New York State Teachers' Retirement System

Agenda

Risk Committee Meeting October 29, 2025

Committee Members
Ruth Mahoney, Chair
Donald A. Little III, Jennifer Longtin, Nicholas Smirensky, Mark Stratton

Call to Order by Chair

AGENDA p. 1

A. Approval of Minutes of July 30, 202 pp. 2-3

B. Compliance Regulatory Catalog Update – M. Tice pp. 4-5

C. Annual SEC Red Flags Risk Assessment – M. Tice pp. 6-12

D. Annual OFAC Risk Assessment – M. Tice pp. 13-22

E. Investment Risk KRI Dashboard and Update – R. Ranado pp. 23-34

F. Information Security KRI Dashboard and update – J. Rosenburg (motion for **Executive Session** pursuant to Open Meetings Law §108 (3) for a discussion of NYSTRS IT security) pp. 35-45

G. Quarterly Review of Risk Management Team (motion for **Executive Session** pursuant to Open Meetings Law §105 (1) (f) to discuss personnel matters)

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 July 30, 2025.

The following individuals were in attendance:

Committee Members: Donald Little III, Nicholas Smirensky, Eric Iberger

Board Members: Phyllis Harrington, David Keefe, Scott Levy, Mark Stratton

Risk Committee Advisors via WebEx: Sean Atkinson, Peter Cosgrove, Steven Huber

NYSTRS' Staff: Thomas Lee, Don Ampansiri, Matt Tice, Matt Albano, John Rosenburg, Ryan Ranado, Rick Jensen, Olivia Castle, Ryan Warren

Visitors via WebEx: Sun Yu, Financial Times; Mitchell King and Kira Johansen, Blackrock

Prior to the start of the meeting, in order to ensure a quorum at the meeting (Committee members Ruth Mahoney, Chair and Jennifer Longtin were absent), Board President D. Keefe appointed E. Iberger to serve as a member of the Risk Committee for this meeting.

The meeting was called to order by N. Smirensky, acting Chair at 8:29 a.m.

The following items were discussed:

1. Approval of the minutes of April 23, 2025

   Upon motion of D. Little, seconded by E. Iberger and unanimously carried, the meeting minutes of the April 23, 2025 were approved.

2. Compliance Update and Compliance Program Overview

   M. Albano and M. Tice presented the compliance update (Appendix A, pp. 3-15).

3. Investment Risk Update and KRI Dashboard

   R. Ranado presented the investment risk update and reviewed the KRI dashboard (Appendix B, pp. 16-27).

4. Executive Session

Upon motion of E. Iberger, seconded by D. Little and unanimously carried, the Committee went into Executive Session at 8:45 a.m. to discuss personnel matters.

With unanimous consent, the meeting came out of Executive Session at 8:52 a.m.

There being no further business, the Committee unanimously adjourned at 8:52 a.m.

Respectfully submitted,

_____

Thomas K. Lee

New York State Teachers' Retirement System

Enterprise Risk and Compliance Update

Risk Management

Risk Committee: October 29, 2025

Matthew Albano, CFA, Chief Risk Officer

Matthew Tice, Director of Enterprise Risk

Regulatory Items Requiring Board Action

October Meeting	Regulatory Item	Owner
	Approve Actuarial Assumptions	Actuary
	Approve External Audit Report	Internal Audit
	Approve changes to IPM	Executive

January Meeting	Regulatory Item	Owner
	Approve Business Continuity Plan (BCP) and Disaster Recovery Plan (DRP)	Risk (BCP) Information Technology (DRP)
	Approve Internal Audit Plan	Internal Audit

- Period of ***July*** through ***September***: ***76*** required regulatory items were due and all were completed by departments.

New York State Teachers' Retirement System

Securities and Exchange Commission Red Flags Assessment

Risk Management

Risk Committee: October 29, 2025

Matthew Albano, CFA, Chief Risk Officer

Matthew Tice, Director of Enterprise Risk

Agenda

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

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

- To address the SEC Red Flag on soft dollars/ kickbacks, all **53** brokers utilized by NYSTRS during 2024 were contacted and attested that they are not engaging in the use of soft dollars or commission sharing in conjunction with NYSTRS securities transactions and are not providing any gifts, gratuities or anything else of value to any employee or Board member of NYSTRS.

- Investment departments assess **50** items within the **12** Red Flag categories of non-compliance risk that may be present in their everyday operations and rates the impact and likelihood to calculate the score of each Red Flag category.

- The results of the assessment are presented to the Risk Committee of the Board.

SEC Red Flags Assessment Results

- Controls were reviewed with departments and reduced the likelihood of the red flags to highly unlikely. However, depending on the type of event the impact could be severe.

Red Flag Categories	Likelihood	Impact	Risk Score
1. Marketing/Performance			
2. Form ADV/Disclosures			
3. Invoices/Fees			
4. IPO Offerings			
5. Soft Dollar/Kickbacks			
6. Compensation	Not Applicable	Not Applicable	Not Applicable
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			

Questions?

Appendix

Likelihood

Highly Unlikely <5% | Unlikely 6-34% | Possible 35-64% | Likely 66-94% | Highly Likely >95%

Impact

Insignificant | Minor | Moderate | Major | Severe

Risk Score

Low | Medium Low | Medium | Medium High | High

New York State Teachers' Retirement System

Office of Foreign Assets Control Annual Risk Review

Risk Management

Risk Committee: October 29, 2025

Matthew Albano, CFA, Chief Risk Officer

Matthew Tice, Director of Enterprise Risk

Agenda

- ❑ Annual Risk Review Guidance
- ❑ Assessment Results
- ❑ Office of Foreign Assets Control Actions – 2024 Year in Review
- ❑ NYSTRS Screening – Year in Review

Annual Risk Review Guidance

The Enterprise Risk Management (ERM) Department conducted its annual risk review utilizing the following guidance provided by the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) as well as the ERM Department's knowledge of NYSTRS' operations.

1. **Framework for OFAC Compliance Commitments**: The ERM Department compared NYSTRS' Sanction Compliance Program (SCP) framework to the U.S. Department of the Treasury's OFAC Framework which includes:
    - **A.** The five essential elements of an OFAC program
    - **B.** The top ten root causes of SCP failure

2. **NYSTRS ERM Department's Top OFAC Risks**: The ERM Department identified the top risks for NYSTRS' operations. The risks were assessed for likelihood and impact and focused on payments made and received to calculate a risk score.

Five Essential Elements of an OFAC Program

- NYSTRS' SCP framework **contains** and **conforms** to the **five** essential elements of an OFAC program based on the U.S. Department of Treasury's guidance.

1. Management Commitment

Commitment and support is one of the most important factors in the program's success

2. Risk Assessment

Conduct a routine, and if appropriate, ongoing "risk assessment" for the purposes of identifying potential OFAC issues

3. Internal Controls

Policies and procedures in place

4. Testing and Auditing

Audits assess the effectiveness of current processes

5. Training

An effective training program is an integral component of a successful program

Top Ten Root Causes of SCP Failure

- The ERM department compared NYSTRS' SCP operations to the U.S. Department of the Treasury's top ten root causes list.
- NYSTRS has policies, programs, and software **in place** that mitigate the risk of a similar failure occurring within NYSTRS' SCP.

Root Causes of OFAC Sanction Compliance Program Breakdown or Deficiencies	Policy/Program/Software In Place at NYSTRS
Lack of Formal OFAC Sanction Compliance Program (SCP)	☑
Misinterpreting/failing to understand the applicability of OFAC's regulations	☑
Facilitating transactions by non-US persons (including through or by overseas subsidiaries or affiliates)	☑
Exporting or Re-exporting U.S.-origin Goods, Technology, or Services to OFAC Sanctioned Persons or Countries	N/A
Utilizing the US financial system, or processing payments to or through US financial institutions, for commercial transactions involving OFAC sanctioned persons or countries	☑
Sanctions screening software or filter faults	☑
Improper Due Diligence on Customers/Clients (e.g., Ownership, Business Dealings, etc.)	☑
De-Centralized Compliance Functions and Inconsistent Application of an SCP	☑
Utilizing Non-Standard Payment or Commercial Practices	☑
Individual Liability	☑

NYSTRS' OFAC Risks

- The ERM department identified OFAC risks facing NYSTRS' operations as viewed by the ERM department.
- The risks were assessed for likelihood and impact and focused on payments made and received. While the likelihood was assessed at **low**, the impact for payments made and received from investment transactions could be **high** due to the large dollar amount of the transactions.

NYSTRS' OFAC Risks	Likelihood	Impact	Risk Score
Member, beneficiaries or estates payments			
Investment partners payments			
School districts payments			
Vendor payments			
Investment alongside parties blocked by OFAC			
Investments in blocked securities or which are subsequently blocked			
Other payments			

U.S. Department of the Treasury's OFAC 2024 Year in Review

- In **2024**, the Office of Foreign Assets Control took **192** actions that consisted of the following: updates to the SDN list, general license issuance, designations to an entity made by Treasury, posting of FAQ's to a previous designation, and settlements with the Treasury.
- Of those 192 actions, **137** were updates made to sanction lists which contains the names of individuals and entities subject to comprehensive or targeted restrictive measures under international and domestic sanctions regimes.
- In **2024**, 12 enforcement actions resulted in $48 million of civil penalties. The two most notable were $14 million settlement with Aiotec GmbH and the $20 million settlement with SCG Plastics Co., Ltd.

NYSTRS OFAC Screening

Year In Review

Investments Screened

957
Individuals and entities related to investment transactions against the OFAC's SDN and sanction list

Vendors Screened

124
Vendors were screened relating to non-investment transactions by NYSTRS Procurement Unit

Department Reviews

47 flags were reviewed and cleared by the ERM Department

23 OFAC Certifications were reviewed and approved by the Legal Department

Member Relations

Member Relations has been added to the OFAC screening platform, so Risk Management, Procurement, and Member Relations are now all using the same system

Questions?

Appendix

Likelihood

Highly Unlikely <5%	Unlikely 6-34%	Possible 35-64%	Likely 66-94%	Highly Likely >95%

Impact

Insignificant	Minor	Moderate	Major	Severe

Risk Score

Low	Medium Low	Medium	Medium High	High

New York State Teachers' Retirement System

Investment Risk Update

Risk Management

Risk Committee: October 29, 2025

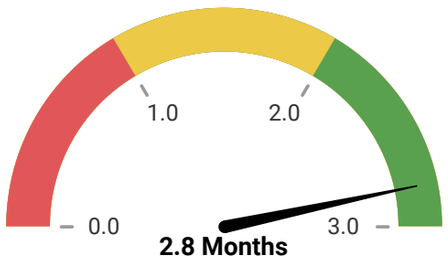
Matthew Albano, CFA, Chief Risk Officer

Ryan Ranado, CFA, Assistant Director of Investment Risk Management

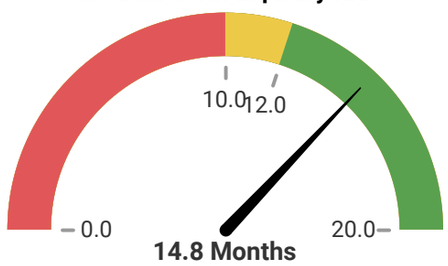
Public Market data as of 08/31/2025; Private Asset data as of 6/30/2025

Liquidity Key Risk Indicators (as of 9/30/2025)

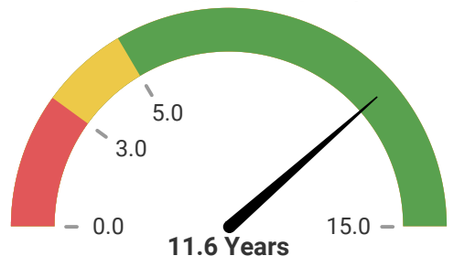
Short Term Liquidity KRI



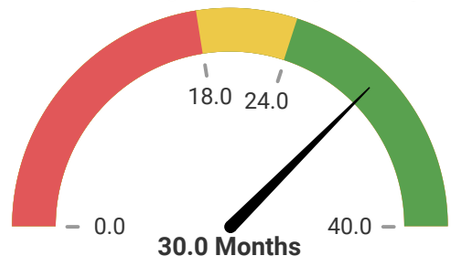
Medium Term Liquidity KRI



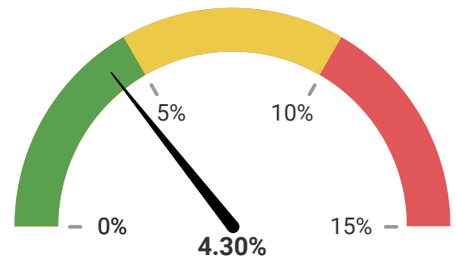
Stressed Long Term Liquidity KRI



Stressed Contingency Funding Liquidity KRI

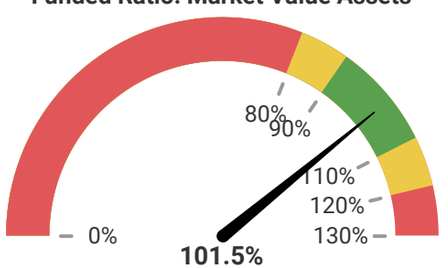


Net Benefit Payments as % of Assets

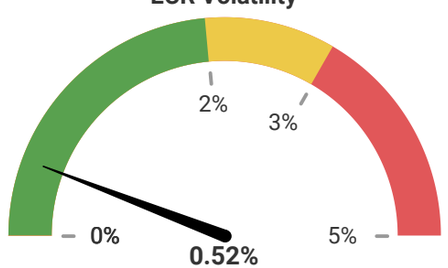


Unfunded Liability Key Risk Indicators (Valuation Date as of 6/30/2024)

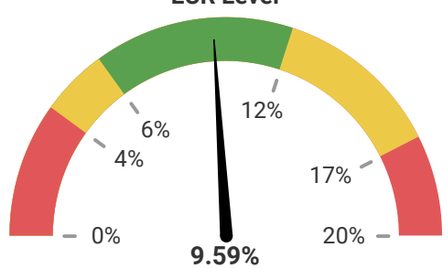
Funded Ratio: Market Value Assets



ECR Volatility

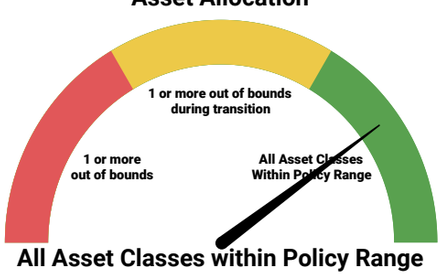


ECR Level



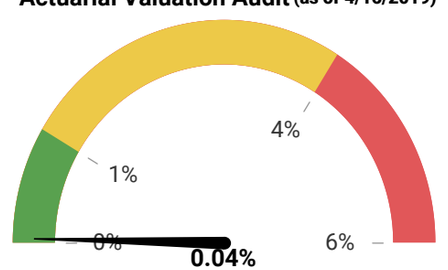
Market Key Risk Indicator (as of 9/30/2025)

Asset Allocation

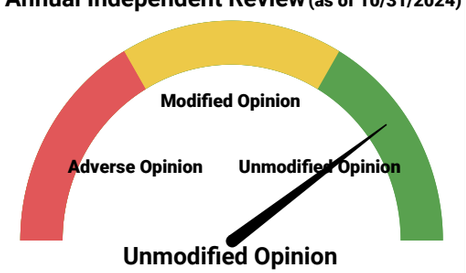


Actuarial Valuation Key Risk Indicators

Actuarial Valuation Audit (as of 4/16/2019)



Annual Independent Review (as of 10/31/2024)

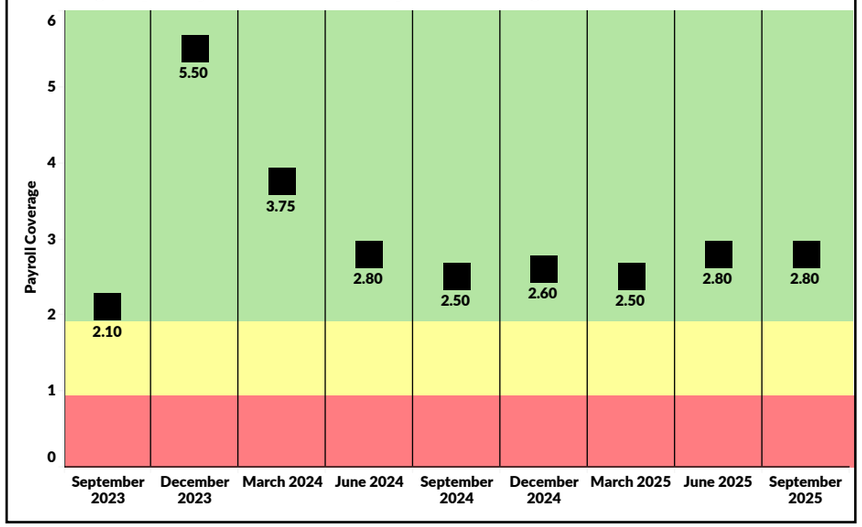


Investment Risk - Report Summary

- All liquidity KRI's remain within risk appetite.
- Staff continues to meet weekly on asset allocation to monitor current market volatility and address liquidity requirements.
- All asset classes were within their respective asset allocation ranges as of quarter-end.
- Uncertainty related to tariffs subsided during the quarter, which caused Total Plan Risk to decrease to 11.49% from 11.81% last quarter.

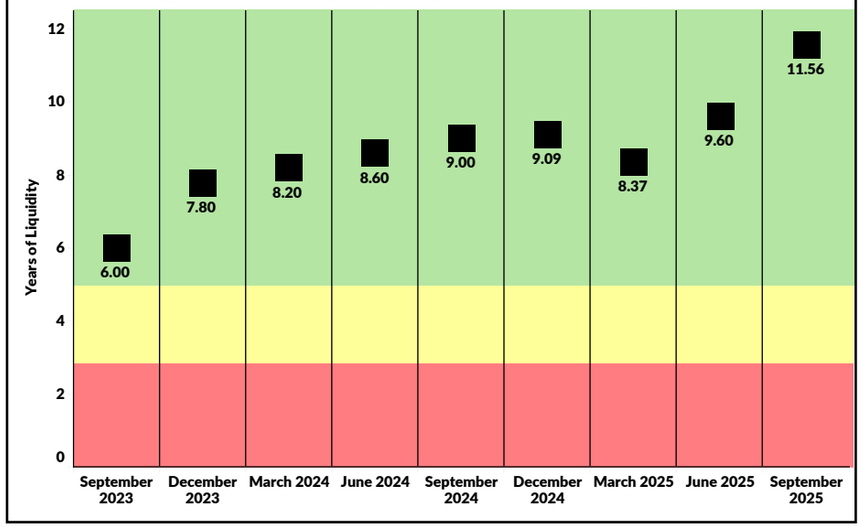
Liquidity Key Risk Indicators

Funding Liquidity - Short Term Payroll Coverage



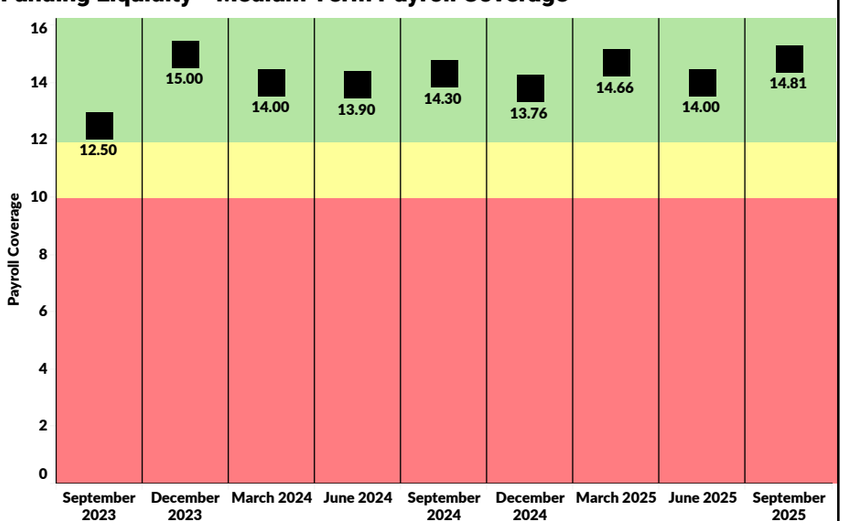
Short Term Payroll coverage calculates how many months of payroll we are carrying in cash.

Stressed Long Term Funding Liquidity - Allocation to Liquid Assets



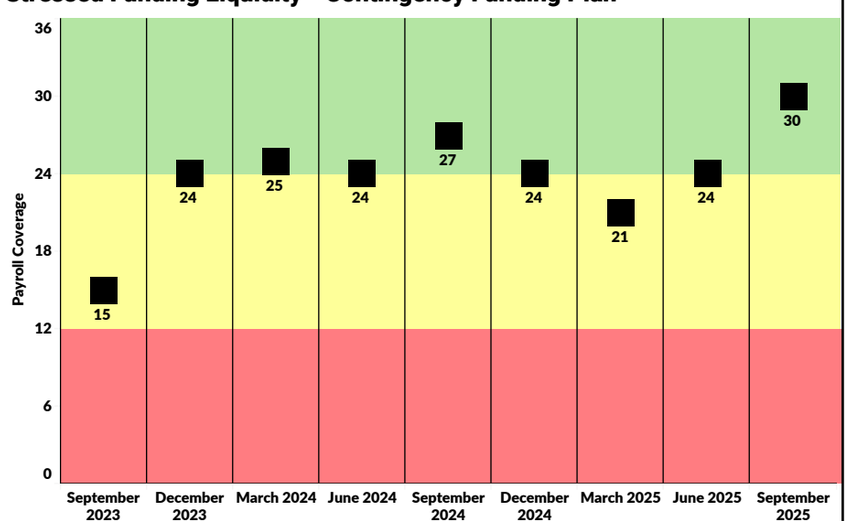
The Stressed Long Term Liquidity KRI assumes a hypothetical 40% portfolio loss then calculates years of required cash flow coverage from remaining public market assets and 12 months *estimated net cash flows (*includes stressed projections for: portfolio income, employer contributions and unfunded capital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

Funding Liquidity - Medium Term Payroll Coverage



Payroll Coverage KRI seeks to evaluate how many months of payroll can be made using Cash and Domestic Fixed Income above it's minimum allocation bound. It also takes into account the projected income and ECR contributions over the next 12 months, offset by 25% of capital calls on unfunded commitments. Capital calls of 25% are indicative of a "non-stressed" market environment.

Stressed Funding Liquidity - Contingency Funding Plan

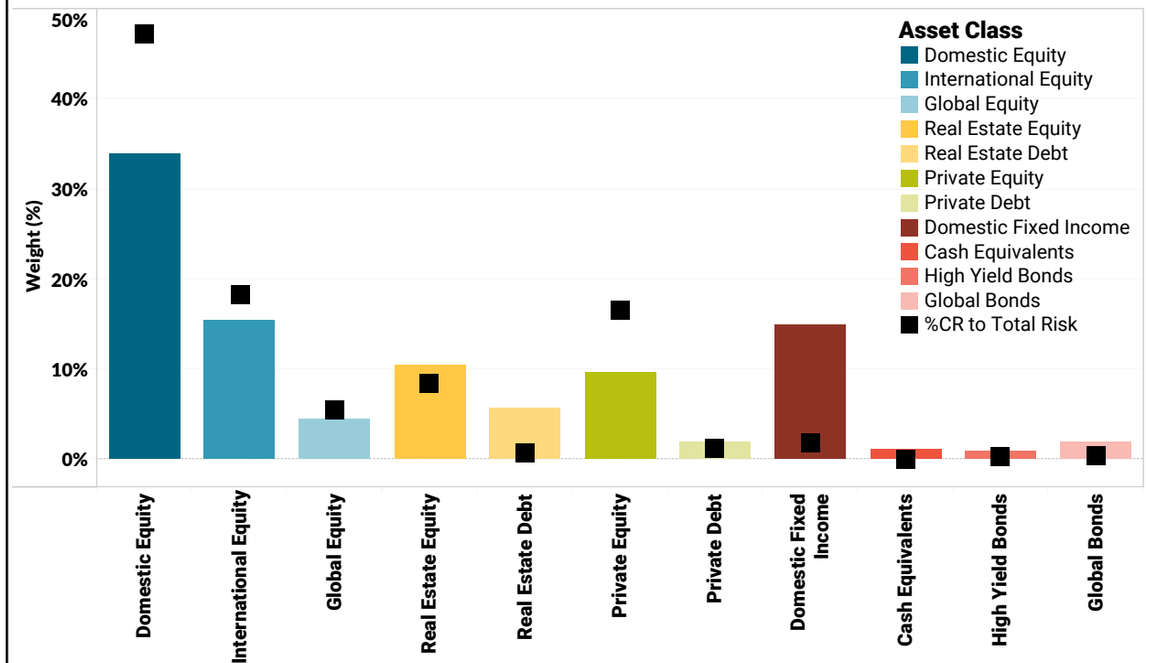


The Stressed Contingency Funding Liquidity KRI seeks to evaluate how many months of payroll can be made during a GFC like scenario before NYSTRS' CFP is triggered. GFC loss is experienced over 12 months with asset classes returning capital market assumptions years 2-5. Employer contributions are capped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

Investment Risk Board Report October 2025

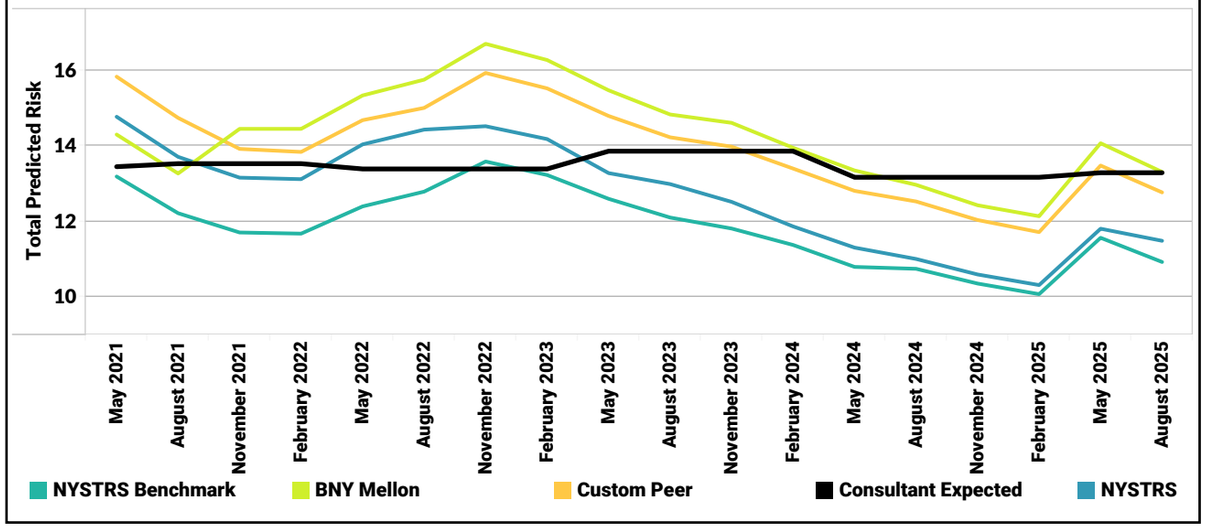
Observations:
Uncertainty related to tariffs subsided during the quarter, which caused total plan risk to decrease from 11.81% to 11.49%. Equity investments continue to contribute the majority of total plan risk, with public equities asset classes contributing 71% of total plan risk.

