NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM
10 CORPORATE WOODS DRIVE, ALBANY NY

Risk Committee Meeting

A meeting of the Risk Committee of the Retirement Board of the New York State Teachers' Retirement System was held at the System on October 30, 2024. The meeting was called to order at 8:30 a.m. by Nicholas Smirensky, acting Chair.

The following individuals were in attendance:

Committee Members: Paul Farfaglia, Oliver Robinson, Nicholas Smirensky

Board Members: Juliet Benaquisto, Eric Iberger, David Keefe, Donald A. Little III

NYSTRS' Staff: Thomas Lee, Heidi Travis, Don Ampansiri, Dave Gillan, Binoop Unni, Gerald Yahoudy, Vijay Madala, Michael Federici, Richard Young, Kathy Ebert, Margaret Andriola, Miriam Dixon, Danny Malavé, Matt Albano, Emily Ekland, Han Yik, John Rosenburg, Matt Tice, Ryan Ranado, Rick Jensen, Ryan Warren

Risk Advisors: Sean Atkinson (via WebEx), Steve Huber (via WebEx), Peter Cosgrove (via WebEx)

Visitors: Kevin Balaod, WithIntelligence (via WebEx)

The following items were discussed:

1. Approval of the minutes of July 31, 2024

Upon motion of P. Farfaglia, seconded by O. Robinson and unanimously carried, the meetings minutes of the July 31, 2024 were approved.

2. Compliance Update

   M. Albano and M. Tice reviewed the compliance program inventory report (Appendix A, pp. 3-4)

3. Annual SEC Red Flags

   M. Tice reviewed the findings of the Risk Department's annual assessment using the SEC Risk Inventory Guide (Appendix B, pp. 5-10).

4. Investment Risk KRI Dashboard and Update

   R. Ranado reviewed the risk management key risk indicator dashboard and the investment risk report (Appendix C, pp. 11-22).

5. Information Security KRI Dashboard and Update and Quarterly Review of Risk Management Team

Upon motion of P. Farfaglia, seconded by O. Robinson and unanimously carried, the Committee went into Executive Session at 8:53 a.m. to hear an Information Security presentation given by J. Rosenberg and a quarterly review of the Risk Management team given by M. Albano.

The Committee came out of Executive Session upon motion of P. Farfaglia, seconded by O. Robinson and unanimously carried at 9:05 a.m. and adjourned.

Respectfully submitted,

[redacted]

Thomas K. Lee

Appendix A

New York State Teachers' Retirement System

Enterprise Risk and Compliance Update

Risk Management

Risk Committee: October 30, 2024

Matthew Albano, CFA, Chief Risk Officer

Matthew Tice, Director of Enterprise Risk

Regulatory Items Requiring Board Action

	Regulatory Item	Owner
October Meeting	External Auditor Report	Internal Audit
	Approval of the IPM	Executive

	Regulatory Item	Owner
January Meeting	Submission of BCP/DRP to DFS	Administration
	Internal Audit Plan Approval	Internal Audit

Period of ***July*** Through ***September***: ***74*** required regulatory items were due *and all* were completed by departments.

New York State Teachers' Retirement System

Securities Exchange Commission Red Flags Assessment

Risk Management

Risk Committee: October 30, 2024

Matthew Albano, CFA, Chief Risk Officer

Matthew Tice, Director of Enterprise Risk

Agenda

- ❑ Securities Exchange Commission (SEC) 12 Red Flag Categories
- ❑ SEC Red Flags Assessment Process
- ❑ SEC Red Flags Assessment Results

SEC Red Flags Assessment
12 Red Flag Categories

1. Marketing/Performance
2. Form ADV/Disclosures
3. Invoices/Fees
4. IPO Offerings
5. Soft Dollars/Kickbacks
6. Compensation
7. Objectives/Restrictions
8. Trade Ticket
9. Trade Execution
10. Non-Public Information
11. Personal and Proprietary Trading Account
12. Money/Securities to/from Broker/Custodian

SEC Red Flags Assessment Process

Send out Broker Attestations in January → Review the 12 Red Flag Categories with Departments → Review Results with Departments and Issue Report → Report to the Risk Committee of the Board

- Broker Attestations are sent out and received back to ensure a broker is not engaging in the use of soft dollars or commission sharing in conjunction with NYSTRS securities transactions and is not providing any gifts, gratuities or anything else of value to any employee or Board member of NYSTRS. In January of 2023, **50** attestations were sent and completed.

- Investment operations assess the 12 Red Flag categories of non-compliance risk that may be present in their everyday operations and rate the impact and likelihood of each red flag.

- The results are reviewed with the department and a report is generated based on the results from each department.

SEC Red Flags Assessment Results

Sec Red Flag	Likelihood	Impact
1. Marketing/Performance	Low	Low
2. Form ADV/Disclosures	Low	Medium
3. Invoices/Fees	N/A	N/A
4. IPO Offerings	Low	Low
5. Soft Dollar/Kickbacks	Low	Low
6. Compensation	N/A	N/A
7. Objectives/Restrictions	Low	Low
8. Trade Ticket	Low	Low
9. Trade Execution	Low	Low
10. Non-public Information	Low	High
11. Personal and Proprietary Trading	Low	High
12. Money/Securities to/from Broker/Custodian	Low	Low

Likelihood – Low
Impact – Moderate

Risk mitigations reduced the likelihood of the red flags to low but in the event of a regulatory breach, impact could be moderate. However, depending on the severity of the event the impact could be major.

Questions?

Appendix C

New York State Teachers' Retirement System

Investment Risk Update

Risk Management

Risk Committee: October 30, 2024

Matthew Albano, CFA, Chief Risk Officer
Ryan Ranado, CFA, Assistant Director of Investment Risk Management

Public Market data as of 08/30/2024; Private Asset data as of 06/30/2024

Investment Risk - Key Risk Indicators				

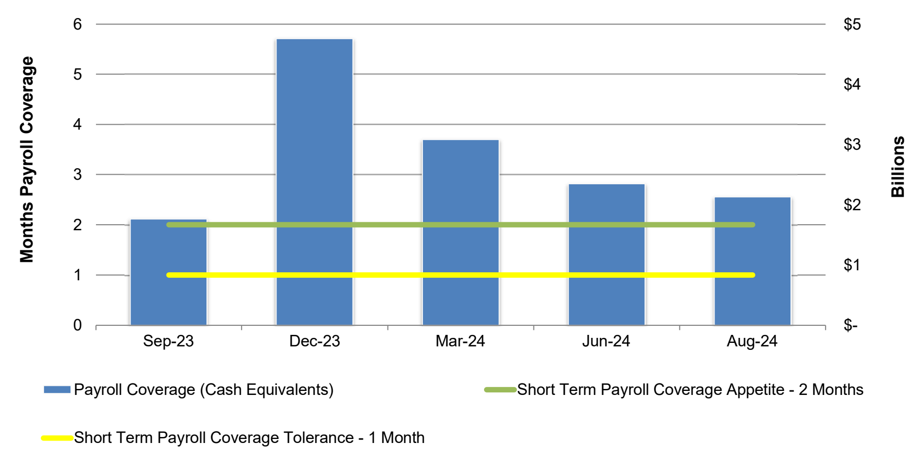
Updates:

- All Liquidity KRI's remain within our "Risk Appetite".
- All asset classes were within 1% of the target asset allocation level as of quarter-end.
- Total Plan Risk continues on a downward trajectory towards pre-covid levels.

Key Risk Indicator	Outside Tolerance	Risk Tolerance	Risk Appetite	Current Assessment
Asset Allocation (Market Risk Management)	One or More Asset Classes Out of Bounds	One or More Asset Classes Outside of Policy During Transition Period	All Asset Classes within Policy Range	All Asset Classes within Policy Range
Net Benefit Payments as % of Assets (Liquidity)	>10%	>5 - 10%	<= 5%	4.41%
Short Term Liquidity (Liquidity)	<= 1 Month	1 - 2 Months	>= 2 Months	2.6 Months
Medium Term Liquidity (Liquidity)	<= 10 Months	10 - 12 Months	>= 12 Months	14 Months
Stressed Contingency Funding Liquidity (Liquidity)	<= 18 Months	18 - 24 Months	>= 24 Months	27 Months
Stressed Long Term Liquidity (Liquidity)	<= 3 Years	3 - 5 Years	>= 5 Years	9 Years
Funded Ratio: Market Value of Total Plan Assets (Unfunded Liability)	<80% or >120%	80 - 90% or 110 - 120%	90 - 110%	98.6% (6/30/2023)
ECR Volatility (Unfunded Liability)	Δ +/- >3%	Δ +/- 2 - 3%	Δ +/- 2%	0.35% (6/30/2023)
ECR Level (Unfunded Liability)	<4% or >17%	4 - 6% or 12 - 17%	6 - 12%	10.11% (6/30/2023)
Actuarial Valuation: Periodic Full Scope Audit (Valuation Process)	Replicated Liabilities >4% of NYSTRS' Calculation	Replicated Liabilities 1 - 4% of NYSTRS' Calculation	Replicated Liabilities <=1% of NYSTRS' Calculation	0.04% (4/16/2019)
Actuarial Valuation: Annual Independent Review (Valuation Process)	Adverse Opinion	Modified Opinion	Unmodified Opinion	Unmodified Opinion (10/26/2023)

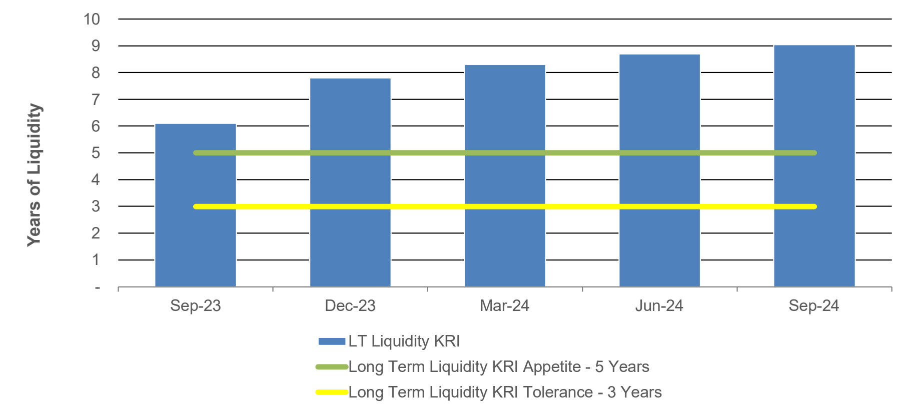
Funding Liquidity - Short Term Payroll Coverage

Short Term Liquidity KRI (Months)	Current Qtr.	Appetite	Tolerance	Outside Tolerance
	2.6	>= 2 months	1-2 months	<=1 month



Stressed Long Term Funding Liquidity - Allocation to Liquid Assets

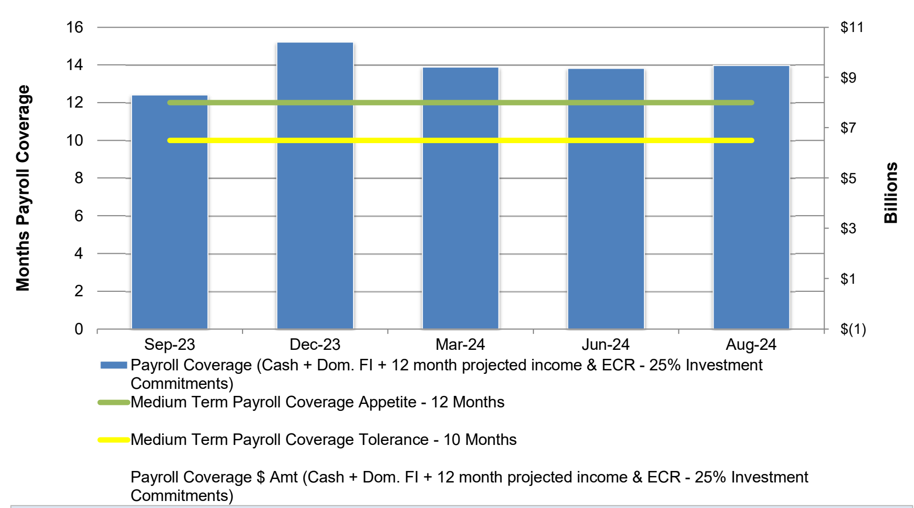
Stressed Long Term Liquidity KRI (Years)	Current Qtr.	Appetite	Tolerance	Outside Tolerance
	9.0	>=5 Years	3-5 Years	<=3 Years



The Stressed Long Term Liquidity KRI assumes a hypothetical 40% portfolio loss then calculates years of required cash flow coverage from remaining public market assets and 12 months *estimated net cash flows (*includes stressed projections for: portfolio income, employer contributions and unfunded capital calls)

Funding Liquidity - Medium Term Payroll Coverage

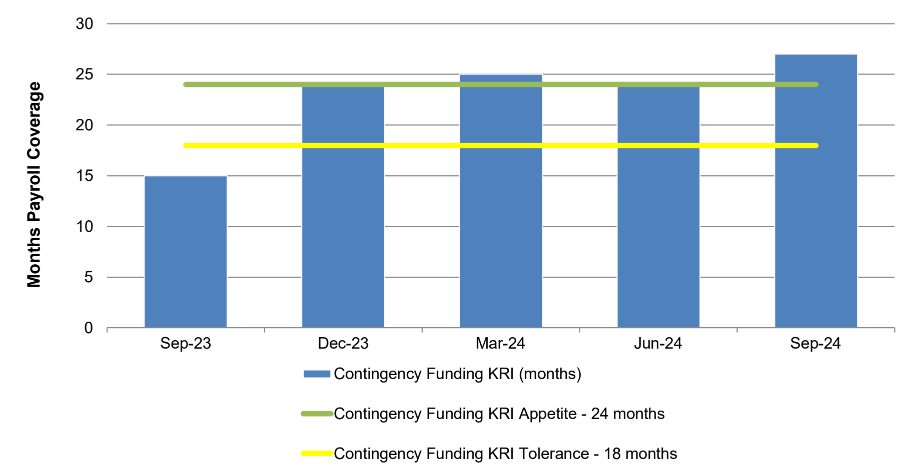
Medium Term Liquidity KRI (Months)	Current Qtr.	Appetite	Tolerance	Outside Tolerance
	14.0	>=12 months	10-12 months	<=10 months



Domestic Fixed Income included in payroll coverage observe the minimum allocation bound. Capital calls of 25% are indicative of a "non-stressed" market environment. Income and employer contributions are 12 month projections from the most recent quarter date depicted.

Stressed Funding Liquidity - Contingency Funding Plan

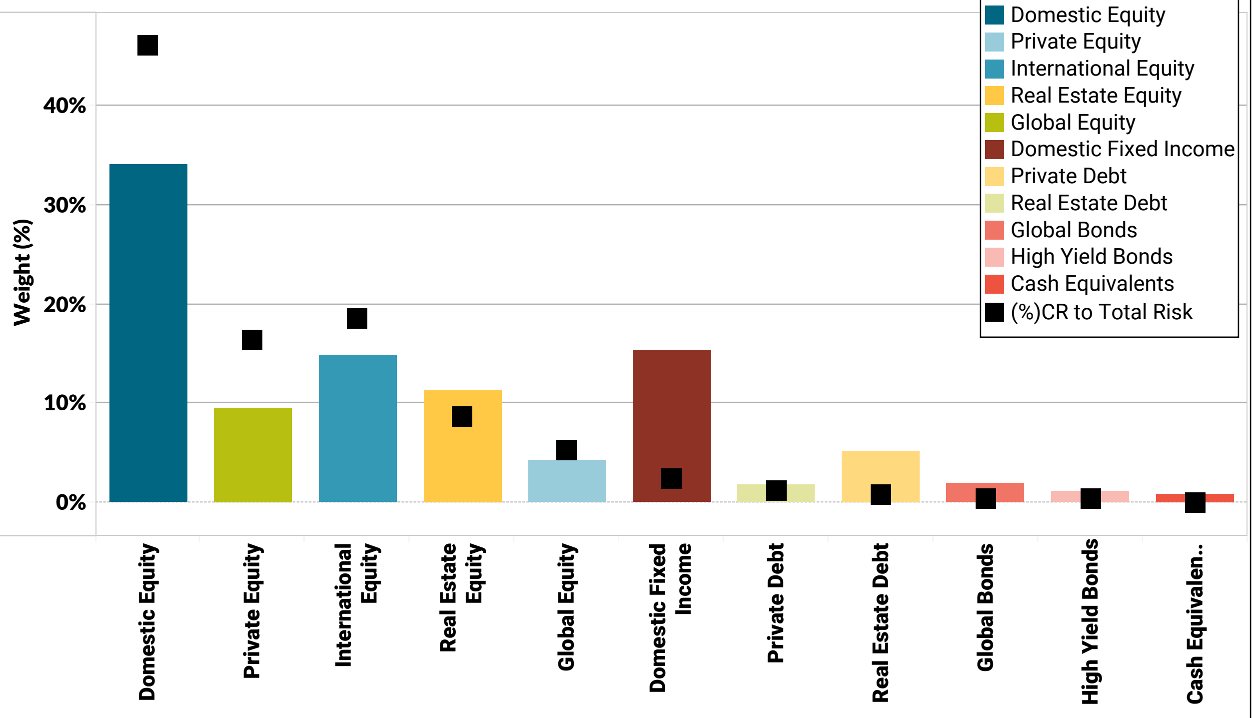
Stressed Contingency Funding Liquidity KRI (Months)	Current Qtr.	Appetite	Tolerance	Outside Tolerance
	27.0	>=24 months	18-24 months	<=18 months



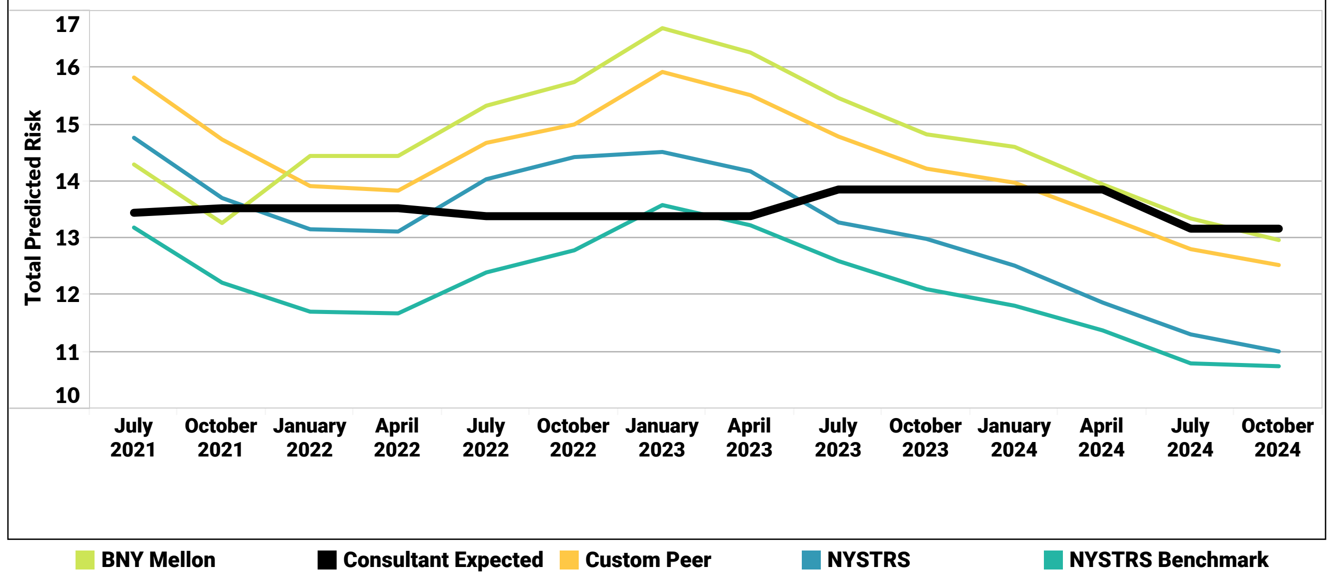
The Stressed Contingency Funding Liquidity KRI seeks to evaluate how many months of payroll can be made during a GFC like scenario before NYSTRS' CFP is triggered. GFC loss is experienced over 12 months with asset classes returning capital market assumptions years 2-5. Employer contributions are capped at 17%.

Observations:
Total plan risk continued lower as it dropped to 11.01 from 11.31 last quarter. As the heightened volatility experienced during covid gets further behind us, it is weighted exponentially lower in the risk models, driving the predicted risk levels lower. As expected, equity investments continue to contribute the majority of total plan risk.

Total Predicted Risk by Asset Class

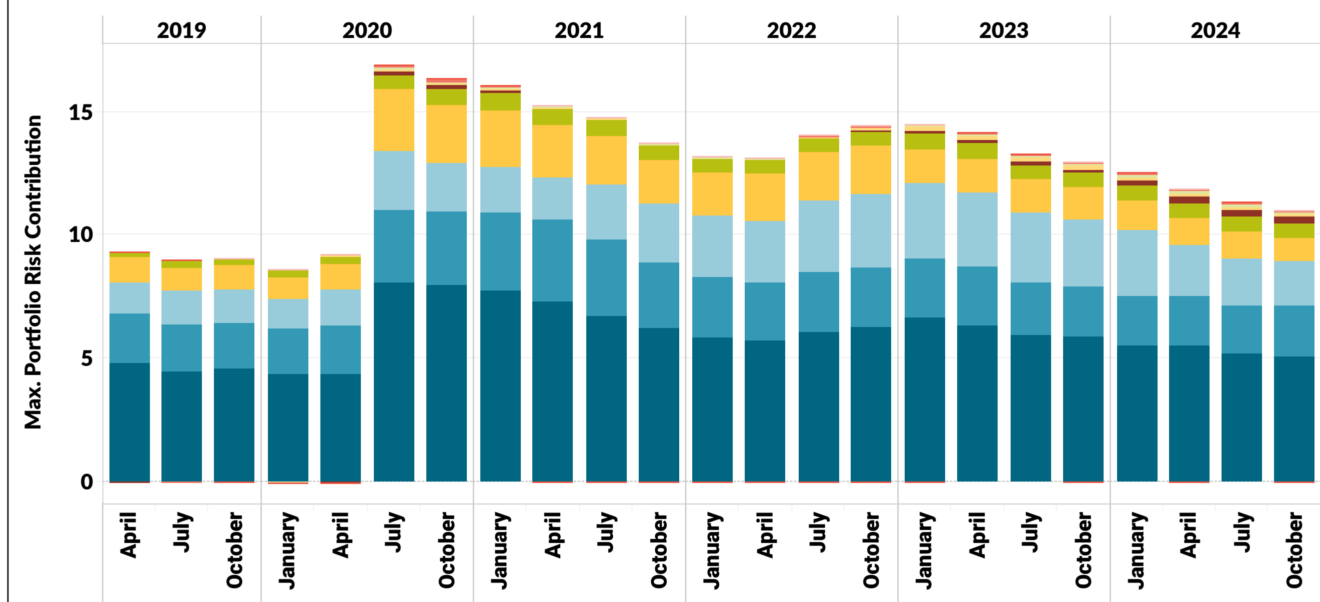


Peer Comparison

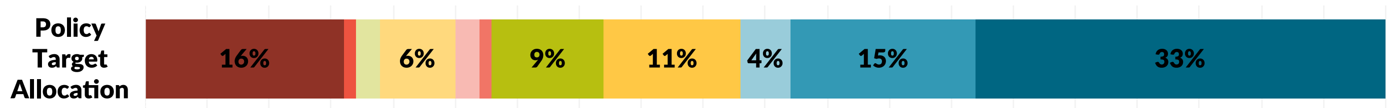


Asset Class	Market Value($M)	Weight(%)	(%)CR to Total Risk	Portfolio Risk Contribution	Total Risk
Total Plan	$146,458	100.00%	100.00%	11.01	11.01
Domestic Equity	$49,787	33.99%	46.00%	5.07	15.54
Private Equity	$13,981	9.55%	16.42%	1.81	23.67
International Equity	$21,659	14.79%	18.56%	2.04	15.29
Real Estate Equity	$16,467	11.24%	8.71%	0.96	11.19
Global Equity	$6,113	4.17%	5.27%	0.58	14.37
Domestic Fixed Income	$22,408	15.30%	2.34%	0.26	6.10
Private Debt	$2,550	1.74%	1.23%	0.14	9.15
Real Estate Debt	$7,650	5.22%	0.76%	0.08	3.76
Global Bonds	$2,931	2.00%	0.38%	0.04	5.32
High Yield Bonds	$1,565	1.07%	0.31%	0.03	4.49
Cash Equivalents	$1,342	0.92%	0.00%	0.00	0.06

Historical Predicted Risk



Asset Allocation



Asset Classes

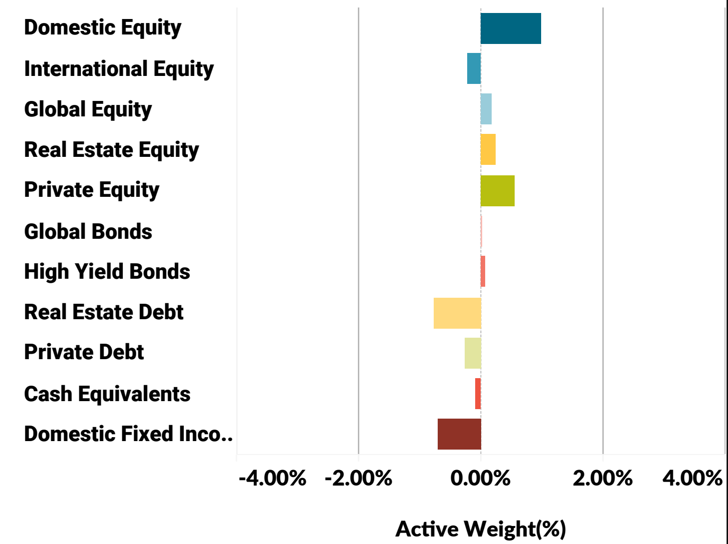
- Domestic Equity
- International Equity
- Global Equity
- Real Estate Equity
- Private Equity
- High Yield Bonds
- Global Bonds
- Real Estate Debt
- Private Debt
- Cash Equivalents
- Domestic FI

Active Predicted Risk:
Active Predicted Risk is defined as the expected volatility of excess returns, and results from differences between actual portfolio weights and holdings vs. policy weights and holdings. Excess returns may be positive or negative.

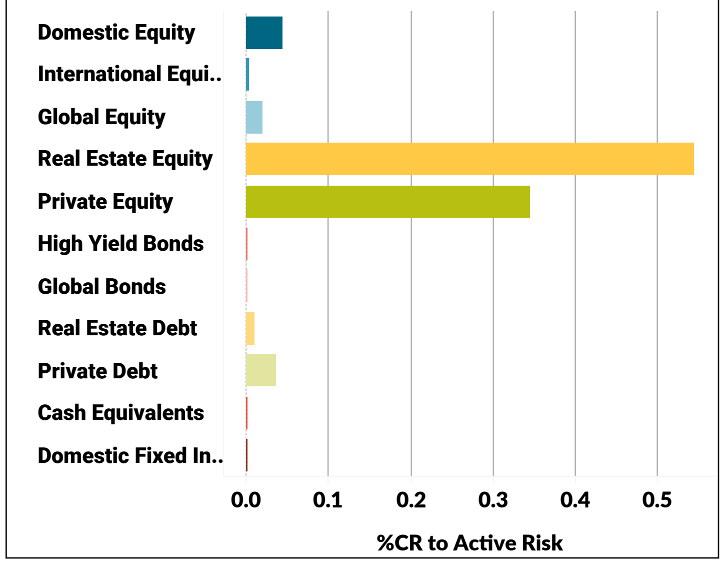
Active Risk for the Fund is largely controlled by limiting the difference between the actual and policy benchmark (target) weights for each asset class.

Benchmarking issues associated with private market portfolios also affect the measurement of 'active' risk. We see this most significantly with NYSTRS' private equity portfolio.

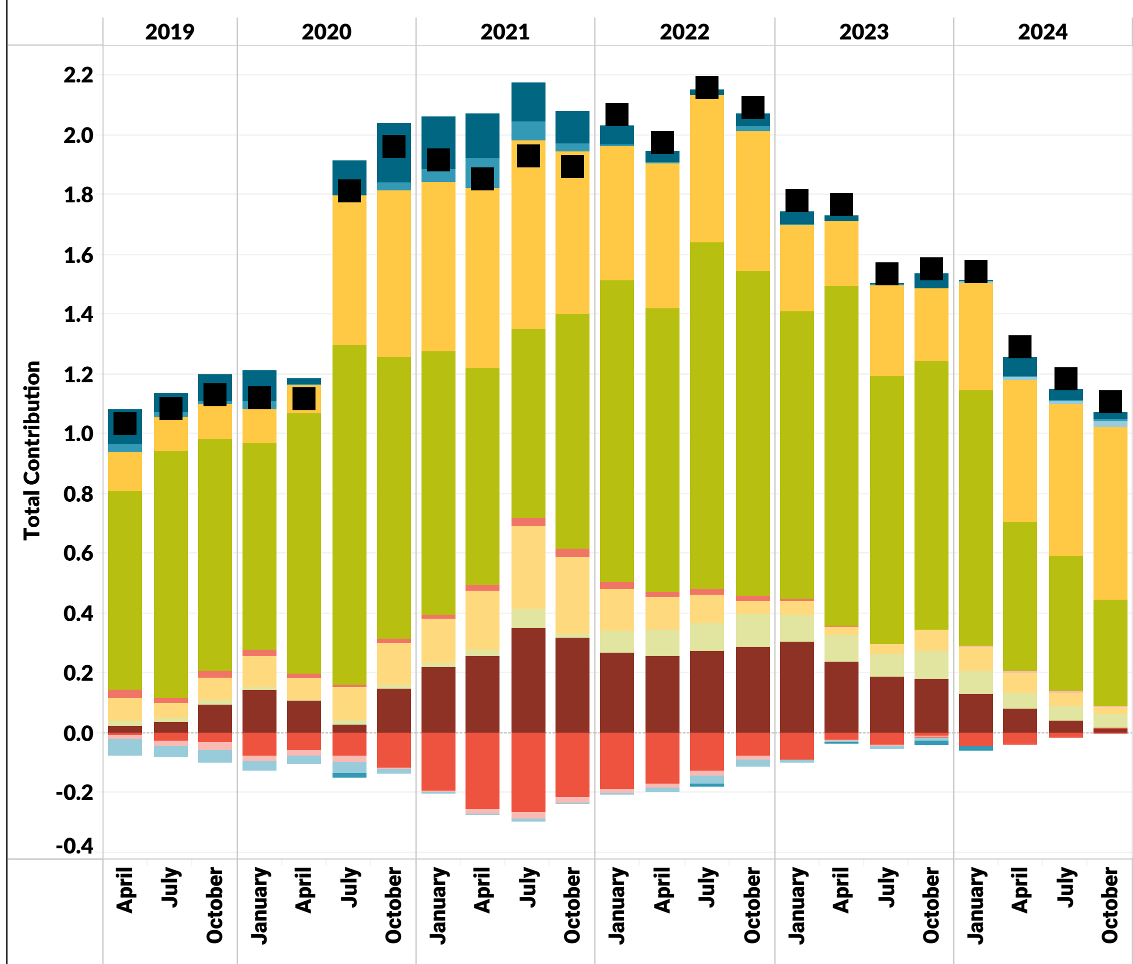
Active Weight



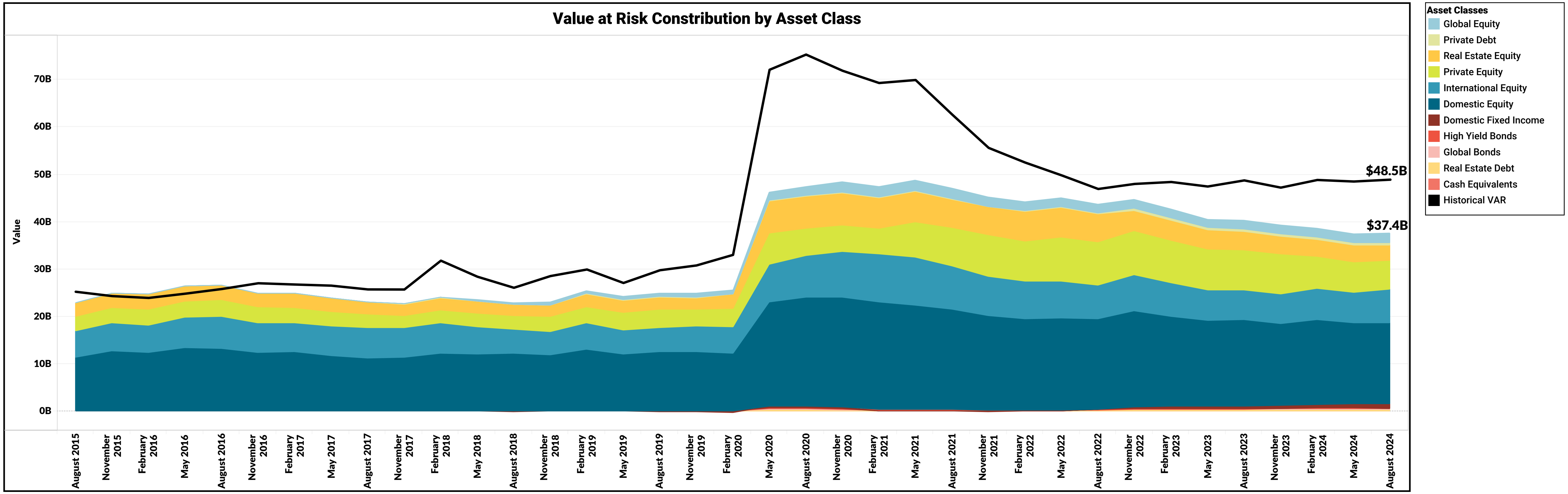
Active Predicted Risk Contribution



Historical Active Predicted Risk



Asset Class	Weight(%)	Benchmark Weight(%)	Active Weight(%)	(%)CR to Active Risk	Total Contribution	Active Risk
Total Plan	100.00%	100.00%	0.00%	100.00%	1.07	1.07
Domestic Equity	33.99%	33.00%	0.99%	4.38%	0.03	0.10
International Equity	14.79%	15.00%	-0.21%	0.29%	0.01	0.45
Global Equity	4.17%	4.00%	0.17%	1.97%	0.02	2.22
Real Estate Equity	11.24%	11.00%	0.24%	54.38%	0.58	7.70
Private Equity	9.55%	9.00%	0.55%	34.38%	0.36	5.53
High Yield Bonds	1.07%	1.00%	0.07%	-0.03%	0.00	0.56
Global Bonds	2.00%	2.00%	0.00%	0.18%	0.00	0.51
Real Estate Debt	5.22%	6.00%	-0.78%	0.91%	0.03	0.82
Private Debt	1.74%	2.00%	-0.26%	3.62%	0.04	4.97
Cash Equivalents	0.92%	1.00%	-0.08%	0.00%	0.00	0.06
Domestic Fixed Income	15.30%	16.00%	-0.70%	-0.08%	0.01	0.29



Portfolio Name	Total Portfolio VaR ($M)	Diversification Benefit	$ Contribution to VaR ($..	(%)Contribution to VaR
Total Portfolio	$44,099	($6,697)	$37,402	100.00%
Domestic Equity	$17,771		$17,052	45.59%
Private Equity	$7,967		$6,464	17.28%
International Equity	$7,174		$6,463	17.28%
Real Estate Equity	$4,540		$3,568	9.54%
Domestic Fixed Income	$2,988		$872	2.33%
Global Equity	$1,975		$1,911	5.11%
Real Estate Debt	$588		$319	0.85%
Private Debt	$545		$470	1.26%
High Yield Bonds	$191		$139	0.37%
Global Bonds	$358		$142	0.38%
Cash Equivalents	$3		$0	0.00%

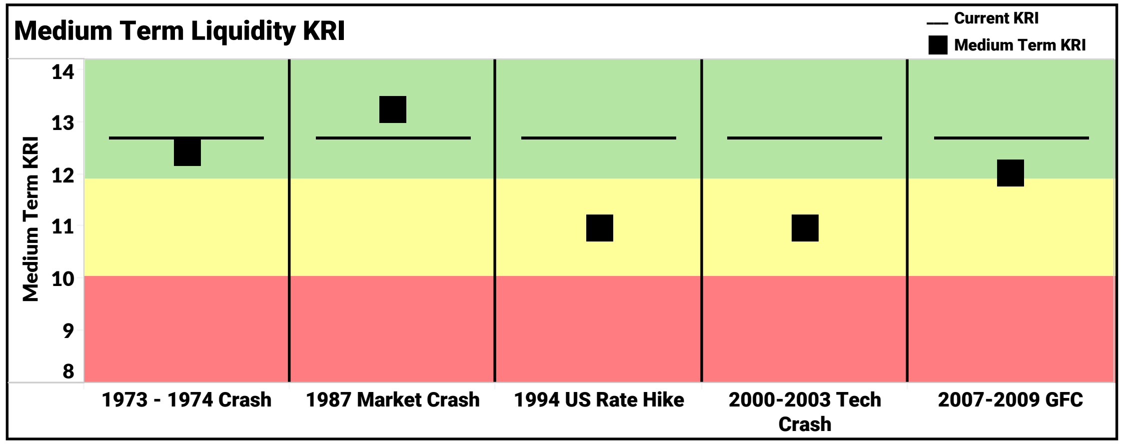
Value at Risk:
Value at Risk (VaR) is an estimate of the maximum portfolio loss over a specified time period and confidence interval given normal market conditions. VaR can be expressed in % loss or dollar terms. In this analysis, we use a 1 year time horizon and a 99% confidence interval. VaR can also be stated as: There is a 99% chance that the portfolio's market value will not lose more than [VaR amount] over the next year.

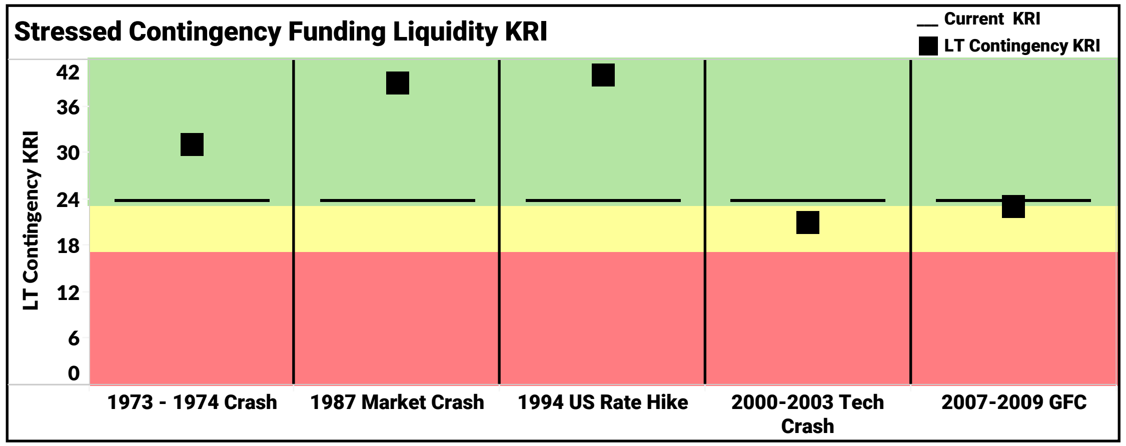
Methods Used:
► Parametric VaR: 99%VaR($) = 2.33σ * Portfolio Market Value
► Historical Simulation VaR: 99%VaR($) = Simulated P&L of portfolio utilizing empirical daily risk factor/price changes. 3 year lookback period (756 trading days) observed.

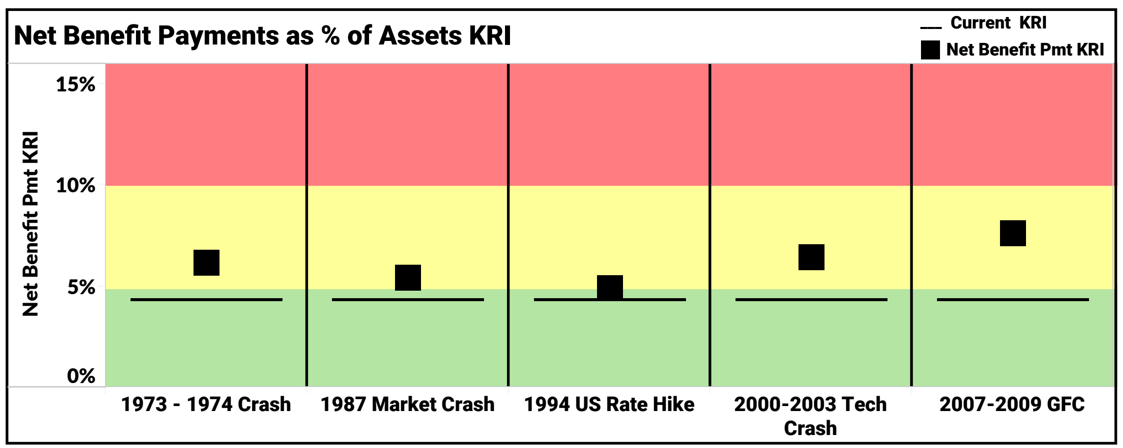
Drawbacks:
Parametric VaR assumes asset returns are normally distributed which may not be realistic. This could underestimate the VaR due to unfavorable asset returns having a higher chance of occurring in real life.

Historical Simulation VaR assumes past returns are indicative of future returns which may not be realistic. The specific return period analyzed directly impacts results which may or may not capture typical volatility, market extremes, or cyclicality.

Historical Scenario Analysis - Liquidity KRI







Scenario Analysis:
A scenario analysis seeks to determine how a portfolio may be affected by subjecting it to various historical or hypothetical market conditions. The charts to the left estimate how some of our liquidity KRI's would be impacted by the various historical scenarios.

Historical Scenarios:
The following historical scenarios apply market conditions experienced during their respective timeframes to NYSTRS' current portfolio over the course of a 1-year period. High level scenario inputs are provided below for context:

Historical Scenario	Date	Domestic Equity	UST Yields: 2y5y10y (bps)	Credit Spreads: AA/BB/CCC (bps)	Total Plan Loss
1973-1974 Stagflation & Rate Hikes	1/1/73 - 8/31/74	-35.00%	347	LIBOR 334	-23.73%
1987 Stock Market Crash	8/3/87 - 11/30/87	-27.00%	Unchanged	Unchanged	-12.96%
1994 US Rate Hike	1/31/94 - 12/13/94	-6.00%	162/152/131	2/36/0	-3.97%
Tech Crash & Recession	1/9/00 - 3/12/03	-47.00%	-488/-387/-281	-13/244/1151	-25.24%
Global Financial Crisis	9/30/07 - 3/4/09	-54.00%	-308/-226/-115	234/849/3779	-37.83%

Medium Term Liquidity KRI
The top chart depicts how each historical scenario would impact funding liquidity after a one-time rebalance to target policy weights. Cash and Domestic Fixed Income coverage represents how much of each asset class could be used to make payroll before lower asset allocation bounds were breached and additional rebalancing was required.

Stressed Contingency Funding Liquidity KRI
The middle chart depicts how each historical scenario would impact the Stressed Contingency Funding Liquidity KRI. This KRI is a measure which seeks to evaluate how many months of payroll can be made during one of these scenarios before NYSTRS' Contingency Funding Plan is triggered.

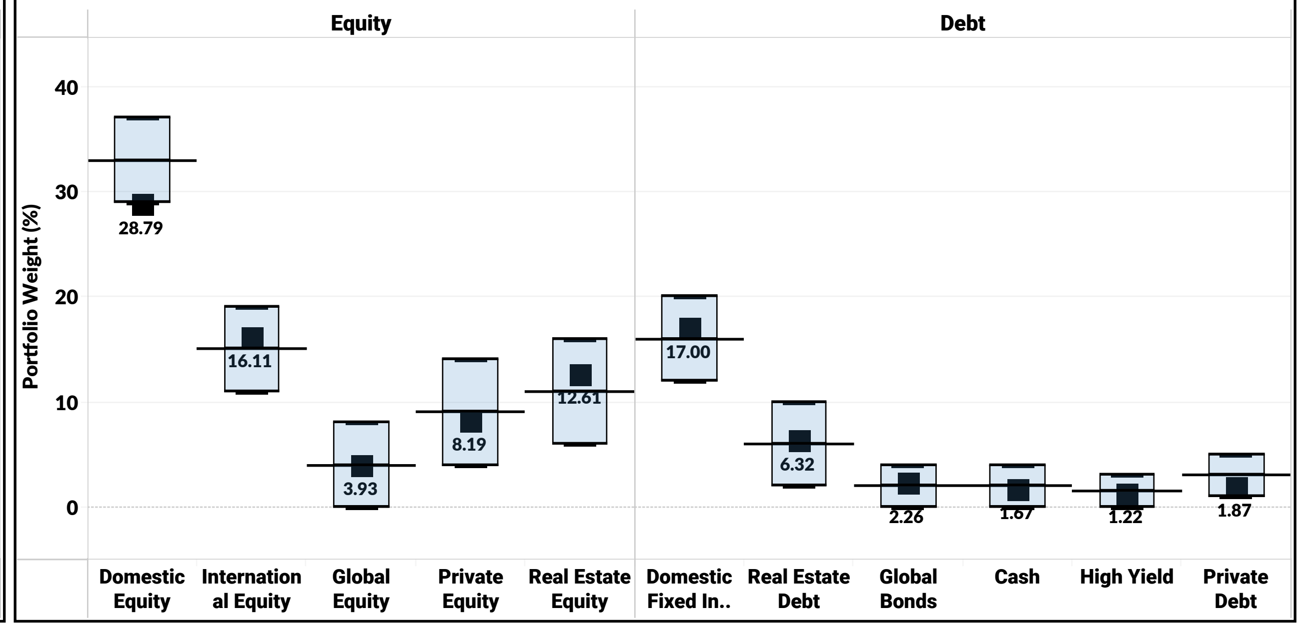
Net Benefit Payments as % of Assets:
The bottom chart depicts how each historical scenario would impact net benefit payments as a percentage of assets. Figures are representative of each scenarios market bottom and do not incorporate expected cash flows or market recovery.
(*Net Benefit Payments=Annual Benefit Payments-Employer & Employee Contributions)

Historical Scenario Analysis – Impact to Asset Allocation KRI

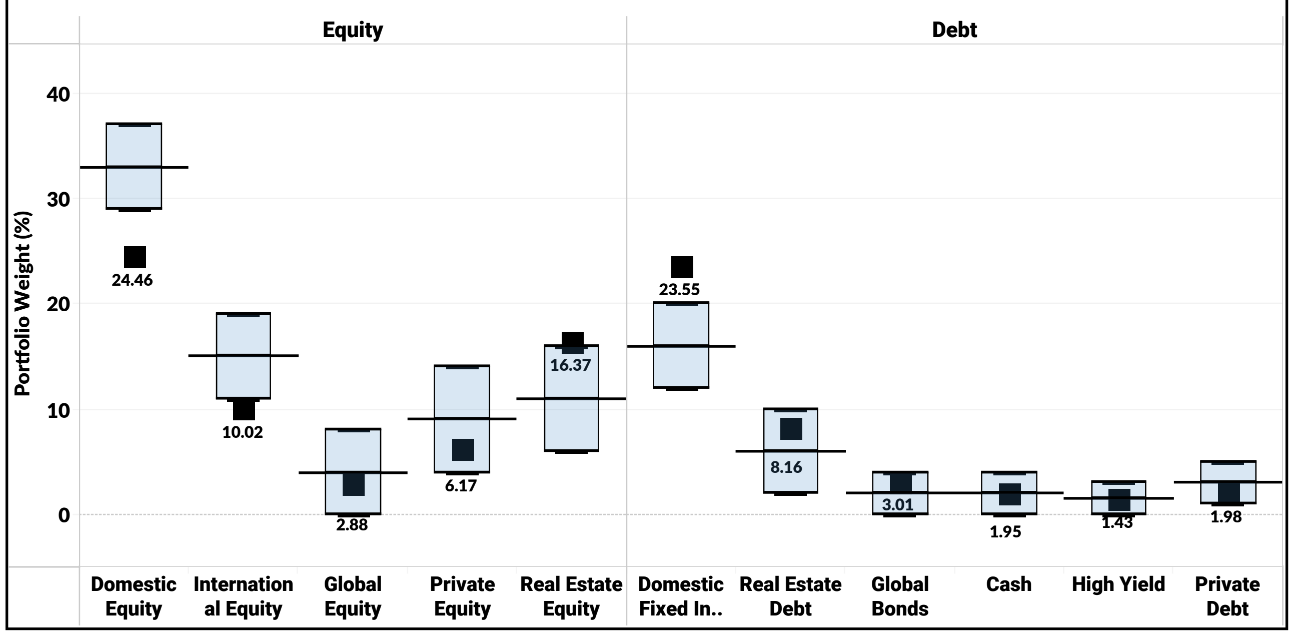
Data as of 8/30/2024

1973 - 1974 Crash

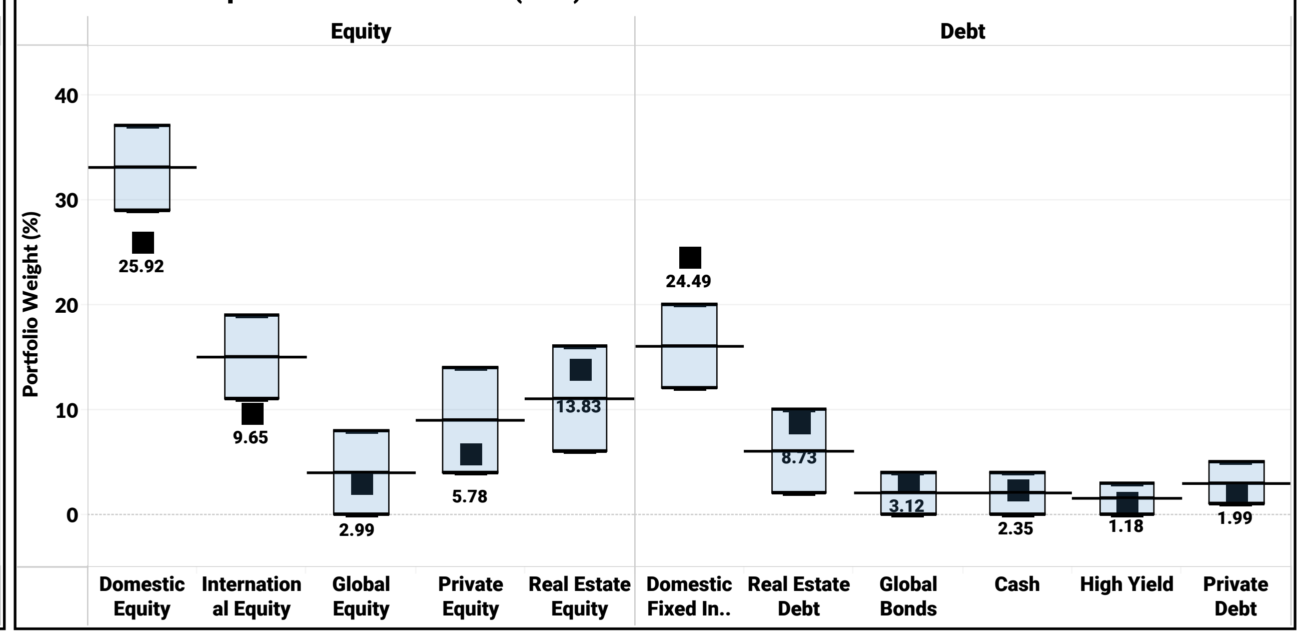
1987 Market Crash



2000 - 2003 Tech Crash and Recession

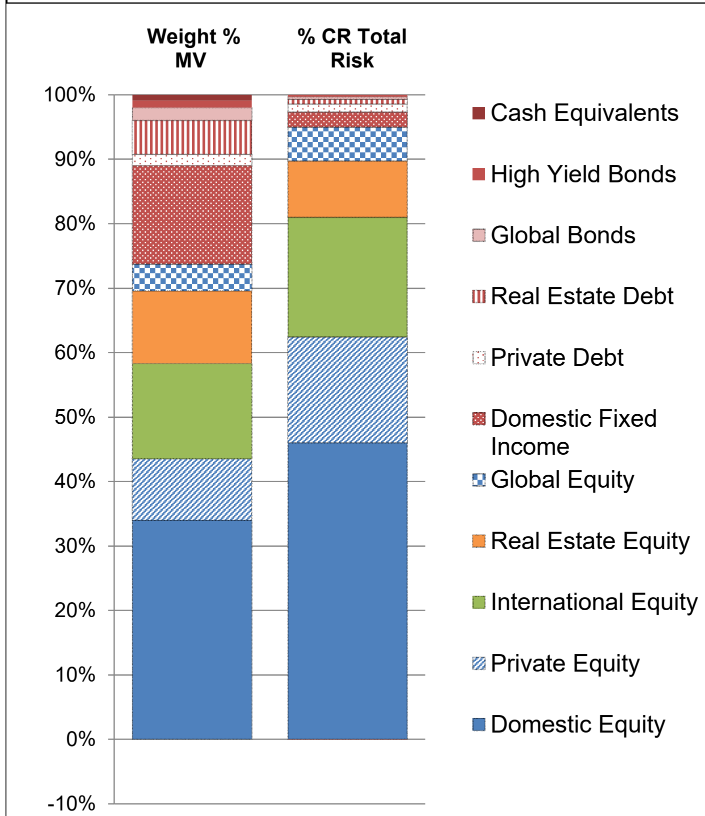


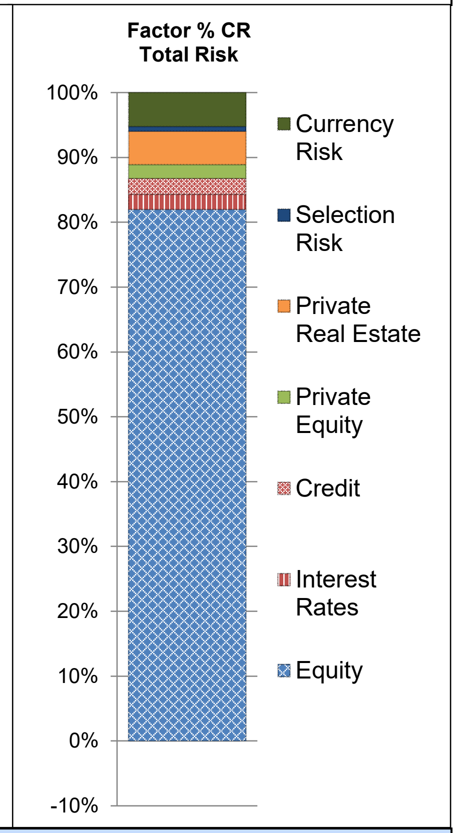
2007 - 2009 Subprime and Credit Crisis (GFC)



Total Predicted Risk by Risk Factor

As expected, equity markets are the largest contributor to the Plan's total risk.





Risk Source	Total Plan Risk Cont.	%CR to Total Risk	BMK Risk Cont.	BMK %CR to Total Risk	% CR to Active Risk
Total Risk	***11.01***	***100%***	***10.75***	***100.00%***	***100%***
Local Market Risk	10.43	94.77%	10.22	95.07%	98.71%
Common Factor Risk	10.35	94.04%	10.13	94.23%	86.86%
Equity	9.03	82.02%	8.17	76.04%	29.55%
Interest Rates	0.25	2.30%	0.30	2.76%	1.18%
Credit	0.27	2.47%	0.30	2.79%	-0.59%
Private Equity	0.23	2.13%	0.12	1.10%	22.08%
Private Real Estate	0.56	5.11%	1.24	11.54%	34.63%
Selection Risk	0.08	0.73%	0.09	0.84%	11.86%
Currency Risk	0.58	5.23%	0.53	4.93%	1.29%

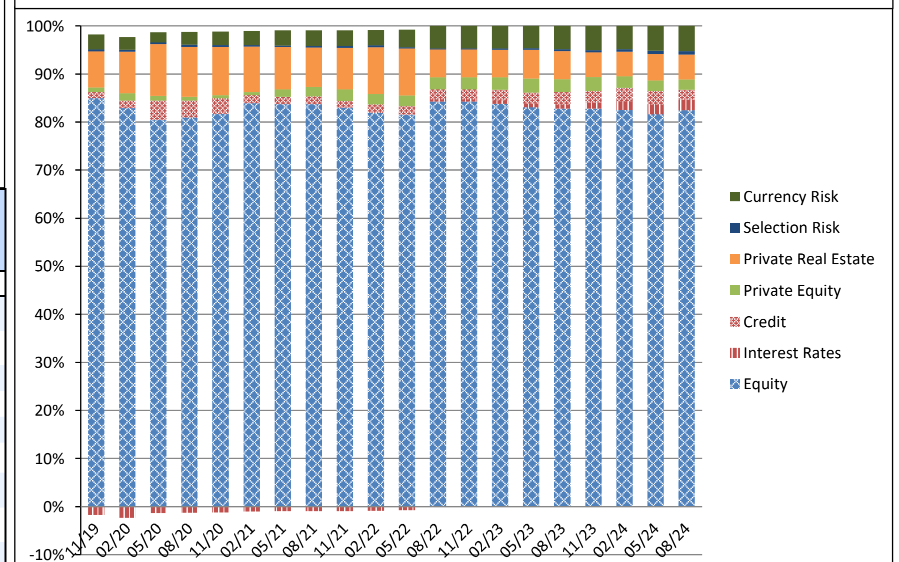
Risk Factors:
Risk factors are characteristics shared by a group of securities that influence their risk and return as well as their correlations.

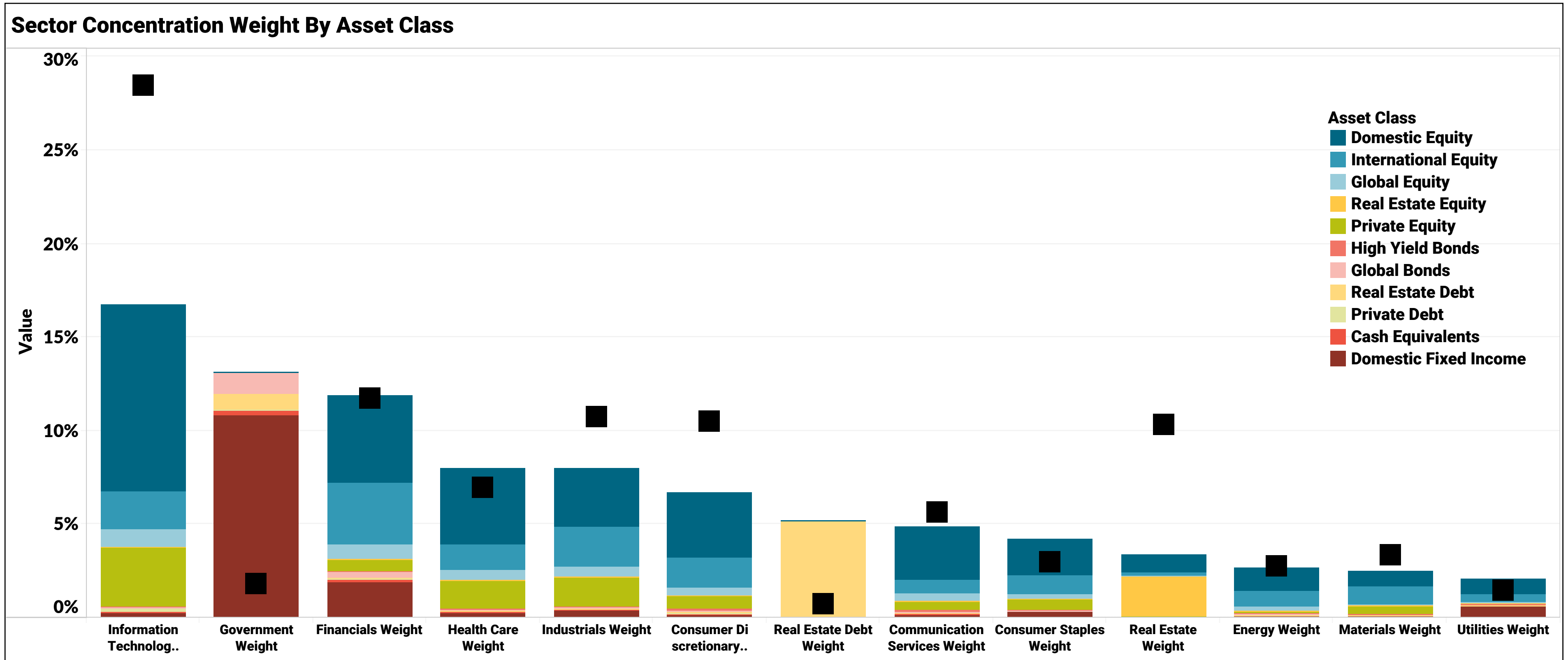
The five risk factor groups used for this analysis (equity, interest rates, credit, private equity, and private real estate) can be further decomposed into underlying factors such as industry, style, interest rate term structure, and geography. Each factor has an expected volatility and correlation with the other risk factors.

All of NYSTRS holdings are modeled according to their exposures to individual risk factors.

Observations:
As expected, Total Plan risk is primarily driven by the equity markets.

Historical Risk Factor Contribution to Total Risk





NYSTRS Sector	Market Value($M)	Weight (%)	Portfolio Risk Contributi..	(%)CR to Total Risk	Total Risk
Total Plan	146,458	100.00%	11.01	100.00%	11.01
Information Technology	24,567	16.77%	3.13	28.45%	21.06
Real Estate Equity	18,330	12.52%	1.13	10.29%	11.46
Government	18,017	12.30%	0.20	1.78%	5.95
Financials	17,224	11.76%	1.29	11.76%	12.44
Industrials	12,029	8.21%	1.18	10.70%	15.29
Health Care	11,899	8.12%	0.76	6.95%	12.23
Consumer Discretionary	10,096	6.89%	1.16	10.51%	18.30
Real Estate Debt	7,650	5.22%	0.08	0.76%	3.76
Communication Services	7,013	4.79%	0.62	5.63%	15.72
Consumer Staples	6,278	4.29%	0.33	2.96%	10.00
Energy	4,162	2.84%	0.30	2.75%	17.66
Materials	3,782	2.58%	0.36	3.31%	15.89
Utilities	3,041	2.08%	0.16	1.45%	10.95

Observations:
Sector contribution to risk is in line with expectations. Information Technology continues to drive an outsized contribution to total risk relative to its weight in the portfolio.

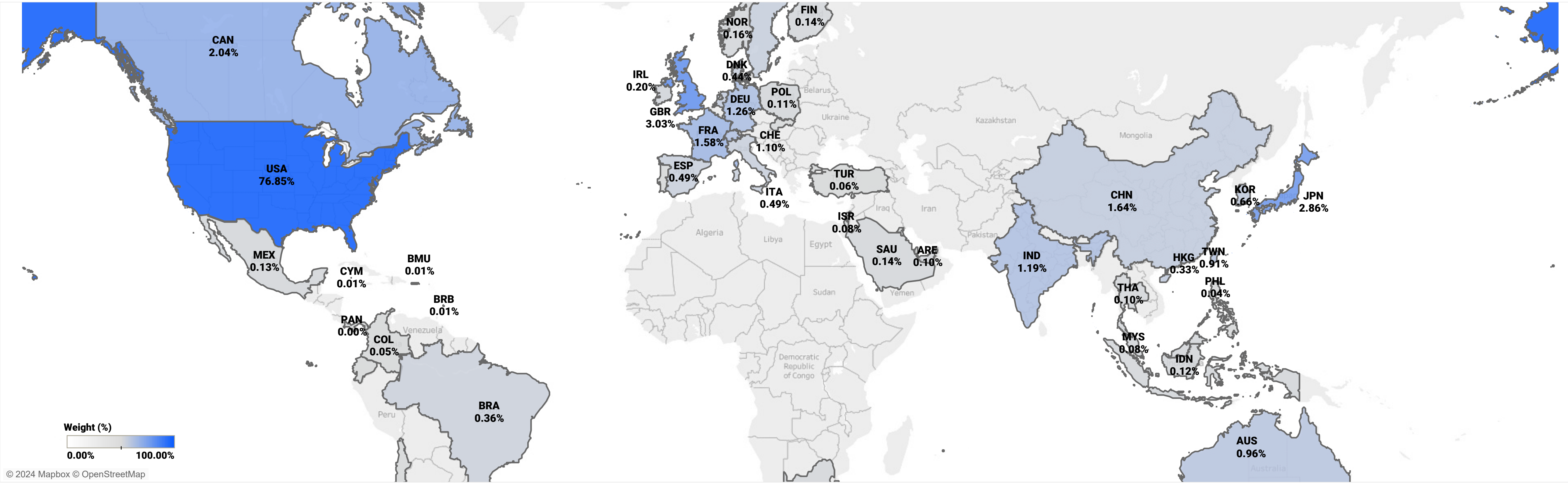
Sectors:
In developing the sector schedule, NYSTRS began with industry recognized sectors used by MSCI and S&P. Five custom sectors were added to this base to accommodate the Fund's allocation to Government, Real Estate Debt, Real Estate Equity, Cash and "Other" investments.

The bar chart representing weight for each sector was then further divided by asset class; with shades of blue denoting public equity asset classes, red denoting public fixed income asset classes, green denoting private equity and debt, and orange denoting real estate equity and debt.

Defensive sectors such as Utilities, and Consumer Staples tend to be more stable and less volatile regardless of the condition of the overall financial markets. Because these sectors are not highly correlated with the business cycle, they are also known as "non-cyclical". Cyclical sectors such as Consumer Discretionary and Materials tend to be correlated with the business cycle and can be more volatile than defensive sectors.

