitates comparison of financial statement information over time and among similar entities. The demographic and economic information schedules presented are:

- 125** Number of Active Members, Retired Members and Beneficiaries of Deceased
- 126** Distribution of Active Members by Age and Years of Service
 - Distribution of Active Members by Age
- 127** Distribution of Active Members by Service
- 128** Active Members and Annuitants 1922-2024
- 129** Number of Active Members by Tier
- 130** Retirement Statistics
- 132** Retirement Benefit Options and Percent of Election
 - Retired Members' Characteristics by Year of Retirement
- 133** Distribution of Benefits Paid by County
- 134** Distribution of Retired Members and Beneficiaries by Tier
 - History of the Number of New Retirees
- 135** Retired Members and Beneficiaries With Monthly Benefits by Decade of Retirement
 - Distribution of the Annual Benefit of All Retired Members
- 136** History of the Monthly COLA
- 137** Distribution of Monthly COLA Increase Commencing September 2024
 - Distribution of Cumulative Monthly COLA Commencing September 2024

Financial Trends Information

The schedules on pages 138-140 are intended to assist users in understanding and assessing how the financial position of NYSTRS has changed over time. The financial trend schedules presented are:

- 138** Changes in Fiduciary Net Position
- 139** Breakdown of Income Sources
- 140** Benefits and Return of Contributions by Type

Operating Information

The schedules on pages 142-146 are intended to provide contextual information about the operations and resources of NYSTRS to assist readers in using financial statement information. The operating information schedules are:

- 142** Average Benefit Payments
- 144** Retired Members and Beneficiaries by Type of Benefit
- 146** Principal Participating Employers

Demographic & Economic Information

ACTIVE MEMBERS:

	Male	Female	X*	Total
June 30, 2023	62,256	205,802	N/A	268,058
Changes During Year:				
Added	3,459	11,944	39	15,428
Withdrawn	1,190	3,568	9	4,753
Retired	1,466	4,761	0	6,227
Died	47	96	0	143
June 30, 2024	63,012	209,321	30	272,363

MEMBERS RETIRED FOR:

	Service**			Disability			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
June 30, 2023	48,263	123,253	171,516	399	1,652	2,051	48,662	124,905	173,567
Changes During Year:									
Retired	1,444	4,689	6,133	22	72	94	1,466	4,761	6,227
Died	1,783	2,768	4,551	26	86	112	1,809	2,854	4,663
Lump Sum	13	71	84	0	0	0	13	71	84
Restored to Active Membership	0	0	0	2	0	2	2	0	2
June 30, 2024	47,911	125,103	173,014	393	1,638	2,031 ***	48,304	126,741	175,045

BENEFICIARIES OF DECEASED:

	Service Annuitants			Disability Annuitants			Active Members			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
June 30, 2023	1,719	5,080	6,799	109	155	264	23	74	97	1,851	5,309	7,160
Changes During Year:												
Added	223	451	674	6	2	8	2	0	2	231	453	684
Died	121	308	429	5	10	15	1	3	4	127	321	448
June 30, 2024	1,821	5,223	7,044	110	147	257	24	71	95	1,955	5,441	7,396

SUMMARY:

	Male	Female	X*	Total
Active Members	63,012	209,321	30	272,363
Retired Members	48,304	126,741	0	175,045
Beneficiaries	1,955	5,441	0	7,396
Total	113,271	341,503	30	454,804

*As of January 1, 2023, Section 79-Q of the New York Civil Rights Law requires the collection of gender or sex data provide a separate field with the option of marking gender or sex as "X." NYSTRS updated its physical and online forms to provide an additional write-in option.

**Also includes vested retirees.

*** Includes 12 males and 29 females retired for disability who receive a service benefit.

DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND YEARS OF SERVICE*

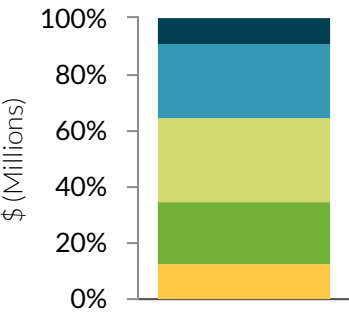
— as of June 30, 2024

Age		Years of Credited Service					
		0-5	6-10	11-15	16-20	21-25	26-30
20-24	Count of Members	11,391	1	0	0	0	0
	Average Salary	\$47,390	\$44,182	\$0	\$0	\$0	\$0
25-29	Count of Members	22,863	1,692	1	0	0	0
	Average Salary	\$59,626	\$70,983	\$54,755	\$0	\$0	\$0
30-34	Count of Members	15,674	11,073	1,255	0	0	0
	Average Salary	\$64,168	\$75,904	\$85,234	\$0	\$0	\$0
35-39	Count of Members	10,774	8,860	9,790	1,904	3	0
	Average Salary	\$63,572	\$77,197	\$88,777	\$99,781	\$93,785	\$0
40-44	Count of Members	8,841	6,527	6,580	14,567	2,685	2
	Average Salary	\$60,499	\$75,526	\$88,557	\$103,822	\$115,130	\$157,171
45-49	Count of Members	6,940	5,247	3,880	8,320	16,267	1,798
	Average Salary	\$58,643	\$70,517	\$86,322	\$106,098	\$118,292	\$125,529
50-54	Count of Members	5,658	4,856	3,335	4,919	10,647	12,059
	Average Salary	\$53,556	\$65,118	\$80,732	\$99,352	\$118,629	\$126,196
55-59	Count of Members	4,000	3,505	2,573	3,598	5,279	7,084
	Average Salary	\$53,180	\$60,006	\$72,307	\$89,295	\$111,145	\$124,462
60-64	Count of Members	2,465	1,770	1,349	2,456	3,149	2,595
	Average Salary	\$50,546	\$56,822	\$69,936	\$82,534	\$100,328	\$117,096
65-69	Count of Members	1,093	594	453	797	920	603
	Average Salary	\$48,576	\$56,690	\$67,582	\$79,813	\$93,645	\$105,738
70+	Count of Members	598	249	208	233	248	204
	Average Salary	\$46,651	\$57,134	\$61,183	\$79,996	\$88,927	\$93,359
Total	Count of Members	90,297	44,374	29,424	36,794	39,198	24,345
	Average Salary	\$59,158	\$73,087	\$85,333	\$100,199	\$115,024	\$123,904

*Average salary data is for the 199,063 members who earned a full year of service.
The average salary for all active members, full-time and part-time, is \$83,544.