Total Predicted Risk by Asset Class

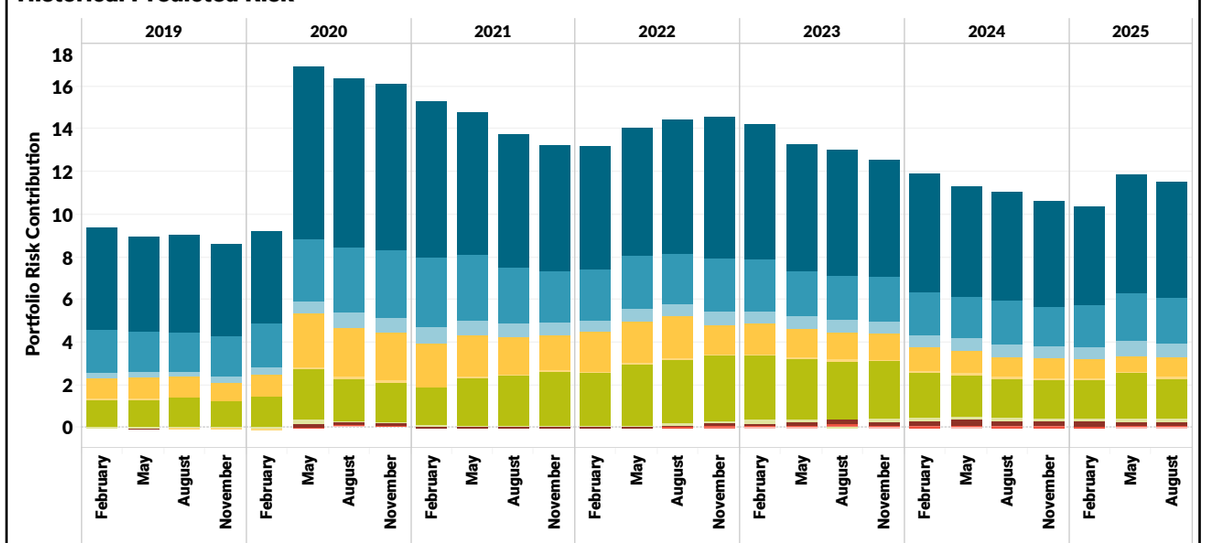


Asset Class	Weight (%)	%CR to Total Risk	Portfolio Risk Contribution	Total Risk
Total Plan	100.00%	100.00%	11.49	11.49
Domestic Equity	33.85%	47.18%	5.42	16.73
International Equity	15.47%	18.27%	2.10	15.25
Global Equity	4.37%	5.50%	0.63	14.94
Real Estate Equity	10.38%	8.37%	0.96	12.93
Real Estate Debt	5.63%	0.66%	0.08	3.14
Private Equity	9.59%	16.50%	1.90	24.54
Private Debt	1.89%	1.23%	0.14	8.61
Domestic Fixed Income	14.86%	1.74%	0.20	5.50
Cash Equivalents	1.14%	0.00%	0.00	0.06
High Yield Bonds	0.82%	0.22%	0.03	4.29
Global Bonds	2.01%	0.33%	0.04	5.03

Peer Comparison

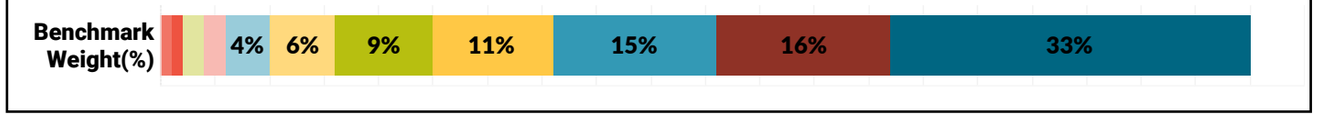


Historical Predicted Risk

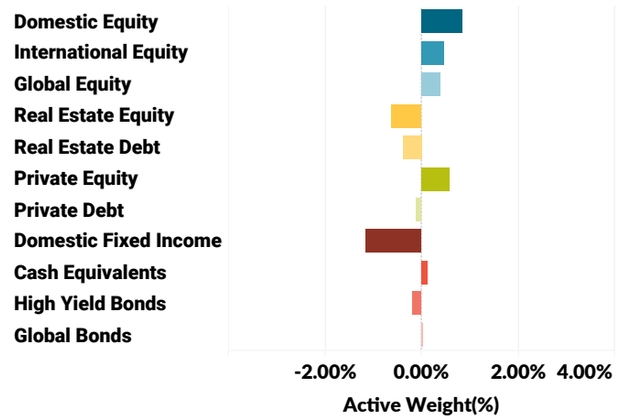


Investment Risk Board Report October 2025

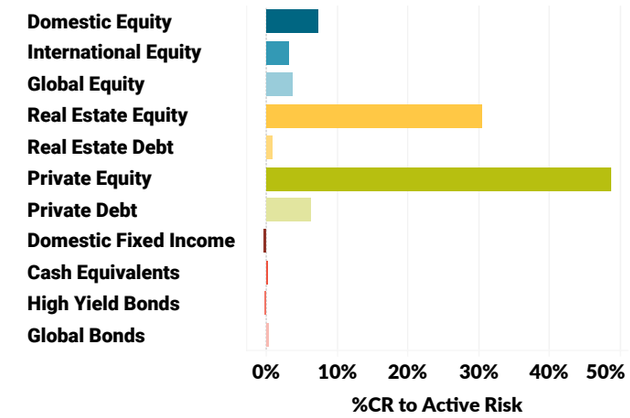
Asset Allocation



Active Weight



Active Predicted Risk Contribution



Asset Class	Weight(%)	Benchmark Weight(%)	Active Weight(%)	%CR to Active Risk	Total Contribution	Active Risk
Total Risk	100.00%	100.00%	0.00%	100.00%	1.07	1.07
Domestic Equity	33.85%	33.00%	0.85%	7.32%	0.03	0.10
International Equity	15.47%	15.00%	0.47%	3.07%	0.01	0.48
Global Equity	4.37%	4.00%	0.37%	3.63%	0.02	2.57
Real Estate Equity	10.38%	11.00%	-0.62%	30.40%	0.36	5.16
Real Estate Debt	5.63%	6.00%	-0.37%	0.94%	0.03	1.21
Private Debt	1.89%	2.00%	-0.11%	6.17%	0.07	5.12
Private Equity	9.59%	9.00%	0.59%	48.61%	0.49	6.08
Domestic Fixed Income	14.86%	16.00%	-1.14%	-0.33%	0.06	0.20
Cash Equivalents	1.14%	1.00%	0.14%	0.00%	-0.01	0.06
High Yield Bonds	0.82%	1.00%	-0.18%	-0.22%	0.01	0.36
Global Bonds	2.01%	2.00%	0.01%	0.39%	0.00	0.87

Asset Class

- Domestic Equity
- International Equity
- Global Equity
- Real Estate Equity
- Real Estate Debt
- Private Equity
- Private Debt
- Domestic Fixed Income
- Cash Equivalents
- High Yield Bonds
- Global Bonds
- Total Contribution by Quarter

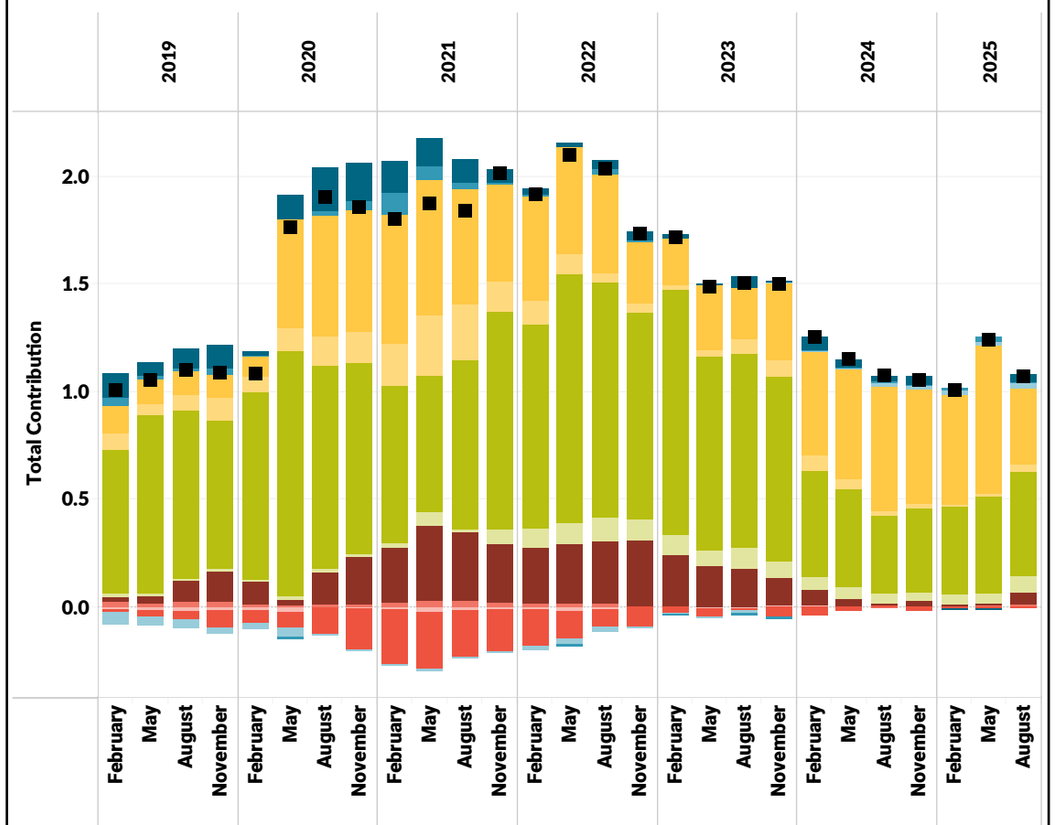
Active Predicted Risk:

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.

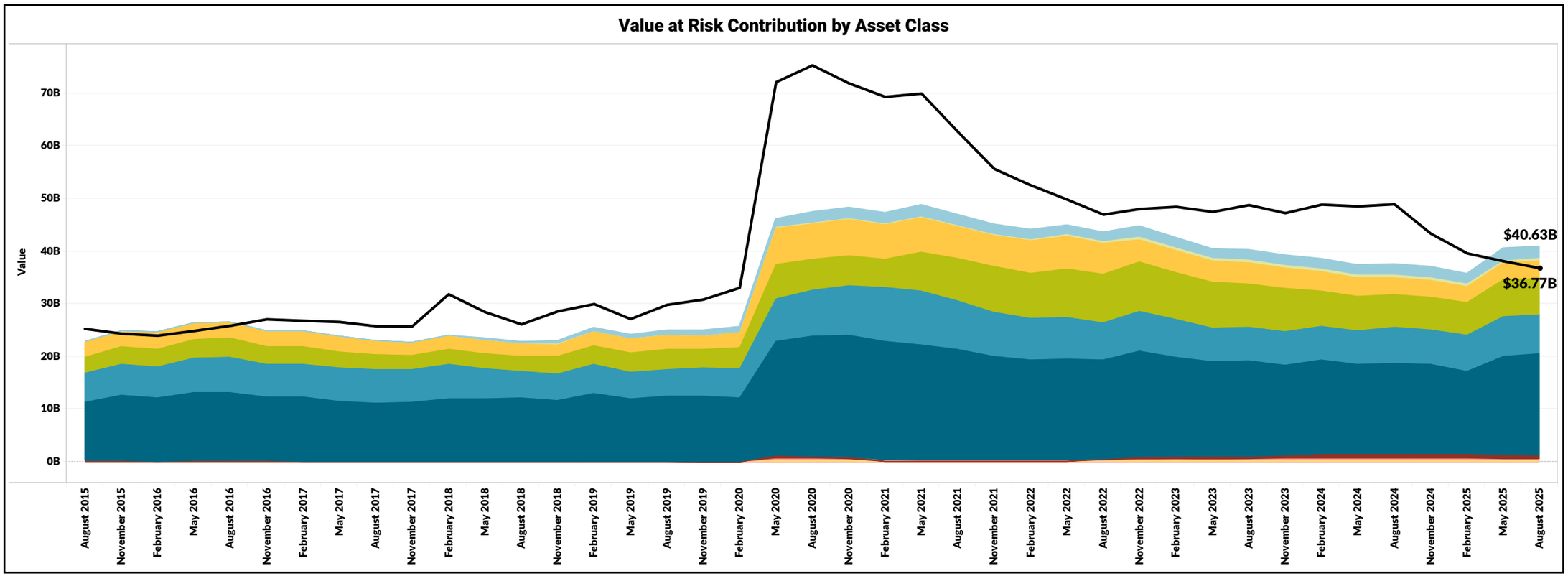
Active Risk for the Fund is largely controlled by limiting the difference between the actual and policy benchmark (target) weights for each asset class.

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

Historical Active Predicted Risk

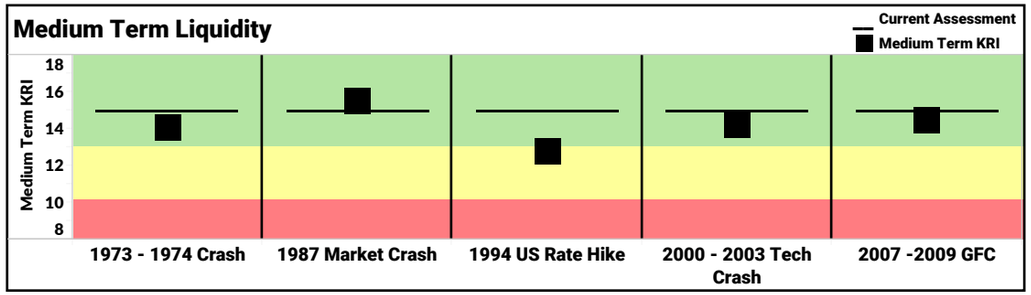


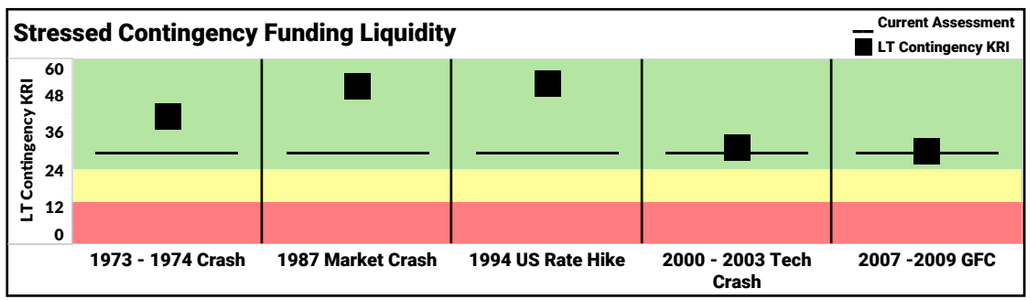
Investment Risk Board Report October 2025

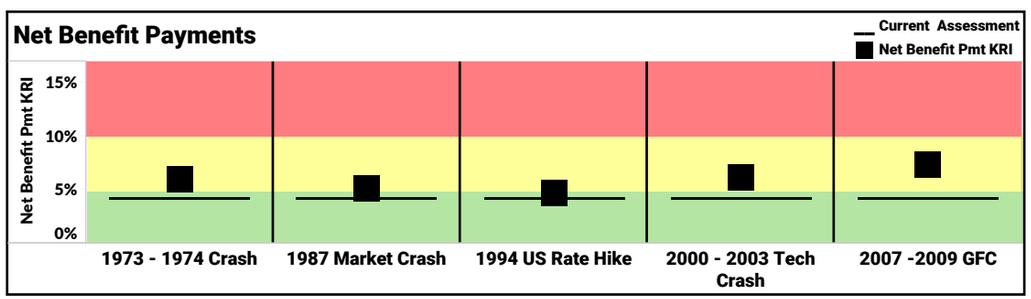


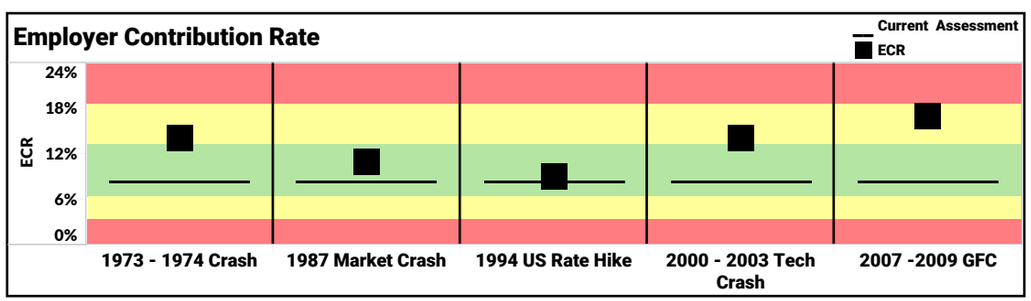
Portfolio Name	Total Portfolio VAR ($M)	Divesification Benefit	Contribution to VAR ($M)	(%)Contribution to VAR
Total Portfolio	$41,011	($7,757)	$41,004	100.00%
Domestic Equity	$20,213		$19,344	47.18%
International Equity	$8,420		$7,491	18.27%
Private Equity	$8,399		$6,764	16.50%
Real Estate Equity	$4,790		$3,434	8.37%
Global Equity	$2,332		$2,256	5.50%
Domestic Fixed Income	$2,914		$714	1.74%
Private Debt	$581		$505	1.23%
Real Estate Debt	$631		$270	0.66%
Global Bonds	$360		$134	0.33%
High Yield Bonds	$125		$91	0.22%
Cash Equivalents	$3		$0	0.00%

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	-34.48%	347	LIBOR 334	-23.72%
1987 Stock Market Crash	8/3/87 - 11/30/87	-26.37%	Unchanged	Unchanged	-12.94%
1994 US Rate Hike	1/31/94 - 12/13/94	-5.42%	162/152/131	2/36/0	-4.27%
2000 - 2003 Tech Crash & Recession	1/9/00 - 3/12/03	-46.44%	-488/-387/-281	-13/244/1151	-25.92%
2007 - 2009 Global Financial Crisis	9/30/07 - 3/4/09	-52.63%	-308/-226/-115	234/849/3779	-37.28%

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 second 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.

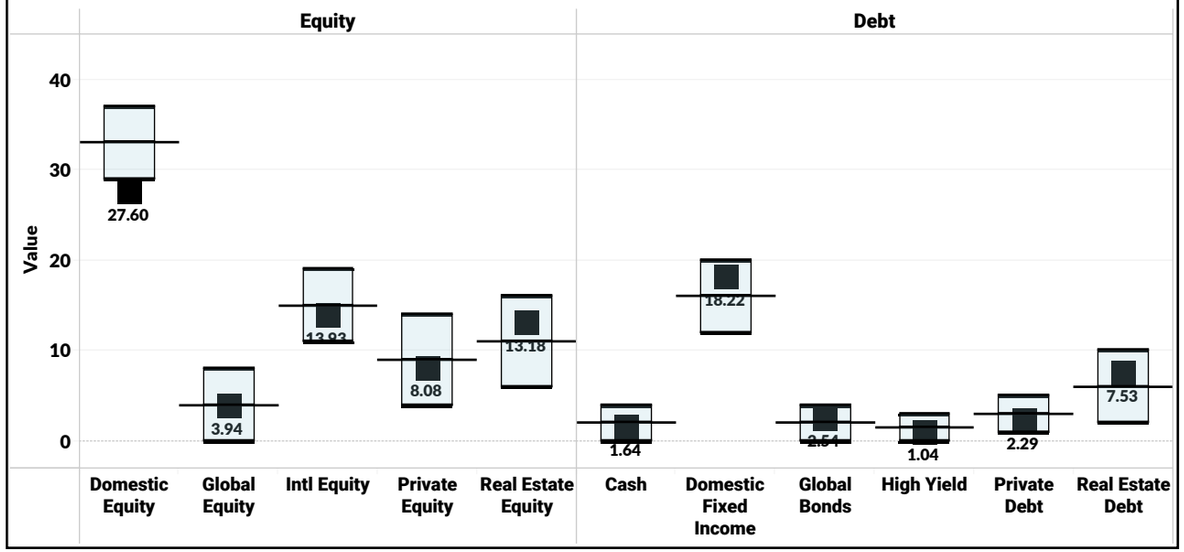
Net Benefit Payments as % of Assets:
The third chart depicts how each historical scenario would impact net benefit payments as a percentage of assets. Figures are representative of each scenarios market bottom and do not incorporate expected cash flows or market recovery.
(Net Benefit Payments=Annual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

Employer Contribution Rate:
The bottom chart depicts how each historical scenario would immediately impact the Employer Contribution Rate (ECR) as a percentage of pay. Figures are representative of each scenario's market bottom and do not incorporate a market recovery. Note that absent a market recovery, the ECR would continue to increase in future years as the major asset loss continues to be smoothed in over the remainder of the five year smoothing period.

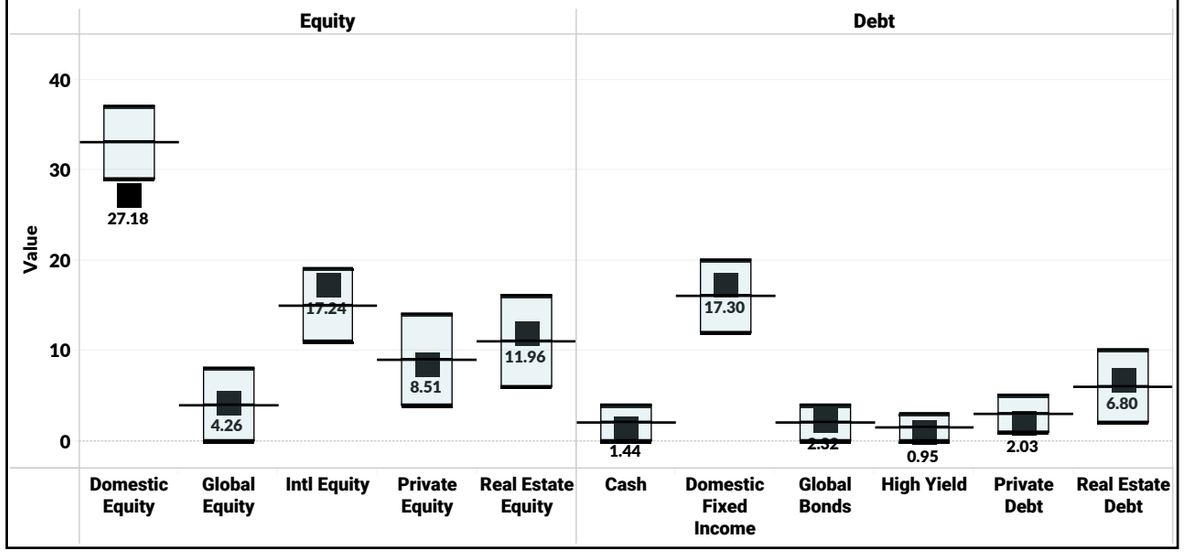
Scenario Analysis – Impact to Asset Allocation KRI

Data as of 09/30/2025

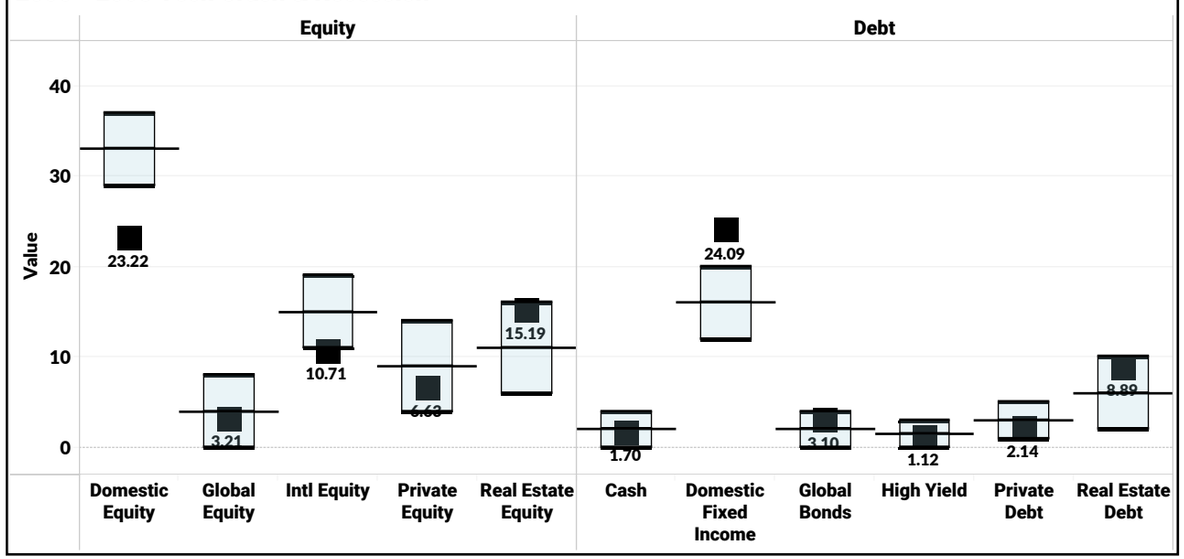
1973 - 1974 Stagflation & Rate Hikes



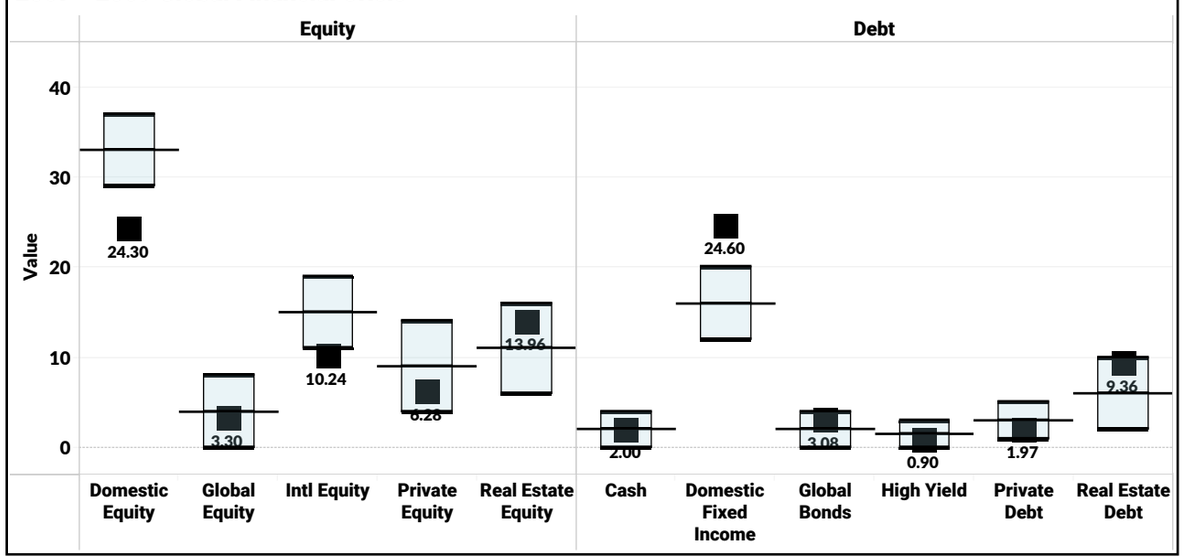
1987 Stock Market Crash



2000 - 2003 Tech Crash & Recession

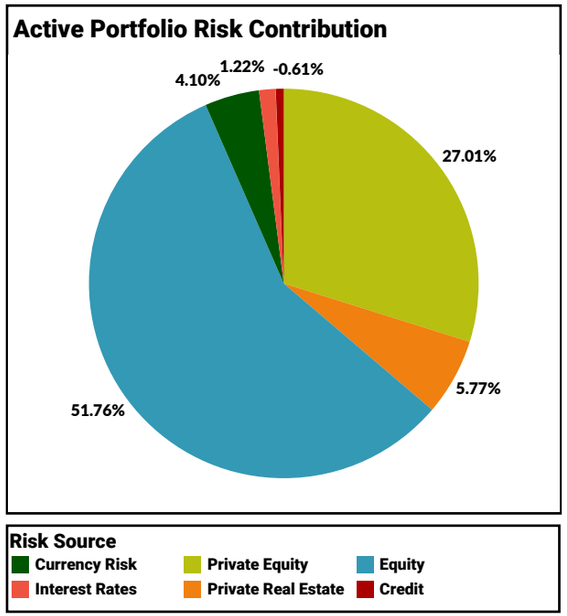


2007 - 2009 Global Financial Crisis



Predicted Risk by Risk Factor

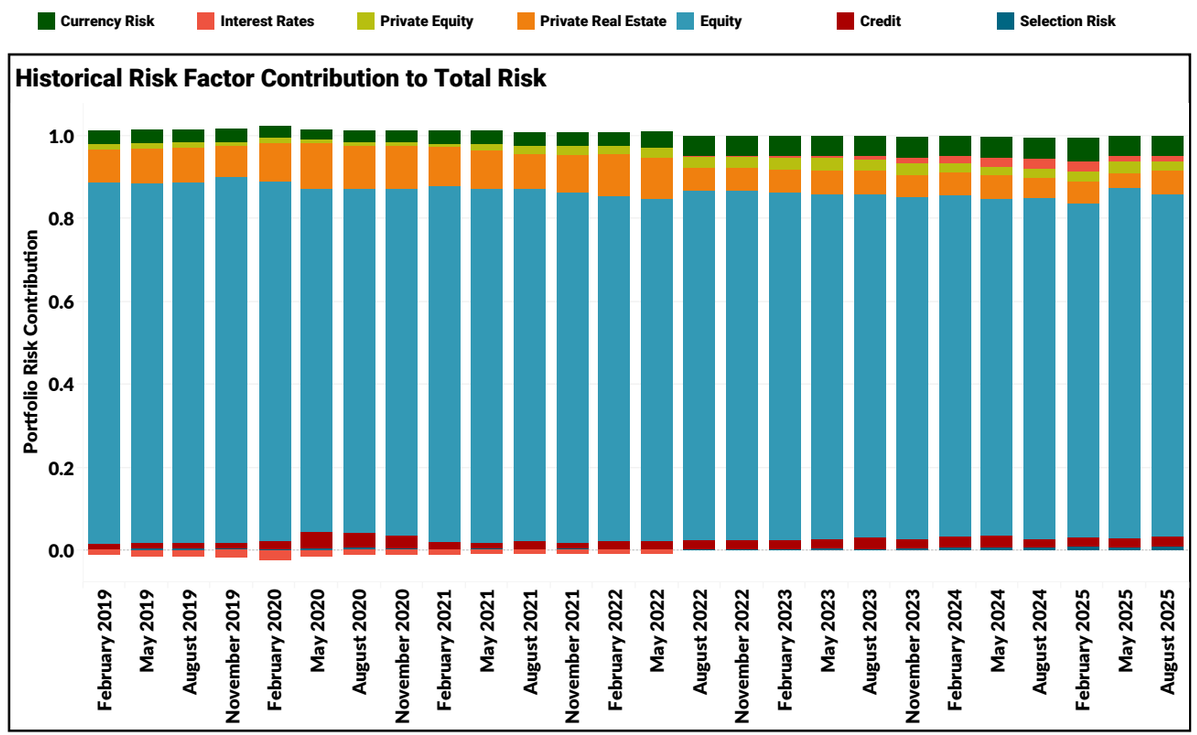
Top 20 - Currency Total Exposure	
US Dollar	78.61%
Euro	4.72%
British Pound Sterling	2.73%
Japanese Yen	2.67%
Hong Kong Dollar	1.72%
Canadian Dollar	1.62%
Indian Rupee	1.04%
Swiss Franc	0.96%
New Taiwan Dollar	0.95%
Australian Dollar	0.93%
Chinese Yuan	0.82%
Korean Won	0.61%
Swedish Krona	0.55%
Brazilian Real	0.28%
Norwegian Krone	0.27%
Singapore Dollar	0.24%
United Arab Emirates Dirham	0.18%
South African Rand	0.16%
New Israeli Sheqel	0.11%
Mexican Peso	0.11%



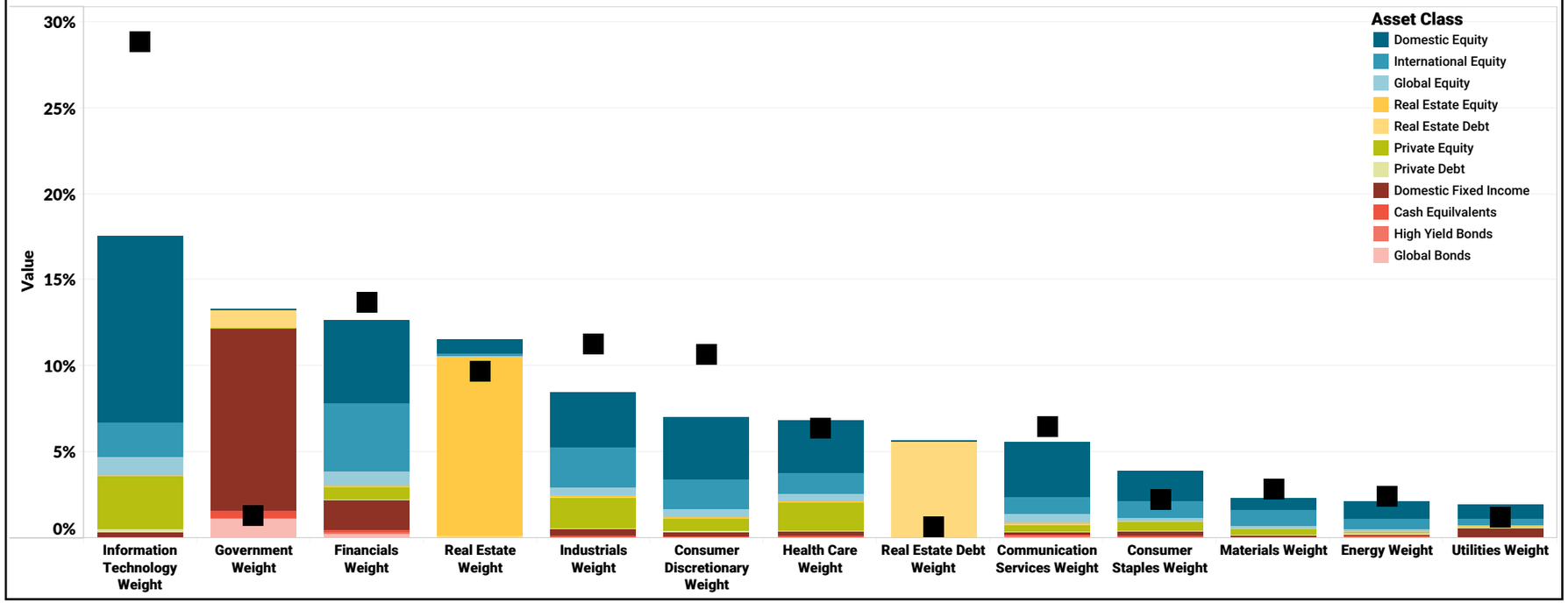
Risk Factors:
Risk factors are characteristics shared by a group of securities that influence their risk and return as well as their correlations. The five risk factor groups used for this analysis (equity, interest rates, credit, private equity, and private real estate) can be further decomposed into 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:
Observations: Equity risk factors contributed 83% of total plan risk, down from 84.5% last quarter.