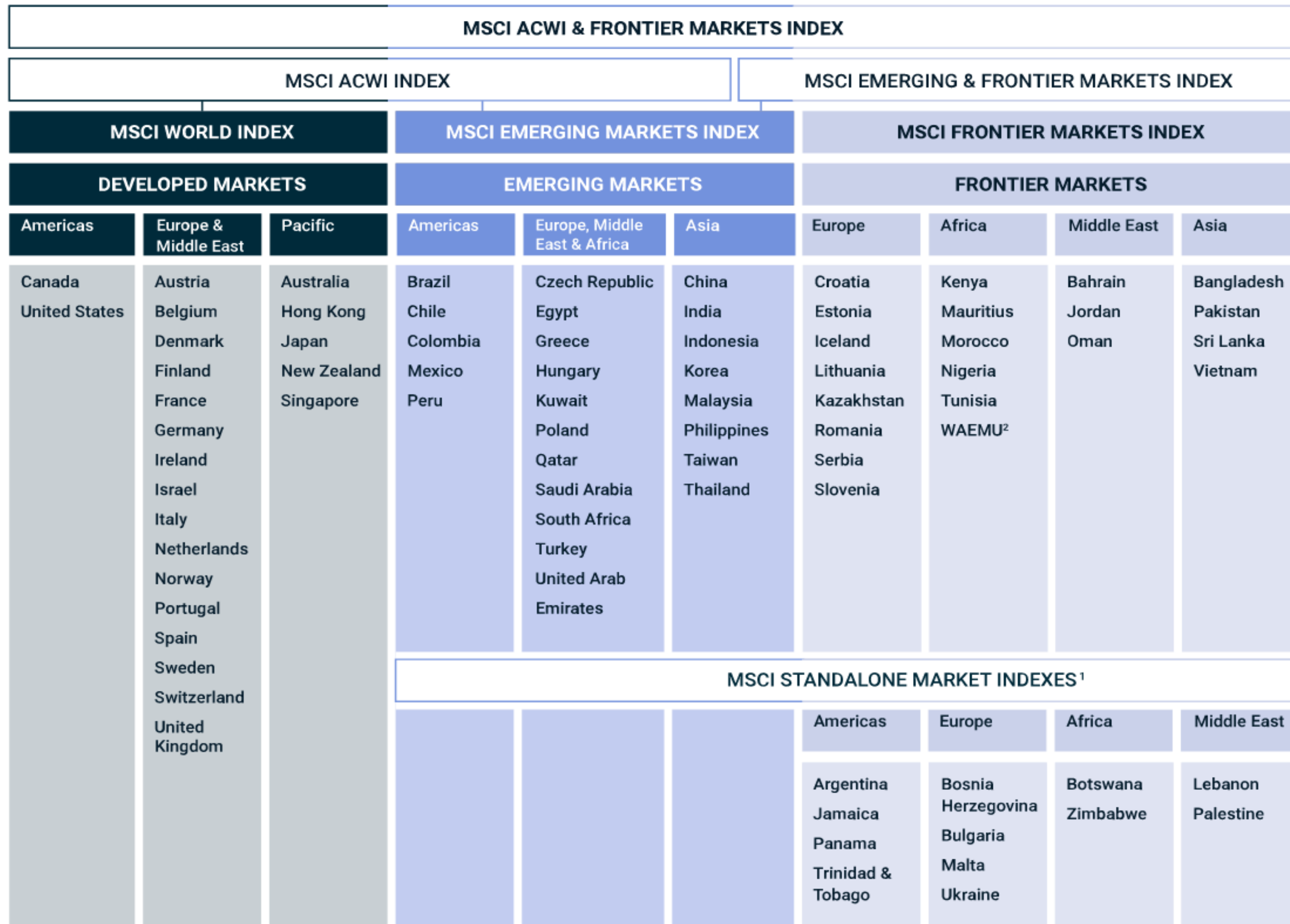
These characteristics can be seen in the chart. The risk contribution by the defensive sectors is less than their market value allocation and the risk contribution by the cyclical sectors is higher than their market value allocation.

Observations:
Total Developed and Emerging market regions remain within 1% of the benchmark. Note: Country of exposure is generally determined by the country of incorporation of the issuing company.



Geographic Region	Market Value($M)	Weight (%)	Bmk Weight (%)	Active Weight (%)	Portfolio Risk Contribution	(%)CR to Total Risk	Total Risk
Total Plan	$146,458	100.00%	100.00%	0.00%	11.01	100.00%	11.01
Total Developed	$137,127	93.63%	93.64%	-0.02%	10.27	93.28%	10.98
United States	$112,516	76.82%	79.14%	-2.32%	7.95	72.21%	10.52
Europe and Middl..	$15,218	10.39%	8.97%	1.42%	1.45	13.16%	15.77
Japan	$4,188	2.86%	2.60%	0.26%	0.38	3.42%	19.85
Pacific ex Japan	$2,253	1.54%	1.35%	0.19%	0.26	2.40%	20.64
Canada	$2,951	2.01%	1.59%	0.43%	0.23	2.09%	13.12
Total Emerging	$8,545	5.83%	5.76%	0.07%	0.71	6.47%	15.23
Asia	$6,945	4.74%	4.86%	-0.12%	0.55	5.03%	15.38
EMEA	$743	0.51%	0.47%	0.04%	0.07	0.66%	19.75
Latin America	$856	0.59%	0.43%	0.15%	0.09	0.78%	22.69
Total Other	$784	0.54%	0.59%	-0.06%	0.02	0.16%	5.92
Rest of the World	$537	0.37%	0.34%	0.03%	0.00	0.04%	3.60
Frontier	$246	0.17%	0.25%	-0.08%	0.01	0.12%	16.14

Appendix:



*MSCI.com/market-classification

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM

INVESTMENT COMMITTEE MEETING
October 30, 2024

INVESTMENT COMMITTEE MEETING
NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

A meeting of the Investment Committee of the Retirement Board of the New York State Teachers' Retirement System was held at the System on October 30, 2024. Nicholas Smirensky, Chair, called the meeting to order at 9:06 a.m.

The following individuals were in attendance:

Investment Committee Members
Juliet Benaquisto, Eric Iberger, David Keefe, Nicholas Smirensky

Board Members
Paul Farfaglia, Donald A. Little III, Oliver Robinson

NYSTRS' Staff
Thomas Lee, Beth Dellea, Vijay Madala, Kathy Ebert, Gerald Yahoudy, Michael Federici, Don Ampansiri, Matt Albano, Miriam Dixon, Binoop Unni, Dave Gillan, Richard Young, Danny Malavé, Margaret Andriola, Han Yik, Emily Ekland, Heidi Brennan, Heidi Travis, Brad Woolworth, Ben Lee, Melody Prangley, Aaron Vanderwiel, Matt Pinchinat, Kevin Maloney, Sarah Garrand, Rebecca Kannan, Christopher Brown, Justin Milanese, Jeffrey Shubert, Sheiliesh Hylton, Shelby McCaffrey, Stacey Lesser Meehan

System Consultants

Callan Associates Inc. – Tom Shingler, Carlo Stadlinger, Angel Haddad (via WebEx)
StepStone – Dev Subhash, Lee Singer, Scott Schwind

Visitors- via WebEx: Kevin Balaod – WithIntelligence; Peter Cosgrove – NYSTRS Risk Committee Advisor

Approval of Minutes

A. Approval of Minutes of July 31, 2024 Investment Committee Meeting

Upon motion of J. Benaquisto, seconded by E. Iberger and unanimously carried, the minutes of the July 31, 2024 Investment Committee meeting were approved.

The Investment Committee heard presentations on and reviewed the following information regarding the System's investments and performance.

Presentations

A. Update on U.S. Treasury Restricted Investments

D. Ampansiri and B. Lee reviewed and provided an update on the final rules issued on October 28, 2024 by the U.S. Department of the Treasury setting forth the regulations to implement Executive Order 14105 of August 9, 2023, the "Outbound Order", addressing "United States Investments in Certain National Security Technologies and Products or Countries of Concern".

B. Real Estate Strategic Plan

D. Subhash from StepStone reviewed the 2024-2025 Real Estate strategic plan (Appendix A, pp. 9-43).

C. Digital Infrastructure

D. Subhash from StepStone gave a presentation on investing in digital infrastructure.

Review of Investments

1. Investment Committee Executive Summary (Appendix B, pp. 44-52)
2. Public Equities Update (Appendix C, pp. 53-56)

3. Fixed Income Update (Appendix D, p. 57)

4. Real Estate Update (Appendix E, pp. 58-61)

5. Private Equity/Debt Update (Appendix F, p. 62-)

6. Callan

T. Shingler gave a performance update and a report on peer review rankings (Appendix G, pp. 64-91).

Upon motion of O. Robinson, seconded by J. Benaquisto and unanimously carried, the Committee went into Executive Session at 11:16 a.m. to hear an update on Stewardship investment from H. Yik.

Upon motion of J. Benaquisto, seconded by O. Robinson and unanimously carried, the Committee came out of Executive Session at 11:32 a.m. and continued in open session.

<u>Investment Committee Actions</u>

A. Consent Agenda Recommendation items #1-5 (see Appendix H, pp. 92-93)

N. Smirensky asked the committee members if any of the consent agenda items should be moved to regular discussion items. Hearing no objections, the Committee proceeded to move the Consent Agenda Recommendation items together with one motion.

Upon motion of J. Benaquisto, seconded by D. Keefe, the members of the Investment Committee voted unanimously to recommend the following consent agenda items (#1-5) to the Retirement Board:

1. Renew Consultants

- StepStone – Private Equity/Debt Consultant

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the System's contract with StepStone Group LP to serve as the System's private equity and private debt consultant and to perform such assignments as may be determined by the Executive Director and Chief Investment Officer or his designees in connection therewith, for a period of one year, commencing February 1, 2025 for all fixed services at an annual retainer not to exceed the current term's fee of $1,485,000 (subject to an inflation price adjustment not to exceed the lesser of 3% and the change in the ECI Index) and for all optional services at fees (1) for research on market trends or on private equity or private debt partnerships not in our portfolio not to exceed $40,000 per report; (2) for special research assignments to better define goals and objectives or monitor portfolio risk not to exceed $40,000 per report; (3) for negotiating final investment agreements and work with the System's legal counsel and staff in drafting, reviewing and/or revising partnership agreements, subscription agreements and other required documents for an additional fee not to exceed $15,000 per agreement; (4) for providing professional training not to exceed $20,000 per training; (5) for attending annual meetings and providing meeting notes not to exceed $8,000 per meeting; (6) for monitoring and reporting on legacy partnerships not to exceed $4,500 per partnership.

- StepStone – Real Estate Consultant

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with StepStone Group Real Estate LP to serve as the System's real estate consultant and to perform such assignments and optional services as may be determined by the Executive Director and Chief Investment Officer or his designee in connection therewith, for the one year period commencing February 1, 2025 at an annual retainer not to exceed $450,000 plus the agreed upon price escalation based on the percent change in the Employment Cost Index.

- Meketa – Real Estate Consultant

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Meketa Investment Group, Inc. to serve as the System's secondary real estate consultant and to perform such assignments and optional services as may be determined by the Executive Director and Chief Investment Officer or his designee in connection therewith, for the one year period commencing February 1, 2025.

2. Renew Managers

- AQR Capital Management LLC

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with AQR Capital Management, LLC to manage a portion of the System’s assets as an active MSCI ACWI Ex-US international equity manager for a period of one-year, effective January 6, 2025.

- BlackRock Institutional Trust Company

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with BlackRock Institutional Trust Company, N.A. to manage a portion of the System’s assets as a passive ACWI ex-US international equity manager for a period of one-year, effective December 12, 2024.

- Dimensional Fund Advisors

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Dimensional Fund Advisors to manage a portion of the System’s assets as an active emerging markets manager benchmarked to the MSCI Emerging Markets Index for a period of one-year commencing February 19, 2025.

- Goldman Sachs Asset Management

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Goldman Sachs Asset Management, L.P. to manage a portion of the System’s assets as an active global bond manager benchmarked to the Bloomberg Global Aggregate Float Adjusted ex-CNY Bond Index Hedged to USD for a period of one year, effective November 12, 2024.

- Harding Loevner Management

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Harding Loevner LP to manage a portion of the System’s assets as an active global equity manager benchmarked to the MSCI ACWI index for a period of one-year, effective February 27, 2025.

- Loomis Sayles & Co.

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Loomis Sayles & Co., L.P., to manage a portion of the System’s assets as an active global bond manager benchmarked to the Bloomberg Global Aggregate Float Adjusted ex-CNY Bond Index Hedged to USD for a period of one year, effective November 8, 2024.

- Marathon Asset Management Limited, As Successor in Interest to Marathon Asset Management LLP

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Marathon Asset Management Limited, as successor in interest to Marathon Asset Management, LLP, to manage a portion of the System's assets as an active EAFE international equity manager for a period of one year, effective January 24, 2025.

- Nomura Corporate Research & Asset Management

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Nomura Corporate Research and Asset Management Inc. for a period of one year, effective November 28th, 2024, to manage aportion of the System's assets as an active U.S. high yield manager in an account benchmarked to the ICE BofAML US High Yield Constrained Index (HUC0).

- State Street Global Advisors

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with State Street Global Advisors Trust Company (successor-in-interest by assignment from State Street Bank and Trust Company) to manage a portion of the System's assets as a passive ACWI ex US international equity manager, for a period of one year, effective February 18, 2025.

3. Reappointments to the Investment Advisory Committee

- Robert Levine

WHEREAS, The term of Mr. Robert Levine as a member of the Investment Advisory Committee expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Mr. Robert Levine to a three-year term as a member of the Investment Advisory Committee, effective January 1, 2025.

- June Yearwood

WHEREAS, The term of Ms. June Yearwood as a member of the Investment Advisory Committee expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Ms. June Yearwood to a three-year term as a member of the Investment Advisory Committee, effective January 1, 2025.

4. Reappointments to the Real Estate Advisory Committee

- Maureen Ehrenberg

WHEREAS, The term of Ms. Maureen A. Ehrenberg as a member of the Real Estate Advisory Committee expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Ms. Maureen A. Ehrenberg to a three-year term as a member of the Real Estate Advisory Committee, effective January 1, 2025.

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- James O'Keefe

WHEREAS, The term of Mr. James W. O'Keefe as a member of the Real Estate Advisory Committee expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Mr. James W. O'Keefe to a three-year term as a member of the Real Estate Advisory Committee, effective January 1, 2025.

5. Resolution on Investment Policy Manual

RESOLVED, That the Investment Policy Manual, as presented to the Retirement Board reflecting significant changes through October 2024, as summarized in the grid below, is approved and accepted.

POLICY	SUMMARY OF SIGNIFICANT CHANGES 2024
Delegation of Investment Authority	• Added language to distinguish the processes to terminate a manager under exigent and non-exigent circumstances.
Global Bonds	• New Global Bonds-Internal section added as a result of Board approved internally managed emerging market debt portfolio.

6. Resolution on Internally Managed International Equity Strategy

Upon motion of D. Keefe, seconded by J. Benaquisto, the members of the Investment Committee voted unanimously to recommend the following resolution to the Retirement Board:

WHEREAS, Staff has proposed a multi-year timeline, commencing in 2024 and ending in or about 2028, for creating an up to $1 billion internally managed passive international public equities strategy, to be implemented in a series of steps (the “Internally Managed International Strategy”); and

WHEREAS, the Retirement Board has reviewed the proposal, and it is in the best interests of the System’s members and beneficiaries for the System to pursue and implement the Internally Managed International Strategy; and

NOW, THEREFORE, BE IT RESOLVED, That the System is hereby authorized to implement the Internally Managed International Strategy, up to an aggregate amount of $1 billion (based on capital contributions into the strategy), in multiple stages based on countries or regions, in such amounts and at such times as may be determined by the Executive Director and Chief Investment Officer; and be it further

RESOLVED, That the Executive Director and Chief Investment Officer, or designees, is authorized to take all steps and execute all documents necessary to implement the Internally Managed International Strategy, and be it further

RESOLVED, That the Executive Director and Chief Investment Officer, or designees, shall provide periodic updates, at least annually, to the Retirement Board on the progress and status of the implementation of the Internally Managed International Strategy.

Informational reports

- The Committee reviewed the following informational reports: EDCIO Investment Discretion Report (Appendix I, pp. 94-96), Mail Vote Quarterly Board Report (Appendix J, p. 97) and REAC Quarterly Transactions Board Report (Appendix K, p. 98).

There being no other business and upon unanimous motion, the meeting adjourned at 11:34 a.m.

Respectfully submitted,

[redacted]

Thomas K. Lee

New York State Teachers Retirement System Commercial Real Estate Equity & Debt Investments Strategic Review

NYSTRS Board Investment Committee.
October 30, 2024

Overview

STEPSTONE

StepStone Real Estate House Views for NYSTRS

October 2024

NOTES

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All data is as of July 2024, unless noted otherwise.

Comprehensive sourcing of house views

Market research

Third-party macro and real estate market research

Active investments

Bottom-up transaction intel from active

- Underwriting
- Portfolio management

Technology

Detailed data analysis and projections

Fund investments

Insights from SRE activities, in 2023:

- Daily work with leading LPs
- Over 970 GP meetings

Source: SPI Research. As of December 2023.

Higher interest rates lead to new opportunity

Pressures building mid 2024; opportunity ahead

Now

Favorable outlook

- Debt
- Secondaries and recapitalizations
- Opportunistic/distress

Next

Core/Core+, after NAVs correct

Ongoing

Real estate maintains its long-term targeted role in portfolios

- Diversification
- Inflation protection
- Current income
- Appealing risk/return

The opinions expressed herein reflect the current opinions of StepStone as of the date appearing in this material only.
There can be no assurance that views and opinions expressed in this document will come to pass.

Slow progress as expected

Timing will vary by property type and market, but entry points increasingly attractive

Trading prices reflect current realities

- Some large trades reflect optimism for future rate declines and rent growth
- Appraisal based fund valuations declining; not yet fully reflecting asset trading prices

Transaction volume remains weak

- Appraised values are above trading prices.
- Sales trigger recognition of losses, making sellers reluctant to act

Lenders are still focused on restructuring

- Post GFC it took 2-3 years for distress to manifest; this cycle now at 1.75 years
- Most borrowers finding capital to restructure
- Lending is recovering especially for favored assets, led by CMBS

LPs not getting capital back to reinvest[1]

- Fund asset sales in 2023 71% below the average of the prior 3 years
- 2023 fund distributions 58% below the long-term average

1. Sourced from SPI Research and Reporting, June 2024.

Private markets repriced, fund marks moving closer

Total return

	2022	2023	Q1 2024	Peak-to-3/31/2024	Peak quarter
Public Indices (USD)					
Broad public equities: MSCI ACWI	-18.0%	22.6%	8.3%	8.8%	Q4 2021
Barclays Capital US Aggregate Bond Index	-13.0%	5.6%	-0.8%	-8.9%	Q4 2021
US Public RE – All Equity REITs	-24.9%	11.4%	-1.3%	-17.5%	Q4 2021
Global Public RE - EPRA/NAREIT	-23.6%	9.8%	-1.4%	-17.3%	Q4 2021
Commercial Property Price Indices[2]					
US - Green Street CPPI, w/ODCE Weights	-15.9%	-10.3%	0.5%	-24.4%	Q1 2022
Europe - Green Street CPPI, w/ODCE Weights	-15.5%	-11.8%	0.3%	-26.4%	Q1 2022
Core Fund Indices[3]					
US - NCREIF ODCE	6.5%	-12.7%	-2.6%	-19.4%	Q3 2022
Europe - INREV ODCE	-1.3%	-10.3%	-0.6%	-16.8%	Q2 2022
Asia - ANREV ODCE	6.3%	-0.6%	0.3%	-1.1%	Q1 2023
Non-Core Fund Indices					
Global - Burgiss VA/Opportunistic	1.8%	-6.8%	-0.8%	-10.6%	Q1 2022

- Strong stock performance starting to leave investors under-allocated to RE
- Public RE stocks and bonds fairly valued versus private RE
- Core fund indices continue to adjust downward moving closer to CPPI
- Non-core indices far from reflecting full value declines

Sources: NCREIF, INREV, ANREV, Burgiss, Green Street, NAREIT, Bloomberg and FTSE, June 2024. Note: In aggregate, public REITs are 47% allocated to major property types (retail, residential, industrial, and office) as of Q4 2023 according to NARIET, compared to 88% exposure to major property types in the private Global Real Estate Fund Index produced by ANREV, INREV, and NCREIF as of Q4 2023.

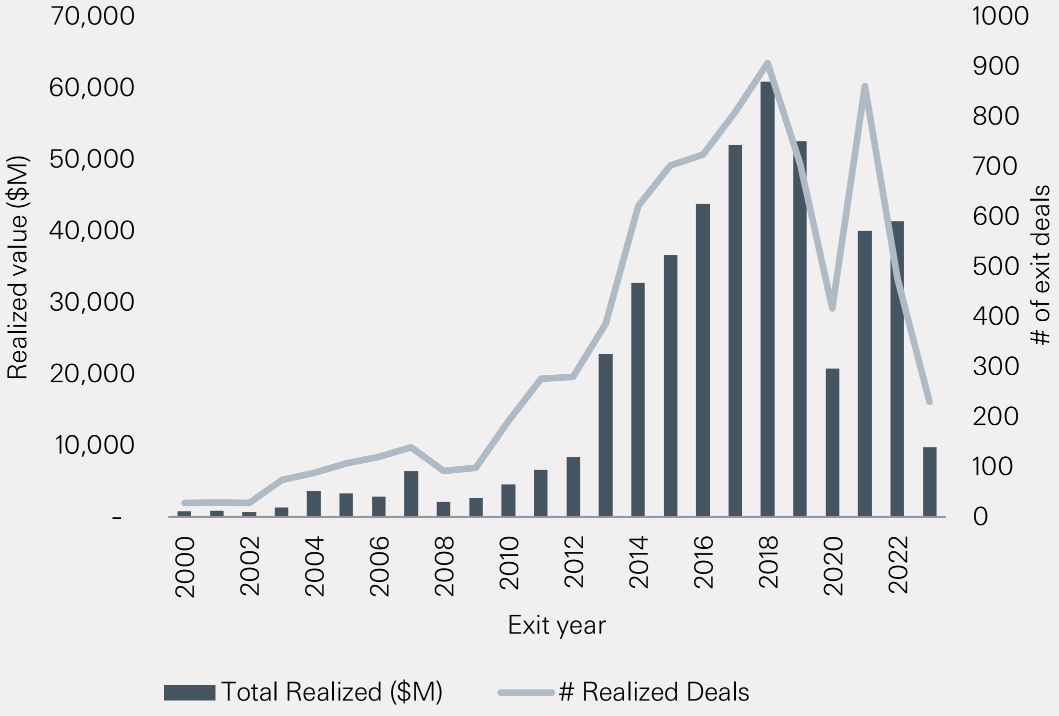
2. Green Street CPPIs, w/ODCE Weights are reported in local currencies. Property type mix matches regional ODCE. US: A quality assets; Europe A and B quality.

3. All Fund Indices' returns are net of fees and reported in local currencies.

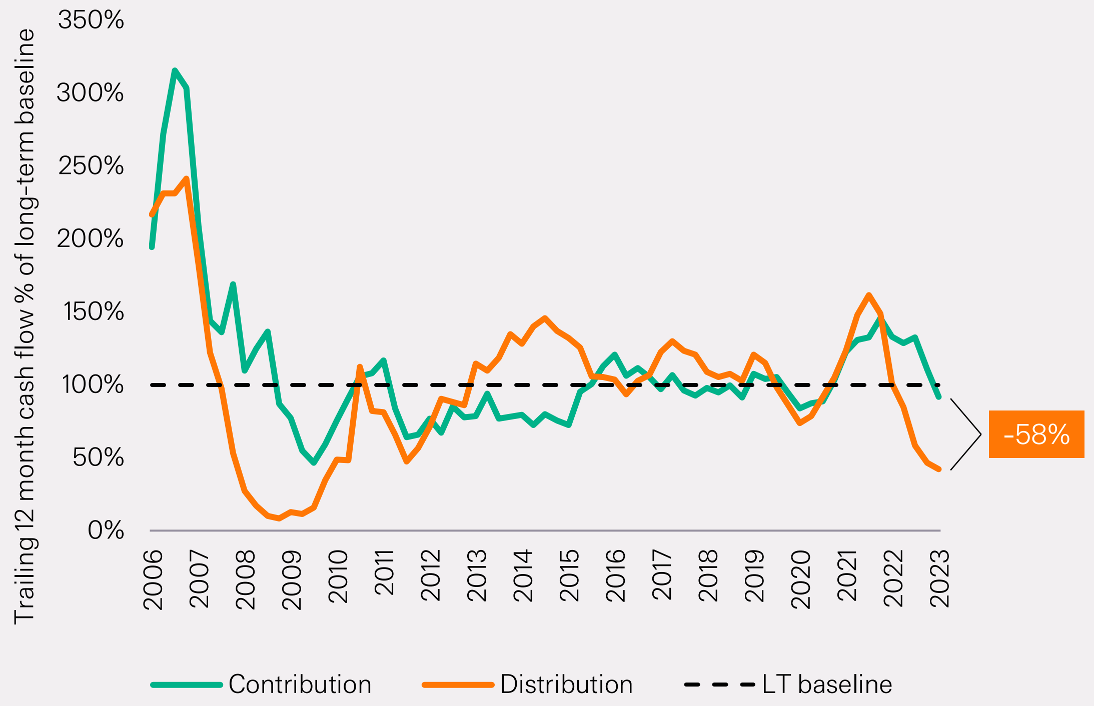
Capital markets dislocation reflected in fund-level trends

Contributions have returned to normal while distributions are still 58% below long-term average

Proceeds from asset sales ($M) plummeted in 2020 and 2023



Trailing 12-month Fund-level cash flows



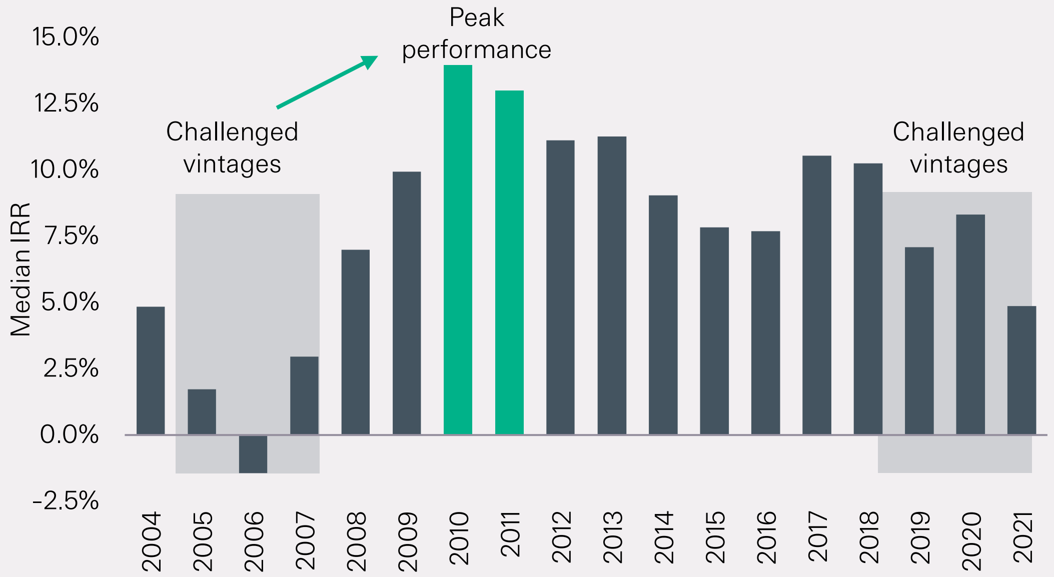
Source: SPI Research and Reporting, June 2024.

Investing early in recovery has led to outperformance

5-year forward capital growth by stage of the cycle (1980-2023)

- Highest return, lowest probability of capital loss
- Implied trough: mid-2024

Performance by vintage



Analysis supports early entry to maximize returns and minimize losses

Post GFC vintages outperformed

There is a 3-year lag for crisis to turn into opportunity

Recent vintages are challenged, returns likely to come down

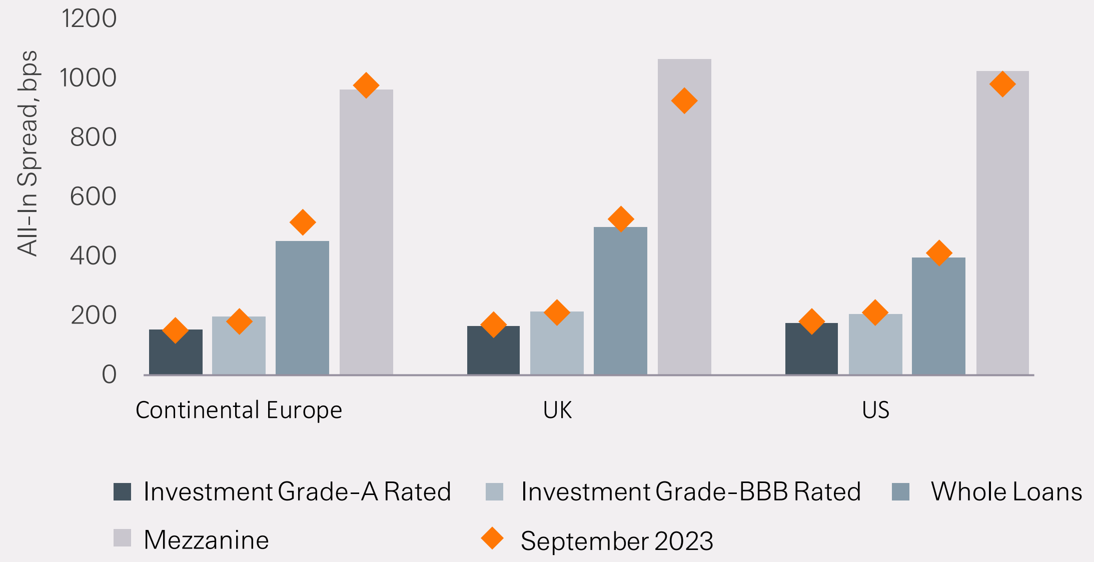
Sources: PGIM analysis of growth by stage of cycle, Burgiss, June 2024.

Private debt: better terms, less competition, higher returns

Landscape favors private lenders

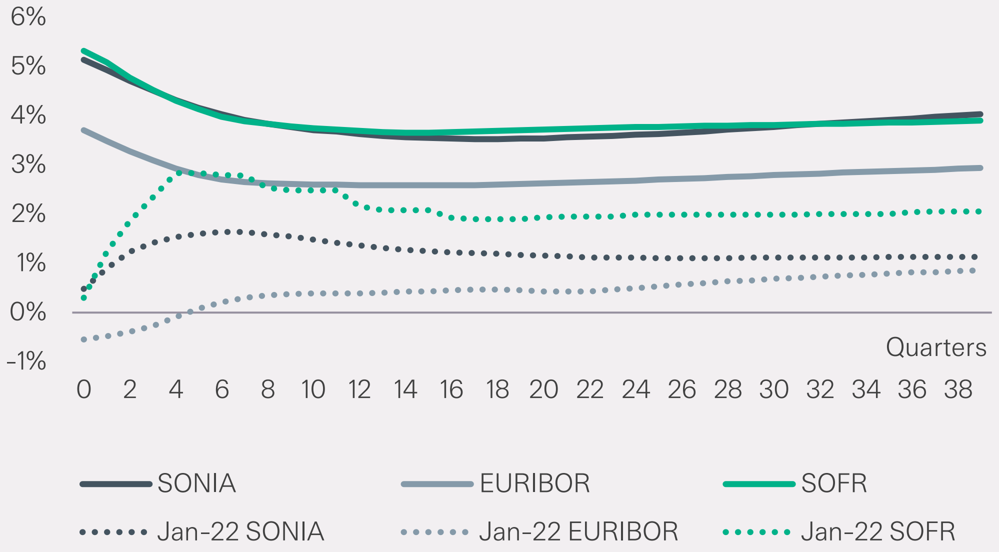
All-in lending spreads over base rate by loan type

As of March 2024



Three-month forward curves

Q2 2024 vs. Q1 2022



Source: PGIM (Nov-23), AIG, StepStone Real Estate analysis (Mar-24), For illustrative purposes only.
Source: Chatham financials as of July 2024.

Preferred market/property type strategies

● Favorable ● Neutral ● Unfavorable

Property type		Market conditions				Investment appeal		
		Demand			Supply			
			Secular support					
		Cyclic	Tech	Other		US	Europe	APAC
Majors	Office	Unfavorable	Unfavorable	Unfavorable	Neutral	Unfavorable	Unfavorable	Unfavorable
	Industrial	Unfavorable	Favorable	Favorable	Neutral	Favorable	Favorable	Favorable
	MF - Class A	Neutral	Neutral	Neutral	Unfavorable	Neutral	Neutral	Favorable
	- Class B/C	Favorable	Neutral	Favorable	Favorable	Favorable	Neutral	Favorable
	Retail	Unfavorable	Unfavorable	Neutral	Favorable	Neutral	Neutral	Neutral
Other Rental Residential								
	Manufactured Housing	Favorable	Favorable	Favorable	Favorable	Favorable	n/a	n/a
	Single Family Homes	Favorable	Favorable	Favorable	Favorable	Neutral	Neutral	n/a
	Student Housing	Favorable	Neutral	Neutral	Favorable	Favorable	Favorable	Favorable
	Senior Housing	Neutral	Neutral	Favorable	Favorable	Favorable	Favorable	n/a
Other	Self Storage	Neutral	Neutral	Unfavorable	Neutral	Neutral	Favorable	Neutral
	Cold Storage	Neutral	Favorable	Neutral	Favorable	Favorable	Favorable	Favorable
	Life Sciences R&D	Unfavorable	Neutral	Favorable	Unfavorable	Unfavorable	Neutral	Favorable
	Hospitality	Neutral	Neutral	Neutral	Neutral	Neutral	Favorable	Neutral
	Data Centers	Neutral	Favorable	Neutral	Favorable	Favorable	Favorable	Neutral
	Production Studios	Neutral	Favorable	Neutral	Favorable	Neutral	Neutral	Neutral

The opinions expressed herein reflect the current opinions of StepStone as of the date appearing in this material only. There can be no assurance that views and opinions expressed in this document will come to pass.

RISKS AND OTHER CONSIDERATIONS

Risks Associated with Investments. Identifying attractive investment opportunities and the right underlying fund managers is difficult and involves a high degree of uncertainty. There is no assurance that the investments will be profitable and there is a substantial risk that losses and expenses will exceed income and gains.

Restrictions on Transfer and Withdrawal; Illiquidity of Interests; Interests Not Registered. The investment is highly illiquid and subject to transfer restrictions and should only be acquired by an investor able to commit its funds for a significant period of time and to bear the risk inherent in such investment, with no certainty of return. Interests in the investment have not been and will not be registered under the laws of any jurisdiction. Investment has not been recommended by any securities commission or regulatory authority. Furthermore, the aforementioned authorities have not confirmed the accuracy or determined the adequacy of this document.

Limited Diversification of Investments. The investment opportunity does not have fixed guidelines for diversification and may make a limited number of investments.

Reliance on Third Parties. StepStone will require, and rely upon, the services of a variety of third parties, including but not limited to attorneys, accountants, brokers, custodians, consultants and other agents and failure by any of these third parties to perform their duties could have a material adverse effect on the investment.

Reliance on Managers. The investment will be highly dependent on the capabilities of the managers.

Risk Associated with Portfolio Companies. The environment in which the investors directly or indirectly invests will sometimes involve a high degree of business and financial risk. StepStone generally will not seek control over the management of the portfolio companies in which investments are made, and the success of each investment generally will depend on the ability and success of the management of the portfolio company.

Uncertainty Due to Public Health Crisis. A public health crisis, such as the recent outbreak of the COVID-19 global pandemic, can have unpredictable and adverse impacts on global, national and local economies, which can, in turn, negatively impact StepStone and its investment performance. Disruptions to commercial activity (such as the imposition of quarantines or travel restrictions) or, more generally, a failure to contain or effectively manage a public health crisis, have the ability to adversely impact the businesses of StepStone's investments. In addition, such disruptions can negatively impact the ability of StepStone's personnel to effectively identify, monitor, operate and dispose of investments. Finally, the outbreak of COVID-19 has contributed to, and could continue to contribute to, extreme volatility in financial markets. Such volatility could adversely affect StepStone's ability to raise funds, find financing or identify potential purchasers of its investments, all of which could have material and adverse impact on StepStone's performance. The impact of a public health crisis such as COVID-19 (or any future pandemic, epidemic or outbreak of a contagious disease) is difficult to predict and presents material uncertainty and risk with respect to StepStone's performance.

Taxation. An investment involves numerous tax risks. Please consult with your independent tax advisor.

Conflicts of Interest. Conflicts of interest may arise between StepStone and investors. Certain potential conflicts of interest are described below; however, they are by no means exhaustive. There can be no assurance that any particular conflict of interest will be resolved in favor of an investor.

Allocation of Investment Opportunities. StepStone currently makes investments, and in the future will make investments, for separate accounts having overlapping investment objectives. In making investments for separate accounts, these accounts may be in competition for investment opportunities.

Existing Relationships. StepStone and its principals have long-term relationships with many private equity managers. StepStone clients may seek to invest in the pooled investment vehicles and/or the portfolio companies managed by those managers.

Carried Interest. In those instances where StepStone and/or the underlying portfolio fund managers receive carried interest over and above their basic management fees, receipt of carried interest could create an incentive for StepStone and the portfolio fund managers to make investments that are riskier or more speculative than would otherwise be the case. StepStone does not receive any carried interest with respect to advice provided to, or investments made on behalf, of its advisory clients.

Other Activities. Employees of StepStone are not required to devote all of their time to the investment and may spend a substantial portion of their time on matters other than the investment.

Material, Non-Public Information. From time to time, StepStone may come into possession of material, non-public information that would limit their ability to buy and sell investments.

ESG Integration. While StepStone seeks to integrate certain ESG factors into its investment process and firm operations, there is no guarantee that StepStone's ESG strategy will be successfully implemented or that any investments or operations will have a positive ESG impact. Applying ESG factors to investment decisions involves qualitative and subjective decisions and there is no guarantee the criteria used by StepStone to formulate decisions regarding ESG, or StepStone's judgment regarding the same, will be reflected in the beliefs or values of any particular client or investor. There are significant differences in interpretation of what constitutes positive ESG impact and those interpretations are rapidly changing. The description of ESG integration herein is provided to illustrate StepStone's intended approach to investing and firm operations; however, there is no guarantee that the processes will be followed in every circumstance or at all.

Performance Information. No investment decisions may be made in reliance on this document. In considering performance information herein, readers should bear in mind that past performance is not necessarily indicative of future results and that actual results may vary. There can be no assurance that any StepStone fund will be able to successfully implement its investment strategy or avoid losses. Performance shown herein may include investments across different StepStone funds. The aggregate returns are not indicative of the returns an individual investor would receive from these investments. No individual investor received such aggregate returns as the investments were made across multiple funds and accounts over multiple years.

STEPSTONE

stepstonegroup.com

I. 2025 STRATEGIC REVIEW –
REAL ESTATE EQUITY AND REAL ESTATE DEBT

2025 Executive Summary, CRE Equity and Debt Recommendations and Areas of Focus

Objectives:

- Ensure appropriate commitment pace and target exposures to maintain NYSTRS' CRE allocations within policy range and generally near target. Both strategies will focus on income generation and capital preservation as part of their overall risk adjusted return.

Portfolio Summaries (as of 3/31/24):

- The Real Estate Equity portfolio, with $15.9B of NAV, is at 11.2%, slightly above its 11% target, and the net inception to date performance is 8.0%. The Debt portfolio, with $7.5B of NAV, is at 5.3%, below the target of 6%, inception to date net performance is 7.6%. *Each portfolio uses multiple strategies to take advantage of public and private opportunities in the markets.*

2025 Key Areas of Focus and Recommendations:

- We recommend a commitment of net pacing of $1.0B to $1.2B for Real Estate Equity (public and private) and a net pacing of $1.1B to $1.3B for Real Estate Debt (public and private) to continue to manage portfolio target allocations.
- Portfolio pacing moved to calendar year due to timing of the consultant contract and to align with the Private Equity and Credit portfolios.
- StepStone recommends an increase to the non-core debt cap from 50% to 60% due to a significant allocation (26.4%) of mezzanine and bridge lending which are conservative relative to non-core strategies. NYSTRS makes these investments through separately managed accounts where the System retains discretion on any lending opportunities that typically originate in the 65% LTV range with no loan being in excess of a 75% LTV.
- Review private equity and debt opportunities in niche property types, which are currently captured in our public portfolios (see niche property types and current opportunities on page 12 of SRE House Views).
- Consider first mortgage loans on quality office buildings with long term credit tenant leases which may provide higher yields relative to the System's focus on multifamily, industrial and neighborhood shopping centers.
- Establish a program to formally measure risk of natural hazards for the direct equity and debt portfolios on an asset-by-asset basis. The plan should include mitigating factors related to construction type, property type, local and environmental safeguards etc.
- Review with advisor, property manager contingency plans that address natural or other emergency events to ensure up to date procedures are in place to protect on-site tenants as well as restoring property operations after an event.

II. REAL ESTATE EQUITY PORTFOLIO REVIEW

CRE Equity Portfolio Review

Executive Summary

- **In FY2024 ending June 30, 2024, the portfolio funded $1.13 billion of contributions and received $1.41 billion of distributions, resulting in net cash inflows of $283 million.**

- The Real Estate Equity portfolio is diversified across property types and regions and generally, from a risk standpoint: **Core and Non-Core strategies.** Core investments represent generally newer assets that are greater than 80% leased that are not in need of any significant capital work. These tend to be lower return strategies that align with a lower risk profile.

As of March 31, 2024. In USD millions.

Equity Portfolio Summary	3/31/2024	3/31/2023	YoY Δ
Equity Real Estate Investments			
Direct Equity			
Office	1,830	2,053	-11%
Retail	1,408	1,529	-8%
Industrial	1,646	1,573	5%
Multifamily	1,461	1,628	-10%
Timber	243	298	-18%
Total Direct Equity	**6,588**	**7,081**	**-7%**
Commingled Funds			
Core	1,477	1,708	-14%
Value-Add	1,652	1,596	4%
Opportunistic	3,173	2,896	10%
Public Real Estate Securities	3,058	3,030	1%
Total Indirect Equity	**9,360**	**9,230**	**1%**
Total Current Equity Real Estate Holdings	**15,948**	**16,311**	**-2%**
Outstanding Commitments			
Direct Equity	229	258	-11%
Non-Discretionary Separate Accounts	489	633	-23%
Core Funds	112	80	40%
Value-Add Funds	1,041	1,044	0%
Opportunistic Funds	2,221	2,570	-14%
Total Outstanding Commitments	**4,092**	**4,585**	**-11%**
Total Equity Real Estate Portfolio	**20,040**	**20,896**	**-4%**

Note, predominately core allocations are highlight in blue above, while non-core investments are highlighted in orange.

StepStone Recommendations & Areas of Focus

✓ StepStone recommends a general target of 65% core and 35% non-core allocations with a cap of 45% for non-core which remains in-line with the previous recommendation from Callan. As of March 31, 2024, the System's equity real estate allocation was 68% core and 32% non-core.

✓ Due to an increase in volatility of the insurance markets, focus more closely on insurance cost projections for Hold/Sell analyses.

✓ Based on opportunities available, research (through different sources) niche property opportunities, e.g., data centers, industrial outdoor storage etc. for potential acquisitions. **StepStone House Views can be found on page 12.**

✓ Continue to explore infrastructure opportunities on a relative basis to complement the existing real estate portfolio and opportunities available.

✓ Due to the increased volume and complexity of activity and NYSTRS' focus on investments that are individually underwritten by the team, StepStone recommends adding staff to the Acquisitions and Asset Management functions.

Overview and Suggested Targets – CRE Equity Portfolio

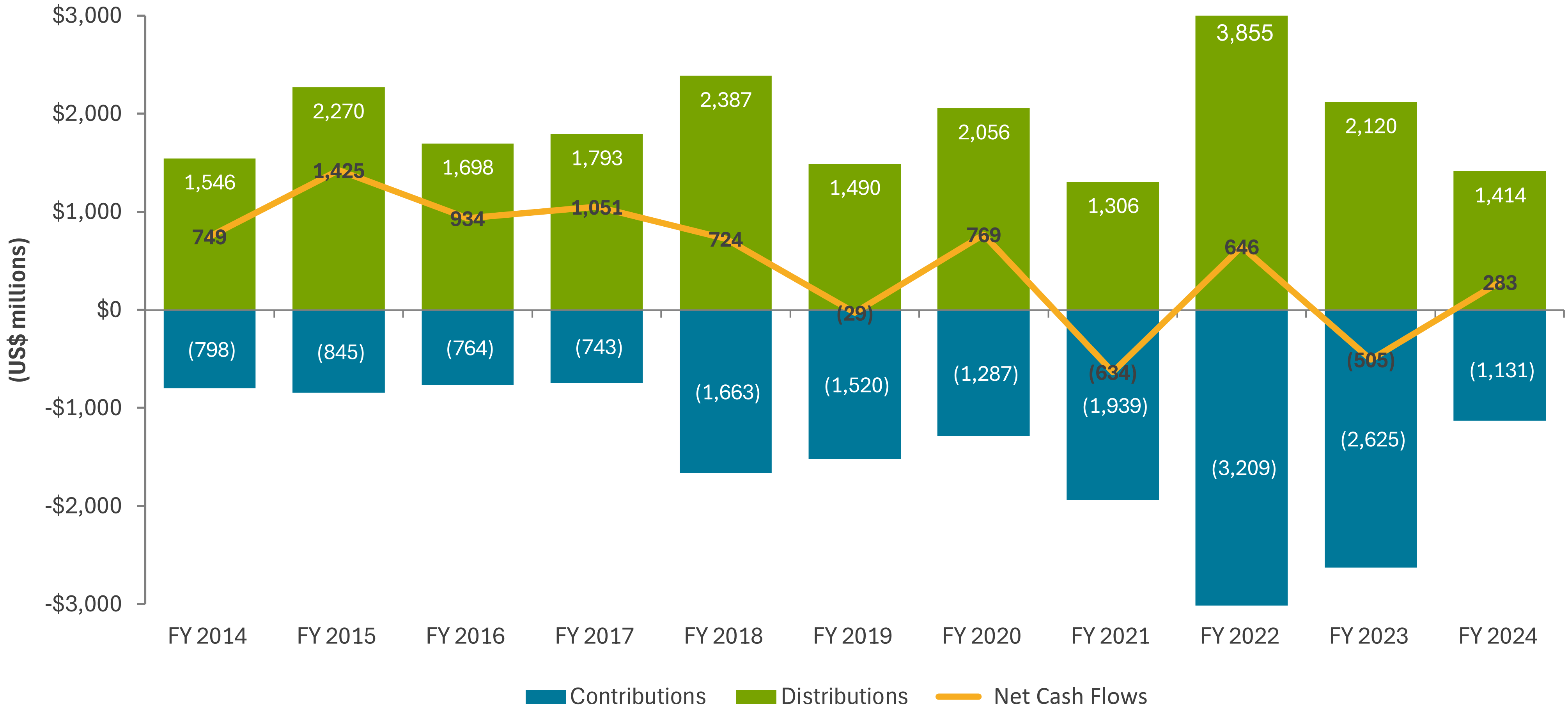
Exposure / Metric	Current Exposure[2]	Current + Unfunded[2]	Prior Callan Targets[3]	Suggested Target		Recommended Changes
Core vs. Non-Core						
Core	68%	56%	55-90%	55% - 90%		Core Allocation floor remains at 55% of NAV.
Non-Core	32%	44%	10-45%	10%- 45%		Non-core allocation cap remains at 45% of NAV
Geography						
US	83%	82%	75-95%	80-95%	=	Slight increase in targets for US based on opportunity set at this time
Europe	9%	9%	-	5-10%	=	Small allocation to take advantage of European opportunities when available.
Asia	7%	7%	-	0-10%	=	Take advantage of relative opportunities when available. Avoid new exposure to China.
Other[1]	1%	1%	5-25%	-		
Property Type						-
Industrial	26%	27%	13-33%	30-35%	↑	Increase exposure on a measured basis, while monitoring rising vacancies and above market rents in certain markets.
Residential	26%	27%	18-38%	25-35%	=	Consider residential opportunities where rents are in a lower range relative to median household income.
Office	20%	19%	5-25%	10-15%	↓	As urban office markets recover, strategically reduce office exposure as reasonable exit pricing becomes available.
Neighborhood Retail	13%	11%	5-25%	10-15%	=	Maintain exposure to necessity-based (food and drug anchored) retail near dense populations. Seek opportunities that are accretive to the existing portfolio on a measured basis.
Other	15%	15%	0-20%	15-20%	=	When relative value opportunities are available, Increase exposure to niche sectors including data centers, towers, self-storage, etc.

1. *Geographic Other includes investments in the Americas outside the US*
2. *As of March 31, 2024*
3. *Callan did not have separate Europe and Asia targets, instead there was a 15% non-US target*

CRE Equity Annual Cash Flows

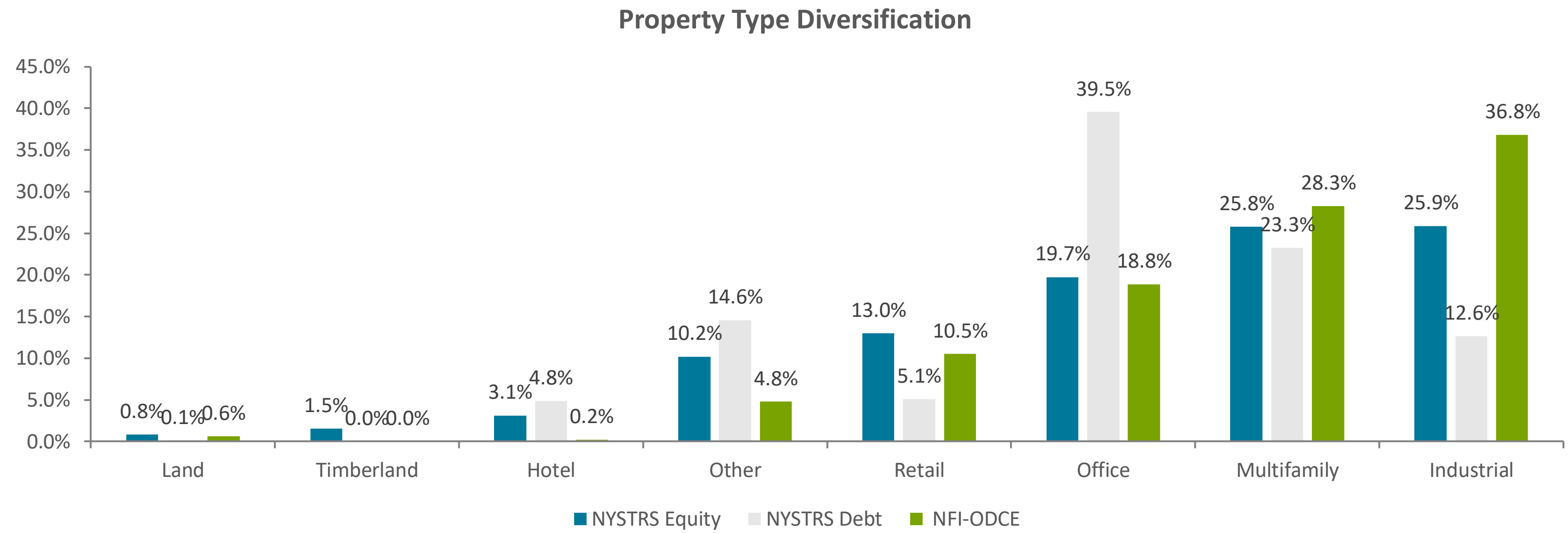
Annual (FY) Contributions and Distributions (USD in millions) *As of June 30, 2024*

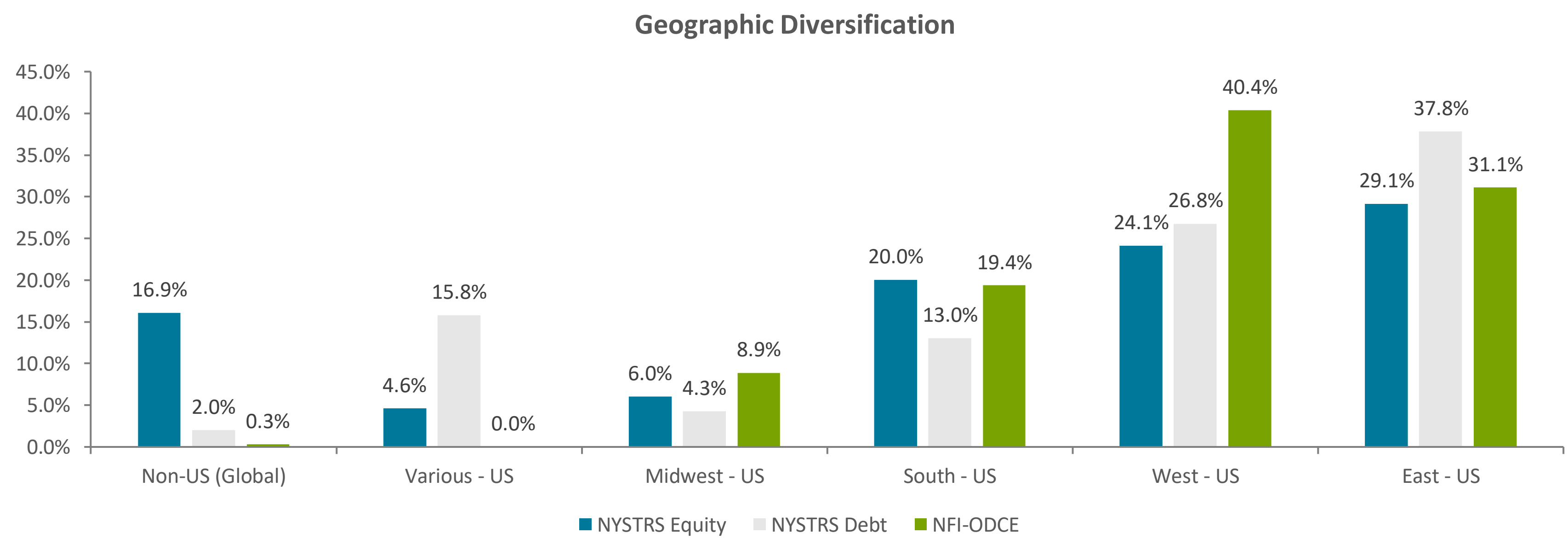
- Over the past 11 years, NYSTRS' Real Estate Equity portfolio has recorded a total of $16.5 billion in contributions and $21.9 billion in distributions, resulting in a total positive net cash flow of $5.4 billion



1. Contributions and distribution data reflect cash flow activity within the given fiscal year
2. *Past performance is not necessarily indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses.*

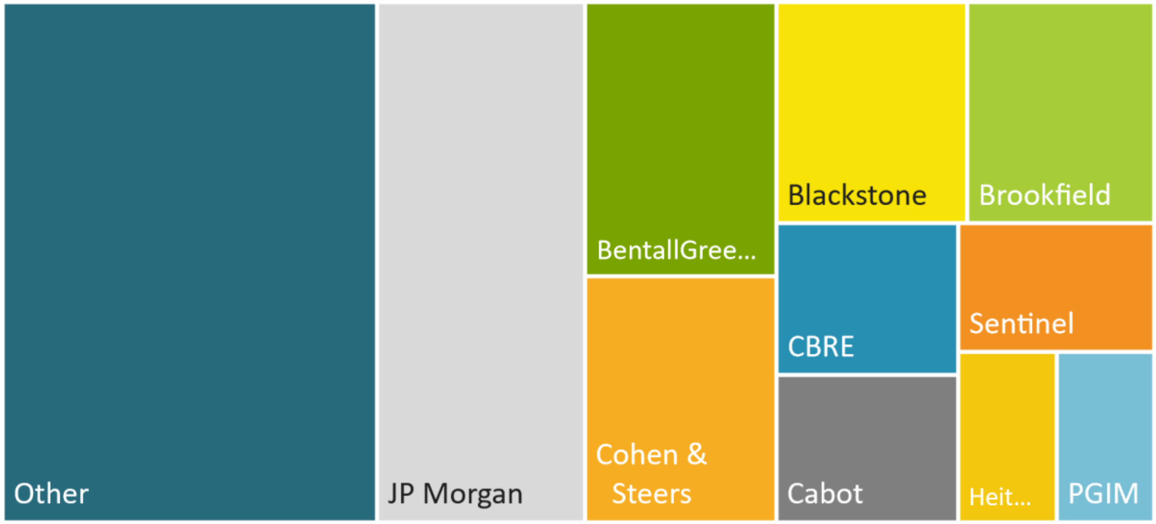
CRE Equity and CRE Debt Diversification vs. NFI-ODCE





1. *As of March 31, 2024*
2. *All office loans were originated pre-COVID 19*
3. *The high office allocation was due to competition with FNMA and FHLMC on the MF, the size of industrial locations, and NYSTRS stopping mall loans back in 2016. The current direct loan portfolio includes no enclosed shopping malls.*

Exposure – CRE Equity Private & Public Relationships



Top 10 Real Estate Equity GP Relationships	
Manager	**Total NAV**
JP Morgan[1]	$2,877
BentallGreenOak	$1,397
Cohen & Steers	$1,252
Blackstone	$1,125
Brookfield	$1,104
CBRE	$732
Cabot	$712
Sentinel	$672
Heitman	$446
PGIM	$442
Top 10 Subtotal	$10,761
Other	$5,187
Total Equity	$15,948

- The largest private CRE relationship is with JPMorgan through an SMA with 12 assets; this has been reduced over time via office and regional mall sales.
- Five of the top managers above are private SMA relationships where NYSTRS retains discretion over financing, buy/sell decisions, operating expense budgets and capital decisions.
- NYSTRS' largest exposure to a closed-end fund manager is Blackstone, at approximately 7.0% of the equity portfolio

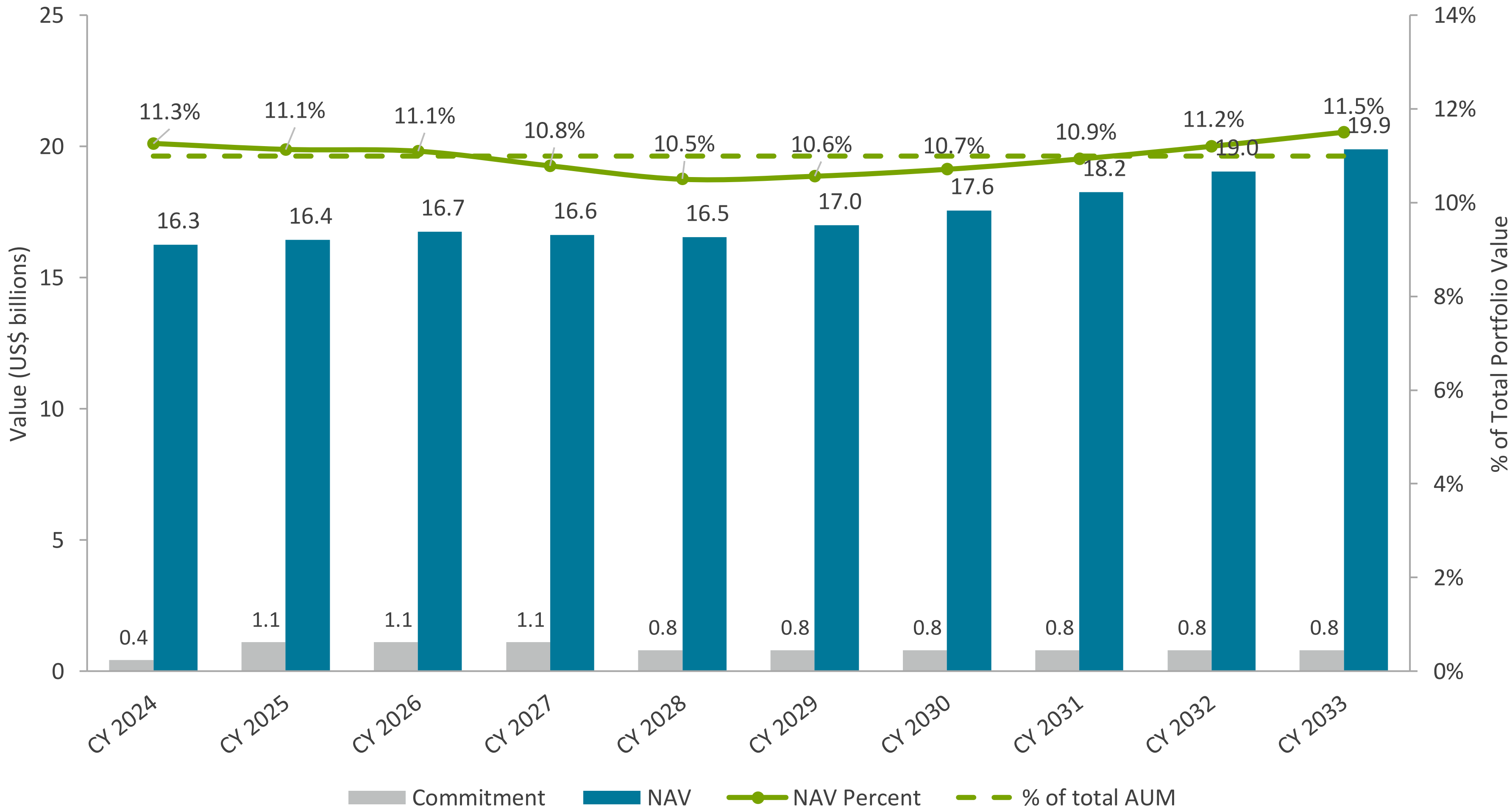
As of March 31, 2024

1. JPM's allocation has been reduced over time due to sales (pre-COVID) of large office buildings and regional malls, as well as the open-air west coast shopping center company.

II(A). PACING – REAL ESTATE EQUITY

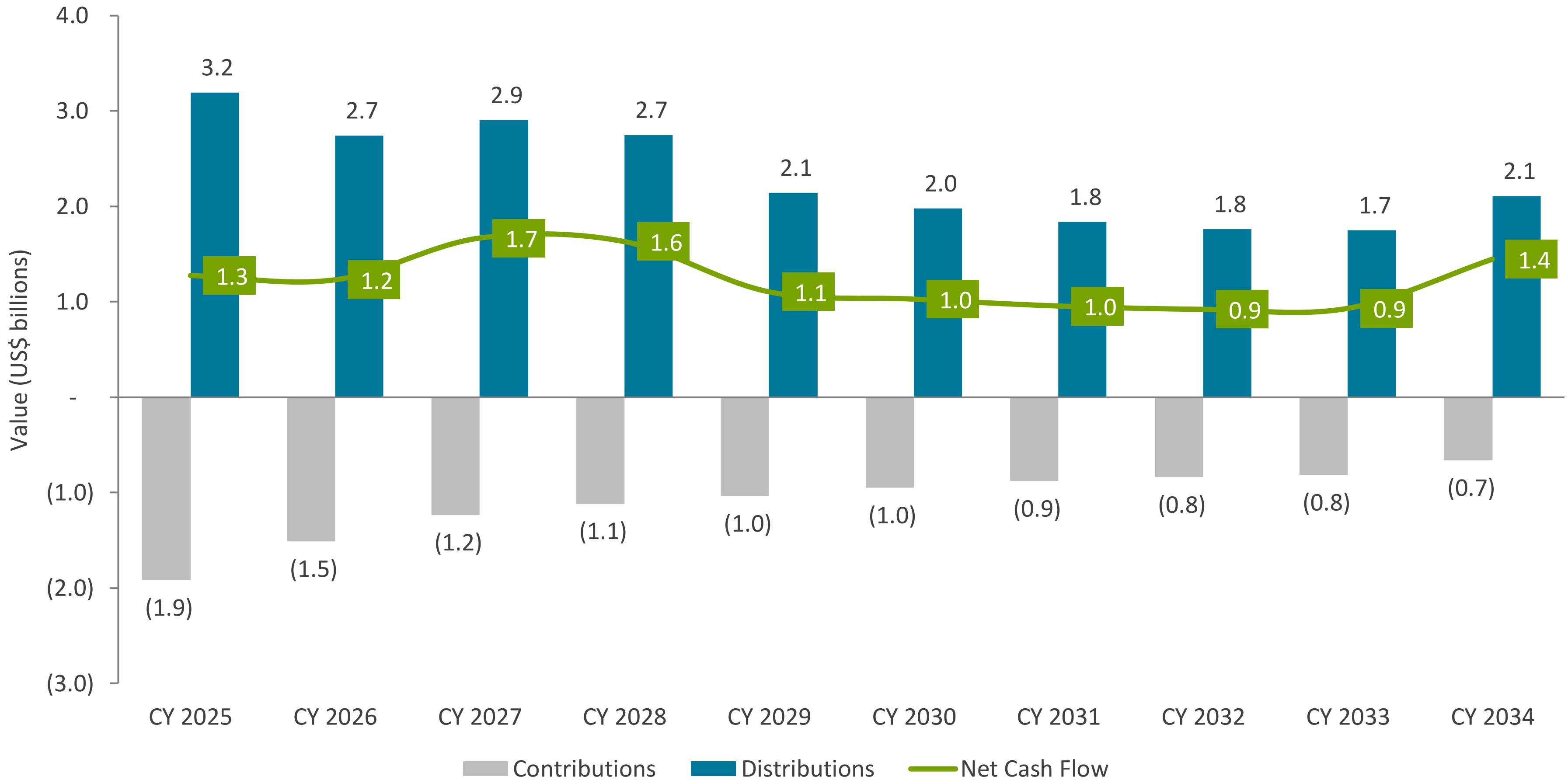
Real Estate Equity Pacing Model: Commitment & NAV

- Above the 11% target at 11.2% as of March 31, 2024; projecting 11.3% as of December 31, 2024
- StepStone recommends $1.0B - $1.2B in commitments for CY 2025. New commitments and reinvested proceeds between$0.8B and $1.1B annually over the next five years will maintain the Real Estate Equity portfolio in-line with target.
- Potential near-term disposition of cold storage and residential assets may result in additional deployment necessary to maintain the portfolio near target allocation.



1. The above and following pacing scenarios recognize only identified, near-term realizations. Pacing scenarios will be updated each year with changes in anticipated activity.
2. Cashflows not predicative of future yields; trailing 12-month used for distributions

CRE Equity Pacing Model: Net Cash Flows



- The Real Estate Equity portfolio is projected to remain net cash flow positive through CY 2034

III. CRE DEBT PORTFOLIO REVIEW

CRE Debt Portfolio Review

Executive Summary

- **In FY 2024 ending June 30, 2024, the portfolio funded $1.61 billion of contributions and received $1.82 billion of distributions, resulting in net cash inflow of $212 million.**
- The Real Estate debt portfolio includes from a risk standpoint, Core and Non-Core strategies. Core investments represent generally newer assets that are greater than 80% leased that are not in need of any significant capital work. These tend to be lower return strategies that align with a lower risk profile, i.e Core first mortgages on well maintained fully leased assets.
- As of 3/31/2024, the CRE Debt portfolio consisted of 64% core and 36% non-core assets.

As of March 31, 2024. In USD millions.

Debt Portfolio Summary	3/31/2024	3/31/2023	YoY Δ
Real Estate Debt Investments			
Direct Mortgage Portfolio	1,986	3,026	-34%
Debt Funds/Separate Accounts			
Core-Plus	1,987	1,903	4%
Opportunistic	720	627	15%
CMBS	2,823	2,367	19%
Total Current Real Estate Debt Holdings	**7,516**	**7,923**	**-5%**
Outstanding Commitments			
Direct Mortgage Portfolio	2	3	-33%
Core-Plus Funds/Separate Accounts	904	1,120	-19%
Opportunistic Funds	633	650	-3%
CMBS	296	4	-
Total Outstanding Commitments	**1,835**	**1,777**	**3%**
Total Real Estate Debt Portfolio	**9,351**	**9,700**	**-4%**

Note, predominately core allocations are highlight in blue above, while non-core investments are highlighted in orange.