DISTRIBUTION OF ACTIVE MEMBERS BY AGE

— as of June 30, 2024



Age Group	Percent
60+ Years of Age	8%
50-59 Years of Age	27%
40-49 Years of Age	30%
30-39 Years of Age	22%
20-29 Years of Age	13%

AVERAGES

— as of June 30, 2023

Gender	Age	Years of Service
Female	44	12
Male	44	13
X	31	0

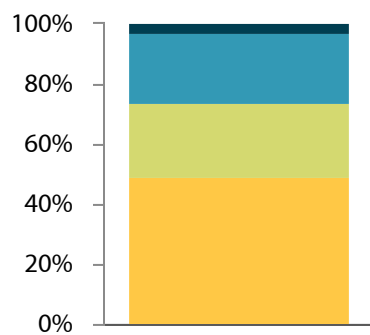
DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND YEARS OF SERVICE* (continued)

— as of June 30, 2024

Age		Years of Credited Service					Total
		31-35	36-40	41-45	46-50	51+	
20-24	Count of Members	0	0	0	0	0	11,392
	<i>Average Salary</i>	\$0	\$0	\$0	\$0	\$0	\$47,389
25-29	Count of Members	0	0	0	0	0	24,556
	<i>Average Salary</i>	\$0	\$0	\$0	\$0	\$0	\$60,862
30-34	Count of Members	0	0	0	0	0	28,002
	<i>Average Salary</i>	\$0	\$0	\$0	\$0	\$0	\$71,825
35-39	Count of Members	0	0	0	0	0	31,331
	<i>Average Salary</i>	\$0	\$0	\$0	\$0	\$0	\$80,786
40-44	Count of Members	0	0	0	0	0	39,202
	<i>Average Salary</i>	\$0	\$0	\$0	\$0	\$0	\$92,433
45-49	Count of Members	0	0	0	0	0	42,452
	<i>Average Salary</i>	\$0	\$0	\$0	\$0	\$0	\$104,059
50-54	Count of Members	1,217	2	0	0	0	42,693
	<i>Average Salary</i>	\$129,286	\$130,485	\$0	\$0	\$0	\$109,384
55-59	Count of Members	3,858	260	0	0	0	30,157
	<i>Average Salary</i>	\$131,317	\$133,112	\$0	\$0	\$0	\$106,737
60-64	Count of Members	1,067	689	34	0	0	15,574
	<i>Average Salary</i>	\$126,523	\$131,670	\$145,381	\$0	\$0	\$96,942
65-69	Count of Members	252	179	99	7	0	4,997
	<i>Average Salary</i>	\$114,672	\$122,799	\$132,092	\$163,309	\$0	\$89,818
70+	Count of Members	105	48	42	42	30	2,007
	<i>Average Salary</i>	\$104,873	\$104,251	\$122,126	\$145,529	\$184,290	\$89,697
Total	Count of Members	6,499	1,178	175	49	30	272,363
	<i>Average Salary</i>	\$129,091	\$129,531	\$132,282	\$148,122	\$184,290	\$92,883

*Average salary data is for the 199,063 members who earned a full year of service.

The average salary for all active members, full-time and part-time, is \$83,544.

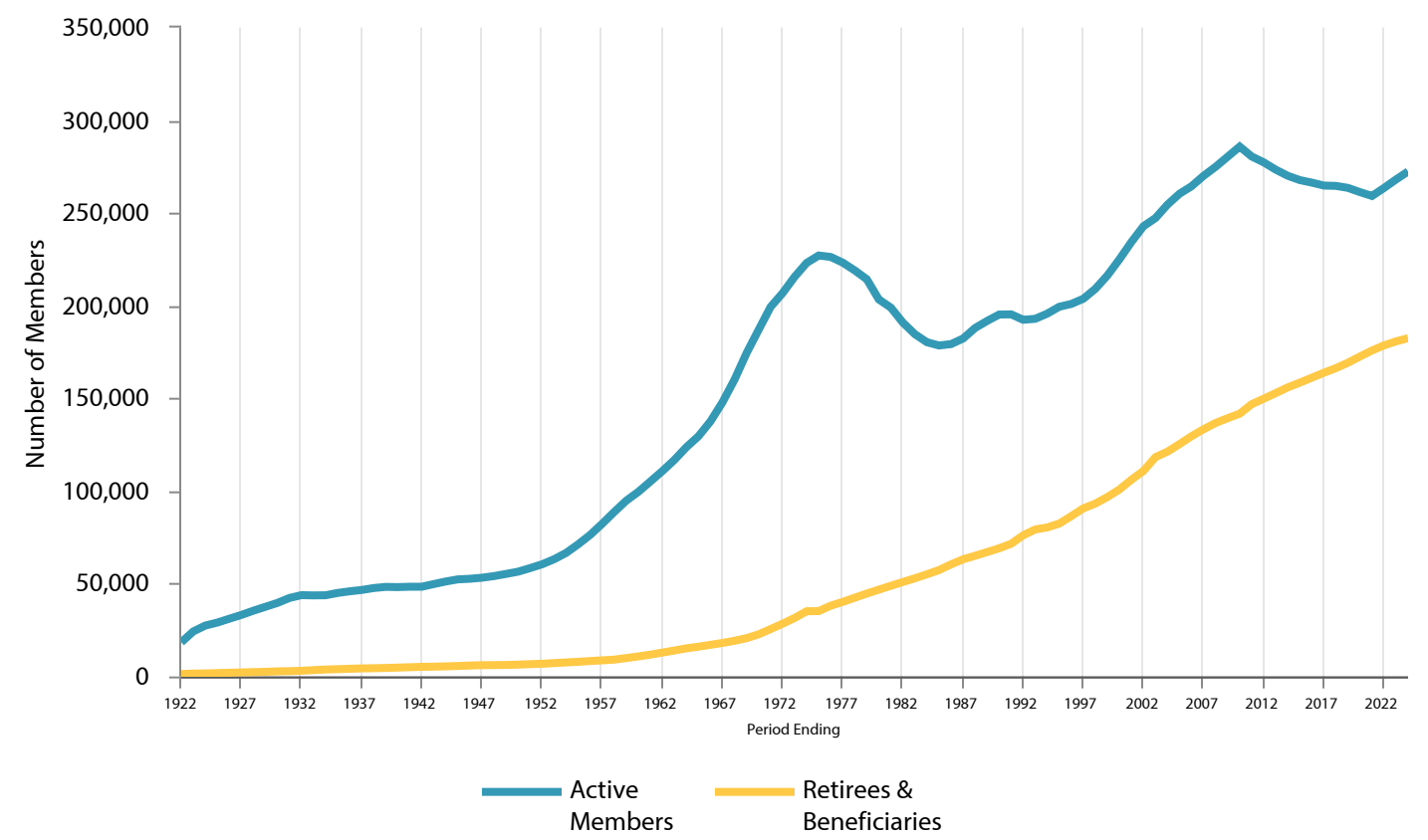
DISTRIBUTION OF ACTIVE MEMBERS BY SERVICE — as of June 30, 2024

Service Group	Percent
31+ Years of Service	3%
21-30 Years of Service	23%
11-20 Years of Service	24%
0-10 Years of Service	49%

ACTIVE MEMBERS AND ANNUITANTS 1922-2024

As of June 30	Active Members	Retirees & Beneficiaries	As of June 30	Active Members	Retirees & Beneficiaries
1922	18,412	1,296	1975	227,038	35,252
1925	29,057	1,815	1980	203,330	46,812
1930	39,663	2,732	1985	178,516	57,366
1935	45,031	3,919	1990	195,194	69,127
1940	48,193	4,771	1995	199,398	82,459
1945	52,359	5,637	2000	224,986	100,839
1950	56,504	6,374	2005	260,356	125,325
1955	71,273	7,897	2010	285,774	141,716
1960	99,555	10,796	2015	267,715	158,458
1965	129,543	16,043	2020	261,232	172,569
1970	186,914	22,700	2024	272,363	182,441