Risk Source	Portfolio Risk Contribution	Portfolio Risk Contribution (%)	Benchmark Risk Contribution	Benchmark Portfolio Risk Contribution (%)	Active Portfolio Risk Contribution(%)
Total Risk	11.49	100.00%	10.93	100.00%	100.00%
Local Market Risk	10.95	95.28%	10.47	95.75%	95.90%
Common Factor Risk	10.85	94.37%	10.35	94.68%	85.15%
Equity	9.49	82.54%	8.66	79.26%	51.76%
Interest Rates	0.18	1.60%	0.22	2.00%	1.22%
Credit	0.26	2.24%	0.27	2.47%	-0.61%
Private Equity	0.24	2.10%	0.12	1.07%	27.01%
Private Real Estate	0.68	5.89%	1.08	9.88%	5.77%
Selection Risk	0.10	0.90%	0.12	1.07%	10.75%
Currency Risk	0.54	4.72%	0.46	4.25%	4.10%



Sector Concentration Weight By Asset Class



NYSTRS Sector	Market Value ($M)	Weight (%)	Portfolio Risk Contribution	(%) CR to Total Risk	Total Risk
Total Plan	$153,404	100.00%	11.49	100.00%	11.49
Information Technology	$27,039	17.63%	3.31	28.81%	21.01
Financials	$19,171	12.50%	1.57	13.69%	13.86
Government	$18,690	12.18%	0.15	1.29%	5.23
Real Estate Equity	$17,772	11.59%	1.11	9.66%	12.81
Industrials	$13,253	8.64%	1.29	11.25%	15.91
Consumer Discretionary	$11,049	7.20%	1.22	10.65%	18.48
Health Care	$10,717	6.99%	0.73	6.39%	13.52
Real Estate Debt	$8,629	5.63%	0.08	0.66%	3.14
Communication Services	$84,715	5.52%	0.75	6.48%	16.26
Consumer Staples	$6,021	3.93%	0.25	2.20%	9.76
Materials	$3,709	2.42%	0.33	2.87%	15.81
Energy	$36,008	2.35%	0.28	2.42%	17.95
Utilities	$3,045	1.98%	0.14	1.21%	10.88

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.

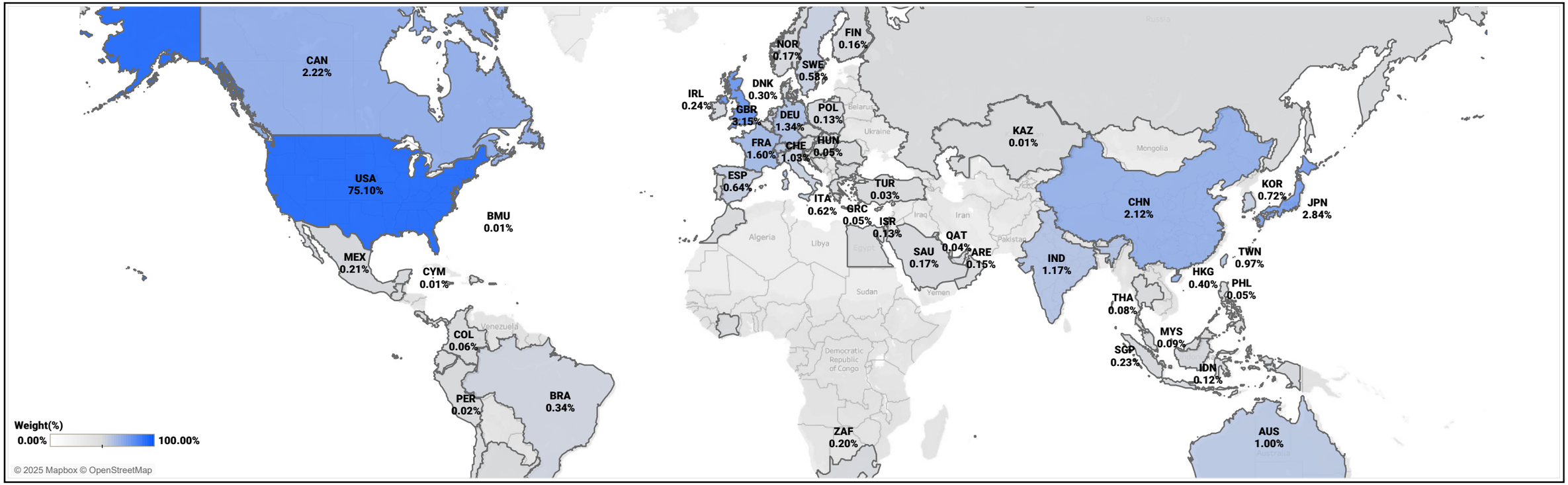
Sectors:
In developing the sector schedule, NYSTRS began with industry recognized sectors used by MSCI and S&P. Five custom sectors were added to this base to accommodate the Fund's allocation to Government, Real Estate Debt, Real Estate Equity, Cash and "Other" investments.

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.

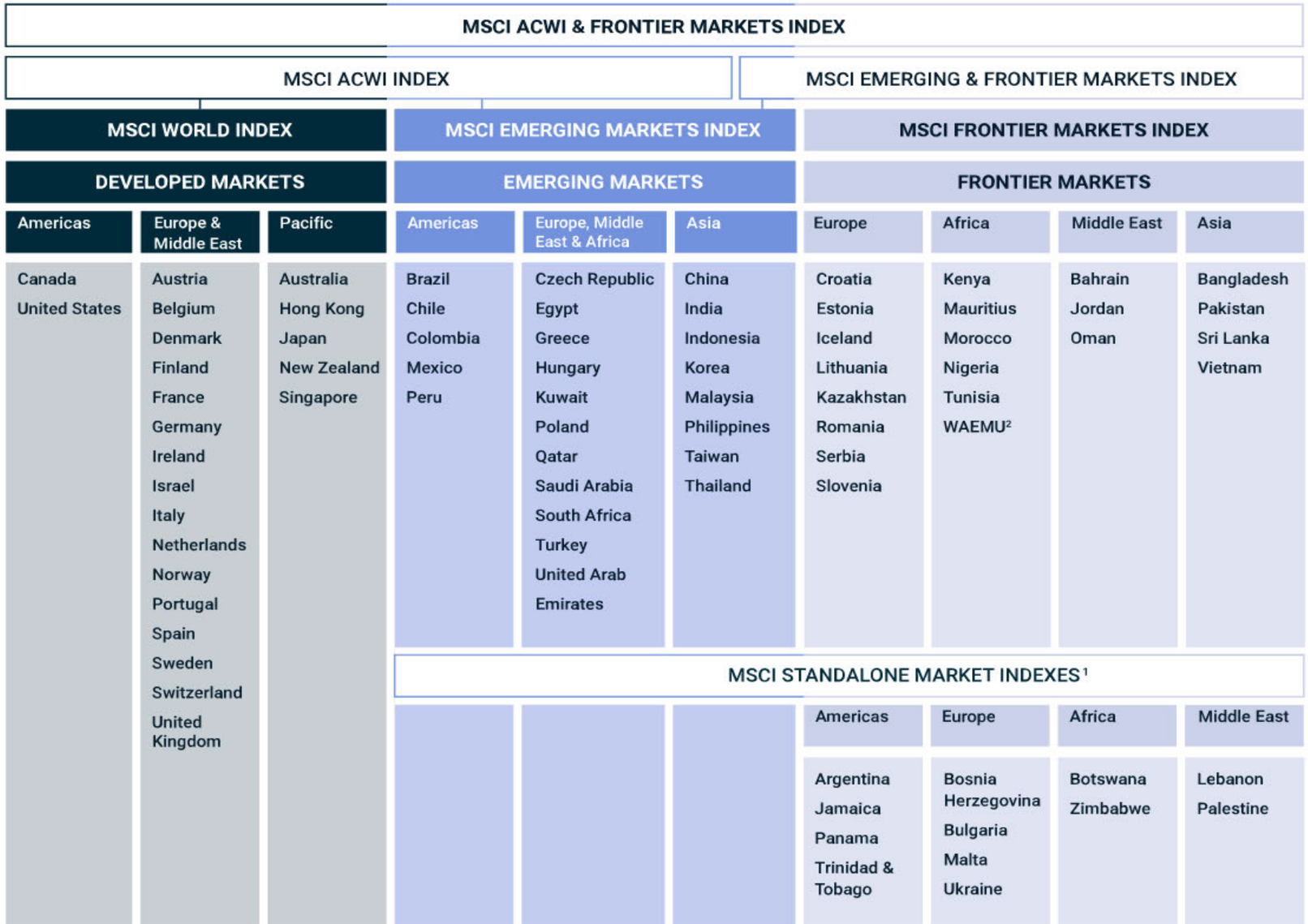
These characteristics can be seen in the chart. The risk contribution by the defensive sectors is less than their market value allocation and the risk contribution by the cyclical sectors is higher than their market value allocation.

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	$153,404	100.00%	100.00%	100.00%	11.49	100.00%	11.49
Total Developed	$142,196	92.69%	93.46%	-0.77%	10.69	93.00%	11.55
United States	$115,207	75.10%	79.22%	-4.12%	8.32	72.44%	11.30
Europe and Middle East	$16,662	10.86%	8.77%	2.09%	1.48	12.88%	15.90
Japan	$4,349	2.84%	2.48%	0.36%	0.34	2.95%	18.11
Pacific ex Japan	$2,568	1.67%	1.31%	0.36%	0.26	2.29%	19.27
Canada	$3,411	2.22%	1.68%	0.54%	0.28	2.43%	14.83
Total Emerging	$10,286	6.71%	5.96%	0.74%	0.78	6.80%	15.25
Asia	$8,164	5.32%	5.03%	0.29%	0.62	5.38%	16.37
EMEA	$1,030	0.67%	0.52%	0.15%	0.08	0.68%	15.93
Latin America	$1,091	0.71%	0.41%	0.30%	0.09	0.74%	17.32
Total Other	$920	0.60%	0.58%	0.02%	0.02	0.16%	5.35
Rest of the World	$594	0.39%	0.34%	0.04%	0.00	0.04%	3.36
Frontier	$326	0.21%	0.23%	-0.02%	0.01	0.13%	12.36

Appendix:



*MSCI.com/market-classification

New York State Teachers' Retirement System

Agenda

Investment Committee Meeting October 29, 2025

COMMITTEE MEMBERS
Nicholas Smirensky, Chair
Eric Iberger, David Keefe, Scott Levy, Jennifer Longtin, Ruth Mahoney

AGENDA pp. 46-47

Approval of Minutes

A. Approval of Minutes of July 30, 2025 Investment Committee Meeting pp. 48-56

PRESENTATIONS

A. StepStone - Real Estate Strategic Review 2025-26 pp. 57-105
B. Fixed Income Presentation: The Fed and Yileld Curve Dynamics – A. Vanderwiel pp. 106-117
C. Fixed Income Presentation: Systematic Fixed Income Investing – R. Dhungana and D. Bondi pp.118-130

UPDATES

A. Investment Committee Executive Summary – C. Brown pp. 131-139
B. Managing Director Updates
   1. Public Equities Update – S. Schaufler pp. 140-141
   2. Fixed Income Update – A. Vanderwiel pp. 142-143
   3. Real Estate Update – D. Gillan pp. 144-147
   4. Private Equity/Debt Update – G. Yahoudy pp. 148-150
C. Consultant Update – Callan pp. 151-171

Investment Committee Action Items

A. Consent Agenda recommendation items A 1-5 pages: 172-190
1. Renew Consultant
   - StepStone - Private Equity/Debt Consultant p. 172
   - StepStone – Real Estate Consultant p. 173
   - Meketa – Real Estate Consultant p. 174
2. Renew Managers:
   - AQR Capital Management LLC (International Equities, Active) p. 175
   - BlackRock Institutional Trust Company, N.A. (International Equities, Passive) p. 176
   - Dimensional Fund Advisors (International Equities, Active) p. 177
   - Goldman Sachs Asset Management (Global Bonds, Active) p. 178
   - Harding Loevner Management (Global Equities, Active) p. 179
   - Loomis Sayles & Co. (Global Bonds, Active) p. 180
   - Marathon Asset Management Ltd (International Equities, Active) p. 181
   - Nomura Corporate Research & Asset Management (HYB, Active, 2 accounts) p. 182
   - State Street Global Advisors (International Equities, Passive) p. 183

3. Reappointment to Investment Advisory Committee
   - Johanna Fink p. 184
   - Laura Hotaling p. 185
   - Steven Huber p. 186
   - James O'Keefe p. 187
4. Reappointments to Real Estate Advisory Committee
   - Eileen Byrne p. 188
   - Herman Bulls p. 189
5. Resolution on Investment Policy Manual p. 190

Informational Reports

1. EDCIO Investment Discretion Report pp. 191-194
2. Mail Vote Quarterly Board Report p. 195
3. REAC Quarterly Transactions Board Report p. 196

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM

INVESTMENT COMMITTEE MEETING
July 30, 2025

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 July 30, 2025.

Nicholas Smirensky, Chair, called the meeting to order at 8:52 a.m.

ATTENDANCE:

Investment Committee Members
Eric Iberger, David Keefe, Scott Levy, Nicholas Smirensky

Board Members
Phyllis Harrington, Donald A. Little III, Mark Stratton

Staff
Thomas K. Lee, Margaret Andriola, Gerald Yahoudy, Don Ampansiri, Kathy Ebert, Michael Federici, Vijay Madala, Dave Gillan, Danny Malavé, Matt Albano, Emily Ekland, Beth Dellea (via WebEx), Han Yik, Melody Prangley, Shannon Bonesteel, Kevin Maloney, Mike Morrell, Aaron VanDerwiel, Binoop Uni, Sarah Garrand, Bruce Woolley, Matt Pinchinat, Brad Woolworth, Chris Brown, Sheiliesh Hylton, Sameer Modasra, Matt Killcup, James Kielty, Wanette Alston, Stacey Lesser Meehan

System Consultants
Callan – Tom Shingler, Carlo Stadlinger
Via WebEx: Kevin Machez

StepStone – Jose Fernandez, Scott Schwind, Austin Head-Jones, Dev Subhash

Meketa - Via WebEx Colin Hill

Visitors
In-person: Anin-Kofi Addo, Omni Research Associates
Via WebEx: Sun Yu, Financial Times; Ben Sheng, FundFire; Mitchell King and Kira Johansen, BlackRock; Tom Cosmer, PineBridge

Approval of Minutes

A. Approval of Minutes of April 23, 2025 Investment Committee Meeting

There being no changes or corrections and upon motion of D. Keefe, seconded by E. Iberger and unanimously carried, the minutes of the April 23, 2025 Investment Committee meeting were approved.

Presentations

A. Private Equity/Private Debt Annual Review

S. Schwind, A. Head-Jones and J. Fernandez from StepStone presented the annual review of the private equity and debt portfolios.

Staff Updates

1. Investment Committee Executive Summary (Appendix A, pp. 9-15)
2. Public Equities Update (Appendix B, pp. 16-17)
3. Fixed Income Update (Appendix C, p. 18)
4. Real Estate Update (Appendix D, pp. 19-22)
5. Private Equity/Debt Update (Appendix E, pp. 23-37)
6. Callan Update

T. Shingler and C. Stadlinger from Callan reviewed Callan's recommendation for no changes to the NYSTRS' asset allocation at the present time (Appendix F, pp. 38-63).

7. Cashflow Management Process

H. Yik gave a presentation on cashflow management (Appendix G, pp. 64-68)

Policy Review and Action

A. Consent Agenda Item #1a-i (Appendix H, pp. 69-70)

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 Consent Agenda Recommendation items #1a-i together, with one motion:

Upon motion of E. Iberger, seconded by S. Levy and unanimously carried, the Committee voted to recommend the following resolutions (consent agenda items # 1a-i) to the Board:

1. Renew Agreements

   - Advent Capital Management LLC

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Advent Capital Management, LLC**
NYSTRS Department:	Fixed Income
Original Contract Date:	September 10th, 2024
Approved Renewal Period:	**09/10/2025-09/09/2026**

Mandate	
• Asset Class:	Fixed Income – High Yield
• Account Benchmark:	ICE B of A US High Yield Constrained Index (HUC0)
• Active or Passive:	Active
• Account Inception Date:	10/15/2024

- Baillie Gifford Overseas Limited

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Baillie Gifford Overseas Limited**
NYSTRS Department:	Public Equities
Original Contract Date:	9/15/2011
Approved Renewal Period:	9/15/2025 – 9/14/2026

Mandate	
• Asset Class:	International Equities
• Account Benchmark:	MSCI ACWI exUS Index
• Active or Passive:	Active
• Account Inception Date:	9/22/2011

- BlackRock Carbon Transitions

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**BlackRock Financial Management, Inc.**
NYSTRS Department:	Fixed Income
Original Contract Date:	October 6th, 2023
Approved Renewal Period:	**10/06/2025-10/05/2026**

Mandate	
• Asset Class:	Fixed Income – Global Bonds – Carbon Transition
• Account Benchmark:	Bloomberg Global Aggregate Corporate Bond Index (in USD hedged to USD)(H03435US)
• Active or Passive:	Active
• Account Inception Date:	12/01/2023

- Blue Owl Real Estate Debt Advisors (Successor-in-Interest to Prima Capital Advisors)

RESOLVED, That the Executive Director and Chief Investment Officer is authorized to renew the System's contract with Blue Owl Real Estate Debt Advisors, LLC to manage a portion of the System's real estate portfolio, as a manager of US CMBS and private real estate debt, for a period of one year, commencing on August 13, 2025.

- Global REIT Managers

RESOLVED, That the Executive Director and Chief Investment Officer, or his designees, is authorized to renew the agreements with the entities below to manage a portion of the System's assets as Global Real Estate Public Securities managers benchmarked to the FTSE EPRA/NAREIT Developed unhedged index for a period of one year:

Entity:	Renew for a period of one year effective as of:
Heitman, L.L.C.	August 7, 2025
Dimensional Fund Advisors, L.P.	September 22, 2025

- Leading Edge

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Leading Edge Investment Advisors**
NYSTRS Department:	Public Equities
Original Contract Date:	11/22/2010 (IMA reissued 7/1/2013; re-mandated 4/1/2020)
Approved Renewal Period:	11/22/2025 – 11/21/2026

Mandate	
• Asset Class:	Global Equities
• Account Benchmark:	MSCI ACWI Index
• Active or Passive:	Active
• Account Inception Date:	6/23/2020

- Pacific Investment Management Company LLC (PIMCO)

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Pacific Investment Management Company LLC (PIMCO)**
NYSTRS Department:	Fixed Income
Original Contract Date:	October 6th, 2023
Approved Renewal Period:	**10/6/2025-10/5/2026**

Mandate	
• Asset Class:	Fixed Income – Global Bonds – Carbon Transition
• Account Benchmark:	Bloomberg Global Aggregate Corporate Bond Index (in USD hedged to USD)(H03435US)
• Active or Passive:	Active
• Account Inception Date:	11/15/2023

- T. Rowe Associates, Inc.

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**T. Rowe Price Associates, Inc.**
NYSTRS Department:	Public Equities
Original Contract Date:	10/30/2008 (IMA reissued 7/1/2013)
Approved Renewal Period:	10/30/2025 – 10/29/2026

Mandate	
• Asset Class:	Domestic Equities
• Account Benchmark:	S&P 500 Index
• Active or Passive:	Active
• Account Inception Date:	1/15/2009

- William Blair and Company

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**William Blair Investment Management, LLC**
NYSTRS Department:	Public Equities
Original Contract Date:	9/22/2010
Approved Renewal Period:	9/22/2025 – 9/21/2026

Mandate	
• Asset Class:	International Equities
• Account Benchmark:	MSCI ACWI exUS Index
• Active or Passive:	Active
• Account Inception Date:	10/6/2010

2. Resolution on Investment Discretion

Upon motion of D. Keefe, seconded by E. Iberger and unanimously carried, the Committee voted to recommend the following resolution to the Board:

> WHEREAS, The Retirement Board approved the delegations of investment authority set forth in the section of the Investment Policy Manual entitled “Delegation of Investment Authority” at its October 2024 meeting; and
>
> WHEREAS, Said section shall be subject to annual review and renewal at the regular meeting of the Retirement Board in July of each calendar year; be it
>
> RESOLVED, That the delegations of investment authority set forth in said section of the Investment Policy Manual are reauthorized and reconfirmed as the principal items of investment authority delegated to the Executive Director and Chief Investment Officer.

3. Resolution on Asset Allocation

Upon motion of D. Keefe, seconded by E. Iberger and unanimously carried, the Committee voted to recommend the following resolution to

the Board:

RESOLVED, That the System's asset allocation targets and rebalancing ranges in the System's Asset Allocation shall continue as follows, effective immediately:

Asset Class	**Range**	**Target**
Domestic Equity	29 – 37%	33%
International Equity	11 – 19%	15%
Global Equity	0 – 8%	4%
Domestic Fixed Income	12 – 20%	16%
Real Estate Equity	6 – 16%	11%
Real Estate Debt	2 – 10%	6%
Private Equity	4 – 14%	9%
Private Debt	0.5 – 5%	2%
Global Bonds	0 – 4%	2%
High Yield Bonds	0 – 3%	1%
Short Term Investments (Cash Equivalents)	0 – 4%	1%

Informational reports

- The Committee reviewed the following informational reports: EDCIO Investment Discretion Report (Appendix I, pp. 71-74), Mail Vote Quarterly Board Report (Appendix J, p. 75) and REAC Quarterly Transactions Board Report (Appendix K, p. 76).

There being no further business and with unanimous consent, the Committee adjourned at 11:25 a.m.

Respectfully submitted,

[redacted]

_____

Thomas K. Lee

StepStone
inside private markets

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

OCTOBER 2025|

Overview

I. 2025 Strategic Review – Commercial Real Estate Equity and Debt Executive Summary – p. 3

II. Commercial Real Estate Equity Portfolio Review – p. 6

   A. Commercial Real Estate Equity Pacing – p. 17

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   A. Commercial Real Estate Debt Pacing – p. 32

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

2026 Objectives, Portfolio Summaries and Recommendations – Executive Summary

Objectives:

- Maximize risk adjusted returns with an emphasis on cash flow in diversified commercial real estate equity and debt portfolios that maintain NYSTRS' real estate allocations within policy range and near target.

Portfolio Summaries (as of 3/31/25):

- The Real Estate Equity portfolio, with $16.3B of NAV, is at 11.3%, just above its 11% target. The portfolio's net inception to date performance is 7.8%. The Real Estate Debt portfolio, with $8.8B of NAV, is at 6.1%, slightly above the target of 6%. The portfolio's inception to date net performance is 7.6%. Each portfolio uses multiple strategies to take advantage of public and private opportunities in the markets.

2026 Key Areas of Focus and Recommendations:

- We recommend maintaining target portfolio allocations, with commitment pacing of up to $1.3B to $1.5B for Real Estate Equity (public and private) and commitment pacing of $1.1B to $1.3B for Real Estate Debt (public and private).
- Evaluate private CRE equity and CRE debt opportunities across traditional and niche property types that are generally in line with StepStone House Views[1] and align with target exposures informed by forward-looking demographic and secular trends. Prioritize investment selection across capital structure, public and private markets by relative value and risk.
- Continue to focus on asset management to maximize performance and maintain cash flow in the direct equity portfolio with emphasis on larger exposures and property level business plans and in the debt portfolio with priority on loan servicing and upcoming maturities especially in the CBD office space.
- Continue to evaluate the top performing infrastructure managers with investment strategies spanning the risk return spectrum and consider infrastructure opportunities on a relative return basis with real estate opportunities, increasing infrastructure within the real estate portfolios over time.
- Consider first mortgage loans and distressed debt opportunities on office buildings with long term credit tenant leases where the market is beginning to normalize (e.g. NYC) that may provide increased yields on high quality assets, relative to the System's focus on multifamily, industrial and neighborhood shopping centers.

1. *Note: StepStone House Views provides forward-looking perspectives on the best current opportunities in the market. This differs from the Strategic Plan's outlook, focused on long-term portfolio positioning.*

2026 Objectives, Portfolio Summaries and Recommendations – Executive Summary (cont.)

2026 Key Areas of Focus and Recommendations con't:

- Continue to work on a program to formally measure risk of environmental hazards for the direct equity and debt portfolios. Complete selection of single vendor among six considered and request reports for all directly owned properties and establish the ability to generate comprehensive reports for potential new investments.
- Complete review of advisor/property manager natural disaster/emergency events plans to ensure framework is in place to protect on-site tenants and to restore building operations on a timely basis when conditions are safe to do so. Staff has received property level disaster recovery proposals and will discuss suggestions for improvement with the advisor/property manager as needed.
- Begin exploring how investment managers and investors are incorporating AI uses, looking for examples of efficiencies and enhancements to their processes that we expect to eventually be applied to NYSTRS' real estate operations.

II. COMMERICAL REAL ESTATE EQUITY PORTFOLIO REVIEW

Commercial Real Estate Equity Portfolio Review

Executive Summary

- In CY 2024 ending December 31, 2024, the portfolio funded $1.46 billion of contributions and received $1.37 billion of distributions, resulting in net cash outflows of $91 million
- The Commercial Real Estate ("CRE") 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, 2025. In USD millions.

Equity Portfolio Summary	3/31/2025	3/31/2024	YoY Δ
Equity Real Estate Investments			
Direct Equity			
Office	1,682	1,830	-8%
Retail	1,739	1,408	24%
Industrial	1,266	1,646	-23%
Multifamily	1,696	1,461	16%
Timber	239	243	-2%
Total Direct Equity	**6,622**	**6,588**	**1%**
Commingled Funds			
Core	1,406	1,477	-5%
Value-Add	1,820	1,652	10%
Opportunistic	3,596	3,173	13%
Public Real Estate Securities	2,882	3,058	-6%
Total Indirect Equity	**9,704**	**9,360**	**4%**
Total Current Equity Real Estate Holdings	**16,326**	**15,948**	**2%**
Outstanding Commitments			
Direct Equity	153	229	-33%
Non-Discretionary Separate Accounts	467	489	-4%
Core Funds	84	112	-25%
Value-Add Funds	742	1,041	-29%
Opportunistic Funds	1,708	2,221	-23%
Total Outstanding CRE Commitments	**3,154**	**4,092**	**-23%**
Total Equity Real Estate Portfolio	**19,480**	**20,040**	**-3%**

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

StepStone Recommendations & Areas of Focus

- ✓ Stepstone recommends a general guideline of 65% core and 35% non-core allocations with a cap of 45%, for non-core which remains in-line with the previous recommendation. As of March 31, 2025, the System's equity real estate allocation was 66% core and 34% non-core.
- ✓ Evaluate CRE equity opportunities across traditional and niche property types as noted in StepStone House Views and aligned with target exposures informed by forward-looking demographic and secular trends. Prioritize investment selection across capital structure, public and private markets by relative value and risk.
- ✓ Maintain asset management focus on cash flow, monitoring business plans, leasing and expense levels (especially focus on forecasts around insurance premiums and hold/sell scenarios to maximize returns on a quarterly and annual basis).
- ✓ Strategically divest of timber portfolio as opportunities arise. This has been more of a commodity play and less of a provider of consistent earnings.
- ✓ StepStone is supportive of additional staff due to increased complexity of activity and NYSTRS focus on investments that are individually underwritten by staff. NYSTRS has made one hire in CY 2025.

2025 Strategic Review – Commercial Real Estate Equity

	FY 2021	FY 2022	FY 2023	FY 2024	YTD 2025[1]	CY 2026
Market Value as % of Total Portfolio						
Plan	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%
Actual	10.2%	12.7%	12.2%	11.0%	11.3% (Q1 2025)	N/A
Net Cash Flows	($634M)	$646M	($505M)	($44M)	($108M)	N/A
Commitments						
Plan	$0.7-1.1B	$1.6-2.1B	$1.6-1.9B	$0.6B – 1.3B	$1.0B - $1.2B	$1.3B - $1.5B
Actual	$2,095M	$4,041M	$1,784M	$425M	$150M ($100M primary + $50M co-investment sidecar)	N/A

1. *Through March 31, 2025. Moving to Calendar Year going forward rather than projecting over a fiscal year where capital has already been deployed.*

Overview and Targets – Commercial Real Estate Equity Portfolio

Targets informed by StepStone House views, incorporating forward-looking structural, demographic and secular themes.

Exposure / Metric	Current Exposure[2]	Current + Unfunded[2]	Prior Callan Targets	StepStone Target	Recommended Changes	
Core/Non-Core						
Core	66%	57%	55-90%	55-90%		Core allocation floor remains at 55% of NAV.
Non-Core	34%	43%	10-45%	10-45%		Non-core allocation cap remains at 45% of NAV.
Geography						
US	83%	83%	75-95%	80-95%	=	No changes recommended at this time.
Europe	9%	9%	-	5-10%	=	No changes recommended at this time.
Asia	6%	6%	-	0-10%	=	No changes recommended at this time.
Other[1]	1%	1%	5-25%	-	-	-
Property Type						
Industrial	27%	27%	13-33%	25-35%	=	Increase overall exposure on a measured basis as accretive opportunities become available . Monitor markets, focusing on inventory levels geographically and by tenant type that have been affected by uncertain economic conditions and a volatile trade environment.
Residential	23%	23%	18-38%	25-35%	↑	Continue to focus on residential opportunities outside of the premium multifamily segment, Emphasize geographies where the cost of rents are in a lower range relative to median household income.
Office	18%	18%	5-25%	10-15%	=	New office product in tightening markets with return to work and higher WALTs may provide attractive opportunities.
Neighborhood Retail	13%	13%	5-25%	10-15%	=	Maintain exposure to necessity-based (food and drug anchored) retail near dense populations with high levels of disposable income. Seek opportunities that are accretive to the existing portfolio on a measured basis.
Other[3]	19%	19%	0-20%	15-20%	=	As relative value opportunities become available, increase exposure to high demand niche sectors with outsized growth potential including healthcare, senior housing, and data centers

1. *Geographic Other includes investments in the Americas outside the US*
2. *As of March 31, 2025. Assuming all unfunded commitments are drawn and there is no return of capital.*
3. *Property Type Other includes data center, senior housing, self storage, etc.*

2025 YTD Real Estate Equity Commitment Activity

Private Real Estate Equity

- DigitalBridge Partners III closed in June 2025 for the first infrastructure fund commitment.
- Conducting due diligence on additional infrastructure funds that could be in the queue near term.
- Through Q2 2025, there have been no real estate fund or separate account commitments signed, however, there are several potential commingled fund commitments in the queue.