StepStone Recommendations & Areas of focus

✓ Stepstone recommends an increase to the non-core debt cap from 50% to 60% due to a significant allocation (26.4%) to mezzanine and bridge lending strategies which are more conservative relative to non-core strategies. NYSTRS makes these investments through separately managed accounts where the System retains discretion on any lending opportunities that typically originate in the 65% LTV range with no loan being in excess of a 75% LTV.

✓ Pursue all private and public debt strategies (mortgages, transitional mezzanine, CMBS and bridge) to take advantage of the $2 trillion (and growing) wall of commercial loan maturities coming in the next three years.

✓ Due to the increased volume and complexity of activity as well as NYSTRS' focus on investments that are individually underwritten by the team, StepStone recommends adding staff to assist with first mortgages and mezzanine/bridge strategies.

Annual CRE Debt Cash Flows

Annual (FY) Contributions and Distributions (USD in millions) *As of June 30, 2024*

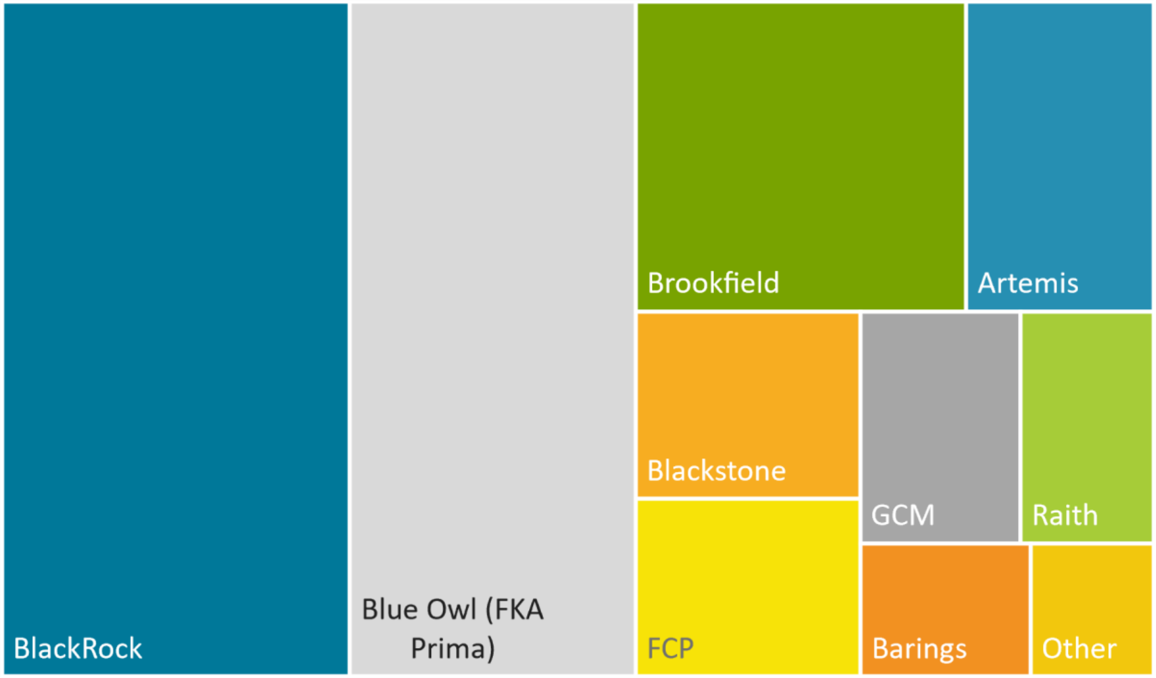
- Over the past 11 years, NYSTRS' Real Estate Debt portfolio has recorded a total of $12.2 billion in contributions and $11.6 billion in distributions, resulting in a total net contributions of $0.6 billion.

1. Contributions and distribution data reflect cash flow activity within the fiscal year
2. 2024 data represents figures as of June 30, 2024

***Past performance is not necessarily indicative of future results** and there can be no assurance that the investment will achieve comparable results or avoid substantial losses.*

Exposure CRE Debt Relationships

- NYSTRS' Real Estate debt portfolio is balanced between core first mortgages and investment grade CMBS (64%), senior mezzanine and Bridge positions which represent (26%) of the portfolio) and closed end fund strategies which make up (10%) of the portfolio.
- NYSTRS focuses on retaining discretion on private separate accounts.
- The largest debt GP exposures are to BlackRock and Blue Owl (FKA Prima) which focus primarily on investment grade CMBS.



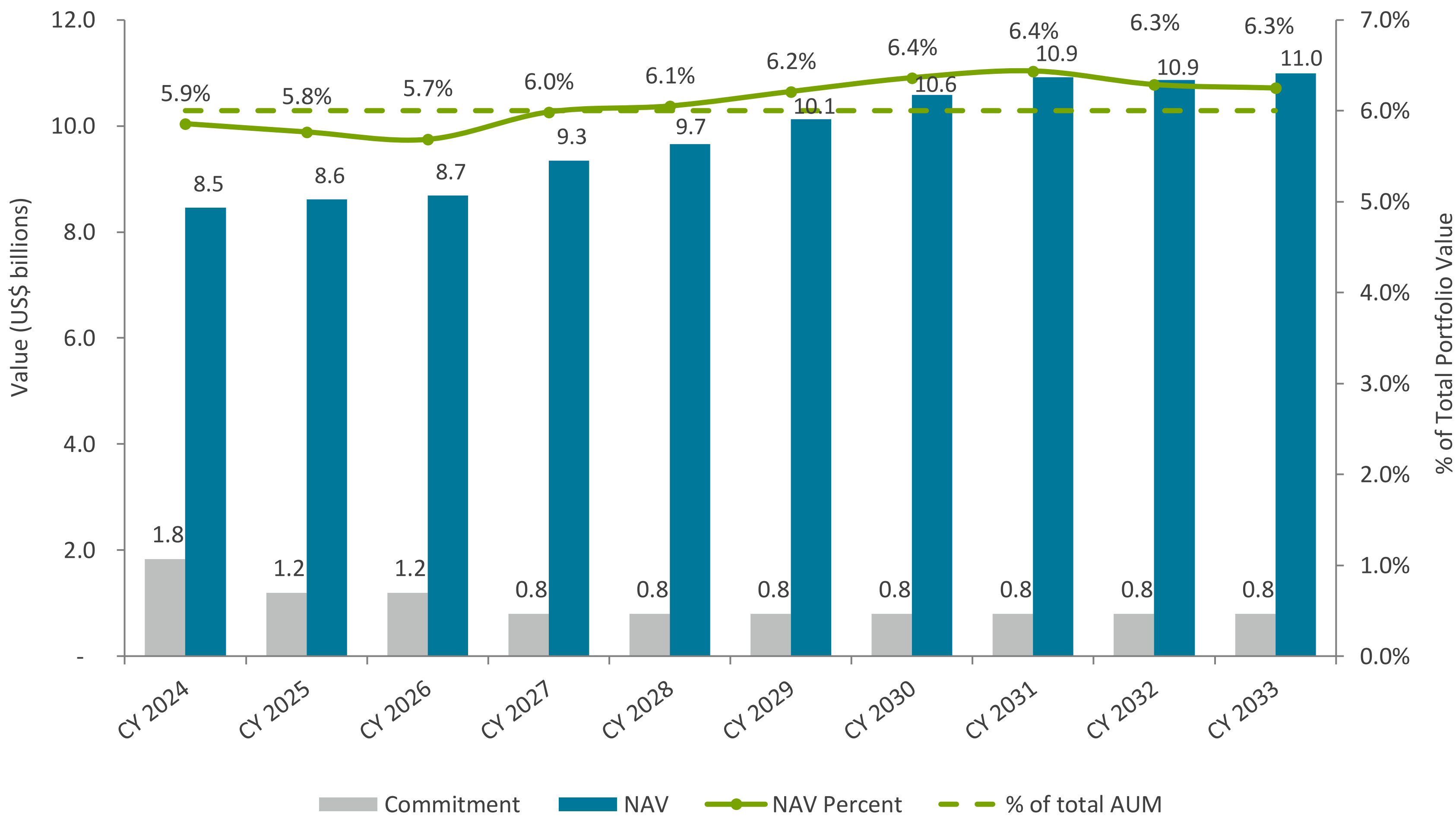
Real Estate Debt GP Relationships	
Manager	NAV (US$ millions)
BlackRock	$1,654
Blue Owl (FKA Prima)	$1,358
Brookfield	$722
Artemis	$410
Blackstone	$297
FCP	$281
GCM	$262
Raith	$218
Barings	$159
Madison	$83
TCI	$22
PCCP	$5
PRECap	$4
Total	**$5,475**

As of March 31, 2024

III(B). PACING – REAL ESTATE DEBT

Real Estate Debt Pacing Model: Commitment & NAV

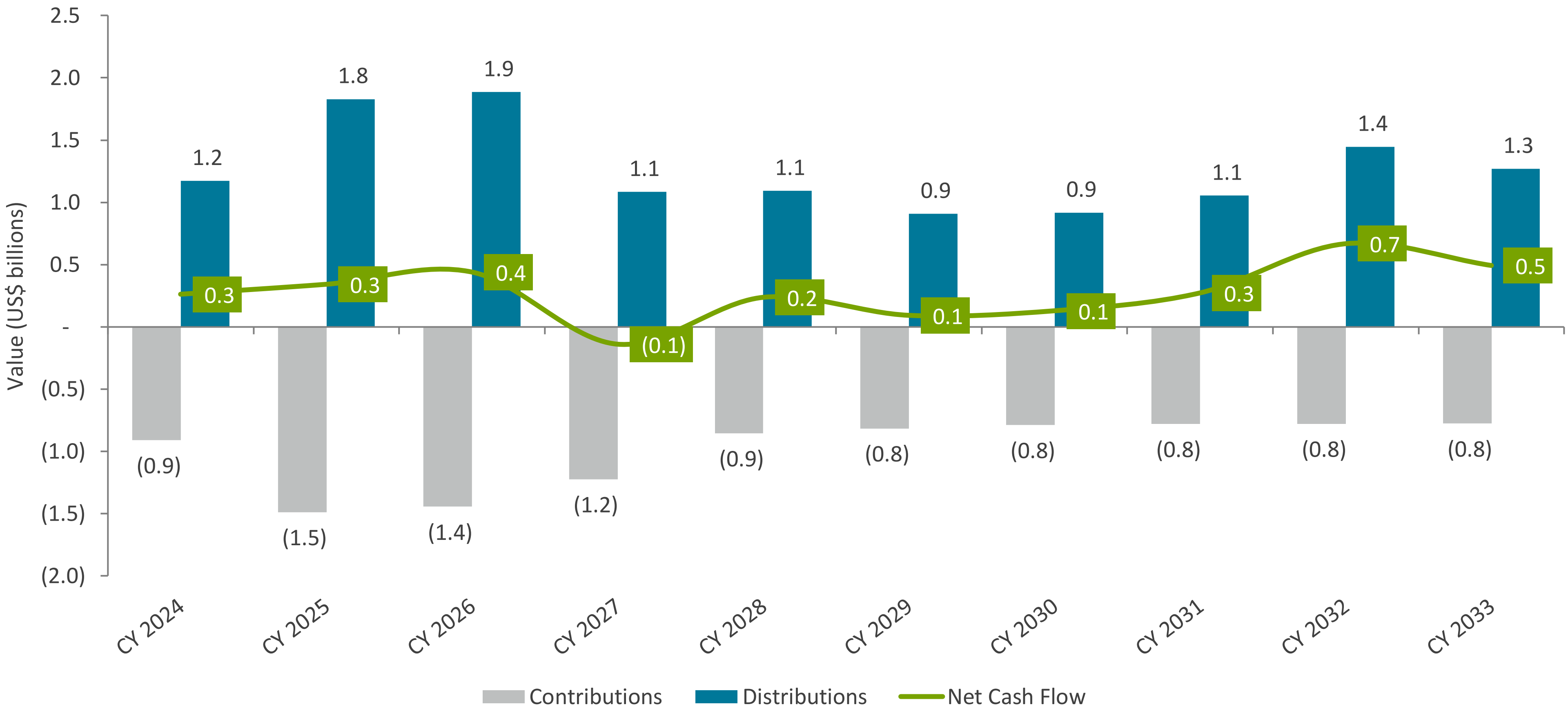
- Currently below 6% target: 5.3% as of March 31, 2024; projecting 5.9% as of December 31, 2024.
- StepStone recommends $1.1B - $1.3B in commitments for CY 2025. Committing $0.8B and $1.2B over the next five years, into a combination of funds, separate accounts, and direct mortgages would bring the Debt portfolio in-line with the 6% target by CY 2027.
- However, first mortgage investments can be quite lumpy, and the team will focus on large loans at times when yield levels/collateral opportunities are attractive.



Notes: the above and following pacing scenario recognizes only identified, near-term realizations. Pacing scenarios can be updated each year with feedback regarding additional planned realizations

1. Cashflows not predicative of future yields; trailing 12-month used for distributions
2. Calendar Year 2024 NAV as a % of total portfolio value represents a projected figure as of December 31, 2024

Real Estate Debt Pacing Model: Net Cash Flows



- Note that the current yield on the existing mortgage portfolio was 4.7% and IG CMBS was generally above 6% for investment grade securities, as of March 31, 2024
- The Real Estate Debt portfolio is projected to remain cash flow positive every year except for 2027 which may be cash flow negative depending on the timing of capital calls from prior commitments.
- Distributions could be higher in the case of early payoffs of Direct Mortgages and bridge/mezzanine loans

Notes: the above and following pacing scenario recognizes only identified, near-term realizations. Pacing scenarios can be updated each year with feedback regarding additional planned realizations

1. Cashflows not predicative of future yields; trailing 12-month used for distributions
2. Calendar Year 2024 NAV as a % of total portfolio value represents a projected figure as of December 31, 2024

V. CRE OPERATING COMPANY INVESTMENTS

EDENS Investment Trust

- Overview:
  - NYSTRS began investing in Edens Investment Trust in 2001 and as of 6/30/24 had a $1.4 Billion position in the company. The portfolio consists of 95 neighborhood shopping centers in six regions across the U.S., focused on the West Coast, Mid-Atlantic, Texas, and Southeast regions. EDENS portfolio includes primarily core assets with 2.4% of assets under development and 9.6% in redevelopment.
- Strengths:
  - The team at EDENS continues to exceed expectations. Rent growth on roll of same store tenant leases are above budgeted levels and overall earnings for the company are up. Edens has number of redevelopment projects under way with a significant portion of the projects coming on-line in 2025. The Company has a long history of successful development and redevelopment of shopping center assets.
- Weaknesses:
  - Like most organizations Edens will be refinancing debt in a higher interest rate environment which will put pressure on earnings, and, like all of their peers, the inflationary environment will continue to pressure consumers.
- Opportunities:
  - EDENS has increased their on the ground presence with their expansion on the West Coast which not only helps them manage assets locally on a day-to-day basis, but also to unearth and execute on new opportunities in the market.
- Threats:
  - Online retail sales currently make up 18% of all US retail sales and are expected to grow at annual pace of 10%/yr for the next 3-5 years. In the grocery space, on-line sales are currently at 11.5% and growing at a 4.5% annual rate. In contrast, in-store grocery sales are growing at a 1.3% rate.
  - Half of the 11.5% on-line grocery sales are buy online and pick up in store (BOPIS) where consumers typically spend an additional 45% of their grocery bill in the shopping center during their trip. Home delivery now makes up 50% of on-line grocery sales.
  - Although online sales are and will continue to be a threat, Edens focuses on dense locations with generally higher disposable income which has allowed their tenants a limit to the on-line threat. In store sales at Edens Centers are consistently in the top tier of all US retailers.

Lineage Logistics

- <u>Overview:</u>
- NYSTRS holds a significant investment in Lineage Logistics, which is a cold storage warehousing and logistics developer and operator with 454 facilities across 20+ countries.

- Lineage went public on the NASDAQ exchange on 7/25/24, raising $4.4B at an IPO price of $78 per share. This represented approximately 26% of the company shares. As of 10/22/2024, the outstanding public shares traded at $77.60 per share.

<u>Strengths:</u>

- Lineage continues to expand, adding new product in major port locations where the majority of inventory is older, less efficient product. Lineage announced a dividend of 38 cents/share that will be distributed in late October 2024. This will represent a 1.94% annual dividend yield on our investment.

<u>Weaknesses:</u>

- Lineage's and it's main competitor (Americold) have experienced headwinds since the beginning of August, as inventory levels have dropped post the large build up of product post Covid, as well as the effect of higher inflation levels on consumers.

- Market demand for frozen goods, especially high priced seafood, has slipped recently as consumers continue to feel the pressure of inflationary pricing.

<u>Opportunities:</u>

- Lineage has a modern energy efficient portfolio of assets as well as a development pipeline that will continue to deliver top tier product in a market where the average life of warehouses are well in excess of 30 years old. Lineage joined the coalition to raise the freezer set point by 4-5 degrees to significantly increase energy savings without compromising food safety.

<u>Threats:</u>

- If inflation recovery is slower than anticipated, or consequently reverses course and begins to increase again, frozen food demand will be negatively impacted.

New York State Teachers' Retirement System

Investment Committee Executive Summary

Investment Committee October 30, 2024

Margaret Andriola, CIPM, CPA
Chief Financial Officer

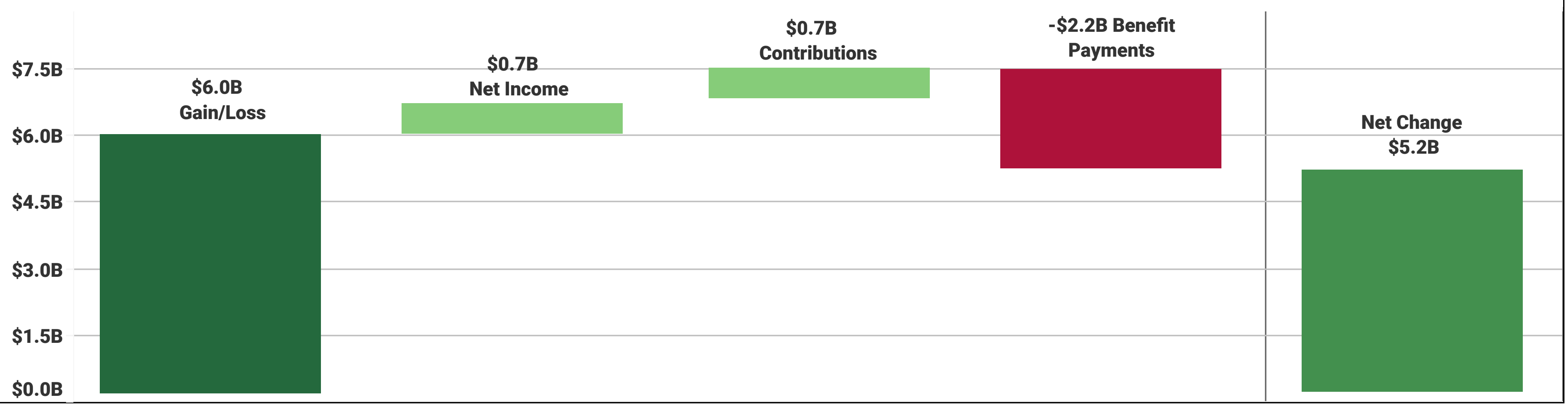
Investment Committee Executive Summary

Market Value Summary ('000s)

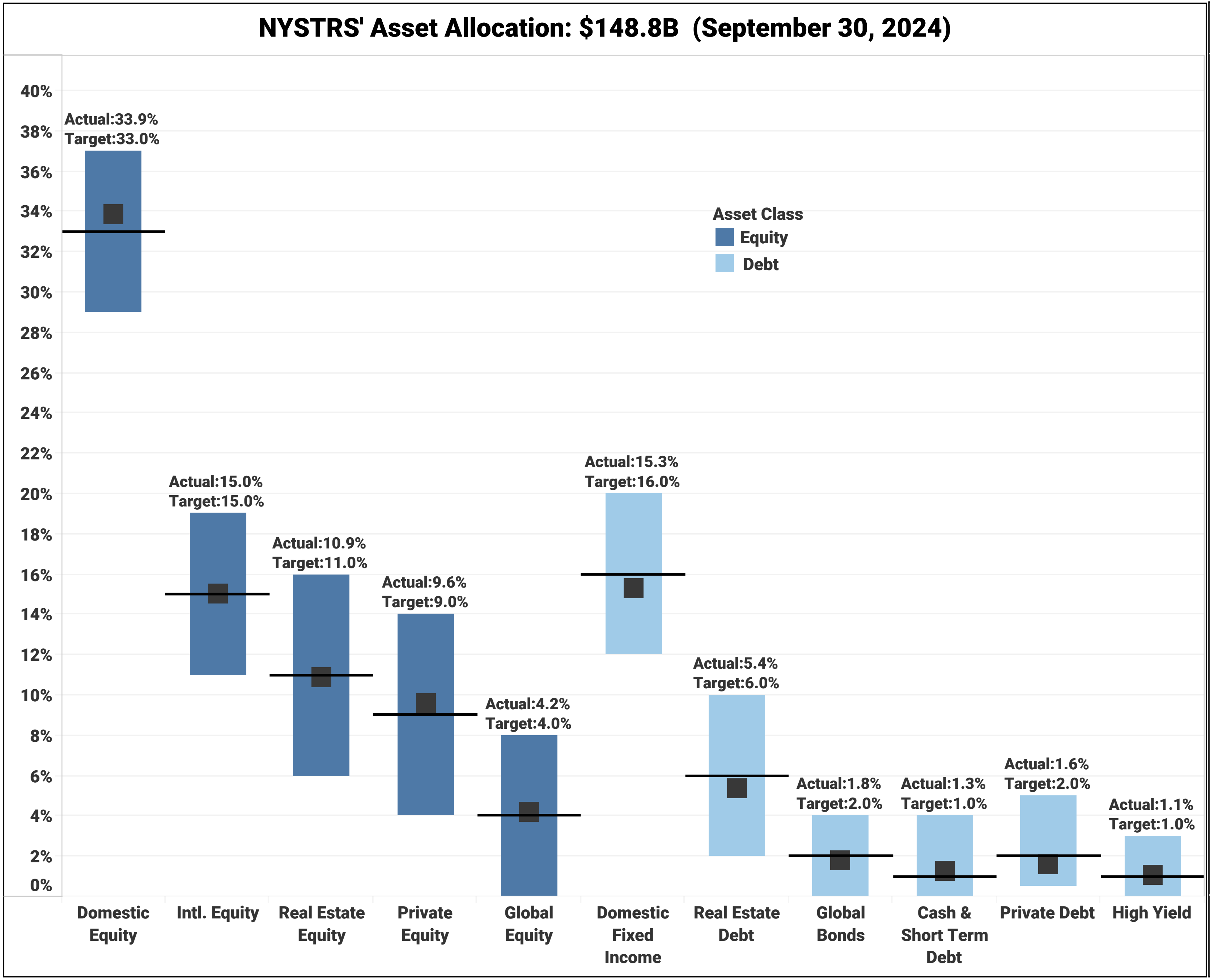
Asset Category	Asset Class	September 30, 2024 Net Asset Value	September 30, 2024 % Net Asset Value	June 30, 2024 Net Asset Value	June 30, 2024 % Net Asset Value	September 30, 2023 Net Asset Value	September 30, 2023 % Net Asset Value
Equity	Domestic Equity	$50,389,930	33.9%	$49,261,025	34.3%	$42,802,528	32.7%
	International Equity	$22,385,442	15.0%	$20,673,089	14.4%	$17,694,716	13.5%
	Global Equity	$6,250,440	4.2%	$5,911,435	4.1%	$4,810,378	3.7%
	Real Estate Equity	$16,176,665	10.9%	$15,666,839	10.9%	$16,326,716	12.5%
	Private Equity	$14,267,749	9.6%	$14,199,543	9.9%	$15,656,153	12.0%
	Asset Category Subtotal	$109,470,226	73.6%	$105,711,931	73.6%	$97,290,491	74.4%
Debt	Domestic Fixed Income	$22,712,316	15.3%	$21,416,890	14.9%	$18,186,385	13.9%
	Global Bonds	$2,692,585	1.8%	$2,807,362	2.0%	$2,636,024	2.0%
	High Yield	$1,594,076	1.1%	$1,522,105	1.1%	$1,387,676	1.1%
	Real Estate Debt	$8,016,895	5.4%	$7,771,542	5.4%	$7,678,481	5.9%
	Private Debt	$2,388,018	1.6%	$2,380,787	1.7%	$2,089,443	1.6%
	Cash & Short Term Debt	$1,929,147	1.3%	$2,032,565	1.4%	$1,514,345	1.2%
	Asset Category Subtotal	$39,333,037	26.4%	$37,931,249	26.4%	$33,492,354	25.6%
	Total Plan	$148,803,264	100.0%	$143,643,181	100.0%	$130,782,844	100.0%

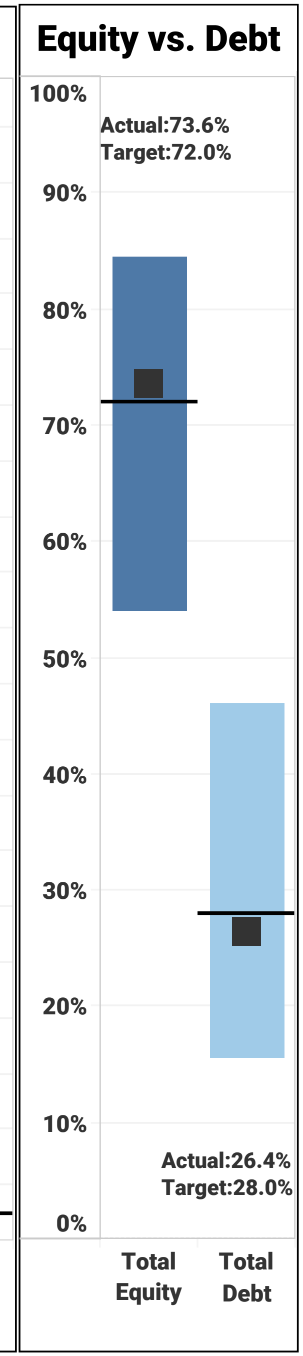
Due to rounding, numbers may not sum to 100%

Components of Change in Total Investments
FYTD: 7/1/2024 to 9/30/2024
$143.6B to $148.8B



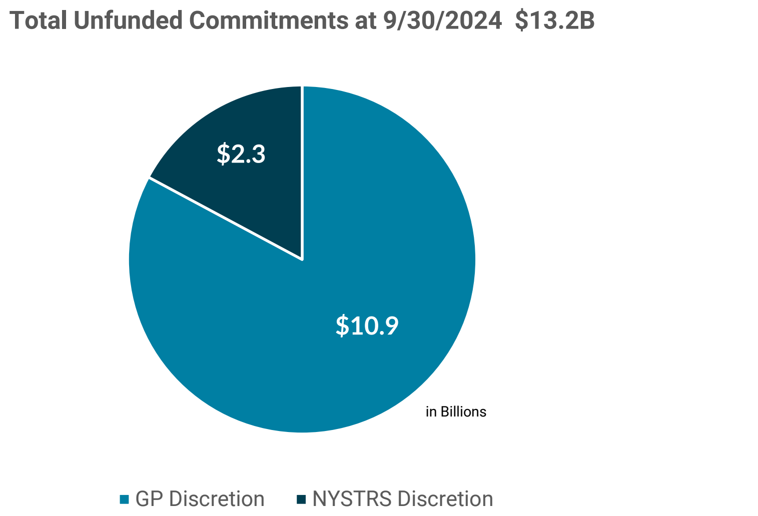
Investment Committee Executive Summary

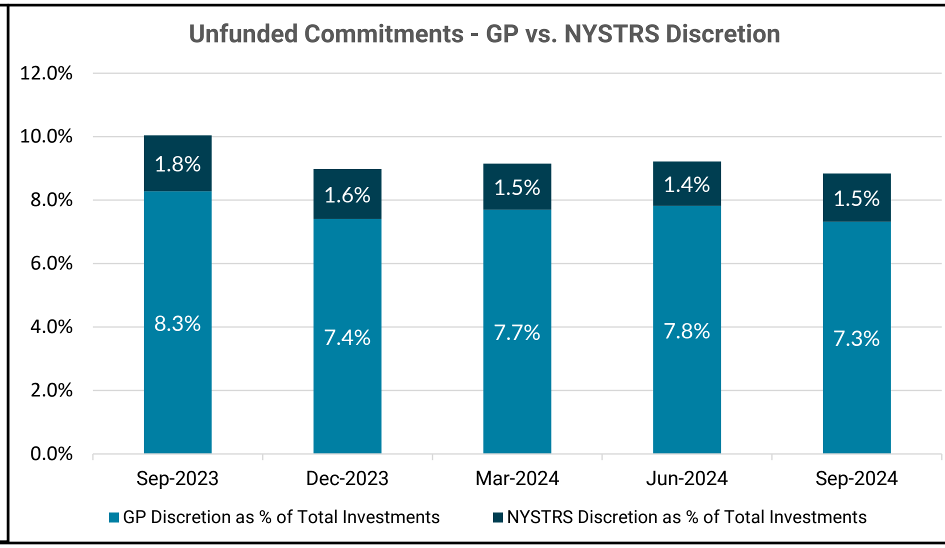


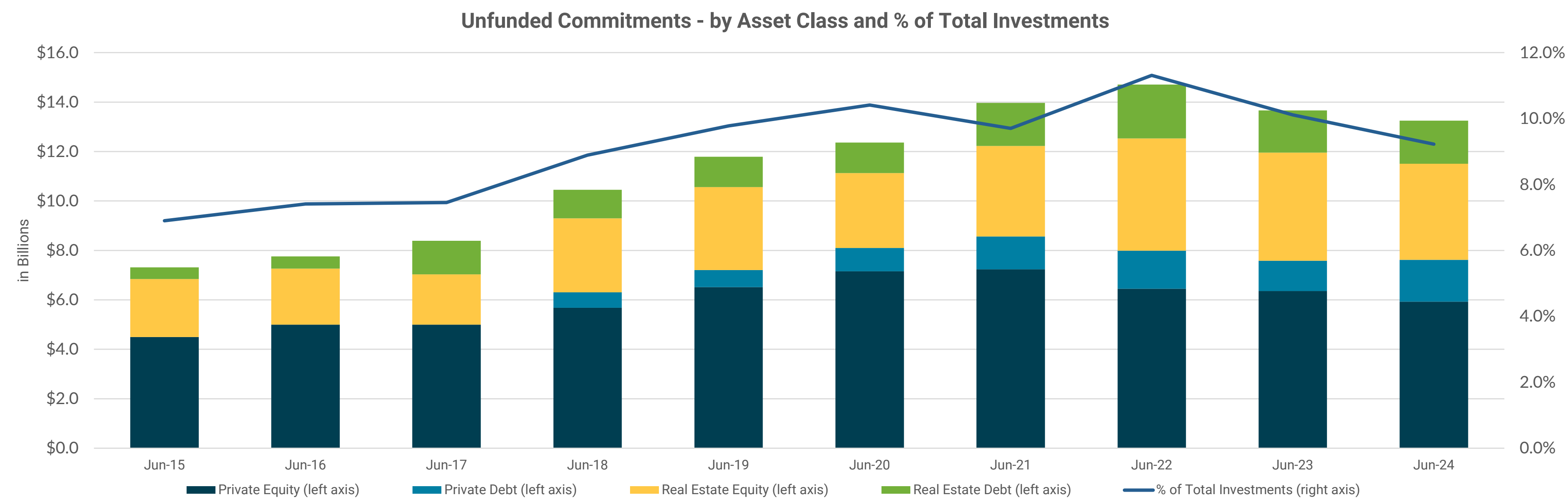


Investment Committee Executive Summary

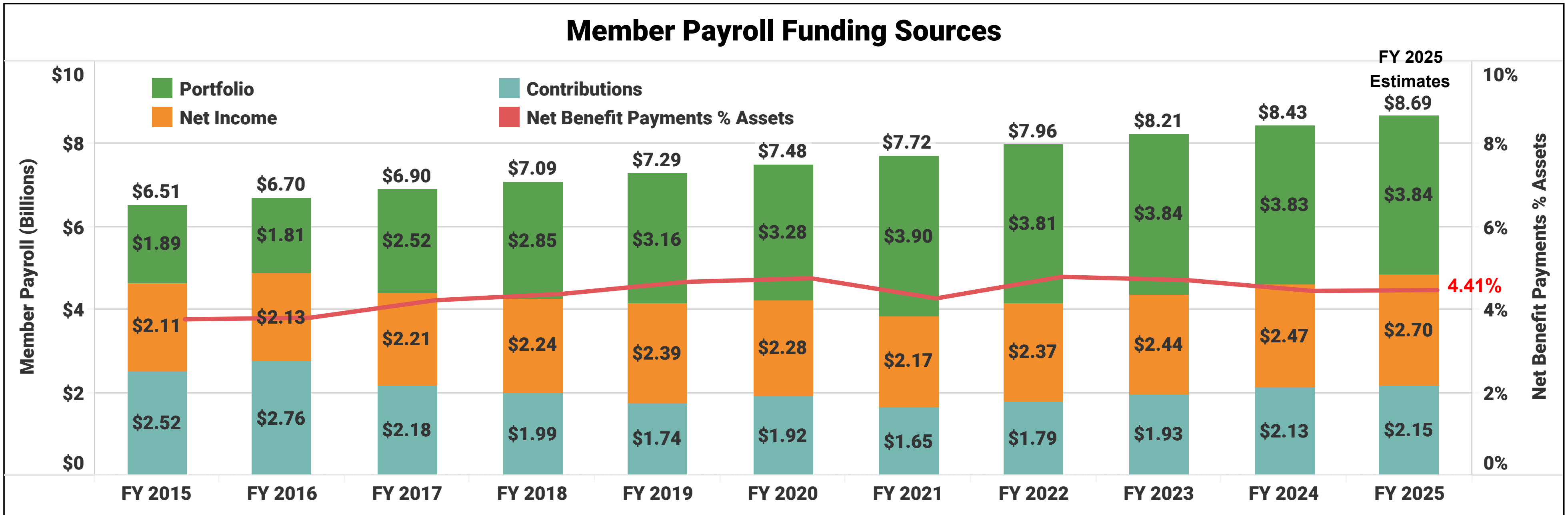
Unfunded Commitments - Private Assets

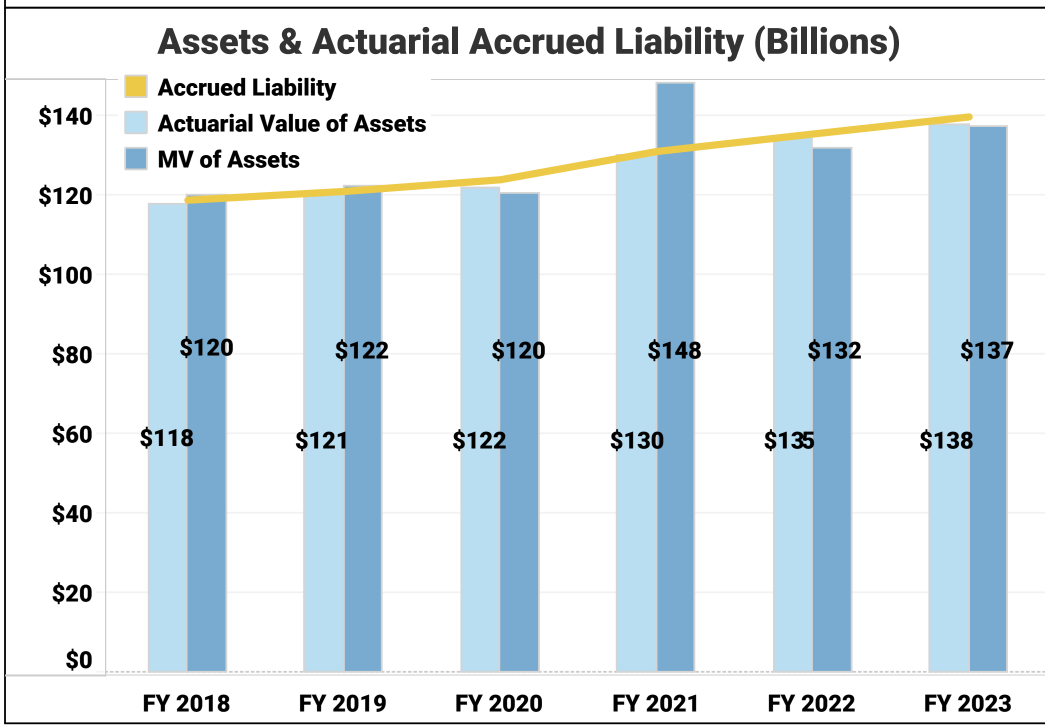


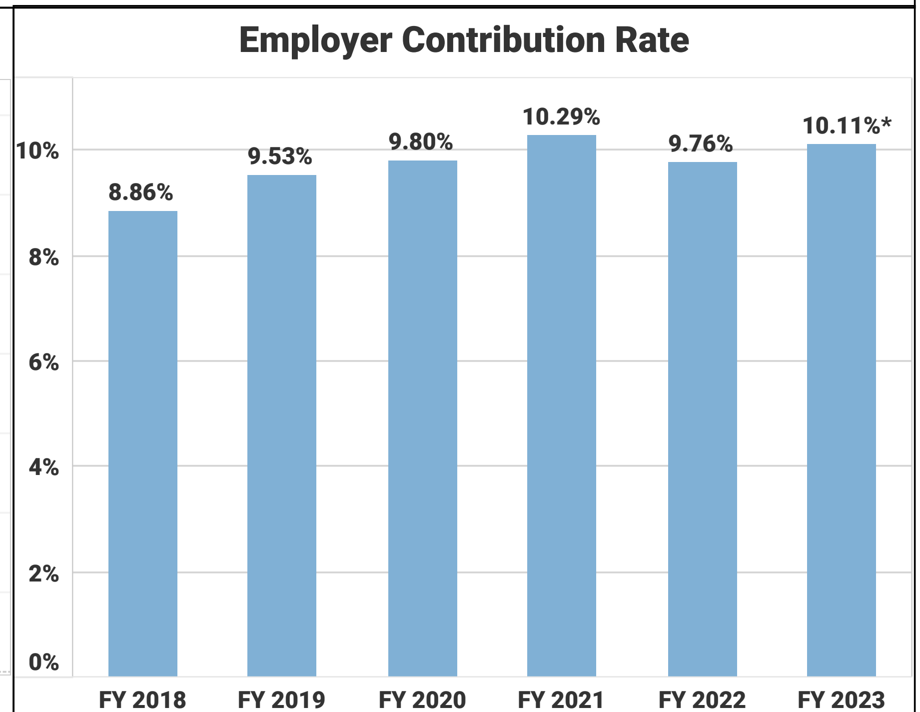




Investment Committee Executive Summary







* The ECR applied to member payroll for the 7/1/24-6/30/25 school year will be 10.11%, collected in Fall 2025.

Investment Committee Executive Summary

Public Market Performance as of September 30, 2024

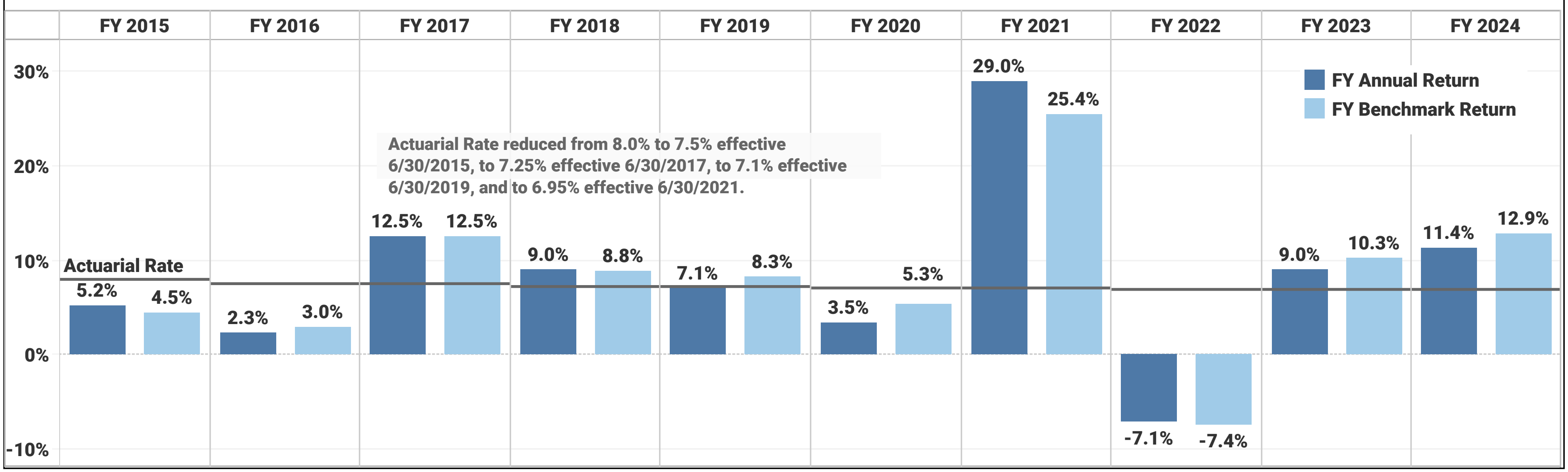
Asset Class	Current QTR Net Return	Current QTR Excess Return
Domestic Equity	6.0%	-0.1%
International Equity	7.5%	-0.6%
Global Equity	5.6%	-1.0%
Private Equity	N/A	N/A
Real Estate Equity	14.8%	-0.6%
Domestic Fixed Income	5.2%	0.1%
Global Bonds	4.8%	0.2%
High Yield Bonds	4.6%	0.3%
Private Debt	N/A	N/A
Real Estate Debt	3.9%	-0.7%
Short Term	1.4%	0.1%
Total Public Markets	**6.1%**	**-0.2%**

RE Equity is REITs only and RE Debt is CMBS only.
For additional performance information see Supplemental Materials.

Total Fund Performance as of June 30, 2024

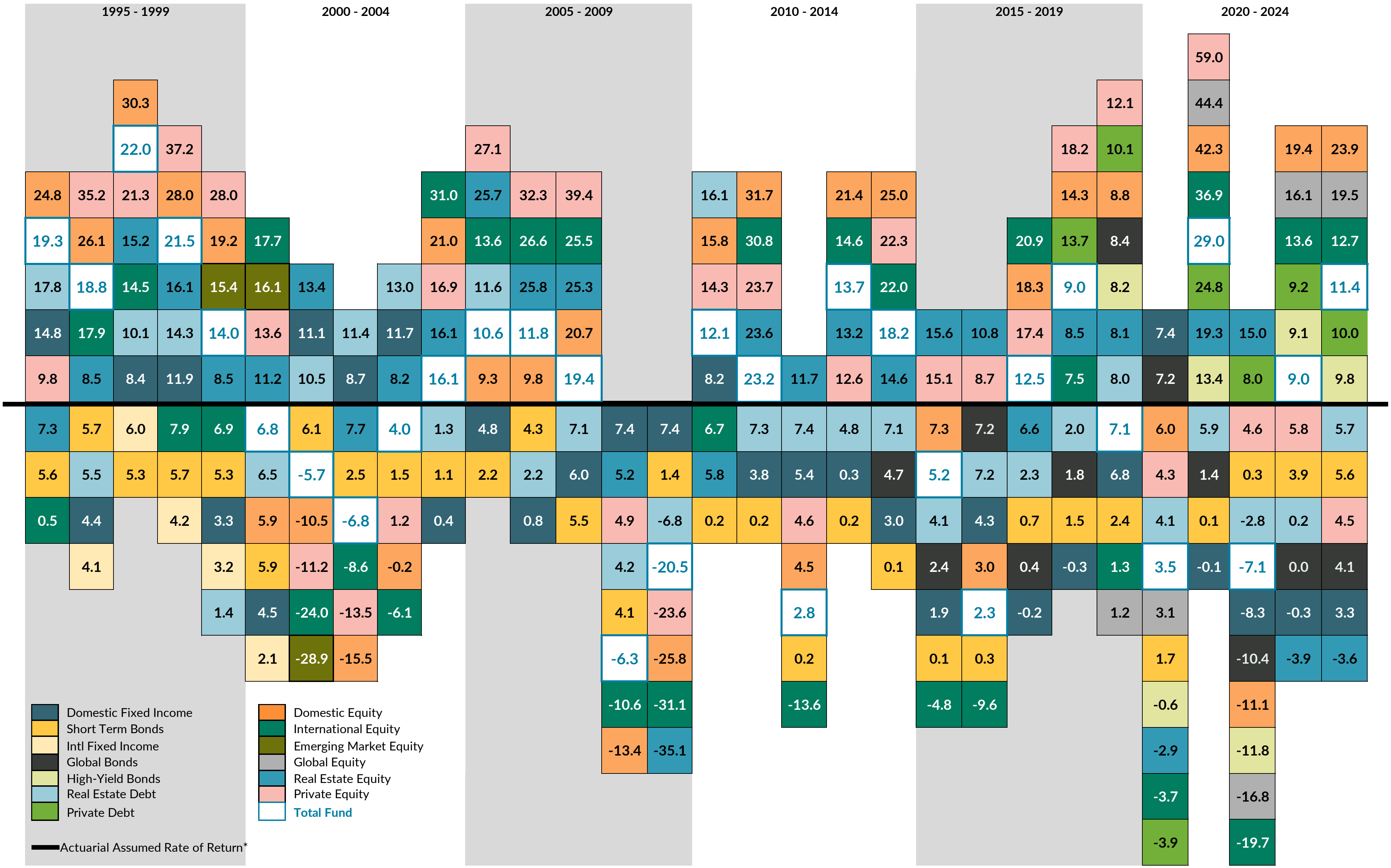
Asset Class	QTR Net Return	QTR Excess Return	FYTD Net Return	FYTD Excess Return	10YR Net Return	10YR Excess Return
Domestic Equity	3.7%	0.1%	23.9%	0.4%	12.4%	-0.1%
International Equity	1.1%	0.2%	12.7%	1.1%	4.4%	0.5%
Global Equity	2.0%	-0.9%	19.5%	0.1%	N/A	N/A
Private Equity	1.3%	-4.2%	4.5%	-25.1%	14.1%	-3.8%
Real Estate Equity	-0.4%	0.2%	-3.6%	6.4%	7.1%	1.5%
Domestic Fixed Income	0.3%	0.2%	3.3%	0.5%	1.4%	0.0%
Global Bonds	-0.1%	0.1%	4.1%	0.3%	2.1%	0.3%
High Yield Bonds	1.3%	0.0%	9.8%	-0.3%	N/A	N/A
Private Debt	1.9%	-0.8%	10.0%	-4.1%	N/A	N/A
Real Estate Debt	1.4%	0.3%	5.7%	1.0%	3.6%	0.6%
Short Term	1.3%	0.1%	5.5%	0.4%	1.6%	0.3%
Total Fund	**1.8%**	**-0.3%**	**11.4%**	**-1.5%**	**7.8%**	**-0.2%**

Annual Performance



Investment Committee Executive Summary

Investment Returns (%) by Asset Class Fiscal Years Ended 1995 - 2024



*Actuarial Assumed Rate of Return reduced from 8.0% to 7.5% effective 6/30/15, from 7.5% to 7.25% effective 6/30/17, from 7.25% to 7.10% effective 6/30/19, and from 7.10% to 6.95% effective 6/30/21.

New York State Teachers' Retirement System
Portfolio Turnover Ratios - Internally Managed Portfolios
Period Ending 6/30/2024

Fund Name	Weighted Average Balance	Purchases[1]	Sales[1]	Portfolio Turnover Ratio[2]	Target Range
Passive					
Index2	$36,660,128,281	$569,032,297	$5,622,370,978	1.55%	1 - 6%
S&P 100	$1,558,122,742	$32,366,933	$359,116,460	2.08%	1 - 6%
S&P 500	$1,824,621,061	$45,003,129	$487,716,785	2.47%	1 - 6%
S&P 400	$396,185,989	$78,672,721	$65,762,255	16.60%	5 - 25%
S&P 600	$282,972,336	$62,642,100	$51,693,966	18.27%	5 - 25%
Canadian Index	$63,631,948	$2,170,554	$948,249	1.49%	1 - 8%
Active					
Growth Tilt2	$1,471,733,968	$174,012,397	$169,953,672	11.55%	10 - 20%
Value Tilt2	$1,442,095,906	$168,323,739	$167,289,919	11.60%	10 - 20%
AllCap Disc. Equity	$1,049,923,601	$478,304,253	$479,256,372	45.56%	40 - 60%
Long Term Bond[3]	$18,538,459,273	$5,885,791,451	$1,523,690,774	8.22%	0 - 20%
Short Term Bond[3]	$0	$0	$0	0.00%	N/A

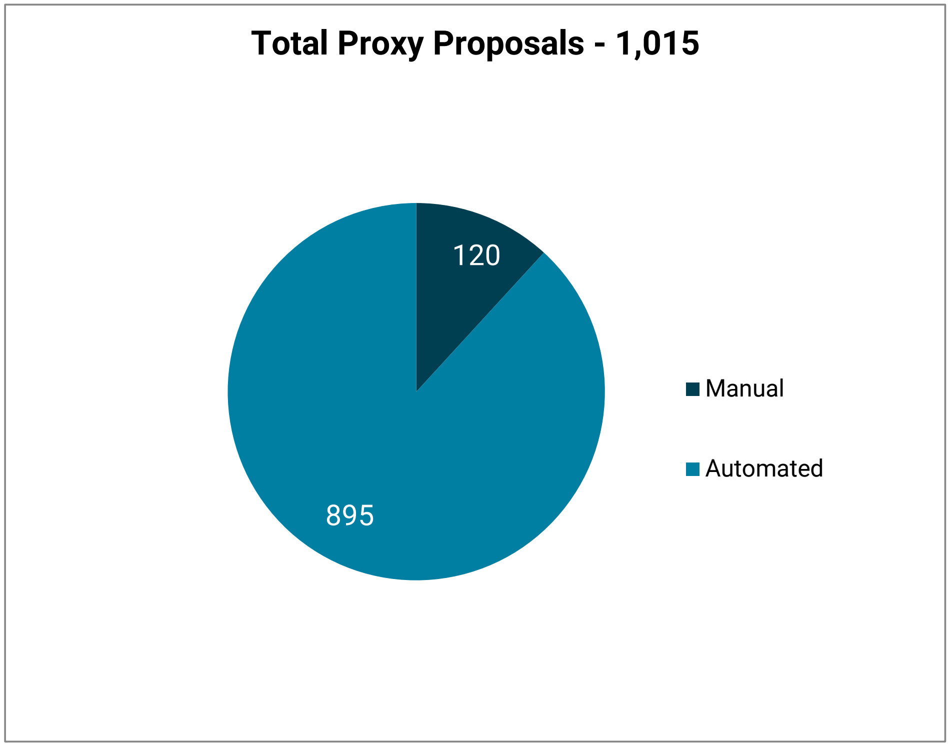
[1]Purchase and sales do not include maturities, calls or involuntary corporate actions.

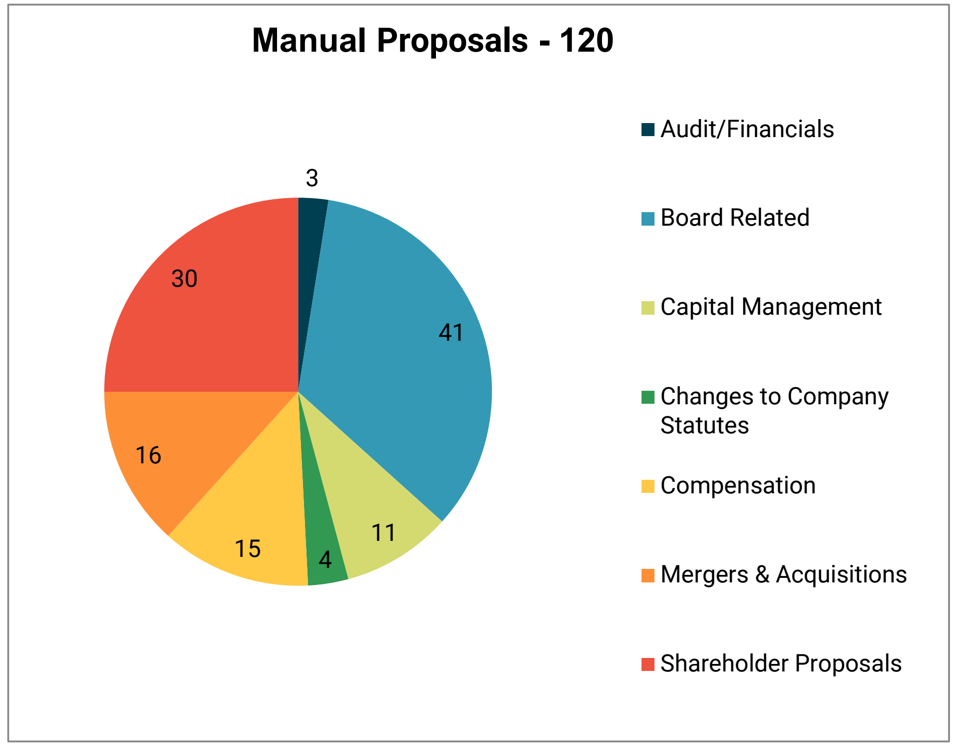
[2]Portfolio Turnover Ratio calculated as the lesser of the last 12 months purchases or sales divided by the weighted average balance.

[3]Securities with less than a 1 year maturity are excluded from both the numerator and denominator. The value of the Short Term Bond Portfolio was $2.0 billion at 6/30/24, the preponderance of which matures in less than one year.

Investment Committee Executive Summary 52

Proxy Voting Summary: 7/1/2024 - 9/30/2024





The System has implemented automated voting for those issues that can reliably be voted according to NYSTRS' Stock Proxy Voting policy without review. Those requiring review are voted manually utilizing research provided by our proxy advisory service to support the decision. In general, the System supports corporate management if management's position appears reasonable, is not detrimental to the long range economic prospects of the company, and does not tend to diminish shareholder rights. Should a complex issue arise which is not included in the Stock Proxy Voting policy, the Executive Director and Chief Investment Officer or his designee is authorized to exercise best judgment in voting such issue.

Audit/Financials - The System may oppose auditor selection if there are concerns about objectivity.
Board Related - The System supports independent and diverse directors.
Capital Management - The System generally supports proposals that provide the company with flexibility provided they do not limit shareholder rights.
Changes to Company Statutes - The System generally supports proposals relating to bylaw or organizational changes provided they do not limit shareholder rights.
Compensation - The System generally supports reasonable compensation plans which are tied to objective performance measures. Stock option plans should be used to motivate corporate personnel.
Mergers & Acquisitions - Proposals are reviewed on a case by case basis.
Shareholder Proposals (type & number) - Compensation: 1, Environment: 5, Governance: 16, Social: 7, and Other: 1

New York State Teachers' Retirement System

Appendix C

Public Equities Managing Director Update

Investment Committee October 30, 2024

Paul Cummins, CFA, CAIA
Public Equities

Public Equity MD Update

	Mkt Val $B*	Asset Allocation %			Portfolio Net Returns %					Excess Returns %				
		Actual	Target	Range	Qtr	FYTD	1Y	3Y Ann	5Y Ann	Qtr	FYTD	1Y	3Y Ann	5Y Ann
Public Equities	$ 79.0				6.38	6.38	32.41	9.20	13.23	-0.29	-0.29	0.12	0.10	0.25
Domestic Equities	$ 50.4	33.9	33	29-37	5.99	5.99	35.76	11.59	15.67	-0.05	-0.05	0.21	0.13	0.08
Domestic Passive	$ 43.7				6.04	6.04	35.62	11.50	15.66	0.00	0.00	0.07	0.04	0.07
Domestic Active	$ 6.7				5.67	5.67	36.79	12.33	15.80	-0.38	-0.38	1.25	0.86	0.21
International Equities	$ 22.4	15.0	15	11-19	7.48	7.48	25.43	4.38	8.20	-0.59	-0.59	0.07	0.24	0.62
International Passive	$ 15.1				8.06	8.06	25.52	4.35	7.80	0.00	0.00	0.16	0.22	0.22
International Active	$ 7.3				6.29	6.29	25.26	4.29	9.27	-1.78	-1.78	-0.09	0.16	1.68
Global Equities	$ 6.3	4.2	4	0-8	5.63	5.63	29.42	7.15	12.87	-0.98	-0.98	-2.33	-0.94	0.68

* Due to rounding, market values may not sum.

Market Commentary:

- Global equity markets rose 6.6% for the quarter. U.S. equities returned 6.0% led by 10.1% return for small-cap stocks.
- International markets rose 8.1% for the quarter led by Emerging markets with a return of 8.7%. China and Hong Kong equities were notable strong performers.
- Market volatility rose during the quarter in anticipation of Fed rate cuts.
- Investors rotated out of faster growing technology stocks into cheaper sectors including real estate and utilities.

Portfolio Activity & Asset Allocation:

- Driven by strong market returns, the portfolio ended the quarter at$79.0B, an increase of $13.7B from September 2023.
- The public equities asset classes remain close to their respective targets and well within their asset allocation ranges.
- $1.6B was raised from domestic equities during the quarter.

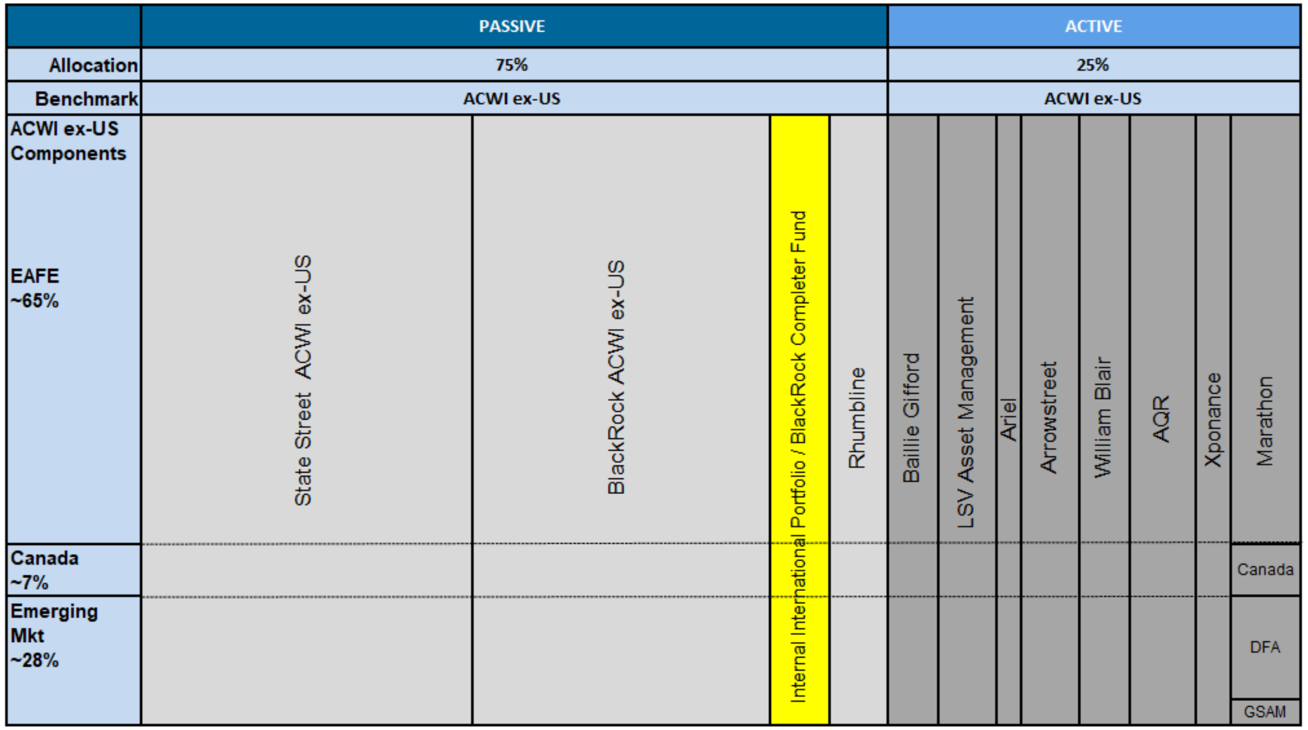
Portfolio Performance & Positioning:

- The portfolio under-performed the benchmark for the quarter but has generated a 1-year return of 32.4% and is out-performing the benchmark longer term.
- The portfolio's passive strategies performed in-line with expectations while active strategies experienced some reversal in relative performance during the quarter following a strong fiscal year.
- During the quarter, Xponance, an existing MWBE manager of managers in the international equity allocation, was funded with an additional $150M.

Team/Other Updates:

- Brief recap of the internally managed international equity proposal.

International Equity Allocation Overview



- The asset allocation target for international equities is 15%.
- Almost all international equity assets are currently managed externally.
- A significant portion of the portfolio is passively managed by State Street, BlackRock, and RhumbLine.

Executive Summary

- We are proposing to bring a portion ($1billion) of the passive assets in-house.
- Internal management would reduce manager concentration, provide NYSTRS with operational benefits, and further enhance staff's expertise and capabilities.
- International markets are complex. The System's policy benchmark for International Equities contains over 2,000 stocks in 46 countries, including developed and emerging markets.
- Therefore, to mitigate risk, staff is proposing a multi-year implementation timeline, starting with approximately $170 million of externally managed passive Canadian and UK securities, before progressing to other countries and regions.

Fixed Income MD Update

	Mkt Val $B	Asset Allocation %			Portfolio Net Returns %					Excess Returns %				
		Actual	Target	Range	Qtr	FYTD	1Y	3Y Ann	5Y Ann	Qtr	FYTD	1Y	3Y Ann	5Y Ann
Internally Managed	$ 24.6	16.6	17											
Domestic Fixed Income	$ 22.7	15.3	16	12-20	5.20	5.20	11.32	-0.24	1.01	0.07	0.07	-0.16	1.14	0.65
Short-Term Bond	$ 1.9	1.3	1	0-4	1.36	1.36	5.56	3.68	2.45	0.12	0.12	0.43	0.37	0.33
Externally Managed	$ 4.3	2.9	3											
Global Bonds	$ 2.7	1.8	2	0-4	4.77	4.77	11.67	-0.74	0.73	0.24	0.24	0.76	0.24	0.56
High Yield	$ 1.6	1.1	1	0-3	4.64	4.64	14.50	3.11	4.18	0.25	0.25	-0.15	0.34	-0.02

Qtr. Market Commentary:

- **US investment grade:** strong returns (5%+) as Treasury yields and credit spreads declined
- **Shor-term:** continued to yield over 5% annualized as the Fed rate cutting cycle commenced
- Dollar hedged **global bond** returns led by strong European market performance that offset a weaker US dollar
- **High yield:** price and income returns positive as spreads approached a 17-year low

Asset Allocation & Positioning:

- All Fixed Income within asset allocation ranges
- Added a net $359 million to Domestic to continue move towards 16% target
- Domestic buys of securitized and Treasuries vs. corporates based on relative value views
- Domestic duration is now slightly positive versus benchmark after Treasury yield increase
- Merged 2 Nomura (NCRAM) high yield accounts at quarter end

Excess Performance in Qtr:

- **Domestic:** +7bp as yield curve and duration position gains outweighed small negative from sector/security selection
- **Short-term:** +12bp while being managed around the Fed rate cut path
- **Global**: +24bp excess returns from duration positioning and overall credit overweight
- **High Yield**: +25bp excess from sector and security selection

Macro and Team Updates:

- **Policy**: Fed cut 0.5% in Sept with 1-2 more 25bp cuts likely in 2024. Strong US growth raises doubts about 2025 cuts.
- **Election:** Wildcards such as tariffs, immigration, and taxes have market, growth, and inflation effects
- **Credit**: spreads remain near record lows—a risk entering potential election volatility
- Emerging markets portfolio launched on 10/1
- Search underway for Inv Off I

New York State Teachers' Retirement System

Commercial Real Estate (CRE) Equity and Debt Investments Managing Director Update

Investment Committee October 30, 2024

David C. Gillan, CPA
Real Estate

CRE Equity Portfolio	9/30/24 Value	Target	Range	Actual	w/Commitments
	$16,177	11%	6%-16%	10.9%	13.1%

Performance for Periods Ended June 30, 2024

Strategy (Inception Date)	Net Asset Value	Current Quarter	1 Year	5 Year	10 Year	Since Inception
Direct Properties (2/90)	$6,225	-0.7%	-7.4%	4.1%	7.3%	9.0%
Core Funds (7/85)	$1,449	-1.4%	-10.5%	-1.0%	2.7%	5.9%
Value Added (12/89)	$1,706	-0.3%	-7.6%	10.8%	14.4%	11.5%
Opportunistic (3/99)	$3,284	0.1%	-2.1%	6.9%	8.3%	10.4%
U.S. RE Securities (7/95)	$2,042	1.1%	8.4%	5.2%	6.9%	10.8%
Global RE Securities (9/17)	$715	-2.1%	4.9%	0.6%	-	2.1%
Timber (12/98)	$241	-1.2%	27.1%	11.8%	7.8%	5.5%
Total CRE Equity Portfolio	**$15,662**	**-0.4%**	**-3.6%**	**4.3%**	**7.1%**	**7.9%**
NCREIF-ODCE (Spliced)	-	-0.7%	-10.0%	2.5%	5.6%	6.1%

Market Commentary:

- Green Street's Commercial Property Price Index (est. of unlevered US commercial property values) turned the corner in June 2024, reflecting an increase of 3.1%, the first positive move since market peak in March 2022. This is despite office sector's continued negative move of an additional 8% over the prior twelve months. The CPPI now sits 19% below the 2022 peak level.
- The stalled transaction market of the prior 18 months is starting to unlock with the volume of deals being brought to market increasing over the third quarter. Bid ask spreads on multifamily and industrial properties have narrowed to a point where properties are transacting.

Portfolio Activity & Asset Allocation:

- Direct portfolio deal flow has increased significantly. Staff are actively reviewing multifamily, industrial, and neighborhood shopping center opportunities in locations with strong, diverse long term demand profiles.
- Staff focus on strategies with robust demand drivers such as data centers, digital infrastructure and opportunistic strategies from partners with proven track records capitalizing on distress.
- Staff continue to monitor credit markets and pay off or forego leverage when not accretive. We remain poised to capitalize on potential rate reductions **if** lending rates becomes attractive relative to in-place yields.
- NYSTRS is in active due diligence on the acquisition of a 411-unit core multifamily property in Northern Virginia.