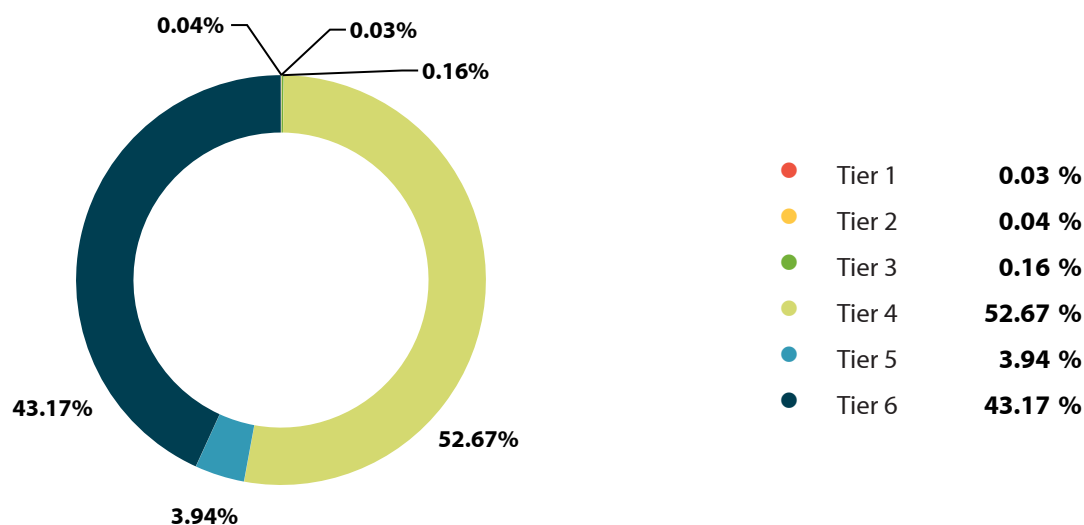
See related graph below.



NUMBER OF ACTIVE MEMBERS BY TIER

As of June 30	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 6	Total
2005	17,901	13,210	18,535	210,710	—	—	260,356
2006	13,621	12,084	18,173	220,532	—	—	264,410
2007	10,838	10,178	17,743	231,286	—	—	270,045
2008	8,630	8,171	17,007	241,093	—	—	274,901
2009	6,943	6,752	16,111	250,532	—	—	280,338
2010	5,582	5,706	14,942	255,966	3,578	—	285,774
2011	3,814	4,137	12,690	247,530	12,264	—	280,435
2012	2,756	3,253	11,180	239,199	19,969	916	277,273
2013	1,968	2,447	9,450	231,258	19,452	8,753	273,328
2014	1,439	1,810	7,753	222,545	19,124	17,368	270,039
2015	1,116	1,348	6,222	214,020	18,878	26,131	267,715
2016	832	974	4,920	204,912	18,540	36,172	266,350
2017	607	720	3,881	195,226	17,722	46,605	264,761
2018	446	546	2,993	186,581	16,499	57,525	264,590
2019	349	403	2,276	178,516	14,595	67,378	263,517
2020	249	282	1,638	170,306	13,040	75,717	261,232
2021	169	202	1,106	162,627	12,061	82,993	259,158
2022	121	160	771	155,480	11,369	95,574	263,475
2023	93	112	561	149,061	10,906	107,325	268,058
2024	74	98	425	143,465	10,721	117,580	272,363

ACTIVE MEMBERS BY TIER



MEMBERS RETIRED IN 2023-2024 FOR:

	Service*	Disability
Number Retired	6,133	94
Age at Retirement:		
Average	60 yrs., 11 mos.	49 yrs., 10 mos.
Median	60 yrs., 10 mos.	50 yrs., 7 mos.
Years of Service:		
Average	25 yrs., 8 mos.	20 yrs., 0 mos.
Median	28 yrs., 4 mos.	19 yrs., 5 mos.
**Benefit:		
Average	\$51,712	\$33,286
Median	\$53,550	\$32,585
Final Average Salary (FAS):		
Average	\$97,018	\$89,509
Median	\$97,022	\$82,897
***Benefit as % of FAS:		
Average	48.73%	36.67%
Median	54.38%	33.33%

MEMBERS RETIRED IN 2023-2024 FOR SERVICE* WITH:

	Less Than 10 Yrs. Svc.	10 or More Yrs. and Less Than 20 Yrs. Svc.	20 or More Yrs. and Less Than 30 Yrs. Svc.	30 or More Yrs. Svc.
Number Retired	395	742	2,124	2,872
Age at Retirement:				
Average	62 yrs., 2 mos.	61 yrs., 11 mos.	62 yrs., 9 mos.	59 yrs., 2 mos.
Median	62 yrs., 0 mos.	62 yrs., 0 mos.	62 yrs., 6 mos.	58 yrs., 1 mo.
Years of Service:				
Average	7 yrs., 2 mos.	14 yrs., 6 mos.	24 yrs., 1 mo.	32 yrs., 6 mos.
Median	7 yrs., 1 mo.	14 yrs., 7 mos.	24 yrs., 0 mos.	31 yrs., 7 mos.
**Benefit:				
Average	\$4,212	\$12,863	\$42,232	\$75,294
Median	\$3,600	\$10,316	\$41,560	\$71,349
Final Average Salary (FAS):				
Average	\$40,079	\$57,951	\$92,373	\$118,377
Median	\$35,647	\$52,074	\$90,960	\$111,608
***Benefit as % of FAS:				
Average	10.55%	21.79%	45.31%	63.47%
Median	10.37%	21.30%	44.89%	62.50%

*Also includes vested retirees.

**The Maximum, even though the member may have chosen an option.

***The average and median of individual benefits as percentages of final average salary.

ALL RETIREES AS OF JUNE 30, 2024 RETIRED FOR:

	Service*	Disability
Number Retired	173,055	1,990
Age at Retirement:		
Average	59 yrs., 3 mos.	49 yrs., 7 mos.
Median	58 yrs., 4 mos.	50 yrs., 4 mos.
Age Attained as of June 30, 2024:		
Average	74 yrs., 2 mos.	66 yrs., 7 mos.
Median	74 yrs., 4 mos.	66 yrs., 11 mos.
Years of Service:		
Average	27 yrs., 6 mos.	18 yrs., 4 mos.
Median	30 yrs., 0 mos.	17 yrs., 7 mos.
**Benefit:		
Average	\$45,608	\$23,524
Median	\$46,091	\$21,435
Final Average Salary (FAS):		
Average	\$79,916	\$64,966
Median	\$77,541	\$61,264
***Benefit as % of FAS:		
Average	53.06%	35.42%
Median	60.00%	33.33%

ALL RETIREES AS OF JUNE 30, 2024 RETIRED FOR SERVICE* WITH:

	Less Than 10 Yrs. Svc.	10 or More Yrs. and Less Than 20 Yrs. Svc.	20 or More Yrs. and Less Than 30 Yrs. Svc.	30 or More Yrs. Svc.
Number Retired	5,622	24,414	51,942	91,077
Age at Retirement:				
Average	60 yrs., 7 mos.	59 yrs., 7 mos.	60 yrs., 9 mos.	58 yrs., 3 mos.
Median	59 yrs., 10 mos.	58 yrs., 5 mos.	61 yrs., 5 mos.	57 yrs., 2 mos.
Years of Service:				
Average	7 yrs., 4 mos.	14 yrs., 5 mos.	24 yrs., 5 mos.	34 yrs., 1 mo.
Median	7 yrs., 5 mos.	14 yrs., 5 mos.	24 yrs., 7 mos.	33 yrs., 6 mos.
**Benefit:				
Average	\$4,364	\$10,419	\$36,378	\$62,850
Median	\$3,769	\$8,128	\$33,938	\$58,858
Final Average Salary (FAS):				
Average	\$41,508	\$46,516	\$76,643	\$93,106
Median	\$37,878	\$39,483	\$72,368	\$87,545
***Benefit as % of FAS:				
Average	10.58%	21.73%	47.15%	67.45%
Median	10.25%	21.02%	47.39%	66.42%

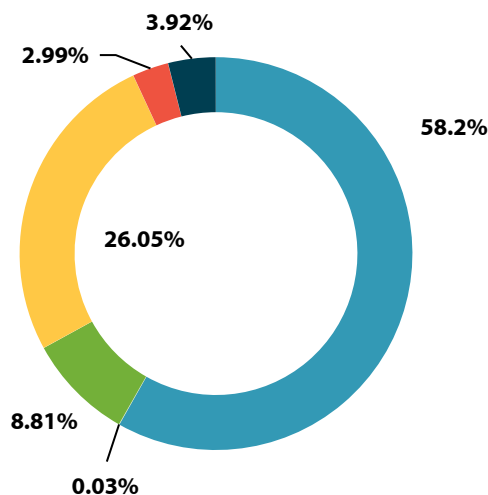
*Also includes vested retirees.