	Investment	Investment Type	Geographic Focus	Commitment	Status	Closing Date
Funds	DigitalBridge III	Fund	North America	$150 ($100 primary + $50 co-invest. sidecar)	Approved	Q2 2025
Direct Equity	-	-	-	-	-	-
Programmatic SMAs	-	-	-	-	-	-

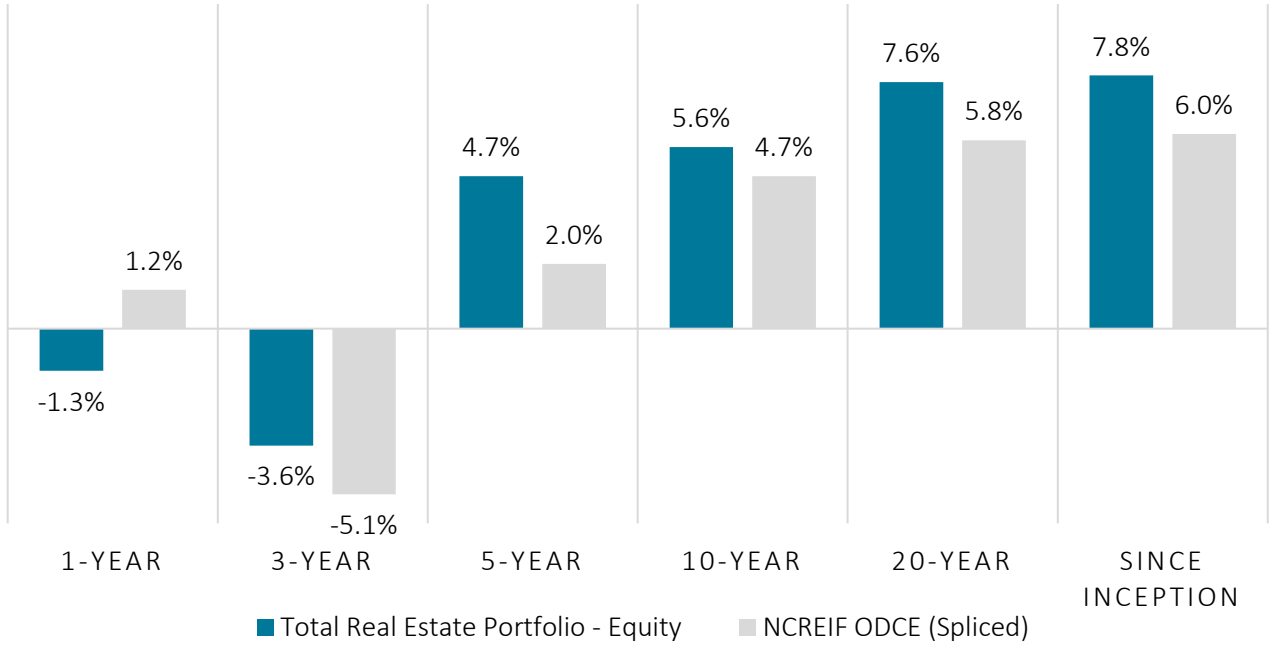
Public Real Estate Equity

- There were no additions of public REIT/REOC securities managers through Q2 2025.
- There were two terminations of public REIT managers through Q2 2025.

	Managers	Investment Type	Geographic Focus	Status
Additions	-	-	-	-
Terminations	Heitman	REIT	Domestic	Terminated
	AEW Capital Management	REIT	Global	Terminated

NYSTRS Q1 2025 Equity Performance

Benchmark Comparison as of March 31, 2025



- Over the last 12 months, the Real Estate Equity portfolio produced a total net return of -1.3%, which underperformed the NCREIF- ODCE (Spliced) index.
- Drivers of the negative nominal performance primarily related to West coast office markdowns and lower earnings from the cold storage allocation due to a decrease in inventories held throughout the markets.
- The portfolio has outperformed on a 3, 5, 10 and 20-year basis.
- Since inception, NYSTRS has outperformed the NCREIF-ODCE (Spliced) by approximately 180 bps. NYSTRS has also outperformed by 180 bps on a 20-year basis.

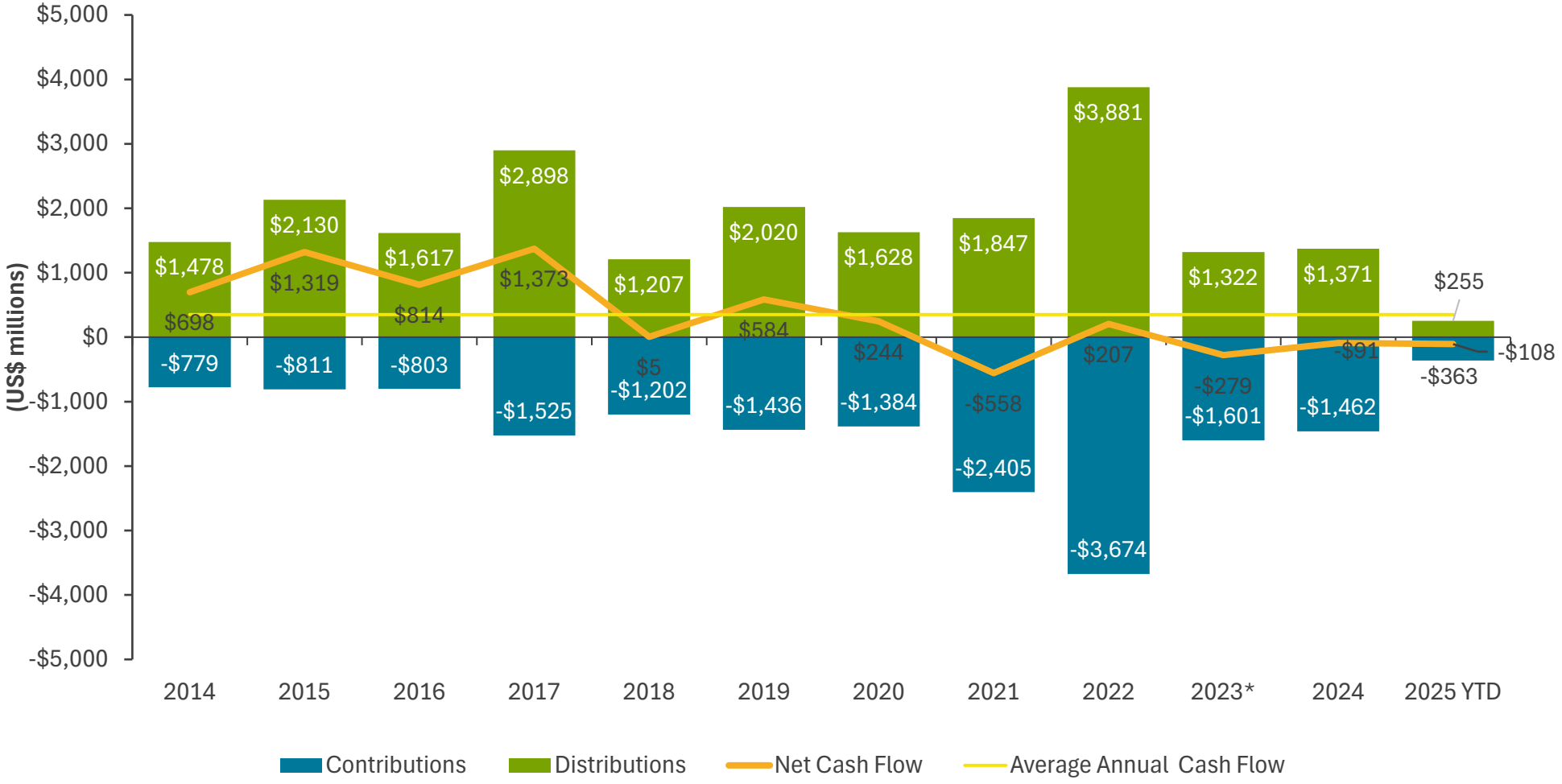
	1-Year	3-Year	5-Year	10-Year	20-Year	Since Inception
NYSTRS - Total Real Estate Equity Portfolio	**-1.3%**	**-3.6%**	**4.7%**	**5.6%**	**7.6%**	**7.8%**
NCREIF ODCE (Spliced)[1]	1.2%	-5.1%	2.0%	4.7%	5.8%	6.0%
FTSE NAREIT - All Equity REITs	9.2%	9.2%	9.2%	9.2%	15.2%	9.8%
Direct Properties	-6.1%	-4.8%	2.1%	5.1%	8.4%	8.6%
Core Funds	-3.4%	-8.6%	-2.2%	1.2%	4.4%	5.7%
Value-Add Funds	-2.8%	-3.7%	9.4%	12.6%	10.0%	7.4%
Opportunistic Funds	1.3%	0.4%	8.2%	7.5%	7.8%	8.5%
US RE Securities	10.4%	0.5%	11.5%	6.2%	8.2%	10.9%
Global REIT Securities	4.8%	-3.4%	7.1%	-	-	2.8%

1. NYSTRS Equity portfolio benchmark

Equity Annual Cash Flows

Annual (CY) Contributions and Distributions (USD in millions)

- Over the past 11 years, at 3/31/2025, NYSTRS' Real Estate Equity portfolio has recorded a total of $17.4 billion in contributions and $21.7 billion in distributions, resulting in a total positive net cash flow of $4.2 billion.
- At 1/1/2014, NYSTRS' CRE Equity Portfolio totaled $10.5B. At 3/31/2025, the portfolio totaled $16.3B. Net cash flows have averaged approximately +$351M per year since 2014.

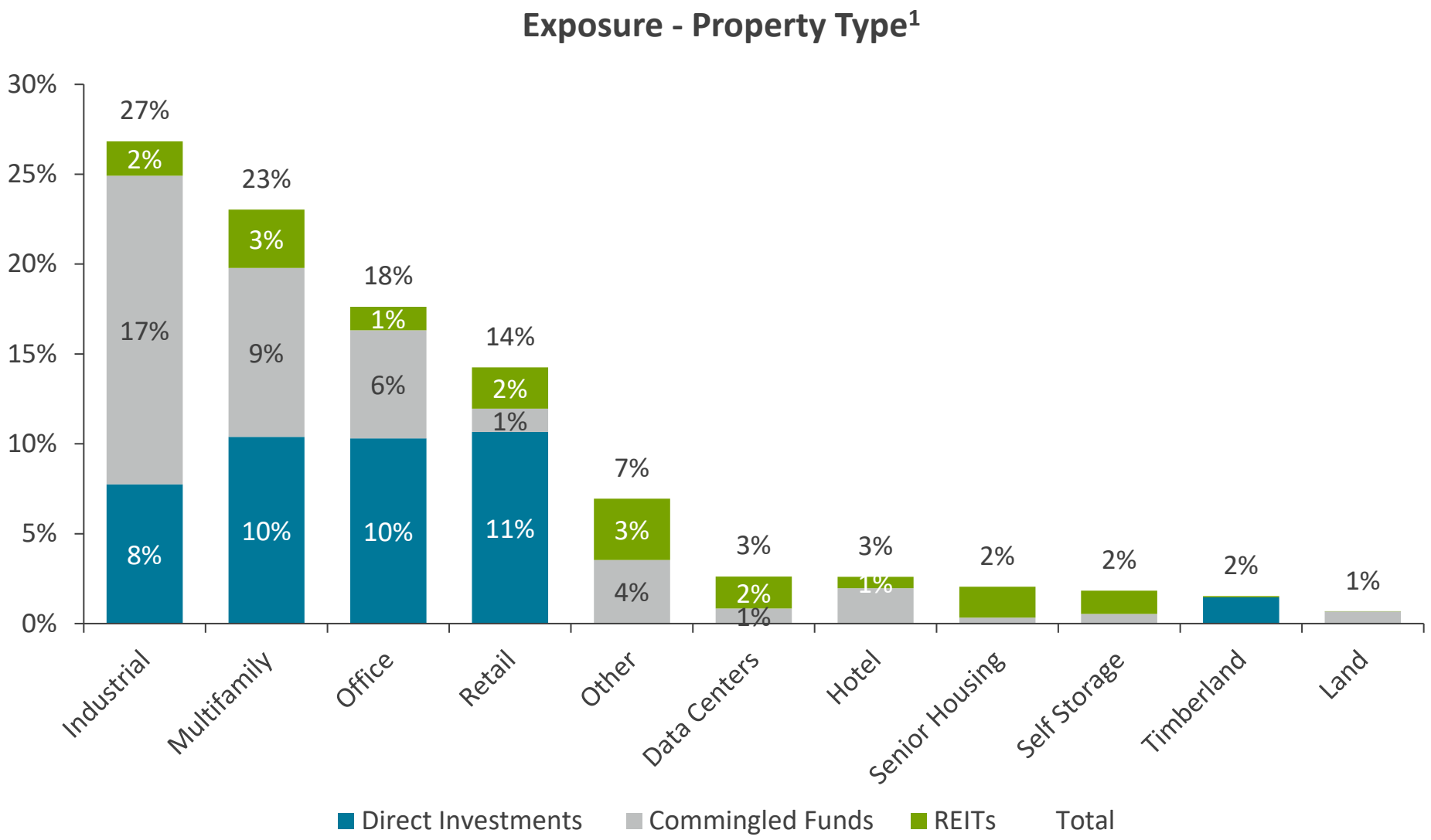


1. Contributions and distribution data reflect cash flow activity within the given calendar year
2. *Past performance is not necessarily indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses.*

* 2023 Contributions include $225M reflecting the property value and cash received pursuant to a Deed in Lieu transfer of collateral in satisfaction of a first mortgage held by NYSTRS.

Detailed Property Type Exposure – CRE Equity

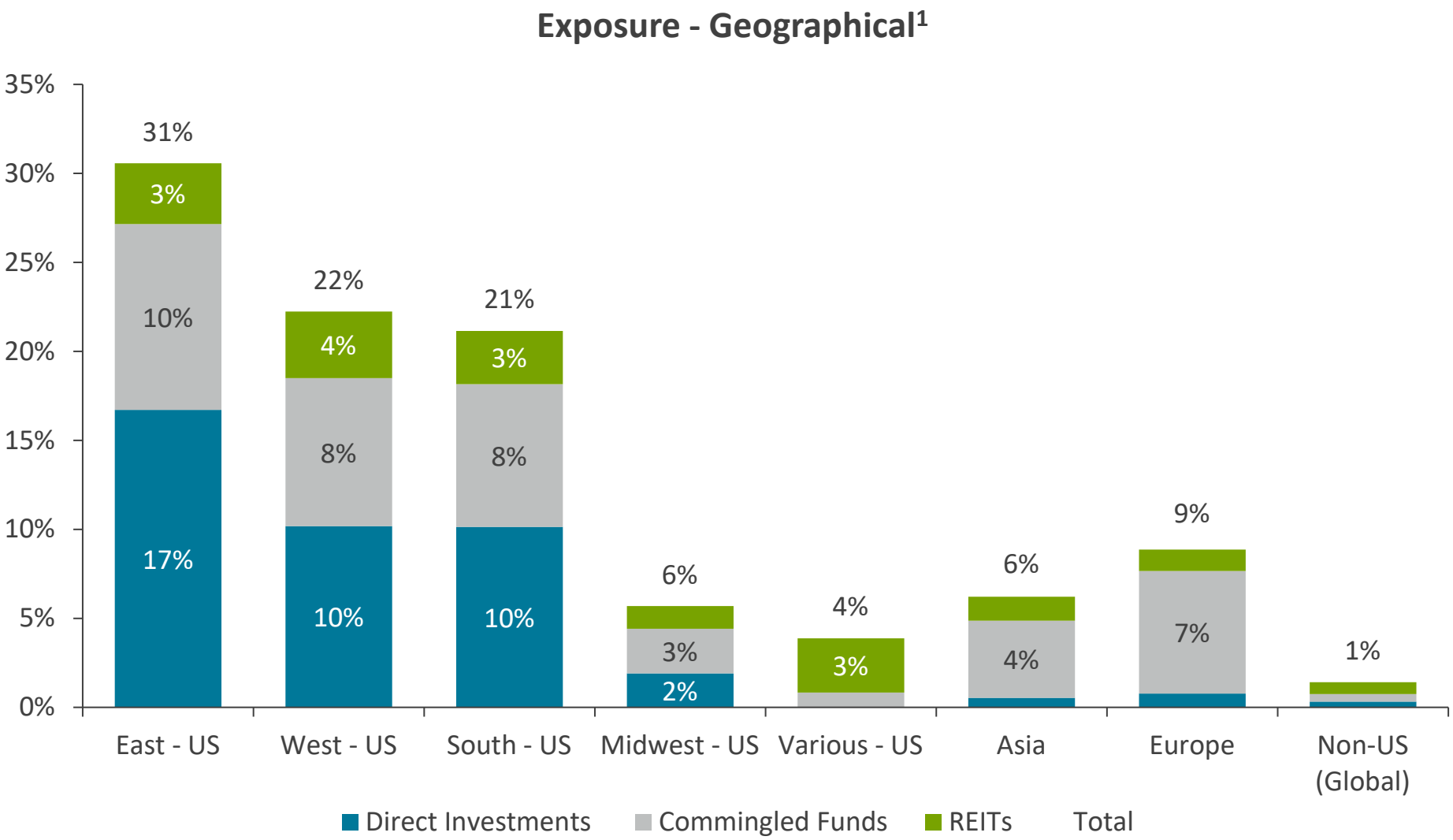
Between March 31, 2024, and March 31, 2025, exposures for each of the main property types changed by: Industrial increased to 27% from 26%, Multifamily decreased to 23% from 26%, Office decreased to 18% from 20%, and Retail increased to 14% from 13%. Most of these changes are due to valuations which had been affected by increasing interest rate levels.



1. *As of March 31, 2025*
2. *Other includes mixed-use and NPLs*
3. *Land includes both entitled and unentitled*
4. *Totals may be greater than 100% due to rounding*

Geographic Diversification – CRE Equity

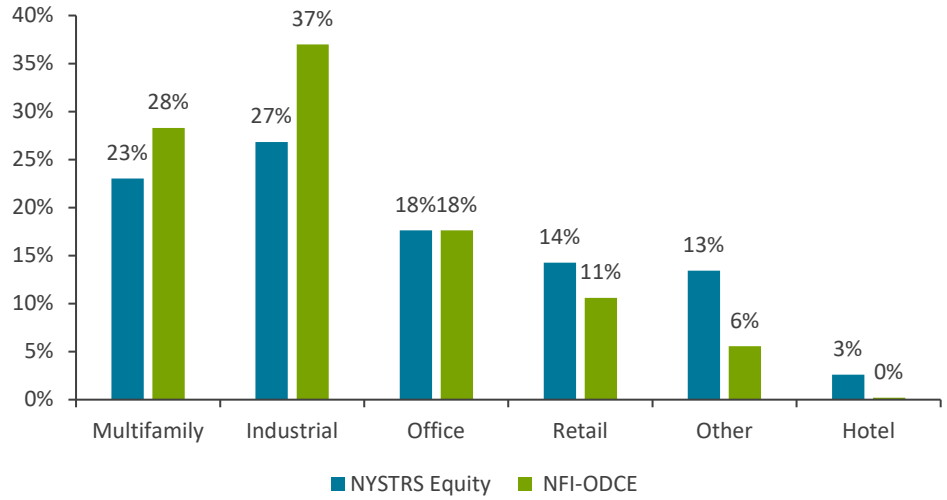
- While StepStone does not set geographical targets within US regions, instead opting to select locations with strong underlying fundamentals, we believe this current global exposure of 83% US and 17% international is appropriate for NYSTRS' portfolio.

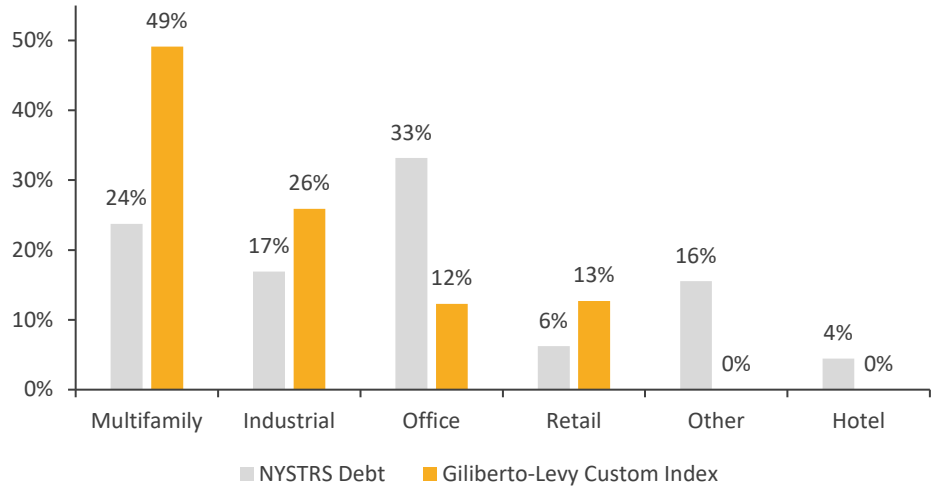


1. *As of March 31, 2025*
2. *Various – US includes geographically diversified portfolio investments*

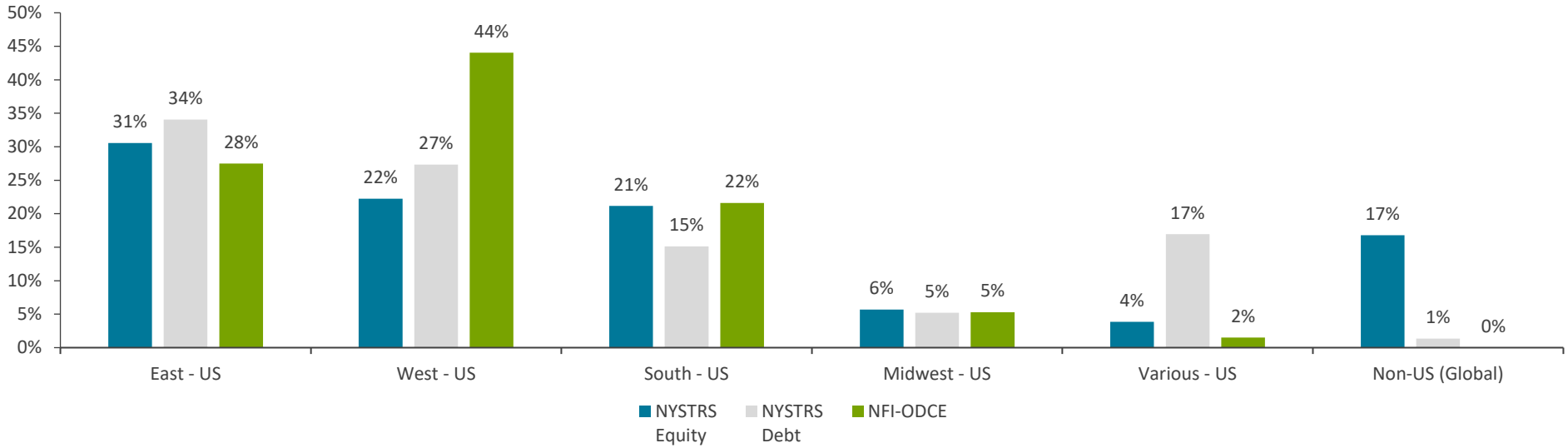
CRE Equity + CRE Debt Diversification vs. NFI-ODCE

Property Type Diversification





Geographic Diversification



1. *As of March 31, 2025*
2. *All office loans were originated pre-COVID 19*
3. *Presented NFI-ODCE data represents the benchmark's value-weighted gross real estate variant*
4. *Other includes data center, senior housing, self storage, etc.*
5. *Totals may be greater than 100% due to rounding*

Largest Exposure – Private & Public CRE Equity

Top 10 Real Estate Equity GP Relationships	
Manager	Total NAV
JP Morgan[1]	$3,109
Cohen & Steers	$1,270
Blackstone	$1,215
Brookfield	$1,179
BGO	$1,008
Sentinel	$962
Cabot	$863
CBRE	$706
EQT Exeter	$403
PGIM	$377
Top 10 Total	$11,092

- The largest exposure in the private portfolio is to JP Morgan through an SMA with 11 assets; this has been gradually reduced over time via office and regional mall sales.
- 5 of the top managers above are private SMA relationships where NYSTRS retains discretion over acquisitions, financing buy/sell decisions, operating expense budgets and capital expense decisions
- NYSTRS' largest exposure to a closed-end fund manager is Blackstone, at approximately 6.5% of the equity portfolio
- JPM advises NYSTRS' ownership in Edens representing $1.75B. Without Edens, NYSTRS' exposure to JPM is approximately $1.8B.

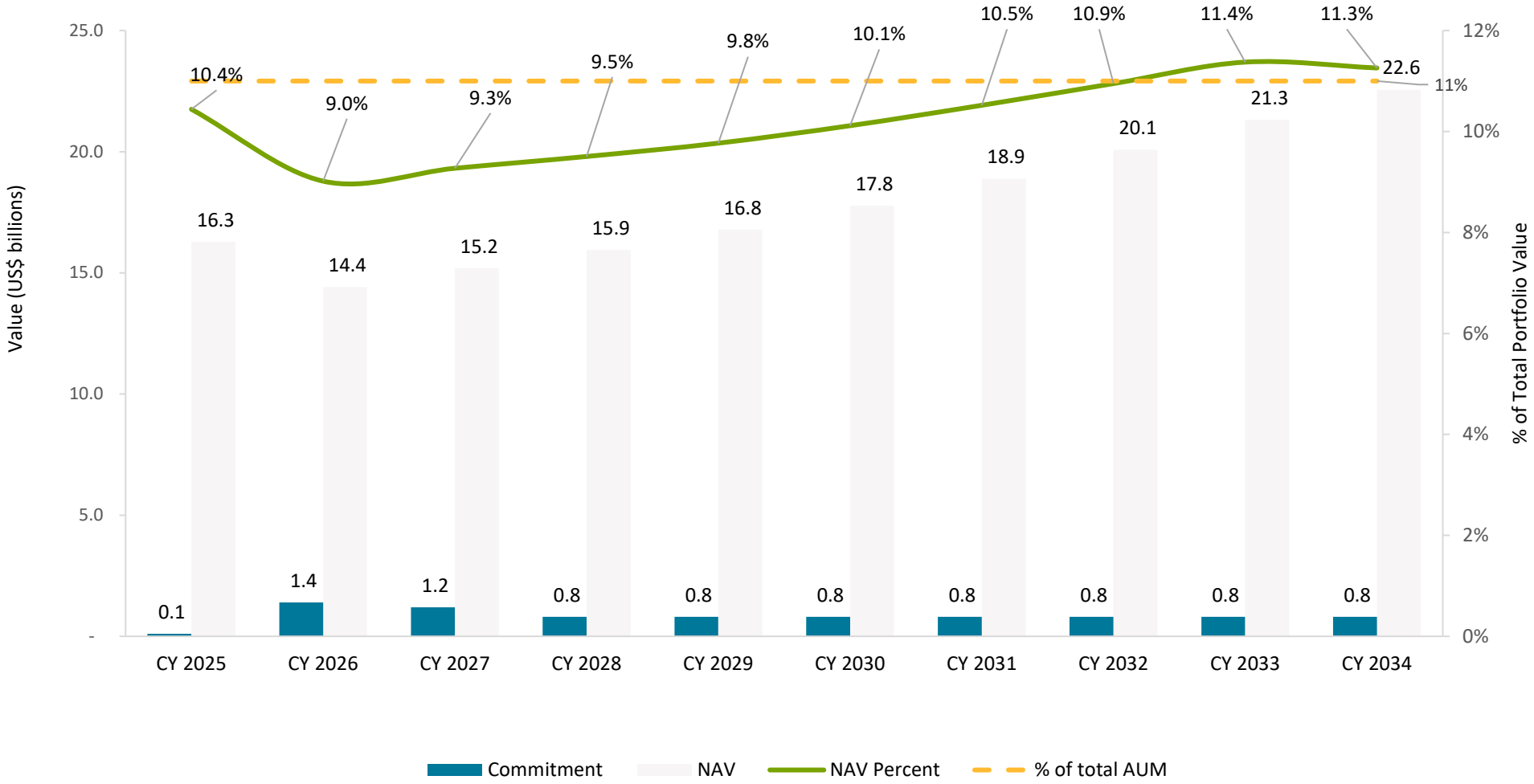
As of March 31, 2025

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 – COMMERCIAL REAL ESTATE EQUITY

Commercial Real Estate Equity Pacing Model: Commitment & NAV

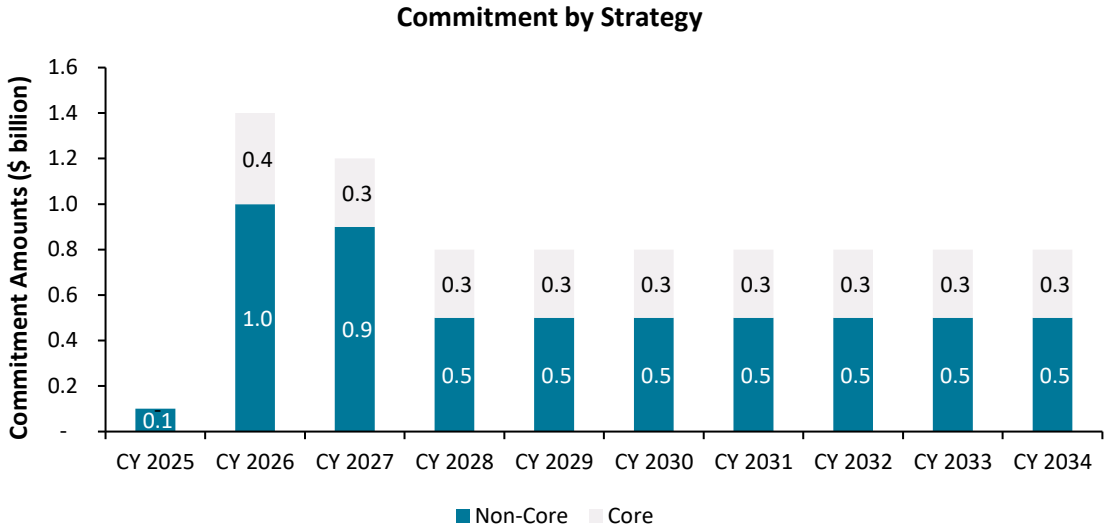
- 11.3% as of March 31, 2025; NYSTRS projecting 10.4% for December 31, 2025. Pacing model for 2026 and beyond assumes normal distributions from funds although recent quarters have been significantly below average.
- Stepstone recommends up to $1.3B - $1.5B in commitments for CY 2026. New commitments and reinvested proceeds between $0.7B and $1.4B annually over the next five years will maintain the Real Estate Equity portfolio in-line with target.