Portfolio Performance & Positioning:

- Over the last 12 months, the CRE Equity portfolio produced a total net return of -3.6%, which outperformed the NCREIF ODCE policy benchmark.
- Drivers of the negative nominal performance have primarily been related to the continued valuation declines in office properties, most notably urban office in gateway cities.
- Drivers of the positive relative performance to the benchmark include opportunistic timber sales and the performance of our public security portfolios driven by retail and healthcare strategies.

CRE Debt Portfolio	9/30/24 Value $8,017	Target 6%	Range 2%-10%	Actual 5.4%	w/Commitments 6.6%	
Performance for Periods Ended June 30, 2024						
Strategy (Inception Date)	**Net Asset Value**	**Current Quarter**	**1 Year**	**5 Years**	**10 Years**	**Since Inception**
First Mortgages (7/85)	$2,058	1.5%	5.1%	2.6%	3.5%	7.7%
Commercial MBS (4/01)	$3,001	1.4%	9.0%	1.3%	2.7%	4.4%
Core Plus Strategies (8/04)	$1,995	1.7%	2.7%	2.8%	4.7%	3.6%
Opportunistic Debt (9/01)	$718	-0.1%	5.3%	5.0%	6.8%	1.3%
Total CRE Debt Portfolio	**$7,772**	**1.4%**	**5.7%**	**2.6%**	**3.6%**	**7.6%**
GL Custom Index (Spliced)	-	1.1%	4.8%	1.7%	3.0%	7.7%

Market Commentary:

- Inflation has moderated and the Federal Reserve Board cut federal funds rates by 50 basis points at the September Board meeting.
- The Basel III re-proposal that goes into effect in July 2025 has substantially eased bank reserve requirements allowing the banks to increase lending allocations.
- The CMBS market is beginning to return to normal with a substantial increase in CMBS issuance of $79 billion through September 2024 vs. $27 billion through calendar year 2023.

Portfolio Activity & Asset Allocation:

- Staff will continue to pursue five-to-ten-year first mortgage investments on high-quality, stabilized assets with strong borrowers to increase portfolio duration.
- Real estate debt investments continue to provide a strong risk adjusted return:
  - Five-to-ten-year mortgage loans on stabilized assets provide yields in the 5.00%-5.50% range.
  - Investment grade CMBS securities provide yields in the 5.00%-7.00% range.
  - Private mezzanine and bridge loans provide net yields in excess of 7.00%.
- Staff will continue to pursue all public and private strategies to take advantage of the $2 trillion (rolling and increasing) wall of loan maturities over the next three years.
- During the 3rd quarter, the System closed on a $90 million first mortgage on a stabilized multifamily asset in San Diego, California.

Portfolio Performance & Positioning:

- Over the last 12 months, the CRE Debt Portfolio produced a total net return of 5.7% which outperformed the Giliberto-Levy benchmark.
- Drivers of the positive performance include CMBS strategies where all in market yields decreased as a result of a substantial increase in issuance in 2024 relative to 2023.
- The existing first mortgage portfolio has a larger concentration of office loans that were originated between 2014 and 2017. We continue to work with our existing borrowers to address most of these loans through principal paydowns and short-term extensions with modified terms which may include paydowns and cash sweeps,

Commercial Real Estate (CRE) Investments – MD Update

Equity Real Estate Performance for Periods Ended June 30, 2024						
Strategy (Inception Date)	**Net Asset Value**	**Current Quarter**	**1 Year**	**5 Year**	**10 Year**	**Since Inception**
Direct Properties (2/90)	$6,225	-0.7%	-7.4%	4.1%	7.3%	9.0%
Core Funds (7/85)	$1,449	-1.4%	-10.5%	-1.0%	2.7%	5.9%
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Opportunistic (3/99)	$3,284	0.1%	-2.1%	6.9%	8.3%	10.4%
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Global RE Securities (9/17)	$715	-2.1%	4.9%	0.6%	-	2.1%
Timber (12/98)	$241	-1.2%	27.1%	11.8%	7.8%	5.5%
Total CRE Equity Portfolio	**$15,662**	**-0.4%**	**-3.6%**	**4.3%**	**7.1%**	**7.9%**
Blended Benchmark*	**-**	**-0.5%**	**-5.7%**	**1.4%**	**5.0%**	**5.9%**

Debt Real Estate Performance for Periods Ended June30, 2024						
Strategy (Inception Date)	**Net Asset Value**	**Current Quarter**	**1 Year**	**5 Years**	**10 Years**	**Since Inception**
First Mortgages (7/85)	$2,058	1.5%	5.1%	2.6%	3.5%	7.7%
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Total CRE Debt Portfolio	**$7,772**	**1.4%**	**5.7%**	**2.6%**	**3.6%**	**7.6%**
Blended Benchmark*	**-**	**1.0%**	**5.2%**	**1.5%**	**2.9%**	**7.6%**

* The Blended Benchmarks used here represent the market-value weighted average of the underlying benchmarks for each of the strategies. The System's Real Estate Policy benchmark is the NCREIF-ODCE for the Real Estate Equity Portfolio, and the Giliberto-Levy Custom Index for the Real Estate Debt Portfolio.

New York State Teachers' Retirement System

Private Equity & Private Debt Managing Director Update

Investment Committee October 30, 2024

Gerald J. Yahoudy II, CAIA, FDP
Private Equity & Private Debt

Private Equity MD Update

	Mkt Val	Asset Allocation %				Net Returns % (as of 6/30/24)						Excess Returns %					
	$B	Actual	Target	Range	Benchmark	1Y	3Y	5Y	10Y	20Y	30Y	1Y	3Y	5Y	10Y	20Y	30Y
Private Equity	$14.30	9.6	9	4-14	S&P 500 + 5%	4.5	4.9	13.9	14.1	14.2	13.7	-25.1	-10.1	-6.1	-3.8	-1.1	-2.1
Private Debt	$ 2.40	1.6	2	0.5-5	Morningstar LSTA + 3%	10.0	9.1	9.2	-	-	-	-4.1	0.0	0.7	-	-	-

Market Commentary:

- Market activity remains below long-term averages due to continued buyer/seller pricing expectations.
- All the ingredients to strengthening M&A markets are in place.
- Private credit continues to be the dominate source for buyouts and M&A. However, recent bank lending activity has had an impact on lending terms.

Portfolio Activity & Asset Allocation:

- Quarterly valuations for both private equity and private debt increased 1.3% and 1.9% respectively from 3/31/24.
- During the quarter, two new commitments were made (1 in PE and 1 in PD; all with exiting relationships).
- Cash flows for the first quarter of the fiscal year were negative for both asset classes.

Portfolio Performance & Positioning:

- Overall, absolute performance remains strong. PE has outperformed the public markets over the long run but underperformed in the shorter term. PD outperformed the benchmark over the three-year and five-year periods.
- Exploring the addition of new PD relationships focused on opportunistic credit for diversification purposes.

Team/Other Updates:

- StepStone - recommending a one-year renewal as the PE/PD consultant effective February 1, 2025.
- In process of interviewing for Assistant Director positions and shortly thereafter, Director positions.

Appendix G

Callan

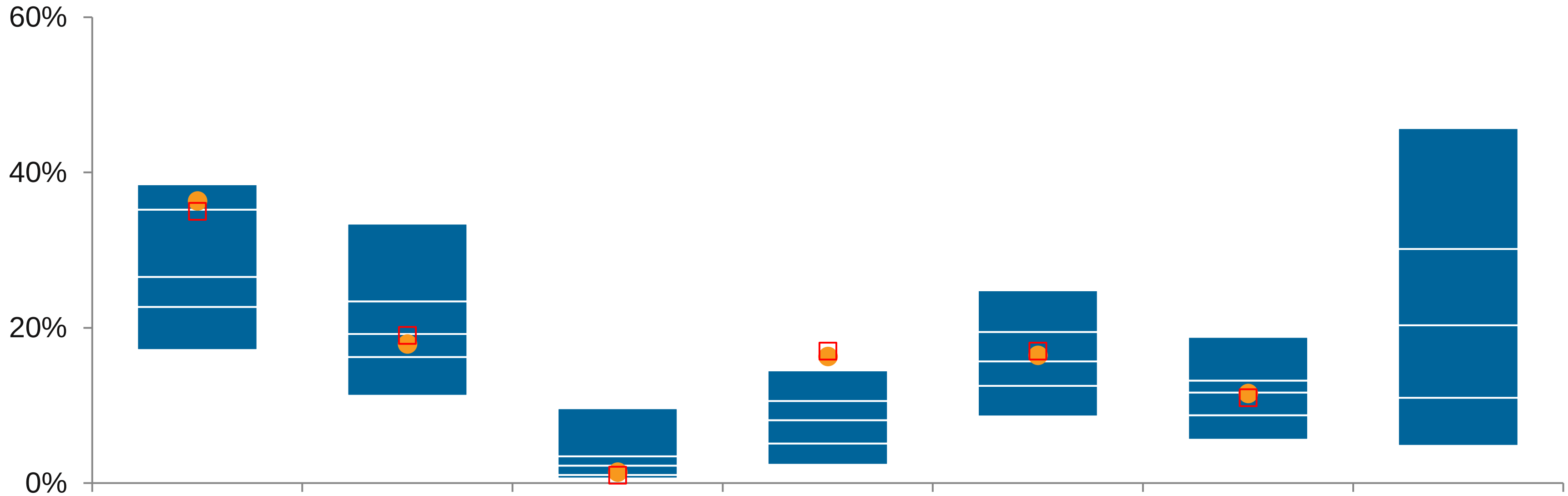
NYSTRS Asset Allocation and Performance Statistics
As of June 30, 2024

Tom Shingler
Fund Sponsor Consulting

Carlo Stadlinger, CFA
Fund Sponsor Consulting

Angel G. Haddad
Fund Sponsor Consulting

NYSTRS Asset Allocation vs. Callan Public Fund Sponsor V. Lg DB (>10B)



	U.S. Equity*	Domestic Fixed Income**	Cash	Real Estate^	Non-US Equity*	Private Equity^^	Other Alternatives
10th Percentile	38%	33%	10%	15%	25%	19%	46%
25th Percentile	35%	23%	3%	11%	19%	13%	30%
Median	**27%**	**19%**	**2%**	**8%**	**16%**	**12%**	**20%**
75th Percentile	23%	16%	1%	5%	13%	9%	11%
90th Percentile	17%	11%	1%	2%	9%	6%	5%
% Group Invested	100%	97%	91%	94%	100%	20%	89%
NYSTRS ●	**36%**	**18%**	**1%**	**16%**	**16%**	**12%**	**--**
NYSTRS Target □	**35%**	**19%**	**1%**	**17%**	**17%**	**11%**	**--**

*The Global Equity allocation is split evenly between U.S. Equity and Non-U.S. Equity
**Domestic Fixed Income also includes NYSTRS' High Yield and Global Bond allocations
^Real Estate includes NYSTRS Real Estate Equity (11% target) and Real Estate Debt (6% target)
^^Private Equity also includes NYSTRS Private Credit
Data as of June 30, 2024. Median values do not sum to 100%. NYSTRS actual allocations do not sum to 100% due to rounding.

Callan Public Fund Sponsor Very Large Peer Group

Asset Allocation Observations

To frame the peer performance and risk comparisons on subsequent pages, we observe that:

- NYSTRS has a higher than median target allocation to U.S. equity – note that the plan is subject to the basket clause
- NYSTRS has a median target allocation to fixed income (including global hedged and high yield)
- NYSTRS has an above median target allocation to real estate, including debt exposure to commercial mortgages
- NYSTRS has a near median target allocation to private equity and no allocation to “other alternatives”

In reading the chart on the prior page, it is important to keep in mind both 1) peer allocations and 2) “% of group invested”. The % of group invested references the percentage of peer plans that have the dedicated allocation to that asset class. For instance, while 100% of plans have a U.S. equity allocation, 91% of plans have a short-term fixed income or cash allocation

Note that due to this being a combination of client and anonymous non-client data, there are limitations to the data’s granularity. For instance, “Other Alternatives” is a catch all of alternatives exposure for non-client data. Peer funds may have allocations to hedge funds, which NYSTRS does not, that are contained in the Other Alternatives category

Callan Public Fund Sponsor Very Large Peer Group

Observations on Peer Return Comparisons

Over the trailing 10-, 20-, and 30-year periods, the total fund ranks in the top quartile (16th, 18th, and 7th percentiles, respectively).

Longer-term results of 20 and 30 years are ahead of the total fund benchmark while 10-year performance slightly trails the total fund benchmark.

For the shorter term one year, three years, and five years ended 6/30/24, the NYSTRS total fund ranks above the median peer (21st, 46th, and 37th percentiles, respectively). The total fund slightly trails its own total fund policy benchmark over these periods.

All NYSTRS returns are reported net of fees. Peer group returns are presented gross of fees.

NYSTRS returns for all periods shown, except for the trailing three years, are above the 6.95% discount rate.

The NYSTRS total fund policy benchmark is comprised of indices weighted by asset class in proportion to their policy target weights (e.g. the Domestic Equity policy benchmark is the S&P 1500 and has a 33% weight in the overall total fund benchmark).

Callan Public Fund Sponsor Very Large Peer Group

Observations on Peer Risk Comparisons

The higher realized volatility of the portfolio, as measured by standard deviation, relative to the median peer is reflective of:

1) The top quartile actual allocation to U.S. equity and
2) Third quartile actual allocation to fixed income

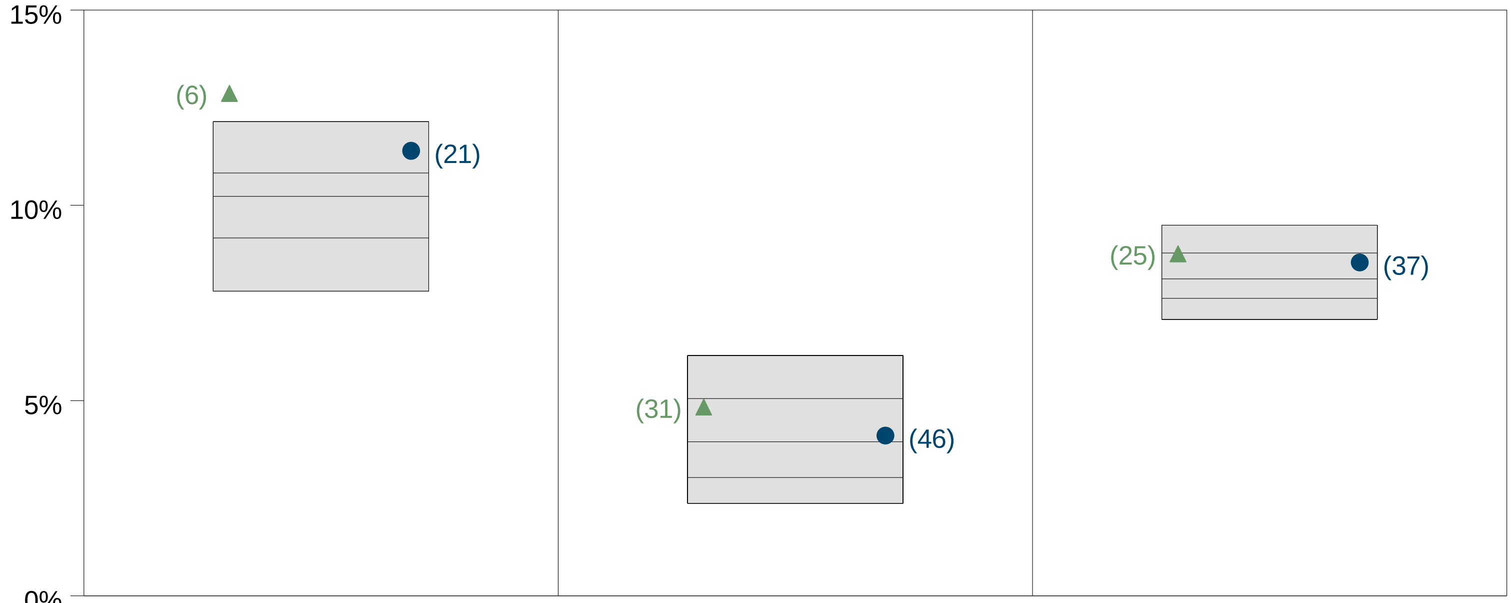
These asset class exposures will typically lead to higher observed volatility relative to the median peer, all else equal.

NYSTRS' portfolio construction is subject to the restrictions of the basket clause that limit alternative investments to 35% of the portfolio. Valuation methodology differences for private markets typically lead to lower observed volatility than for public markets, so NYSTRS having a higher allocation to public markets, particularly equities, than peers will generally lead to higher observed volatility. NYSTRS' private market returns include Q2 2024 results whereas some peers report lagged figures.

The risk-adjusted returns of the NYSTRS portfolio as measured by rolling three-year average Sharpe Ratio are above the median peer, in the second quartile.

NYSTRS Total Fund Performance Statistics

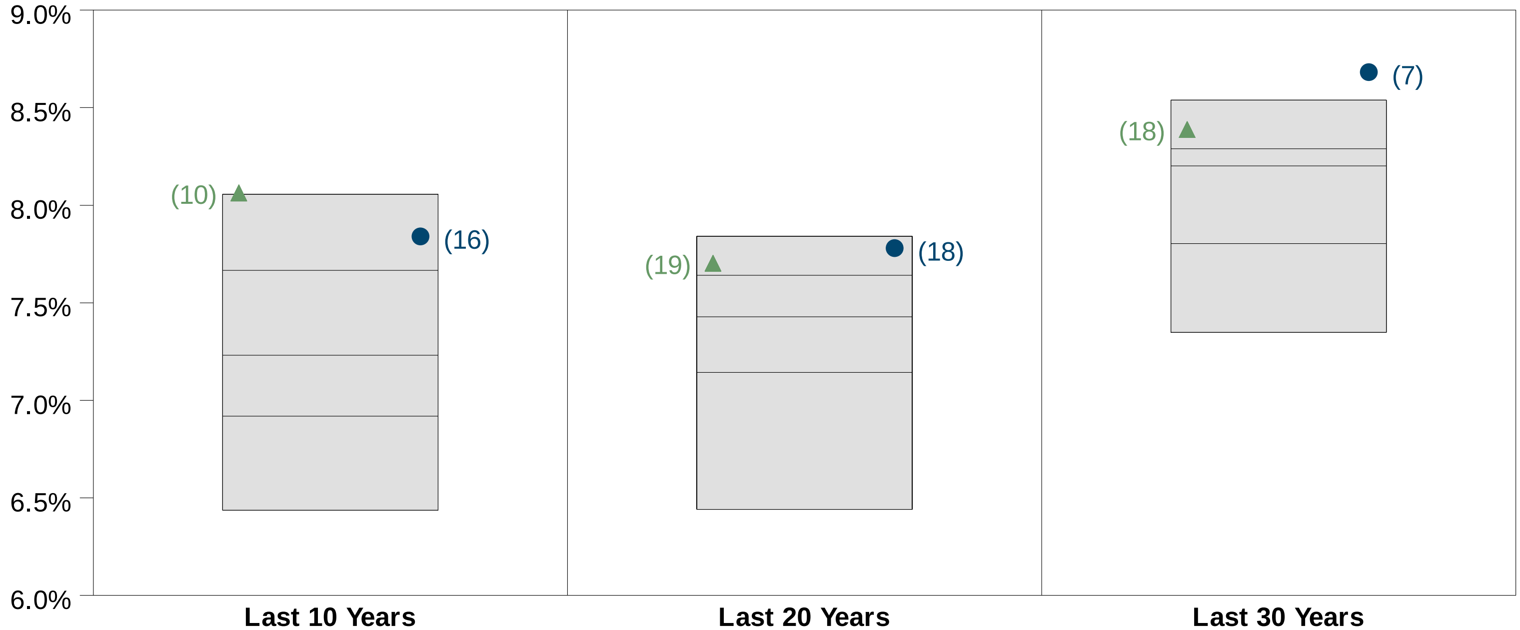
Periods ending 6/30/24; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)



	Last Year	Last 3 Years	Last 5 Years
10th Percentile	12.15	6.15	9.49
25th Percentile	10.83	5.05	8.78
Median	10.23	3.95	8.12
75th Percentile	9.17	3.03	7.62
90th Percentile	7.80	2.37	7.08
NYSTRS Total Fund ●	11.36	4.07	8.50
NYSTRS Benchmark ▲	12.87	4.84	8.76

NYSTRS Total Fund Performance Statistics

Periods ending 6/30/24; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

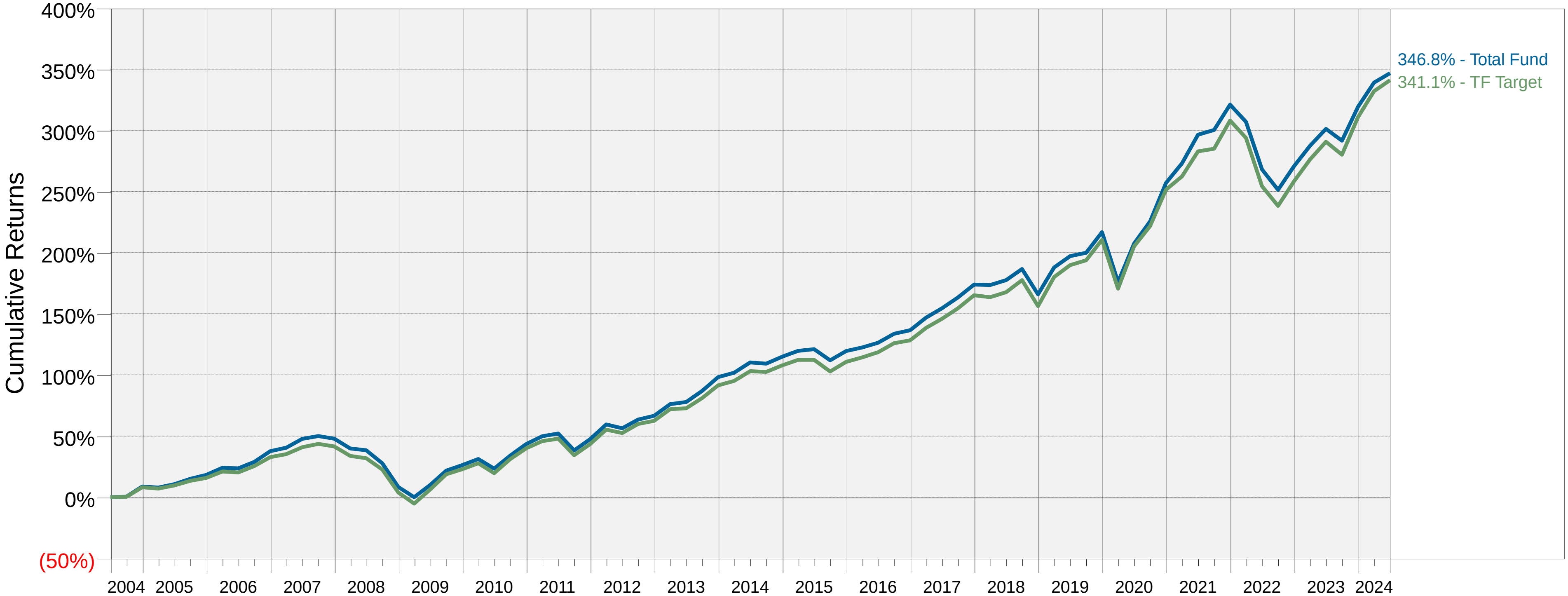


	Last 10 Years	Last 20 Years	Last 30 Years
10th Percentile	8.06	7.84	8.54
25th Percentile	7.67	7.64	8.29
Median	7.23	7.43	8.20
75th Percentile	6.92	7.14	7.80
90th Percentile	6.44	6.44	7.35
NYSTRS Total Fund ●	7.83	7.77	8.67
NYSTRS Benchmark ▲	8.06	7.70	8.39

NYSTRS Total Fund Performance Statistics

Periods ending 6/30/24

Cumulative Returns for 20 Years

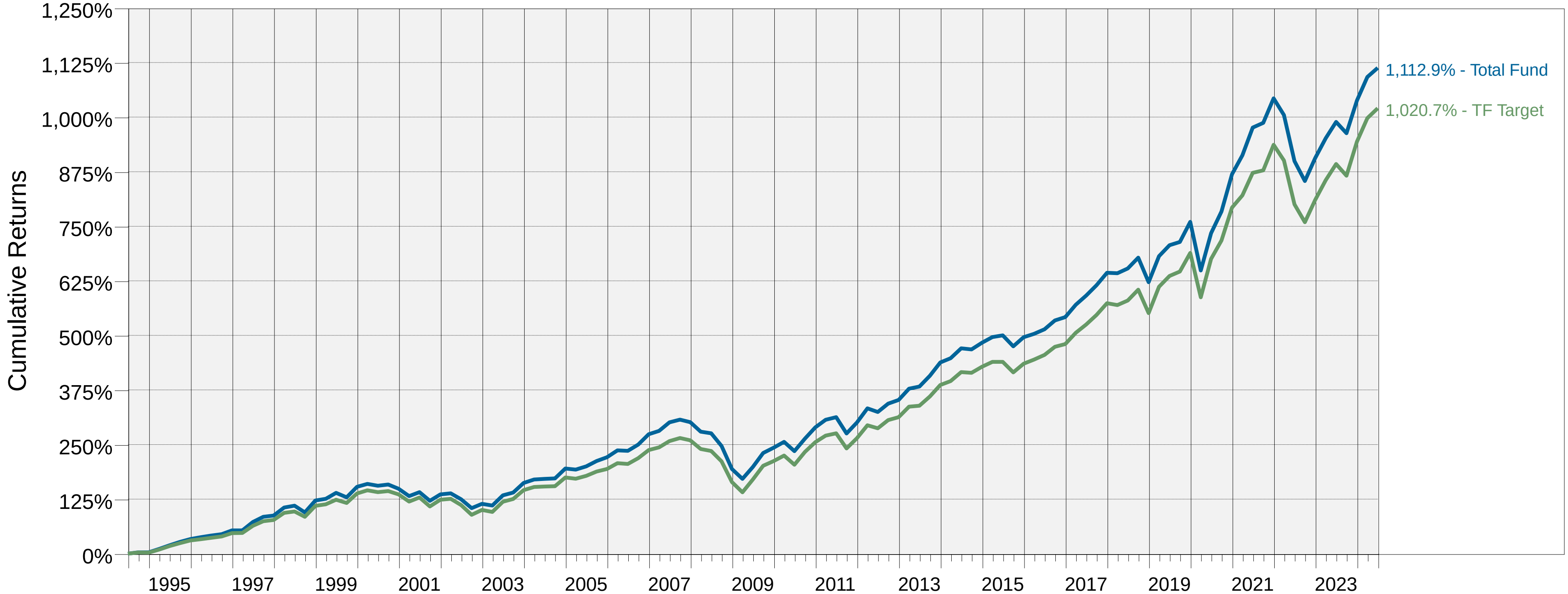


Cumulative Total Fund returns have outpaced the benchmark over the last 20 years.

NYSTRS Total Fund Performance Statistics

Periods ending 6/30/24

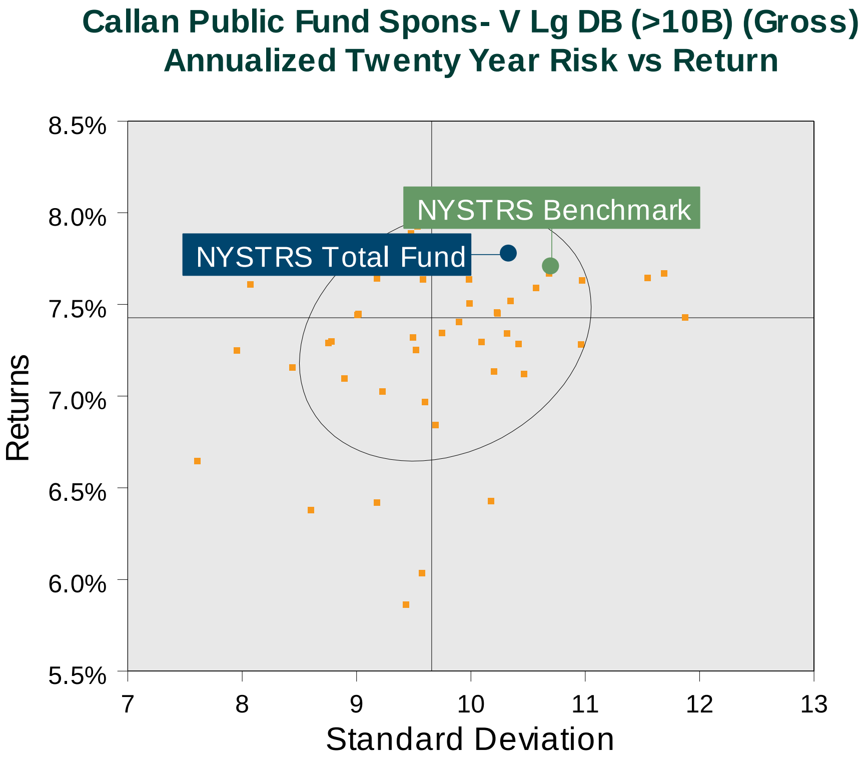
Cumulative Returns for 30 Years

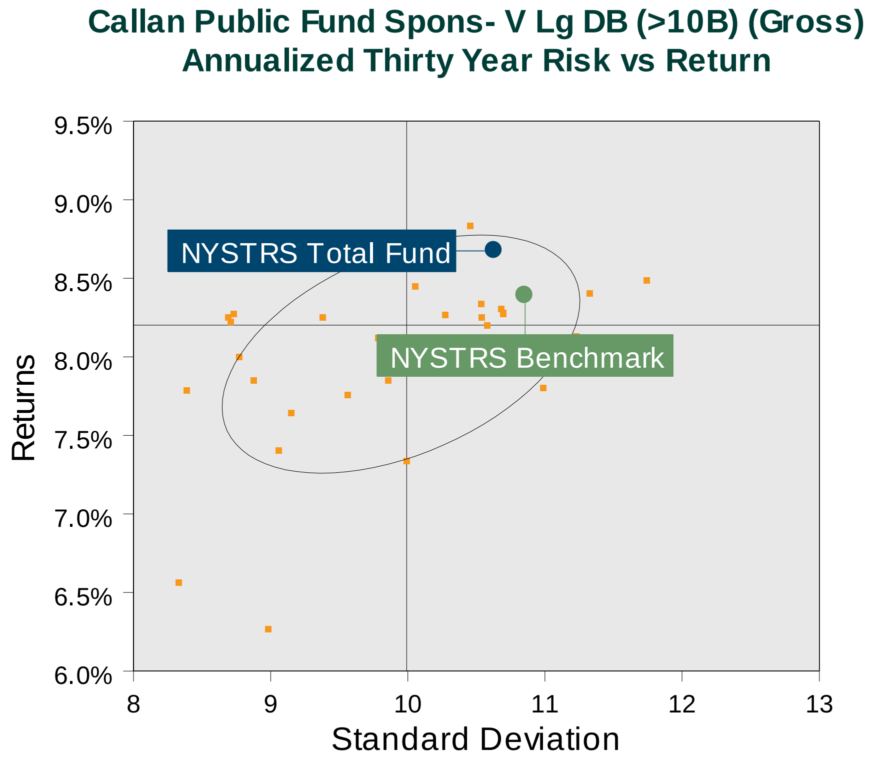


Cumulative Total Fund returns have outpaced the benchmark over the last 30 years.

NYSTRS Total Fund Performance Statistics

Periods ending 6/30/24; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

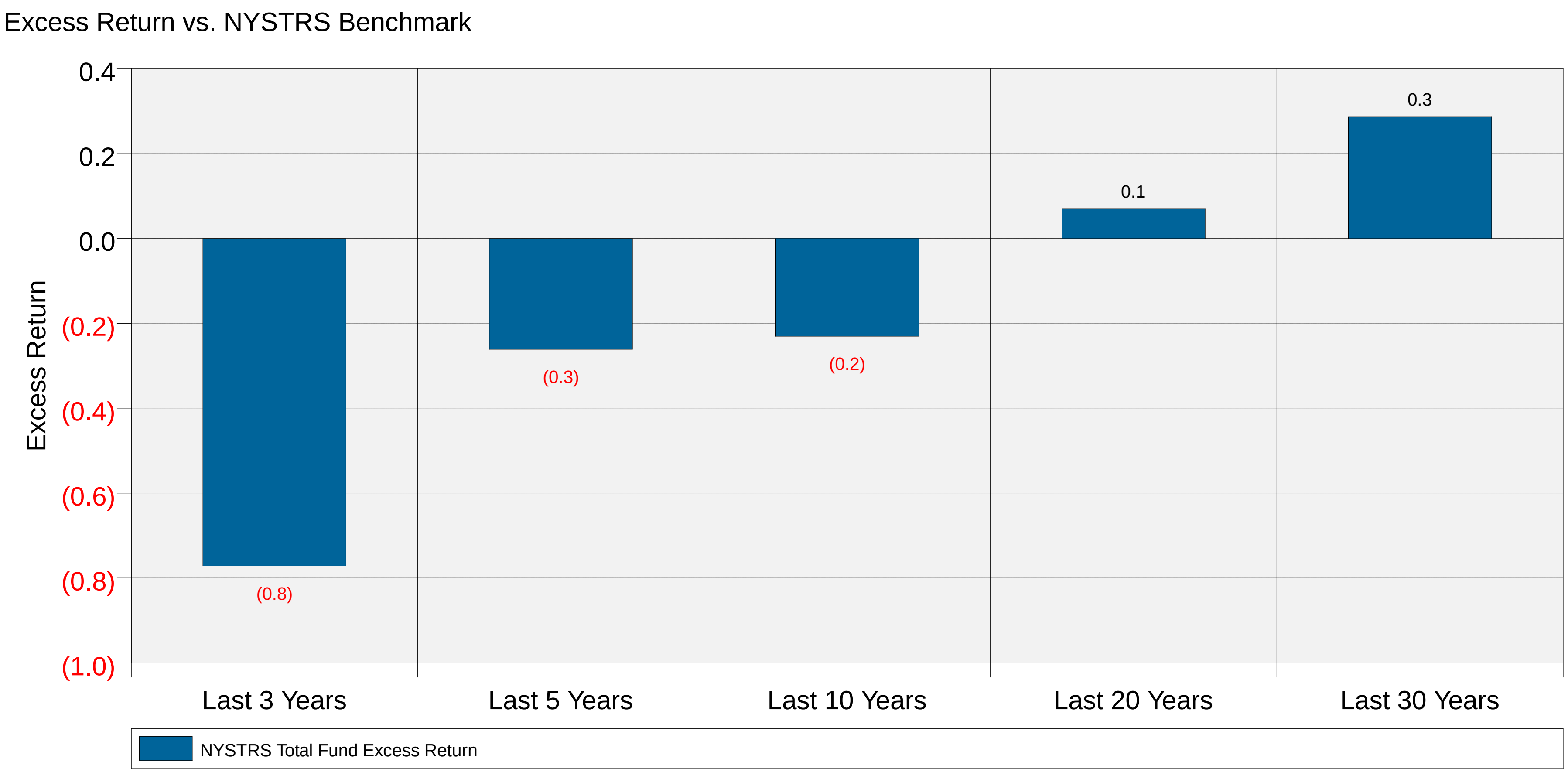




The Total Fund has achieved higher returns with less risk than the target benchmark over the trailing 20- and 30-year periods.

NYSTRS Total Fund Performance Statistics

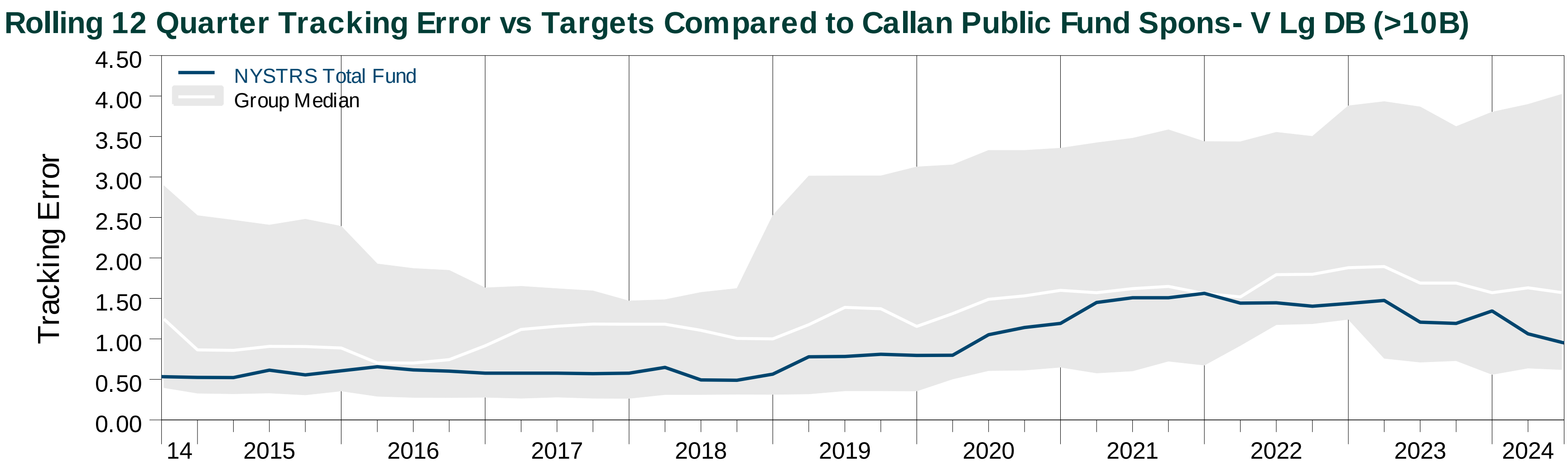
Periods ending 6/30/24



Excess Total Fund annualized returns relative to the NYSTRS Target have been negative over shorter time periods and been positive over the long term.

NYSTRS Total Fund Risk Statistics

Periods ending 6/30/24; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)



Rolling 3-year tracking error has been lower than the peer median for nearly all time periods measured over the past 10 years.

NYSTRS Total Fund Risk Statistics

Periods ending 6/30/24; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

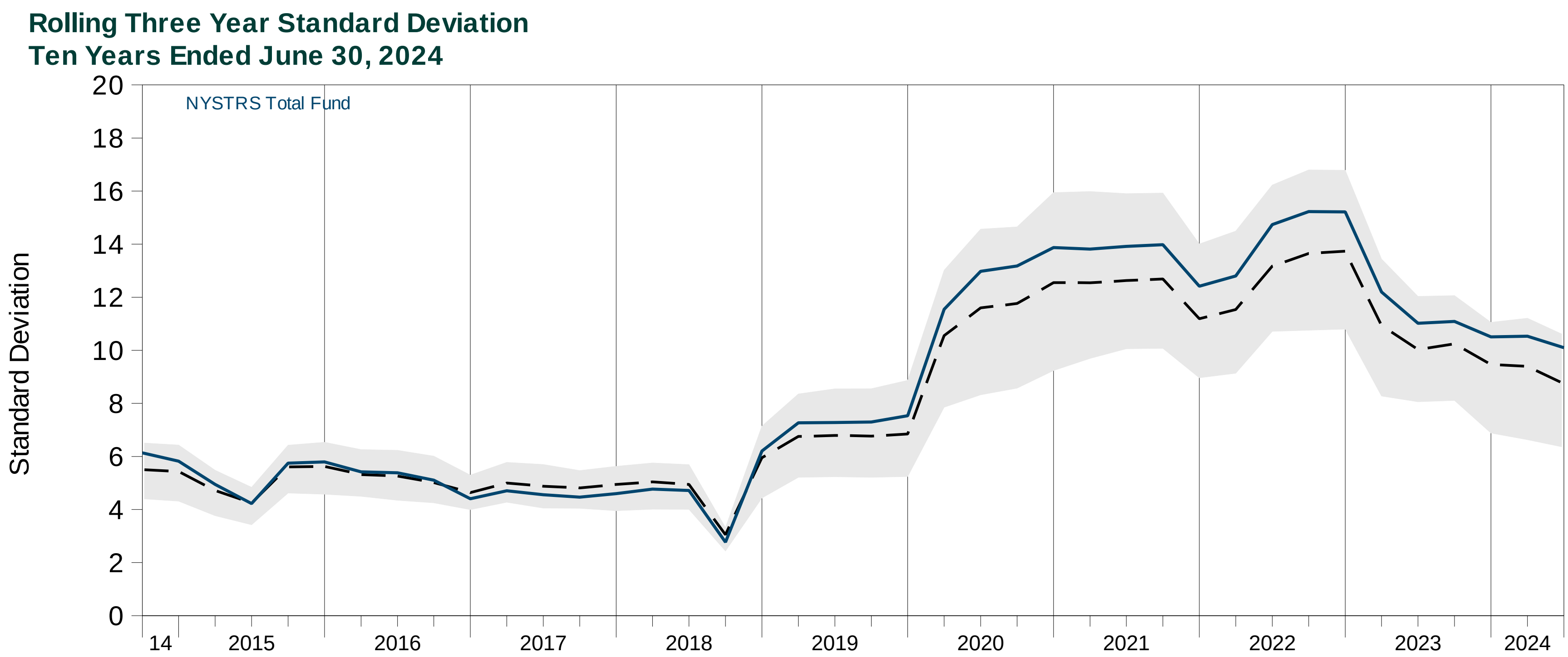
Standard Deviation
vs Callan Public Fund Spons- V Lg DB (>10B)

	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Last 30 Years
10th Percentile	10.79	13.09	10.53	10.96	11.27
25th Percentile	10.13	12.12	9.61	10.30	10.75
Median	8.76	11.27	8.95	9.63	9.89
75th Percentile	6.83	9.27	7.53	9.20	9.02
90th Percentile	6.12	8.40	6.89	8.57	8.76
NYSTRS Total Fund ●	10.10	12.25	9.66	10.34	10.63
NYSTRS Benchmark ▲	10.91	12.65	10.09	10.71	10.86

The Total Fund's Standard Deviation has generally ranked in the top quartile relative to peers over the various time periods examined.

NYSTRS Total Fund Risk Statistics

Periods ending 6/30/24; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)



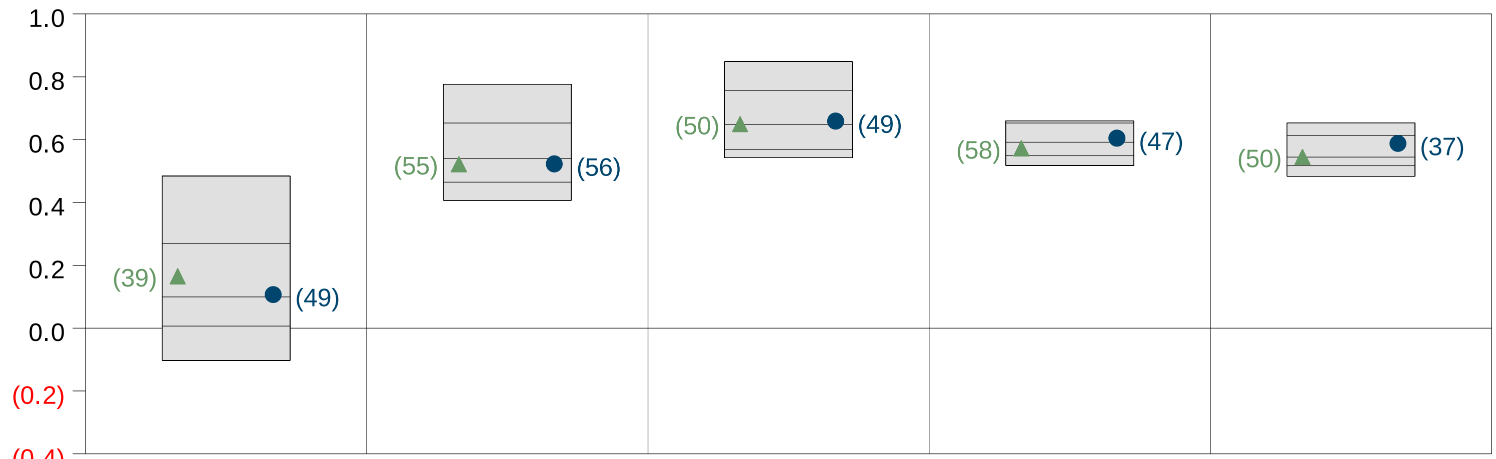
Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Standard Deviation	8.09%	8.71%
% Positive Periods	100%	100%
Average Ranking	50	38

Blue Line: NYSTRS Total Fund
Dashed Line: Peer Group Median

NYSTRS Total Fund Risk Statistics

Periods ending 6/30/24; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

Sharpe Ratio
vs Callan Public Fund Spons- V Lg DB (>10B)



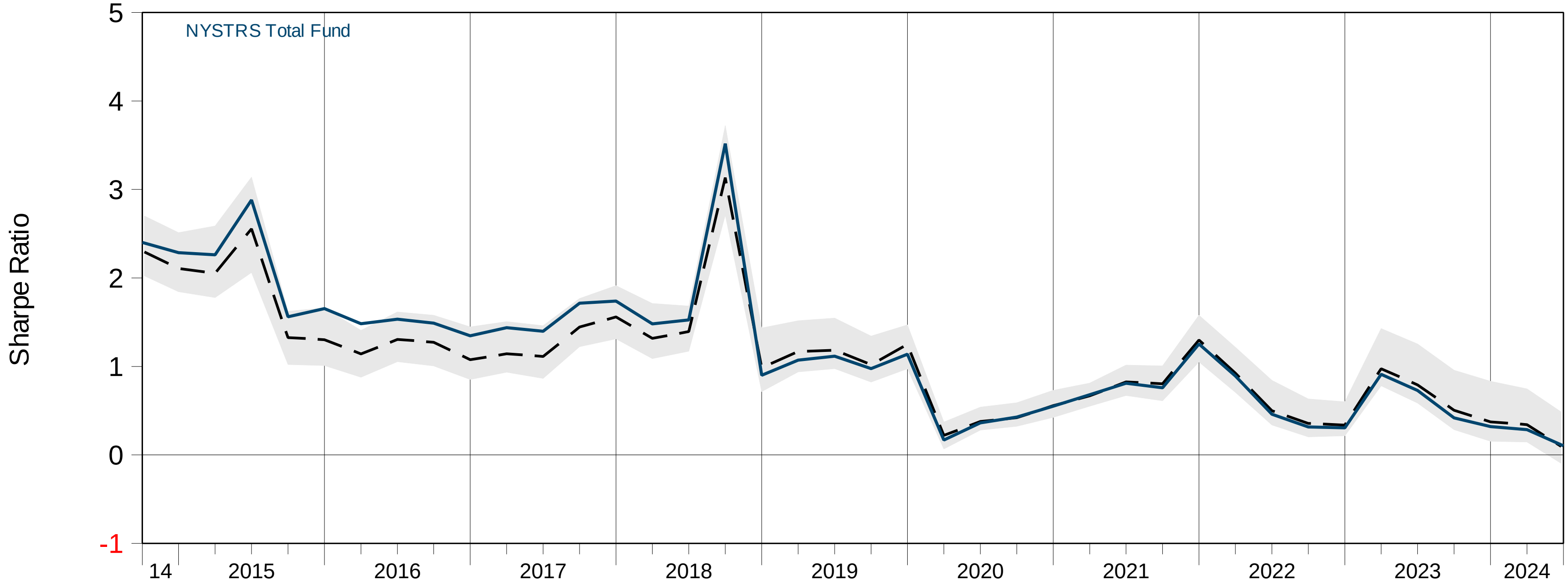
	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years	Last 30 Years
10th Percentile	0.48	0.78	0.85	0.66	0.65
25th Percentile	0.27	0.65	0.76	0.65	0.61
Median	0.10	0.54	0.65	0.59	0.54
75th Percentile	0.01	0.46	0.57	0.55	0.52
90th Percentile	(0.10)	0.41	0.54	0.52	0.48
NYSTRS Total Fund ●	0.10	0.52	0.65	0.60	0.58
NYSTRS Benchmark ▲	0.17	0.52	0.65	0.57	0.54

The Total Fund’s Sharpe Ratio has generally ranked above the median peer.

NYSTRS Total Fund Risk Statistics

Periods ending 6/30/24; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

Rolling Three Year Sharpe Ratio Relative to NYSTRS Benchmark
Ten Years Ended June 30, 2024



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Sharpe Ratio	1.09%	1.17%
% Positive Periods	100%	100%
Average Ranking	50	42

The risk-adjusted returns of the NYSTRS portfolio as measured by rolling three-year average Sharpe Ratio are above the median peer, ranking in the second quartile.

Blue Line: NYSTRS Total Fund
Dashed Line: Peer Group Median

Callan Public Fund Sponsor Very Large Peer Group

Peer Group Information

This peer group has 62 constituent funds

The average AUM is $43.9 BN

The median AUM is $26.2 BN

The peer group includes Callan clients and anonymously shared data from BNY Mellon and Investment Metrics

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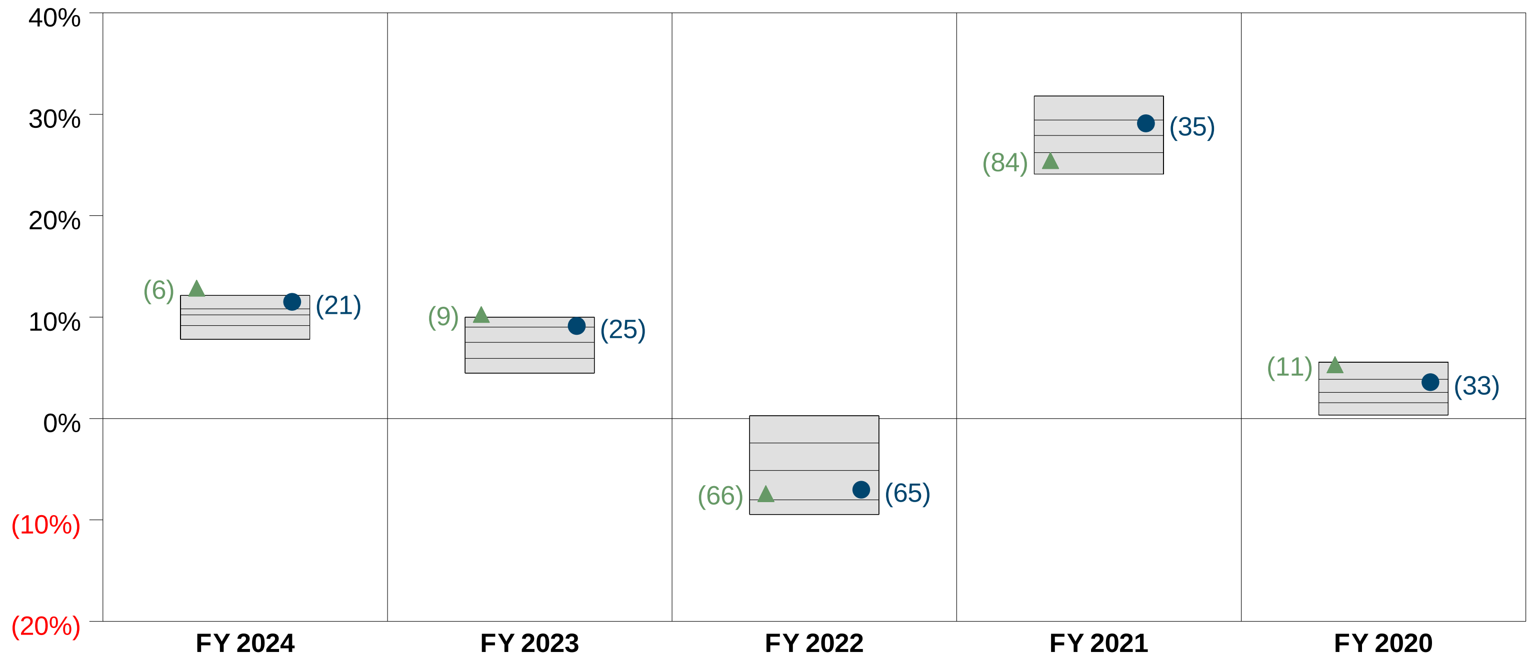
Appendix

NYSTRS Total Fund Performance Statistics

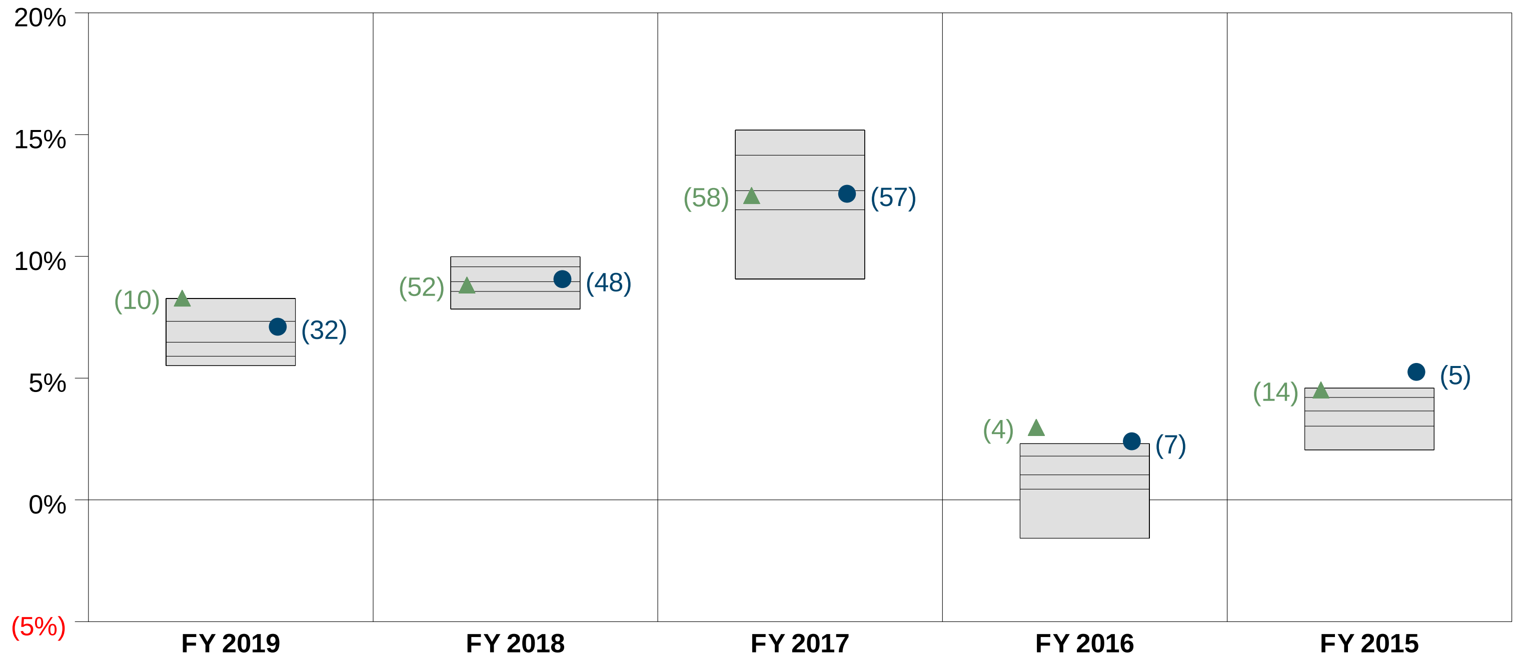
Fiscal Year Performance; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)



	FY 2024	FY 2023	FY 2022	FY 2021	FY 2020
10th Percentile	12.15	10.00	0.26	31.79	5.55
25th Percentile	10.83	9.01	(2.41)	29.44	3.86
Median	10.23	7.51	(5.13)	27.92	2.58
75th Percentile	9.17	5.93	(8.02)	26.22	1.55
90th Percentile	7.80	4.47	(9.46)	24.10	0.34
NYSTRS Total Fund ●	11.36	8.99	(7.15)	28.98	3.45
NYSTRS Benchmark ▲	12.87	10.26	(7.42)	25.43	5.30

NYSTRS Total Fund Performance Statistics

Fiscal Year Performance; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)



	FY 2019	FY 2018	FY 2017	FY 2016	FY 2015
10th Percentile	8.27	9.99	15.19	2.31	4.59
25th Percentile	7.33	9.57	14.15	1.80	4.21
Median	6.47	8.96	12.70	1.03	3.65
75th Percentile	5.90	8.56	11.91	0.44	3.03
90th Percentile	5.51	7.84	9.07	(1.57)	2.06
NYSTRS Total Fund ●	7.06	9.01	12.51	2.35	5.19
NYSTRS Benchmark ▲	8.29	8.82	12.50	2.98	4.52

Published Research Highlights: 3Q24

STAR Report (clients-only)

Private Equity Fees and Terms Study

2Q24 Market Intelligence Report (clients-only)

Coming Soon: ESG Survey

Recent Blog Posts

Navigating U.S. Equity Concentration: A Look at Global Stocks

Fanglue Zhou

Nonprofits: Same Mission, but New Approach to Allocations

Tony Lissuzzo

The Supermicro Conundrum: When Success Hurts Managers

Nicole Wubbena

Additional Reading

Active vs. Passive quarterly charts

Capital Markets Review quarterly newsletter

Monthly Updates to the Periodic Table

Market Pulse Flipbook quarterly markets update

Market Intelligence (clients-only)

Real Estate Indicators market outlook

Callan Institute Events

Upcoming conferences, workshops, and webinars

2025 National Conference

Mark your calendars for this event in Scottsdale on April 27-29, 2025

Our annual conference will feature mainstage speakers and Callan-led workshops on a variety of topics.

This year we welcome Zanny Minton Beddoes to the stage.

Registration for this event will open in January 2025!

Please visit our website at callan.com/events-education as we add dates to our 2025 calendar!

Mark Your Calendar

2025 Regional Workshops

June 3, 2025 – Denver

June 5, 2025 – New York

October 28, 2025 – Chicago

October 30, 2025 – San Francisco

Watch your email for further details and an invitation.

Upcoming Webinars

November 21, 2024

Research Café featuring Callan's 2024 Private Equity Fees and Terms Study

January 2025

Callan's 2025 Capital Markets Assumptions Webinar

Introducing Callan On-Demand Education (CODE)

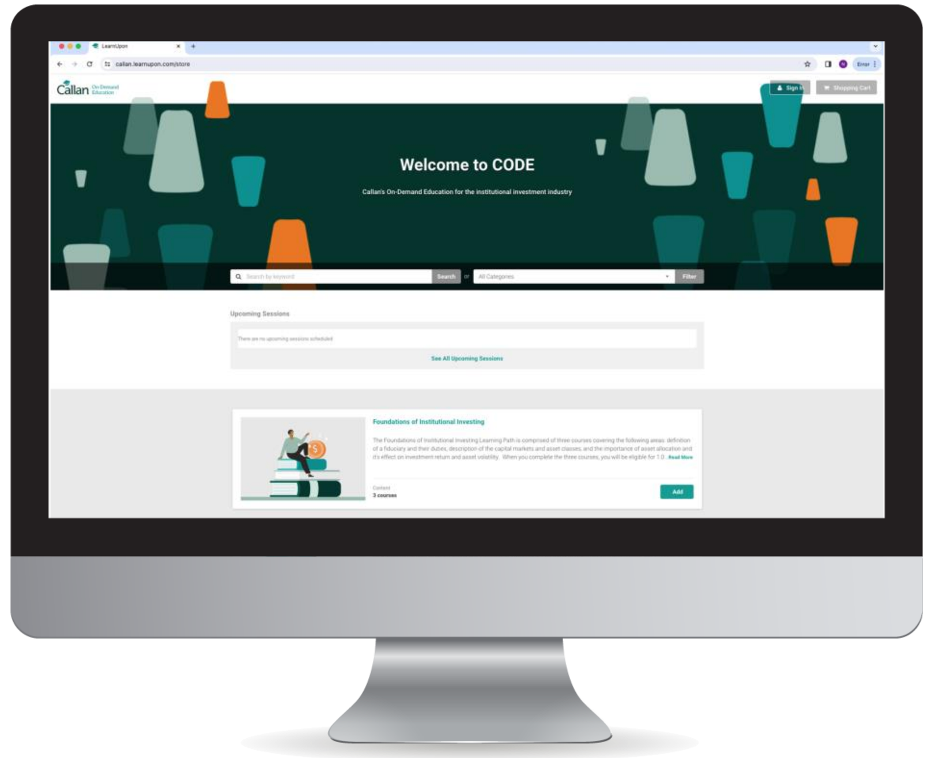
Callan On-Demand Education

- Variety of educational courses
- Interactive and engaging
- Self-guided modules
- Eligible for continuing education credits
- Learning at your own pace

CODE courses are designed for investment professionals of all levels—and they're self-guided. Access them anytime, from anywhere, and get continuing education credits for each completed course.

CODE is for you, your colleagues, your new hires, and your interns. It's for anyone interested in learning about institutional investing.

callan.com/code



3 Reasons to Take CODE Courses

1. Become a better fiduciary
2. Showcase your skills and knowledge
3. Learn from Callan's investment experts

Callan Updates

Firm updates by the numbers, as of September 30, 2024

Total Associates: ~200

Company Ownership:
- 100% employees
- ~70% of employees are equity owners
- ~55% of shareholders identify as women or minority

Total General and Investment Consultants: 50+

Total Specialty and Research Consultants: 65+

Total CFA/CAIA/FRMs: 60+

Total Institutional Investor Clients: 475+

Provides advisory services to institutional investor clients with assets over $4+ trillion

NEW ON CODE: The Framework of Alternative Investments

Our newest online learning course series, the Framework of Alternative Investments, is live on **CODE**, the Callan On-Demand Education portal. Topics covered include private equity, private credit, hedge funds, and real assets. Callan clients have full access to all CODE courses for free.

"CODE is aimed at educating client and non-client, investment and non-investment professional board members alike in how institutional investment portfolios are constructed and maintained across asset classes, including alternatives."

— Greg Allen, CEO, Chief Research Officer in a June 2024 *FundFire* story about CODE

Diversity, Equity & Belonging (DEB)

Building a diverse workforce, pursuing equitable outcomes, and creating a sense of belonging

Five-Year Strategic Plan: Key Areas

DEB Leadership:
Greg Allen, Executive Sponsor, and Lauren Mathias, Champion

DEB Council:
Citlali Cuevas, Laura Dawson, Ruth Duque, Mike Joecken, Lindsay Jones, Paola Cardenales, Erik Partida, Juan Pablo Piz, Avery Robinson, Jeff Salyer, Alvaro Vega, Nicole Wubbena

Accomplishments

- Inclusive culture education for all
- Engagement surveys
- Inclusive interviewing and resume review guides
- Equitable policies for promotion and partnership
- Enhanced pay equity and supplier diversity policies
- Pronoun education
- DEB Awareness Calendar
- Buddy program
- Employee resource groups (CallanUnites ERGs)
- 2024 Asset Manager DEI Study
- 2024 DEB Advancement Report

Near-Term Plans

- Ongoing education
- Mentorship program

Client DEB projects: *Investment manager Callan DEI Score trends, investment manager team and employee demographics review versus peers, diverse-owned manager searches, incorporating diversity in an IPS, and review of DEI in DC plans.*

Glossary

Downside Risk stems from the desire to differentiate between "good risk" (upside volatility) and "bad risk" (downside volatility). Whereas standard deviation punishes both upside and downside volatility, downside risk measures only the standard deviation of returns below the target. Returns above the target are assigned a deviation of zero. Both the frequency and magnitude of underperformance affect the amount of downside risk.

Excess Return: Manager return less the benchmark

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the "risk-free" return (usually 3 Month Treasury Bill) from the portfolio return and dividing the resulting "excess return" by the portfolio’s risk level (standard deviation). The result is a measure of return gained per unit of risk taken.

Standard Deviation: A statistical measure of portfolio risk. It reflects the average deviation of the observations from their sample mean. Standard deviation is used as an estimate of risk since it measures how wide the range of returns typically is. The wider the typical range of returns, the higher the standard deviation of returns, and the higher the portfolio risk. If returns are normally distributed (i.e. has a bell shaped curve distribution) then approximately 2/3 of the returns would occur within plus or minus one standard deviation from the sample mean.

Tracking Error: A statistical measure of a portfolio’s risk relative to an index. It reflects the standard deviation of a portfolio’s individual quarterly or monthly returns from the index’s returns. Typically, the lower the Tracking Error, the more "index-like" the portfolio.

Important Disclosures

[redacted]. Neither this document nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose.

The content of this document is particular to the client and should not be relied upon by any other individual or entity. There can be no assurance that the performance of any account or investment will be comparable to the performance information presented in this document.

Certain information herein has been compiled by Callan from a variety of sources believed to be reliable but for which Callan has not necessarily verified for accuracy or completeness. Information contained herein may not be current. Callan has no obligation to bring current the information contained herein.

Callan's performance, market value, and, if applicable, liability calculations are inherently estimates based on data available at the time each calculation is performed and may later be determined to be incorrect or require subsequent material adjustment due to many variables including, but not limited to, reliance on third party data, differences in calculation methodology, presence of illiquid assets, the timing and magnitude of unrecognized cash flows, and other data/assumptions needed to prepare such estimated calculations. In no event should the performance measurement and reporting services provided by Callan be used in the calculation, deliberation, policy determination, or any other action of the client as it pertains to determining amounts, timing or activity of contribution levels or funding amounts, rebalancing activity, benefit payments, distribution amounts, and/or performance-based fee amounts, unless the client understands and accepts the inherent limitations of Callan's estimated performance, market value, and liability calculations.

Callan's performance measurement service reports estimated returns for a portfolio and compares them against relevant benchmarks and peer groups, as appropriate; such service may also report on historical portfolio holdings, comparing them to holdings of relevant benchmarks and peer groups, as appropriate ("portfolio holdings analysis"). To the extent that Callan's reports include a portfolio holdings analysis, Callan relies entirely on holdings, pricing, characteristics, and risk data provided by third parties including custodian banks, record keepers, pricing services, index providers, and investment managers. Callan reports the performance and holdings data as received and does not attempt to audit or verify the holdings data. Callan is not responsible for the accuracy or completeness of the performance or holdings data received from third parties and such data may not have been verified for accuracy or completeness.

Callan's performance measurement service may report on illiquid asset classes, including, but not limited to, private real estate, private equity, private credit, hedge funds and infrastructure. The final valuation reports, which Callan receives from third parties, for of these types of asset classes may not be available at the time a Callan performance report is issued. As a result, the estimated returns and market values reported for these illiquid asset classes, as well as for any composites including these illiquid asset classes, including any total fund composite prepared, may not reflect final data, and therefore may be subject to revision in future quarters.

The content of this document may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. The opinions expressed herein may change based upon changes in economic, market, financial and political conditions and other factors. Callan has no obligation to bring current the opinions expressed herein.