**The Maximum, even though the member may have chosen an option.

***The average and median of individual benefits as percentages of final average salary.

RETIREMENT BENEFIT OPTIONS AND PERCENT OF ELECTION

2020-2024 Retirees



Option	Number Electing	Percent of Election*
Maximum	20,545	58.20 %
Annuity/Declining Reserve	9	0.03 %
Joint & Survivor	3,110	8.81 %
Pop-Up	9,197	26.05 %
Guarantee	1,056	2.99 %
Alternative	1,384	3.92 %
Total	35,301	100.00 %

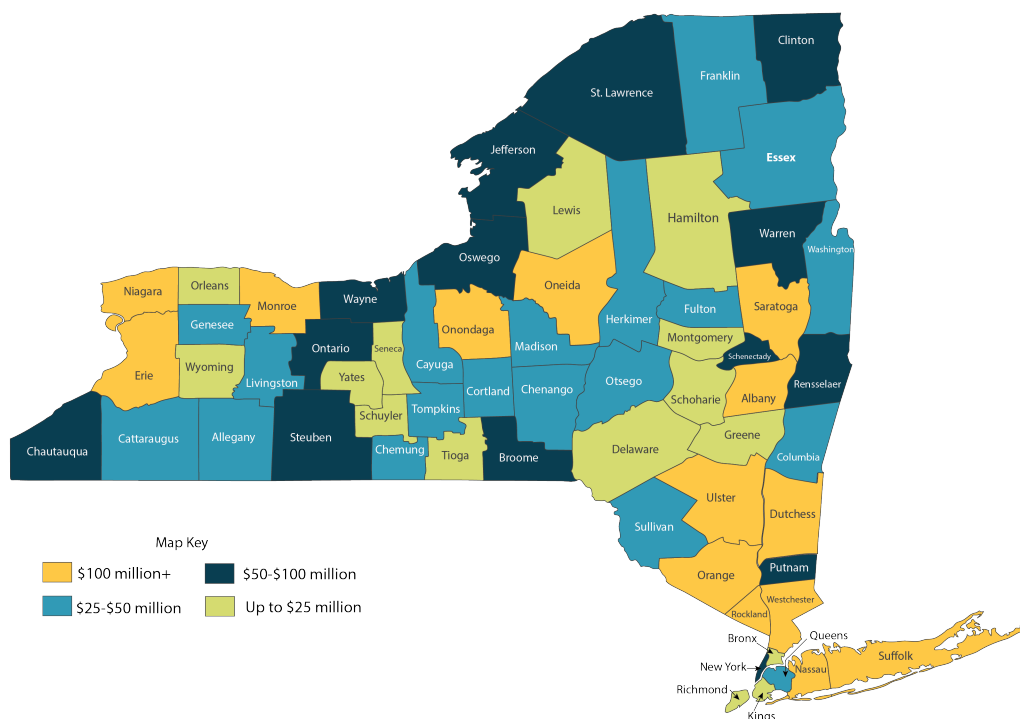
*Percentages may not sum to 100% due to rounding.

RETIRED MEMBERS' CHARACTERISTICS* BY YEAR OF RETIREMENT

Retired in Fiscal Year Ended	Number of Retired Members	Average Age at Retirement (yrs.- mos.)	Average Service at Retirement (yrs.- mos.)	Average Final Average Salary	Average Maximum Annual Benefit
2015	6,161	60-11	25-4	\$84,362	\$44,487
2016	6,245	61-2	25-0	84,308	44,215
2017	6,396	61-3	25-0	85,242	45,049
2018	6,416	61-1	25-1	86,910	45,725
2019	6,890	61-0	25-1	87,085	45,713
2020	7,642	61-4	25-8	90,228	48,273
2021	7,617	61-5	26-3	91,713	49,145
2022	7,135	61-3	25-7	92,434	48,724
2023	6,680	61-0	25-5	94,394	49,794
2024	6,227	60-11	25-8	97,018	51,712

*Averages are for service and vested retirees.

DISTRIBUTION OF BENEFITS PAID BY COUNTY* – as of June 30, 2024



County	Retired Members and Beneficiaries	Annual Benefits Paid**	County	Retired Members and Beneficiaries	Annual Benefits Paid**	County	Retired Members and Beneficiaries	Annual Benefits Paid**
Albany	3,356	\$145,913,272	Jefferson	1,552	\$62,825,359	St. Lawrence	1,869	\$70,633,118
Allegany	672	\$25,933,429	Kings	232	\$11,894,044	Saratoga	4,131	\$186,620,356
Bronx	280	\$14,940,800	Lewis	384	\$14,767,952	Schenectady	1,836	\$78,860,598
Broome	2,436	\$97,389,701	Livingston	1,101	\$46,201,962	Schoharie	505	\$19,480,854
Cattaraugus	1,012	\$42,712,873	Madison	1,083	\$43,463,976	Schuyler	293	\$10,962,232
Cayuga	1,102	\$43,975,217	Monroe	9,982	\$422,657,267	Seneca	447	\$17,426,048
Chautauqua	1,983	\$86,569,569	Montgomery	564	\$23,766,390	Steuben	1,459	\$55,101,832
Chemung	1,114	\$43,155,310	Nassau	10,105	\$614,715,673	Suffolk	18,840	\$1,179,976,997
Chenango	722	\$27,206,869	New York	1,109	\$56,800,311	Sullivan	881	\$43,263,507
Clinton	1,330	\$53,305,530	Niagara	2,466	\$115,444,848	Tioga	593	\$23,385,633
Columbia	785	\$33,874,233	Oneida	3,363	\$137,139,316	Tompkins	1,154	\$41,482,401
Cortland	841	\$32,266,548	Onondaga	7,559	\$300,870,791	Ulster	3,104	\$146,884,740
Delaware	657	\$24,610,260	Ontario	2,196	\$90,318,512	Warren	1,572	\$66,097,333
Dutchess	3,661	\$178,376,362	Orange	3,546	\$183,025,776	Washington	797	\$31,818,127
Erie	11,578	\$526,078,987	Orleans	480	\$22,342,639	Wayne	1,412	\$55,305,219
Essex	716	\$27,136,099	Oswego	1,836	\$69,689,476	Westchester	7,259	\$432,908,902
Franklin	774	\$29,060,350	Otsego	1,143	\$41,510,050	Wyoming	538	\$21,334,599
Fulton	815	\$34,619,406	Putnam	1,141	\$67,178,268	Yates	440	\$17,237,170
Genesee	810	\$34,253,445	Queens	796	\$46,873,252			
Greene	598	\$23,856,920	Rensselaer	1,832	\$75,838,670	Out of State	43,920	\$1,768,933,714
Hamilton	147	\$6,363,566	Richmond	39	\$2,070,251			
Herkimer	1,008	\$37,938,159	Rockland	2,485	\$130,554,545	Grand Total	182,441	\$8,417,199,613

*Computed on the optional annual benefit including supplementation and COLA.