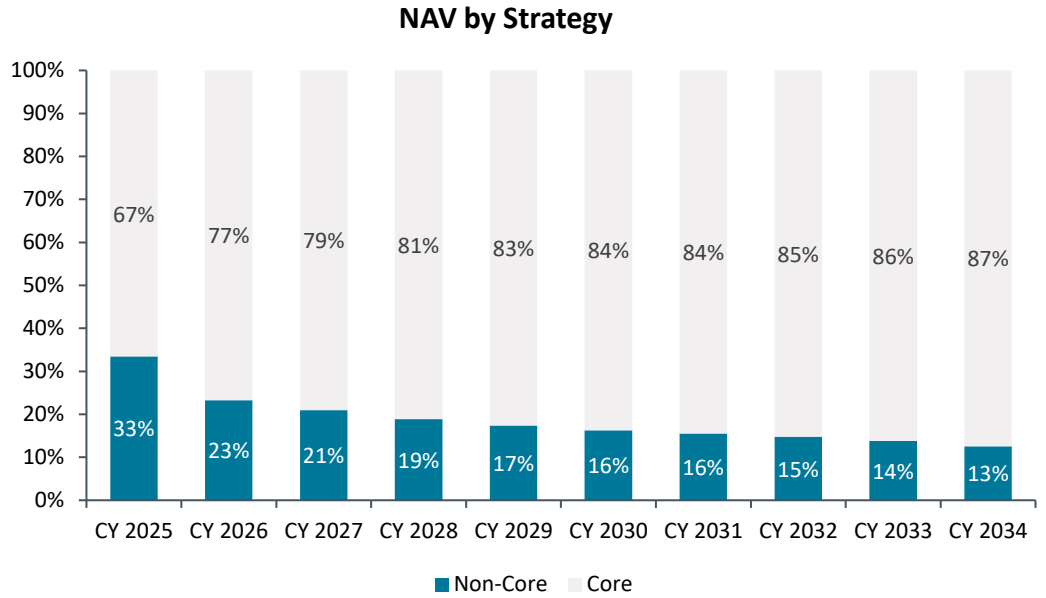


- The above and following pacing scenarios recognize only identified, near-term realizations. Pacing scenarios can be updated each year with feedback regarding additional planned realizations
- Cashflows not predicative of future yields; trailing 12-month used for distributions

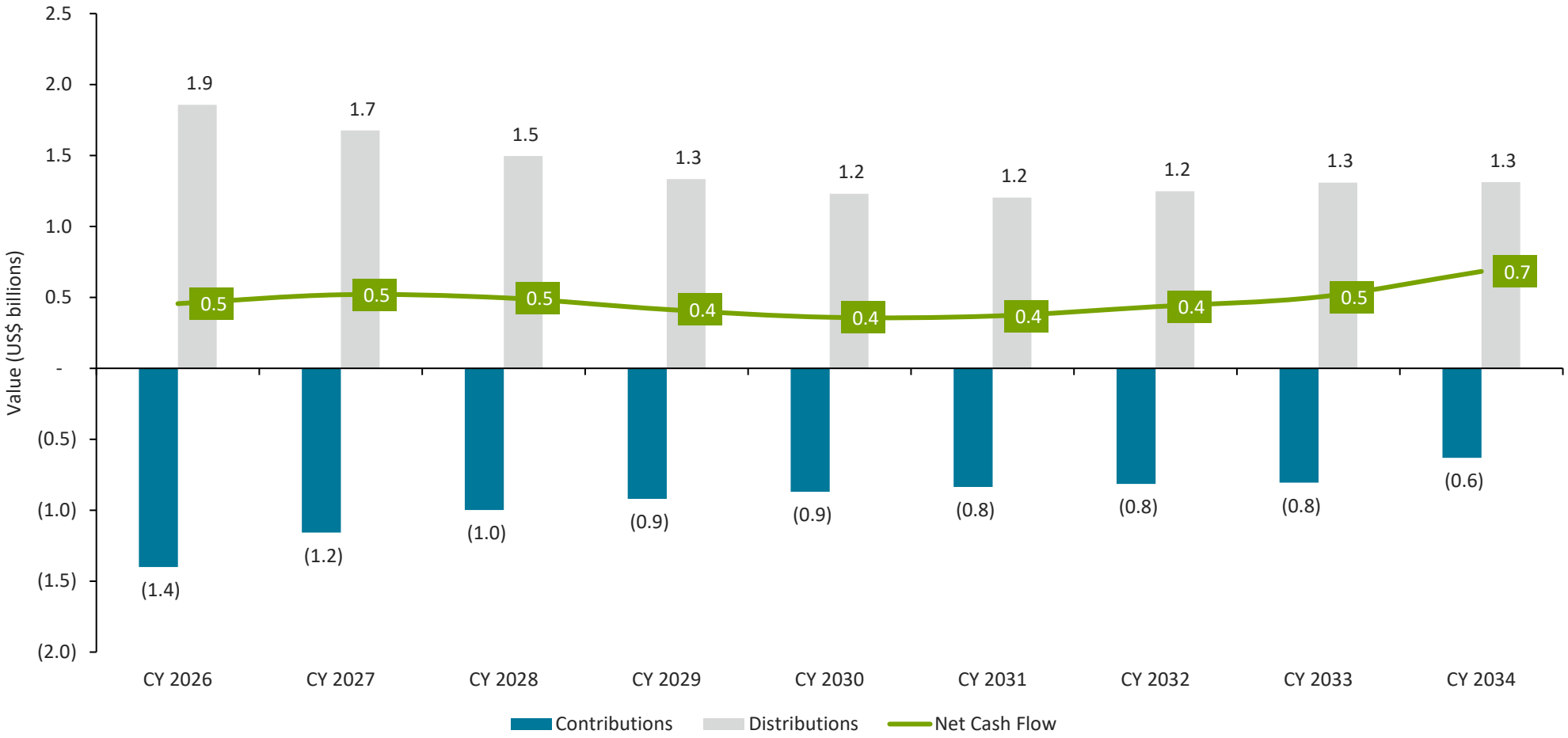
Commercial Real Estate Equity Pacing Model: By Strategy

- Commitments made each year are a function of the best relative risk adjusted opportunities available in the market at that time (across all equity public and private strategies).
- The plan is generally to keep the Core/non-core components in a 65/35% range. With the core component having a floor of 55%.
- Note the pacing model does not assume core dispositions, however, there is currently one core asset in suburban CT that is in the sale process. Otherwise, there are no assets in the immediate queue for sale. Remaining assets in the portfolio may be recommended for potential sale during the review of property business plans based on current market conditions and the characteristics of the asset at that time.



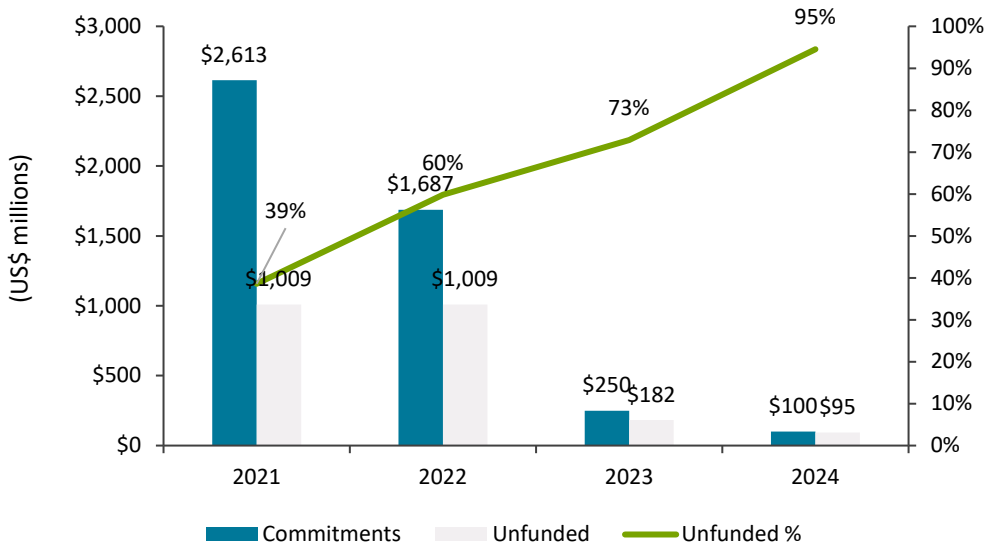


Commercial Real Estate Equity Pacing Model: Net Cash Flows



Top Ten Unfunded CRE Equity Commitments

Fund	NYSTRS Discretion	Strategy	Vintage	Commit.	Cont.	NAV	Unfunded	% Unfunded
Brookfield RE Secondaries		Global RE Secondaries	2022	$300	$95	$90	$207	69%
Aermont V		Europe Opportunistic	2022	$292	$86	$80	$207	71%
BREP X		Global Opportunistic	2022	$300	$108	$117	$200	67%
GCM Grosvenor CRE Opp. SMA	Y	US Value-add	2021	$250	$67	$72	$183	73%
BREP Asia III		Asia Opportunistic	2021	$300	$124	$125	$176	59%
FCP Pref. Equity Mezz. SMA	Y	US Preferred Equity	2021	$220	$70	$82	$150	68%
Brookfield RE Secondaries SMA	Y	Global RE Secondaries	2021	$600	$494	$575	$134	22%
BGO Cold Storage		US Opportunistic/Value-add	2021	$235	$101	$118	$134	57%
GCM Grosvenor SMA		US Value-add	2024	$100	$6	$5	$95	95%
Abacus VI		US Value-add	2022	$200	$108	$80	$92	46%
Top Ten Total				**$2,792**	**$1,258**	**$1,345**	**$1,578**	**56%**



- As of March 31, 2025, total unfunded equity commitments equates to $3.1 billion.
- Unfunded equity is meaningfully concentrated in SMAs that are subject to NYSTRS' discretion for deployment.
- NYSTRS commitments for funds and SMAs with the vintage year of 2021 or later, have total unfunded commitments of US$2,295 million.
- Commingled funds are generally on track to be fully deployed by end of commitment period.

III. COMMERCIAL REAL ESTATE DEBT PORTFOLIO REVIEW

Commercial Real Estate Debt Portfolio Review

Executive Summary

- In CY 2024 ending December 31, 2024, the portfolio funded $2.04 billion of contributions and received $1.60 billion of distributions, resulting in net cash outflow of $454 million
- As of March 2025, the CRE Debt portfolio consisted of 69% Core and 31% Non-Core assets

As of March 31, 2025. In USD millions.

Debt Portfolio Summary	3/31/2025	3/31/2024	YoY Δ
Real Estate Debt Investments			
Direct Mortgage Portfolio	2,353	1,986	18%
Debt Funds/Separate Accounts			
Core-Plus	2,114	1,987	6%
Opportunistic	669	720	-7%
CMBS	3,699	2,823	31%
Total Current Real Estate Debt Holdings	**8,835**	**7,516**	**18%**
Outstanding Commitments			
Direct Mortgage Portfolio	0	2	-100%
Core-Plus Funds/Separate Accounts	1,072	904	19%
Opportunistic Funds	539	633	-15%
CMBS	99	296	-
Total Outstanding Commitments	**1,710**	**1,835**	**-7%**
Total Real Estate Debt Portfolio	**10,545**	**9,351**	**13%**

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

StepStone Recommendations & Areas of focus

- ✓ Pursue all private and public debt strategies (mortgages, transitional senior mezzanine, CMBS and bridge) to take advantage of the $2 trillion rolling (and growing) wall of commercial loan maturities.
- ✓ The NYSTRS direct mortgage portfolio has $1.4 billion of loans maturing in 2025 and 2026. The asset management/loan servicing team has been proactively working with direct borrowers to work through instances where they are unable to meet debt service payments, extension tests, or repayment of principal at maturity.
- ✓ NYSTRS debt SMAs totaled $1.2 billion in NAV as of Q2 2025. The NYSTRS team will continue to work with debt SMA managers to work through instances where borrowers are unable to meet debt service payments, extension tests, or repayment of principal at maturity.
- ✓ NYSTRS continues to assess staff workload and will make future staffing recommendations as needed.

2025 Strategic Review – Commercial Real Estate Equity

	FY 2021	FY 2022	FY 2023	FY 2024	YTD 2025[1]	CY 2026
Market Value as % of Total Portfolio						
Plan	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%	Target: 11% Policy Range: 6-16%
Actual	10.2%	12.7%	12.2%	11.0%	11.3% (Q1 2025)	N/A
Net Cash Flows	($634M)	$646M	($505M)	$283M	($108M)	N/A
Commitments						
Plan	$0.7-1.1B	$1.6-2.1B	$1.6-1.9B	$0.6B – 1.3B	$1.0B - $1.2B	$1.3B - $1.5B
Actual	$2,095M	$4,041M	$1,784M	$425M	$150M ($100M primary + $50M co-investment sidecar)	N/A

1. *Through March 31, 2025. Moving to Calendar Year going forward rather than projecting over a fiscal year where capital has already been deployed.*

2025 YTD Real Estate Debt Commitment Activity

Private Debt

- During Q2 2025, two direct mortgages were closed.
- Through Q2 2025, there have been no fund or separate account commitments signed, nor have any direct mortgages been signed.
- To date, no SMA or CMBS investments were made during calendar year 2025, as market conditions have been tight with too many managers in the space with too much capital to deploy. NYSTRS remains patient and will not move outside program parameters to chase deals.

	Investment	Borrower	Investment Type	Geographic Focus	Commitment	Status	Date Signed
Funds	-		-	-	-	-	-
SMAs	-		-	-	-	-	-
Direct Mortgages	Smith & Rio	Goldman Sachs	Mortgage (Multifamily)	Tempe, AZ	$55.0	Closed	Q2 2025
	Emerson Mill	Goldman Sachs	Mortgage (Multifamily)	Tempe, AZ	$56.4	Closed	Q2 2025

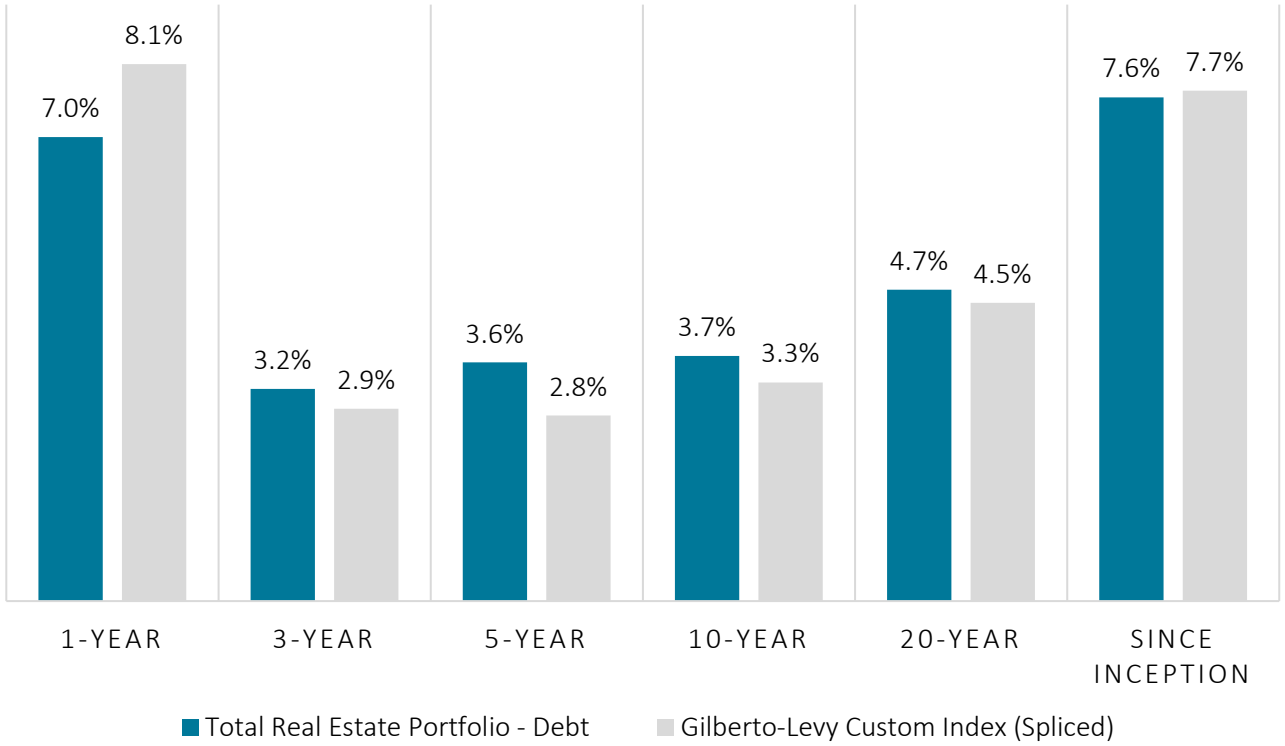
CMBS

- No additions or terminations during Q2 2025.

	Managers	Investment Type	Geographic Focus	NAV	Status
Additions	-	-	-	-	-
Terminations	-	-	-	-	-

NYSTRS Q1 2025 Performance – Debt

Benchmark Comparison[1] as of March 31, 2025



- Since inception performance is in line with the Gilberto-Levy benchmark
- In the past year, the Real Estate Debt portfolio underperformed the Gilberto-Levy Custom Index (Spliced) by 110 bps. The portfolio has outperformed on a 3, 5, 10 and 20-year basis.
- Positive drivers of return over the past 12 months have been the CMBS portfolios which have reacted quickly due to the decrease in treasuries. Whereas, underperformance has been primarily driven by underperforming CBD office assets in the portfolio's core plus and opportunistic funds and SMAs.
- The existing portfolio has a larger concentration of office loans that were originated generally in the 2014-2017 timeframe. Staff has worked out a considerable amount of these loans through extensions with paydowns and cash sweeps.

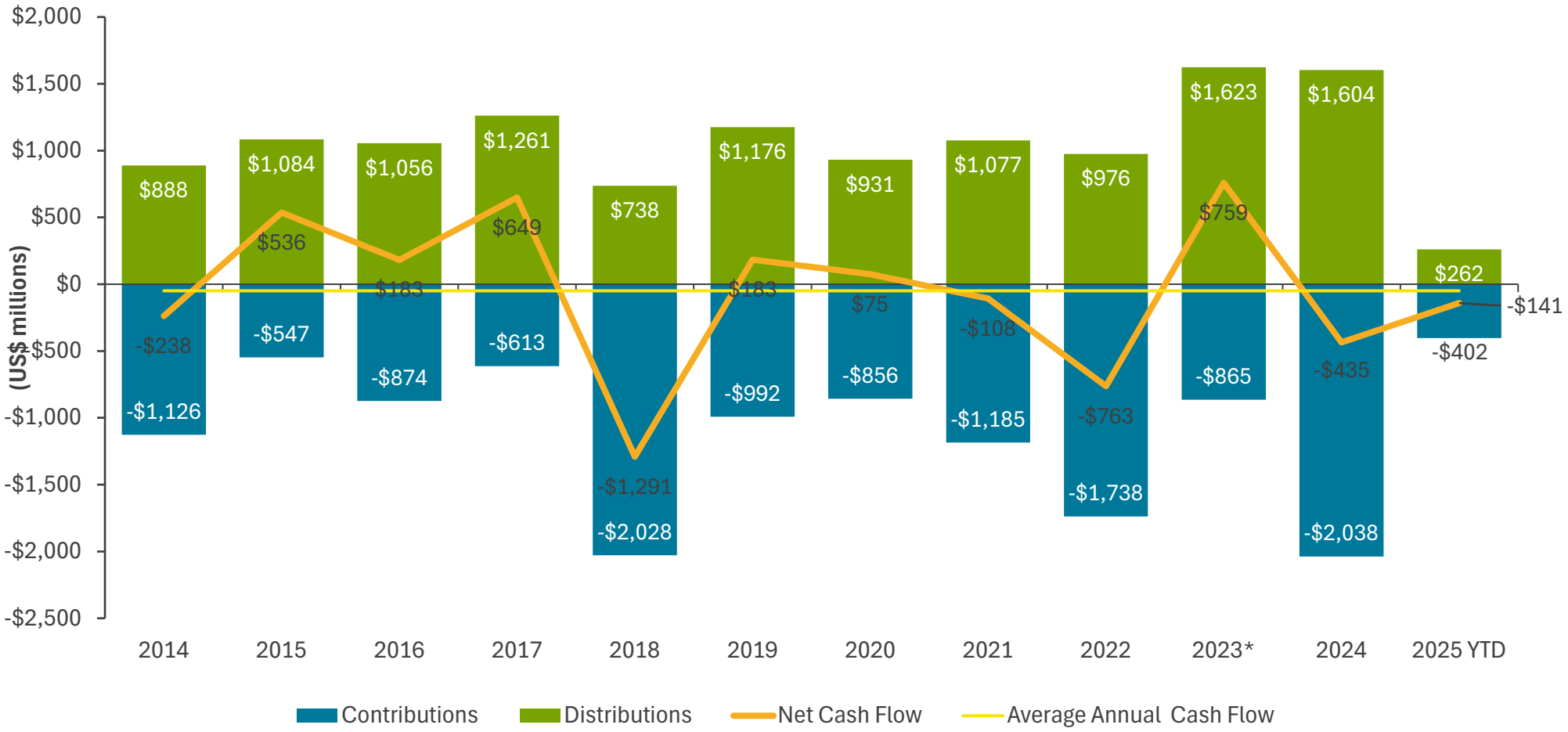
	1-Year	3-Year	5-Year	10-Year	20-Year	Since Inception
NYSTRS - Total Real Estate Debt Portfolio	**7.0%**	**3.2%**	**3.6%**	**3.7%**	**4.7%**	**7.6%**
Gilberto-Levy Custom Index (Spliced)[1]	8.1%	2.9%	2.8%	3.3%	4.5%	7.7%
Barclays CMBS Index	20.6%	5.9%	2.6%	5.7%	8.1%	-
Direct Mortgages	7.5%	3.9%	3.4%	3.6%	4.9%	7.7%
Commercial Mortgage Backed Securities	8.6%	3.4%	4.2%	3.0%	4.0%	4.6%
Core Plus Debt Funds / SMAs	5.6%	1.6%	3.5%	4.6%	4.3%	3.8%
Opportunistic Debt Funds / SMAs	1.9%	3.6%	4.4%	6.4%	1.5%	1.4%

1. As of January 1, 2020, the Policy benchmark is the NCREIF-ODCE for the Real Estate Portfolio, and the Giliberto-Levy Custom Index for the Real Estate Debt Portfolio. Prior to that the Policy benchmarks were a market-value weighted average of the underlying benchmarks for each component. The "spliced" performance history reflects this change in Policy benchmark.

Annual Cash Flows

Annual (CY) Contributions and Distributions (USD in millions)

- Over the past 11 years, NYSTRS' Real Estate Debt portfolio has recorded a total of $13.3 billion in contributions and $12.7 billion in distributions, resulting in a total net contributions of $0.6 billion.
- At 1/1/2014, NYSTRS' CRE Debt Portfolio totaled $5.8B. At 3/31/2025, the portfolio totaled $8.8B. Net cash flows have averaged approximately -$49M per year since 2014.
- Negative average annual cash flow is due to increasing debt strategy allocations.



1. Contributions and distribution data reflect cash flow activity within the given calendar year

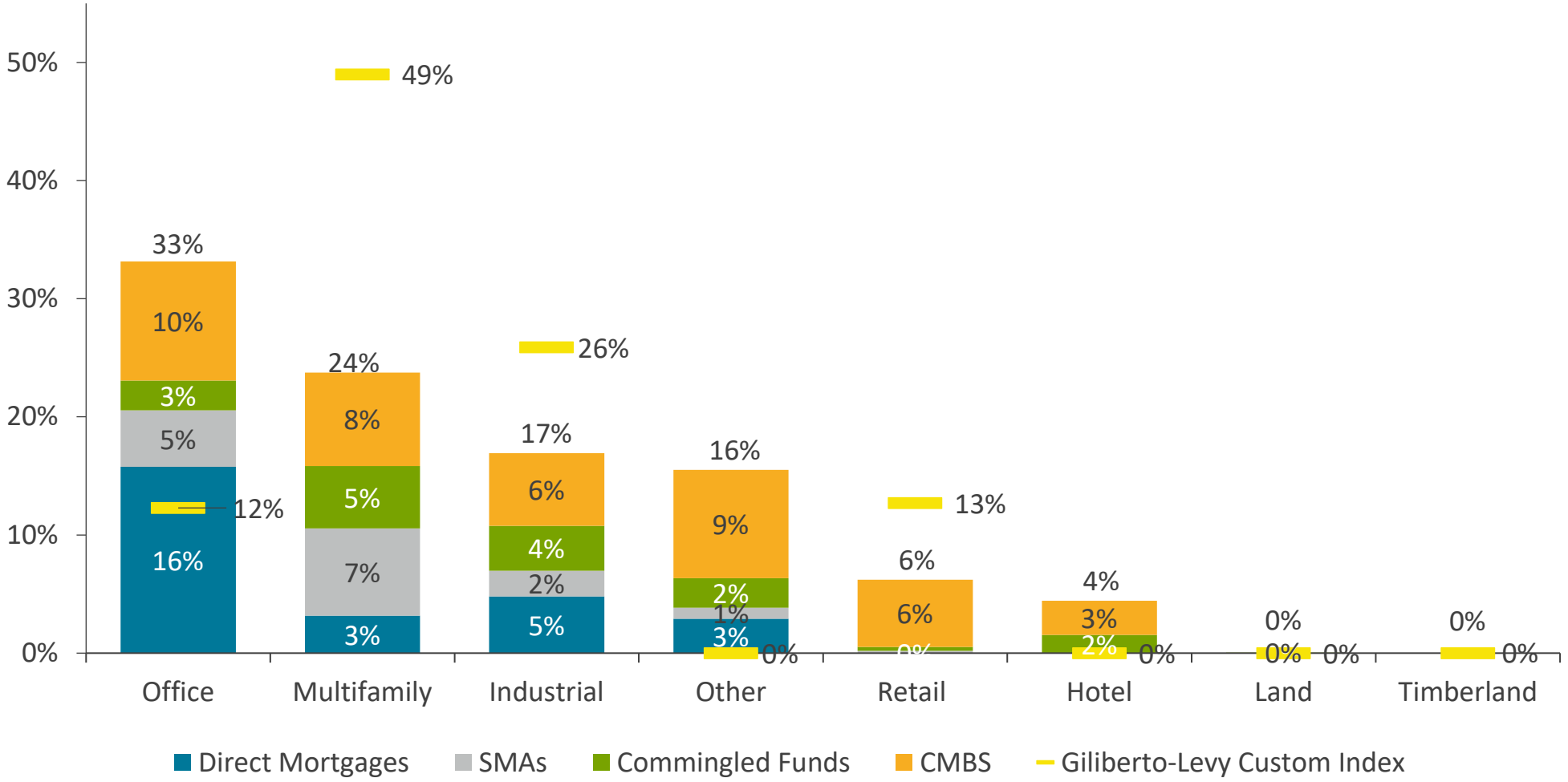
Past performance is not necessarily indicative of future results and there can be no assurance that the investment will achieve comparable results or avoid substantial losses.

* 2023 Distributions include $225M for a first mortgage held by NYSTRS that was satisfied through a Deed in Lieu transfer of collateral.

Detailed Property Type Exposure – Debt

- The Direct Mortgage office exposure may remain high as a percentage of the total portfolio, due to impending maturities and capital market headwinds in the sector, especially on the West Coast. Multifamily has been the focus for Direct Mortgages originated in the first half of 2025.
- Staff continues to work out problem office loans through short term extensions with paydowns, cash sweeps, etc.

Exposure - Property Type[1]

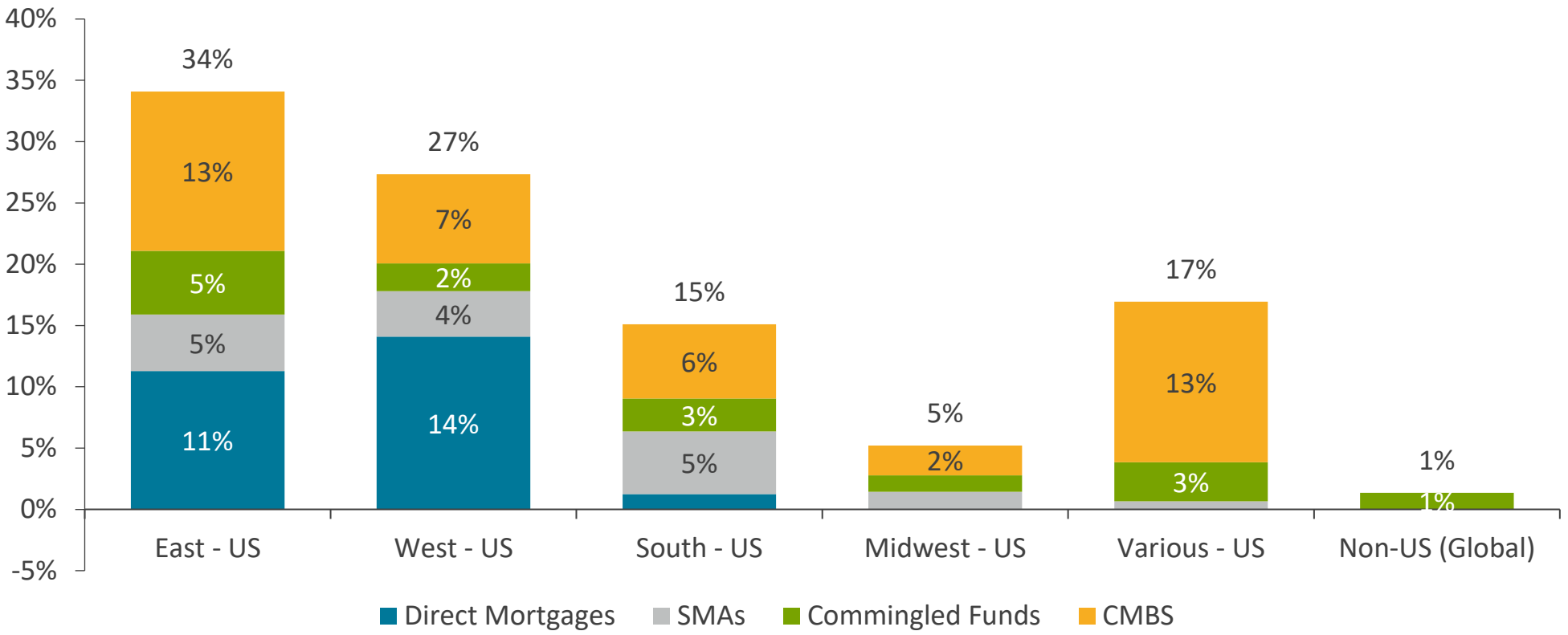


1. *"Other" primarily consists of mixed-use, senior student housing and data centers*
2. *Office includes an REO total $199 million NAV/GAV*
3. *NYSTRS office allocation is due to log term CBD assets that were originated prior to 2017*
4. *FHLMC and Fannie Mae, dominated residential lending for many years with very tight spreads. More recently the life companies have now stepped in with very aggressive bids.*
5. *No hotel loans in the direct mortgage/SMA portfolio.*

Geographic Diversification – Debt

- StepStone does not set geographic recommendations for debt portfolios, though notes there are legacy office loans that have been focused historically on the East and West coast gateway markets. This was a function of the size of the loans and that historically MF lending was dominated by FNMA and FHLC. The life insurance companies are now NYSTRS' most aggressive competitor for first mortgages.