The information contained herein may include forward-looking statements regarding future results. The forward-looking statements herein: (i) are best estimations consistent with the information available as of the date hereof and (ii) involve known and unknown risks and uncertainties. Actual results may vary, perhaps materially, from the future results projected in this document. Undue reliance should not be placed on forward-looking statements.

Callan is not responsible for reviewing the risks of individual securities or the compliance/non-compliance of individual security holdings with a client's investment policy guidelines.

This document should not be construed as legal or tax advice on any matter. You should consult with legal and tax advisers before applying any of this information to your particular situation.

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Important Disclosures (continued)

The issues considered and risks highlighted herein are not comprehensive and other risks may exist that the user of this document may deem material regarding the enclosed information. Please see any applicable full performance report or annual communication for other important disclosures.

Unless Callan has been specifically engaged to do so, Callan does not conduct background checks or in-depth due diligence of the operations of any investment manager search candidate or investment vehicle, as may be typically performed in an operational due diligence evaluation assignment and in no event does Callan conduct due diligence beyond what is described in its report to the client.

Any decision made on the basis of this document is sole responsibility of the client, as the intended recipient, and it is incumbent upon the client to make an independent determination of the suitability and consequences of such a decision.

Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.

New York State Teachers' Retirement System

Appendix H

Agenda

Investment Committee Meeting October 30, 2024

AGENDA pp. 34-35

Approval of Minutes

A. Approval of Minutes of July 31, 2024 Investment Committee Meeting pp. 36-44

PRESENTATIONS

A. StepStone - Real Estate Strategic Plan 2024-25 pp. 45-79
B. StepStone – Digital Infrastructure pp. 80-92

UPDATES

A. Investment Committee Executive Summary – M. Andriola pp. 93-101
B. Managing Director Updates
   1. Public Equities Update – P. Cummins pp. 102-105
   2. Fixed Income Update – M. Federici p. 106
   3. Real Estate Update – D. Gillan pp. 107-110
   4. Private Equity/Debt Update – G. Yahoudy pp. 111-112
C. Consultant Update – Callan pp. 113-140
D. Stewardship Investment Update – H. Yik (motion for **Executive Session** pursuant to Open Meetings Law §105(1)(h) to consider acquisition, sale, or exchange of securities)

Investment Committee Action Items

A. Consent Agenda recommendation items A 1-5 pages: 141-157
1. Renew Consultant
   - StepStone - Private Equity/Debt Consultant p. 141
   - StepStone – Real Estate Consultant p. 142
   - Meketa – Real Estate Consultant p. 143
2. Renew Managers:
   - AQR Capital Management LLC (International Equities, Active) p. 144
   - BlackRock Institutional Trust Company, N.A. (International Equities, Passive) p. 145
   - Dimensional Fund Advisors (International Equities, Active) p. 146
   - Goldman Sachs Asset Management (Global Bonds, Active) p. 147
   - Harding Loevner Management (Global Equities, Active) p. 148
   - Loomis Sayles & Co. (Global Bonds, Active) p. 149
   - Marathon Asset Management Ltd (International Equities, Active) p. 150
   - Nomura Corporate Research & Asset Management (HYB, Active, 2 accounts) p. 151
   - State Street Global Advisors (International Equities, Passive) p. 152

3. Reappointments to Investment Advisory Committee
    - Robert Levine p. 153
    - June Yearwood p. 154
4. Reappointments to Real Estate Advisory Committee
    - Maureen Ehrenberg p. 155
    - James O'Keefe p. 156
5. Resolution on Investment Policy Manual p. 157
6. Resolution on Internally Managed International Equity Strategy p.158

Informational Reports

1. EDCIO Investment Discretion Report pp. 159-161
2. Mail Vote Quarterly Board Report p. 162
3. REAC Quarterly Transactions Board Report p. 163

New York State Teachers' Retirement System

Memorandum

Appendix I

TO: Retirement Board

FROM: T. Lee

SUBJECT: Quarterly Report of Executive Director and Chief Investment Officer Investment Discretion Exercised July - September 2024

Fixed Income

Period	Action Taken	Amount
Q/E 9/30/24	Net cash reallocated **into** internally managed Long-Term Bonds	$358.6 M

Public Equities

Period	Action Taken	Amount
Q/E 9/30/2024	Net cash reallocated **out of** internally managed domestic equity portfolios	$1.6B
Q/E 9/30/2024	Net cash reallocated **into** externally managed international equity portfolios (Xponance)	$150M

New York State Teachers' Retirement System

Memorandum

TO: Retirement Board

FROM: T. Lee

SUBJECT: Quarterly Report of Executive Director and Chief Investment Officer Investment Discretion Exercised July - September 2024

Real Estate - New Commitments

Date of Internal Inv. Comm. Approval	Investment Name	Amount	New or Renew
September 5 2024	Olympus Corsair Mortgage	$90M	New

Real Estate

Period	Action Taken	Amount
QE 9/30/2024	Net cash reallocated **into** externally managed CMBS portfolio (Blackrock)	$100M

New York State Teachers' Retirement System

Memorandum

TO: Retirement Board

FROM: T. Lee

SUBJECT: Quarterly Report of Executive Director and Chief Investment Officer Investment Discretion Exercised July – September 2024

Private Equity/Debt – New Commitments

Date of Internal Inv. Comm. Approval	Investment Name	Amount	New or Renew
Aug 27 2024	Linden Capital Partners VI LP	$200M	Renew
Sept 9 2024	OIC Structured Equity Fund	$150M	New

New York State Teachers' Retirement System

Memorandum

Appendix J

TO: Retirement Board

FROM: T. Lee

SUBJECT: Quarterly Board Report of Mail Votes[i] for the period July - September 2024

Date	**Type** (Full Board Vote or Investment Committee Vote	**Transaction**
	NONE	

[i] "…The Board may act by a unanimous vote of its members taken by mail and/or e-mail and other electronic means approved by the System, or by telephone confirmed by mail and/or other electronic means approved by the System, on occasional matters determined by the President to be non-controversial in nature so as not to require a special meeting of the Board but having circumstances which make it impractical to delay action until the next annual or stated meeting of the Board…" from NYSTRS' Bylaws

New York State Teachers' Retirement System

Memorandum

Appendix K

TO: Retirement Board

FROM: T. Lee

SUBJECT: REAC Quarterly Transactions Board Report of for the period July – September 2024

Transaction	Approved by REAC	ED/CIO Discretion Exercised
Olympus Corsair Direct Mortgage	Yes – 9/5/24	$90M

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM
10 CORPORATE WOODS DRIVE, ALBANY NY

Disability Review Committee Meeting

A meeting of the Disability Review Committee of the Retirement Board was held at the System on October 30, 2024. The meeting was called to order at 12:31 p.m. by Eric Iberger, Chair.

The following individuals were in attendance:

Committee Members: Juliet Benaquisto, Paul Farfaglia, Eric Iberger, David Keefe, Oliver Robinson

Board Members: Phyllis Harrington (via WebEx) Donald A. Little III, Nicholas Smirensky

Visitor: Kevin Balaod, WithIntelligence (via WebEx)

Upon motion of P. Farfaglia, seconded by D. Keefe and unanimously carried, the meeting minutes of July 31, 2024 were approved.

E. Iberger, Chair, reported that the System's Medical Board had met monthly over the prior three months and that a disability rescission resolution would be brought to the Board at the Board meeting on October 31, 2024.

There being no further business, the Committee unanimously adjourned at 12:34 p.m.

Respectfully submitted,

[redacted]

Thomas K. Lee

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM
10 CORPORATE WOODS DRIVE, ALBANY NY

Executive Committee Meeting

A meeting of the Executive Committee of the Retirement Board of the New York State Teachers' Retirement System was held at the System on October 30, 2024.

Committee Members: Phyllis Harrington (via WebEx), David Keefe, Oliver Robinson, Nicholas Smirensky

Board Members: Juliet Benaquisto, Paul Farfaglia, Eric Iberger, Donald A. Little III

NYSTRS' Staff: Thomas K. Lee, Don Ampansiri

Visitor: Kevin Balaod, WithIntelligence (via WebEx)

With unanimous consent, the meeting was called to order by D. Keefe, Chair, at 12:34 p.m.

The following items were discussed:

1. Approval of minutes from July 31, 2024 meeting

Upon motion of O. Robinson, seconded by N. Smirensky and unanimously carried, the minutes of the July 31, 2024 meeting were approved.

2. 2025 Legislative Program

D. Ampansiri provided an overview of the recommendation from staff for the 2025 Legislative Program and an update on the 2024 Legislative Program (Appendix A, pp. 3-21).

A. Resolution on 2025 Legislative Program

Upon motion of P. Harrington, seconded by N. Smirensky and unanimously carried, the Committee voted to recommend the following resolution to the Board:

RESOLVED, That the 2025 Legislative Program, as presented to the Retirement Board by System staff, is approved and the Executive Director and Chief Investment Officer, or his designees, is authorized to seek introduction and enactment of the bill contained therein.

3. Board Member Salary Reimbursement Annual Report

   The Committee reviewed the annual board member salary reimbursement report (Appendix B, p. 22).

4. Finance Reports

   The Committee members reviewed quarterly financial statements (Appendix C, pp. 23-27)

5. Quarterly Signatory Additions & Deletions

   The Committee reviewed the quarterly report (Appendix D, p. 28)

With no further business and unanimous consent, the meeting adjourned at 12:41 p.m.

Respectfully submitted,

[redacted]

Thomas K. Lee

New York State Teachers' Retirement System

Appendix A

2025 | Legislative Program

New York State Teachers' Retirement System

To: Retirement Board
From: D. Ampansiri, Jr./ K. Vrbanac
CC: T. Lee
Date: October 22, 2024
Re: NYSTRS 2025 Legislative Program

At the July meeting of the Retirement Board, staff presented in concept two potential bills for the NYSTRS 2025 Legislative Program; one regarding NYSTRS Membership for part-time teachers, and the other to amend the date by which NYSTRS must submit our MWBE Report. Upon further review, staff will continue to monitor the former for future consideration and hereby recommend solely the latter (the MWBE Report) for the 2025 Legislative Program. Together with this Memorandum please find the NYSTRS 2025 Legislative Program and the updated 2024 Legislation of Interest to NYSTRS chart.

2025 Legislative Program

The 2025 legislative session will be the first year of a new two year cycle. For this cycle, staff recommends one new bill proposal for the NYSTRS 2025 Legislative Program - program bill 25-1 (MWBE Report).

- **25-1** Amends Education Law Section 508-a subdivision 2(b) and changes the date by which NYSTRS must submit the MWBE report from 60 days after the NYSTRS fiscal year end to on or before December 31st after NYSTRS fiscal year end.
    - Currently, Education Law Section 508-a subdivision 2(b) requires NYSTRS to submit the MWBE report to the Governor, Legislature and Chief Diversity Officer of NYS within 60 days after NYSTRS fiscal year end (on or before September 1st).
    - The data needed for the MWBE report is not all finalized until after September 1st. That finalized data is published with NYSTRS' Annual Comprehensive Financial Report (ACFR) on or about November 10th.
    - To meet the requirement under the current statute, NYSTRS submits a preliminary report by September 1st but with certain data estimated. Thereafter, NYSTRS submits a final trued-up report once the finalized data is available, customarily after the ACFR is published in November.

- This bill would address and eliminate the redundancy of the current two-step process of submitting two reports and allow NYSTRS to submit one final report on or before December 31st after NYSTRS fiscal year end.

- There is no cost to NYSTRS. Rather, there would be expected cost savings from the elimination of the redundancy in preparing the two substantially similar and nearly identical reports.

Update on 2024 Legislation

As of this writing, program bill 24-2 (2 year benefit recalculation), which passed both the Senate and Assembly on June 6, 2024, has not been delivered to the Governor.

- **24-2** Amends Education Law Section 503 to allow retirees of the New York State Teachers' Retirement System who suspend retirement and return to work the option of a benefit recalculation after 2 additional years of creditable service.

We will continue to keep you posted on further action on this bill.

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2024-2025 NYSTRS Legislative Program

2024 Bill Numbers	Subject	2025 Program Number	2025 Cost
S7462 A10529	Amends Education Law Section 503 to allow retirees of the New York State Teachers' Retirement System who suspend retirement the option of a benefit recalculation after 2 additional years of creditable service.	**NYSTRS Bill No. 24-2** **6/6/24 Passed Senate** **6/6/24 Passed Assembly** **Negligible Cost** **Pending delivery to the Governor.**	
New Bill	Amends Education Law Section 508-a subdivision 2(b) to change the due date in which the New York State Teachers' Retirement System is required to submit the MWBE report to on or before December 31st after NYSTRS fiscal year end.	25-1	No Cost

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Proposed 2025 Legislative Program

Bill No.	Bill Purpose
25-1	Amends Education Law Section 508-a subdivision 2(b) to change the due date in which the New York State Teachers' Retirement System is required to submit the MWBE report to on or before December 31st after NYSTRS fiscal year end.

New York State Teachers' Retirement System

nystrs.org

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
BILL NO. 25-1

M E M O R A N D U M

RE:

"AN ACT TO AMEND THE EDUCATION LAW TO CHANGE THE DUE DATE THE NEW YORK STATE TEACHERS' RETIREMENT SYSTEM IS REQUIRD TO SUBMIT THE MWBE REPORT"

Purpose of the Bill

This bill amends Education Law Section 508-a subdivision 2(b) to change the due date the New York State Teachers' Retirement System (NYSTRS) retirement board is required to report to the governor, legislature and chief diversity officer of the state of New York, on the participation of MWBE asset managers, MWBE financial institutions and MWBE professional service providers in investment and brokerage transactions with or as providers of services for the teachers' retirement system, including a comparative analysis of such activity relative to such activity with all asset managers, financial institutions and professional service providers for the relevant period and on the progress and success of the efforts undertaken during such period to achieve the goals of such strategy, to on or before December 31st after NYSTRS fiscal year end.

Summary and Justification

Under the current statute, NYSTRS retirement board is required to report within sixty days of NYSTRS fiscal year end to the governor, legislature and the chief diversity officer of the state of New York on the participation of MWBE asset managers, MWBE financial institutions and MWBE professional service providers in investment and brokerage transactions with or as providers of services for the teachers' retirement system, including a comparative analysis of such activity relative to such activity with all asset managers, financial institutions and professional service providers for the relevant period and on the progress and success of the efforts undertaken during such period to achieve the goals of such strategy.

With NYSTRS fiscal year end being June 30th, the MWBE report is currently due on or before September 1st. The report submitted in September is preliminary and containing estimated information. The final verified information is not released until after NYSTRS ACFR report is published in November. The current statute necessitates a two-step process, requiring NYSTRS to provide a preliminary report in September and then submit an amended report with final verified information after the ACFR is published in November. Changing the statutory timeframe to December 31st after NYSTRS fiscal year end would eliminate the redundancy of this two-step process, save NYSTRS administrative costs due to staffing time that is needed to prepare both the preliminary report and final amended report, and help streamline the submission of the MWBE report as required by statute.

Effective Date of the Bill

This bill will take effect immediately and be implemented with the next submission of NYSTRS retirement board's MWBE report.

Other Agencies to Whom the Bill May Be of Interest

Division of the Budget, Department of Financial Services.

Budgetary Implications of the Bill

It is estimated that there will be no additional annual cost to the employers of members of NYSTRS if this bill is enacted.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM BILL NO. 25-1

AN ACT to amend the Education Law, Section 508-a subdivision 2(b) to change the due date in which the New York State Teachers' Retirement System is required to submit the MWBE report to on or before December 31st after NYSTRS fiscal year end

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Subdivision 2 of section 508-a of the education law is amended to read as follows:

2. b. [~~within sixty days of the end of each fiscal year~~] On or before December 31st after NYSTRS fiscal year end, following the effective date of this section, the retirement board shall report to the governor, legislature and the chief diversity officer of the state of New York on the participation of MWBE asset managers, MWBE financial institutions and MWBE professional service providers in investment and brokerage transactions with or as providers of services for the teachers' retirement system, including a comparative analysis of such activity relative to such activity with all asset managers, financial institutions and professional service providers for the relevant period and on the progress and success of the efforts undertaken during such period to achieve the goals of such strategy. Each report shall be simultaneously published on the website of the teachers' retirement system for not less than sixty days following its release to the governor and the other recipients named above;

FISCAL NOTE. - - Pursuant to Legislative Law, Section 50:

This bill would amend subdivision 2(b) of section 508-a of the Education Law to change the due date for the New York State Teachers' Retirement

System's annual MWBE report to the December 31st following fiscal year end. Current law requires submission within 60 days of fiscal year end.

There would be no cost to the employers of members of the New York State Teachers' Retirement System if this bill is enacted. In fact, this bill would represent a cost savings as it would eliminate the need for the preparation of both a preliminary draft report with estimated figures, and a final trued-up report later in the year after final figures are available.

Member data is from the System's most recent actuarial valuation files as of June 30, 2024, consisting of data provided by the employers to the Retirement System. The most recent data distributions and statistics can be found in the System's Actuarial Valuation Report for fiscal year ended June 30, 2024. System assets are as reported in the System's financial statements and can also be found in the System's Annual Report. Actuarial assumptions and methods are provided in the System's Actuarial Valuation Report as of June 30, 2024.

The source of this estimate is Fiscal Note 2025-1 dated October 18, 2024 prepared by the Office of the Actuary of the New York State Teachers' Retirement System and is intended for use only during the 2024 Legislative Session. I, Richard A. Young, am the Chief Actuary for the New York State Teachers' Retirement System. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

New York State Teachers' Retirement System

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Albany, NY 12211-2395
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nystrs.org

2024 LEGISLATION OF INTEREST TO NYSTRS

Senate No. Assembly No.	Subject	Introduced By

I. BUDGET

S8305C A8805C (Part M)	Amends Labor Law Section 196-b to require employers to provide employees twenty hours of paid prenatal personal leave for health care services related to the employee's pregnancy during any fifty-two week calendar period which may be taken in hourly increments. Effective January 1, 2025. Last Action: 04/18/24 Passed Senate 04/18/24 Passed Assembly **04/19/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 55 of the Laws of 2024]**	Article VII (PPGG)
S8305C A8805C (Part GG)	Amends Retirement and Social Security Law to waive the §211 and §212 income limitations allowing NYSTRS retirees to be employed in school districts and BOCES and earn compensation without suspension or diminution of their retirement allowance until June 30, 2025. Part GG is a one-year extension of Chapter 55 of the Laws of 2023 (Part V). Last Action: 04/18/24 Passed Senate 04/18/24 Passed Assembly **04/19/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 55 of the Laws of 2024]**	Article VII (PPGG)
S8305C A8805C (Part KK)	Amends Retirement and Social Security Law to extend the period during which the calculation of the employee contribution rate for Tier 6 members is to be calculated using only a member's annual base wages for contributions to be made during 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. Implementation date: school year July 1, 2024. Last Action: 04/18/24 Passed Senate 04/18/24 Passed Assembly **04/19/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 55 of the Laws of 2024]**	Article VII (PPGG)

S8308C A8808C (Part KK)	Amends Public Officers Law to permit a public body, in their discretion, to use videoconferencing and remote participation in public meetings, regardless of emergency. Effective immediately and shall expire and deemed repealed July 1, 2026. Part KK is a two-year extension of Part WW of Chapter 56 of the Laws of 2022. Last Action: 04/18/24 Passed Senate 04/18/24 Passed Assembly **04/19/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 58 of the Laws of 2024]**	Article VII (Part TED)
S8306C A8806C (Part J)	Amends Labor Law Section 206-c to require employers to provide employees thirty minutes of paid break time to express breast milk for such employee's nursing child each time employee has a reasonable need for up to three years following child birth. Effective the sixtieth day after it becomes law. Last Action: 04/19/24 Passed Senate 04/19/24 Passed Assembly **04/20/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 56 of the Laws of 2024]**	Article VII (ELFA)
S8306C A8806C (Part M)	Amends Chapter 25 of the Laws of 2020 to provide sick leave for employees when such employee is subject to a mandatory or precautionary order of quarantine or isolation due to COVID-19. Effective immediately and shall expire and be deemed repealed July 31, 2025. Last Action: 04/19/24 Passed Senate 04/19/24 Passed Assembly **04/20/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 56 of the Laws of 2024]**	Article VII (ELFA)
S8306C A8806C (Part QQ)	Amends Retirement and Social Security Law to change the definition of the final average salary for Tier 6 members to be based on the wages earned during any three consecutive years which provide the highest average wages. It also reduces the lookback to the same as Tiers 3, 4 and 5; if the salary for any year used in the period exceeds that of the average of the prior two years by more than 10%, the amount in excess of 10% shall be excluded from the computation. Effective immediately. Last Action: 04/19/24 Passed Senate 04/19/24 Passed Assembly **04/20/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 56 of the Laws of 2024]**	Article VII (ELFA)

II. AMENDMENTS TO THE RETIREMENT AND SOCIAL SECURITY LAW

S5131 A5629	Allows a retired member of a public retirement system to change their option election or beneficiary designation where the beneficiary has been convicted of domestic violence against the retired member. Last Action: 01/03/24 Referred to GE (Assembly) 05/14/24 Passed Senate 05/14/24 Delivered to Assembly and Referred to GE	Webb Reyes

III. AMENDMENTS TO THE EDUCATION LAW

S6361A A556A	Requires employees of a New York state public retirement system, who are employed by their district to work for a not-for-profit, to provide written acknowledgement of membership termination in the retirement system. Last Action: 01/03/24 Referred to GE (Assembly) 03/01/24 Amend and Recommit to GE, Print# 556A (Assembly) 05/29/24 Passed Senate 05/29/24 Delivered to Assembly and Referred to GE (Assembly)	Brouk Bronson

IV. AMENDMENTS TO THE CIVIL SERVICE LAW

S8079 A8514	Clarifies that an employee's time working in a provisional title shall count towards any required probationary period when the permanent appointment immediately follows the provisional appointment. Last Action: 01/16/24 Passed Assembly 01/16/24 Passed Senate **01/26/24 Delivered to the Governor** **01/26/24 Signed by the Governor** **[Chapter 5 of the Laws of 2024]**	Pheffer Amato Jackson
S8216A A8876	Allows individuals that are within 12 months of meeting the minimum age or education requirements for a competitive class civil service position to take the exam. Last Action: 03/04/24 Passed Assembly 03/13/24 Passed Senate 03/13/24 Returned to Assembly **09/04/24 Delivered to the Governor** **09/04/24 Signed by the Governor** **[Chapter 303 of the Laws of 2024]**	Jackson Pheffer Amato

S8557 A9386	Requires time spent as a provisional employee count towards any required term to qualify an employee to take a competitive examination accessible in their title. Last Action: 03/13/24 Passed Senate 05/06/24 Passed Assembly 05/06/24 Returned to Senate **09/04/24 Delivered to the Governor** **09/04/24 Signed by the Governor** **[Chapter 307 of the Laws of 2024]**	Jackson Pheffer Amato
S8948 A9935	Requires employers to disclose all information to an employee relating to allegations that such employee is unable to perform their duties due to a non-work related disability. Last Action: 05/30/24 Passed Assembly 06/04/24 Passed Senate 06/04/24 Returned to Assembly **09/04/24 Delivered to the Governor** **09/04/24 Signed by the Governor** **[Chapter 306 of the Laws of 2024]**	Jackson Pheffer Amato
S2394B A3767B	Requires public employers to notify the organization advocating for managerial or confidential (M/C) employees the contact information for newly hired, promoted and transferred employees within 30 days from their date of employment, and provide them the ability to attend employee orientations. Last Action: 05/30/24 Passed Assembly 06/03/24 Passed Senate 06/03/24 Returned to Assembly	Jackson Pheffer Amato

V. PUBLIC OFFICERS LAW

S5500B A6146B	Provides public employees notice when their personnel record has been released to the public under the Freedom of Information Law. Last Action: 06/04/24 Passed Assembly 06/05/24 Passed Senate 06/05/24 Returned to Assembly **09/04/24 Delivered to Governor** **09/04/24 Signed by the Governor** **[Chapter 302 of the Laws of 2024]**	Skoufis Buttenschon

VI. STATE TECHNOLOGY LAW

S5007B A5736B	Establishes the "Secure Our Data Act" to ensure the New York state government is taking necessary steps to protect the personal information that it collects and maintains. Last Action: 01/03/24 Referred to GE (Assembly) 03/18/24 Passed Senate 03/18/24 Referred to Governmental Operations (Assembly)	Gonzalez Solages
S8090 A8549	Requires all state agencies to use gender neutral terminology for website content, including forms and documents accessible through the website. Effective the one hundred eightieth day after it becomes law. Last Action: 01/16/24 Passed Senate 01/23/24 Passed Assembly **01/26/24 Delivered to Governor** **01/26/24 Signed by the Governor** **[Chapter 21 of the Laws of 2024]**	Cleare Rosenthal
S8021 A8564	Requires state agency websites be made mobile friendly if and when changes to the form and function of such websites are being made until January 1, 2027, after which point, all state agencies should be made mobile friendly. Last Action: 01/23/24 Passed Assembly 01/30/24 Passed Senate **02/07/24 Delivered to Governor** **02/07/24 Signed by the Governor** **[Chapter 45 of the Laws of 2024]**	Fernandez Otis

VII. OTHERS

S5615 A2833	Amends State Finance Law to require all state agencies to procure all "end point devices" that meet the National Institute of Standards and Technology guidelines for computer security. Effective the ninetieth day after it becomes law. Last Action: 05/30/24 Passed Assembly 06/03/24 Passed Senate 06/03/24 Returned to Assembly	Thomas Otis

Committees: GE = Governmental Employees;
W&M = Ways and Means; CS = Civil Service and Pensions

S1424A A7810A	Amends Executive Law to direct contracting state agencies to develop a three-year growth plan to increase MWBE participation. Last Action: 05/16/24 Passed Senate 05/16/24 Delivered to Assembly 05/16/24 Referred to Governmental Operations (Assembly) 05/17/24 Amend and Recommit to Governmental Operations, Print#7810A (Assembly)	Baily Cruz
S2449 A5178	Amends Executive Law to prohibit any employer or licensing agency from requiring a prospective employee to disclose their age, date of birth or date of graduation from an educational institution on an initial employment application or during an interview, unless it is for an occupational qualification or need. Last Action: 01/03/24 Referred to Governmental Operations (Assembly) 02/12/24 Passed Senate 02/12/24 Referred to Governmental Operations (Assembly)	Krueger Kim
S99A	Amends Labor Law to provide all private and public employees access to their personnel records and notification when a negative report is filed against them. Last Action: 04/16/24 Amend and Recommit to Labor, Print# 1959A (Assembly) 05/13/24 Passed Senate 05/13/24 Delivered to Assembly and Referred to Labor (Assembly)	Gounardes Gonzalez-Rojas
S3260 A10019	Amends Estates, Powers and Trusts Law to disqualify a surviving spouse in the event a decree or judgment of annulment or nullity or dissolving of a marriage is issued after the deceased spouse died; the marriage is then deemed a nullity immediately prior to the death of such spouse. Last Action: 04/17/24 Passed Senate 04/17/24 Delivered to Assembly and Referred to Judiciary (Assembly) 05/01/24 Referred to Judiciary (Assembly)	Hoylman-Sigal Braunstein
S1860	Amends Labor Law to require employers to provide employees with information on mental health issues and resources and to destigmatize mental health in the workplace. Last Action: 05/14/24 Passed Senate 05/14/24 Delivery to Assembly and Referred to labor (Assembly)	Brouck

S9369 A9768	Amends Labor Law to extend the provisions of Chapter 301 of 2022 for an additional two years to allow an employer, with consent of employee, to deduct wages from employee's paycheck to cover specified goods and services. Last Action: 04/16/24 Passed Assembly 05/28/24 Passed Senate **06/26/24 Delivered to Governor** **06/28/24 Signed by the Governor** **[Chapter 142 of the Laws of 2024]**	Ramos Raga
S8663 A7241A	Amends Executive Law to exclude non-electronic notarial acts from the-record-keeping rules and regulations set forth by the Department of State. Last Action: 05/06/24 Passed Assembly 06/05/24 Passed Senate 06/05/24 Returned to Assembly	Hoylman- Sigal Lavine
S8979 A7091	Amends Public Authorities Law to require electric charging stations and electric vehicle capable parking spaces to accommodate wheelchair accessible vehicles. Effective the sixtieth date after it becomes law. Last Action: 04/02/24 Passed Assembly 06/04/24 Passed Senate 06/04/24 Returned to Assembly	Persaud Simon
S3065B A8934A	Amends Labor Law to require all employers to develop and implement programs to prevent workplace violence and bullying. Last Action: 05/30/24 Passed Senate 06/03/24 Passed Assembly 06/03/24 Returned to Senate	Ramos Bronson
S6635 A5745	Amends Workers' Compensation Law to expand the ability to all workers to receive PTSD coverage for mental injury premised upon work-related stress under NYS Workers' Compensation Coverage. Last Action: 04/04/24 Passed Senate 06/05/24 Passed Senate 06/05/24 Returned to Senate	Ramos Reyes

VIII. SPECIAL INTEREST BILLS

S5235A	Grants James Demarco retroactive membership in the NYSTRS from Tier 2 to Tier 1 based on time he was a non-member for seasonal employment in July 1969. Last Action: 01/03/24 Referred to CS (Senate) 03/11/24 Amend and Recommit to CS, Print#5235A	Gallivan

A9494	Grants Susan Ruscitto additional service credit in NYSTRS to recalculate her retirement benefit with 20 years and 2 months, which was the original service credit reported by her employer; her actual verified service credit was 19 years and 8 months. Last Action: 03/14/24 Referred to GE	Santabarbara
S5290A A5110A	Grants Eileen Saumell service credit based on her employment for the period of August 8, 1994 to August 27, 2004 with the Nassau County Demonstration Project, a non-participating employer. Last Action: 01/03/24 Referred to CS 03/28/24 Amend and Recommit to CS, Print#5290A 04/02/24 Amend and Recommit to GE, Print#5110A	Weik Gandolfo
S5318A A5111A	Allows Carl Spatola to receive a refund of his accumulated 3% contributions paid to NYSTRS for the period in which the transfer from NYCTRS to NYSTRS was not initiated and the cessation date was not established. Last Action: 01/03/24 Referred to CS (Senate) 03/28/24 Amend and Recommit to CS, Print#5318A (Senate) 04/02/24 Amend and Recommit to GE, Print#5111A (Assembly)	Weik Gandolfo
S5361A A5887A	Allows Peter Guarino to be reclassified as a Tier 4 member with a date of membership of June 13, 2008, based on time he was a non-member but employed as a substitute teacher with the Lansing Central School District, Newfield City School District and Ithaca City School District. Last Action: 01/03/24 Referred to GE (Assembly) 04/29/24 Amend and Recommit not GE, Print#5887A (Assembly) 05/22/24 Passed Senate 05/22/24 Delivered to Assembly and Referred to GE (Assembly)	Manion
S9129	Allows Christine Hasseler, retired Tier 1 member of NYSTRS, to have her retirement benefit recalculated to include retirement incentive payments that her employer failed to pay her within the required timeframe, before the end of her retirement year. Last Action: 04/29/24 Referred to CS (Senate) 05/17/24 Referred to GE (Assembly)	Helming
S9803 A10547	Allows Jeffrey Alva Beall, who retired as a Tier 4 from NYSTRS before Chapter 41 of the Laws of 2016 was signed into law, to purchase 3 years of military service for the period of active duty service between April 17, 1984 to February 27, 1987, retroactive to his effective date of retirement. Last Action: 05/30/24 Referred to CS (Senate) 06/03/24 Referred to GE (Assembly)	Helming

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

TO: Retirement Board

FROM: C. O'Grady

CC: T. Lee, M. Andriola, B. Dellea, D. Ampansiri

SUBJECT: Board Member Salary Reimbursement Report: 2023-24 Fiscal Year

DATE: October 30, 2024

In accordance with statute and the Board Member Salary Reimbursement Policy, reimbursement was made to Baldwinsville Central School District for teacher Board Member Elizabeth Chetney, to Bayport Blue Pont School District for teacher Board Member Eric Iberger, and to Schenectady City School District for Juliet Benaquisto.

Reimbursable Board Member Functions	**E. Chetney (days)**	**E. Iberger (days)**	**J. Benaquisto (days)**
Regular and Special Meetings of the Retirement Board and the Retirement Board Retreat	1	3	1
Meetings of Committees of the Retirement Board	4.5	2	1
Meetings of the Investment Advisory Committee and the Real Estate Advisory Committee	1.5	4	2
Annual Delegates Convention pursuant to Education Law S505	1	1	0.5
Meetings of the Medical Board pursuant to Education Law S507(6)	6	8	4.5
CII spring/fall meeting, NCTR annual conference, NIRS and/or Audit Committee member attendance at one Audit Trustee workshop	5	0	0
Total days of reimbursed service	**19**	**18**	**9**
Total amounts reimbursed:	**$ 12,920.95**	**$ 15,012.00**	**$ 6,378.93**

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM

MEMORANDUM

TO: T. Lee

FROM: Office of the CFO / Finance Department

DATE: October 30, 2024

SUBJECT: Retirement Board Package

Attached are the System's quarterly financial statements and related schedules for the quarters ended September 30, 2024 and 2023.

The following is a list of the documents included:

1. Statements of Fiduciary Net Position (Unaudited)
2. Statements of Changes in Fiduciary Net Position (Unaudited)
3. Schedule of Administrative Expenses (Unaudited)

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
Statements of Fiduciary Net Position (Unaudited)
September 30, 2024 and 2023

Assets	**2024**	**2023**
Investments at fair value:		
Domestic equity	$ 50,363,133,049	$ 42,776,166,938
International equity	22,266,689,648	17,596,912,158
Global equity	6,228,097,359	4,794,555,004
Real estate equity	16,161,087,163	16,312,162,060
Private equity	14,267,749,018	15,656,152,784
Domestic fixed income	22,584,397,525	18,064,866,768
High-yield bonds	1,577,534,972	1,371,742,047
Global bonds	2,696,832,844	2,632,937,822
Real estate debt	8,040,020,032	7,671,146,374
Private debt	2,388,018,226	2,089,443,361
Cash equivalents	2,009,810,103	1,611,661,450
Total investments	148,583,369,939	130,577,746,766
Receivables:		
Employer	1,886,201,450	1,854,438,702
Member	59,253,812	50,593,261
Investment income	400,796,424	348,845,217
Investment sales	257,169,151	291,433,661
Total receivables	2,603,420,837	2,545,310,841
Other assets:		
Securities lending collateral, invested	294,779,751	386,466,893
Member loans	292,541,488	269,270,845
Net investment in capital assets	23,354,246	19,588,553
Miscellaneous assets	6,055,204	5,360,517
Total other assets	616,730,689	680,686,808
Total assets	151,803,521,465	133,803,744,415
Deferred outflows of resources:		
Changes in net OPEB liability	15,718,775	15,103,133
Changes in net pension liability	12,201,645	15,366,904
Total deferred outflows of resources	27,920,420	30,470,037
Liabilities		
Securities lending collateral, due to borrowers	293,409,573	384,605,511
Investment purchases payable	430,876,076	426,437,926
Mortgage escrows and deposits, net of investments	3,651,500	8,256,079
Net OPEB liability	50,667,926	48,846,994
Other liabilities	213,634,052	171,529,561
Total liabilities	992,239,127	1,039,676,071
Deferred inflows of resources:		
Changes in net OPEB liability	1,280,285	2,249,463
Changes in net pension liability	9,080,289	1,305,207
Total deferred inflows of resources	10,360,574	3,554,670
Net position restricted for pensions	**$150,828,842,184**	**$132,790,983,711**

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
Statements of Changes in Fiduciary Net Position (Unaudited)

For the three months ending September 30, 2024 and 2023

	2024	2023
Additions:		
Investment income:		
Net increase (decrease) in fair value of investments	$ 5,978,884,356	$ (3,414,532,879)
Interest	312,733,298	250,918,001
Dividends	329,176,880	321,204,677
Real estate, net operating income	137,484,755	118,739,984
Securities lending, gross earnings	4,777,516	5,709,375
Other (net)	(2,780,646)	2,015,248
	6,760,276,159	(2,715,945,594)
Less: Investment expenses	101,538,343	140,326,943
Securities lending:		
Broker rebates	3,952,283	3,992,623
Management fees	119,406	251,827
Depreciation (appreciation) on collateral	149,430	(59,975)
Net investment income (loss)	6,654,516,697	(2,860,457,012)
Contributions:		
Employer	485,258,789	498,883,565
Member	64,023,479	55,517,224
Transfers (to)/from other systems	3,683,363	4,762,773
Total contributions	552,965,631	559,163,562
Net additions (deductions)	7,207,482,328	(2,301,293,450)
Deductions:		
Retirement benefit payments, periodic	2,152,044,229	2,086,721,906
Beneficiary payments	19,588,647	16,257,326
Return of contributions	6,553,721	6,209,290
Administrative expenses	21,888,327	20,071,259
Total deductions	2,200,074,924	2,129,259,781
Net increase (decrease) in net position	5,007,407,404	(4,430,553,231)
Net position restricted for pensions, beginning of year	145,821,434,780	137,221,536,942
Net position restricted for pensions, end of period	**$150,828,842,184**	**$132,790,983,711**

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
Schedule of Administrative Expenses (Unaudited)

Compared to Budget Appropriations for 2024-2025

	Budget Appropriations 2024-2025	Expenses and Encumbrances YTD 09/30/2024	Remaining Balance 9/30/2024	Actual Expenses YTD 09/30/2024
Salaries:				
Salaries	$ 52,402,705	$ 10,816,687	$ 41,586,018	$ 10,816,687
Overtime salaries	65,000	11,752	53,248	11,752
Social Security	3,675,395	761,785	2,913,610	761,785
Subtotal Salaries	56,143,100	11,590,224	44,552,876	11,590,224
Benefits				
Employees retirement	7,325,761	1,927,435	5,398,326	1,927,435
Dental insurance	380,827	73,590	307,237	73,590
Health insurance	9,509,399	1,739,687	7,769,712	1,732,135
OPEB contribution	6,804,000	1,701,000	5,103,000	1,701,000
Civil service	62,000	52,190	9,810	52,190
Subtotal Benefits	24,081,987	5,493,902	18,588,085	5,486,350
Total salaries and benefits	80,225,087	17,084,126	63,140,961	17,076,574
Building occupancy:				
Building security and vending	396,000	51,154	344,846	6,098
Building supplies and expenses	155,000	62,129	92,871	50,692
Heat, light and power	530,000	79,073	450,927	79,073
Insurance	483,308	—	483,308	—
Municipal assessments	199,000	61,407	137,593	61,407
Office supplies and expenses	160,350	78,188	82,162	78,179
Storage	68,880	62,000	6,880	11,625
Telephone	585,000	172,485	412,515	130,339
Total building occupancy	2,577,538	566,436	2,011,102	417,413
Computer:				
IT Hardware Purchases	1,222,600	119,778	1,102,822	64,275
IT Software Purchases	702,500	496,393	206,107	480,484
Software and support services	4,704,995	2,730,168	1,974,827	1,177,445
Project Costs - Hardware and Software	336,000	35,865	300,135	35,865
SBITA Asset Amortization Expense	120,736	—	120,736	—
Total computer	7,086,831	3,382,204	3,704,627	1,758,069
Personnel and meeting:				
Board - meetings, travel and education	150,000	15,859	134,141	15,859
Delegates meeting	70,000	25,546	44,454	25,546
Dues	465,685	33,122	432,563	33,122
Employee Engagement	55,950	6,768	49,182	6,768

Compared to Budget Appropriations for 2024-2025

	Budget Appropriations 2024-2025	Expenses and Encumbrances YTD 09/30/2024	Remaining Balance 9/30/2024	Actual Expenses YTD 09/30/2024
Personnel and meeting (continued):				
Library	$ 52,175	$ 19,948	$ 32,227	$ 5,649
Overtime meals	2,500	290	2,210	290
Personnel expenses	359,850	123,102	236,748	99,341
Pre-retirement seminars	76,000	34,050	41,950	34,050
Staff schooling	863,721	201,446	662,275	176,824
Travel and automobile expense	556,930	98,593	458,337	98,593
Tuition assistance	50,000	3,882	46,118	3,882
Wellness fund	9,250	1,370	7,880	(330)
Meeting Expense	10,450	2,852	7,598	2,852
Total personnel and meeting	2,722,511	566,828	2,155,683	502,446
Professional and governmental services:				
Auditors - financial	429,700	412,100	17,600	197,760
Auditors - insurance department	—	3,553	(3,553)	3,553
Disability medical examinations	100,000	27,993	72,007	27,993
Postage and cartage	1,020,200	227,056	793,144	68,559
Professional fees and services	2,002,984	1,237,491	765,493	147,832
Publications	234,000	94,257	139,743	57,162
Project Costs - Professional Fees	1,493,000	1,391,782	101,218	561,373
Statutory custodian charges	150,000	38,750	111,250	38,750
Total professional and governmental services	5,429,884	3,432,982	1,996,902	1,102,982
Capital improvement program:				
Depreciation - building and improvements	1,715,883	458,178	1,257,705	458,178
Depreciation - equipment	308,310	76,220	232,090	76,220
Amort./depreciation - computer micro	1,505,999	246,278	1,259,721	246,278
Building improvement expense	273,000	330,239	(57,239)	184,264
Building maintenance contracts	847,571	743,483	104,088	40,166
Equipment	143,000	12	142,988	12
Equipment maintenance	67,000	29,289	37,711	19,127
Fleet maintenance	40,000	6,598	33,402	6,598
Capital contingency	228,502	—	228,502	—
Total capital improvement program	5,129,265	1,890,297	3,238,968	1,030,843
Total Administration Expenses	$ 103,171,116	$ 26,922,873	$ 76,248,243	$ 21,888,327

Quarterly Signatory Additions & Deletions

Appendix D

For Quarter Ended September 30, 2024

Division	Name	Position	Warrant Signatory	Document Signatory
Member Relations	Susan Rossetti	Assistant Manager/Assistant Director	Not Applicable	Added
Private Equity	Nicholas Chladek	Manager/Director	Deleted	Deleted
Real Estate	Amy Cramer	Assistant Manager/Assistant Director	Added	Added

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM

A meeting of the Trustees of the New York State Teachers' Retirement System Retired Employee Health Benefits Trust was held at the System on October 30, 2024.

Board Members: Juliet Benaquisto, Paul Farfaglia, Phyllis Harrington (via WebEx), Eric Iberger, David Keefe, Donald A. Little III, Oliver Robinson, Nicholas Smirensky

NYSTRS Staff: Thomas K. Lee, Don Ampansiri, Kathy Ebert, Richard Young

Plante Moran: Jean Young

Visitor: Kevin Balaod, WithIntelligence (via WebEx)

The meeting was called to order by D. Keefe at 12:45 p.m.

1. Approval of Minutes of April 25, 2024

Upon motion of N. Smirensky, seconded by O. Robinson and unanimously adopted by the Trustees, the minutes of the April 25, 2024 meeting were approved.

2. Review of GASB 74/75 Report (Appendix A, pp. 3-42)
3. Review of Trust Financial Statements Quarter Ended September 30, 2024 (Appendix B, pp. 43-47).
4. Review of Trust Financial Statements with Independent Auditor's Report Year Ended June 30, 2024

J. Young of Plante Moran reviewed the Trust’s audited financial statements for the year ended June 30, 2024 (Appendix C, pp. 48-85).

5. Resolution Accepting Plante Moran Annual Audit – Trust

N. Smirensky, moved the following resolution, seconded by E. Iberger and unanimously adopted by the Trustees:

> RESOLVED, That the report of Plante Moran on the financial statements of the New York State Teachers’ Retirement System Retired Employee Health Benefits Trust as of June 30, 2024 and for the Trust year then ended, as presented to the Trustees, is accepted.

There being no further business, the meeting adjourned at 12:50 p.m.

Respectfully submitted,

[redacted]

____

Thomas K. Lee

New York State Teachers' Retirement System (NYSTRS)
Other Post-Employment Benefits (OPEB)

FY 2024 GASB 74 and
FY 2025 GASB 75
Disclosure Report as of June 30, 2024

Bolton

Submitted by:

Thomas Vicente, FSA., MAAA, EA
Senior Consulting Actuary
(443) 573-3918
tvicente@boltonusa.com

Timothy Barry, ASA, MAAA
Actuary
(667) 218-6926
tbarry@boltonusa.com

Bolton
Employee Benefits, Actuarial & Investment Consulting

September 16, 2024

Mr. Richard A. Young
Chief Actuary
New York State Teachers' Retirement System
10 Corporate Woods Drive
Albany, NY 12211-2395

Dear Richard:

The following report contains the Government Accounting Standards Board Statement 74 (GASB 74) *plan* accounting and the Government Accounting Standards Board Statement 75 (GASB 75) *employer* accounting actuarial information for the other post-employment benefits (OPEB) Plan to be included with the New York State Teachers' Retirement System's (NYSTRS) financial statements (NYSTRS).

GASB 74 is for plan accounting and will be disclosed in the Required Supplementary Information (RSI) in the FY 2024 ACFR notes to the NYSTRS' financial statements. The GASB 74 reporting is for the fiscal year ending on June 30, 2024 and the GASB 75 reporting is for the fiscal year ending on June 30, 2025. NYSTRS has elected a June 30, 2024 measurement date for FY 2025 GASB 75 reporting.

Methodology, Reliance, and Certification

This report is prepared for NYSTRS; it contains the actuarial information to be included with the NYSTRS' financial statements for the year ending June 30, 2024 (NYSTRS' fiscal year end date) as required by GASB 74. This information has been prepared for use in the financial statements of NYSTRS. This information is not intended for, nor should it be used for, any additional purposes.

The report is based on June 30, 2023 census data provided by NYSTRS. The plan provisions, participant data, valuation methods, and assumptions are as detailed in the Actuarial Valuation as of July 1, 2023 to determine the NYSTRS Actuarially Determined Contribution for the Fiscal Year Ending June 30, 2025, dated April 2, 2024.

NYSTRS is responsible for selecting the plan's funding policy and assumptions. NYSTRS is solely responsible for communicating to Bolton Partners, Inc. any changes required thereto.

NYSTRS is solely responsible for selecting the plan's investment policies, asset allocation, and individual investments. Bolton, Inc.'s actuaries have not provided any investment advice to NYSTRS.

NYSTRS is responsible for selecting the plan's funding policy and assumptions. For certain demographic assumptions, such as retirement, termination, disability, and salary scale, we relied upon the assumptions that were used in the June 30, 2023 valuation performed by Cheiron dated September 28, 2023. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are detailed in the Actuarial Valuation as of July 1, 2023 to determine the NYSTRS Actuarially Determined Contribution for the Fiscal Year Ending June 30, 2025 dated April 2, 2024. NYSTRS is solely responsible for communicating to Bolton Partners, Inc. any changes required thereto. The actuarial methods and assumptions used in this report comply with ASOP 6 and the actuarial standards of practice promulgated by the American Academy of Actuaries.

Methodology, Reliance, and Certification

Future medical care cost increase rates are unpredictable and could be volatile. They will depend upon the economy, future health care delivery systems and emerging technologies. The trend rate selected is based on an economic model developed by a health care economist for the Society of Actuaries. Future medical trend increases could vary significantly from the model. Model inputs will be updated periodically based on the best estimate of the economy at that time. Small changes in the model inputs can result in large actuarial gains or losses.

This report is based on assets, plan provisions, census data, and premium rates submitted by NYSTRS. We have relied on this information for purposes of preparing this report but have not performed an audit. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The plan sponsor is solely responsible for the validity and completeness of this information.

The information in this report was prepared for the internal use of NYSTRS, the plan and their auditors in connection with our actuarial valuations of the OPEB plan as required by GASB 74/75. This report may not be used for any other purpose; Bolton Partners, Inc. is not responsible for the consequences of any unauthorized use or the reliance on this information by any other party.

We make every effort to ensure that our calculations are accurately performed. However, given the complexity of these calculations, there may be errors. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

This report provides certain financial calculations for use by the auditor. These values have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The COVID-19 pandemic has impacted many aspects of OPEB valuations, including increasing mortality rates, fluctuating medical plan costs, creating supply shortages which increased inflation, and causing new trends in turnover and retirement rates. The impact of this pandemic through the valuation date is already reflected in NYSTRS' census data and the premium rates provided. However, since OPEB valuations are long-term estimates of future costs, we (and more broadly, the actuarial profession) are closely monitoring experience of all assumptions to determine what the long-term impacts of the COVID-19 pandemic will be. Given the current levels of uncertainty, we have not made any changes to the assumptions to account for any potential long-term impacts but will continue to monitor emerging experience, and make changes as necessary.

Methodology, Reliance, and Certification

The Inflation Reduction Act (IRA), which was signed into law in August 2022, is expected to make numerous changes to prescription drug costs, including capping member out of pocket spending and other plan design changes beginning in 2025 and requiring the federal government to negotiate drug prices for certain high-cost drugs starting in 2026. However, the impact of these changes is difficult to quantify at this time as we are still awaiting additional guidance from CMS on how they will be implemented. Therefore, we have not made any adjustments to the current assumptions to account for the potential impact of the IRA at this time.

The analysis was completed using both proprietary and third-party models (including software and tools). We have tested these models to ensure they are used for their intended purposes, within their known limitations, and without any known material inconsistencies unless otherwise stated.

Bolton Partners is completely independent of the New York State Teachers' Retirement System, their programs, activities, and any of their key personnel. Bolton Partners does not have any relationship with the New York State Teachers' Retirement System which would impair or appear to impair the objectivity of our work.

The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,

Thomas Vicente

Thomas Vicente, FSA., MAAA, EA
Senior Consulting Actuary

Tim Barry

Timothy Barry, ASA, MAAA
Actuary

Table of Contents

Section I. Executive Summary

Background

Bolton Partners, Inc. has prepared the following report that sets forth the actuarial disclosure information as of the June 30, 2024 measurement date as required by GASB 74 for the fiscal year ending June 30, 2024. GASB 74 is for plan accounting and will be disclosed in the FYE 2024 ACFR Required Supplementary Information.

For employer accounting under GASB 75, NYSTRS has selected a beginning of year measurement date; therefore, the GASB 75 reporting for FYE 2025 included in this report is also based on a June 30, 2024 measurement date. While the Net OPEB Liability as of June 30, 2024 is the same for both the FY2024 GASB 74 report and the FY2025 GASB 75 employer accounting, GASB 75 requires additional exhibits that are also included in this report for the fiscal year ending June 30, 2025.

OPEB Trust Arrangement and Funding Policy

NYSTRS has established an irrevocable Trust to pre-fund benefits. Asset information was provided by NYSTRS; the market value of assets of June 30, 2024 is $76,485,077. It is our understanding that NYSTRS pays benefits out of the Trust and contributes the ADC to the Trust each year.

Plan Provisions

Employees who retire through the New York State Teachers' Retirement System who worked for the System for at least 10 years are eligible for benefits through the Plan. Dependents of eligible employees and retirees may also be covered under the Plan.

NYSTRS offers medical, prescription drug, and vision benefits, as well as Medicare Part B reimbursement to eligible participants.

Please see Section III for more details regarding the Plan.

Section I. Executive Summary

Comparison with Previous Disclosure

The prior valuation was based on July 1, 2022 data, and those results were used in the FYE 2024 GASB 75 and FYE 2023 GASB 74 report dated September 28, 2023.

There was a decrease in the Net OPEB Liability from FYE 2023 to FYE 2024 of $2.5M, which was mainly due to favorable investment experience and updating the healthcare cost trend assumption. These decreases were partially offset by the updated per capita cost assumption and unfavorable demographic experience.

The following table reconciles the Net OPEB Liability. Amounts shown are rounded to the nearest $0.1M.

Comparison of Current and Previous Valuations		
Data as of	**July 1, 2022**	**July 1, 2023**
Data is used to calculate ADC for FYE	2024	2025
Census Data		
Active Employees[1]	374	384
Retirees[2]	311	313
Spouses	132	140
Total	**817**	**837**
Reconciliation of Net OPEB Liability		
Previous Valuation, FYE 2023		$50.7M
Expected Increase/(Decrease) from June 30, 2023 to June 30, 2024		(0.1)
Increase/(Decrease) due to Higher than Expected Benefit Payments during FYE 2024		(0.3)
Increase/(Decrease) due to Investment Experience		(5.6)
Increase/(Decrease) due to Demographic Experience		3.1
Increase/(Decrease) due to Updated Per Capita Cost Assumption		6.7
Increase/(Decrease) due to Updated Trend Assumption		(7.1)
Increase/(Decrease) due to Updated Mortality Improvement Scale		0.4
Increase/(Decrease) due to Maximum Retiree Contribution Plan Change		0.6
Increase/(Decrease) due to Updated Life Expectancy Table used for Sick Leave Contribution Offset		(0.2)
Current Valuation, FYE 2024		**$48.2M**

[1] Includes 23 active employees who waived medical/Rx coverage as of July 1, 2022 and 26 as of July 1, 2023.
[2] Includes 14 surviving spouses as of July 1, 2022 and 15 as of July 1, 2023.

Section I. Executive Summary

Census Data
Census data as of July 1, 2023 was provided to us by NYSTRS. This data included current medical coverage for active employees, retirees, and their dependents. Although we have not audited this data, we have no reason to believe that it is inaccurate.

Cost Information
We received FY2024 premium rates from NYSTRS, which are the same for active employees and retirees regardless of Medicare status. Expected per capita costs for pre-Medicare participants were determined by age adjusting the blended premium rates. The expected per capita costs for Medicare participants were also determined based on the premium rates provided for each plan, with age adjustments applied as appropriate.

The published insurance rates are based on a blend of active employee, pre-Medicare retiree, and Medicare retiree experience, and because there are significantly more active employees and Medicare retirees, the rates are primarily based on their healthcare usage. However, because retirees tend to use healthcare at a higher rate than active employees, using these blended rates creates an implicit subsidy for the retiree group, particularly for pre-Medicare retirees where the Plan is responsible for the full cost. Actuarial Standards of Practice (ASOP) 6 require that the per capita cost assumption we use for this valuation be based on just the retiree cost. Therefore, we have age-adjusted the premium rates provided to determine a retiree per capita cost for both pre-Medicare retirees and Medicare retirees who are not on a Medicare Advantage plan[1].

Demographic Assumptions
The demographic (retirement, termination, and disability) assumptions are the same as those used in the June 30, 2022 OPEB funding report completed by Cheiron dated February 27, 2023. The mortality assumption is based on the SOA Pub 2010 headcount-weighted mortality tables with an 98.75% adjustment for both males and females, projected on a fully generational basis using mortality improvement scale MP-2021. The life expectancy assumption for purposes of sick leave credit is based on the 2015 Life Expectancy Table.

All employees enrolled in medical coverage as actives are assumed to retain coverage at retirement. Employees currently waiving medical coverage are assumed to waive coverage upon retirement. 70% of male participants and 40% of female participants expected to enroll in coverage at retirement are assumed to cover a spouse.

Additional information regarding these assumptions is provided in Section V.

[1] An exception was made in the ASOP 6 Practice Note issued in March 2021 that Medicare Advantage plans do not need to be age adjusted.

Section I. Executive Summary

Economic Assumptions

The expected rate of return assumption of 6.50% was selected by the plan sponsor.

NYSTRS has established an irrevocable Trust and adopted a funding policy to contribute the Actuarial Determined Contribution (ADC) each year. Under this policy, the plan is projected to be solvent in the future, and therefore the discount rate is the expected rate of return of 6.50%.

The healthcare cost trend assumption was developed using the 2024 version of the Society of Actuaries (SOA) Getzen Long-Term Healthcare Cost Trend Model with baseline assumptions. This model was designed to estimate the trend after 2025. The trend rate was set to 7.5% for 2023 and 2024 and 7.0% for 2025. These initial rates reflect recent inflation, which we estimate will result in higher medical costs in the short-term as providers renew their contracts. The trend is expected to decrease to 5.29% by 2030 and 4.54% by 2050, ultimately leveling off at 4.04% in 2075.

The SOA Long-Run Medical Cost Trend Model is based on an econometric analysis of historical U.S. medical expenditures and the judgments of experts in the field. The long-run baseline projection, tolerance ranges and input variables have been developed under the guidance of an SOA Project Oversight Group.

Medicare Part B premiums are expected to increase by 4% annually based on the average increase over the past 15 years.

The salary scale assumption is the same as that used in the June 30, 2022 OPEB funding report completed by Cheiron dated February 27, 2023.

Plan Change

Effective April 1, 2024, the Union has ratified a new contract which resulted in several changes to the OPEB Plan, including a change to the maximum retiree contributions for 2025 through 2029 and updating the life expectancy table for the calculation of sick leave credit that can be used to offset retiree contributions. Further detail on these changes is provided in Section III. For simplicity, these changes were assumed to be effective as of the July 1, 2023 valuation date, and the impact has been reflected in these results.

Section II. Assets

June 30, 2024 Market Value of Assets Reconciliation

Below is a reconciliation of the market value of assets from last year to this year as well as the asset gain/(loss) development.

(1)	Expected Rate of Return	6.50%
(2)	Market value of assets as of June 30, 2022	$65,553,482
(3)	Employer Contributions	6,910,000
(4)	Investment gains/(losses)	9,931,293
(5)	Benefit Payments paid from Trust	(5,895,698)
(6)	Administrative Expenses	(14,000)
(7)	Market value of assets as of June 30, 2023 *(2) + (3) + (4) + (5) + (6)*	$76,485,077
(8)	Expected investment return	4,296,486
(9)	Asset (gain)/loss *(8) – (4)*	$(5,637,807)

Section III. Summary of Principal Plan Provisions

The following summary describes principal plan provisions assumed in calculating the cost of the OPEB Plan.

General Eligibility Rules

Employees are eligible for retiree health benefits only if all of the following requirements are met:

1. Must have worked for at least 10 years for the System,
2. Retired directly from System employment, and
3. Commenced receipt of a pension from the New York State and Local Employees' Retirement System (ERS).

Employees who become disabled must have 10 years of service in order to be eligible for benefits. However, NYS TRS has historically had no disability incidence, and therefore no rates of disability were assumed and only service retirement was considered for this valuation.

Surviving spouses of active employees are eligible to continue coverage in the Plan if the employee had 10 or more years of service at the time of death.

In order to maintain coverage, eligible participants remain enrolled in the Plan and pay the required monthly premiums.

Benefits Covered

The retiree health plan offered to eligible employees of the New York State Teachers' Retirement System includes medical, prescription drug, and vision benefits, as well as Medicare Part B reimbursement. Eligible retirees can elect coverage for themselves, their spouses and dependent children.

Medical and Prescription Drug Benefits

Each of the plans offered includes medical coverage (inpatient facility, outpatient facility, physician and surgeon services, and other related care) and prescription drug benefits. Upon reaching eligibility for Medicare (generally at age 65), the Plan coordinates with Medicare, with Medicare being primary before the Plan pays benefits.

Dental Benefits

None offered.

Vision Benefits

Included

Medicare Part B Reimbursement

Medicare Part B premiums are reimbursed by the State and are included in the blended premiums charged by the State. These blended premiums reflect both the standard Medicare Part B premium per month per Medicare beneficiary covered and the additional premium that applies if participants' incomes exceed certain thresholds. Both the standard Part B premiums and the income thresholds are determined annually by the Centers for Medicare & Medicaid Services (CMS).

Life Insurance

None offered.

Section III. Summary of Principal Plan Provisions

Participant Contributions

No retiree contributions apply for retirees who retired before July 1, 1985 and enrolled in the Plan.

For retirements on or after July 1, 1985:

- Non-Medicare and Medicare retirees pay the same amount.
- Retirees 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.

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

- If a retiree chooses a plan other than the Empire Plan, they are responsible for 100% of the excess, if any, of the premium for that plan over the Empire Plan premium.
- Sick time conversion can be used to offset contributions otherwise owed by retirees.

Eligible spouses continue coverage by paying 25% of the cost of coverage in contributions. In the event of death of a retiree, surviving spouses are eligible to continue to enroll in the Plan by paying 25% of the cost of coverage in contributions. Surviving spouses of eligible active employees also pay 25% of the premium cost after a three-month extended coverage period.

Annual Maximums

Retiree contributions are subject to the following annual maximums, which vary based on salary at retirement.

	Annual Maximum		
Salary at Retirement	2022	2023	2024
Up to $40,000	$2,850	$3,150	$3,450
$40,001 - $60,000	$3,350	$3,750	$4,150
$60,001 - $90,000	$4,025	$4,575	$5,125
$90,001 and above	$4,425	$5,025	$5,625

Effective April 1, 2024, the tier structure for maximum contributions has been adjusted as follows:

Tiers	Salary at Retirement
Tier 1	Up to $60,000
Tier 2	$60,001 - $90,000
Tier 3	$90,001 and above

Section III. Summary of Principal Plan Provisions

Participant Contributions (continued)

The annual maximum contributions for individual health insurance coverage beginning January 1, 2025 through December 31, 2029 are as follows:

	2025	2026	2027	2028	2029
Tier 1	$1,950	$1,950	$1,950	$1,950	$1,950
Tier 2	$2,150	$2,350	$2,550	$2,750	$2,950
Tier 3	$2,625	$2,875	$3,125	$3,375	$3,625

The annual maximum contributions for family health insurance coverage beginning January 1, 2025 through December 31, 2029 are as follows:

	2025	2026	2027	2028	2029
Tier 1	$3,450	$3,450	$3,450	$3,450	$3,450
Tier 2	$5,675	$6,225	$6,775	$7,325	$7,875
Tier 3	$6,225	$6,825	$7,425	$8,025	$8,625

Annual maximums after 2029 are subject to future contract negotiations.

Banked Sick Leave Pay Credit

Retirements after April 1, 1991 are eligible to have unused sick leave converted into a credit to offset retiree contributions otherwise owed to the health plan. Sick Leave Credit is determined as daily pay times the number of sick leave days, divided by life expectancy. Daily Pay is defined as the daily rate of pay at retirement. Sick Leave Days are the number of unused sick leave days at retirement. Life Expectancy is determined in months at retirement using factors established by the Plan.

Sick Leave is subject to the following maximums:

	Sick Leave Maximum	
Effective Period	Management Employees	Non-Management Employees
April 1, 1991 to January 7, 2004	165 days	165 days
January 8, 2004 to December 31, 2020	185 days	165 days
January 1, 2021 and after	200 days	200 days

Changes in plan provisions since prior valuation

The following changes have been made to reflect the new Union contract provisions effective April 1, 2024:

- The maximum annual retiree contribution amounts for 2025 through 2029 have been updated. This increased the Net OPEB Liability by $0.6M.
- The life expectancy table used for the calculation of sick leave credit in retirement was updated. This decreased the Net OPEB Liability by $0.2M.

Section IV. Valuation Data

Summary of Participants

The following table summarizes the census data used in the current and prior valuations.

Data as of:	July 1, 2022	July 1, 2023
Number of Participants		
Active Employees[1]	374	384
Pre-Medicare Retirees	93	84
Medicare-eligible Retirees[2]	218	229
Spouses	132	140
Total	817	837
Active Statistics		
Average Age	46.1	46.6
Average Service	10.7	10.5
Inactive Statistics		
Pre-Medicare Retiree Average Age	61.1	61.1
Medicare Retiree Average Age	73.9	74.0
Spouse Average Age	69.1	69.5

[1] Includes 23 active employees who waived medical/Rx coverage as of July 1, 2022 and 26 as of July 1, 2023.
[2] Includes 14 surviving spouses as of July 1, 2022 and 15 as of July 1, 2023.

Section IV. Valuation Data

Active Age - Service Distribution

Shown below is a distribution by age and service of active employees as of July 1, 2023. This exhibit includes 26 active employees not valued since they have waived coverage.

	Years of Service								
Age	<1	1-4	5-9	10-14	15-19	20-24	25-29	30+	Total
<25	3	1	0	0	0	0	0	0	4
25 – 29	5	13	1	0	0	0	0	0	19
30 – 34	4	16	15	1	0	0	0	0	36
35 – 39	8	19	12	4	2	1	0	0	46
40 – 44	7	15	25	5	8	0	0	0	60
45 – 49	4	15	16	9	14	4	0	0	62
50 – 54	4	9	16	9	12	8	5	4	67
55 – 59	5	6	9	5	14	7	6	7	59
60 – 64	1	3	4	3	5	5	2	2	25
65+	0	0	1	0	2	1	1	1	6
Total	**41**	**97**	**99**	**36**	**57**	**26**	**14**	**14**	**384**

Retiree Age Distribution

The following table shows the distribution by age of retirees and spouses who are currently receiving benefits from NYSTRS as of July 1, 2023.

Age	Retirees[1]	Spouses	Total
<55	1	3	4
55 – 59	19	14	33
60 – 64	64	32	96
65 – 69	69	29	98
70 – 74	60	24	84
75 – 79	54	22	76
80 – 84	32	14	46
85+	14	2	16
Total	**313**	**140**	**453**

[1] Includes 15 surviving spouses.

Section IV. Valuation Data

Status Reconciliation

The following table shows the status reconciliation of actives, retirees and surviving spouses from July 1, 2022 to July 1, 2023. Details are included in the footnotes.

	Active	Retired	Surviving Spouses	Total
Members on July 1, 2022	**374[1]**	**297**	**14**	**685**
New Hires	41			41
Active Pickup	1			1
Terminations	(19)			(19)
Retired and Elected Coverage	(10)	10		0
Retired but Waived Coverage	(1)			(1)
Retiree Pickup		1		1
New Surviving Spouse			3	3
Deceased / Dropped Coverage	(2)	(9)	(3)	(14)
Members on July 1, 2023	**384[2]**	**299[3]**	**14**	**697**

[1] Includes 23 actives who waived medical/Rx coverage as of July 1, 2022.
[2] Includes 26 actives who waived medical/Rx coverage as of July 1, 2023.
[3] Excludes 5 retirees who waived medical/Rx coverage as of July 1, 2023.

Section V. Valuation Methods and Assumptions

Actuarial Valuation Date
July 1, 2023

Measurement Date
June 30, 2024

Cost Method
This valuation uses the Entry Age Normal Funding Method calculated on an individual basis with level percentage of payroll.

Party Responsible for Assumptions and Methods
New York State Teachers' Retirement System

Roll Forward Method
Liabilities are rolled forward from actuarial valuation date to measurement through use of a roll forward method (if necessary). Liabilities are adjusted for passage of time by adding normal cost minus benefit payments all adjusted with interest.

Amortization of Unfunded Actuarial Accrued Liability
30-year closed amortization period as of July 1, 2016. There are 23 years remaining as of the development of the FYE 2025 ADC. The unfunded liability is amortized as level percent of payroll.

Expected Rate of Return on Assets
6.50%. Our reasonable range is within the 35th and 65th percentiles of the 20-year geometric expected rate of return based on the 2023 Horizon Survey of Capital Market Assumptions and the OPEB Trust Target Asset Allocation. 6.50% falls within the 35th and 50th percentiles and therefore is an acceptable assumption. Additional detail is in Appendix 3.