**Annual benefits paid in this chart may differ from retirement benefit payments that appear elsewhere in this report because this chart reflects the rate of annual payment for retired members and their beneficiaries in pay as of the last day of the fiscal year.

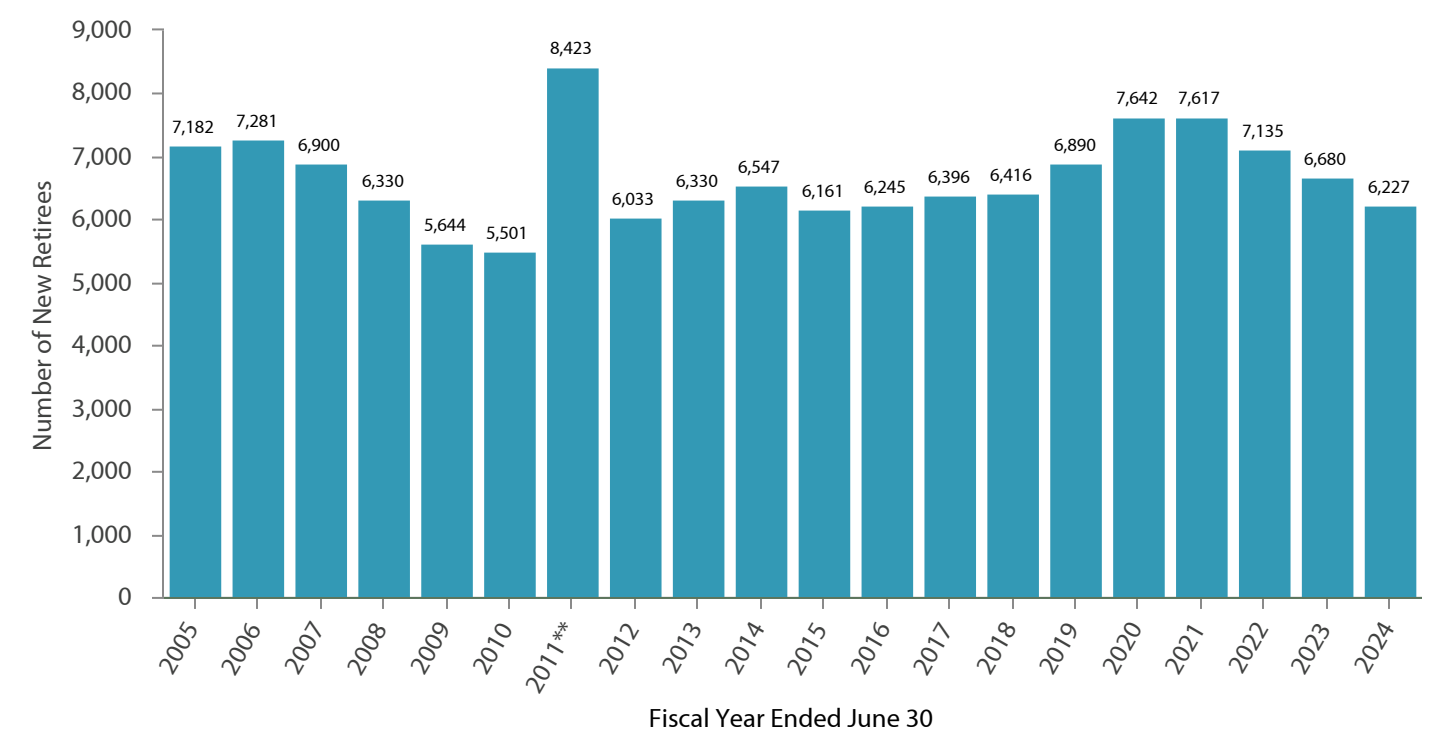
DISTRIBUTION OF RETIRED MEMBERS AND BENEFICIARIES BY TIER

— as of June 30, 2024

	Tier 1	Tier 2	Tier 3		Tier 4	Tier 5	Tier 6	Total
Members Retired for:								
Service*	67,565	15,804	20,103	(164) **	69,039	259	244	173,014
Disability	387	148	207	(24) **	1,287	2	0	2,031
Beneficiaries of Deceased:								
Service Annuitants	5,250	506	453	(5) **	832	3	0	7,044
Disability Annuitants	134	26	23	(4) **	74	0	0	257
Active Members	79	1	2	(0) **	9	0	4	95
Total	73,415	16,485	20,788	(197)**	71,241	264	248	182,441

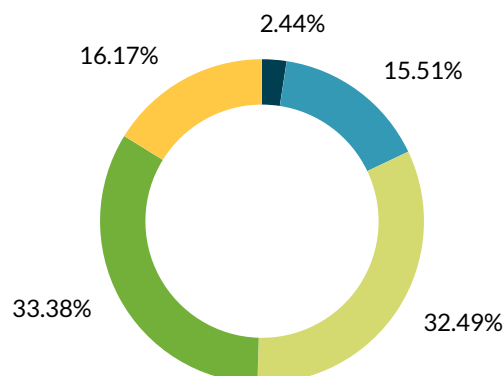
*Also includes vested retirees.
 **Those receiving an Article 14 (Tier 3) benefit. The remainder are receiving an Article 15 (Tier 4) benefit. Tier 3 members receive the better of the two benefits.

HISTORY OF THE NUMBER OF NEW RETIREES*



*Includes service, vested and disability retirements.
 **Retirements in this fiscal year include the impact of legislatively enacted early retirement incentive programs.