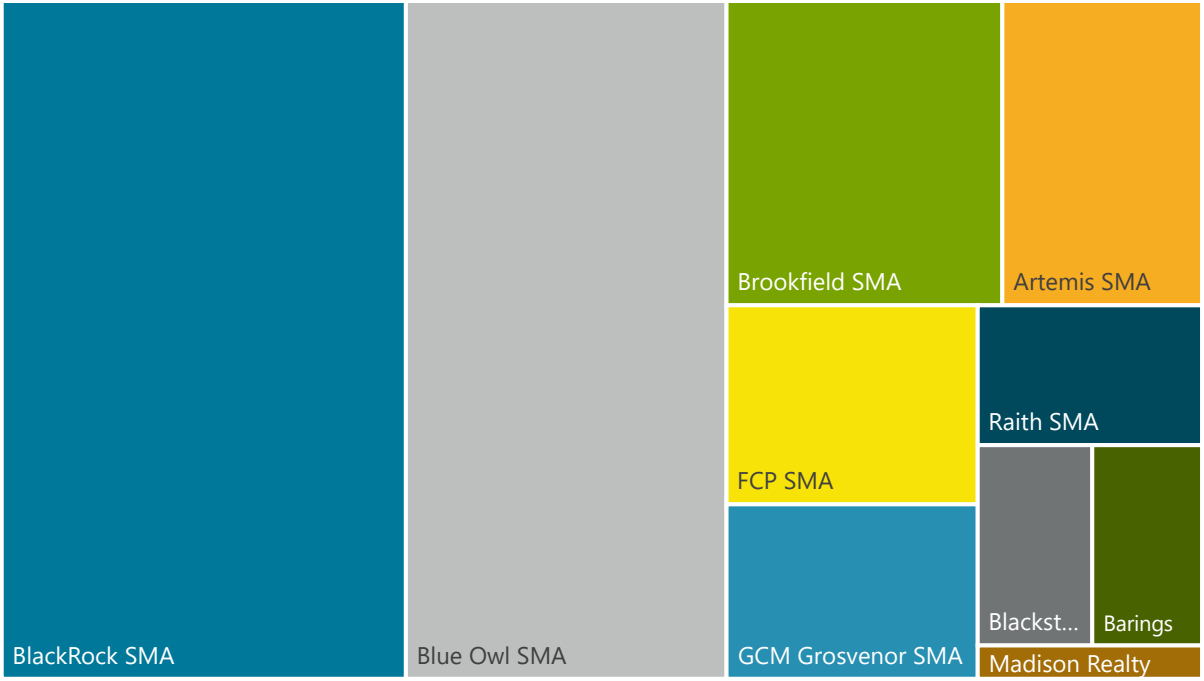
Exposure - Geography[1]



1. *As of March 31, 2025*
2. *Various – US includes geographically diversified portfolio investments*

Manager Exposure – CRE Debt

- NYSTRS' Commercial Real Estate debt portfolio is balanced between core: first mortgages, investment grade CMBS, and "core plus" senior mezzanine positions which represent (68% of the overall RE debt portfolio) and closed end fund strategies, where NYSTRS does not have discretion (32%).
- NYSTRS focuses on retaining discretion on all private separate accounts
- The largest debt manager exposures are to BlackRock and Blue Owl which focus predominantly on investment grade CMBS



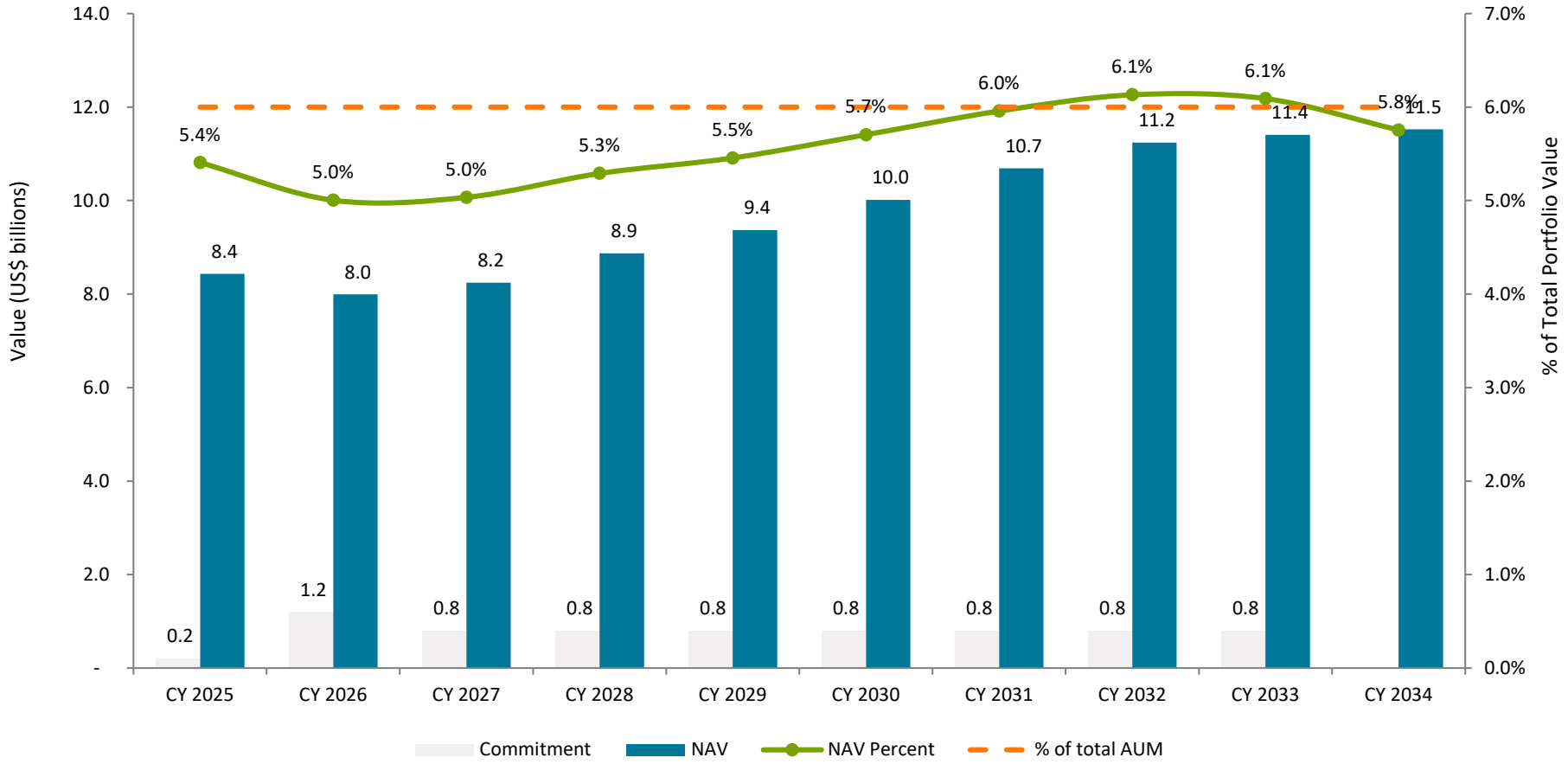
Real Estate Debt GP Relationships	
Manager	NAV (US$ millions)
BlackRock SMA	$2,133
Blue Owl SMA	$1,693
Brookfield SMA	$654
Artemis SMA	$474
FCP SMA	$389
GCM Grosvenor SMA	$341
Raith SMA	$244
Blackstone	$179
Barings	$171
Madison Realty	$58
Lion Gables Realty Partner Loan	$19
TCI	$14
PCCP Mezzanine	$4
Total	**$6,373**

As of March 31, 2025

III(B). COMMERCIAL PACING – REAL ESTATE DEBT

Real Estate Debt Pacing Model: Commitment & NAV

- 6.1% as of March 31, 2025; NYSTRS projecting 5.4% for December 31, 2025.
- Committing $1.2B next year and $0.8 in subsequent years into a combination of funds, separate accounts, and direct mortgages would bring the Debt portfolio in-line with the 6% target by CY 2028.
- Pacing includes maturing debt within NYSTRS' existing portfolio.
- 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.

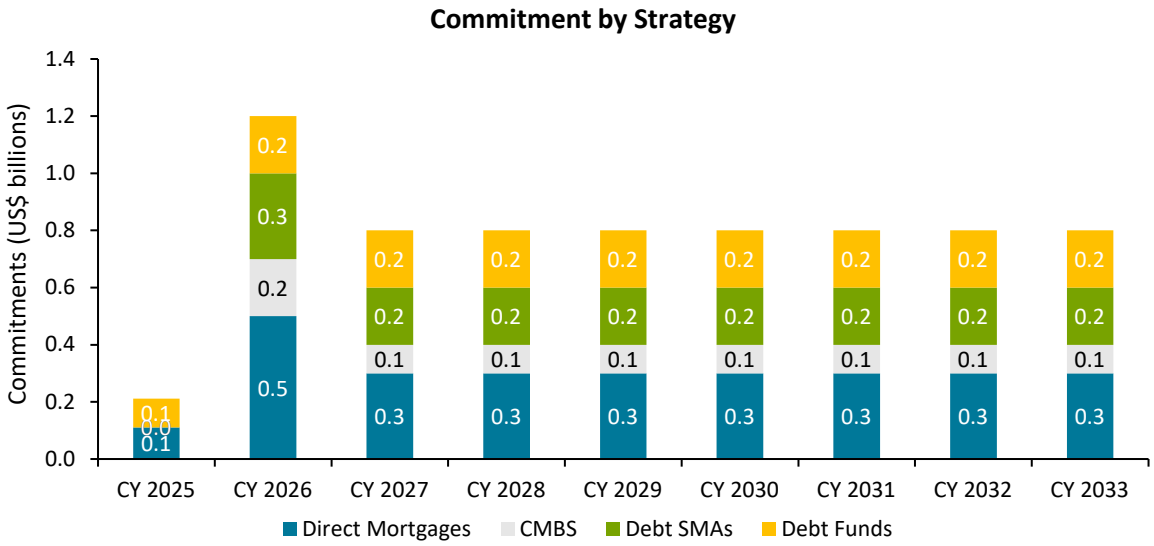


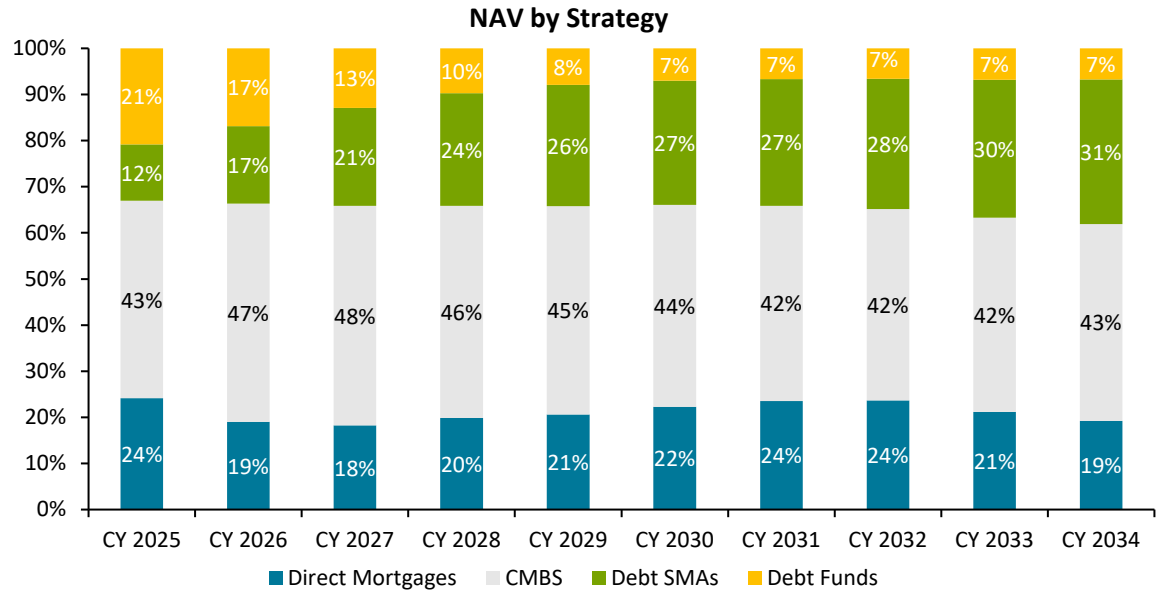
Notes: the above and following pacing scenario recognizes only identified, near-term realizations. Pacing scenarios can be updated each year with feedback regarding additional planned realizations

1. Cashflows not predicative of future yields; trailing 12-month used for distributions

Real Estate Debt Pacing Model: By Strategy

- Continue to target higher yielding, bridge and senior mezzanine opportunities in SMA's where NYSTRS retains discretion.
- The majority of the portfolio includes lower risk debt strategies, including first mortgages, investment grade CMBS and senior mezzanine positions.
- The plan is generally to keep the Core/non-core components in a 60/40% range, with the core components having a floor of 40%. As of March 2025, the NYSTRS CRE Debt portfolio consisted of 69% Core and 31% Non-Core assets.
- The general plan has been to focus on direct strategies where NYSTRS retains discretion. The fee loads for funds in the lending space are generally too large relative to the yields/returns that can be made in the lending markets.

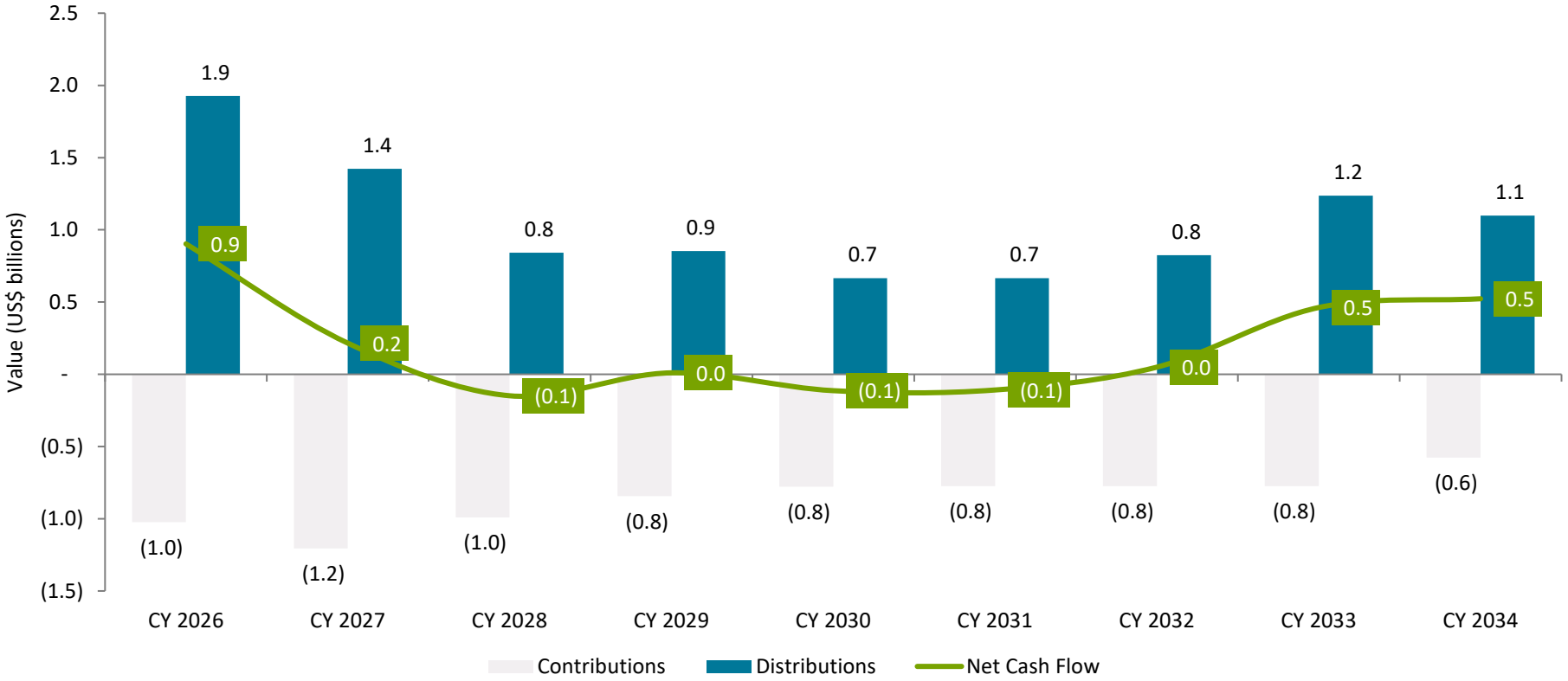




Notes: the above and following pacing scenario recognizes only identified, near-term realizations. Pacing scenarios can be updated each year with feedback regarding additional planned realizations

1. Cashflows not predicative of future yields; trailing 12-month used for distributions

Real Estate Debt Pacing Model: Net Cash Flows



- The NYSTRS direct mortgage portfolio has roughly $1.4 billion of loans maturing in 2025 and 2026. (38% of overall debt portfolio/55% of overall direct mortgage portfolio). These maturities are concentrated in New York City and West Coast office.
- The asset management/loan servicing team has been proactively working with direct borrowers well in advanced of upcoming maturities focusing on paydowns, cash sweeps, extension tests etc. Upcoming maturities in the overall market total $2.0 trillion for 2025-2026, mostly held with the money center banks.
- Note that as of 3/31/2025, the duration and current yield on the existing mortgage portfolio is 2.3 years and 4.8% respectively, versus the Gilberto-Levy Custom Index of 4.0 years and 4.3%.
- The duration and current yield on the CMBS portfolio is 3.9 years and 6.7% respectively, versus the Gilberto-Levy Custom Index of 3.8 years and 5.3%.
- The Real Estate Debt portfolio continues to work towards targets in the System's overall portfolio when reasonable yields are available on good collateral assets. Distributions could be higher in the case of early payoffs of Direct Mortgages and bridge/mezzanine loans.
- Although NYSTRS has added a year of duration to its first mortgage portfolio, there is difficulty in moving the number as large office loans continue to be extended (albeit with paydowns). In addition, NYSTRS has focused on short term floating rate loans in our separate accounts with higher yields and a limited amount of incremental risk.

Notes: Cashflows are not predicative of future yields; trailing 12-month used for distributions. 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.

STEPSTONE

StepStone Real Estate House Views

SUMMER 2025

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All data is as of August 2025, unless otherwise noted.

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Comprehensive sourcing of house views

Market research

Third-party macro and real estate market research

Technology

Detailed data analysis and projections

Active investments

Bottom-up transaction intel from active

- Underwriting
- Portfolio management

Fund investments

Insights from SRE activities, in 2024:

- Daily work with leading LPs
- Over 1,000 GP meetings

Source: SPI Research. As of December 2024.

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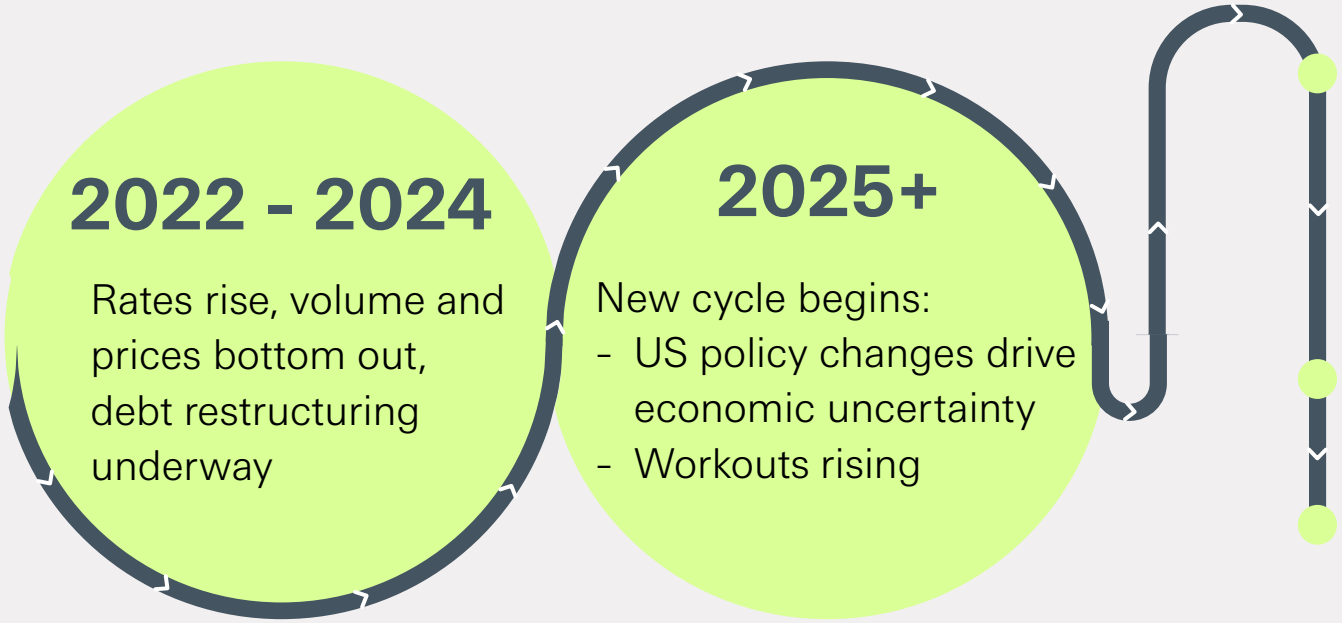
Higher interest rates, turmoil and opportunity



NOW:

Favorable outlook

- *Debt*
- *Secondaries and recapitalizations*
- *Opportunistic/distress*
- *Average into core/core+ with better NAV*
- *Emphasize in place and durable income*

ONGOING:

Real estate maintains its long-term targeted role in portfolios

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

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Back to basics

How to deploy capital and generate returns in an uncertain environment

Focus on income

- Without declining interest and cap rates, income growth drives value
- Policy changes drive up construction costs which
  - limits new supply
  - enables income and value growth

Selectively seek opportunity

- Emphasize in-place and durable income
- Residential and essential services most resilient in downturns
- Stress will
  - amplify existing balance sheet challenges and
  - expand opportunity

Diversify

- Diversification is a powerful risk mitigator
- Deglobalization and trade uncertainty warrant greater geographic diversification
- Policy impact varies by property type

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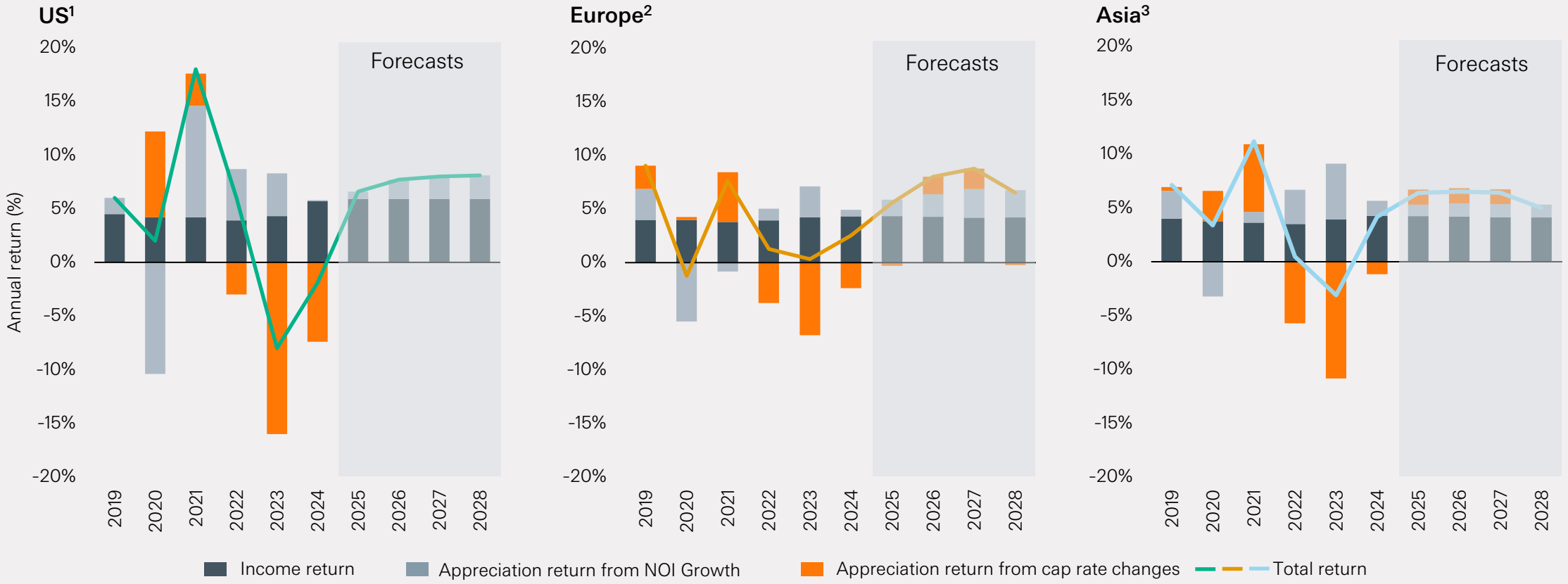
Global forecasts driven by income

Interest and cap rates still matter, and forecasters project less movement than recent past



For illustrative purpose only.
1. PGIM Real Estate, NCREIF, CoStar, Green Street, as of October 2024. 2. MSCI, Cushman & Wakefield, PMA, CBRE, PGIM Real Estate, as of November 2024. 3. MSCI, JLL, PMA, PGIM Real Estate, as of November 2024. Average of total returns across office, retail and logistics sectors in Australia, Hong Kong, Japan, Singapore and South Korea.

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RE recovery underway, new cycle brings volatility

	2022	2023	2024	Peak-to-Q2 25	2025 YTD (July 14)
Public Indices (USD)					
Broad public equities: MSCI ACWI	-18.0%	22.6%	17.9%	30.8%	10.9%
Barclays Capital US Aggregate Bond Index	-13.0%	5.6%	1.2%	-3.3%	3.1%
US Public RE – All Equity REITs	-24.9%	11.4%	4.9%	-10.8%	3.0%
Global Public RE - EPRA/NAREIT	-23.6%	9.8%	1.6%	-8.9%	7.4%
Commercial Property Price Indices (unlevered)[2]					
US - Green Street CPPI, w/ODCE Weights	-15.9%	-10.3%	5.9%	-20.3%	0.0%
Europe - Green Street CPPI, w/ODCE Weights	-15.7%	-11.8%	0.9%	-25.7%	0.5%

Investors likely under-allocated to RE

Property trading prices up slightly from trough

	2022	2023	2024	Peak-to-Q1 25	Q1 25
Core Fund Indices (levered)[3]					
US - NCREIF ODCE	6.5%	-12.7%	-2.3%	-18.4%	0.9%
Europe - INREV ODCE	-1.3%	-10.4%	0.6%	-14.7%	1.5%
Asia - ANREV ODCE	6.3%	-0.5%	-0.6%	-2.0%	-0.1%
Non-Core Fund Indices (levered)[4]					
Global - Burgiss VA/Opportunistic	2.0%	-6.5%	-3.6%	-12.0%	0.6%

Decline in core valuations ending

Expect ongoing decline in non-core valuations

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Sources: NCREIF, INREV, ANREV, Burgiss, Green Street, NAREIT, Bloomberg and FTSE, StepStone SPI Reporting, July 2025. Note: In aggregate, public REITs are 43% allocated to major property types (retail, residential, industrial, and office) as of Q2 2025 according to NAREIT, compared to 88% exposure to major property types in the private Global Real Estate Fund Index produced by ANREV, INREV, and NCREIF as of Q1 2025.

2. Green Street CPPIs as of Q2 2025, w/ODCE Weights are reported in local currencies. Property type mix matches regional ODCE. Q2 25 EU and US GS CPPI return is weighted using Q1 25 regional ODCE property mix due to reporting lag. US: A quality assets; Europe A and B quality. See following core fund valuation pages (34 and 35) for more information on INREV ODCE vs GS.

3. All Fund Indices' returns are net of fees and reported in local currencies. NFI-ODCE's LTV is 27% as of Q1 2025. INREV and ANREV ODCE LTVs are 25% and 33%, respectively, as of Q1 2025.