Payroll Growth
3.00%

Section V. Valuation Methods and Assumptions

Election Assumption

For current retirees, actual medical coverage elections provided by NYSTRS were used.

For future retirees, 100% of employees enrolled in medical coverage as actives are assumed to retain this coverage at retirement. Employees currently waiving coverage are assumed to waive coverage at retirement. 0% of future inactive vested retirees were assumed to retain eligibility for and elect coverage.

Spousal Coverage and Age

For current retirees, actual spouse information provided by NYSTRS was used.

For future retirees, 70% of males and 40% of females were assumed to cover a spouse at retirement. Spouses were assumed to be the opposite gender of retirees, and females were assumed to be 2 years younger than male spouses.

75% of surviving spouses of actives with 10 or more years of service and 0% of surviving spouses of actives with less than 10 years of service were assumed to elect coverage.

Sick Leave Credit

All employees are assumed to use 100% of sick leave credit upon retirement.

Decrement Assumptions

Below is a summary of decrements used in this valuation; sample retirement and termination rates are illustrated in the tables below. We generally use the same demographic assumptions that were used in the June 30, 2022 OPEB funding report completed by Cheiron, which are, in our opinion, reasonable for the purposes of this valuation.

Mortality

Status	Description of Mortality Assumption
Active Employees	SOA Pub-2010 General Employee Headcount-Weighted Mortality Table with an 98.75% adjustment for both males and females, projected on a fully generational basis with mortality improvement scale MP-2021
Healthy Retirees and Covered Spouses	SOA Pub-2010 General Retiree Headcount-Weighted Mortality table with an 98.75% adjustment for both males and females, projected on a fully generational basis with mortality improvement scale MP-2021
Surviving Spouses	SOA Pub-2010 General Contingent Survivors Headcount-Weighted Mortality table with an 98.75% adjustment for both males and females, projected on a fully generational basis with mortality improvement scale MP-2021
Disabled Retirees	SOA Pub-2010 General Disabled Retiree Headcount-Weighted Mortality table with an 98.75% adjustment for both males and females, projected on a fully generational basis with mortality improvement scale MP-2021

Life Expectancy

Life expectancy for the purposes of sick leave credit is based on the mortality table in use at retirement age. Calculations are based on the 2015 Life Expectancy Table.

Section V. Valuation Methods and Assumptions

Decrement Assumptions (continued)

Retirement

Age	Rate
<45	0.00%
45-54	0.25%
55	20.00%
56	14.00%
57	15.00%
58	16.00%
59	17.00%
60	20.00%
61	25.00%
62	30.00%
63	40.00%
64	25.00%
65	20.00%
66-69	10.00%
70+	100.00%

Termination

Service	Rate
0	15.00%
1	12.00%
2	9.00%
3	8.00%
4	7.00%
5	6.00%
6	5.00%
7	4.75%
8	4.50%
9	4.25%
10	3.75%
11	3.25%
12	2.75%
13	2.25%
14	1.75%
15+	1.00%

Disability
No disability was assumed.

Section V. Valuation Methods and Assumptions

Salary Increase Rates

Salary is assumed to increase at the following rates based on years of service:

Years of Service	Increase
0-1	8.00%
2	7.00%
3	6.00%
4	5.00%
5	4.50%
6	4.20%
7	4.10%
8	4.00%
9	3.90%
10	3.80%
11	3.70%
12	3.60%
13	3.50%
14	3.40%
15	3.30%
16	3.20%
17	3.10%
18+	3.00%

Annual Contribution Maximums

Retiree contributions are subject to annual maximums, which increase each year and vary based on coverage tier and salary at retirement. These amounts are set through 2029, but in 2030 and later are subject to future contract negotiations.

The annual contributions after 2029 are assumed to increase by the following amounts each year based on coverage tier and salary at retirement:

	Single Coverage	Family Coverage
Tier 1	$100	$200
Tier 2	$200	$550
Tier 3	$250	$600

Section V. Valuation Methods and Assumptions

Healthcare Cost Trend Assumption

Medical and Rx Benefits

The healthcare cost trend assumption was developed using the Society of Actuaries (SOA) Long-Run Medical Cost Trend Model. The current valuation uses the 2024 version of the model with baseline assumptions. The following assumptions were used as input variables into this model:

Rate of Inflation	2.6%
Rate of Growth in Real Income / GDP per capita	1.4%
Excess Medical Growth	0.9%
Expected Health Share of GDP in 2033	19.0%
Health Share of GDP Resistance Point	17.0%
Year for Limiting Cost Growth to GDP Growth	2075

This model was designed to estimate the trend after 2025. The trend rate for 2024 was set to 7.5% and 2025 was set to 7.0%. These initial trends are greater than in the past valuation due to recent inflation, which we estimate will result in higher medical costs as providers renew their contracts.

The trend for selected years is shown below:

Year	Trend
2023	7.50%
2024	7.50%
2025	7.00%
2026	6.20%
2030	5.29%
2040	4.60%
2050	4.54%
2060	4.48%
2070	4.24%
2075+	4.04%

The SOA Long-Run Medical Cost Trend Model and its baseline projection are based on an econometric analysis of historical U.S. medical expenditures and the judgments of experts in the field. The long-run baseline projection and input variables have been developed under the guidance of an SOA Project Oversight Group.

Medicare Part B Premiums

Medicare Part B premiums are expected to increase 4% annually. This is based on the average increase over the past 15 years.

Section V. Valuation Methods and Assumptions

Per Capita Cost Assumption

Medical and Rx Benefits

We received 2024 premium rates from NYSTRS for each plan and coverage tier option offered to active employees and retirees. All plans include both medical and Rx benefits. Administrative fees were assumed to be included in the premium rates provided.

The average premium was calculated by blending the 2024 premiums for each plan based on retiree enrollment as of the valuation date and trending to the midpoint of the projection period using 7.5% trend. The average premium was then age adjusted based on the total population (actives, pre-Medicare participants and Medicare-eligible participants) using the Yamamoto aging curve to determine a retiree per capita cost for all participants not in a Medicare Advantage plan. The average premium for participants in Medicare Advantage plans was not age adjusted based on guidance in the ASOP 6 Practice Note issued in March 2021. The per capita costs for these participants were determined based on the average premiums, adjusted by a factor of 30% assuming Medicare pays 70% of the costs. Costs for pre-Medicare spouses were assumed to be 1.3 times the cost for a pre-Medicare retiree, and costs for Medicare spouses were assumed to be the same as the cost for a Medicare retiree.

The following chart shows the expected per capita costs and average premium rates for pre-Medicare and Medicare-eligible participants. Per capita costs for pre-Medicare participants are shown for a 64-year-old male, and per capita costs for Medicare-eligible participants are shown for a 65-year-old male.

	Per Capita Claims Costs	Average Premiums
Pre-Medicare Participants		
Retiree	$ 22,985	$ 12,036
Spouse	29,881	17,939
Medicare-eligible Participants in Medicare Advantage Plans		
Retiree	$8,568	$8,568
Spouse	8,568	11,743
Medicare-eligible Participants in non-Medicare Advantage Plans		
Retiree	$6,207	$10,292
Spouse	6,207	16,705

Medicare Part B Premiums

Participants eligible for Medicare Part B premium reimbursement were assumed to receive $169.80 per month in FY2024, based on the average of the calendar year 2023 and 2024 premiums published by CMS. These costs were not age-adjusted as Part B premiums do not vary by age.

Section V. Valuation Methods and Assumptions

Aging Factors

Aging factors were developed from the "Health Care Costs – From Birth to Death" study led by Dale Yamamoto, which was sponsored by the Society of Actuaries and prepared by Health Care Cost Institute. Aging factors were developed separately for medical and prescription drug (Rx) costs and then blended assuming a weight of 78.4% medical/21.6% Rx for pre-Medicare benefits and normalized to a male aged 65. The aging factors for Medicare-eligible participants were then adjusted to reflect the Plan portion of the costs, assuming that Medicare pays 70% of the costs, and re-normalized to a male aged 65. Sample factors are shown below:

Age	Male	Female
20	0.5629	0.7397
25	0.4809	0.9722
30	0.5957	1.3716
35	0.7479	1.5043
40	0.9474	1.5283
45	1.1785	1.6290
50	1.5407	1.9046
55	2.0192	2.2259
60	2.5982	2.5998
65	1.0000	0.9507
70	1.2474	1.1754
75	1.3606	1.2872
80	1.4283	1.3606
85	1.4387	1.4113

Changes in methods and assumptions since prior valuation

- The per capita claims cost assumption, including the underlying aging factors used to develop it, was updated since the prior valuation. This increased the Net OPEB Liability by $6.7M.
- The healthcare cost trend assumption was updated based on the 2024 Getzen model released by the SOA. This decreased the Net OPEB Liability by $7.1M.
- The mortality assumption was updated to incorporate the most recent mortality improvement scale published by the SOA (MP-2021). This increased the Net OPEB Liability by $0.4M.
- The assumption for the retiree annual maximum contribution increases after 2029 has been updated to better reflect future expectations as a result of the plan change effective April 1, 2024. Impact on Net OPEB Liability is included as part of the plan change impact on page 8.
- The life expectancy table used for the calculation of sick leave credit in retirement was updated as a result of the plan change effective April 1, 2024. Impact on Net OPEB Liability is included as part of the plan change impact on page 8.

Section VI. Glossary

Actuarial Assumptions

Estimates or projections of future plan experience such as investment return, expected lifetimes and the likelihood of receiving OPEB from the OPEB plan. Demographic, or "people" assumptions include rates of mortality, retirement, and separation. Economic, or "money" assumptions, include expected investment return, inflation and salary increases. Assumptions of a long-term nature are representative of average expectations (i.e., they will not be exactly realized in every year, however over an extended period is a reasonable projection of future outcomes).

Actuarial or Experience Gain or Loss

A measure of the difference between actual experience and experience anticipated by a set of Actuarial Assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used. Such gains or losses are not actual economic gains or losses immediately incurred by a plan, as experience in future years could offset the effect of experience in a single year due to the typically long-term average nature of actuarial assumptions.

Actuarially Determined Contribution:

For Plans with irrevocable trusts, the recommended contribution to the Plan (determined in conformity with Actuarial Standards of Practice) that is projected to result in assets equaling the actuarial accrued liability within a period of time.

Covered Group:

Plan members included in an actuarial valuation.

Discount Rate:

The rate used to adjust a series of future payments to reflect the time value of money.

Election Rate:

The percentage of retiring employees assumed to elect coverage.

Employer's Contributions:

Contributions made in relation to the actuarially determined contributions of the employer. An employer has made a contribution in relation to the actuarially determined contribution if the employer has (a) made payments of benefits directly to or on behalf of a retiree or beneficiary, (b) made premium payments to an insurer, or (c) irrevocably transferred assets to a trust, or an equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.

Entry Age Normal Funding Method:

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit.

Funded Ratio:

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Section VI. Glossary

Healthcare Cost Trend Rate:

The rate of change in per capita health claim costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.

OPEB Plan:

An OPEB plan having terms that specify the amount of benefits to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).

Other Post-Employment Benefits:

Post-employment benefits other than pension benefits. Other post-employment benefits (OPEB) include post-employment healthcare benefits, life insurance, regardless of the type of plan that provides them, and all post-employment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Other Post-Employment Benefits:

Post-employment benefits other than pension benefits. Other post-employment benefits (OPEB) include post-employment healthcare benefits, life insurance, regardless of the type of plan that provides them, and all post-employment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Pay-as-you-go (PAYGO):

A method of financing a benefit plan under which the contributions to the plan are generally made at about the same time and in about the same amount as benefit payments and expenses becoming due.

Payroll Growth Rate:

An actuarial assumption with respect to future increases in total covered payroll attributable to inflation; used in applying the level percentage of projected payroll amortization method.

Plan Liabilities:

Obligations payable by the plan at the reporting date, including, primarily, benefits and refunds due and payable to plan members and beneficiaries, and accrued investment and administrative expenses. Plan liabilities do not include actuarial accrued liabilities for benefits that are not due and payable at the reporting date.

Plan Members:

The individuals covered by the terms of an OPEB plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.

Post-employment:

The period between termination of employment and retirement as well as the period after retirement.

Section VI. Glossary

Post-employment Healthcare Benefits:

Medical, dental, vision, and other health-related benefits provided to terminated or retired employees and their dependents and beneficiaries.

Select and Ultimate Rates:

Actuarial assumptions that contemplate different rates for successive years. Instead of a single assumed rate with respect to, for example, the investment return assumption, the actuary may apply different rates for the early years of a projection and a single rate for all subsequent years. For example, if an actuary applies an assumed investment return of 8% for year 2000, 7.5% for 2001, and 7% for 2002 and thereafter, then 8% and 7.5% are select rates, and 7% is the ultimate rate.

Service Cost:

That portion of the Actuarial Present Value of plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Valuation Date:

The as-of date for employee census data. Under GASB 75, the valuation date must be within 30 months of the last day of the fiscal year.

Appendix 1. GASB 74/GASB 75 Disclosure

Change in Net OPEB Liability

	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balance as of June 30, 2023 for FYE 2024	$116,221,408	$65,553,482	$50,667,926
Changes for the Year			
Service Cost	3,325,153		3,325,153
Interest	7,374,034		7,374,034
Changes of Benefit Terms	426,223		426,223
Experience Losses/(Gains)	3,253,466		3,253,466
Trust Contribution - Employer		6,910,000	(6,910,000)
Net Investment Income		9,931,293	(9,931,293)
Changes in Assumptions	(24,460)		(24,460)
Benefit Payments (net of retiree contributions)	(5,895,698)	(5,895,698)	0
Administrative Expense		(14,000)	14,000
Net Changes	8,458,718	10,931,595	(2,472,877)
Balance as of June 30, 2024 for FYE 2025	**$124,680,126**	**$76,485,077**	**$48,195,049**
Funded status		61.35%	

Appendix 1. GASB 74/GASB 75 Disclosure

OPEB Expense - Required by GASB 75

1. Service Cost	$	3,325,153
2. Interest		7,374,034
3. Projected Earnings on OPEB Trust		(4,293,486)
4. OPEB Administrative Expense		14,000
5. Changes in Benefit Terms		426,223
6. Differences Between Expected and Actual Earnings		
In Current Fiscal Year Recognized in Current Year		(1,127,561)
From Past Years Recognized in Current Year		(47,786)
Total		(1,175,347)
7. Differences Between Expected and Actual Experience		
In Current Fiscal Year Recognized in Current Year		542,244
From Past Years Recognized in Current Year		612,525
Total		1,154,769
8. Changes in Assumptions		
In Current Fiscal Year Recognized in Current Year		(4,077)
From Past Years Recognized in Current Year		1,200,013
Total		1,195,936
9. Total OPEB Expense	**$**	**8,021,282**

Appendix 1. GASB 74/GASB 75 Disclosure

Sensitivity of Total and Net OPEB Liability - Required by GASB74/GASB 75

The following table presents New York State Teachers' Retirement System's Total and Net OPEB liability. We also present the Total and Net OPEB liability if it is calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher.

Measurement Date: June 30, 2024	1% Decrease	Baseline	1% Increase
Discount Rate	5.50%	6.50%	7.50%
Total OPEB Liability	$141,571,036	$124,680,126	$110,782,636
Net OPEB Liability/(Asset)	$65,085,959	$48,195,049	$34,297,559

The following table presents New York State Teachers' Retirement System's Total and Net OPEB liability. We also present the Total and Net OPEB liability if it is calculated using a health care cost trend rate that is 1 percentage point lower or 1 percentage point higher.

Measurement Date: June 30, 2024	1% Decrease	Baseline	1% Increase
Ultimate Trend	3.04%	4.04%	5.04%
Total OPEB Liability	$107,495,365	$124,680,126	$146,365,727
Net OPEB Liability/(Asset)	$31,010,288	$48,195,049	$69,880,650

Appendix 1. GASB 74/GASB 75 Disclosure

Deferred Inflows/Outflows of Resources Related to OPEB - Required by GASB 75

For the fiscal year ended June 30, 2025, New York State Teachers' Retirement System recognized an OPEB expense of $8,021,282. At June 30, 2025, New York State Teachers' Retirement System reported deferred outflows of resources and deferred inflows of resources related to the OPEB plan from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 4,189,537	$ -
Changes of assumptions	3,791,994	836,917
Net difference between projected and actual earnings on OPEB plan investments	-	3,200,282
Employer contribution subsequent to measurement date	6,804,000	
Total	**$ 14,785,531**	**$ 4,037,199**

$6,804,000 reported as deferred outflows of resources related to OPEB resulting from employer contributions subsequent to measurement date will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2026.

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the OPEB plan will be recognized in the expense as follows:

Fiscal Year Ended June 30	Measurement Date	Earnings (Inflow)/Outflow
2026	6/30/2025	$ 839,124
2027	6/30/2026	2,403,445
2028	6/30/2027	(179,343)
2029	6/30/2028	342,935
2030	6/30/2029	538,171
Thereafter	6/30/2030 and after	-

Appendix 1. GASB 74/GASB 75 Disclosure

Schedule of Differences between Projected and Actual Earnings on OPEB Plan Investments

In conformity with paragraph 86b of Statement 75, the effects of differences between projected and actual earnings on OPEB plan investments are recognized in collective OPEB expense using a systematic and rational method over a closed five-year period, beginning in the current reporting period. The following table illustrates the application of this requirement.

			Increase (Decrease) in OPEB Expense Arising from the Recognition of Differences between Projected and Actual Earnings on OPEB Plan Investments									
Year	Differences between Projected and Actual Earnings on OPEB Plan Investments	Recognition Period (Years)	Prior	2021	2022	2023	2024	2025	2026	2027	2028	2029
Prior	$ (997,263)		$ (328,224)	(199,452)	(199,452)	(199,453)	(70,682)					
2021	444,807	5.00		$ 88,961	88,961	88,961	88,961	88,963				
2022	(11,253,404)	5.00			$ (2,250,681)	(2,250,681)	(2,250,681)	(2,250,681)	(2,250,680)			
2023	13,905,782	5.00				$ 2,781,156	2,781,156	2,781,156	2,781,156	2,781,158		
2024	(3,336,118)	5.00					$ (667,224)	(667,224)	(667,224)	(667,224)	(667,222)	
2025	(5,637,807)	5.00						$ (1,127,561)	(1,127,561)	(1,127,561)	(1,127,561)	(1,127,563)
Net increase (decrease) in OPEB expense			**$ (328,224)**	**$ (110,491)**	**$ (2,361,172)**	**$ 419,983**	**$ (118,470)**	**$ (1,175,347)**	**$ (1,264,309)**	**$ 986,373**	**$ (1,794,783)**	**$ (1,127,563)**

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Projected and Actual Earnings on OPEB Plan Investments

				Balances at June 30, 2024	
Year	Investment Earnings Less than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in OPEB Expense Through June 30, 2024 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	$ -	$ 997,263	$ 997,263	$ -	$ -
2021	444,807	-	444,807	-	-
2022	-	11,253,404	9,002,724	-	2,250,680
2023	13,905,782	-	8,343,468	5,562,314	-
2024	-	3,336,118	1,334,448	-	2,001,670
2025	-	5,637,807	1,127,561	-	4,510,246
				$ 5,562,314	**$ 8,762,596**

Appendix 1. GASB 74/GASB 75 Disclosure

Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 86a of Statement 75, the effects of differences between expected and actual experience are recognized in collective OPEB expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with OPEB through the OPEB plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

			Increase (Decrease) in OPEB Expense Arising from the Recognition of Differences between Expected and Actual Experience												
Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Prior	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Thereafter
Prior	$ (3,007,759)		$ (832,220)	(483,999)	(483,999)	(483,999)	(483,999)	(212,388)	(27,155)						
2020	714,079	6.00		$ 119,013	119,013	119,013	119,013	119,013	119,014						
2021	79,202	6.00			$ 13,200	13,200	13,200	13,200	13,200	13,202					
2022	1,259,391	6.00				$ 209,899	209,899	209,899	209,899	209,899	209,896				
2023	869,679	6.00					$ 144,947	144,947	144,947	144,947	144,947	144,944			
2024	915,720	6.00						$ 152,620	152,620	152,620	152,620	152,620	152,620		
2025	3,253,466	6.00							$ 542,244	542,244	542,244	542,244	542,244	542,246	-
Net increase (decrease) in OPEB expense			**$ (832,220)**	**$ (364,986)**	**$ (351,786)**	**$ (141,887)**	**$ 3,060**	**$ 427,291**	**$ 1,154,769**	**$ 1,062,912**	**$ 1,049,707**	**$ 839,808**	**$ 694,864**	**$ 542,246**	**$ -**

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

				Balances at June 30, 2024	
Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in OPEB Expense Through June 30, 2024 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	$ -	$ 3,007,759	$ 3,007,759	$ -	$ -
2020	714,079	-	714,079	-	-
2021	79,202	-	66,000	13,202	-
2022	1,259,391	-	839,596	419,795	-
2023	869,679	-	434,841	434,838	-
2024	915,720	-	305,240	610,480	-
2025	3,253,466	-	542,244	2,711,222	-
				$ 4,189,537	**$ -**

Appendix 1. GASB 74/GASB 75 Disclosure

Schedule of Changes of Assumptions

In conformity with paragraph 86a of Statement 75, the effects of changes of assumptions should be recognized in OPEB expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with OPEB through the OPEB plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

			Increase (Decrease) in OPEB Expense Arising from the Effects of Changes of Assumptions											
Year	Changes of Assumptions	Recognition Period (Years)	Prior	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Thereafter
Prior	$ (6,727,058)		$ (2,022,303)	(1,081,976)	(1,081,976)	(1,081,976)	(1,081,976)	(348,523)	(28,328)						
2020	1,102,479	6.00		$ 183,747	183,747	183,747	183,747	183,747	183,744						
2021	4,038,931	6.00			$ 673,155	673,155	673,155	673,155	673,155	673,156					
2022	(2,449,602)	6.00				$ (408,267)	(408,267)	(408,267)	(408,267)	(408,267)	(408,267)				
2023	-	6.00					$ -	-	-	-	-	-			
2024	4,678,256	6.00						$ 779,709	779,709	779,709	779,709	779,709	779,711		
2025	(24,460)	6.00							$ (4,077)	(4,077)	(4,077)	(4,077)	(4,077)	(4,075)	-
Net increase (decrease) in OPEB expense			**$ (2,022,303)**	**$ (898,229)**	**$ (225,074)**	**$ (633,341)**	**$ (633,341)**	**$ 879,821**	**$ 1,195,936**	**$ 1,040,521**	**$ 367,365**	**$ 775,632**	**$ 775,634**	**$ (4,075)**	**$ -**

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions

				Balances at June 30, 2024	
Year	Increases in the Total OPEB Liability (a)	Decreases in the Total OPEB Liability (b)	Amounts Recognized in OPEB Expense Through June 30, 2024 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	$ -	$ 6,727,058	$ 6,727,058	$ -	$ -
2020	1,102,479	-	1,102,479	-	-
2021	4,038,931	-	3,365,775	673,156	-
2022	-	2,449,602	1,633,068	-	816,534
2023	-	-	-	-	-
2024	4,678,256	-	1,559,418	3,118,838	-
2025	-	24,460	4,077	-	20,383
				$ 3,791,994	**$ 836,917**

Appendix 1. GASB 74/GASB 75 Disclosure

Schedule of Changes in the Total Liability and Related Ratios - Required by both GASB 74 and GASB 75

Changes in Employer's Net OPEB Liability and Related Ratios
Last 10 Fiscal Years
Information for FYE 2016 and earlier is not available

Disclosure for Fiscal Year Ending:	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Measurement Date:	6/30/2024	6/30/2023	6/30/2022	6/30/2021	6/30/2020	6/30/2019	6/30/2018	6/30/2017	6/30/2016	6/30/2015
Total OPEB liability										
Service Cost	$ 3,325,153	$ 3,375,953	$ 3,069,185	$ 2,984,622	$ 2,914,852	$ 2,907,107	$ 2,604,313	$ 2,490,519	$ 2,579,474	$ -
Interest Cost	7,374,034	6,958,495	6,587,914	6,585,821	6,621,826	6,168,584	5,747,125	5,959,407	5,589,288	-
Changes in Benefit Terms	426,223	(622,395)	-	-	(9,789,000)	-	6,211,000	-	-	-
Differences Between Expected and Actual Experience	3,253,466	915,720	869,679	1,259,391	79,202	714,079	(841,844)	(2,165,915)	399,912	-
Changes of Assumptions	(24,460)	4,678,256	-	(2,449,602)	4,038,931	1,102,479	(878,222)	(5,848,836)	-	-
Benefit Payments	(5,895,698)	(5,439,240)	(4,834,885)	(4,527,278)	(4,412,579)	(3,965,315)	(3,756,945)	(3,412,013)	(2,979,914)	-
Net Change in Total OPEB Liability	8,458,718	9,866,789	5,691,893	3,852,954	(546,768)	6,926,934	9,085,427	(2,976,838)	5,588,760	-
Total OPEB liability - Beginning of Year	116,221,408	106,354,619	100,662,726	96,809,772	97,356,540	90,429,606	81,344,179	84,321,017	78,732,257	-
Total OPEB Liability - End of Year	124,680,126	116,221,408	106,354,619	100,662,726	96,809,772	97,356,540	90,429,606	81,344,179	84,321,017	-

Plan Fiduciary Net Position
Last 10 Fiscal Years
Information for FYE 2016 and earlier is not available

Disclosure for Fiscal Year Ending:	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Measurement Date:	6/30/2024	6/30/2023	6/30/2022	6/30/2021	6/30/2020	6/30/2019	6/30/2018	6/30/2017	6/30/2016	6/30/2015
Contributions - Employer	$ 6,910,000	$ 6,394,396	$ 6,000,000	$ 6,261,000	$ 6,004,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ -
Net Investment Income	9,931,293	7,104,701	(9,584,492)	14,534,551	2,672,787	3,155,344	3,212,503	4,212,256	382,144	-
Benefit Payments (net of retiree contributions)	(5,895,698)	(5,439,240)	(4,834,885)	(4,527,278)	(4,412,579)	(3,965,315)	(3,756,945)	(3,412,013)	(2,979,914)	-
Administrative Expense	(14,000)	(14,000)	56,365	(19,915)	(65,585)	(18,575)	(53,435)	(15,000)	(12,700)	-
Net Change in Fiduciary Net Position	10,931,595	8,045,857	(8,363,012)	16,248,358	4,198,623	4,671,454	4,902,123	6,285,243	2,889,530	-
Fiduciary Net Position - Beginning of Year	65,553,482	57,507,625	65,870,637	49,622,279	45,423,656	40,752,202	35,850,079	29,564,836	26,675,306	-
Fiduciary Net Position - End of Year	76,485,077	65,553,482	57,507,625	65,870,637	49,622,279	45,423,656	40,752,202	35,850,079	29,564,836	-
Net OPEB Liability	48,195,049	50,667,926	48,846,994	34,792,089	47,187,493	51,932,884	49,677,404	45,494,100	54,756,181	-
Fiduciary Net Position as a % of Total OPEB Liability	61.35%	56.40%	54.07%	65.44%	51.26%	46.66%	45.07%	44.07%	35.06%	
Covered-Employee Payroll[1]	$ 35,991,668	$ 35,579,229	$ 35,423,191	$ 33,142,258	$ 32,124,845	$ 31,189,170	$ 30,682,745	$ 29,752,583	$ 29,087,397	$ 26,506,965
Net OPEB Liability as a Percentage of Covered Employee Payroll[1]	133.91%	142.41%	137.90%	104.98%	146.89%	166.51%	161.91%	152.91%	188.25%	0.00%
Expected Average Remaining Service Years of All Participants	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.20	N/A	-

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Notes to Schedule:

The discount rate was changed as follows:										
The discount rate changes year-to-year:	6.50%	6.50%	6.50%	6.50%	6.75%	6.75%	6.75%	7.00%	8.00%	N/A

1/ This row has been populated because we have salary information available to use.

Appendix 1. GASB 74/GASB 75 Disclosure

Schedule of Changes in the Actuarially Determined Contribution and Related Ratios - Required by both GASB 74 and GASB 75

Schedule of Employer Contributions
Last 10 Fiscal Years
Information for FYE 2015 and earlier is not available

FYE	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Actuarially Determined Contribution	$ 6,910,026	$ 6,394,396	$ 5,339,856	$ 5,822,056	$ 5,957,868	$ 5,349,375	$ 5,278,747	$ 5,374,220	$ 4,782,000	$ 4,542,000
Contributions in Relation to the Actuarially Determined Contribution	6,910,000	6,394,396	6,000,000	6,261,000	6,004,000	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000
Contribution Deficiency (Excess)	$ 26	$ -	$ (660,144)	$ (438,944)	$ (46,132)	$ (150,625)	$ (221,253)	$ (125,780)	$ (718,000)	$ (958,000)
Covered-Employee Payroll[1]	$ 35,579,229	$ 35,423,191	$ 33,142,258	$ 32,124,845	$ 31,189,170	$ 30,682,745	$ 29,752,583	$ 29,087,397	$ 26,506,965	$ 25,556,000
Contributions as a Percentage of Covered Employee Payroll[1]	19.42%	18.05%	18.10%	19.49%	19.25%	17.93%	18.49%	18.91%	20.75%	21.52%

1/ This row has been populated because we have salary information available to use.

Appendix 2. Discount Rate Determination

Table 1 - Projection of Employer Contributions

Fiscal Year Ending	Projected Contributions Total NYSTRS Contribution (a)	Contributions For Future Employees (b)	Contributions For Current Participants (c) = (a) - (b)
2025	$ 6,764,603	$ 292,814	$ 6,471,789
2026	$ 7,034,536	$ 556,587	$ 6,477,949
2027	$ 7,289,170	$ 846,672	$ 6,442,498
2028	$ 7,554,716	$ 1,141,426	$ 6,413,290
2029	$ 7,834,614	$ 1,435,090	$ 6,399,524
2030	$ 8,134,333	$ 1,735,089	$ 6,399,244
2031	$ 8,438,981	$ 2,043,761	$ 6,395,220
2032	$ 8,774,259	$ 2,348,875	$ 6,425,384
2033	$ 9,105,347	$ 2,667,110	$ 6,438,237
2034	$ 9,470,332	$ 3,007,844	$ 6,462,488
2035	$ 9,835,790	$ 3,352,492	$ 6,483,298
2036	$ 10,227,722	$ 3,696,984	$ 6,530,738
2037	$ 10,637,356	$ 4,047,233	$ 6,590,123
2038	$ 11,057,989	$ 4,410,858	$ 6,647,131
2039	$ 11,494,571	$ 4,785,815	$ 6,708,756
2040	$ 11,956,664	$ 5,187,012	$ 6,769,652
2041	$ 12,435,539	$ 5,603,899	$ 6,831,640
2042	$ 12,931,217	$ 6,040,659	$ 6,890,558

Note: Years subsequent to 2042 have been omitted from this table.

Appendix 2. Discount Rate Determination

Table 2 - Projection of OPEB Plan's Fiduciary Net Position

Fiscal Year Ending	Projected Beginning Fiduciary Net Position (a)	Projected Contributions For Current Participants[1] (b)	Projected Benefit Payments (c)	Projected Investment Earnings (d)	Projected Ending Fiduciary Net Position (e) = (a) + (b) - (c) + (d)
2025	$ 76,485,077	$ 6,471,789	$ 5,783,438	$ 4,993,901	$ 82,167,329
2026	$ 82,167,329	$ 6,477,949	$ 6,353,605	$ 5,344,918	$ 87,636,591
2027	$ 87,636,591	$ 6,442,498	$ 6,883,963	$ 5,682,031	$ 92,877,156
2028	$ 92,877,156	$ 6,413,290	$ 7,336,858	$ 6,006,999	$ 97,960,588
2029	$ 97,960,588	$ 6,399,524	$ 7,568,897	$ 6,329,434	$ 103,120,648
2030	$ 103,120,648	$ 6,399,244	$ 7,983,265	$ 6,651,361	$ 108,187,988
2031	$ 108,187,988	$ 6,395,220	$ 8,206,235	$ 6,973,361	$ 113,350,335
2032	$ 113,350,335	$ 6,425,384	$ 8,609,963	$ 7,296,773	$ 118,462,528
2033	$ 118,462,528	$ 6,438,237	$ 8,969,663	$ 7,617,793	$ 123,548,895
2034	$ 123,548,895	$ 6,462,488	$ 9,358,002	$ 7,936,574	$ 128,589,955
2035	$ 128,589,955	$ 6,483,298	$ 9,828,278	$ 8,249,635	$ 133,494,611
2036	$ 133,494,611	$ 6,530,738	$ 9,910,952	$ 8,567,293	$ 138,681,689
2037	$ 138,681,689	$ 6,590,123	$ 10,365,310	$ 8,891,616	$ 143,798,118
2038	$ 143,798,118	$ 6,647,131	$ 10,753,306	$ 9,213,427	$ 148,905,370
2039	$ 148,905,370	$ 6,708,756	$ 11,164,526	$ 9,534,037	$ 153,983,637
2040	$ 153,983,637	$ 6,769,652	$ 11,640,611	$ 9,850,630	$ 158,963,307
2041	$ 158,963,307	$ 6,831,640	$ 11,818,275	$ 10,170,549	$ 164,147,222
2042	$ 164,147,222	$ 6,890,558	$ 12,164,145	$ 10,498,178	$ 169,371,812
2043	$ 169,371,812	$ 6,996,153	$ 12,248,972	$ 10,838,451	$ 174,957,445
2044	$ 174,957,445	$ 7,105,445	$ 12,664,583	$ 11,191,562	$ 180,589,869
2045	$ 180,589,869	$ 7,214,963	$ 12,850,870	$ 11,555,175	$ 186,509,137
2046	$ 186,509,137	$ 7,340,347	$ 13,208,770	$ 11,932,370	$ 192,573,084
2047	$ 192,573,084	$ 7,454,261	$ 13,386,746	$ 12,324,445	$ 198,965,044

Note: Years subsequent to 2047 have been omitted from the table.

[1] From Table 1, Column (c), note that the amounts decrease because the normal cost for future hires is subtracted from the total contribution.

Appendix 2. Discount Rate Determination

Table 3 - Actuarial Value of Projected Benefit Payments

Fiscal Year Ending	Projected Beginning Fiduciary Net Position[1] (a)	Projected Benefit Payments (b)	"Funded" Portion of Benefit Payments (c)	"Unfunded" Portion of Benefit Payments (d)	Present Value of "Funded" Benefit Payments (e) = (c) / (1 + 6.5%)^(year-2024-0.5)		Present Value of "Unfunded" Benefit Payments (f) = (d) / (1 + 3.97%)^(year-2024-0.5)		Present Value of Benefit Payments Using the Single Discount Rate (g) = (b) / (1 + 6.5%)^(year-2024-0.5)
2025	$ 76,485,077	$ 5,783,438	$ 5,783,438	$ -	$ 5,604,170		$ -		$ 5,604,170
2026	$ 82,167,329	$ 6,353,605	$ 6,353,605	$ -	$ 5,780,905		$ -		$ 5,780,905
2027	$ 87,636,591	$ 6,883,963	$ 6,883,963	$ -	$ 5,881,180		$ -		$ 5,881,180
2028	$ 92,877,156	$ 7,336,858	$ 7,336,858	$ -	$ 5,885,542		$ -		$ 5,885,542
2029	$ 97,960,588	$ 7,568,897	$ 7,568,897	$ -	$ 5,701,109		$ -		$ 5,701,109
2040	$ 153,983,637	$ 11,640,611	$ 11,640,611	$ -	$ 4,385,881		$ -		$ 4,385,881
2041	$ 158,963,307	$ 11,818,275	$ 11,818,275	$ -	$ 4,181,052		$ -		$ 4,181,052
2042	$ 164,147,222	$ 12,164,145	$ 12,164,145	$ -	$ 4,040,764		$ -		$ 4,040,764
2043	$ 169,371,812	$ 12,248,972	$ 12,248,972	$ -	$ 3,820,603		$ -		$ 3,820,603
2121	$ 5,297,355,724	$ 2	$ 2	$ -	$ 0		$ -		$ 0
2122	$ 5,655,889,389	$ -	$ -	$ -	$ -		$ -		$ -
2123	$ 6,038,330,305	$ -	$ -	$ -	$ -		$ -		$ -
Total					**$ 149,669,254**	**+**	**$ -**	**=**	**$ 149,669,254**

Note: Years 2030-2039 and years 2044-2120 have been omitted from this table but included in the totals.
Note: 6.5% was selected so that the Present Value of Benefits would equal the sum of columns (f) and (g).

[1] From Table 2, Column (a)

Appendix 3. Long-Term Expected Rate of Return Assumption Rationale

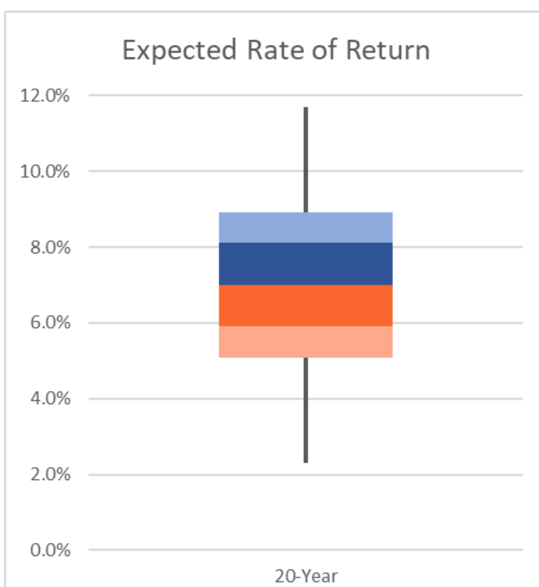
Our reasonable range is within the 35th and 65th percentiles of the 20-year geometric expected rate of return based on the 2023 Horizon Survey of Capital Market Assumptions and the OPEB Trust Target Asset Allocation. 6.50% falls within the 35th and 50th percentiles and therefore is an acceptable assumption.

Target Asset Allocation

Asset Class	Target Allocation
US Equity – Large Cap	37.50%
US Equity – Small/Mid Cap	12.50%
Non-US Equity – Developed	21.25%
Non-US Equity – Emerging	3.75%
US Corp Bonds – Core	7.50%
US Treasuries (Cash Equivalent)	17.50%

Expected 20-Year Geometric Long-Term Investment Rate of Return

Percentile	Return
95th	11.70%
75th	8.93%
65th	8.11%
50th	7.01%
35th	5.91%
25th	5.08%
5th	2.31%



Appendix 4. Schedule of Investment Returns

FYE	Annual Money-Weighted Rate of Return, Net of Investment Expenses
2014	17.1%
2015	2.9%
2016	1.3%
2017	13.1%
2018	8.8%
2019	7.6%
2020	5.8%
2021	28.8%
2022	-14.4%
2023	12.3%
2024	15.1%

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM

MEMORANDUM

TO: T. Lee

FROM: Office of the CFO / Finance Department

DATE: October 30, 2024

SUBJECT: Retirement Board Package - OPEB Trust

Attached are the quarterly OPEB Trust financial statements and related supplemental schedule for the quarters ended September 30, 2024 and 2023.

The following is a list of the documents included:

1. Statements of Fiduciary Net Position (unaudited)
2. Statements of Changes in Fiduciary Net Position (unaudited)
3. Diversification of Investments
4. Fund Performance

New York State Teachers' Retirement System Retired Employee Health Benefits Trust
(Administered by New York State Teachers' Retirement System)
Statements of Fiduciary Net Position (Unaudited)

September 30, 2024 and 2023

	2024	2023
Assets:		
Investments at fair value:		
Cash equivalents	$ 164,563	$ 181,615
Mutual funds	81,343,651	63,489,148
Total investments	81,508,214	63,670,763
Total assets	**86,611,214**	**68,853,283**
Liabilities:		
Accounts payable	19,650	29,633
Total liabilities	19,650	29,633
Net position restricted for other postemployment health benefits	**$ 86,591,564**	**$ 68,823,650**

New York State Teachers' Retirement System Retired Employee Health Benefits Trust
(Administered by New York State Teachers' Retirement System)
Statements of Changes in Fiduciary Net Position (Unaudited)

For the three months ending September 30, 2024 and 2023

	2024	2023
Additions:		
Investment income:		
Net increase (decrease) in fair value of investments	$ 4,472,364	$ (2,570,134)
Dividends	402,139	348,678
Net investment income (loss)	4,874,503	(2,221,456)
Contributions:		
Employer	6,804,000	6,910,026
Total contributions	6,804,000	6,910,026
Total additions	11,678,503	4,688,570
Deductions:		
Other postemployment benefit payments	1,552,366	1,388,769
Professional fees and services	19,650	29,633
Total deductions	1,572,016	1,418,402
Net increase	10,106,487	3,270,168
Net position restricted for other postemployment health benefits		
Beginning of year	76,485,077	65,553,482
End of period	**$ 86,591,564**	**$ 68,823,650**

Office of the CFO/ Finance Department
October 30, 2024

New York State Teachers' Retirement System Retired Employee Health Benefits Trust
(Administered by New York State Teachers' Retirement System)
Diversification of Investments

September 30, 2024 and 2023

Investment Type*	2024	Percent	2023	Percent	Increase (Decrease)	Target Percent
Short-term:						
Federal Money Market Fund	$ 164,563	0.20	$ 181,615	0.29	$ (17,052)	1.00
Domestic fixed income securities:						
Total Bond Market Index Institutional Fund	20,083,536	24.64	15,919,944	25.00	4,163,592	24.00
Domestic equities:						
Total Stock Market Index Institutional Fund	40,612,354	49.83	31,807,752	49.96	8,804,602	50.00
International equities:						
International Stock Index Institutional Fund	20,647,761	25.33	15,761,452	24.75	4,886,309	25.00
Total investments	**$ 81,508,214**	**100.00**	**$ 63,670,763**	**100.00**	**$ 17,837,451**	**100.00**

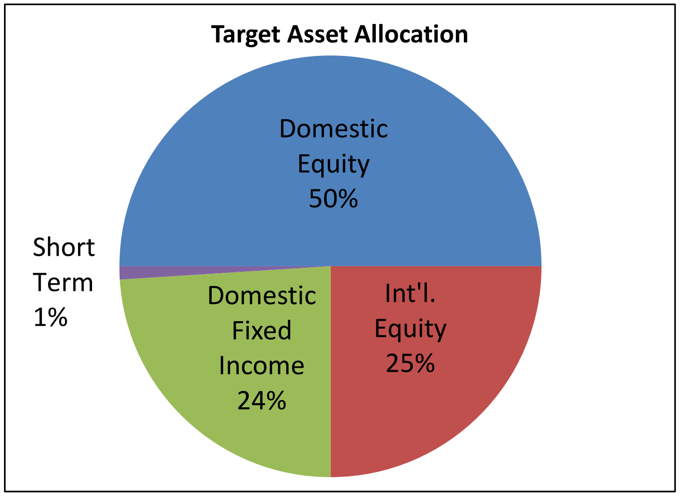
*All investments are held with Vanguard

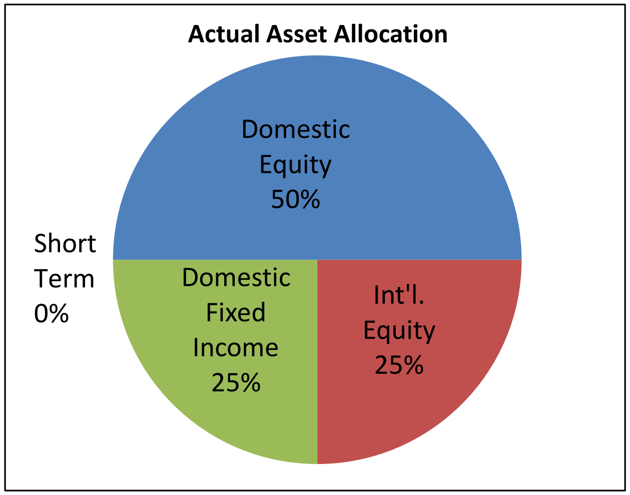
Office of the CFO/ Finance Department
October 30, 2024

New York State Teachers' Retirement System
Retired Employee Health Benefits Trust
as of September 30, 2024

Fund Performance[1]

	Market Value	Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	Inception Return	Inception Date
Domestic Equity[2]	$ 40,612,354	6.17%	6.17%	35.26%	10.11%	14.75%	12.76%	10.88%	4/30/2008
CRSP US Total Market[3]		6.18%	6.18%	35.23%	10.11%	14.75%	12.78%	10.89%	
International Equity[4]	$ 20,647,761	8.03%	8.03%	24.92%	4.03%	7.77%	5.45%	3.27%	4/30/2008
FTSE Global All Cap ex US[5]		8.39%	8.39%	25.22%	4.09%	7.66%	5.26%	3.08%	
Domestic Fixed Income	$ 20,083,536	5.07%	5.07%	11.41%	-1.42%	0.32%	1.83%	2.88%	4/30/2008
Bloomberg Cap. US Agg. Float Adj.		5.13%	5.13%	11.47%	-1.38%	0.36%	1.87%	2.94%	
Short Term	$ 164,563	1.28%	1.28%	5.39%	3.58%	2.31%	1.62%	1.40%	4/30/2008
iMoney Net Money Fund Avg/Taxable		1.24%	1.24%	5.12%	3.32%	2.12%	1.42%	0.95%	
Total Portfolio	$ 81,508,214	6.37%	6.37%	26.30%	5.76%	9.48%	8.21%	7.91%	4/30/2008





Footnotes:

[1]Returns for periods greater than 1 year are annualized. All returns are time-weighted rates of return and reflect the deduction of fund expense ratios, purchase or redemption fees, and any advisory service fees.

[2]Effective 5/31/21, the Domestic Equity portfolio was transferred from the Institutional Index fund to the Vanguard Total Stock Market Index fund.

[3]S&P 500 Index through 5/31/21, and the CRSP US Total Market Index thereafter.

[4]The Benchmark for the Vanguard Total International Stock Index Fund was the MSCI EAFE + Emerging Markets Index through 12/15/2010; MSCI ACWI ex USA IMI Index through 6/2/2013; and FTSE Global All Cap ex US Index thereafter.

[5]MSCI EAFE Index through 10/31/11, MSCI ACWI Ex-US Index through 5/31/21, and the FTSE Global All Cap ex US Index thereafter.

Appendix C

New York State Teachers' Retirement System Retired Employee Health Benefits Trust

Health Benefits Trust Audit Presentation

October 30, 2024

Introductions

Jean Young, CPA

Co-engagement Partner

Manju Patnaik, CPA

Senior Manager

Agenda

- ✓ Audit timeline and deliverables
- ✓ Audit scope
- ✓ Required communications
- ✓ Questions

Audit timeline and deliverables

Audit timeline:

- January/May 2024 – Initiated planning procedures and risk assessment phase
- May/July 2024 – Performed interim procedures
- July/October 2024 – Performed year end audit procedures, including review of financial statements
- October 30, 2024 – Issuance of audit opinion

Deliverables:

- NYSTRS' Health Benefits Trust Audited Financial Statement Opinion as of and for the year ended June 30, 2024
- Required Communications with the Board

Audit scope

Scope of work	• Audit of the financial statements for NYSTRS Health Benefits Trust as of and for the year ended June 30, 2024
Financial reporting framework	• U.S. Generally Accepted Accounting Principles (GAAP)
Auditing standards	• We perform our audit in accordance with: ○ Auditing standards generally accepted in the United States of America
Independence	• We are independent of NYSTRS Health Benefits Trust under all relevant professional and regulatory standards
Audit areas of focus	• Investment valuations • Census data testing • Actuarial assumptions and actuarial calculations • Accuracy of benefit calculations and related payments • Financial reporting

Required communications

Our responsibility under Generally Accepted Auditing Standards	• Express an opinion on whether the financial statements are fairly presented in conformity with U.S. GAAP • Plan and perform the audit to obtain reasonable, not absolute, assurance that the financial statements are free of material misstatement • Planning our audit includes obtaining an understanding of internal controls over financial reporting • The extent, timing, and nature of our procedures is determined based on risk assessments and our understanding of control and inherent risks to enable us to express an opinion on the financial statements • Communicate significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process • Evaluate Trust's ability to continue as a going concern
Management's responsibilities	• Financial statements • Selection and use of appropriate accounting policies • Adopting and maintaining sound internal controls • Evaluate Trust's ability to continue as a going concern

Opinion	• Expect unmodified opinion for the year ended June 30, 2024
	  ○ Free from material misstatement
	  ○ Highest level of assurance you can obtain

Required communications

Significant accounting policies	• Note 2 to the financial statements • No significant or unusual transactions occurred
Significant accounting estimates	• Assumptions utilized in the GASB 74 actuarial valuation, including long-term expected rate of return, mortality assumptions, and health care cost trend rates • No changes in methodology • We evaluated key factors and assumptions used • Estimates are reasonable
Significant disclosures	• None

Required communications

Reportable control deficiencies	• No material weaknesses or significant deficiencies in internal control over financial reporting identified
Disagreements or difficulties with management	• None
Corrected and uncorrected misstatements	• None
Other matters	• No significant issues discussed with management prior to or during the audit • Management to provide management representation letter dated October 30, 2024 • No consultations with other accountants

Questions?

Thank you!

For more information contact:

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Jean.Young@plantemoran.com

Manju Patnaik, CPA
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Manju.Patniak@plantemoran.com

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Jake.Talarek@plantemoran.com

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Basic Financial Statements and Required Supplementary Information

June 30, 2024 and 2023

(With Independent Auditors' Report Thereon)

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Table of Contents

Independent Auditor's Report

To the Board of Trustees
New York State Teachers' Retirement System
Retired Employee Health Benefits Trust

Opinion

We have audited the financial statements of NYSTRS Health Benefits Trust (the "Trust") as of and for the years ended June 30, 2024 and 2023 and the related notes to the financial statements, which collectively comprise the Trust'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 the Trust as of June 30, 2024 and 2023 and thechanges 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 Audit of the Financial Statements* section of our report. We are required to be independent of the Trust 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 Trust'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 Audits 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 an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

To the Board of Trustees
New York State Teachers' Retirement System
Retired Employee Health Benefits Trust

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Trust'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 Trust's ability to continue as a going concern for a reasonable period of time.

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

Required Supplementary Information

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 audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

October 30, 2024

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

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 Retired Employee Health Benefits Trust (the Trust) provides an overview of its activities for the years ended June 30, 2024, 2023, and 2022. 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

- In 2024, the Trust received a contribution in the amount of $6.9 million from the New York State Teachers' Retirement System (the System) to invest and accumulate assets in order to provide health insurance benefits to retirees of the System. The contribution represents 100% of the Actuarially Determined Contribution (ADC) for fiscal year 2024. Contributions to the Trust in 2023 and 2022 were $6.4 million and $6.0 million, respectively, and represent 100% of the ADC in 2023 and 112% of the ADC in 2022.
- Total Other Postemployment Benefits (OPEB) liability as of June 30, 2024 is $124.7 million, an increase of $8.5 million from total OPEB liability of $116.2 million as of June 30, 2023. Net OPEB liability at June 30, 2024 and 2023 was $48.2 million and $50.7 million, respectively.

Overview of the Financial Statements

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

1. *The Statements of Fiduciary Net Position* present the Trust's assets and liabilities by major categories and may serve over time as a useful indicator of the Trust's financial position. The difference between assets and liabilities represents the net position restricted for other postemployment health benefits. The statement also compares assets and liabilities by class to the previous year, which offers the reader the opportunity to note changes in each class of asset and liability from year to year.

2. *The Statements of Changes in Fiduciary Net Position* provide information on the changes in the Trust's net position during the current fiscal year. The additions are derived from net appreciation in fair value of investments, investment income, and contributions from the System. Deductions include other postemployment health benefit payments and professional fees and services. For comparison purposes, information pertaining to the previous year's Statement of Changes in Fiduciary Net Position is also provided.

3. *The Notes to Basic Financial Statements* are an essential part of the financial statements. They provide important background and detailed information about the Trust, its investments, and the statements themselves.

4. *The Required Supplementary Information (RSI) and accompanying notes* consists of information pertaining to the Trust's actuarial methods and assumptions and provides data on the System's net OPEB liability, the changes in the System's net OPEB liability, the System's contributions, and the Trust's investment returns.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Management's Discussion and Analysis

June 30, 2024 and 2023

(Unaudited)

Financial Analysis

Tables 1 and 2 summarize the Trust's financial position and results for the years 2024, 2023, and 2022. The changes from year to year are due to a combination of the annual employer contribution, changes in fair value of investments, and retired employee health benefit payments.

Table 1 - Summary of Fiduciary Net Position

	June 30			Amount increase (decrease) 2023 to 2024	Percentage change of total, 2023 to 2024
	2024	2023	2022		
Investments at fair value:					
Cash equivalents	$ 105,610	$ 77,795	$ 129,594	$ 27,815	0.04 %
Mutual funds	76,379,467	65,475,687	57,378,031	10,903,780	16.63 %
Total investments	76,485,077	65,553,482	57,507,625	10,931,595	16.68 %
Total assets	76,485,077	65,553,482	57,507,625	10,931,595	16.68 %
Liabilities:					
Accounts payable	—	—	—	—	— %
Total liabilities	—	—	—	—	— %
Net position restricted for other postemployment health benefits	$ 76,485,077	$ 65,553,482	$ 57,507,625	$ 10,931,595	16.68 %

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Management's Discussion and Analysis

June 30, 2024 and 2023

(Unaudited)

As shown in Table 2, the Trust's 2024 net position increased from 2023 by $10.9 million, and 2023 net position increased from 2022 by $8.0 million. The increase in 2024 is primarily a result of investment income of $9.9 million and employer contributions of $6.9 million, offset by benefit payments of $5.9 million, The increase in 2023 is primarily a result of investment income of $7.1 million and employer contribution of $6.4 million, offset by benefit payments of $5.5 million.

Table 2 - Summary of Changes in Fiduciary Net Position

	Years ended June 30			Amount increase (decrease) 2023 to 2024	Percentage change of total, 2023 to 2024
	2024	2023	2022		
Net investment income	$ 9,931,293	$ 7,104,701	$ (9,584,492)	$ 2,826,592	4.31%
Total contributions	6,910,000	6,394,396	6,000,000	515,604	0.79
Total additions	16,841,293	13,499,097	(3,584,492)	3,342,196	5.10%
Retired employee health benefit payments	5,895,698	5,439,240	4,834,885	456,458	0.70
Professional fees and services	14,000	14,000	(56,365)	—	—
Total deductions	5,909,698	5,453,240	4,778,520	456,458	0.70
Net increase	10,931,595	8,045,857	(8,363,012)	2,885,738	4.40%
Net Position restricted for postemployment health benefits					
Beginning of year	65,553,482	57,507,625	65,870,637	8,045,857	12.27
End of year	$ 76,485,077	$ 65,553,482	$ 57,507,625	$ 10,931,595	16.68%

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Management's Discussion and Analysis

June 30, 2024 and 2023

(Unaudited)

Economic Factors

The economic factors that are of primary significance for the Trust are the annual contributions made by the System and the returns earned in the capital markets. Changes in healthcare premiums, plan provisions, actuarial assumptions, and demographic changes can also have a significant impact on the net OPEB liability and funded status of the Trust. All of these factors play a part in determining the amount the System must contribute to fund current and future retired employee benefits. The Trust's fiduciary net position as a percentage of the total OPEB liability is 61.35% as of June 30, 2024, 56.40% as of June 30, 2023 and 54.07% as of June 30, 2022.

Requests for Information

This financial report is designed to provide active members, retirees, taxpayers, and anyone else who is interested, with a general overview of the financial activities of the Trust. Questions about this report or requests for additional financial information should be addressed to the Public Information Office, New York State Teachers' Retirement System Retired Employee Health Benefits Trust, 10 Corporate Woods Drive, Albany, NY 12211 or by e-mail at communit@nystrs.org.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Statement of Fiduciary Net Position

June 30, 2024 and 2023

		2024		2023
Assets:				
Investments - at fair value (note 3, 4 and 5):				
Cash equivalents	$	105,610	$	77,795
Mutual funds		76,379,467		65,475,687
Total investments		76,485,077		65,553,482
Total assets		76,485,077		65,553,482
Liabilities:				
Accounts payable		—		—
Total liabilities		—		—
Net position restricted for other postemployment health benefits	$	76,485,077	$	65,553,482

See accompanying notes to financial statements.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Statement of Changes in Fiduciary Net Position

Years ended June 30, 2024 and 2023

	2024	2023
Additions:		
Investment income:		
Net increase in fair value of investments	$ 8,191,191	$ 5,670,563
Dividend income	1,740,102	1,434,138
Net investment income	9,931,293	7,104,701
Contributions:		
Employer	6,910,000	6,394,396
Total contributions	6,910,000	6,394,396
Total additions - net	16,841,293	13,499,097
Deductions:		
Retired employee health benefit payments	5,895,698	5,439,240
Professional fees and services	14,000	14,000
Total deductions	5,909,698	5,453,240
Net increase in net position	10,931,595	8,045,857
Net Position restricted for postemployment health benefits		
Beginning of year	65,553,482	57,507,625
End of year	$ 76,485,077	$ 65,553,482

See accompanying notes to financial statements.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Notes to Basic Financial Statements

June 30, 2024 and 2023

(1) Plan Description

The New York State Teachers' Retirement System Retired Employee Health Benefits Trust (the Trust) was created under the general laws of New York. The Trust was created in 2008 for the sole purpose of receiving irrevocable contributions from the New York State Teachers' Retirement System (the System) to provide postemployment healthcare benefits to eligible System employees who retire from the System, in accordance with the terms of the Trust. Trust assets are legally protected from creditors of the System.

The Trust is a defined-benefit, single-employer, other postemployment benefits (OPEB) plan that accumulates resources to pay current and future health insurance premiums for retired System employees. These healthcare plans are designed and administered by the New York State Health Insurance Program (NYSHIP).

The Trust is administered by a 10-member Board to provide healthcare benefits for retired System employees and their beneficiaries. The members of the Board of the Trust are the same as those of the System. The Trust's Board is composed of:

- Three teacher members elected from the active System membership
- One retired member elected by a mail vote of all retired System 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 his/her designee

As of June 30, the Trust's membership consisted of:

	2024	2023
Retired participants and their survivors currently receiving benefits	319	318
Active participants	386	371
Total	705	689

(a) Benefits

Pursuant to contractual agreement and policy, the System provides postemployment 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 NYSHIP. 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 participants to contribute to the plan. The System's Board is authorized to establish the contribution rates of System retirees below those set by Civil Service Law, and they are set as part of the collective bargaining process.

In order to be eligible for OPEB, employees must have worked for at least 10 years for the System, retire directly from System employment, and commence receipt of their pension from the New York State and Local Employees' Retirement System. Dependents may also be covered.

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June 30, 2024 and 2023

System retirees are required to contribute toward the cost of their coverage if retired on or after July 1, 1985. Post July 1, 1985 retirees are currently required to contribute an amount equal to 14% of the premium paid by the System up to the premium of the Empire Plan option. Starting January 1, 2024 the contribution requirement increases to 15%. Retiree contributions are subject to an annual maximum that varies based upon salary at retirement. Annual maximum amounts effective April 1, 2024 are:

Salary	Annual maximum amounts
Up to $40,000	$3,450
$40,001 - $60,000	$4,150
$60,001 - $90,000	$5,125
$90,001 and over	$5,625

Effective April 1, 2024, the tier structure for maximum contributions has been adjusted as follows:

Tiers	Salary at Retirement
Tier 1	Up to $60,000
Tier 2	$60,001 - $90,000
Tier 3	$90,001 and over

The Plan was modified during 2024 with the 2024-2029 Agreement between NYSTRS and the Civil Service Employees Association (CESA). All changes are included in the valuation for 2024.

The annual maximum contributions for individual health insurance coverage beginning January 1, 2025 through December 31, 2029 are as follows:

	2025	2026	2027	2028	2029
Tier 1	$1,950	$1,950	$1,950	$1,950	$1,950
Tier 2	$2,150	$2,350	$2,550	$2,750	$2,950
Tier 3	$2,625	$2,875	$3,125	$3,375	$3,625

The annual maximum contributions for family health insurance coverage beginning January 1, 2025 through December 31, 2029 are as follows:

	2025	2026	2027	2028	2029
Tier 1	$3,450	$3,450	$3,450	$3,450	$3,450
Tier 2	$5,675	$6,225	$6,775	$7,325	$7,875
Tier 3	$6,225	$6,825	$7,425	$8,025	$8,625

Employees who retire on or after April 1, 1991 are eligible to have accumulated unused sick leave up to a maximum of 185 days (165 days for management and executive employees) converted into a credit based on life expectancy to offset their contribution requirement. Starting January 1, 2021 the sick leave maximum increased to 200 days (for all employees including management and executives).

Under the plan, benefit coverage continues as survivor benefits for an eligible retiree's dependent(s) upon the death of the retiree. Surviving dependents pay 25% of the premium cost after a 3 month extended coverage period.

(b) *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 Actuarially Determined Contribution (ADC).

Contributions in 2024 were $6.9 million, which approximated 19.20% of covered payroll. Contributions in 2023 were $6.4 million, which approximated 17.97% of covered payroll.

(2) Summary of Significant Accounting Policies

(a) *Basis of Accounting*

The Trust's financial statements are prepared using the economic resource measurement focus and accrual basis of accounting and follow the provisions of Governmental Accounting Standards Board (GASB) Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans* (GASB 74). Contributions from the System are recognized when due pursuant to legal requirement. Benefits and refunds are recognized when due and payable in accordance with the terms of the Trust.

Revenue is recorded when earned, and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

(b) *Cash Equivalents*

The Trust considers all highly liquid investments purchased with original maturities of three months or less to be cash equivalents. The carrying amount reported in the balance sheet for cash equivalents approximates fair value due to the short-term nature of these investments.

(c) *Method Used to Value Investments*

Trust investments are reported at fair value. Quoted market prices have been used to value investments. Investment purchases and sales are recorded on a trade-date basis.

Given the inherent nature of investments, it is reasonably possible that changes in the value of those investments will occur in the near term and that such changes could materially affect the amounts reported in the statements of fiduciary net position.

(d) *Retired Employee Health Benefit Payments*

The Trust reimburses the System for the health insurance premiums attributable to retired System employees paid to NYSHIP on a monthly basis.

(e) *Administrative Support*

Administrative support for the Trust's investment, accounting, and legal operations is provided by the System at no charge to the Trust.

(f) *Federal Tax Status*

The Trust is exempt from federal income taxes under Section 115 of the Internal Revenue Code.

(g) *Use of Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the Unites States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

(3) OPEB Plan Investments

(a) *Investment Policy*

All investment transactions undertaken on behalf of the Trust will be for the sole benefit of eligible retirees and dependents, for the exclusive purpose of providing certain health care benefits and defraying reasonable administrative expenses. The System shall be responsible for managing and directing the investments of the Trust. The Trust's long-term objective is to earn an average rate of return greater than the rate of return of the representative indices for individual asset classes but no less than the actuarial assumption rate (currently 6.50% per annum).

(b) *Asset Allocation*

The Trust's asset allocation policy as adopted by the Board of Trustees diversifies Trust investments to reduce risk while maximizing the investment return.

The Trust's asset allocation targets at June 30, 2024 and 2023 are as follows:

Asset class	Allowable range	Target percentage
Domestic equity	40% to 60%	50 %
International equity	20% to 30%	25
Domestic fixed income	20% to 30%	24
Cash equivalents	0% to 4%	1
Total		100 %

(c) *Rate of Return*

For the years ended June 30, 2024 and 2023, the annual money-weighted rate of return on Trust investments, net of OPEB plan investment expense, was 15.1% and 12.3%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

(4) Deposit and Investment Risk Disclosure

The Trust has been authorized by the Board of Trustees to invest in passively managed mutual funds for domestic and international equity and domestic fixed income investments. Additionally, there is a federal money market mutual fund to allow the Trust to have liquid investments available for the payment of retired employee health benefits.

As of June 30, 2024 and 2023, the Trust did not hold investments in any one issuer that would represent 5.0% or more of fiduciary net position.

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June 30, 2024 and 2023

Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Trust, and are held by either the counterparty or the counterparty's trust department or agent but not in the Trust's name. Consistent with the Trust's investment policy, the investments are held by the Trust's custodian and registered in the Trust's name. The Trust does not have specific investment policies related to credit or interest rate risk of mutual fund holdings.

The Trust has the following mutual fund holdings at June 30, 2024 and 2023:

	2024		2023	
Asset class	Fair value	Percentage of total	Fair value	Percentage of total
Domestic equity	$ 38,685,705	50 %	$ 33,919,497	51 %
International equity	18,894,100	25	16,053,575	25
Domestic fixed income	18,799,662	25	15,502,615	24
Total	$ 76,379,467	100 %	$ 65,475,687	100 %

At June 30, 2024 and 2023, the Trust's domestic fixed income mutual fund had an average duration of 6.0 and 6.5 years, respectively. The domestic fixed income fund is an unrated mutual fund.

The Trust's cash equivalent investments (federal money market mutual fund) at June 30, 2024 and 2023 had an average maturity of 18.8 and 14.6 days, respectively.

The Trust's cash equivalents are invested in a federal money market fund pool recorded at amortized cost in accordance with GASB Statement No. 79 and are not included in the fair value tables above. These investments are not subject to any limitations or restrictions on withdrawals.

(5) Fair Value Measurement

The Trust categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

At June 30, 2024 and 2023, the Trust had the following Level 1 investments:

Mutual funds:	**2024**	**2023**
Domestic equity	$ 38,685,705	$ 33,919,497
International equity	18,894,100	16,053,575
Domestic fixed income	18,799,662	15,502,615
	$ 76,379,467	$ 65,475,687

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
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Notes to Basic Financial Statements

June 30, 2024 and 2023

(6) Net OPEB Liability

The components of the net OPEB liability at June 30, 2024 and 2023 were as follows:

		2024		2023
Total OPEB liability	$	124,680,126	$	116,221,408
OPEB Plan fiduciary net position		76,485,077		65,553,482
Net OPEB liability	$	48,195,049	$	50,667,926
The OPEB plan's fiduciary net position as a percentage of total OPEB liability		61.35 %		56.40 %

(a) Actuarial Assumptions

The total OPEB liability at June 30, 2024 was determined using an actuarial valuation as of July 1, 2023, with update procedures used to roll forward the total OPEB liability to June 30, 2024. The total OPEB liability at June 30, 2023 was determined using an actuarial valuation as of July 1, 2022, with update procedures used to roll forward the total OPEB liability to June 30, 2023.The measurement of total OPEB liability at June 30, 2024 and 2023, respectively, used the following actuarial assumptions:

	2024	2023
Valuation date	July 1, 2023	July 1, 2022
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	Single Coverage / Family Coverage: Tier 1 $100 / $200 Tier 2 $200 / $550 Tier 3 $250 / $600	Increase $100 per year after 2024
Healthcare cost and premium trend rates:		
Non-Medicare	7.50% in 2024 graded to 4.04% over 51 years	6.50% in 2023, 8.0% in 2024 graded to 4.14% over 19 years
Medicare Part B	4.00%	5.00% graded to 3.50% over 20 years

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
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Notes to Basic Financial Statements

June 30, 2024 and 2023

Mortality Status	Description of Mortality Assumption
Active Employees Mortality	The Society of Actuaries (SOA) Pub-2010 General Employee Headcount-Weighted Mortality Table with an 98.75% adjustment for both males and females, projected on a fully generational basis with mortality improvement scale MP-2021
Healthy Retirees and Covered Spouses	SOA Pub-2010 General Retiree Headcount-Weighted Mortality table with an 98.75% adjustment for both males and females, projected on a fully generational basis with mortality improvement scale MP-2021
Surviving Spouses	SOA Pub-2010 General Contingent Survivors Headcount-Weighted Mortality table with an 98.75% adjustment for both males and females, projected on a fully generational basis with mortality improvement scale MP-2021
Disabled Retirees	SOA Pub-2010 General Disabled Retiree Headcount-Weighted Mortality table with an 98.75% adjustment for both males and females, projected on a fully generational basis with mortality improvement scale MP-2021

Banked sick leave pay credit: Retirements after April 1, 1991 are eligible to have unused sick leave converted into a credit to offset retiree contributions otherwise owed to the health plan. Sick Leave Credit is determined as daily pay times the number of sick leave days, divided by life expectancy. Daily Pay is defined as the daily rate of pay at retirement. Sick Leave Days are the number of unused sick leave days at retirement. Life Expectancy is determined in months at retirement using factors established by the Plan.