RETIRED MEMBERS AND BENEFICIARIES* WITH MONTHLY BENEFITS BY DECADE OF RETIREMENT — as of June 30, 2024



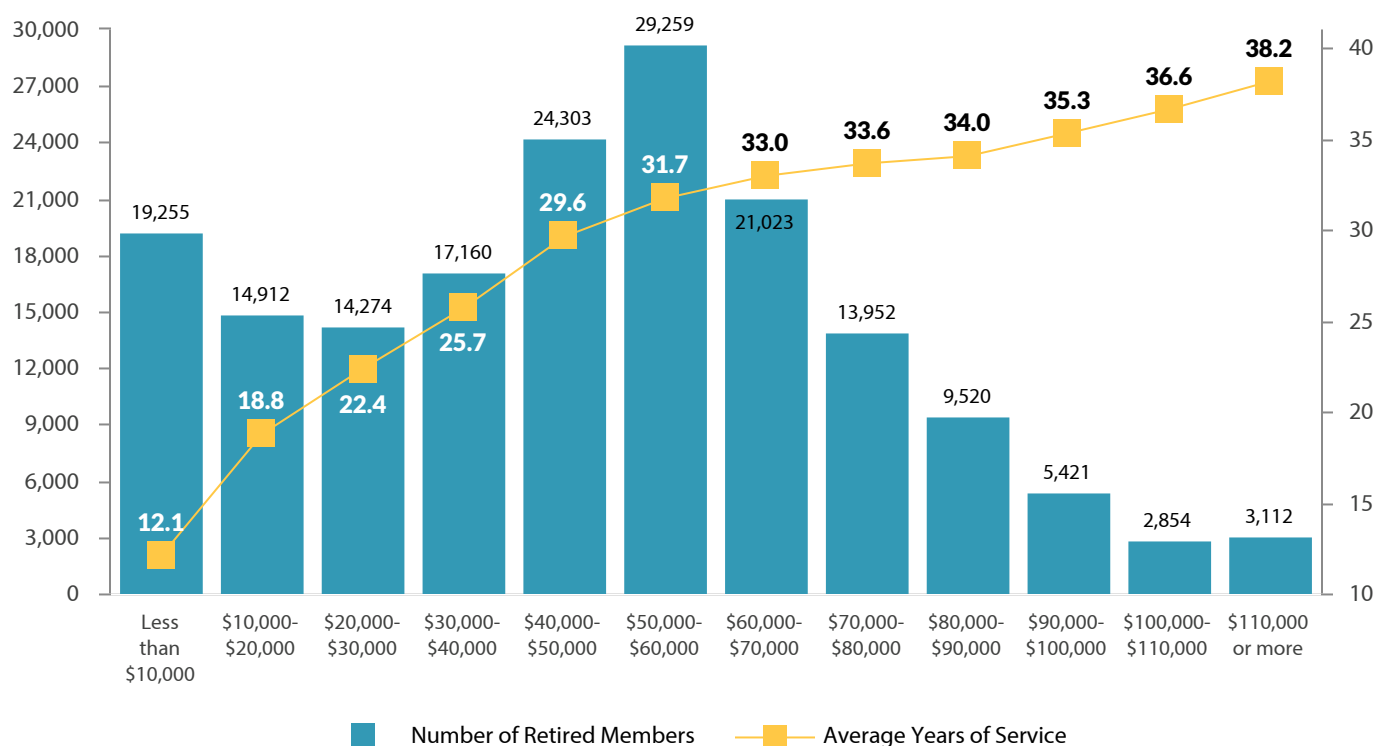
Calendar Years	Number of People	Percentage**	Average Monthly Maximum Benefit	Average Total Monthly Maximum Benefit***
1989 or earlier	4,457	2.44 %	\$1,480.21	\$2,091.44
1990-1999	28,285	15.51 %	\$2,914.00	\$3,340.08
2000-2009	59,252	32.49 %	\$3,906.62	\$4,180.97
2010-2019	60,867	33.38 %	\$3,986.10	\$4,099.95
2020-2024	29,485	16.17 %	\$4,234.83	\$4,234.83
Total	182,346			

*Excludes 95 beneficiaries of deceased active members.

**Percentages may not sum to 100% due to rounding.

***Average total monthly Maximum benefit includes supplementation and COLA.

DISTRIBUTION OF THE ANNUAL BENEFIT* OF ALL RETIRED MEMBERS — as of June 30, 2024



*Maximum annual retirement benefit including supplementation and COLA.

HISTORY OF THE MONTHLY COLA

Commencing September	Year Ended March 31 CPI* Percentage Change	Applicable COLA Percentage	Maximum Annual Base Benefit Amount	Maximum Monthly COLA Increase	Cumulative Maximum Monthly COLA	Average Monthly COLA Increase	Cumulative Average Monthly COLA
2001	2.92%	1.5%	\$18,000	\$22.50	\$22.50	\$18.80	\$18.80
2002	1.48%	1.0%	\$18,000	\$15.00	\$37.50	\$12.64	\$31.44
2003	3.02%	1.6%	\$18,000	\$24.00	\$61.50	\$20.32	\$51.76
2004	1.74%	1.0%	\$18,000	\$15.00	\$76.50	\$12.85	\$64.61
2005	3.15%	1.6%	\$18,000	\$24.00	\$100.50	\$20.68	\$85.29
2006	3.36%	1.7%	\$18,000	\$25.50	\$126.00	\$22.09	\$107.38
2007	2.78%	1.4%	\$18,000	\$21.00	\$147.00	\$18.29	\$125.67
2008	3.98%	2.0%	\$18,000	\$30.00	\$177.00	\$26.24	\$151.91
2009	-0.38%	1.0%	\$18,000	\$15.00	\$192.00	\$13.17	\$165.08
2010	2.31%	1.2%	\$18,000	\$18.00	\$210.00	\$15.86	\$180.94
2011	2.68%	1.4%	\$18,000	\$21.00	\$231.00	\$18.55	\$199.49
2012	2.65%	1.4%	\$18,000	\$21.00	\$252.00	\$18.59	\$218.08
2013	1.47%	1.0%	\$18,000	\$15.00	\$267.00	\$13.30	\$231.38
2014	1.51%	1.0%	\$18,000	\$15.00	\$282.00	\$13.32	\$244.70
2015	-0.07%	1.0%	\$18,000	\$15.00	\$297.00	\$13.36	\$258.06
2016	0.85%	1.0%	\$18,000	\$15.00	\$312.00	\$13.36	\$271.42
2017	2.38%	1.2%	\$18,000	\$18.00	\$330.00	\$16.03	\$287.45
2018	2.36%	1.2%	\$18,000	\$18.00	\$348.00	\$16.02	\$303.47
2019	1.86%	1.0%	\$18,000	\$15.00	\$363.00	\$13.35	\$316.82
2020	1.54%	1.0%	\$18,000	\$15.00	\$378.00	\$13.35	\$330.17
2021	2.62%	1.4%	\$18,000	\$21.00	\$399.00	\$18.69	\$348.86
2022	8.54%	3.0%	\$18,000	\$45.00	\$444.00	\$40.02	\$388.88
2023	4.98%	2.5%	\$18,000	\$37.50	\$481.50	\$33.39	\$422.27
2024	3.48%	1.8%	\$18,000	\$27.00	\$508.50	\$24.07	\$446.34

*Consumer Price Index

DISTRIBUTION OF MONTHLY COLA INCREASE COMMENCING SEPTEMBER 2024

Monthly COLA Increase	Number of Retired Members and Beneficiaries
\$27.00	118,091
\$22.50 - \$26.99	3,114
\$18.50 - \$22.49	3,599
\$14.00 - \$18.99	9,828
\$9.00 - \$13.99	5,133
\$4.50 - \$8.99	6,957
\$0.01 - \$4.49	2,230
\$0 (currently ineligible)	33,489
Total	182,441

DISTRIBUTION OF CUMULATIVE MONTHLY COLA COMMENCING SEPTEMBER 2024

Cumulative Monthly COLA	Number of Retired Members and Beneficiaries
\$508.50	12,725
\$400.00 - \$508.49	20,005
\$320.00 - \$399.99	18,048
\$240.00 - \$319.99	31,102
\$160.00 - \$239.99	27,937
\$80.00 - \$159.99	23,407
\$0.01 - \$79.99	15,728
\$0 (currently ineligible)	33,489
Total	182,441

Financial Trends Information

CHANGES IN FIDUCIARY NET POSITION

Last Ten Fiscal Years
(dollars in thousands)

Additions:	2015	2016	2017	2018	2019
Net investment income	\$ 5,400,265	\$ 2,392,354	\$ 12,951,892	\$ 9,928,009	\$ 8,023,180
Employer contributions	2,633,682	2,046,562	1,857,359	1,597,139	1,774,646
Member contributions	119,411	124,587	129,770	131,595	136,610
Transfers	3,213	4,014	7,845	9,278	9,087
Total additions	8,156,571	4,567,517	14,946,866	11,666,021	9,943,523
Deductions: (See Benefits and Return of Contributions by Type on Pages 140-141)					
Benefit payments	6,513,931	6,701,637	6,903,361	7,088,949	7,285,362
Return of contributions	17,209	18,229	19,676	20,049	21,956
Administrative expenses	56,948	60,426	61,611	60,610	74,242
Total deductions	6,588,088	6,780,292	6,984,648	7,169,608	7,381,560
Change in fiduciary net position restricted for pensions	\$ 1,568,483	\$ (2,212,775)	\$ 7,962,218	\$ 4,496,413	\$ 2,561,963