4. The average LTV for real estate non-core funds is 56% as of Q3 2024, based on SPI reporting.

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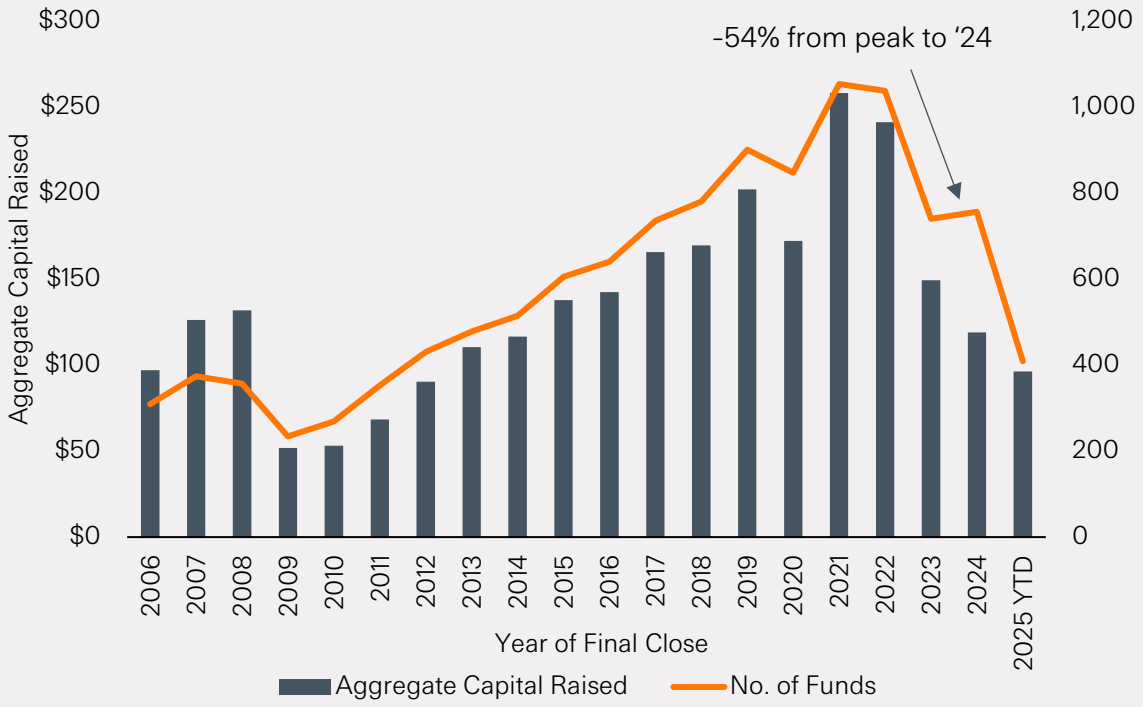
Non-core fundraising down, pressure to transact

- Capital calls 7% above average, distributions still down 65%. Reduced distributions impact LPs' ability to commit to new funds[1]
- Blackstone and Brookfield accounted 36% of 2025 YTD fundraising.

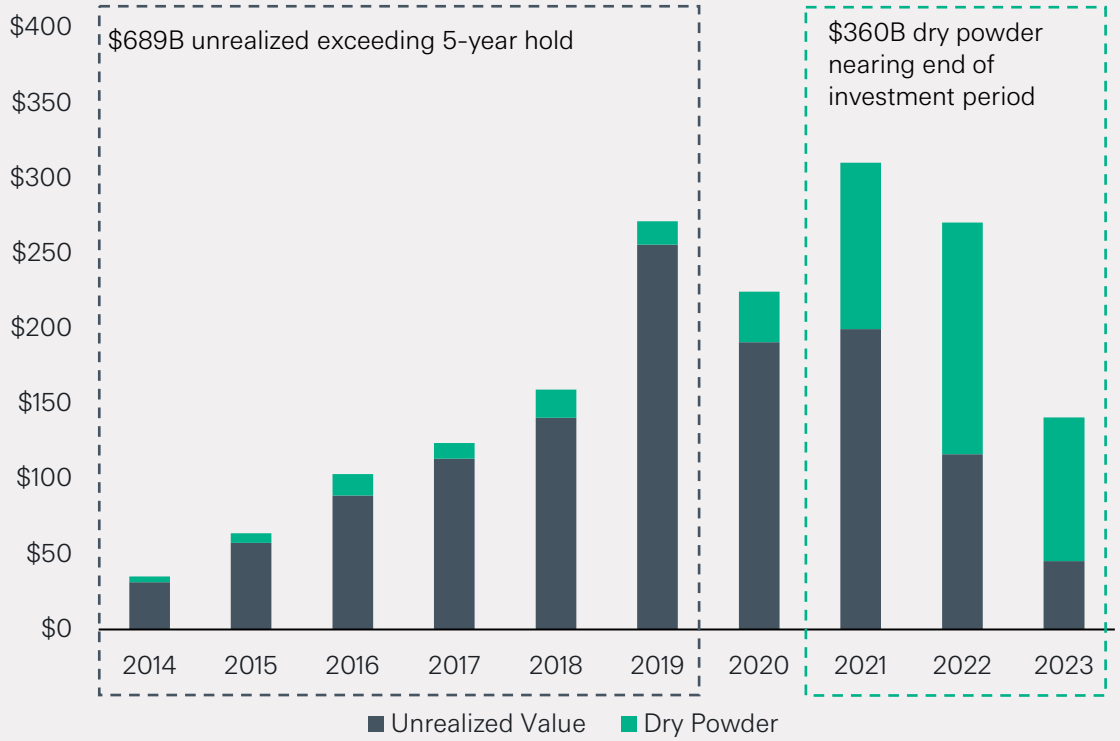
Global private real estate fundraising, final close[2]

$ in billions



Global private real estate fund exposure by vintage[2]

$ in billions



1. Source: SPI Reporting, April 2025. 2. Source: Preqin Pro, July 2025.

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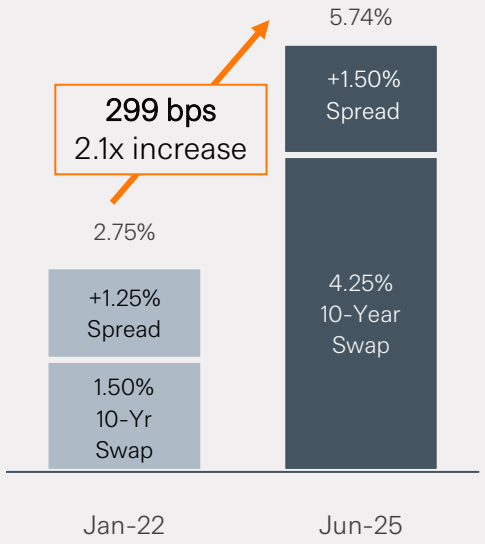
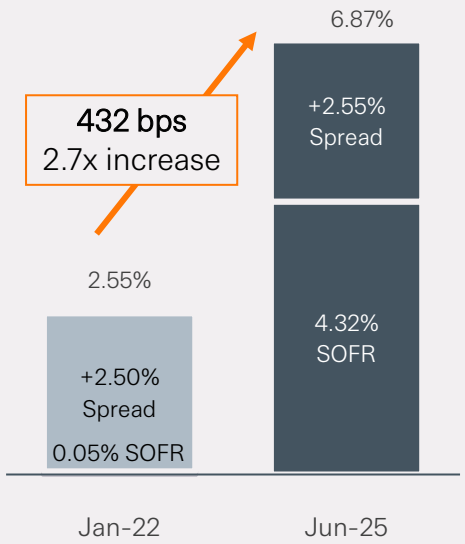
Higher interest rates drive the need for recaps

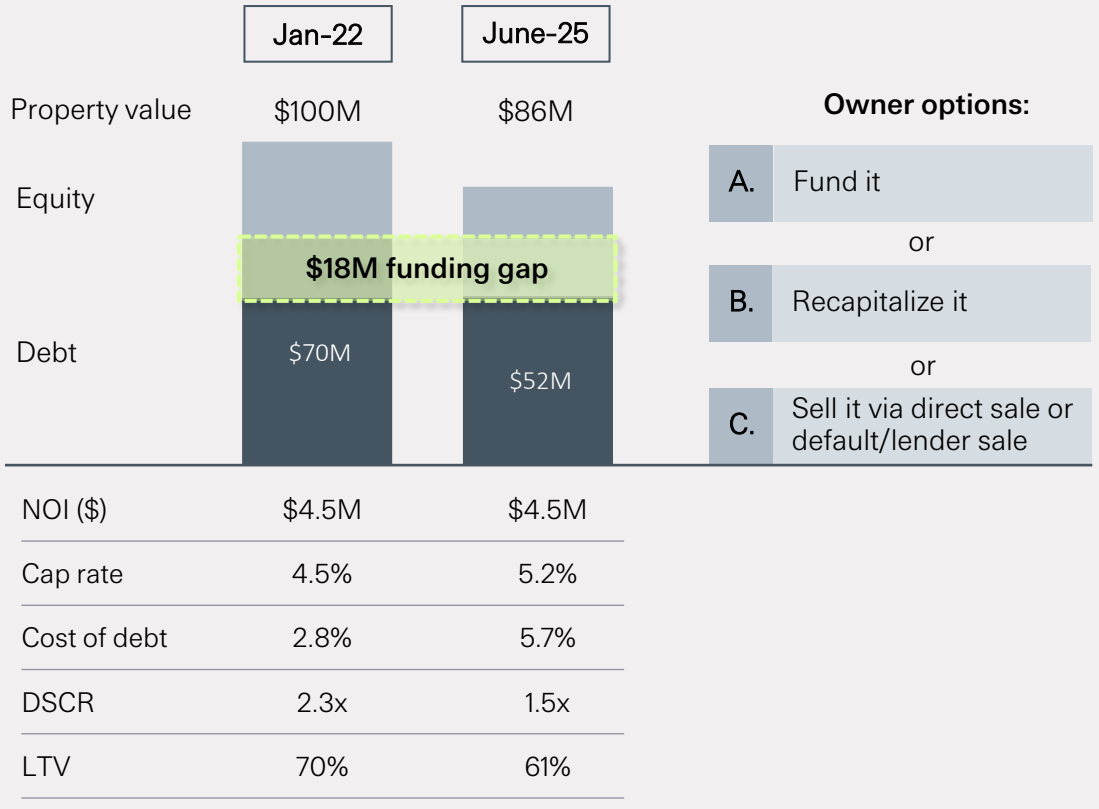
Higher interest rates mean lower financing proceeds. Many leveraged owners face funding gaps, or 'cash in' refinancing, still not fixed from 2022 rate jumps

Loan cost: fixed[1]



Loan cost: floating[2]





	Jan-22	June-25
NOI ($)	$4.5M	$4.5M
Cap rate	4.5%	5.2%
Cost of debt	2.8%	5.7%
DSCR	2.3x	1.5x
LTV	70%	61%

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. Sources: StepStone data, July 2025.

1. Fixed loan cost for stabilized multifamily at 50% to 59% loan-to-value. 2.For illustrative purposes, floating rate example does not consider a SOFR cap. Floating loan cost for transitional multifamily at 65% loan-to-cost and acceptable debt yield.

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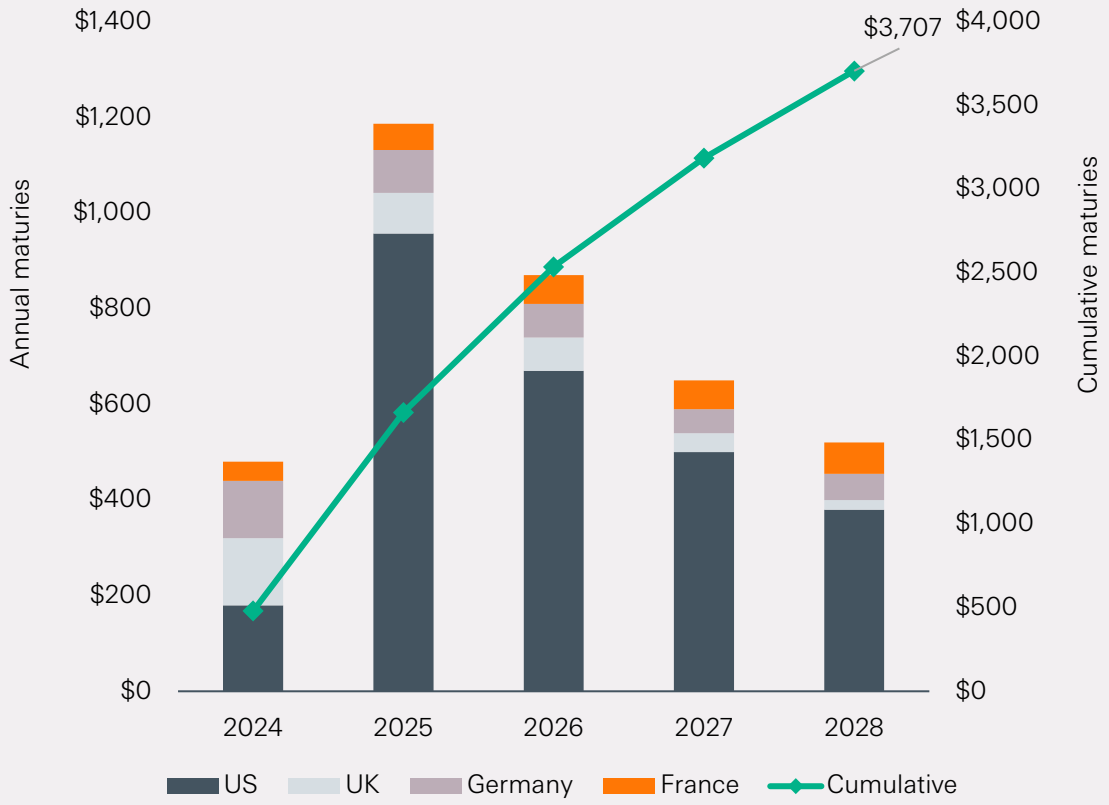
Sizable near-term maturities pushed out, not solved

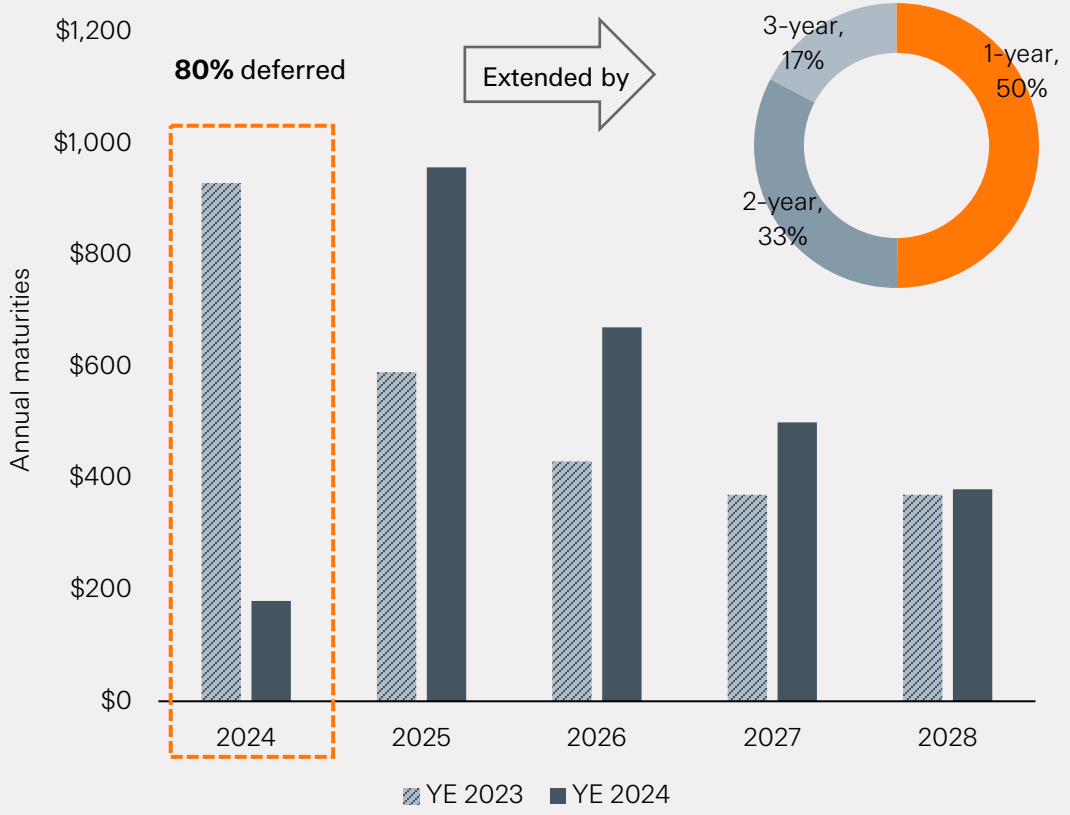
Commercial / multifamily mortgage maturities[1]

$ in billions



Kicking the can down the road: US 2024 maturities pushed further out[2]

$ in billions



1. US data is sourced from MBA, February 2025. European data is sourced from PGIM, November 2024.
2. Estimated by annual maturities report from MBA.

20250807-4723553-14883406

Preferred market/property type strategies

● Favorable ● Neutral ● Unfavorable

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

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. For illustrative purposes only.

20250807-4723553-14883406

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.

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STEPSTONE

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New York State Teachers' Retirement System

The Fed and Yield Curve Dynamics

Presented by Aaron VanDerwiel, CFA

Deputy Managing Director Fixed Income

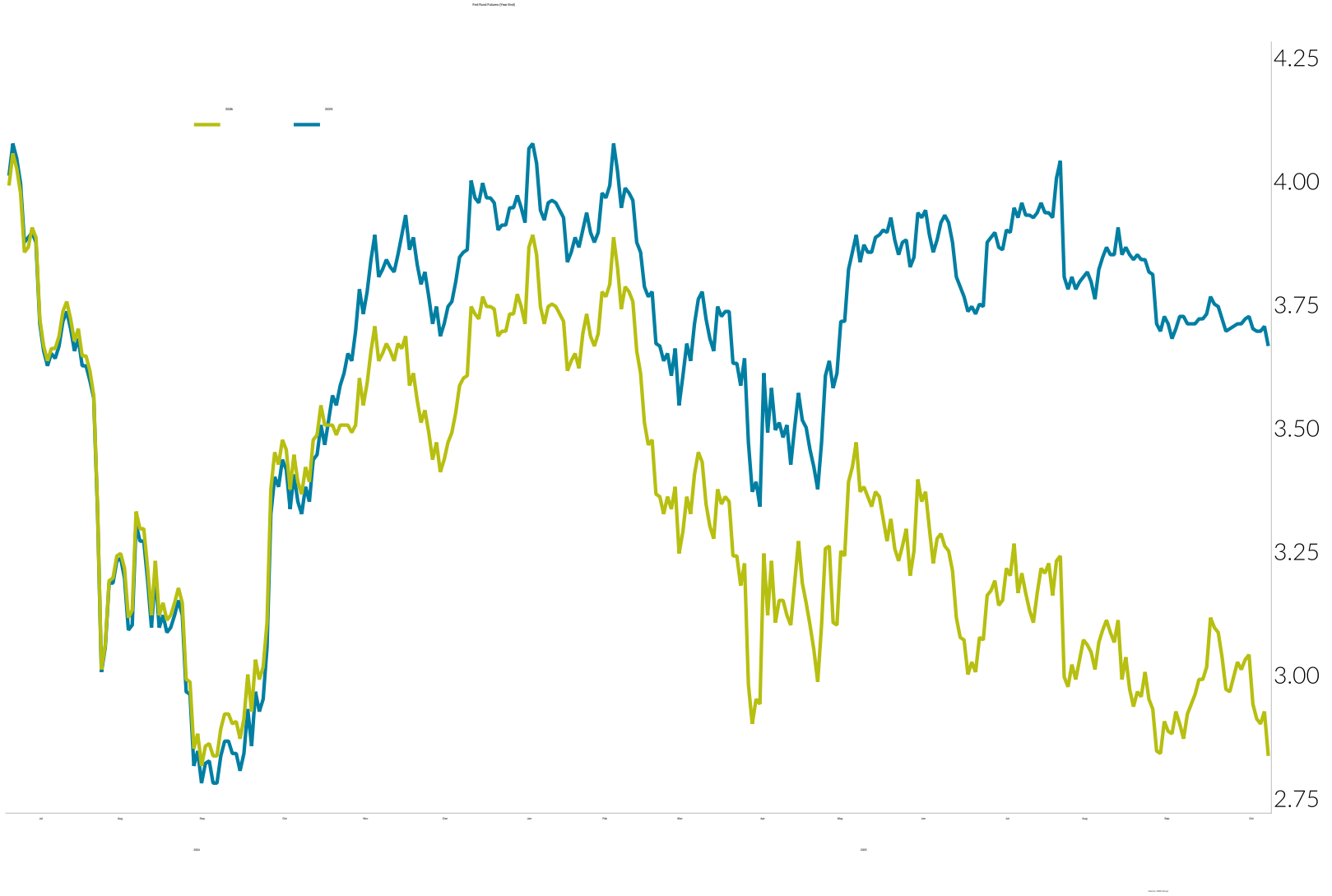
The Federal Reserve

- **Dual Mandate: Maximum Employment & Stable Prices (inflation)**
- **Monetary policy affects the future path of short-term interest rates**
- **This affects overall financial conditions including longer-term rates**
- **Utilize Quantitative Easing, the purchase of longer-term securities, to provide liquidity and lower long-term interest rates**
- **Interest rates affect the ability of households and businesses to borrow which affects economic growth**

Fed Funds Rate

- **The Federal Funds Rate is the Fed's primary monetary policy tool**
- **On 9/17/25 the Fed cuts its benchmark interest rate by 25 basis points to 4.00%-4.25%**
- **Next FOMC Rate Decision is Today!**
- **Fed Fund Futures:**
  - **2025: ~50bps cuts priced**
  - **2026: ~75bps cuts priced**

Evolution of Market Pricing for Year End Fed Fund Rates

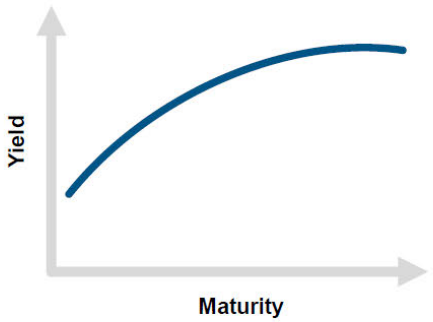


Yield Curve Shape

- **Central bank actions influence short-term rates**
- **Investor expectations about future inflation and economic conditions drive long-term rates**
- **These two factors cause the yield curve to steepen, flatten or invert**
- **The shape of the yield curve is used to predict future policy rate movements and economic conditions**

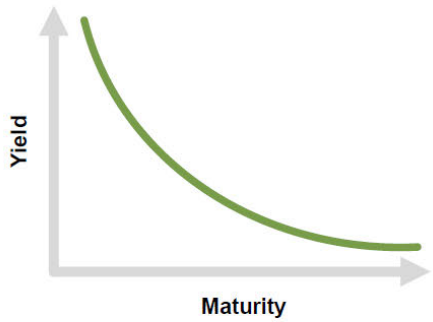
Normal Yield Curve

Seen during typical periods of economic expansion.



Inverted Yield Curve

Seen during periods of anticipated economic slowdown or recession. May also be driven by technical factors (supply and demand).



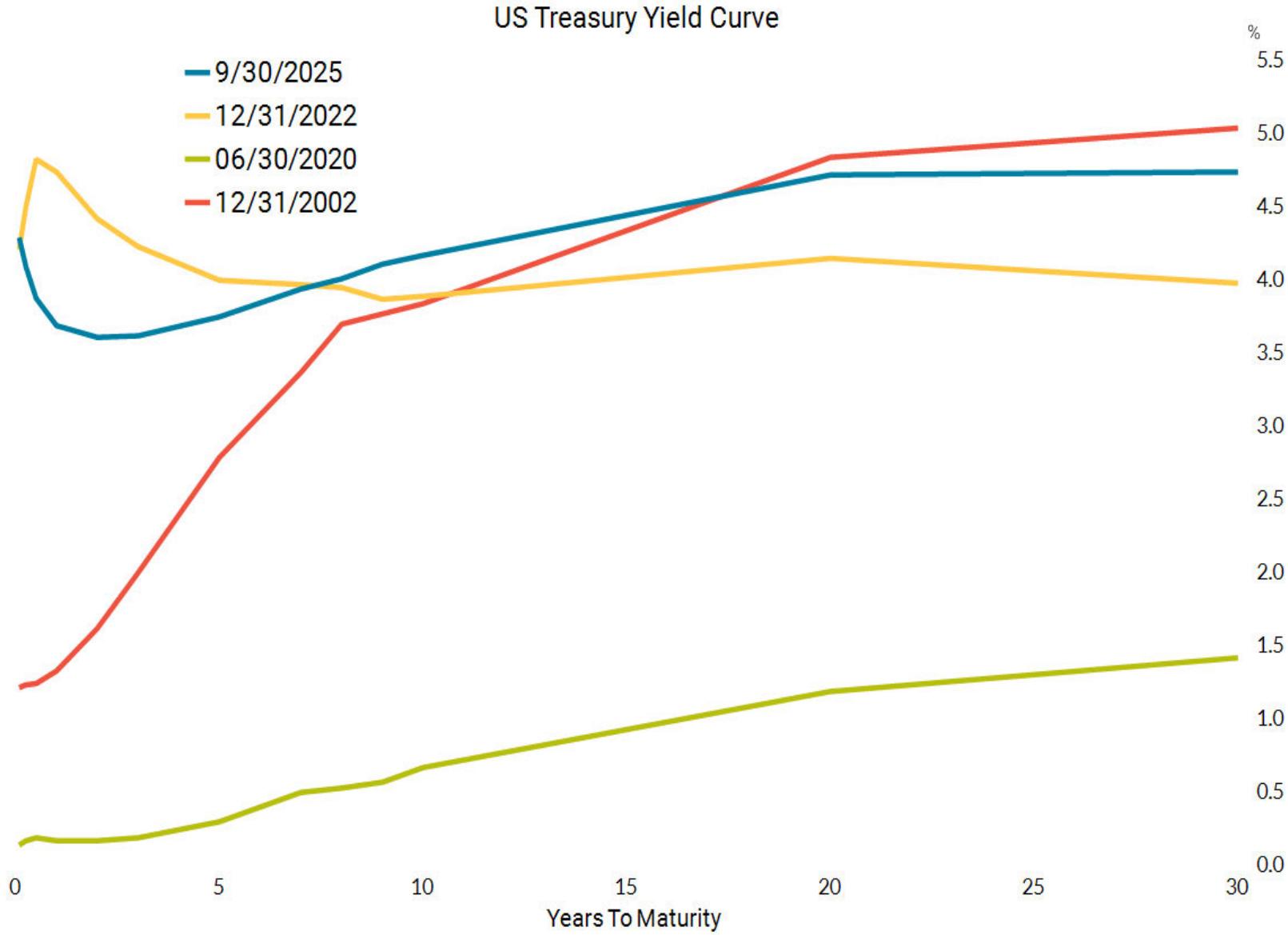
Flat Yield Curve

Seen when the economy is transitioning from expansion to slowdown (and vice versa). May also be driven by technical factors.