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.

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, 2024 and June 30, 2023 are summarized in the following table:

Long-Term Expected Real Rate of Return*

Asset class	2024	2023
Domestic equity	4.87%	5.41%
International equity	5.30	6.27
Domestic fixed income	1.09	(0.21)
Cash equivalents	0.63	(0.70)

* Real rates of return are net of the long-term inflation assumption of 2.60% and 2.70% for 2024 and 2023, respectively.

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Notes to Basic Financial Statements

June 30, 2024 and 2023

(b) 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

	1% Decrease	Current Healthcare Cost Trend Rates	1% Increase
June 30, 2024	$ 31,010,288	$ 48,195,049	$ 69,880,650
June 30, 2023	$ 35,139,502	$ 50,667,926	$ 69,772,102

(c) 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.

(d) 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

	1% Decrease	Current Discount Rate	1% Increase
June 30, 2024	$ 65,085,959	$ 48,195,049	$ 34,297,559
June 30, 2023	$ 66,906,859	$ 50,667,926	$ 37,291,143

(7) Risk Management

The Trust is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; and errors and omissions, for which the Trust retains the risk of loss. At this time, there are no matters pending against the Trust.

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Required Supplementary Information

Schedule of Changes in the System's Net OPEB Liability and Related Ratios (Unaudited)

Last 9 Fiscal Years

	2024	2023	2022	2021	2020
Total OPEB liability:					
Service cost	$ 3,325,153	$ 3,375,953	$ 3,069,185	$ 2,984,622	$ 2,914,852
Interest	7,374,034	6,958,495	6,587,914	6,585,821	6,621,826
Changes of benefit terms	426,223	(622,395)	—	—	(9,789,000)
Differences between expected and actual experience	3,253,466	915,720	869,679	1,259,391	79,202
Changes of assumptions	(24,460)	4,678,256	—	(2,449,602)	4,038,931
Benefit payments	(5,895,698)	(5,439,240)	(4,834,885)	(4,527,278)	(4,412,579)
Net change in total OPEB liability	8,458,718	9,866,789	5,691,893	3,852,954	(546,768)
Total OPEB liability - beginning	116,221,408	106,354,619	100,662,726	96,809,772	97,356,540
Total OPEB liability - ending (a)	$ 124,680,126	$ 116,221,408	$ 106,354,619	$ 100,662,726	$ 96,809,772
Plan fiduciary net position:					
Contributions - employer	$ 6,910,000	$ 6,394,396	$ 6,000,000	$ 6,261,000	$ 6,004,000
Net investment income	9,931,293	7,104,701	(9,584,492)	14,534,551	2,672,787
Benefit payments	(5,895,698)	(5,439,240)	(4,834,885)	(4,527,278)	(4,412,579)
Professional fees and services	(14,000)	(14,000)	56,365	(19,915)	(65,585)
Net change in plan fiduciary net position	10,931,595	8,045,857	(8,363,012)	16,248,358	4,198,623
Plan fiduciary net position - beginning	65,553,482	57,507,625	65,870,637	49,622,279	45,423,656
Plan fiduciary net position - ending (b)	$ 76,485,077	$ 65,553,482	$ 57,507,625	$ 65,870,637	$ 49,622,279
System's net OPEB liability - ending (a) - (b)	$ 48,195,049	$ 50,667,926	$ 48,846,994	$ 34,792,089	$ 47,187,493
Plan fiduciary net position as a percentage of the total OPEB liability	61.35 %	56.40 %	54.07 %	65.44 %	51.26 %
Covered payroll	$ 35,991,668	$ 35,579,229	$ 35,423,191	$ 33,142,258	$ 32,124,845
System's net OPEB liability as a percentage of covered payroll	133.91 %	142.41 %	137.90 %	104.98 %	146.89 %

(Continued)

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Required Supplementary Information

Schedule of Changes in the System's Net OPEB Liability and Related Ratios (Unaudited) *(continued)*

Last 9 Fiscal Years

	2019	2018	2017	2016
Total OPEB liability:				
Service cost	$ 2,907,107	$ 2,604,313	$ 2,490,519	$ 2,579,474
Interest	6,168,584	5,747,125	5,959,407	5,589,288
Changes of benefit terms	—	6,211,000	—	—
Differences between expected and actual experience	714,079	(841,844)	(2,165,915)	399,912
Changes of assumptions	1,102,479	(878,222)	(5,848,836)	—
Benefit payments	(3,965,315)	(3,756,945)	(3,412,013)	(2,979,914)
Net change in total OPEB liability	6,926,934	9,085,427	(2,976,838)	5,588,760
Total OPEB liability - beginning	90,429,606	81,344,179	84,321,017	78,732,257
Total OPEB liability - ending (a)	$ 97,356,540	$ 90,429,606	$ 81,344,179	$ 84,321,017
Plan fiduciary net position:				
Contributions - employer	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000
Net investment income	3,155,344	3,212,503	4,212,256	382,144
Benefit payments	(3,965,315)	(3,756,945)	(3,412,013)	(2,979,914)
Professional fees and services	(18,575)	(53,435)	(15,000)	(12,700)
Net change in plan fiduciary net position	4,671,454	4,902,123	6,285,243	2,889,530
Plan fiduciary net position - beginning	40,752,202	35,850,079	29,564,836	26,675,306
Plan fiduciary net position - ending (b)	$ 45,423,656	$ 40,752,202	$ 35,850,079	$ 29,564,836
System's net OPEB liability - ending (a) - (b)	$ 51,932,884	$ 49,677,404	$ 45,494,100	$ 54,756,181
Plan fiduciary net position as a percentage of the total OPEB liability	46.66 %	45.07 %	44.07 %	35.06 %
Covered payroll	$ 31,189,170	$ 30,682,745	$ 29,752,583	$ 29,087,397
System's net OPEB liability as a percentage of covered payroll	166.51 %	161.91 %	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.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Required Supplementary Information

Schedule of System and Other Contributing Entity Contributions (Unaudited)

Last 10 Fiscal Years

	2024	2023	2022	2021	2020
Actuarially determined contribution	$ 6,910,026	$ 6,394,396	$ 5,339,856	$ 5,822,056	$ 5,957,868
Contributions in relation to the actuarially determined contribution:					
System	6,910,000	6,394,396	6,000,000	6,261,000	6,004,000
Other contributing entity	—	—	—	—	—
Total contributions	6,910,000	6,394,396	6,000,000	6,261,000	6,004,000
Contribution deficiency (excess)	$ 26	$ —	$ (660,144)	$ (438,944)	$ (46,132)
Covered payroll	$ 35,991,668	$ 35,579,229	$ 35,423,191	$ 33,142,258	$ 32,124,845
Contributions as a percentage of covered payroll	19.20 %	17.97 %	16.94 %	18.89 %	18.69 %

(Continued)

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Required Supplementary Information

Schedule of System and Other Contributing Entity Contributions (Unaudited) *(continued)*

Last 10 Fiscal Years

	2019	2018	2017	2016	2015
Actuarially determined contribution	$ 5,349,375	$ 5,278,747	$ 5,374,220	$ 4,782,000	$ 4,542,000
Contributions in relation to the actuarially determined contribution:					
System	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000
Other contributing entity	—	—	—	—	—
Total contributions	5,500,000	5,500,000	5,500,000	5,500,000	5,500,000
Contribution deficiency (excess)	$ (150,625)	$ (221,253)	$ (125,780)	$ (718,000)	$ (958,000)
Covered payroll	$ 31,189,170	$ 30,682,745	$ 29,752,583	$ 29,087,397	$ 26,506,965
Contributions as a percentage of covered payroll	17.63 %	17.93 %	18.49 %	18.91 %	20.75 %

See accompanying independent auditors' report.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Required Supplementary Information

Schedule of Investment Returns (Unaudited)

Last 9 Fiscal Years

	2024	2023	2022	2021	2020
Annual money-weighted rate of return, net of investment expense	15.1%	12.3%	(14.4)%	28.8%	5.8%

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

See accompanying independent auditors' report.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Required Supplementary Information

Schedule of Investment Returns (Unaudited) *(continued)*

Last 9 Fiscal Years

	2019	2018	2017	2016
Annual money-weighted rate of return, net of investment expense	7.6%	8.8%	13.1%	1.3%

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

See accompanying independent auditors' report.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Notes to Required Supplementary Information (Unaudited)

Change of benefit terms

Significant changes to net OPEB Liability

Beginning with the 2018 measurement date, the liability for a plan provision that reimburses retirees for their Medicare Part B Premiums is recognized. This recognition increased the liabilities in 2018 by approximately $6.2 million.

For the 2020 measurement date there was a reduction in the liability of $9.79 million from benefit changes due to:

- $4.66 million from legislative changes, specifically the Excise Tax that was part of the Patient Protection and Affordability Act (PPACA) was repealed.
- $5.13 million from bargaining amendments pursuant to the CBA effective from April 2019 to March 2024. These include the premium contribution rate changes and contribution cap changes, increase in the Sick Leave Maximum to 200 days from 185 days for bargaining groups, and update of the Life Expectancy table from 1983 to 1999 factors.

For the 2023 measurement date there was a reduction in the liability of $0.62 million from benefit changes due to the NYSHIP Empire plan changes including premium reductions, Out-of-Pocket Maximum decreases, co-payment consolidations and massage therapy and acupuncture service limits.

For the 2024 measurement date there was an increase in the liability of $0.4 million from the benefit changes due to:

- $0.6 million increase due to the change to the maximum retiree contributions
- $0.2 million decrease due to the update to the life expectancy tables used for sick leave contributions

Changes of assumptions

Actuarial assumptions are revised annually to reflect more closely actual, as well as anticipated, future experience. The actuarially determined contributions are calculated as of June 30th of the preceding year.

Significant assumption changes over the last 9 fiscal years are outlined below:

Investment Rates of Return

Valuation Year(s)	Investment Rate of Return
2016	8.00%
2017	7.00%
2018-2020	6.75%
2021	6.50%
2022	6.50%
2023	6.50%
2024	6.50%

Significant changes to net OPEB liability

For the 2017 measurement date, the discount rate was lowered from 8.00% to 7.00%, there was a net decrease in the liability of $5.8 million primarily due to the modification of mortality rates and updating the per-capita health costs and retiree contribution rates.

For the 2018 measurement date, the discount rate was lowered from 7.00% to 6.75%, the per-capita health costs and retiree contribution rates were updated, the assumed health trend rates were modified, and the unused sick days accrual rate was updated. Collectively this decreased the liability $878 million.

For the 2019 measurement date, there was a change to the claim costs assumption during the measurement year and the projected trend rates, which increased the liability by approximately $1.1 million.

For the 2020 measurement date, there was a net increase in the liability of $4.04 million from the following assumption changes:

- $1.56 million decrease for updating the post-retirement mortality table to SOA RP-2014 with White Collar Adjustment using improvement Scale MP-2019.
- $4.56 million increase for higher immediate trends in response to greater unknowns about health care needs by adding 1% to the starting trend, but retaining the same ultimate year, and
- $1.04 million increase for full revision of claim curves and premiums reflecting current information.

For the 2021 measurement date there was a decrease in the liability of $2.45 million from the following assumption changes:

- $6.46 million decrease for updating the pre-retirement and post-retirement mortality tables to SOA PUB-2010 Headcount Weighted for General Employees Mortality Tables with the base year 2010 and Improvement Scale MP-2020, with a 98.75% adjustment to base rates,
- $1.51 million increase for updating retirement and termination rates to align with recent experience,
- $3.07 million increase for lowering the discount rate from 6.75% to 6.50%, and
- $0.57 million decrease for full revision of claim curves and premiums reflecting current information.

For the 2022 measurement date there was no change to the liability due to assumption changes.

For the 2023 measurement date there was an increase in the liability of $4.7 million due to revised claim curves, trends and timing.

For the 2024 measurement date there was a decrease in the liability of $0.0 million from the following assumption changes:

- The healthcare cost trend assumption was updated based on the 2024 Getzen model released by the SOA. This decreased the liability by $7.1 million.
- The updated per capita cost assumptions increased the liability by $6.7 million
- $0.4 million increase due to updated mortality improvement scale

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
RETIRED EMPLOYEE HEALTH BENEFITS TRUST

Notes to Required Supplementary Information (Unaudited) *(continued)*

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	8.00% graded to 4.14% over 20 years
Medicare	8.80% graded to 4.31% over 20 years
Medicare Part B	5.00% graded to 3.50% over 20 years
Blended Medicare	8.00% 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:	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.

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM
Audit Committee Meeting

A meeting of the Audit Committee of the New York State Teachers' Retirement System was held at the System on October 30, 2024.

Committee Members: Juliet Benaquisto, Phyllis Harrington (via WebEx) Eric Iberger, Oliver Robinson

Board Members: Paul Farfaglia, David Keefe, Donald A. Little III, Nicholas Smirensky

NYSTRS Staff: Thomas K. Lee, Don Ampansiri, Kathy Ebert, Bruce Woolley, Lei Zhang, Darlene Dempsey, Teddi Kaczmarek, Matt Horton

Audit Committee Advisor: Sue Landauer

Plante Moran: Jean Young

CohnReznick: Anthony LaMalfa, Courtney Klinga

Visitor: Kevin Balaod, With Intelligence (via WebEx)

O. Robinson, Chair, called the meeting to order at 12:51 p.m.

1. Approval of Minutes from April 24, 2024

Upon motion of J. Benaquisto seconded by E. Iberger and unanimously carried, the Committee approved the minutes of the April 24, 2024 meeting.

2. Plante Moran Annual Report

J. Young reviewed the System's audited financial statements for the year ended June 30, 2024 (Appendix A, pp. 3-80)

- Resolution Accepting Plante Moran Annual Audit

Upon motion of J. Benaquisto, seconded by E. Iberger and unanimously approved, the Committee voted to recommend the following resolution to the Board:

RESOLVED, That the report of Plante Moran on the financial statements of the Retirement System as of June 30, 2024 and for the plan year then ended, as presented to the Retirement Board, is accepted.

3. CohnReznick Report on Audits of NYSTRS Wholly Owned Real Estate Investment Accounts

   A. LaMalfa and C. Klinga presented the results of the audits for the years ended December 31, 2023 and June 30, 2024 and discussed the plan for the audit of the year ending December 31, 2024 (Appendix B, pp. 81-101)

4. Internal Audit Update

   K. Ebert, B. Woolley, L. Zhang, D. Dempsey, T. Kaczmarek and M. Horton provided updates on internal audits.

5. Implementing 2024 IIA Global Internal Audit Standards

   K. Ebert and L. Zhang reviewed the standards and discussed plans for implementing the changes (Appendix C, pp. 102-110).

6. Reappointment of Audit Committee Financial Expert

Upon motion of J. Benaquisto, seconded by E. Iberger and unanimously approved, the Committee voted to recommend the following resolution to the Board:

WHEREAS, The term of Ms. Susan M. Landauer, as the Audit Committee Financial Expert expires on December 31, 2024; be it

RESOLVED, That the Audit Committee hereby reappoints Ms. Landauer to a three-year term as the Audit Committee Financial Expert effective January 1, 2025.

7. Executive Session

   Upon motion of E. Iberger, seconded by J. Benaquisto and carried, the Committee went into Executive Session at 1:56 p.m. to discuss personnel matters. With unanimous consent, the Committee came out of Executive Session at 2:35 p.m.

There being no further business, the meeting adjourned at 2:35 p.m. with a motion made by E. Iberger, seconded by J. Benaquisto and unanimously carried.

Respectfully submitted,

[redacted]

Thomas K. Lee

plante moran

Appendix A

New York State Teachers' Retirement System

Retirement System Audit Presentation – Audit Committee

October 30, 2024

Introductions

Agenda

Audit timeline and deliverables

Upcoming audit timeline and deliverables

Audit scope

Scope of work	• Audit of the financial statements for NYSTRS as of and for the year ended June 30, 2024
Financial reporting framework	• U.S. Generally Accepted Accounting Principles (GAAP)
Auditing standards	• We perform our audit in accordance with: ○ Auditing standards generally accepted in the United States of America
Independence	• We are independent of NYSTRS under all relevant professional and regulatory standards
Audit areas of focus	• Investment valuations • Census data testing • Actuarial assumptions and actuarial calculations • Accuracy of benefit calculations and related payments • Financial reporting

Required communications

Our responsibility under Generally Accepted Auditing Standards	• Express an opinion on whether the financial statements are fairly presented in conformity with U.S. GAAP • Plan and perform the audit to obtain reasonable, not absolute, assurance that the financial statements are free of material misstatement • Planning our audit includes obtaining an understanding of internal controls over financial reporting • The extent, timing, and nature of our procedures is determined based on risk assessments and our understanding of control and inherent risks to enable us to express an opinion on the financial statements • Communicate significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process • Evaluate System's ability to continue as a going concern
Management's responsibilities	• Financial statements • Selection and use of appropriate accounting policies • Adopting and maintaining sound internal controls • Evaluate System's ability to continue as a going concern

Opinion	• Expect unmodified opinion for the year ended June 30, 2024
	  ○ Free from material misstatement
	  ○ Highest level of assurance you can obtain

Required communications

Significant accounting policies	• Note 2 to the financial statements • No significant or unusual transactions occurred
Significant accounting estimates	• Fair value of harder-to-value investments, mainly the non-publicly traded investments, including alternative investments • Assumptions utilized in the GASB 67 actuarial valuation, including long-term expected rate of return and mortality assumptions • No changes in methodology • We evaluated key factors and assumptions used • Estimates are reasonable
Significant disclosures	• None

Required communications

Reportable control deficiencies	• No material weaknesses or significant deficiencies in internal control over financial reporting identified
Disagreements or difficulties with management	• None
Corrected and uncorrected misstatements	• None
Other matters	• No significant issues discussed with management prior to or during the audit • Management to provide management representation letter dated October 30, 2024 • No consultations with other accountants

Required communications

Other information included in annual reports

- The Annual Comprehensive Financial Report (ACFR) and Popular Annual Financial Report (PAFR) will be reviewed prior to issuance of the ACFR and PAFR to ensure they are not materially misstated or materially inconsistent with the information or manner of its presentation appearing in the financial statements

Thank you!

Manju Patnaik, CPA

248-223-3768

Manju.Patniak@plantemoran.com

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Basic Financial Statements and Supplemental Schedules

June 30, 2024 and 2023

(With Independent Auditors' Report Thereon)

Financial

Basic Financial Statements

Required Supplementary Information

Supplementary Schedules

Independent Auditor's Report

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 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 Audits 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.

To the Retirement Board
New York State Teachers' Retirement System

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 audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary 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, is presented for the purpose of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the 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.

October 30, 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.

MANAGEMENT'S DISCUSSION AND ANALYSIS *(continued)*

June 30, 2024 and 2023

(Unaudited)

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)	Percentage change 2023 to 2024	Percentage change of total 2023 to 2024
	2024	2023	2022	2023 to 2024		
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)
	2024	2023	2022	2023 to 2024
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	$ 1,874,459	$ 1,899,885

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	$ 145,821,435	$ 137,221,537

(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:

	2024		2023	
Quality rating	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:

	2024		2023	
Investment type	**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)*
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(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	$ 1,291,160	$ 1,158,469
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	$ 1,337,066	$ 1,192,136
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	$ 1,338,585	$ 1,193,937

(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:

		Fair Value Measurements Using		
Investments by Fair Value Level	**June 30, 2024**	**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	$ 27,780,665	$ 13,136,264		
Investment related cash, receivables and payables not included in above	202,119			
Total investments and securities lending collateral reinvested	$ 143,680,958			

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

		Fair Value Measurements Using		
Investments by Fair Value Level	**June 30, 2023**	**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	$ 28,220,174	$ 13,482,692		
Investment related cash, receivables and payables not included in above	57,154			
Total investments and securities lending collateral reinvested	$ 135,178,095			

(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)	$ (2,983,608)	$ 1,143,585
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.

Service	Rate
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)*
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(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
	$ 12,202	$ 15,367
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
	$ 9,080	$ 1,305

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
Decrements	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:

	2024		2023	
Asset class	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	—
	100 %		100 %	

(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's 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 www.nystrs.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.

NOTES TO FINANCIAL STATEMENTS *(continued)*
June 30, 2024 and 2023
(dollars in thousands)

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.

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.

NOTES TO FINANCIAL STATEMENTS *(continued)*
June 30, 2024 and 2023
(dollars in thousands)

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
	$ 15,719	$ 15,103
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	—	—
	$ 1,280	$ 2,249

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	$	—

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2024 and 2023

(dollars in thousands)

(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.	• **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	$ 1,871,743	$ 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.

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.

[1] Service 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)	$ (2,983,608)	$ 1,143,585	$ 1,918,892	$ (17,329,042)	$ 2,763,271
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	$ —	$ —	$ —	$ —	$ —
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)	$ (2,598,007)	$ (1,808,264)	$ (760,099)	$ 1,071,042	$(10,386,813)
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	$ —	$ —	$ —	$ —	$ 24,978
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.

Service	Rate
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:	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 Fair Value of Assets Serviced or Under Management	2024 Expenses	2023 Fair Value of Assets Serviced or Under Management	2023 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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October 30, 2024

To the Retirement Board
New York State Teachers' Retirement System

We have audited the financial statements of New York State Teachers' Retirement System (NYSTRS) as of and for the year ended June 30, 2024 and June 30, 2023 and have issued our report thereon dated October 30, 2024. Professional standards require that we provide you with the following information related to our audit.

Our Responsibility Under U.S. Generally Accepted Auditing Standards

As stated in our engagement letter dated March 11, 2024, our responsibility, as described by professional standards, is to express an opinion about whether the financial statements prepared by management with your oversight are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles. Our audit of the financial statements does not relieve you or management of your responsibilities. Our responsibility is to plan and perform the audit to obtain reasonable, but not absolute, assurance that the financial statements are free of material misstatement.

As part of our audit, we considered the internal control of NYSTRS. Such considerations were solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures specifically to identify such matters.

Planned Scope and Timing of the Audit

We performed the audit according to the planned scope and timing previously communicated to you in our meeting about planning matters on March 15, 2024.

Significant Audit Findings

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. In accordance with the terms of our engagement letter, we will advise management about the appropriateness of accounting policies and their application. The significant accounting policies used by NYSTRS are described in Note 2 to the financial statements. No new accounting policies were adopted, and the application of existing policies was not changed during 2024.

We noted no transactions entered into by NYSTRS during the year for which there is a lack of authoritative guidance or consensus.

We noted no significant transactions that have been recognized in the financial statements in a different period than when the transaction occurred.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

The most sensitive estimates affecting the financial statements were the fair values of harder-to-value investments, mainly the non-publicly traded investments, including alternative investments, which do not have readily determinable fair values, and the assumptions utilized in the GASB 67 actuarial valuation.

Management's estimate of the harder-to-value investments are based on audited financial statements, quarterly reports, appraisals, third-party valuations, etc. NYSTRS typically values the alternatives based on information available as of June 30th (capital statements, investment manager analysis etc). In instances when information is not available to value an investment as of June 30th, management utilizes the information available as of March 31st to determine value and rolls it forward to June 30th based on cashflows during the quarter (as of June 30, 2024 such investments made up less than one percent of the total portfolio). We evaluated the key factors and assumptions used to develop these estimates in determining that it is reasonable in relation to the financial statements taken as a whole.

In addition, the selection of certain actuarial assumptions has a significant impact on the individual employer actuarial valuations and resultant net pension liabilities recorded by the participating employers. The more significant actuarial assumptions impacting the net pension liabilities include the long-term expected rate of return and the selected mortality assumptions. Both of these assumptions can significantly impact the calculated liabilities and, therefore, have been the subject of much nationwide scrutiny. We evaluated the key factors and assumptions used to develop these estimates in determining that the estimates are reasonable in relation to the financial statements taken as a whole.

The disclosures in the financial statements are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in performing and completing our audit.

Disagreements with Management

For the purpose of this letter, professional standards define a disagreement with management as a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management.

We did not detect any misstatements as a result of audit procedures.

Significant Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, business conditions affecting NYSTRS, and business plans and strategies that may affect the risks of material misstatement, with management each year prior to our retention as NSYTRS' auditors. However, these discussions occurred in the normal course of our professional relationship, and our responses were not a condition of our retention.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated October 30, 2024.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a second opinion on certain situations. If a consultation involves application of an accounting principle to NYSTRS' financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Information Included in Annual Reports

Our responsibility for other information included in annual reports does not extend beyond the financial statements, and we do not express an opinion or any form of assurance on the other information. However, we will read the Annual Comprehensive Financial Report (ACFR) and Popular Annual Financial Report (PAFR) prior to issuance to ensure they are not materially misstated or materially inconsistent with the information or manner of its presentation appearing in the financial statements.

This information is intended solely for the use of the retirement board and management of NYSTRS and is not intended to be and should not be used by anyone other than these specified parties.

Very truly yours,

Plante & Moran, PC

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3000 Town Center, Suite 100
Southfield, MI 48075
Tel: 248.352.2500
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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 review, 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
October 30, 2024

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Appendix B

New York State Teachers' Retirement System (NYSTRS)

December 31, 2023 and June 30, 2024, Audit Results and December 31, 2024, Audit Plan

Presented to: The Audit Committee of NYSTRS
October 30, 2024

October 30, 2024

Dear Members of the Audit Committee:

Thank you for the opportunity to provide professional services to the New York State Teachers' Retirement System ("NYSTRS"), an organization we are proud to serve. We look forward to meeting with you on October 30, 2024, to discuss the results of our audits of the financial statements as of and for the years ended December 31, 2023, and June 30, 2024, and to discuss our plan to perform the audits of the financial statements as of and for the year ending December 31, 2024. This meeting will serve as a forum to validate our understanding of key issues, confirm your expectations, and make certain that our efforts are aligned with your expectations. We welcome your suggestions regarding areas of special concern and ideas to aid us in presenting the most appropriate and valuable reports to you.

Our audits are designed to express an opinion on the financial statements. We will consider NYSTRS's current and emerging business needs, along with an assessment of risks that could materially affect the financial statements and design our audit procedures accordingly. Our audits will be conducted with the objectivity and independence that you and the entire Board of Trustees expect. Rest assured that our unceasing commitment to quality is and will be reflected in every aspect of our work.

The attached report outlines the scope of our work and key considerations affecting the audits of the 2023/2024 financial statements. If you have questions or comments on this material, please contact me anytime at (646) 448-5470 or at Anthony.LaMalfa@CohnReznick.com.

We look forward to working with you this year.

Anthony La Malfa
Partner, Commercial Real Estate
CohnReznick LLP

Entities/Reports with June 30 year ends:

- Merritt 7 Venture, LLC
- Combined financial statements of That Portion of the New York State Teachers' Retirement System (NYSTRS) for which Sentinel Realty Advisors Corporation is Investment Advisor
- Combined financial statements of That Portion of the New York State Teachers' Retirement System (NYSTRS) for which Cabot Properties, Inc. in Investment Advisor
- Combined financial statements of That Portion of the New York State Teachers' Retirement System (NYSTRS) for which BentallGreenOak (US) LP is Investment Advisor

Entities/Reports with December 31 year ends:

- Knickerbocker Longwood LLC
- Adirondack Timber Company, Inc. I and Subsidiary
- Combined financial statements of That Portion of the New York State Teachers' Retirement System (NYSTRS) for which J.P. Morgan is Investment Advisor (*Was previously Knickerbocker Barrington Place, LLC and will now include Bethesda Commerce JV LLC)
- RSQ Tower LLC
- Knickerbocker Fourth & Madison, LLC (new for December 31, 2023, however will be audited as of 2024)
- Knickerbocker Park Point LLC
- Combined financial statements of That Portion of the New York State Teachers' Retirement System (NYSTRS) Residential Portfolio Managed by CBRE Investment Management

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Audit Results – December 2023 and June 2024

- We have completed (substantially completed for certain entities) our audits of the financial statements as of and for the years ended December 31, 2023, and June 30, 2024. The audits have been conducted in accordance with auditing standards generally accepted in the United States ("GAAS").
- The objective of our audits was to obtain reasonable assurance about whether the financial statements are free from material misstatement.
- We have issued (intend to issue for certain entities) unmodified opinions on each of the financial statements as of and for the years ended December 31, 2023, and June 30, 2024.

Additional Services Provided:

- We have prepared the annual Return of Organization Exempt From Income Tax (Form 990) and U.S. Return of Partnership Income (Form 1065) and have filed with the Internal Revenue Service and other state regulatory compliance filings for the year ended June 30, 2024.
- We intend to prepare the annual Return of Organization Exempt From Income Tax (Form 990) and U.S. Return of Partnership Income (Form 1065) to be filed with the Internal Revenue Service and other state regulatory compliance filings for the year ended December 31, 2024.

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Audit Results – December 2023 and June 2024

Areas of Audit Emphasis

We considered the following factors during the planning and performance of our audit procedures:

- Accounting policies and procedures and internal controls
- Information systems and related controls
- Significant operating risks, including fraud risk factors
- Relationship of current versus prior year financial and non-financial data
- Changes on operations and environmental factors

Our areas of audit emphasis included, but were not limited to, the following:

Assets

Cash

Invesments in real estate (including realized and unrealized gains/losses)

Right of use asset/lease liabity

Liabilities

Debt

Unrecorded liabilities

Commitments and contingencies

Net Assets

Revenues

Recognition of revenue from leases

Expenses

Property operating expenses

Property management fees

Interest expense

Required Communications – December 2023 and June 2024

Required Discussion Item	Comments
Auditors' Responsibilities under Generally Accepted Auditing Standards (GAAS)	As communicated in our engagement letter, our responsibilities include: • Forming and expressing an opinion about whether the financial statements, prepared by management, are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States. • Planning and performing our audit to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement. • Consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control over financial reporting. Accordingly, as part of our audit, we considered internal controls solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal controls. • Communicating significant matters related to the audit that are, in our professional judgement, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures for the purpose of identifying other matters to communicate to you. Our audit does not relieve you or management of your responsibilities. We have substantially completed the audits of the financial statements of as of and for the years ended December 31, 2023, and June 30, 2024, in accordance with GAAS and intend to issue unmodified opinions.
Planned Scope and Timing of the Audit	We conducted our audit consistent with the planned scope and timing we previously communicated to you during our proposal process and in our engagement letter.

Required Communications – December 2023 and June 2024

Required Discussion Item	Comments
Compliance with All Ethics Requirements Regarding Independence	The engagement teams, others in our firm, as appropriate, and our firm as a whole, have complied with all relevant ethical requirements regarding independence.
Significant Risks	Significant risks related to our audits are as follows: • Management override of internal controls • Fair value of investments in real estate • Fair value of debt instruments • Improper revenue recognition (presumed risk of fraud)
Significant Accounting Policies	Management has the responsibility to select and use appropriate accounting policies. The significant accounting policies are described in Note 2 to the financial statements. During the year ended December 31, 2023, the entities adopted “ASU 2016-02”, Leases, which did not have a material impact on the financial statements. The ASU revises accounting guidance on lease accounting and supersedes all previous leasing standards. The new standard requires lessees to record a right-of-use asset and a lease liability for all leases with a term greater than 12 months and to classify such leases as either finance or operating leases. During the year ended June 30, 2024, there were no new significant accounting policies adopted.
Significant Accounting Estimates	Accounting estimates are an integral part of the financial statements prepared by management and are based on management’s current judgments. Those judgments are normally based on knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ markedly from management’s current judgments. We evaluated the key factors and assumptions used to develop these estimates in determining that they are reasonable in relation to the financial statements taken as a whole. The most sensitive estimates affecting the financial statements were: • Fair value of investments in real estate • Fair value of debt instruments

Required Communications – December 2023 and June 2024

Required Discussion Item	Comments
Financial Statement Disclosures	Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements were: • Summary of Significant Accounting Policies • Fair Value Measurements • Leases • Related Party Transactions The disclosures in the financial statement are neutral, consistent, and clear.
Significant Unusual Transactions	For purposes of this communication, professional standards require us to communicate to you significant unusual transactions identified during our audit. There were no significant unusual transactions identified.
Identified or Suspected Fraud	During the course of the audits, we perform procedures, including inquiries of management and others involved in the financial reporting process, designed to identify actual or suspected instances of fraud. There were no actual or suspected instances of fraud identified.
Significant Difficulties Encountered During the Audit	We encountered no significant difficulties in dealing with management in performing and completing the audit.

Required Communications – December 2023 and June 2024

Required Discussion Item	Comments
Uncorrected and Corrected Misstatements	For purposes of this communication, professional standards also require us to accumulate all known and likely misstatements identified during the audit, other than those that we believe are trivial, and communicate them to the appropriate level of management. Further, professional standards require us to also communicate the effect of uncorrected misstatements related to prior periods on the relevant classes of transactions, account balances or disclosures, and the financial statements as a whole. • During the audit of Merritt 7 Venture, LLC, management passed on a $1,300,000 adjustment to reduce the value of the investment due to a difference between the trial balance and the valuation model. Clarion's asset management team noted that the 1.4% decrease was immaterial and the original valuation of $95.0 million was already 15% lower than the $111.4 million external appraised value. In addition, professional standards require us to communicate to you all material, corrected misstatements that were brought to the attention of management as a result of our audit procedures. There were no material, corrected financial statement misstatements.
Disagreements with Management	For purposes of this letter, professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter, which could be significant to the financial statements or the auditor's report. No such disagreements arose during the course of the audit.
Circumstances that Affect the Form and Content of the Auditor's Report	There were no circumstances that affected the form and content of the auditor's report regarding the entities. We expect to issue unmodified opinions.

Required Communications – December 2023 and June 2024

Required Discussion Item	Comments
Representations Requested from Management	We will request certain representations from management and the investment advisors that will be included in a letter to us, all of which are expected to be dated prior to December 31, 2024.
Management's Consultations with Other Accountants	In some cases, management may decide to consult with other accountants about auditing and accounting matters. Management informed us that, and to our knowledge, there were no consultations with other accountants regarding auditing and accounting matters.
Other Significant Matters, Findings, or Issues	During the course of our interactions, we discussed a variety of matters, including the application of accounting principles and auditing standards, operating conditions affecting the entity, and operating plans and strategies that may affect the risks of material misstatement. None of the matters discussed resulted in a condition to our retention.

Looking forward: Audit Plan – December 2024

Entities/Reports with December 31 year ends:

- Knickerbocker Longwood LLC
- Adirondack Timber Company, Inc. I and Subsidiary
- Combined financial statements of That Portion of the New York State Teachers' Retirement System (NYSTRS) for which J.P. Morgan is Investment Advisor (*Was previously Knickerbocker Barrington Place, LLC and will now include Bethesda Commerce JV LLC)
- RSQ Tower LLC
- Knickerbocker Fourth & Madison, LLC (new for December 31, 2023, however will be audited as of 2024)
- Knickerbocker Park Point LLC
- Combined financial statements of That Portion of the New York State Teachers' Retirement System (NYSTRS) Residential Portfolio Managed by CBRE Investment Management

COHNREZNICK'S COMMITMENT TO YOU

- To provide forward-thinking solutions, service that exceeds expectations, and create opportunity, value, and trust for our clients, our people, and our communities.

- We will be a firm of excellence and innovation – providing invaluable services and insights to our clients; fostering a workplace culture that develops leaders and values diversity; and working to make our communities better.

Meeting the challenges. Providing value.

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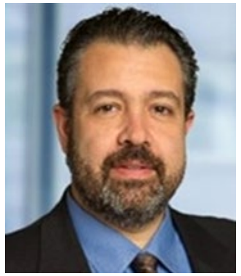
SERVICES AND DELIVERABLES TO NYSTRS

Financial Statements Audits	• Express an opinion on the financial statements as of and for the year ending December 31, 2024. • Communicate matters in accordance with AU-C 265, "Communicating Internal Control Related Matters Identified in an Audit."
Non-attest services	• Prepare Federal Form 990, Federal Form 1065, and other state regulatory compliance filings as of and for the year ended December 31, 2024, and assist management with e-filing the returns.

KEY MEMBERS OF THE ENGAGEMENT TEAM

Resources



Anthony La Malfa, CPA
Lead Engagement Partner

Ron Kaplan, CPA
Commercial Real Estate Industry Leader
Account Executive

Courtney Klinga, CPA
Real Estate Audit Senior Manager

Lori Rothe Yokobosky, CPA MST
Lead Tax Partner

E.J. Edelman, CPA/ABV, CGMA, MAI
Director Valuation Advisory Services

Sima Wolfson, CPA
Exempt Organizations Tax Services Manager

AUDIT PLAN CONSIDERATIONS

Preliminary Communication → Understanding and Evaluating Controls → Application of Analytical Procedures → Development of Audit Programs → Year-End Fieldwork → Reporting

Understanding and Evaluating Controls

- Review accounting policies and procedures
- Understand the design of internal controls and perform walkthroughs of key processes:
  - Revenue
  - Expenses
  - Leases
  - Valuation
  - Financial reporting and closing

Significant Risks

- Management override of controls
- Internal controls over financial reporting
- Fair value of investments in real estate and debt instruments
- Improper revenue recognition risk

Key Audit Areas

- Rental revenue
- Operating expenses
- Property management fees
- Realized and unrealized gains/losses
- Debt and interest expense

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KEY AUDIT PROCEDURES

To ensure that our audit procedures will effectively address the risks associated with the areas identified we will:

- Obtain an understanding of the significant financial reporting and accounting processes, the important business strengths and risks, and controls to monitor operations.
- Obtain an understanding of general controls over information systems.
- Evaluate the design of internal controls, including any changes in internal controls, over the key financial processes.
- Test the valuations of investments and debt instruments.
- Perform a search for unrecorded liabilities to ensure expenses are recorded in the proper period.
- On a sample basis, agree revenue and expense transactions to supporting documentation.
- Test year-end reconciliations and rollforward schedules of key audit areas.
- Perform preliminary and final analytical reviews.
- Evaluate key factors and assumptions used by management to develop significant estimates.
- Independently confirm with third parties select year-end balances.
- Evaluate management’s assumptions about the ability to continue as a going concern.

CYBERSECURITY CONSIDERATIONS

- **Increased cybersecurity risks**
  - Usage of remote workflows
  - Surge and sophistication of cyber attacks
  - Risks & vulnerabilities in third party vendors

- **Audit considerations**
  - Obtain an understanding of the IT General Controls
  - Perform walkthroughs of selected controls to determine the operating effectiveness of those controls

- **Information security**
  - The audit team will use Converge or Sharefile to transmit documents during the engagement for enhanced security.

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TIMETABLE OF AUDIT SERVICES – DEC 2024

	OCT	NOV	DEC	JAN	MAR	APR	MAY - JUN
Pre-planning meeting with audit committee and management							
Audit design and planning							
Year-end field work							
Present drafts of the financial statements and if applicable, management letter, to audit committee							
Issue financial statements and if applicable, management letter							

RESPONSIBILITIES

Management's Responsibilities*	• The preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("GAAP"). • Designing, implementing, and maintaining of internal controls relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error, fraudulent financial reporting, misappropriation of assets or violations of laws, governmental regulations, grant agreements, or contractual agreements. • Accepting responsibility for nonattest services, including identifying the proper party with the skills, knowledge, and experience to oversee the nonattest services provided. • Informing us of any known or suspected fraud affecting the entity involving management, employees with significant role in internal control and others where fraud could have a material effect on the financials. • Ensuring the accuracy and completeness of all information provided. • The audit of the consolidated financial statements does not relieve management or those charged with governance of their responsibilities.
Auditor's Responsibilities*	• Communicating with those charged with governance the responsibilities of CohnReznick regarding the consolidated financial statements audit and an overview of the planned scope and timing of the audit. • Obtaining from those charged with governance information relevant to the audit. • Providing those charged with governance with timely observations arising from the audit that are significant and relevant to their responsibility to oversee the financial reporting process. • Promoting effective two-way communication between the auditor and those charged with governance. • Communicating effectively with management and third parties. • Forming and expressing an opinion about whether the consolidated financial statements that have been prepared by management, with the oversight of governance, are prepared, in all material respects, in accordance with the applicable financial reporting framework. • Establish the overall audit strategy and audit plan, including the nature, timing, and extent of procedures necessary to obtain sufficient appropriate audit evidence.

**The complete terms of our mutual responsibilities are included in our engagement letter.*

EFFECTIVE ACCOUNTING AND AUDITING UPDATES

Accounting		
Effective Date for the Organization	Pronouncement Number	Description
Through December 31, 2024	FASB ASU 2022-06	FASB Codification - FASB Accounting Standards Updates, FASB Accounting Standards Updates - Accounting Standards Update No. 2022-06 – Reference Rate Reform (Topic 848) – Deferral of the Sunset Date of Topic 848
January 1, 2023, and July 1, 2023	FASB ASU 2016-13	Financial Instruments–Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments (see summary on page 22)
Auditing		
Effective Beginning Date for the Organization	Auditing Standards Number	Description
January 1, 2024	Auditing Standard 145	Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement

UPCOMING ACCOUNTING AND AUDITING UPDATES

Accounting		
Effective Beginning Date for the Organization	**Pronouncement Number**	**Description**
January 1, 2025 (early adoption permitted)	FASB ASU 2023-05	Business Combinations—Joint Venture Formations (Subtopic 805-60) - Recognition and Initial Measurement

New York State Teachers' Retirement System

Implementing the 2024 IIA Global Internal Audit Standards

Audit Committee October 30, 2024

Kathy Ebert, Managing Director of Internal Audit

Lei Zhang, Assistant Director of Internal Audit

Timeline presented at the April Audit Committee Meeting

- ✓ May 2024 – Research and Training
- ✓ July 2024 – Gap Analysis
- ✓ October 2024 - Audit Committee Training
- ❑ December 2024 – Update current documents and procedures
- ❑ 2025 – External Quality Assessment

2024 Global Internal Audit Standards

5 Domains, 15 Principles, 52 Standards

Domain I: Purpose of Internal Auditing

II. Ethics and Professionalism (13 Standards)

1. Demonstrate Integrity
2. Maintain Objectivity
3. Demonstrate Competency
4. Exercise Due Professional Care
5. Maintain Confidentiality

III. Governing the Internal Audit Function

6. Authorized by the Board
7. Positioned Independently
8. Overseen by the Board

(9 Standards)

IV. Managing the Internal Audit Function

9. Plan Strategically
10. Manage Resources
11. Communicate Effectively
12. Enhance Quality

(16 Standards)

V. Performing Internal Audit Services

13. Plan Engagements Effectively
14. Conduct Engagement Work
15. Communicate Engagement Conclusions and Monitor Action Plans

(14 Standards)

Modernize and Enhance the Framework for Internal Audit Functions

High Level Analysis of Standards

Standards are Organized into 5 Domains	# of Standards
Domain I: Purpose	0
Domain II: Ethics and Professionalism	13
Domain III: Governing the Internal Audit Function*	9
Domain IV: Managing the Internal Audit Function	16
Domain V: Performing Internal Audit Services	14
Total	**52**

The IIA Global Internal Audit Standards are being met in practice; however, communication and documentation is needed to formalize our practices to meet the new Standards.

*Two new IIA concepts: Essential Conditions & Internal Audit Mandate

Examples of documentation and communication that need to be updated or formalized:

- Internal Audit Charter
- Audit Committee Charter
- Internal Audit Manual
- Quality Assurance and Improvement Program
- TeamMate (software)
- Internal Audit Strategic Plan
- Annual Required Disclosures
- Annual Audit Plan

Domain III: Governing the Internal Audit Function

Each Standard in this Domain includes "essential conditions" of the board, senior management and the audit executive to enable an effective internal audit function.

6. Authorized by the Board

The board establishes, approves, and supports the mandate of the internal audit function.

- 6.1 Internal Audit Mandate
- 6.2 Internal Audit Charter
- 6.3 Board and Senior Management Support

7. Positioned Independently

The board establishes and protects the internal audit function's independence and qualifications.

- 7.1 Organizational Independence
- 7.2 Chief Audit Executive Qualification

8. Overseen by the Board

The board oversees the internal audit function to ensure the function's effectiveness.

- 8.1 Board Interaction
- 8.2 Resources
- 8.3 Quality
- 8.4 External Quality Assessment

The Internal Audit Charter and the Audit Committee Charter need to be updated to reflect the new Standards

Essential Conditions of Domain III

- Each Standard of Domain III recognizes essential conditions that are mandatory elements to conform with the Standards
- The “essential conditions” establish a necessary foundation for an effective dialogue and alignment of respective responsibilities between the board, executive director, and audit executive
- The Managing Director of Internal Audit is to discuss these requirements with the Retirement Board via the Audit Committee and the Executive Director & CIO
- The “essential conditions” build an effective partnership between three parties to enable effective internal auditing and organizational success

Domain III: Standard 6. Authorized by the Board

- 6.1 Internal Audit Mandate
  - Authority, role and responsibilities
  - Scope and types of internal audit services
- 6.2 Internal Audit Charter
  - Purpose of Internal Auditing (Domain I)
  - Commitment to adhering to the Global Internal Audit Standards
  - Mandate (Standard 6.1)
  - Organizational position and reporting relationships. (Standard 7.1)
  - Other essential conditions required under Standard 6, 7, and 8

Next Steps

- December 2024
  - Internal Audit Charter and AC charter recommended changes
  - Update and formalize documentation to adhere to Standards
  - Internal Audit team training
- 2025
  - External Quality Assessment
  - Audit Committee training

Questions?

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM
10 CORPORATE WOODS DRIVE, ALBANY NY

Compensation Committee Meeting

A meeting of the Compensation Committee of the Retirement Board was held at the System on October 31, 2024. The meeting was called to order at 8:30 a.m. by Phyllis Harrington, Chair.

Committee Members: Phyllis Harrington (via WebEx), Oliver Robinson, Nicholas Smirensky

Board Members: Juliet Benaquisto, Paul Farfaglia, Eric Iberger, David Keefe, Donald A. Little III

NYSTRS Staff: Miriam Dixon

1. Approval of Minutes from April 25, 2024

Upon motion of O. Robinson, seconded by N. Smirensky and unanimously carried, the meeting minutes from April 25, 2024 were approved.

Upon motion of N. Smirensky, seconded by O. Robinson and unanimously carried, the meeting went into Executive Session at 8:34 a.m. to discuss personnel matters and the Executive Director and Chief Investment Officer performance evaluation.

With unanimous consent, the meeting came out of Executive Session and adjourned at 9:00 a.m.

Respectfully submitted,

[redacted]

Thomas K. Lee

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM
10 Corporate Woods Drive, Albany NY

Ethics Committee Meeting

A meeting of the Ethics Committee of the Retirement Board was held at the System on October 31, 2024. The meeting was called to order by Eric Iberger, acting Chair, at 9:01 a.m.

<u>The following individuals were in attendance:</u>

<u>Committee Members:</u> Phyllis Harrington (via WebEx), Eric Iberger, Thomas Lee, Don Ampansiri

<u>Board Members:</u> Juliet Benaquisto, Paul Farfaglia, David Keefe, Donald A. Little III, Oliver Robinson, Nicholas Smirensky

<u>NYSTRS Staff:</u> Matt Albano, Matt Tice

Visitors: Cyril Espanol, WithIntelligence (via WebEx)

Upon motion of P. Harrington (via WebEx), seconded by E. Iberger and unanimously carried, the minutes from the July 31, 2024 meeting were approved.

There being no further business, and with unanimous consent, the meeting adjourned at 9:01 a.m.

Respectfully submitted,

[redacted]

Thomas K. Lee

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM

BOARD MEETING
October 31, 2024

TABLE OF CONTENTS

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
10 CORPORATE WOODS DRIVE, ALBANY NEW YORK

A MEETING OF THE NEW YORK STATE TEACHERS' RETIREMENT SYSTEM BOARD was held at the System on October 31, 2024. The meeting was called to order by Board President David Keefe at 9:01 a.m. President Keefe asked Paul Farfaglia to lead the group in the Pledge of Allegiance.

Present: Juliet Benaquisto, Paul Farfaglia, Phyllis Harrington (via WebEx), Eric Iberger, David Keefe, Donald A Little III, Oliver Robinson, Nicholas Smirensky and Thomas Lee.

After the Pledge of Allegiance, President Keefe welcomed Donald A. Little III to the Board. Mr. Little was appointed by the NYS Board of Regents to fill the vacancy left by Elizabeth Chetney's resignation in March 2024, until the next annual convention of active members held in November 2024.

Agenda

1. Introduction of Visitors

T. Lee introduced Greg Berck, NYS School Boards Association; Steve Greenberg of Greenberg PR; Pete Savage from NYS United Teachers (via WebEx); Robert Steyer from Pension & Investments (via WebEx); Cyril Espanol from WithIntelligence (via WebEx).

2. Correspondence

None.

3. Approval of July 31, 2024 Board Minutes and August 1, 2024 Board Retreat Minutes

Upon motion of N. Smirensky, seconded by J. Benaquisto and unanimously carried, the minutes of the July 31, 2024 Board Meeting and the August 1, 2024 Board Retreat were approved.

Committee Reports & Action Items

1. Audit Committee

A. Resolution on Plante Moran Annual Audit Report (R1)

J. Benaquisto offered the following resolution, seconded by O. Robinson and unanimously carried by the Board:

RESOLVED, That the report of Plante Moran on the financial statements of the Retirement System as of June 30, 2024 and for the plan year then ended, as presented to the Retirement Board, is accepted.

B. Resolution Reappointing Susan Landauer as Audit Committee Financial Expert (R2)

N. Smirensky offered the following resolution, seconded by P. Farfaglia and unanimously carried by the Board:

WHEREAS, The term of Ms. Susan M. Landauer, as the Audit Committee Financial Expert expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Ms. Landauer to a three-year term as the Audit Committee Financial Expert effective January 1, 2025.

2. Disability Committee

A. Disability Rescission Resolution (R3)

P. Farfaglia offered the following resolution, seconded by J. Benaquisto and unanimously carried by the Board:

WHEREAS, After reviewing the physician's report of the following annuitants who have retired for disability, the Medical Board believes they are improved and no longer incapacitated for the performance of all gainful employment, and recommended they be restored to active membership, therefore, be it

RESOLVED, That upon recommendation of the Medical Board, the action taken in retiring the following members for disability be rescinded and they be restored to active membership on the date indicated:

EmplID	Date Retired	Date Restored
[redacted]	02/19/2000	09/06/2024
	12/21/2010	09/06/2024
	07/12/2018	09/06/2024

3. Ethics Committee

E. Iberger, acting Chair, reported that the Committee had met earlier in the day.

4. Executive Committee

A. Resolution on the 2025 Legislative Program (R4)

P. Harrington offered the following resolution, seconded by O. Robinson and unanimously carried by the Board:

> RESOLVED, That the 2025 Legislative Program (Appendix A, pp. 10-28), as presented to the Retirement Board by System staff, is approved and the Executive Director and Chief Investment Officer, or his designees, is authorized to seek introduction and enactment of the bill contained therein.

5. Compensation Committee

P. Harrington, Chair, reported that the Committee had met and discussed the Executive Director and Chief Investment Officer's annual performance review.

A. Resolution on Executive Compensation – EDCIO (R23)

O. Robinson offered the following resolution, seconded by J. Benaquisto and unanimously carried by the Board:

> RESOLVED, that the report of the Compensation Committee regarding a recommended action on Executive Compensation, a copy of which is attached (Appendix B, p 29), is authorized and approved.

6. Investment Committee

N. Smirensky, Chair, asked the Board members if any of the consent agenda items should be moved to regular discussion items. Hearing no objections, the Board proceeded to move the Consent Agenda Items #1 A-E (Appendix C, pp. 30-31) together with one motion:

O. Robinson offered the following resolutions, seconded by E. Iberger and unanimously carried by the Board:

A. Renew Consultants

- StepStone – Private Equity/Debt Consultant (R5)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the System's contract with StepStone Group LP to serve as the System's private equity and private debt consultant and to perform such assignments as may be determined by the Executive Director and Chief Investment Officer or his designees in connection therewith, for a period of one year, commencing February 1, 2025 for all fixed services at an annual retainer not to exceed the current term's fee of $1,485,000 (subject to an inflation price adjustment not to exceed the lesser of 3% and the change in the ECI Index) and for all optional services at fees (1) for research on market trends or on private equity or private debt partnerships not in our portfolio not to exceed $40,000 per report; (2) for special research assignments to better define goals and objectives or monitor portfolio risk not to exceed $40,000 per report; (3) for negotiating final investment agreements and work with the System's legal counsel and staff in drafting, reviewing and/or revising partnership agreements, subscription agreements and other required documents for an additional fee not to exceed $15,000 per agreement; (4) for providing professional training not to exceed $20,000 per training; (5) for attending annual meetings and providing meeting notes not to exceed $8,000 per meeting; (6) for monitoring and reporting on legacy partnerships not to exceed $4,500 per partnership.

- StepStone – Real Estate Consultant (R6)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with StepStone Group Real Estate LP to serve as the System's real estate consultant and to perform such assignments and optional services as may be determined by the Executive Director and Chief Investment Officer or his designee in connection therewith, for the one year period commencing February 1, 2025 at an annual retainer not to exceed $450,000 plus the agreed upon price escalation based on the percent change in the Employment Cost Index.

- Meketa – Real Estate Consultant (R7)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Meketa Investment Group, Inc. to serve as the System's secondary real estate consultant and to perform such assignments and optional services as may be determined by the Executive Director and Chief Investment Officer or his designee in connection therewith, for the one year period commencing February 1, 2025.

B. Renew Managers

  - AQR Capital Management LLC (R8)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with AQR Capital Management, LLC to manage a portion of the System's assets as an active MSCI ACWI Ex-US international equity manager for a period of one-year, effective January 6, 2025.

- BlackRock Institutional Trust Company (R9)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with BlackRock Institutional Trust Company, N.A. to manage a portion of the System's assets as a passive ACWI ex-US international equity manager for a period of one-year, effective December 12, 2024.

- Dimensional Fund Advisors (R10)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Dimensional Fund Advisors to manage a portion of the System's assets as an active emerging markets manager benchmarked to the MSCI Emerging Markets Index for a period of one year commencing February 19, 2025.

- Goldman Sachs Asset Management (R11)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Goldman Sachs Asset Management, L.P. to manage a portion of the System's assets as an active global bond manager benchmarked to the Bloomberg Global Aggregate Float Adjusted ex-CNY Bond Index Hedged to USD for a period of one year, effective November 12, 2024.

- Harding Loevner Management (R12)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Harding Loevner LP to manage a portion of the System's assets as an active global equity manager benchmarked to the MSCI ACWI index for a period of one-year, effective February 27, 2025.

- Loomis Sayles & Co. (R13)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Loomis Sayles & Co., L.P., to manage a portion of the System's assets as an active global bond manager benchmarked to the Bloomberg Global Aggregate Float Adjusted ex-CNY Bond Index Hedged to USD for a period of one year, effective November 8, 2024.

- Marathon Asset Management Limited, As Successor in Interest to Marathon Asset Management LLP (R14)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Marathon Asset Management Limited, as successor in interest to Marathon Asset Management, LLP, to manage a portion of the System's assets as an active EAFE international equity manager for a period of one year, effective January 24, 2025.

- Nomura Corporate Research & Asset Management (R15)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with Nomura Corporate Research and Asset Management Inc. for a period of one year, effective November 28th, 2024, to manage aportion of the System's assets as an active U.S. high yield manager in an account benchmarked to the ICE BofAML US High Yield Constrained Index (HUC0).

- State Street Global Advisors (R16)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the agreement with State Street Global Advisors Trust Company (successor-in-interest by assignment from State Street Bank and Trust Company) to manage a portion of the System's assets as a passive ACWI ex US international equity manager, for a period of one year, effective February 18, 2025.

C. Reappointments to the Investment Advisory Committee

- Robert Levine (R17)

WHEREAS, The term of Mr. Robert Levine as a member of the Investment Advisory Committee expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Mr. Robert Levine to a three-year term as a member of the Investment Advisory Committee, effective January 1, 2025.

- June Yearwood (R18)

WHEREAS, The term of Ms. June Yearwood as a member of the Investment Advisory Committee expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Ms. June Yearwood to a three-year term as a member of the Investment Advisory Committee, effective January 1, 2025.

D. Reappointments to the Real Estate Advisory Committee

- Maureen Ehrenberg (R19)

WHEREAS, The term of Ms. Maureen A. Ehrenberg as a member of the Real Estate Advisory Committee expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Ms. Maureen A. Ehrenberg to a three-year term as a member of the Real Estate Advisory Committee, effective January 1, 2025.

.

- James O'Keefe (R20)

WHEREAS, The term of Mr. James W. O'Keefe as a member of the Real Estate Advisory Committee expires on December 31, 2024; be it

RESOLVED, That the Retirement Board hereby reappoints Mr. James W. O'Keefe to a three-year term as a member of the Real Estate Advisory Committee, effective January 1, 2025.

E. Resolution on Investment Policy Manual (R21)

RESOLVED, That the Investment Policy Manual, as presented to the Retirement Board reflecting significant changes through October 2024, as summarized in the grid below, is approved and accepted.

POLICY	**SUMMARY OF SIGNIFICANT CHANGES 2024**
Delegation of Investment Authority	• Added language to distinguish the processes to terminate a manager under exigent and non-exigent circumstances.
Global Bonds	• New Global Bonds-Internal section added as a result of Board approved internally managed emerging market debt portfolio.

2. Resolution on Internally Managed International Equity Strategy (R22)

E. Iberger offered the following resolutions, seconded by O. Robinson and unanimously carried by the Board:

WHEREAS, Staff has proposed a multi-year timeline, commencing in 2024 and ending in or about 2028, for creating an up to $1 billion internally managed passive international public equities strategy, to be implemented in a series of steps (the "Internally Managed International Strategy"); and

WHEREAS, the Retirement Board has reviewed the proposal, and it is in the best interests of the System's members and beneficiaries for the System to pursue and implement the Internally Managed International Strategy; and

NOW, THEREFORE, BE IT RESOLVED, That the System is hereby authorized to implement the Internally Managed International Strategy, up to an aggregate amount of $1 billion (based on capital contributions into the strategy), in multiple stages based on countries or regions, in such amounts and at such times as may be determined by the Executive Director and Chief Investment Officer; and be it further

RESOLVED, That the Executive Director and Chief Investment Officer, or designees, is authorized to take all steps and execute all documents necessary to implement the Internally Managed International Strategy, and be it further

RESOLVED, That the Executive Director and Chief Investment Officer, or designees, shall provide periodic updates, at least annually, to the Retirement Board on the progress and status of the implementation of the Internally Managed International Strategy.

7. Risk Committee

N. Smirensky, acting Chair, reported that the Committee had met earlier in the day and heard a presentation an information security update and personnel updates in Executive Session and in open session heard reports on the annual SEC Red Flags risk assessment and the investment risk KRI dashboard.

Staff Reports

A. Old Business

None.

B. New Business

1. Litigation

Don Ampansiri discussed the Litigation report (Appendix D, p. 32)

2. Member Relations

Beth Dellea reviewed details for the upcoming Delegates Meeting to be held in Saratoga NY on November 3-4, 2024. She also reviewed the results of the 2024 Retiree Customer Service survey (Appendix E, pp. 33-40)

3. EDCIO Work Plan Update

Emily Ekland reviewed the dashboard that tracks projects under the ED/CIO work plan (Appendix F, pp. 41-43).

4. DEI Update

Danny Malavé and Matt Pinchinat provided department updates (Appendix G, pp. 44-47)

5. Employer Contribution Rate Presentation

Richard Young and Melody Prangley gave a presentation to the Board on the employer contribution rate (Appendix H, pp. 48-64).

There being no further business, the meeting unanimously adjourned at 10:20 a.m.

Respectfully submitted,

[redacted]

Thomas K. Lee

New York State Teachers' Retirement System

Appendix A

2025 | Legislative Program

New York State Teachers' Retirement System

To: Retirement Board
From: D. Ampansiri, Jr./ K. Vrbanac
CC: T. Lee
Date: October 22, 2024
Re: NYSTRS 2025 Legislative Program

At the July meeting of the Retirement Board, staff presented in concept two potential bills for the NYSTRS 2025 Legislative Program; one regarding NYSTRS Membership for part-time teachers, and the other to amend the date by which NYSTRS must submit our MWBE Report. Upon further review, staff will continue to monitor the former for future consideration and hereby recommend solely the latter (the MWBE Report) for the 2025 Legislative Program. Together with this Memorandum please find the NYSTRS 2025 Legislative Program and the updated 2024 Legislation of Interest to NYSTRS chart.

<u>2025 Legislative Program</u>

The 2025 legislative session will be the first year of a new two year cycle. For this cycle, staff recommends one new bill proposal for the NYSTRS 2025 Legislative Program - program bill 25-1 (MWBE Report).

- **25-1** Amends Education Law Section 508-a subdivision 2(b) and changes the date by which NYSTRS must submit the MWBE report from 60 days after the NYSTRS fiscal year end to on or before December 31st after NYSTRS fiscal year end.
    - Currently, Education Law Section 508-a subdivision 2(b) requires NYSTRS to submit the MWBE report to the Governor, Legislature and Chief Diversity Officer of NYS within 60 days after NYSTRS fiscal year end (on or before September 1st).
    - The data needed for the MWBE report is not all finalized until after September 1st. That finalized data is published with NYSTRS' Annual Comprehensive Financial Report (ACFR) on or about November 10th.
    - To meet the requirement under the current statute, NYSTRS submits a preliminary report by September 1st but with certain data estimated. Thereafter, NYSTRS submits a final trued-up report once the finalized data is available, customarily after the ACFR is published in November.

- This bill would address and eliminate the redundancy of the current two-step process of submitting two reports and allow NYSTRS to submit one final report on or before December 31st after NYSTRS fiscal year end.

- There is no cost to NYSTRS. Rather, there would be expected cost savings from the elimination of the redundancy in preparing the two substantially similar and nearly identical reports.

Update on 2024 Legislation

As of this writing, program bill 24-2 (2 year benefit recalculation), which passed both the Senate and Assembly on June 6, 2024, has not been delivered to the Governor.

- **24-2** Amends Education Law Section 503 to allow retirees of the New York State Teachers' Retirement System who suspend retirement and return to work the option of a benefit recalculation after 2 additional years of creditable service.

We will continue to keep you posted on further action on this bill.

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2024-2025 NYSTRS Legislative Program

2024 Bill Numbers	Subject	2025 Program Number	2025 Cost
S7462 A10529	Amends Education Law Section 503 to allow retirees of the New York State Teachers' Retirement System who suspend retirement the option of a benefit recalculation after 2 additional years of creditable service.	**NYSTRS Bill No. 24-2** **6/6/24 Passed Senate** **6/6/24 Passed Assembly** **Negligible Cost** **Pending delivery to the Governor.**	
New Bill	Amends Education Law Section 508-a subdivision 2(b) to change the due date in which the New York State Teachers' Retirement System is required to submit the MWBE report to on or before December 31st after NYSTRS fiscal year end.	25-1	No Cost

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Proposed 2025 Legislative Program

Bill No.	Bill Purpose
25-1	Amends Education Law Section 508-a subdivision 2(b) to change the due date in which the New York State Teachers' Retirement System is required to submit the MWBE report to on or before December 31st after NYSTRS fiscal year end.

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NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
BILL NO. 25-1

M E M O R A N D U M

RE:

"AN ACT TO AMEND THE EDUCATION LAW TO CHANGE THE DUE DATE THE NEW YORK STATE TEACHERS' RETIREMENT SYSTEM IS REQUIRD TO SUBMIT THE MWBE REPORT"

Purpose of the Bill

This bill amends Education Law Section 508-a subdivision 2(b) to change the due date the New York State Teachers' Retirement System (NYSTRS) retirement board is required to report to the governor, legislature and chief diversity officer of the state of New York, on the participation of MWBE asset managers, MWBE financial institutions and MWBE professional service providers in investment and brokerage transactions with or as providers of services for the teachers' retirement system, including a comparative analysis of such activity relative to such activity with all asset managers, financial institutions and professional service providers for the relevant period and on the progress and success of the efforts undertaken during such period to achieve the goals of such strategy, to on or before December 31st after NYSTRS fiscal year end.

Summary and Justification

Under the current statute, NYSTRS retirement board is required to report within sixty days of NYSTRS fiscal year end to the governor, legislature and the chief diversity officer of the state of New York on the participation of MWBE asset managers, MWBE financial institutions and MWBE professional service providers in investment and brokerage transactions with or as providers of services for the teachers' retirement system, including a comparative analysis of such activity relative to such activity with all asset managers, financial institutions and professional service providers for the relevant period and on the progress and success of the efforts undertaken during such period to achieve the goals of such strategy.

With NYSTRS fiscal year end being June 30th, the MWBE report is currently due on or before September 1st. The report submitted in September is preliminary and containing estimated information. The final verified information is not released until after NYSTRS ACFR report is published in November. The current statute necessitates a two-step process, requiring NYSTRS to provide a preliminary report in September and then submit an amended report with final verified information after the ACFR is published in November. Changing the statutory timeframe to December 31st after NYSTRS fiscal year end would eliminate the redundancy of this two-step process, save NYSTRS administrative costs due to staffing time that is needed to prepare both the preliminary report and final amended report, and help streamline the submission of the MWBE report as required by statute.

Effective Date of the Bill

This bill will take effect immediately and be implemented with the next submission of NYSTRS retirement board's MWBE report.

Other Agencies to Whom the Bill May Be of Interest

Division of the Budget, Department of Financial Services.