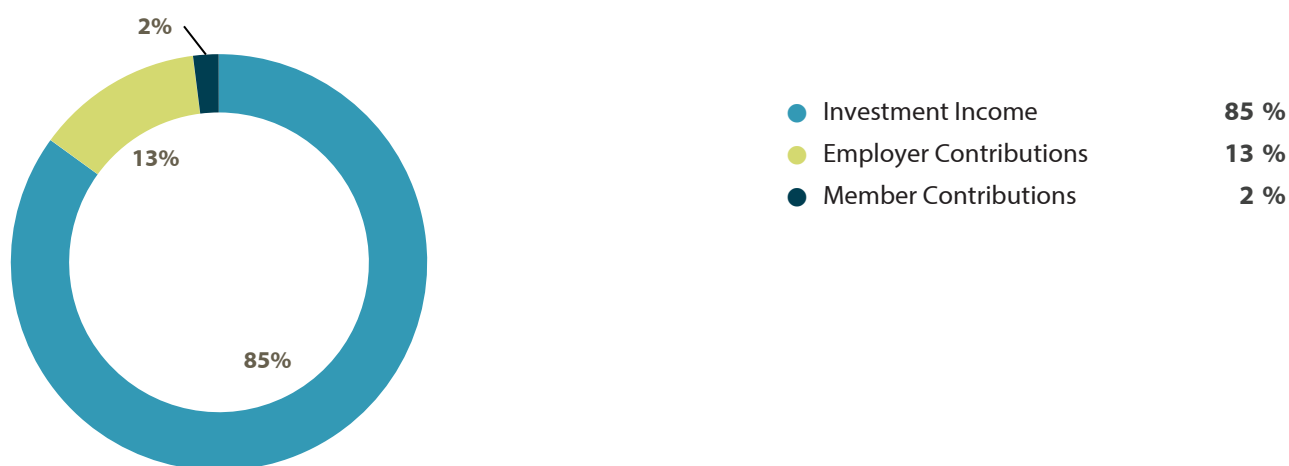
CHANGES IN FIDUCIARY NET POSITION *(continued)*

Last Ten Fiscal Years
(dollars in thousands)

Additions:	2020	2021	2022	2023	2024
Net investment income	\$ 3,923,633	\$ 33,668,008	\$(10,078,814)	\$ 11,439,286	\$ 14,984,823
Employer contributions	1,504,688	1,618,437	1,735,255	1,899,885	1,874,459
Member contributions	145,034	159,874	190,853	221,152	258,472
Transfers	3,955	10,025	8,685	10,841	16,343
Total additions	5,577,310	35,456,344	(8,144,021)	13,571,164	17,134,097
Deductions: (See Benefits and Return of Contributions by Type on Pages 140-141)					
Benefit payments	7,484,462	7,717,521	7,961,870	8,214,699	8,425,713
Return of contributions	19,439	14,379	16,754	20,213	20,444
Administrative expenses	71,385	55,492	61,230	79,298	88,042
Total deductions	7,575,286	7,787,392	8,039,854	8,314,210	8,534,199
Change in fiduciary net position restricted for pensions	\$ (1,997,976)	\$ 27,668,952	\$(16,183,875)	\$ 5,256,954	\$ 8,599,898

BREAKDOWN OF INCOME SOURCES

Fiscal Years Ended 1995-2024



BENEFITS AND RETURN OF CONTRIBUTIONS BY TYPE

Last Ten Fiscal Years
(dollars in thousands)

Type of Benefit	2015	2016	2017	2018	2019
Age and service benefits:					
Retirees	\$6,419,576	\$6,601,664	\$6,794,278	\$6,978,694	\$7,179,640
Survivors	31,888	34,051	41,662	35,234	40,775
In-service death benefits	20,730	22,801	23,606	29,845	21,339
Disability benefits:					
Ordinary	41,251	42,591	43,469	44,828	43,256
Accidental	486	530	346	348	352
Total benefits	<u>\$6,513,931</u>	<u>\$6,701,107</u>	<u>\$6,903,015</u>	<u>\$7,088,949</u>	<u>\$7,285,362</u>

Type of Return of Contributions					
Death	\$ 2,350	\$ 3,011	\$ 3,061	\$ 3,211	\$ 2,865
Separation from service	14,859	15,218	16,615	16,838	19,091
Total return of contributions	<u>\$ 17,209</u>	<u>\$ 18,229</u>	<u>\$ 19,676</u>	<u>\$ 20,049</u>	<u>\$ 21,956</u>

BENEFITS AND RETURN OF CONTRIBUTIONS BY TYPE *(continued)*

Last Ten Fiscal Years

(dollars in thousands)

Type of Benefit	2020	2021	2022	2023	2024
Age and service benefits:					
Retirees	\$7,375,088	\$7,614,539	\$7,847,887	\$8,086,493	\$8,302,605
Survivors	38,101	35,205	44,429	51,933	51,348
In-service death benefits	25,873	22,366	22,184	27,420	21,913
Disability benefits:					
Ordinary	45,045	45,055	46,963	48,447	49,448
Accidental	355	356	407	406	399
Total benefits	<u>\$7,484,462</u>	<u>\$7,717,521</u>	<u>\$7,961,870</u>	<u>\$8,214,699</u>	<u>\$8,425,713</u>
Type of Return of Contributions					
Death	\$ 3,215	\$ 2,497	\$ 3,167	\$ 3,594	\$ 2,835
Separation from service	16,224	11,882	13,587	16,619	17,609
Total return of contributions	<u>\$ 19,439</u>	<u>\$ 14,379</u>	<u>\$ 16,754</u>	<u>\$ 20,213</u>	<u>\$ 20,444</u>