Budgetary Implications of the Bill

It is estimated that there will be no additional annual cost to the employers of members of NYSTRS if this bill is enacted.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM BILL NO. 25-1

AN ACT to amend the Education Law, Section 508-a subdivision 2(b) to change the due date in which the New York State Teachers' Retirement System is required to submit the MWBE report to on or before December 31st after NYSTRS fiscal year end

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Subdivision 2 of section 508-a of the education law is amended to read as follows:

2. b. [~~within sixty days of the end of each fiscal year~~] On or before December 31st after NYSTRS fiscal year end, following the effective date of this section, the retirement board shall report to the governor, legislature and the chief diversity officer of the state of New York on the participation of MWBE asset managers, MWBE financial institutions and MWBE professional service providers in investment and brokerage transactions with or as providers of services for the teachers' retirement system, including a comparative analysis of such activity relative to such activity with all asset managers, financial institutions and professional service providers for the relevant period and on the progress and success of the efforts undertaken during such period to achieve the goals of such strategy. Each report shall be simultaneously published on the website of the teachers' retirement system for not less than sixty days following its release to the governor and the other recipients named above;

FISCAL NOTE. - - Pursuant to Legislative Law, Section 50:

This bill would amend subdivision 2(b) of section 508-a of the Education Law to change the due date for the New York State Teachers' Retirement

System's annual MWBE report to the December 31st following fiscal year end. Current law requires submission within 60 days of fiscal year end.

There would be no cost to the employers of members of the New York State Teachers' Retirement System if this bill is enacted. In fact, this bill would represent a cost savings as it would eliminate the need for the preparation of both a preliminary draft report with estimated figures, and a final trued-up report later in the year after final figures are available.

Member data is from the System's most recent actuarial valuation files as of June 30, 2024, consisting of data provided by the employers to the Retirement System. The most recent data distributions and statistics can be found in the System's Actuarial Valuation Report for fiscal year ended June 30, 2024. System assets are as reported in the System's financial statements and can also be found in the System's Annual Report. Actuarial assumptions and methods are provided in the System's Actuarial Valuation Report as of June 30, 2024.

The source of this estimate is Fiscal Note 2025-1 dated October 18, 2024 prepared by the Office of the Actuary of the New York State Teachers' Retirement System and is intended for use only during the 2024 Legislative Session. I, Richard A. Young, am the Chief Actuary for the New York State Teachers' Retirement System. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

New York State Teachers' Retirement System

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Albany, NY 12211-2395
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nystrs.org

2024 LEGISLATION OF INTEREST TO NYSTRS

Senate No. Assembly No.	Subject	Introduced By

I. BUDGET

S8305C A8805C (Part M)	Amends Labor Law Section 196-b to require employers to provide employees twenty hours of paid prenatal personal leave for health care services related to the employee's pregnancy during any fifty-two week calendar period which may be taken in hourly increments. Effective January 1, 2025. Last Action: 04/18/24 Passed Senate 04/18/24 Passed Assembly **04/19/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 55 of the Laws of 2024]**	Article VII (PPGG)
S8305C A8805C (Part GG)	Amends Retirement and Social Security Law to waive the §211 and §212 income limitations allowing NYSTRS retirees to be employed in school districts and BOCES and earn compensation without suspension or diminution of their retirement allowance until June 30, 2025. Part GG is a one-year extension of Chapter 55 of the Laws of 2023 (Part V). Last Action: 04/18/24 Passed Senate 04/18/24 Passed Assembly **04/19/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 55 of the Laws of 2024]**	Article VII (PPGG)
S8305C A8805C (Part KK)	Amends Retirement and Social Security Law to extend the period during which the calculation of the employee contribution rate for Tier 6 members is to be calculated using only a member's annual base wages for contributions to be made during 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. Implementation date: school year July 1, 2024. Last Action: 04/18/24 Passed Senate 04/18/24 Passed Assembly **04/19/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 55 of the Laws of 2024]**	Article VII (PPGG)

S8308C A8808C (Part KK)	Amends Public Officers Law to permit a public body, in their discretion, to use videoconferencing and remote participation in public meetings, regardless of emergency. Effective immediately and shall expire and deemed repealed July 1, 2026. Part KK is a two-year extension of Part WW of Chapter 56 of the Laws of 2022. Last Action: 04/18/24 Passed Senate 04/18/24 Passed Assembly **04/19/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 58 of the Laws of 2024]**	Article VII (Part TED)
S8306C A8806C (Part J)	Amends Labor Law Section 206-c to require employers to provide employees thirty minutes of paid break time to express breast milk for such employee's nursing child each time employee has a reasonable need for up to three years following child birth. Effective the sixtieth day after it becomes law. Last Action: 04/19/24 Passed Senate 04/19/24 Passed Assembly **04/20/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 56 of the Laws of 2024]**	Article VII (ELFA)
S8306C A8806C (Part M)	Amends Chapter 25 of the Laws of 2020 to provide sick leave for employees when such employee is subject to a mandatory or precautionary order of quarantine or isolation due to COVID-19. Effective immediately and shall expire and be deemed repealed July 31, 2025. Last Action: 04/19/24 Passed Senate 04/19/24 Passed Assembly **04/20/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 56 of the Laws of 2024]**	Article VII (ELFA)
S8306C A8806C (Part QQ)	Amends Retirement and Social Security Law to change the definition of the final average salary for Tier 6 members to be based on the wages earned during any three consecutive years which provide the highest average wages. It also reduces the lookback to the same as Tiers 3, 4 and 5; if the salary for any year used in the period exceeds that of the average of the prior two years by more than 10%, the amount in excess of 10% shall be excluded from the computation. Effective immediately. Last Action: 04/19/24 Passed Senate 04/19/24 Passed Assembly **04/20/24 Delivered to the Governor** **04/20/24 Signed by the Governor** **[Chapter 56 of the Laws of 2024]**	Article VII (ELFA)

II. AMENDMENTS TO THE RETIREMENT AND SOCIAL SECURITY LAW

S5131 A5629	Allows a retired member of a public retirement system to change their option election or beneficiary designation where the beneficiary has been convicted of domestic violence against the retired member. Last Action: 01/03/24 Referred to GE (Assembly) 05/14/24 Passed Senate 05/14/24 Delivered to Assembly and Referred to GE	Webb Reyes

III. AMENDMENTS TO THE EDUCATION LAW

S6361A A556A	Requires employees of a New York state public retirement system, who are employed by their district to work for a not-for-profit, to provide written acknowledgement of membership termination in the retirement system. Last Action: 01/03/24 Referred to GE (Assembly) 03/01/24 Amend and Recommit to GE, Print# 556A (Assembly) 05/29/24 Passed Senate 05/29/24 Delivered to Assembly and Referred to GE (Assembly)	Brouk Bronson

IV. AMENDMENTS TO THE CIVIL SERVICE LAW

S8079 A8514	Clarifies that an employee's time working in a provisional title shall count towards any required probationary period when the permanent appointment immediately follows the provisional appointment. Last Action: 01/16/24 Passed Assembly 01/16/24 Passed Senate **01/26/24 Delivered to the Governor** **01/26/24 Signed by the Governor** **[Chapter 5 of the Laws of 2024]**	Pheffer Amato Jackson
S8216A A8876	Allows individuals that are within 12 months of meeting the minimum age or education requirements for a competitive class civil service position to take the exam. Last Action: 03/04/24 Passed Assembly 03/13/24 Passed Senate 03/13/24 Returned to Assembly **09/04/24 Delivered to the Governor** **09/04/24 Signed by the Governor** **[Chapter 303 of the Laws of 2024]**	Jackson Pheffer Amato

S8557 A9386	Requires time spent as a provisional employee count towards any required term to qualify an employee to take a competitive examination accessible in their title. Last Action: 03/13/24 Passed Senate 05/06/24 Passed Assembly 05/06/24 Returned to Senate **09/04/24 Delivered to the Governor** **09/04/24 Signed by the Governor** **[Chapter 307 of the Laws of 2024]**	Jackson Pheffer Amato
S8948 A9935	Requires employers to disclose all information to an employee relating to allegations that such employee is unable to perform their duties due to a non-work related disability. Last Action: 05/30/24 Passed Assembly 06/04/24 Passed Senate 06/04/24 Returned to Assembly **09/04/24 Delivered to the Governor** **09/04/24 Signed by the Governor** **[Chapter 306 of the Laws of 2024]**	Jackson Pheffer Amato
S2394B A3767B	Requires public employers to notify the organization advocating for managerial or confidential (M/C) employees the contact information for newly hired, promoted and transferred employees within 30 days from their date of employment, and provide them the ability to attend employee orientations. Last Action: 05/30/24 Passed Assembly 06/03/24 Passed Senate 06/03/24 Returned to Assembly	Jackson Pheffer Amato

V. <u>PUBLIC OFFICERS LAW</u>

S5500B A6146B	Provides public employees notice when their personnel record has been released to the public under the Freedom of Information Law. Last Action: 06/04/24 Passed Assembly 06/05/24 Passed Senate 06/05/24 Returned to Assembly **09/04/24 Delivered to Governor** **09/04/24 Signed by the Governor** **[Chapter 302 of the Laws of 2024]**	Skoufis Buttenschon

VI. STATE TECHNOLOGY LAW

S5007B A5736B	Establishes the "Secure Our Data Act" to ensure the New York state government is taking necessary steps to protect the personal information that it collects and maintains. Last Action: 01/03/24 Referred to GE (Assembly) 03/18/24 Passed Senate 03/18/24 Referred to Governmental Operations (Assembly)	Gonzalez Solages
S8090 A8549	Requires all state agencies to use gender neutral terminology for website content, including forms and documents accessible through the website. Effective the one hundred eightieth day after it becomes law. Last Action: 01/16/24 Passed Senate 01/23/24 Passed Assembly **01/26/24 Delivered to Governor** **01/26/24 Signed by the Governor** **[Chapter 21 of the Laws of 2024]**	Cleare Rosenthal
S8021 A8564	Requires state agency websites be made mobile friendly if and when changes to the form and function of such websites are being made until January 1, 2027, after which point, all state agencies should be made mobile friendly. Last Action: 01/23/24 Passed Assembly 01/30/24 Passed Senate **02/07/24 Delivered to Governor** **02/07/24 Signed by the Governor** **[Chapter 45 of the Laws of 2024]**	Fernandez Otis

VII. OTHERS

S5615 A2833	Amends State Finance Law to require all state agencies to procure all "end point devices" that meet the National Institute of Standards and Technology guidelines for computer security. Effective the ninetieth day after it becomes law. Last Action: 05/30/24 Passed Assembly 06/03/24 Passed Senate 06/03/24 Returned to Assembly	Thomas Otis

S1424A A7810A	Amends Executive Law to direct contracting state agencies to develop a three-year growth plan to increase MWBE participation. Last Action: 05/16/24 Passed Senate 05/16/24 Delivered to Assembly 05/16/24 Referred to Governmental Operations (Assembly) 05/17/24 Amend and Recommit to Governmental Operations, Print#7810A (Assembly)	Baily Cruz
S2449 A5178	Amends Executive Law to prohibit any employer or licensing agency from requiring a prospective employee to disclose their age, date of birth or date of graduation from an educational institution on an initial employment application or during an interview, unless it is for an occupational qualification or need. Last Action: 01/03/24 Referred to Governmental Operations (Assembly) 02/12/24 Passed Senate 02/12/24 Referred to Governmental Operations (Assembly)	Krueger Kim
S99A	Amends Labor Law to provide all private and public employees access to their personnel records and notification when a negative report is filed against them. Last Action: 04/16/24 Amend and Recommit to Labor, Print# 1959A (Assembly) 05/13/24 Passed Senate 05/13/24 Delivered to Assembly and Referred to Labor (Assembly)	Gounardes Gonzalez-Rojas
S3260 A10019	Amends Estates, Powers and Trusts Law to disqualify a surviving spouse in the event a decree or judgment of annulment or nullity or dissolving of a marriage is issued after the deceased spouse died; the marriage is then deemed a nullity immediately prior to the death of such spouse. Last Action: 04/17/24 Passed Senate 04/17/24 Delivered to Assembly and Referred to Judiciary (Assembly) 05/01/24 Referred to Judiciary (Assembly)	Hoylman-Sigal Braunstein
S1860	Amends Labor Law to require employers to provide employees with information on mental health issues and resources and to destigmatize mental health in the workplace. Last Action: 05/14/24 Passed Senate 05/14/24 Delivery to Assembly and Referred to labor (Assembly)	Brouck

S9369 A9768	Amends Labor Law to extend the provisions of Chapter 301 of 2022 for an additional two years to allow an employer, with consent of employee, to deduct wages from employee's paycheck to cover specified goods and services. Last Action: 04/16/24 Passed Assembly 05/28/24 Passed Senate **06/26/24 Delivered to Governor** **06/28/24 Signed by the Governor** **[Chapter 142 of the Laws of 2024]**	Ramos Raga
S8663 A7241A	Amends Executive Law to exclude non-electronic notarial acts from the-record-keeping rules and regulations set forth by the Department of State. Last Action: 05/06/24 Passed Assembly 06/05/24 Passed Senate 06/05/24 Returned to Assembly	Hoylman-Sigal Lavine
S8979 A7091	Amends Public Authorities Law to require electric charging stations and electric vehicle capable parking spaces to accommodate wheelchair accessible vehicles. Effective the sixtieth date after it becomes law. Last Action: 04/02/24 Passed Assembly 06/04/24 Passed Senate 06/04/24 Returned to Assembly	Persaud Simon
S3065B A8934A	Amends Labor Law to require all employers to develop and implement programs to prevent workplace violence and bullying. Last Action: 05/30/24 Passed Senate 06/03/24 Passed Assembly 06/03/24 Returned to Senate	Ramos Bronson
S6635 A5745	Amends Workers' Compensation Law to expand the ability to all workers to receive PTSD coverage for mental injury premised upon work-related stress under NYS Workers' Compensation Coverage. Last Action: 04/04/24 Passed Senate 06/05/24 Passed Senate 06/05/24 Returned to Senate	Ramos Reyes

VIII. SPECIAL INTEREST BILLS

S5235A	Grants James Demarco retroactive membership in the NYSTRS from Tier 2 to Tier 1 based on time he was a non-member for seasonal employment in July 1969. Last Action: 01/03/24 Referred to CS (Senate) 03/11/24 Amend and Recommit to CS, Print#5235A	Gallivan

Committees: GE = Governmental Employees;
W&M = Ways and Means; CS = Civil Service and Pensions

A9494	Grants Susan Ruscitto additional service credit in NYSTRS to recalculate her retirement benefit with 20 years and 2 months, which was the original service credit reported by her employer; her actual verified service credit was 19 years and 8 months. Last Action: 03/14/24 Referred to GE	Santabarbara
S5290A A5110A	Grants Eileen Saumell service credit based on her employment for the period of August 8, 1994 to August 27, 2004 with the Nassau County Demonstration Project, a non-participating employer. Last Action: 01/03/24 Referred to CS 03/28/24 Amend and Recommit to CS, Print#5290A 04/02/24 Amend and Recommit to GE, Print#5110A	Weik Gandolfo
S5318A A5111A	Allows Carl Spatola to receive a refund of his accumulated 3% contributions paid to NYSTRS for the period in which the transfer from NYCTRS to NYSTRS was not initiated and the cessation date was not established. Last Action: 01/03/24 Referred to CS (Senate) 03/28/24 Amend and Recommit to CS, Print#5318A (Senate) 04/02/24 Amend and Recommit to GE, Print#5111A (Assembly)	Weik Gandolfo
S5361A A5887A	Allows Peter Guarino to be reclassified as a Tier 4 member with a date of membership of June 13, 2008, based on time he was a non-member but employed as a substitute teacher with the Lansing Central School District, Newfield City School District and Ithaca City School District. Last Action: 01/03/24 Referred to GE (Assembly) 04/29/24 Amend and Recommit not GE, Print#5887A (Assembly) 05/22/24 Passed Senate 05/22/24 Delivered to Assembly and Referred to GE (Assembly)	Manion
S9129	Allows Christine Hasseler, retired Tier 1 member of NYSTRS, to have her retirement benefit recalculated to include retirement incentive payments that her employer failed to pay her within the required timeframe, before the end of her retirement year. Last Action: 04/29/24 Referred to CS (Senate) 05/17/24 Referred to GE (Assembly)	Helming
S9803 A10547	Allows Jeffrey Alva Beall, who retired as a Tier 4 from NYSTRS before Chapter 41 of the Laws of 2016 was signed into law, to purchase 3 years of military service for the period of active duty service between April 17, 1984 to February 27, 1987, retroactive to his effective date of retirement. Last Action: 05/30/24 Referred to CS (Senate) 06/03/24 Referred to GE (Assembly)	Helming

Compensation Proposal
October 2024

For Thomas K. Lee

Current Compensation $758,646 *

*This represents Base Salary only. Salary increases are total dollar amounts that will represent the new base salary as of that month and year. These increments represent a 16% increase over two years.

October 2024	$793,500	(+$34,854)
April 2025	$829,000	(+$35,500)
October 2025	$864,500	(+$35,500)
April 2026	$900,000	(+$35,000)

X [redacted]
David Keefe
Board President

X [redacted]
Phyllis Harrington
Chair, Compensation Committee

New York State Teachers' Retirement System

Appendix C

Agenda

REVISED AGENDA

Quarterly Retirement Board Meeting October 31, 2024

Call to Order by President

Agenda pp. 5-6

A. Introduction of Visitors
B. Correspondence - none
C. Approval of Minutes of July 31, 2024 and August 1, 2024 Board Retreat pp. 7-19

Committee Reports & Action Items

A. **Audit Committee -** O. Robinson, Chair
   1. Chair's Report
   2. Resolution on Plante Moran Annual Audit Report (R1, p. 20)
   3. Resolution Reappointing Susan Landauer as Audit Committee Financial Expert (R2, p. 21)

B. **Disability Review Committee** - E. Iberger, Chair
   1. Chair's Report
   ~~2. Disability Denial Resolution (R3, p. 22)~~ Item pulled; no action
   3. Disability Rescission Resolution (R4, p. 23)

C. **Ethics Committee** - J. Longtin, Chair
   1. Chair's Report

D. **Executive Committee** - D. Keefe, Chair
   1. Resolution on 2025 Legislative Program (R5, p. 24)

E. **Compensation Committee** - P. Harrington, Chair
   1. Chair's Report - walk in resolution

F. **Investment Committee** - N. Smirensky, Chair

1. Consent Agenda items 1 A-E pages:
   A. Renew Consultant
      - StepStone – Private Equity Debt Consultant R6, p. 25
      - StepStone – Real Estate Consultant R7, p. 26
      - Meketa – Real Estate Consultant R8, p. 27
   B. Renew Managers
      - AQR Capital Management LLC (International Equities, Active) R9, p. 28
      - BlackRock Institutional Trust Company (International Equities, Passive) R10, p. 29
      - Dimensional Fund Advisors (International Equities, Active) R11, p. 30
      - Goldman Sachs Asset Management (Global Bonds, Active) R12, p. 31
      - Harding Loevner Management (Global Equities, Active) R13, p. 32
      - Loomis Sayles & Co. (Global Bonds, Active) R14, p. 33
      - Marathon Asset Management Ltd (International Equities, Active) R15, p. 34
      - Nomura Corporate Research & Asset Management (High Yield Bonds, Active, 2 accounts) R16, p. 35
      - State Street Global Advisors (International Equities, Passive) R17, p. 36
   C. Reappointments to Investment Advisory Committee
      - Robert Levine (R18, p. 37)

- June Yearwood (R19, p. 38)

D. Reappointments to Real Estate Advisory Committee
- Maureen Ehrenberg (R20, p. 39)
- James O'Keefe (R21, p. 40)

E. Resolution on Investment Policy Manual (R22, p. 41)

2. Resolution on Internally Managed International Equity Strategy (R23, p. 42)

G. **Risk Committee** (R. Mahoney, Chair)
1. Chair's Report

Staff Reports

A. Old Business

B. New Business
1. Litigation – D. Ampansiri p. 43
2. Member Relations Update – B. Dellea pp. 44-51
3. EDCIO Work Plan Presentation – E. Ekland pp. 52-54
4. DEI Update – D. Malavé, M. Pinchinat pp. 55-58
5. Employer Contribution Rate Presentation – R. Young, M. Prangley pp. 59-75

New York State Teachers' Retirement System

To:	**Retirement Board**
From:	**D. Ampansiri, Jr./ J. Graham**
CC:	**T. Lee**
Date:	**October 22, 2024**
Re:	**Status of System Litigation as of October 22, 2024**

UPDATE ON PENDING LAWSUITS SINCE THE LAST REPORT

Michael Bellarosa v. New York State Teachers' Retirement System

Action commenced: 9/8/2022
Favorable Article 78 decision: 5/12/2023
Favorable Appellate Division decision issued: 7/18/2024

UPDATE: On July 18, 2024, the Appellate Division (Third Department), in a unanimous 5-0 decision, affirmed the Supreme Court's May 12, 2023, favorable ruling regarding the System's determination to exclude certain payments from inclusion in Petitioner's pension calculation as well as the application of the 10% cap on increases to his earnings in the FAS period.

In August 2024, Petitioner moved for leave to appeal to the Court of Appeals. The Attorney General filed an opposition to the motion on NYSTRS' behalf. We are awaiting the Court's decision on the motion.

Summary of the case/background information:

Petitioner, a Tier 4 member, is challenging the System's determination excluding for pension purposes payments made to Petitioner for a Technology/ Wellness/ Transportation Allowance and Vacation by the Valley Central School District (the District). The District converted the Technology/ Wellness/Transportation Allowance and unused vacation days into salary. The conversion of these benefits into salary on the eve of retirement has the effect of artificially inflating the pension benefit. As such, these payments are not considered regular salary and NYSTRS contends the payments are excluded from the pension calculation. Petitioner also challenged the application of the statutory requirement that we cap the increases in petitioner's salary for the 3 years used to calculate the FAS at 10% of the average salary for the preceding 2 years.

LAWSUITS COMMENCED SINCE THE LAST REPORT - None

New York State Teachers' Retirement System

Appendix E

Customer Service Survey – 2024 Retirees

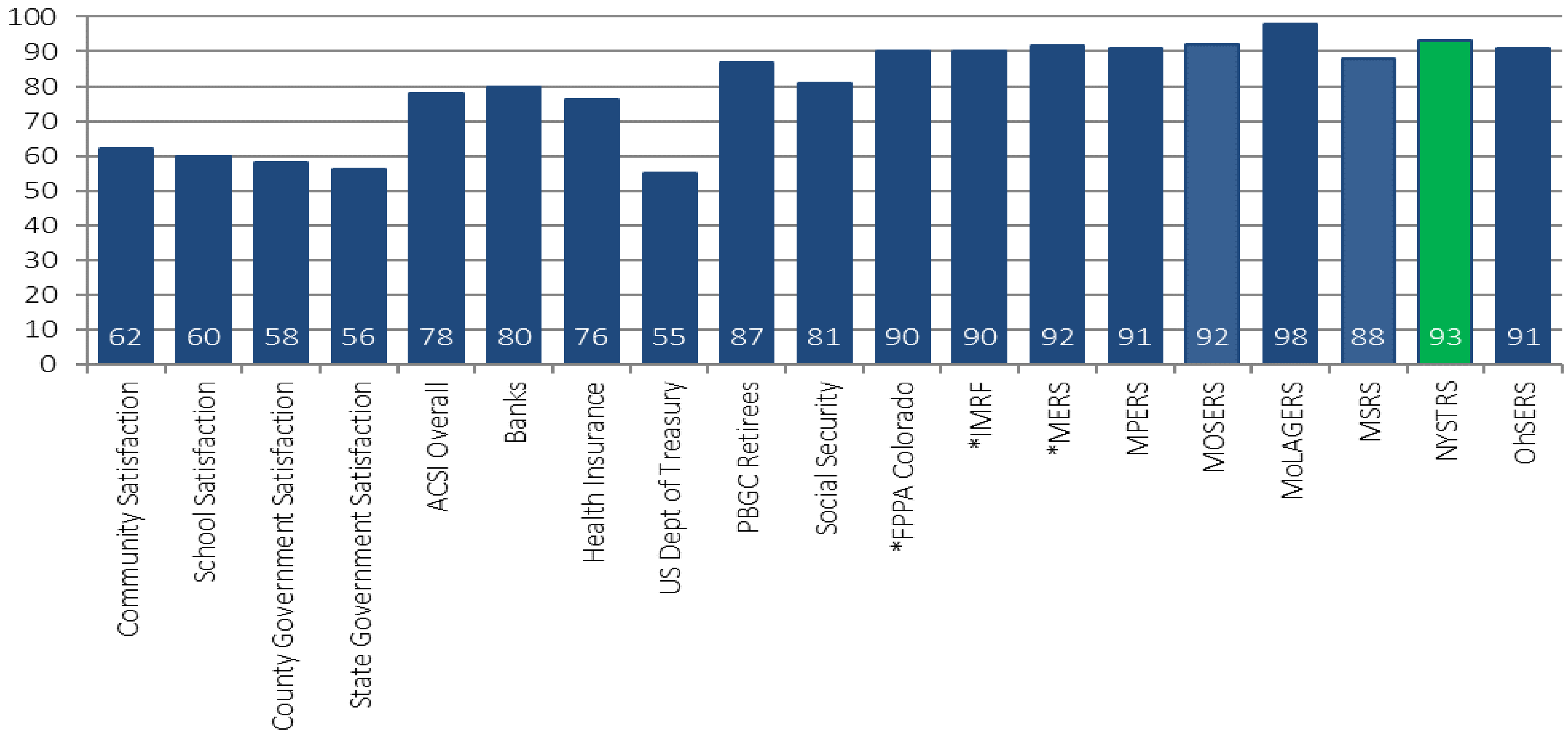
Retiree Satisfaction

Beth Dellea – Member Relations

Background

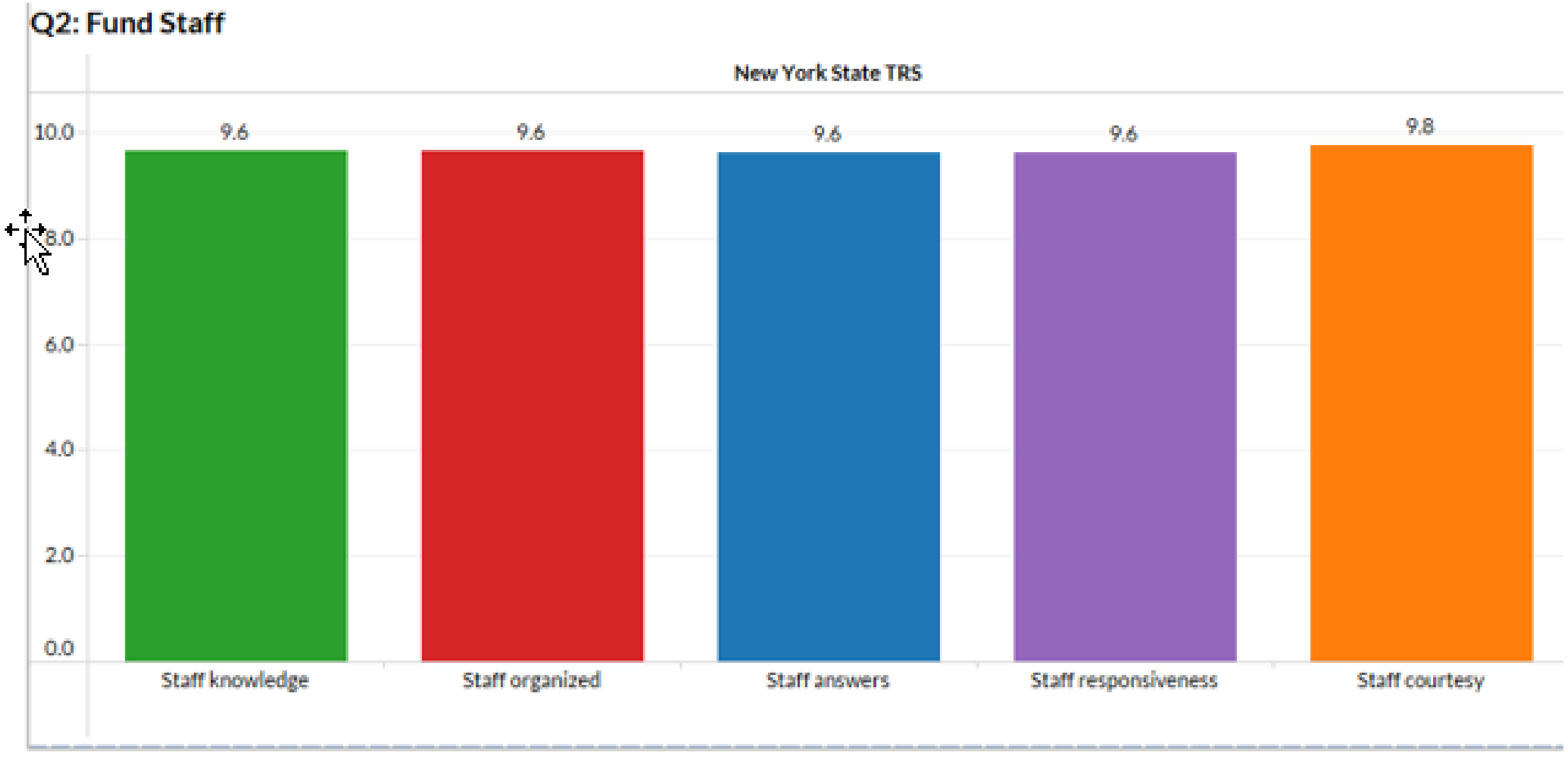
- American Customer Satisfaction Index (ACSI) – compare with broader public and private sectors
- Highlights of NYSTRS Data
  - Response Rate: 52% (33% in 2023)
    - Sent 4,578 & Received 2,361
  - Responses collected July & August 2024
  - Respondents consisted of 2023-2024 Retirees

Overall Comparison

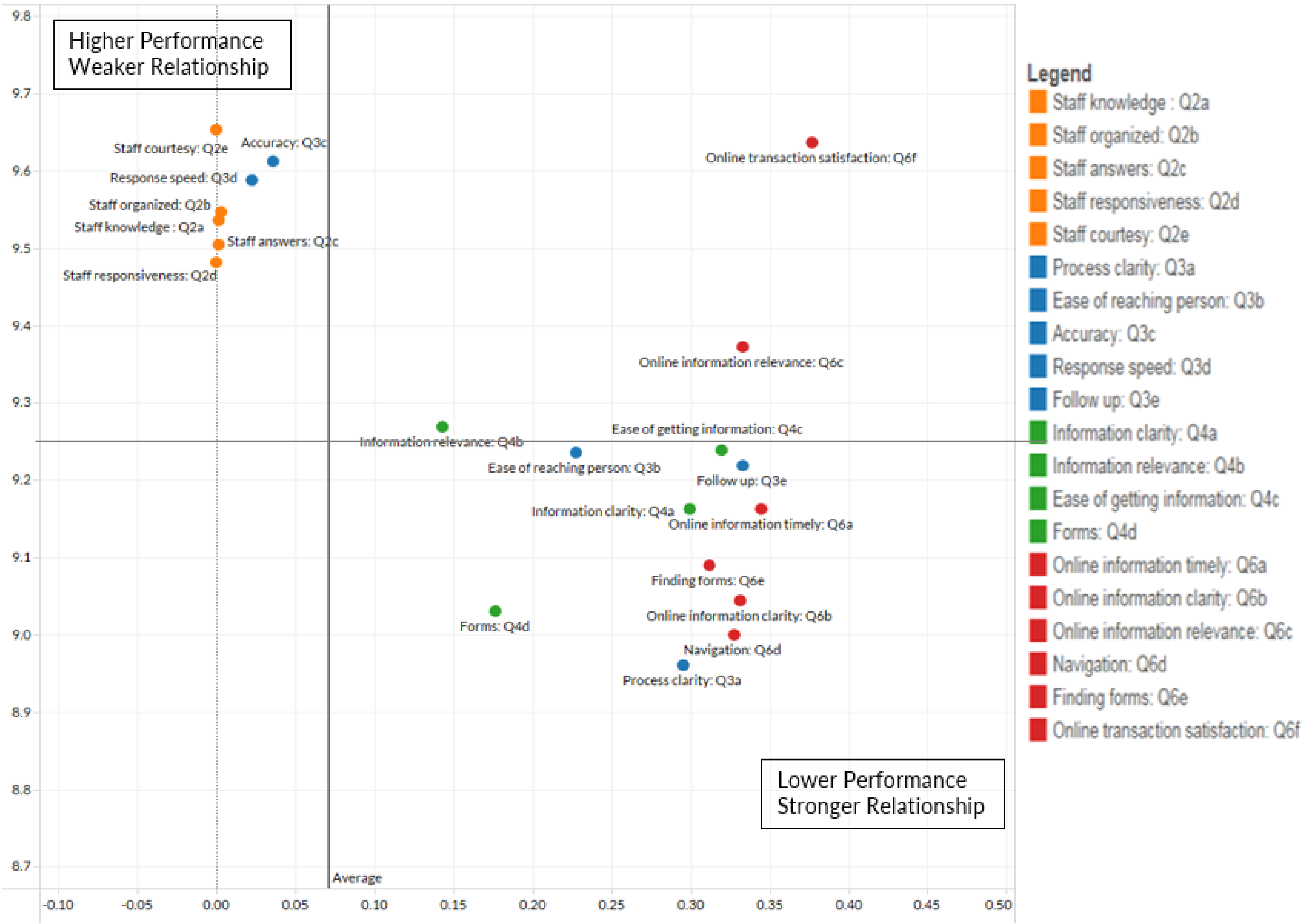


NYSTRS

Current Score - Staff



Correlation with Overall Satisfaction



Comparison of Retirement Systems

	CoFPPA	IMRF	MoLAGERS	Missouri SERS	MPERS	MSRS	New York State TRS	Ohio SERS
ACSI Score	**90**	**90**	**98**	**92**	**91**	**88**	**93**	**91**
Overall Satisfaction	9.2	9.2	9.9	9.4	9.4	9.2	9.5	9.3
Compared to Expectations	9.1	9.0	9.7	9.2	9.0	8.9	9.2	9.2
Comparison to Ideal	9.1	9.1	9.8	9.2	9.2	8.7	9.3	9.2
Staff knowledge : Q2a	9.5	9.4	9.8	9.8	9.6	9.7	9.7	9.5
Staff organized: Q2b	9.4	9.4	9.8	9.7	9.6	9.6	9.7	9.5
Staff answers: Q2c	9.6	9.3	9.8	9.7	9.5	9.7	9.7	9.6
Staff responsiveness: Q2d	9.5	9.2	9.9	9.6	9.6	9.6	9.7	9.5
Staff courtesy: Q2e	9.7	9.7	9.9	9.9	9.7	9.7	9.8	9.7
Process clarity: Q3a	9.1	9.0	9.5	9.0	9.1	8.7	9.3	9.0
Ease of reaching person: Q3b	9.2	8.6	9.8	9.2	9.4	9.1	9.4	9.3
Accuracy: Q3c	9.4	9.2	9.9	9.4	9.5	9.4	9.7	9.5
Response speed: Q3d	9.4	9.1	9.9	9.4	9.5	9.5	9.6	9.4
Follow up: Q3e	9.4	8.9	9.9	9.4	9.4	9.4	9.5	9.3
Information clarity: Q4a	9.2	9.3	9.4	9.0	9.1	9.1	9.4	9.1
Information relevance: Q4b	9.3	9.4	9.7	9.3	9.4	9.3	9.6	9.2
Ease of getting information: Q4c	9.2	9.3	9.8	9.3	9.3	9.2	9.5	9.3
Forms: Q4d	9.2	9.2	9.3	9.1	9.3	9.0	9.3	9.0
Online information timely: Q6a	9.0	9.1	9.7	9.1	9.4	9.2	9.5	9.1
Online information clarity: Q6b	8.9	9.0	9.6	8.9	9.1	9.0	9.4	8.8
Online information relevance: Q6c	9.1	9.2	9.7	9.3	9.2	9.3	9.6	9.1
Navigation: Q6d	8.4	8.7	9.7	8.8	8.8	8.9	9.3	8.8
Finding forms: Q6e	8.7	8.9	9.7	8.9	9.2	9.0	9.4	8.7
Online transaction satisfaction: Q6f	9.1	9.1	9.8	9.0	9.0	-	9.6	8.7

Where we can improve

- Website improvements – form placement and easier menus
- Appointment scheduling – specific appointments for current year
- Tax withholding form improvement
- Follow up - We called any retiree who provided their contact information and had a less than favorable remark or question

Questions??

"I'm from down the street. Your customer ordered our wine because it is better than yours."

New York State Teachers' Retirement System

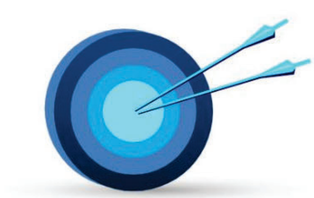
Appendix F

October Board

Workplan Update

New York State Teachers' Retirement System
ED/CIO Work Plan Dashboard

Initiatives Overview



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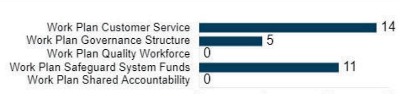
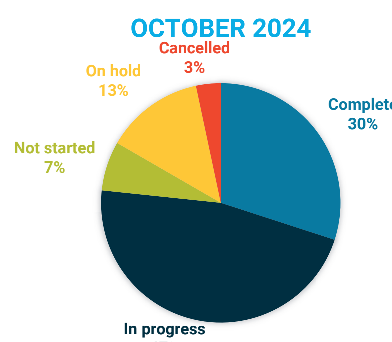
Work Plan Initiatives

Work Plan by Strategic Objective - Count





Rethinking the workplan

Elements of workplan items

- Impact
  - On portfolio
  - On workforce
  - On human and technology resources
- Effect on business operations
- Reputational risk
- Dollar commitments

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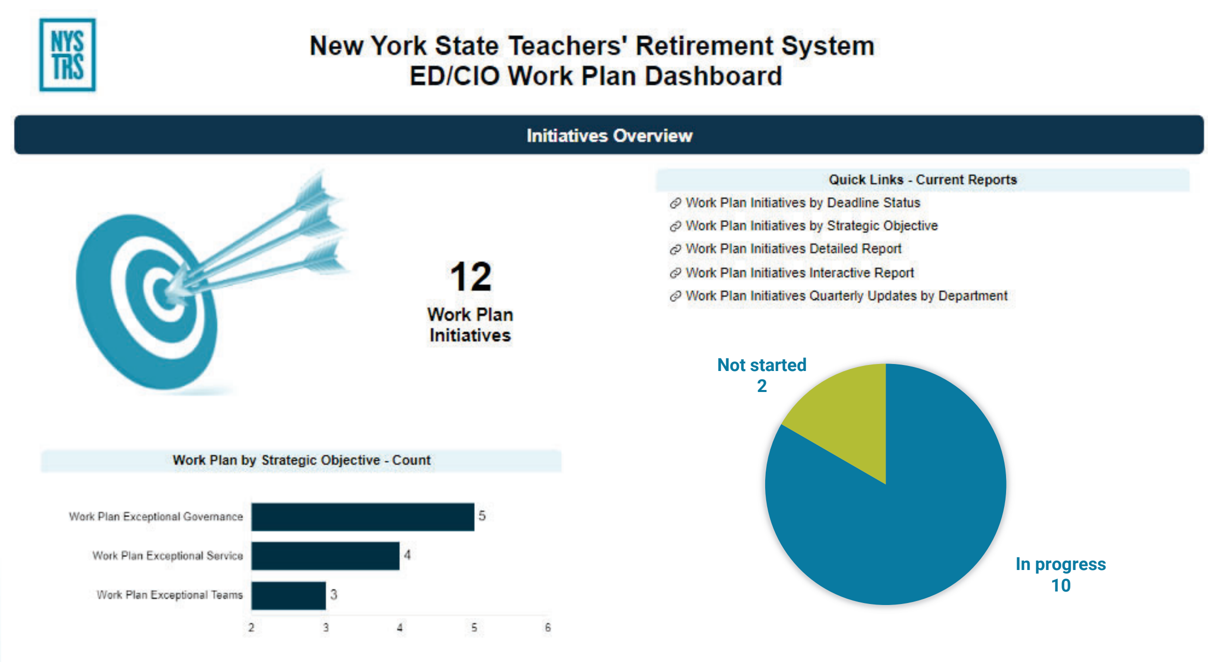
With those elements in mind…



NYSTRS

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

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.

Appendix G

New York State Teachers' Retirement System

Diversity, Equity, & Inclusion Division Update

October 31, 2024

Danny Malavé, Managing Director, Diversity, Equity, & Inclusion

Matthew Pinchinat, Deputy Managing Director, Diversity, Equity, & Inclusion

DEI: Quarter-in-Review

Workforce DEI Culture & Learning

- Voluntary Workforce Education – Empowerment Series
- Employee Networking Group (ENG) Collaboration
- Employee Mentorship Program (EMP) Enhancements
- All TRS Inclusion & Equity Survey – Report Out

External/Partner Engagement

- MWBE Strategy
- Educational Institution Engagement
- Peer Group Engagement Update

DEI Division/Team

- Staffing Update

DEI: Voluntary Learning – Empowerment Series

Series Description

- Series of voluntary workforce education sessions centering empowerment.
- The series features a multi-tiered approach to employee learning and several cross–divisional collaborations.

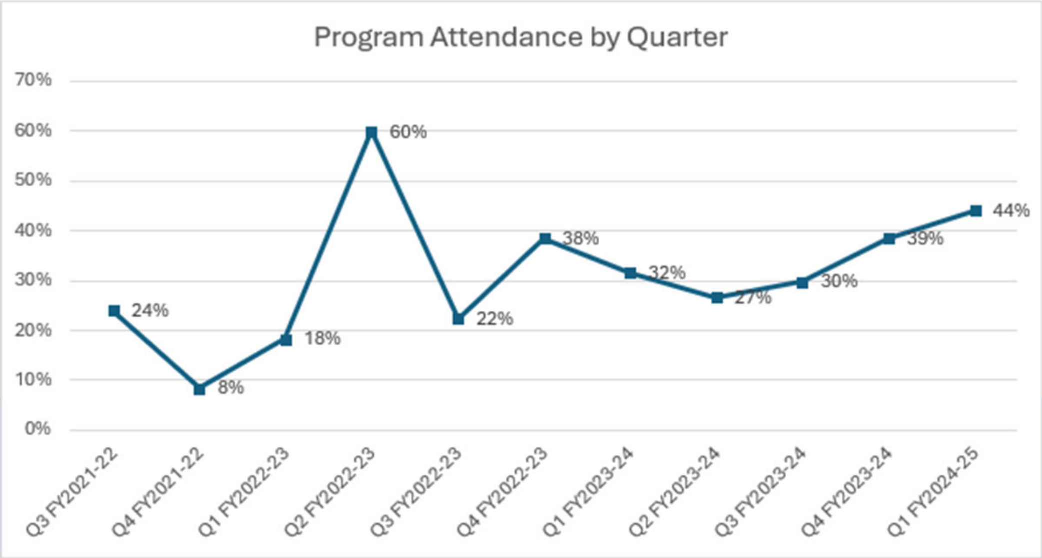
Example Programs

- Financial Empowerment
- Bridging the Gap in Effective Relationship Building with Introverts at Work
- Exploring the Intersection of Identity and Celebration

Voluntary Education Planning

- Aligned Annual Theme
- Min. Monthly Initiative
- Supplementary Offerings

Session	Employee Feedback
8/13	"I also learned that about the challenges of being first-gen and how that can shape people into who they are."
9/25	"the DEI team partnered with Benefits & Deferred Comp did an amazing job setting NYSTRS employees up for future success. Allowing to discuss things people don't always think about"
10/2	"This was fantastic! I really enjoyed the analogies used for introverts and extroverts. I wish everyone could have gone"
10/16	"I appreciated the additional perspective on this month's holiday, as well as the small group discussion"



DEI: 2024-25 Priorities & Planning

Workforce Culture & Learning Strategy

- Review & Update – DEI Strategic Plan
- I&E Survey Pilot Initiative – Information Technology

External Engagement Updates

- 2024 MWBE Certification Process
- NYSTRS MWBE Report Redesign Update
- 2025 MWBE Investments & Professional Services Conference
  - Tentative Date: Thursday, February 13, 2025

DEI Division/Team

- Workforce Planning – Specialization
- Internship Staffing

New York State Teachers' Retirement System

Appendix H

Estimated Range of the Next Employer Contribution Rate

Richard A. Young, *Chief Actuary*

Melody Prangley, *Deputy Chief Actuary*

October 31, 2024

Current ECR:
June 30, 2023 Actuarial Valuation

- Employer Contribution Rate (ECR) = 10.11%

- Applies to Member Salaries from 7/1/2024 through 6/30/2025

- Contributions to be collected in the Fall of 2025

Next ECR:
June 30, 2024 Actuarial Valuation

The ***Estimated*** Range of the next Employer Contribution Rate (ECR):

9.50% - 10.00%

No changes are recommended to the actuarial assumptions.

Application Dates

- Will apply to Member Salaries from 7/1/2025 through 6/30/2026

- Will be collected in the Fall of 2026
  - September 2026
  - October 2026
  - November 2026

Employer Dollars Contributed

Collection Date	Employer Contributions	ECR
Fall 2021	$1.6 billion	9.53%
Fall 2022	$1.7 billion	9.80%
Fall 2023	$1.9 billion	10.29%
Fall 2024	$1.9 billion*	9.76%
Fall 2025	$2.0 billion*	10.11%
Fall 2026	$1.9 - $2.0 billion*	9.50% – 10.00%

**estimated*

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Historic 50 Years of ECR

’75 – ’76	19.40%	’88 – ’89	14.79%	’01 – ’02	0.36%	’14 – ’15	17.53%
’76 – ’77	19.40%	’89 – ’90	6.87%	’02 – ’03	0.36%	’15 – ’16	13.26%
’77 – ’78	20.40%	’90 – ’91	6.84%	’03 – ’04	2.52%	’16 – ’17	11.72%
’78 – ’79	21.40%	’91 – ’92	6.64%	’04 – ’05	5.63%	’17 – ’18	9.80%
’79 – ’80	22.49%	’92 – ’93	8.00%	’05 – ’06	7.97%	’18 – ’19	10.62%
’80 – ’81	23.49%	’93 – ’94	8.41%	’06 – ’07	8.60%	’19 – ’20	8.86%
’81 – ’82	23.49%	’94 – ’95	7.24%	’07 – ’08	8.73%	’20 – ’21	9.53%
’82 – ’83	23.49%	’95 – ’96	6.37%	’08 – ’09	7.63%	’21 – ’22	9.80%
’83 – ’84	22.90%	’96 – ’97	3.57%	’09 – ’10	6.19%	’22 – ’23	10.29%
’84 – ’85	22.80%	’97 – ’98	1.25%	’10 – ’11	8.62%	’23 – ’24	9.76%
’85 – ’86	21.40%	’98 – ’99	1.42%	’11 – ’12	11.11%	’24 – ’25	10.11%
’86 – ’87	18.80%	’99 – ’00	1.43%	’12 – ’13	11.84%		
’87 – ’88	16.83%	’00 – ’01	0.43%	’13 – ’14	16.25%		

NYSTRS Funded Ratio

Ratio of Plan Assets to Accrued Liabilities

MVA = market value of assets

AVA = actuarial value of assets

FYE	Funded Ratio Based on MVA	Funded Ratio Based on AVA
6/30/2019	101.2%	99.6%
6/30/2020	97.3%	98.9%
6/30/2021	113.0%	99.3%
6/30/2022	97.4%	99.3%
6/30/2023	98.2%	98.6%
6/30/2024*	101%	99%

*estimated

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Historic Rates of Return – Last Five Years

Fiscal Year	Rate of Return (net of fees)
2019 – 2020	3.5%
2020 – 2021	29.0%
2021 – 2022	-7.1%
2022 – 2023	9.0%
2023 – 2024	11.4%
5-year average:	**8.5%**

5-year geometric average: $[(1.035)\times(1.29)\times(0.929)\times(1.09)\times(1.114)]^{(1/5)} - 1 = 8.5\ \%$

NYSTRS

Long-Term Annualized Rates of Return

As of June 30, 2024

Period	Rate of Return (net of fees)
1-Year	11.4%
5-Year	8.5%
10-Year	7.8%
15-Year	9.8%
20-Year	7.8%
25-Year	6.7%
30-Year	8.7%

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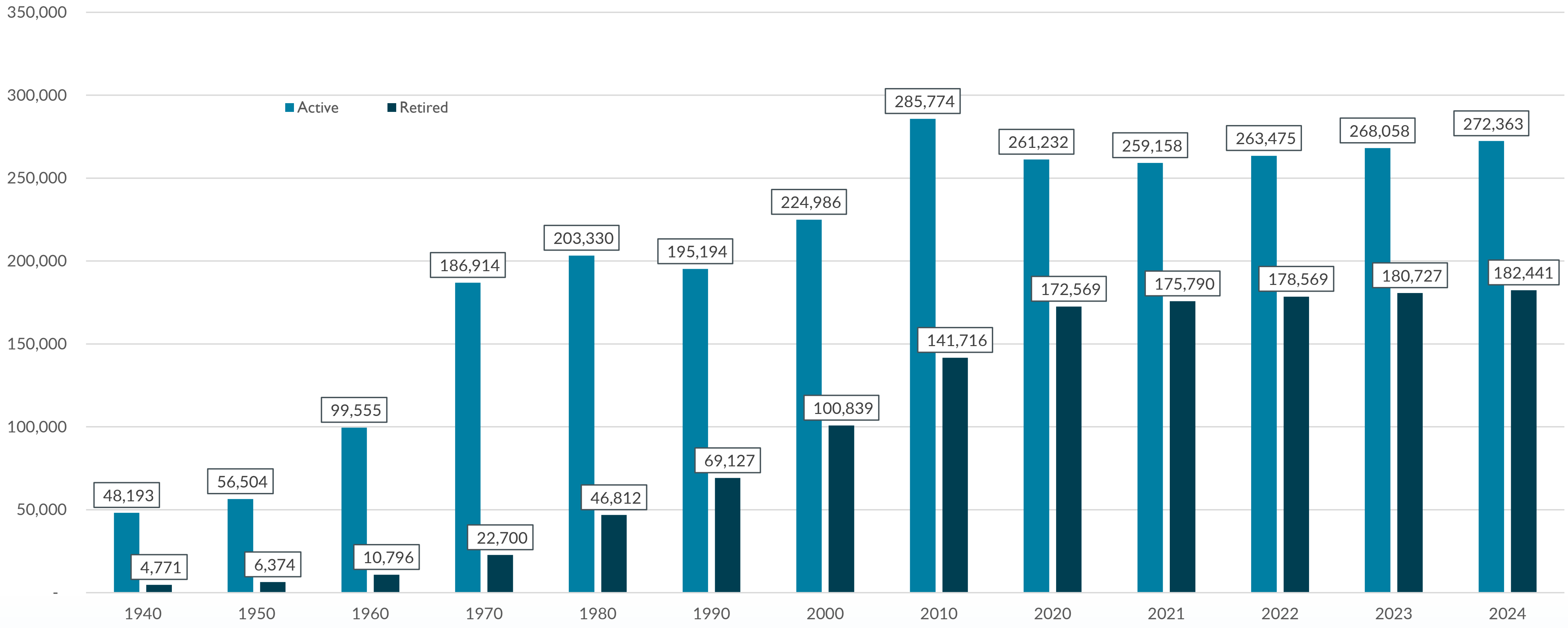
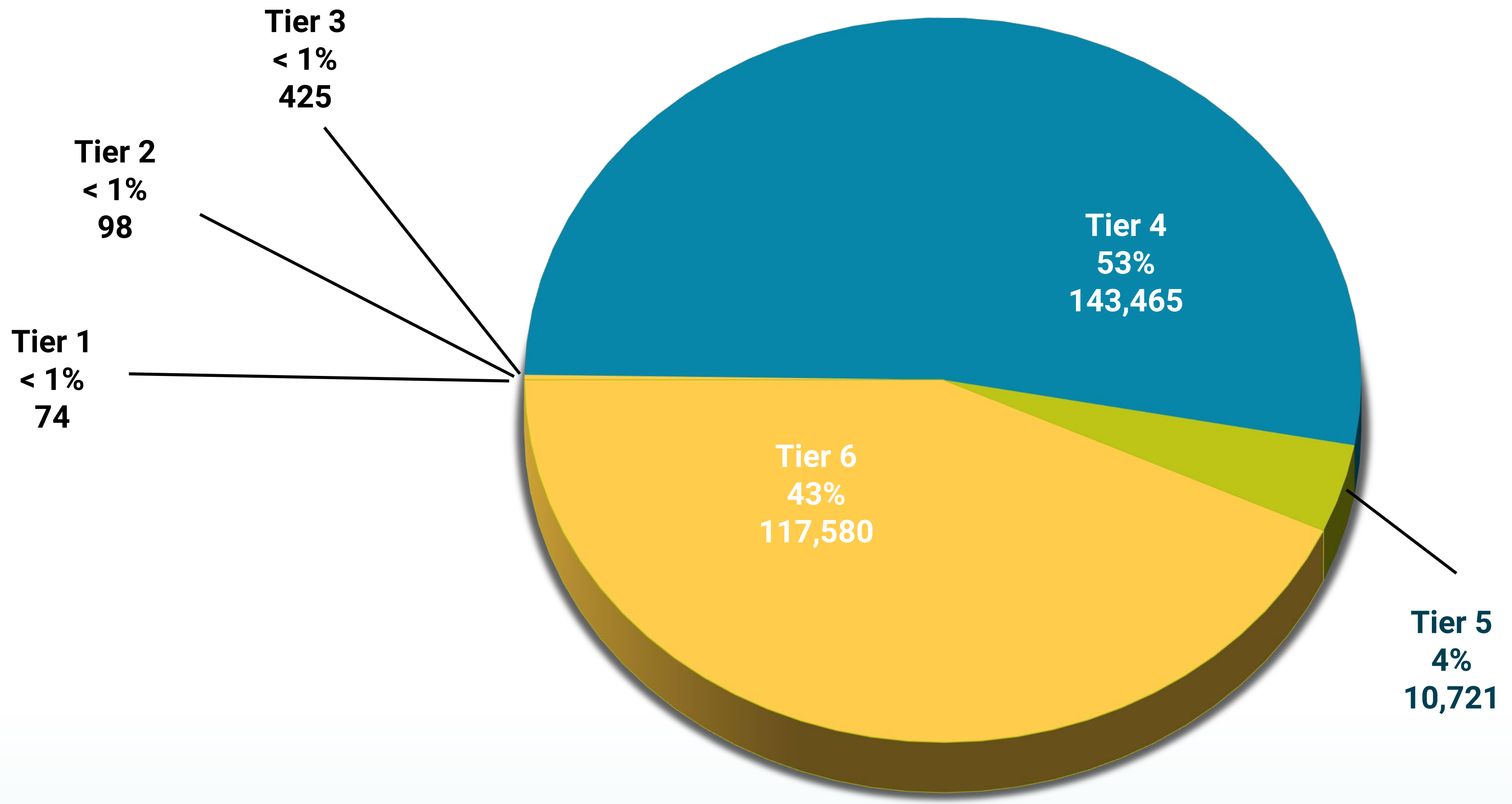
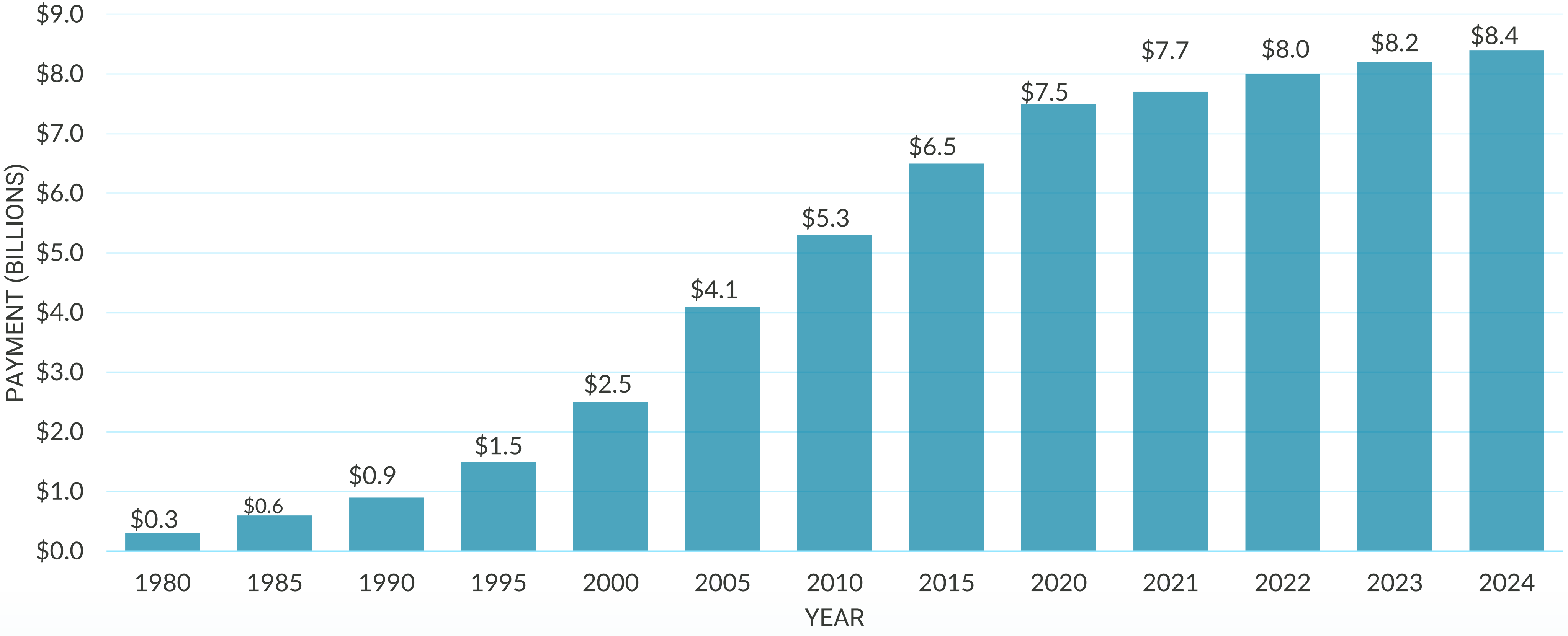
Active and Retired Member Counts



Distribution of Active Members by Tier June 30, 2024



Annual Benefit Payments



Monthly COLA Increases

	Commencing September 2024	Commencing September 2023
CPI Percentage Change for Year ended March 31	3.48%	4.98%
Applicable COLA Percentage	1.8%	2.5%
Maximum Monthly COLA Increase based on Annual Benefit Amount of $18,000	$27.00	$37.50
Cumulative Maximum Monthly COLA (back to Sept. 2001)	$508.50	$481.50

Cost-of-living increases are paid to eligible retired members (generally the later of age 62 and retired for 5 years) and are increased each September. The annual COLA percentage is equal to 50% of the increase in the annual CPI, not to exceed 3% nor to be lower than 1%. The percentage is applied to the first $18,000 of the maximum annual benefit.

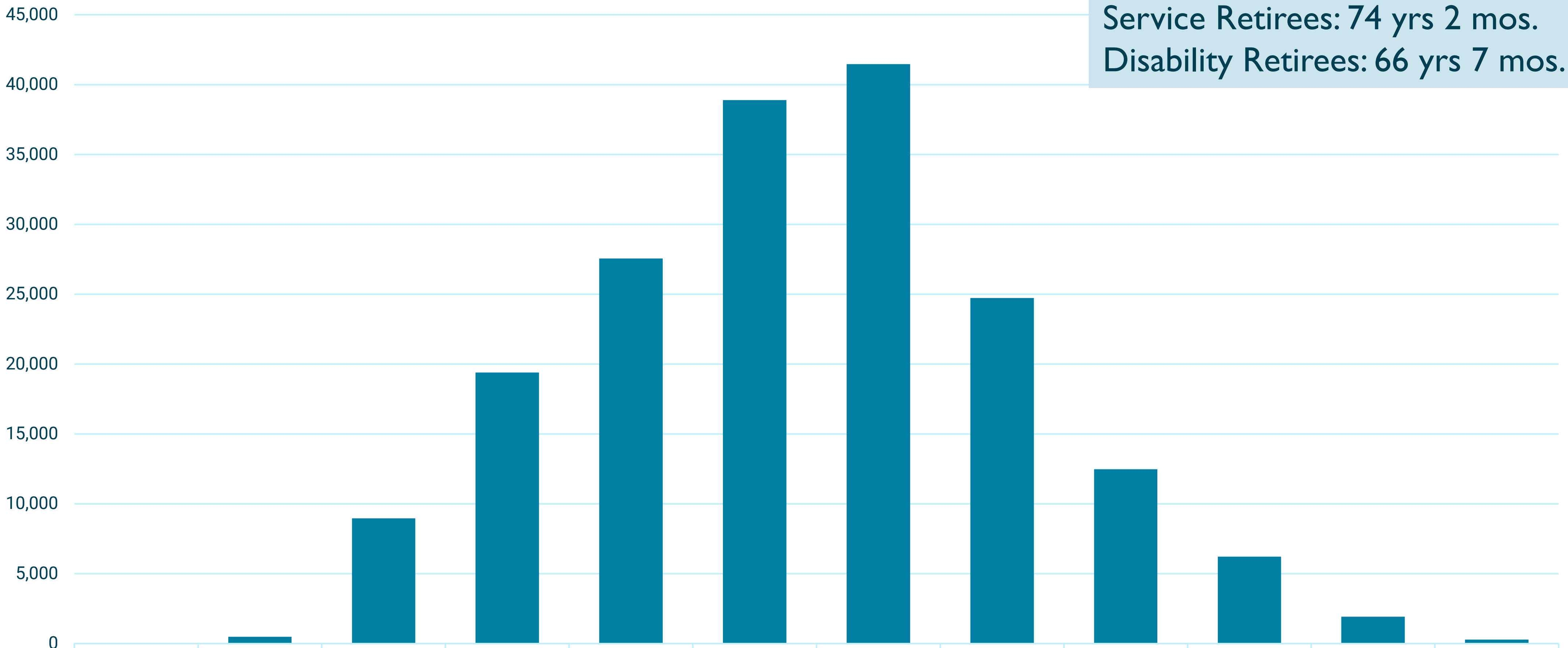
Retired Members' Characteristics By Year of Retirement

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.

Retired Members and Beneficiaries: Age Distribution

Average Attained Age
Service Retirees: 74 yrs 2 mos.
Disability Retirees: 66 yrs 7 mos.

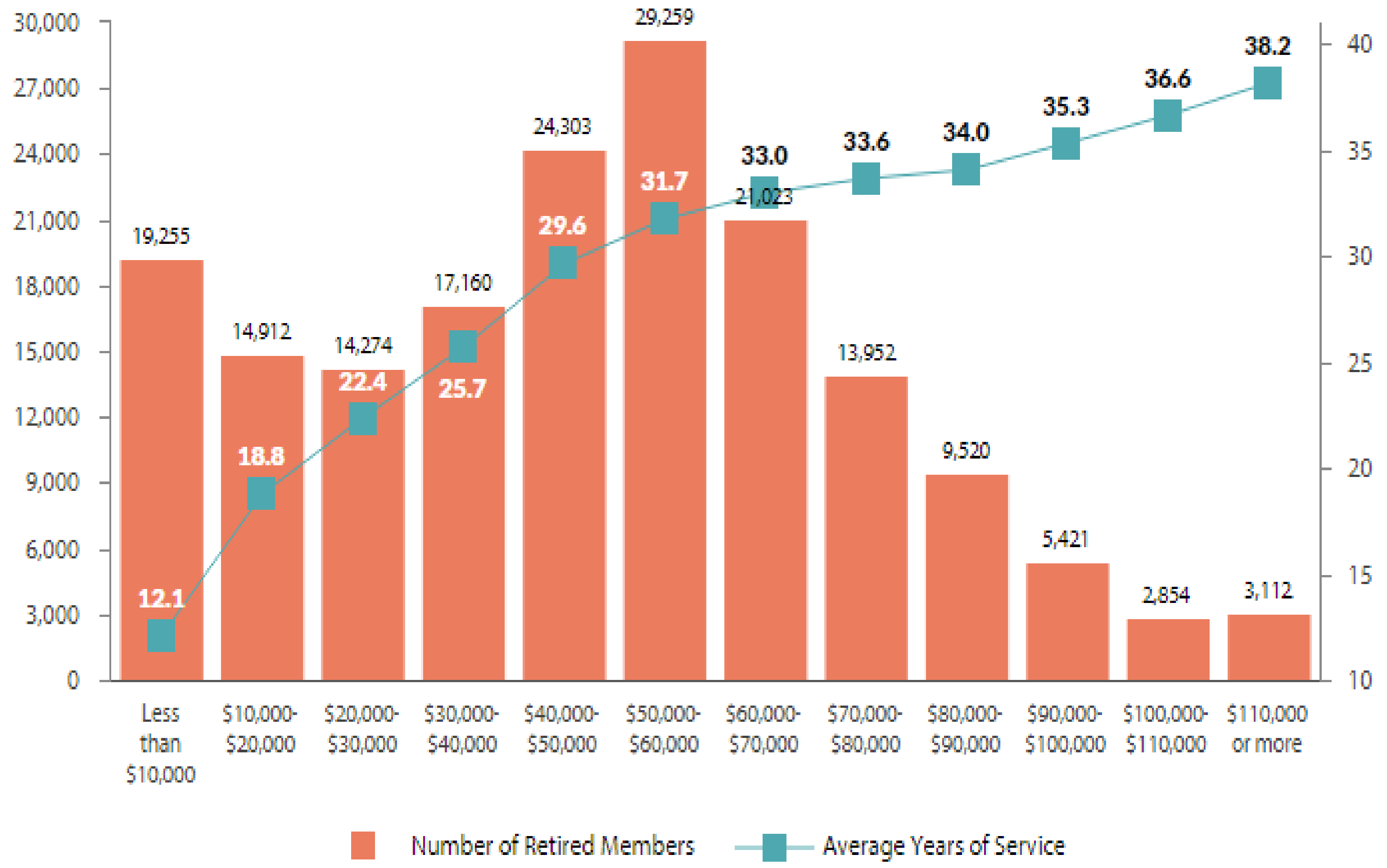


	Age	Under 55	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	100+
Count	0	494	8,971	19,395	27,556	38,885	41,473	24,736	12,482	6,227	1,933	289

Distribution of the Annual Benefits Paid

DISTRIBUTION OF THE ANNUAL BENEFIT* OF ALL RETIRED MEMBERS

— as of June 30, 2024



*Maximum annual retirement benefit including supplementation and COLA.

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Questions?

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