Operating Information

AVERAGE BENEFIT PAYMENTS – JULY 1, 2014 – JUNE 30, 2024

Retirement Effective Dates	Years of Credited Service							
	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35+
Period 7/1/2014 to 6/30/2015								
Average monthly benefit	\$255	\$306	\$842	\$1,543	\$2,879	\$4,163	\$5,277	\$6,887
Average final average salary	\$35,508	\$33,815	\$51,353	\$64,139	\$82,057	\$92,745	\$100,927	\$110,667
Number of retired members	37	400	615	521	1,081	1,255	1,660	592
Period 7/1/2015 to 6/30/2016								
Average monthly benefit	\$188	\$321	\$873	\$1,532	\$2,873	\$4,280	\$5,353	\$6,907
Average final average salary	\$35,355	\$34,747	\$51,987	\$63,932	\$81,515	\$94,402	\$102,221	\$112,592
Number of retired members	32	491	589	582	1,079	1,223	1,676	573
Period 7/1/2016 to 6/30/2017								
Average monthly benefit	\$120	\$329	\$868	\$1,645	\$2,871	\$4,282	\$5,452	\$7,076
Average final average salary	\$23,555	\$35,957	\$52,383	\$66,494	\$81,188	\$94,415	\$104,070	\$115,549
Number of retired members	117	457	569	565	1,079	1,185	1,864	560
Period 7/1/2017 to 6/30/2018								
Average monthly benefit	\$119	\$335	\$854	\$1,665	\$2,960	\$4,499	\$5,433	\$7,112
Average final average salary	\$29,014	\$36,702	\$51,465	\$68,612	\$83,811	\$98,562	\$103,842	\$116,274
Number of retired members	51	493	567	581	1,173	1,088	1,921	542
Period 7/1/2018 to 6/30/2019								
Average monthly benefit	\$172	\$329	\$813	\$1,733	\$2,972	\$4,406	\$5,518	\$7,006
Average final average salary	\$39,231	\$35,270	\$51,300	\$70,026	\$84,394	\$96,529	\$105,222	\$115,394
Number of retired members	55	516	582	657	1,250	1,177	2,124	529
Period 7/1/2019 to 6/30/2020								
Average monthly benefit	\$136	\$364	\$838	\$1,684	\$2,903	\$4,449	\$5,623	\$7,062
Average final average salary	\$30,831	\$38,777	\$50,970	\$67,553	\$82,646	\$98,885	\$107,546	\$117,306
Number of retired members	39	423	562	718	1,455	1,255	2,499	691
Period 7/1/2020 to 6/30/2021								
Average monthly benefit	\$213	\$399	\$819	\$1,586	\$2,868	\$4,375	\$5,702	\$7,273
Average final average salary	\$41,885	\$39,264	\$49,996	\$63,726	\$81,929	\$98,964	\$109,407	\$120,727
Number of retired members	20	305	520	710	1,551	1,378	2,466	667
Period 7/1/2021 to 6/30/2022								
Average monthly benefit	\$166	\$363	\$843	\$1,736	\$2,903	\$4,429	\$5,846	\$7,247
Average final average salary	\$33,158	\$39,216	\$51,881	\$69,624	\$83,482	\$100,211	\$112,474	\$120,833
Number of retired members	30	380	464	717	1,547	1,145	2,262	590
Period 7/1/2022 to 6/30/2023								
Average monthly benefit	\$179	\$357	\$858	\$1,797	\$3,024	\$4,635	\$5,922	\$7,547
Average final average salary	\$31,293	\$38,951	\$53,546	\$72,522	\$86,527	\$103,896	\$113,796	\$125,671
Number of retired members	42	393	483	602	1,361	1,145	2,139	515
Period 7/1/2023 to 6/30/2024								
Average monthly benefit	\$212	\$383	\$861	\$1,812	\$2,970	\$4,755	\$6,086	\$7,428
Average final average salary	\$44,367	\$40,680	\$53,814	\$72,913	\$85,172	\$106,692	\$117,088	\$124,375
Number of retired members	30	390	394	474	1,249	1,092	2,134	464

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RETIRED MEMBERS AND BENEFICIARIES BY TYPE OF BENEFIT

— as of June 30, 2024

Amount of Monthly Benefit	Number of Retired Members	Type of Retirement					
		1	2	3	4	5	6
\$1 - \$500	13,782	6,825	6,492	80	310	16	59
\$501 - \$1,000	12,974	6,206	6,025	301	380	51	11
\$1,001 - \$1,500	10,489	6,241	3,416	386	374	64	8
\$1,501 - \$2,000	9,614	6,011	2,761	391	403	47	1
\$2,001 - \$2,500	10,407	6,901	2,606	319	545	33	3
\$2,501 - \$3,000	11,199	8,079	2,225	216	657	18	4
\$3,001 - \$3,500	13,258	10,582	1,789	142	734	10	1
\$3,501 - \$4,000	16,474	14,251	1,393	89	734	6	1
\$4,001 - \$4,500	17,949	16,151	1,003	51	733	9	2
\$4,501 - \$5,000	15,700	14,387	648	30	633	1	1
over \$5,000	50,595	47,975	1,047	26	1,541	2	4
Total	182,441	143,609	29,405	2,031	7,044	257	95

Type of retirement:

- 1 - Normal retirement for age and service
- 2 - Early retirement*
- 3 - Disability retirement
- 4 - Beneficiary payment, normal or early retirement
- 5 - Beneficiary payment, disability retirement
- 6 - Beneficiary payment, in-service death benefit

**Tiers 2-5: retirement at age less than 62 and service less than 30 years.*

Tier 6: retirement at age less than 63.

RETIRED MEMBERS AND BENEFICIARIES BY TYPE OF BENEFIT *(continued)*

— as of June 30, 2024

Amount of Monthly Benefit	Number of Retired Members	Option Selected					
		1	2	3	4	5	6
\$1 - \$500	13,782	10,627	777	1,091	575	262	450
\$501 - \$1,000	12,974	9,513	842	1,594	505	146	374
\$1,001 - \$1,500	10,489	7,425	724	1,619	369	115	237
\$1,501 - \$2,000	9,614	6,669	740	1,625	292	105	183
\$2,001 - \$2,500	10,407	7,088	851	1,887	309	92	180
\$2,501 - \$3,000	11,199	7,462	957	2,220	274	108	178
\$3,001 - \$3,500	13,258	8,701	1,179	2,727	334	62	255
\$3,501 - \$4,000	16,474	10,661	1,286	3,764	375	90	298
\$4,001 - \$4,500	17,949	11,240	1,425	4,460	390	73	361
\$4,501 - \$5,000	15,700	9,469	1,377	4,106	326	56	366
over \$5,000	50,595	28,207	4,956	14,602	1,036	114	1,680
Total	182,441	117,062	15,114	39,695	4,785	1,223	4,562

Option selected:

1 - Unmodified; Single life annuity (Maximum)

2 - Joint and survivor

3 - Joint and survivor with pop-up

4 - Guarantee period

5 - Declining reserve / Annuity reserve

6 - Alternative

PRINCIPAL PARTICIPATING EMPLOYERS

Current Year and Nine Years Ago

Participating Employer 2024	Covered Employees	Rank	Percentage of Total System**
Buffalo Public Schools	4,598	1	1.69%
Rochester City School District	3,643	2	1.34%
Syracuse City School District	3,065	3	1.13%
Yonkers Public Schools	2,213	4	0.81%
Brentwood Union Free Schools	1,972	5	0.72%
Greece Central Schools	1,431	6	0.53%
Eastern Suffolk 1 City School District	1,410	7	0.52%
Sachem Central Schools	1,409	8	0.52%
Nassau City School District	1,339	9	0.49%
Newburgh Central Schools	1,325	10	0.49%
All Other*	249,958 ⁺		91.77%
Total	272,363 ⁺		100.00%

+ Covered Employees represents members of the System which includes those currently employed and members formerly employed by a participating employer but not yet retired.

* For a breakdown of the "All Other" category, please see below.

**Percentages may not sum to 100% due to rounding.

All Other Participating Employers:

Type	Number	Covered Employees
Public School Districts	671	229,481 ⁺
Boards of Cooperative Educational Services (BOCES)	35	11,760
SUNY	31	2,826
Community Colleges	30	2,489
Charter Schools	33	2,586
Special Act Districts	9	475
Other	9	341
Total All Other	818	249,958 ⁺

+ Covered Employees represents members of the System which includes those currently employed and members formerly employed by a participating employer but not yet retired.

PRINCIPAL PARTICIPATING EMPLOYERS *(continued)*

Current Year and Nine Years Ago

Participating Employer 2015	Covered Employees	Rank	Percentage of Total System**
Buffalo Public Schools	4,664	1	1.74%
Rochester City School District	3,878	2	1.45%
Syracuse City School District	2,659	3	0.99%
Yonkers Public Schools	2,052	4	0.77%
Brentwood Union Free Schools	1,744	5	0.65%
Greece Central Schools	1,418	6	0.53%
Sachem Central Schools	1,396	7	0.52%
Newburgh City School District	1,259	8	0.47%
Wappingers Central Schools	1,193	9	0.45%
Eastern Suffolk 1 BOCES	1,175	10	0.44%
All Other	246,277 ⁺		91.99%
Total	267,715 ⁺		100.00%

⁺ Covered Employees represents members of the System which includes those currently employed and members formerly employed by a participating employer but not yet retired.

**Percentages may not sum to 100% due to rounding.

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**New York State
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