Source: PIMCO

Yield Curve

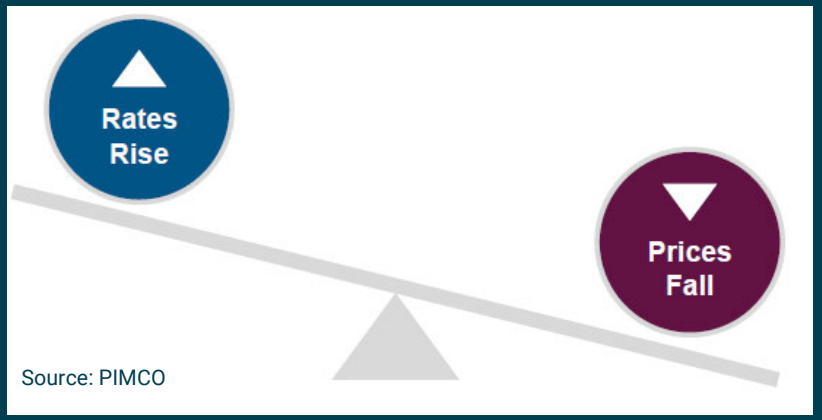
- **Typically, when the Fed cuts rates the yield curve tends to steepen**
- **Conversely, when the Fed is raising rates the yield curve tends to flatten**
- **Normal, upward sloping yield curves can signal that short-term rates will rise over time, risks to current rate expectations are skewed to the upside, or that longer-duration assets have more risk and require a higher yield (or term premium) to compensate investors**



Source: Federal Reserve, Macrobond

Interest Rates & Bond Prices

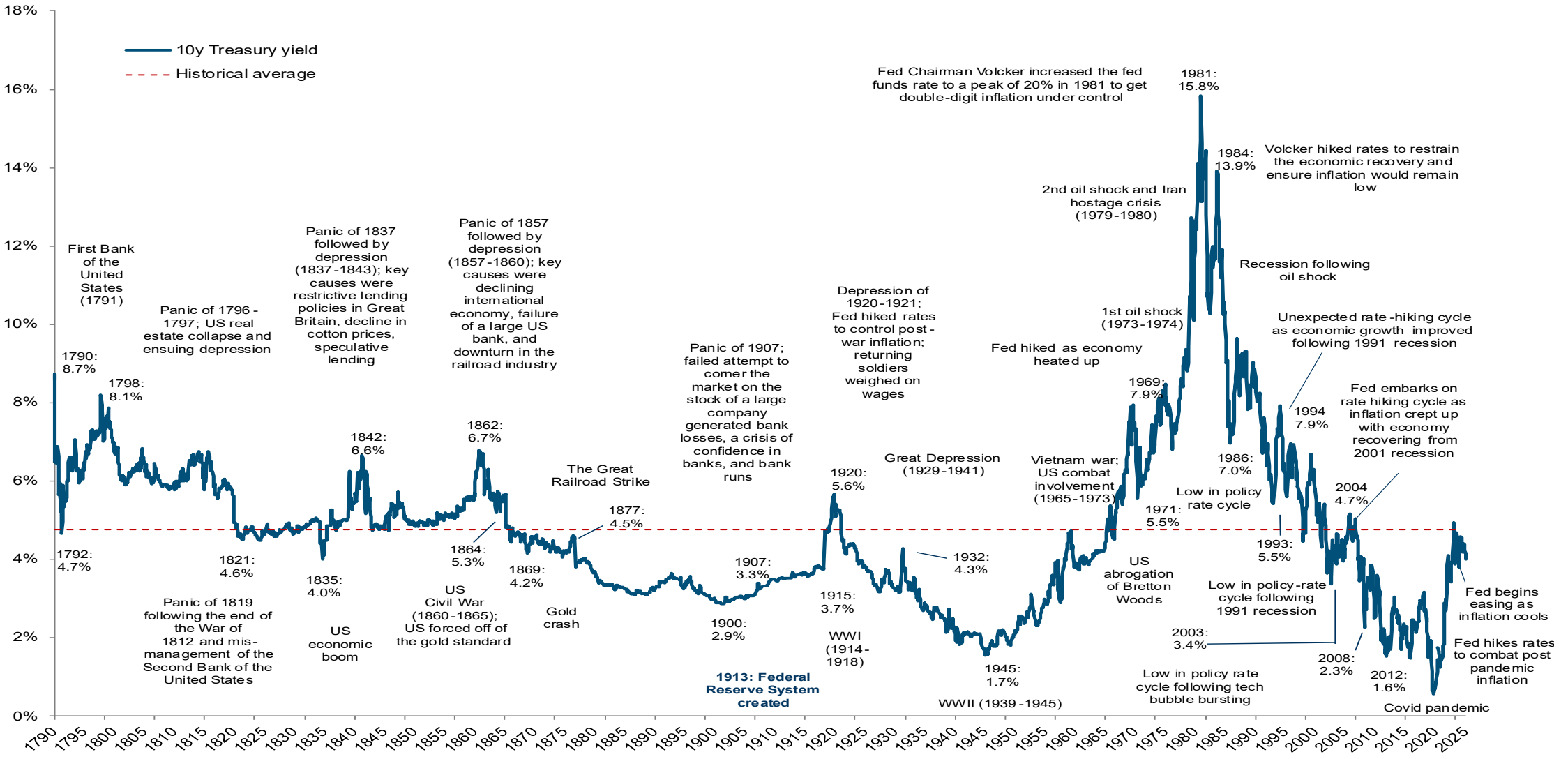
Inverse relationship between interest rates and bond prices



Source: PIMCO

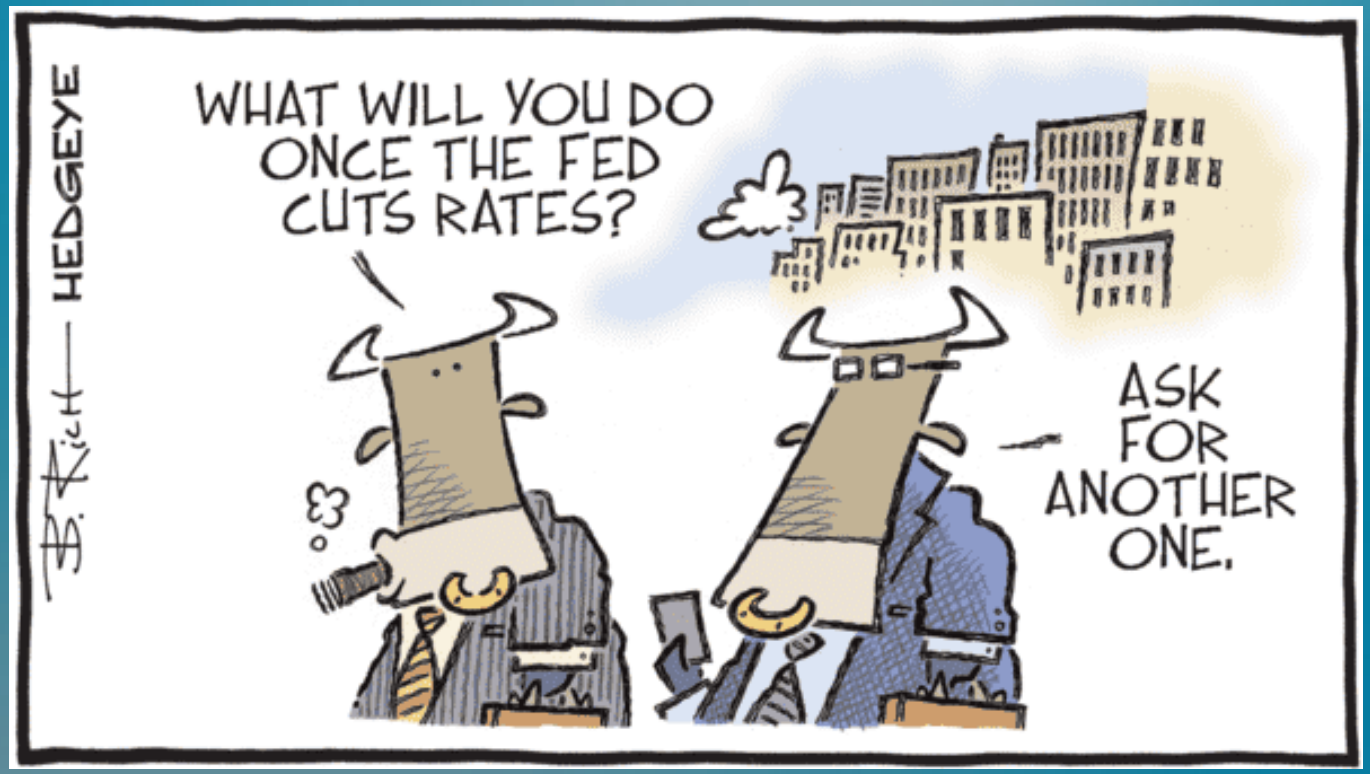
- **As interest rates rise, newly issued bonds offer higher yields which causes the prices of existing bonds to fall**
- **As interest rates fall, seasoned bonds with higher fixed coupon payments become more valuable and their prices increase**
- **Duration measures how much a bond's price will change with interest rate changes**
- **Long-term bonds are more sensitive to interest rates than short-term securities**

Historical 10 -year Treasury Yield



Note: Chart shows monthly averages.
Source: Bloomberg, Global Financial Data, Inc., Federal Reserve Board, Haver Analytics, Goldman Sachs GIR.

Questions?



Special thanks to Christina Vasto & Damola Yusuf

APPENDIX The Concept of Duration

- An estimate of a bond or portfolio's price sensitivity to interest rates
- Percentage change in a bond or portfolio's price for a 100 basis point (1%) parallel change in interest rates
- *Example: A duration of 6 means a 6% change in price with a 1% change in rates*
- Also expresses the cashflow weighted maturity of a bond, expressed in years

Relationship with Duration	
Maturity ↑	Increases
Coupon ↑	Decreases
Rates ↑	Decreases

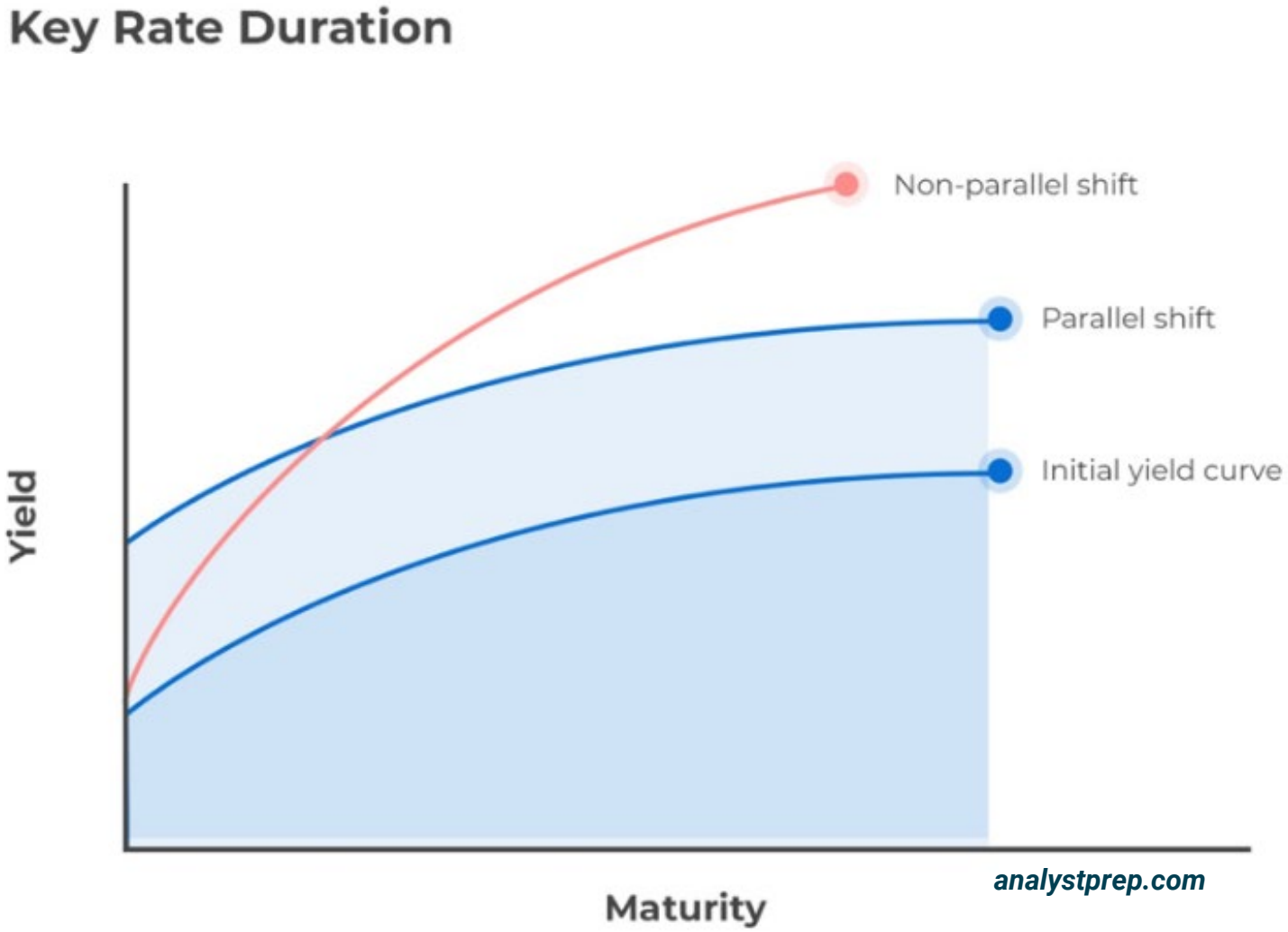
Maturity versus Duration	
5-year bond	~4.5 Years
10-year Bond	~8 Years
30-year Bond	~20 Years
50-year Bond	~30 Years
100-year Bond	~45 Years

From June 2023 PIMCO publication, "How we talk about bonds"

APPENDIX

Key Rate Duration

- **Price sensitivity of a bond or portfolio to changes in rates at specific maturities (2yr, 10yr, 30yr, etc.)**
- **The overall duration measure applies to parallel shifts in rates, whereas key rate duration accounts for non-parallel yield curve changes (steeper, flatter, twist)**



APPENDIX

Bond Yields Strongly Predict Returns

Starting U.S. Aggregate Fixed Income Yield Strongly Predicts Forward Returns

Bloomberg U.S. Aggregate Index Starting Yield vs. 10-Year Forward Return

- There is a strong relationship between starting yields and subsequent 10-Year returns
- Yield on the Bloomberg U.S. Aggregate Index was 4.37% as of September 30, 2025

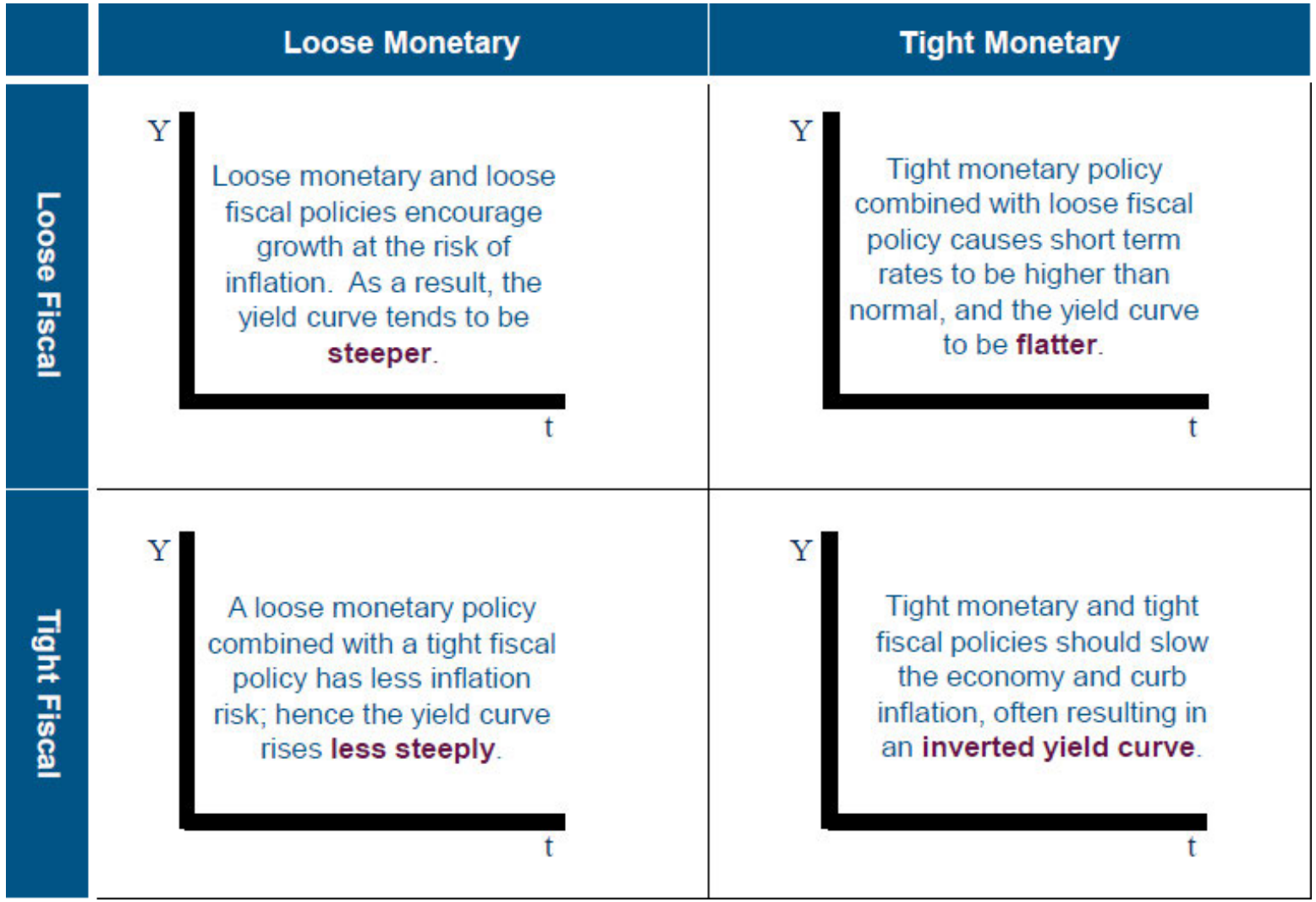
Callan

Source: Bloomberg

APPENDIX

Monetary & Fiscal Policies

- **10-year Treasury yield tends to be high relative to the Fed Funds rate when investors expect tighter monetary policy in the future**
- **Declines in the 10-year Treasury yield relative to the Fed Funds rate often foreshadow looser policy**



Source: PIMCO. Sample for illustrative purposes only.

New York State Teachers' Retirement System

Systematic Fixed Income Investing

Presented By

Richa Dhungana

Danielle Bondi

What is Systematic Fixed Income Investing?

- **Rule based approach that uses data, quantitative models, factors, and algorithms to make investment decisions**
- **Leverages increased market data and technology**
- **Reduces human biases**

History of Systematic Investing

Applied in corporate bonds roughly 20 years ago

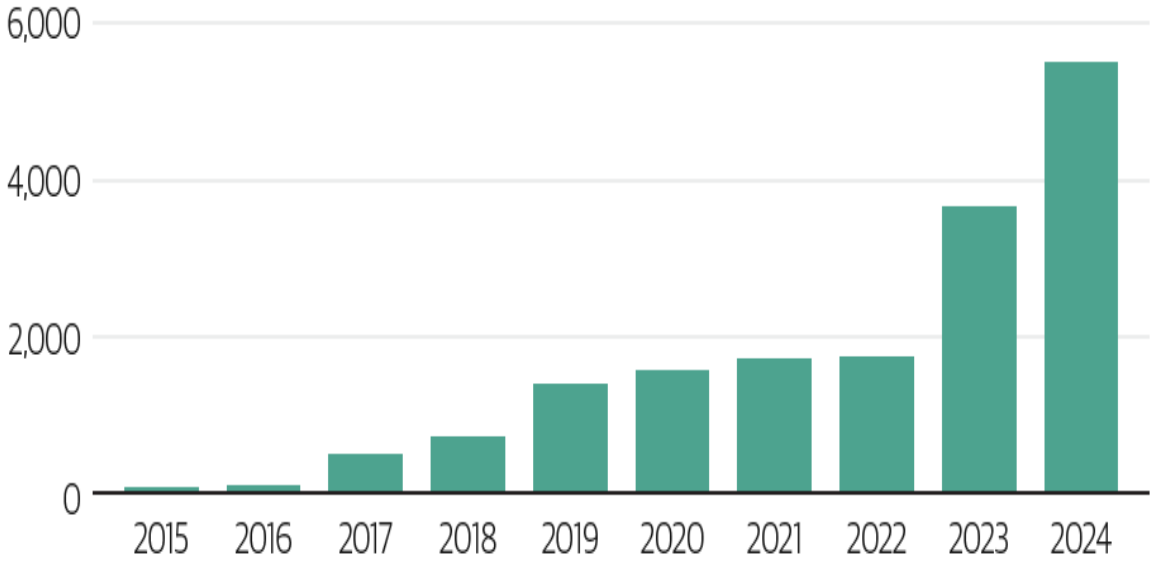
Implementation further behind in other fixed income asset classes, such as rates

What's changed?

- **Enhanced Liquidity**
- **Price transparency**
- **Trading efficiency**
- **Technology and AI**
- **Lower transaction costs**

Systematic AUM – Small but Growing Quickly[3]

Mutual Fund AUM Branded as Systematic Credit ($ in millions)



Although mutual funds represent only a portion of all corporate bond managed assets, funds explicitly branded as systematic credit have more than doubled over the past two years according to Lipper data

Source: BXCI Insights. Embracing a Systematic Approach to Corporate Bonds. March 2025

Discretionary vs Systematic Investing

Discretionary Investing	Feature	Systematic Investing
Relies on in-depth, human driven research and judgement to analyze an issuer's creditworthiness.	Primary Approach	Uses rules-based quantitative models and algorithms to select securities based on predictive factors.
Discretionary and qualitative. Portfolio managers draw conclusions from their research and make investment decisions based on their expertise and outlook.	Decision making	Data-driven and automated. Algorithms consistently apply a predefined investment strategy.
Focuses on specific issuers, industries, or credit sectors. Involves evaluating a company's financials, management, business model and analyzing OAS, duration, comparable market bonds and issuers but not in a quantitative uniform way.	Analysis	Analyzes the entire universe of bonds daily against established factor signals. Factors can include value, momentum, and sentiment, etc.
Depends on the capacity of the human research team to cover specific issuers and sectors.	Diversification	Can achieve diversification by analyzing and selecting from a larger number of securities.

Advantages of Systematic Fixed Income Investing

- **Captures repeatable alpha sources**
- **Enhances diversification**
- **Offers scalability and consistent implementation**
- **Can offer lower correlation versus subjective portfolio management**
- **Strategies allow for flexibility in the amount of human involvement to account for situations that might not be accurately handled by systematic models**

Systematic Fixed Income: Factors

Factors:

Quantifiable drivers of risk and return beyond market exposure used in the construction of strategies such as systematic investing models to generate excess return

Examples:

- **Value:** *Market values tend to converge to intrinsic values*
- **Volatility:** *Low volatility securities tend to outperform versus high volatility securities*
- **Momentum:** *Recent high performers tend to continue to outperform*
- **Quality:** *Lower quality bonds tend to offer higher income return than higher quality bonds*

Challenges and Solutions

Challenges	Solutions
Poor quality and overload of data	Creation and use of extensive proprietary database
Liquidity constraints and associated higher transaction costs	Optimization features can filter securities based on liquidity and cost constraints
Event risk	Ability for humans to override the systematic model portfolio during market events when optimizers will no longer work
Reliance only on traditional, well-known factors can limit opportunities for outperformance	Building multi-factor dynamic models with rigorous security selection and credit monitoring
Back testing biases	Models should be back tested using in-sample and out-of-sample data sets

Conclusion on Systematic Fixed Income

- **Technological advances have made it possible to implement systematic fixed-income strategies in a highly efficient and cost-effective manner**
- **Removes the human bias present in discretionary strategies while allowing for analysis of greater amounts of data and securities as part of the portfolio construction process**
- **Aims to deliver active excess returns that are scalable, consistent, and uncorrelated with discretionary strategies**
- **Complimentary to discretionary investing**

New York State Teachers' Retirement System

Appendix

Presenters Bio

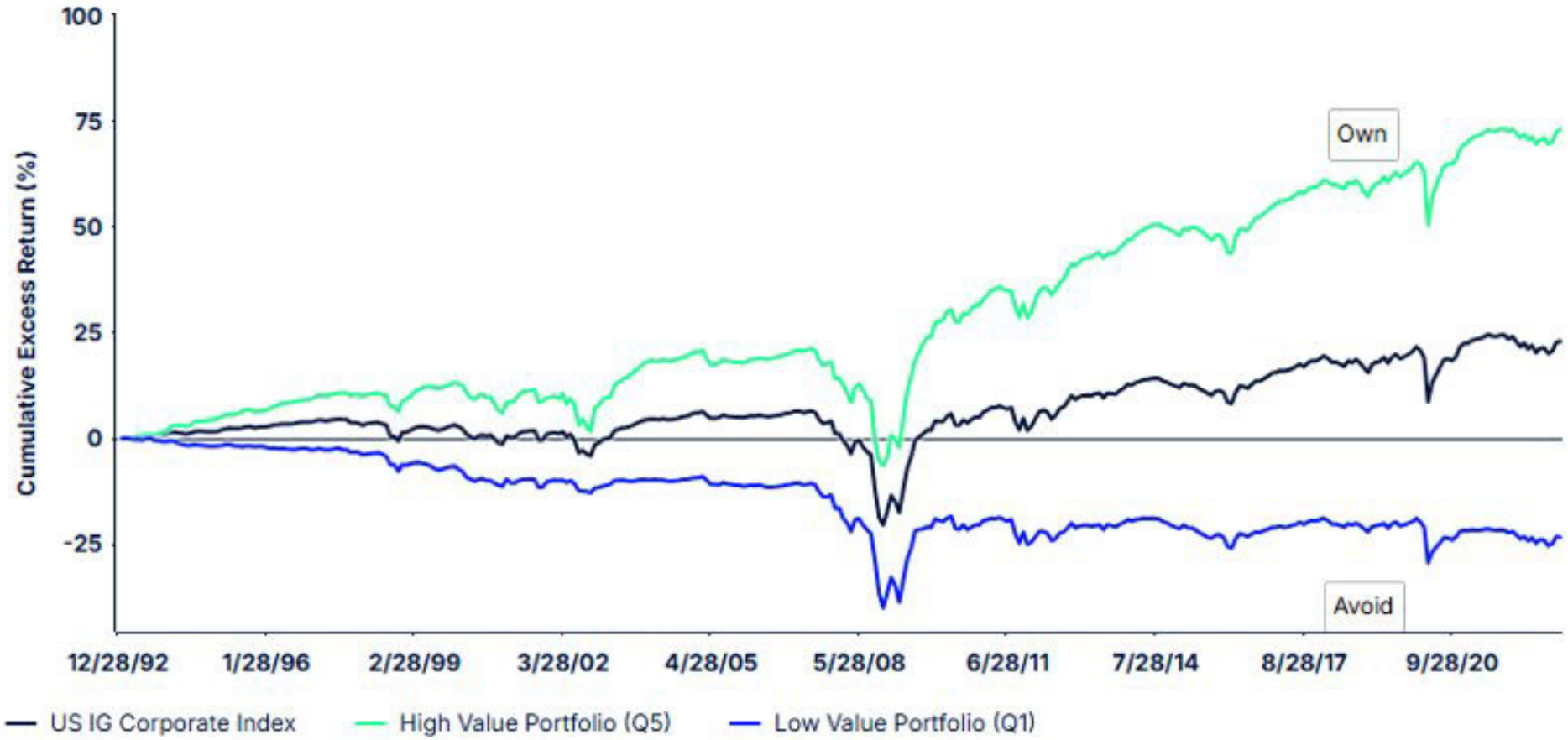
Richa Dhungana

Richa Dhungana is an Investment Officer for the Fixed Income team working mostly within corporates for NYSTRS internal portfolio. Richa joined NYSTRS in December 2024, has Bachelor's of Science in Finance and Accounting from Northeastern University and Master's of Science in Quantitative Finance and Risk Analytics from Rensselaer Polytechnic Institute.

Danielle Bondi

Danielle Bondi is an Investment Officer for the Fixed Income team working exclusively with externally managed portfolios and external manager relationships and has been with NYSTRS since 2022. Danielle has a Bachelor's of Arts in Economics and a Masters in Finance, both from Syracuse University. She previously worked as an Investment Analyst for a financial advisory practice at Northwestern Mutual.

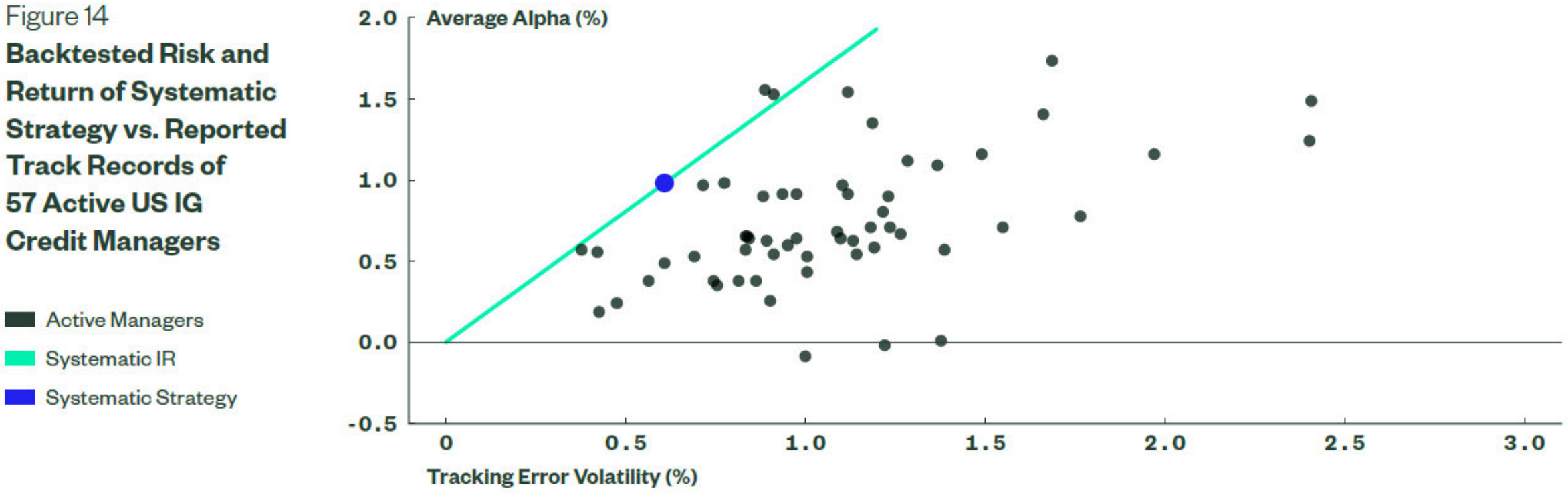
Figure 1: Bonds That Score High on Value Have Outperformed



Source: Barclays QPS Research. Analysis uses monthly data from January 1993 to December 2022. Performance is shown as cumulative excess return over US Treasuries of identical duration, before transaction costs. Past performance is not a reliable indicator of future performance. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income as applicable.

Figure 14

Backtested Risk and Return of Systematic Strategy vs. Reported Track Records of 57 Active US IG Credit Managers



Source: State Street Global Advisors, eVestment, Barclays Research. Data as of January 2011 through September 2023. **The data displayed for the systematic backtest is a hypothetical example of Back-Tested Performance for illustrative purposes only and is not indicative of the past or future performance of any State Street Global Advisors product.** Back-tested results are not indicative of the past or future of any State Street Global Advisors product. The portion of results through September 30, 2023 represents a back-test of the systematic model, which means that those results were achieved by means of the retroactive application of the model which was developed with the benefit of hindsight. All data shown above does not represent the results of actual trading, and in fact, actual results could differ substantially, and there is the potential for loss as well as profit. Please reference Back-tested Methodology Disclosure for a description of the methodology used as well as an important discussion of the inherent limitations of back-tested results.

Key concepts

Quantitative modeling: The use of mathematical and statistical models, often with advanced technology like machine learning and AI.

Bottom-up security selection: A process where systematic models rank individual bonds based on their alignment with specific predictive factors.

Alpha and Beta: In this context, Alpha refers to excess return generated by the strategy above market benchmark. Beta represents the return derived from broad market exposure (e.g., interest rate or credit risk)

Implementation alpha: In fixed income, this refers to the added value generated by the efficient execution of trades. Since the fixed-income market is often over-the-counter and less liquid than equities, minimizing transaction costs is crucial for the strategy's success.

New York State Teachers' Retirement System

Investment Committee Executive Summary

Investment Committee October 29, 2025

Christopher Brown, CPA
Deputy Chief Financial Officer - Investment Operations Department

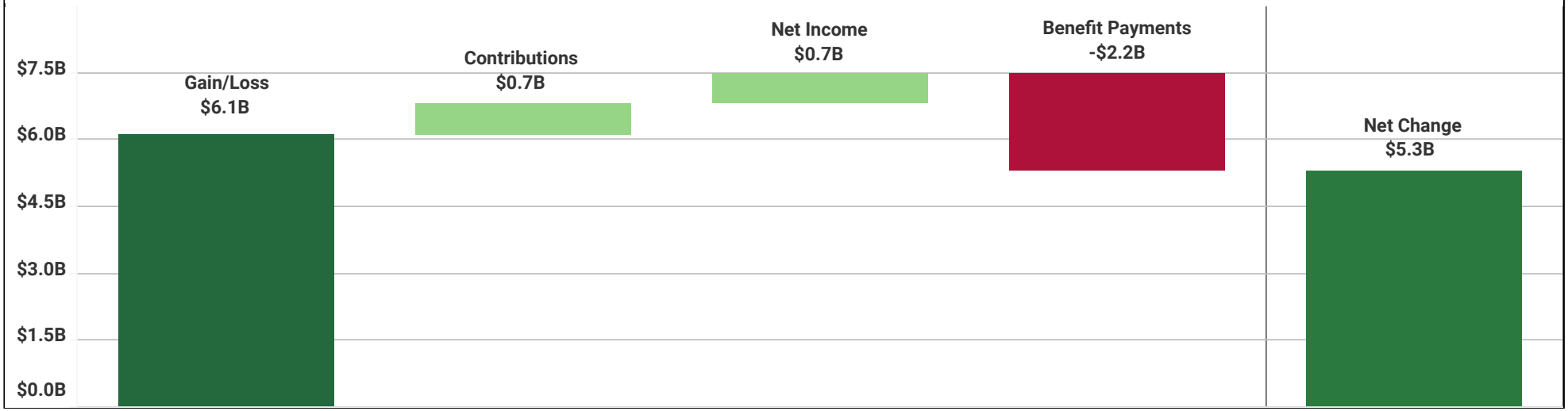
Investment Committee Executive Summary

Market Value Summary ('000s)

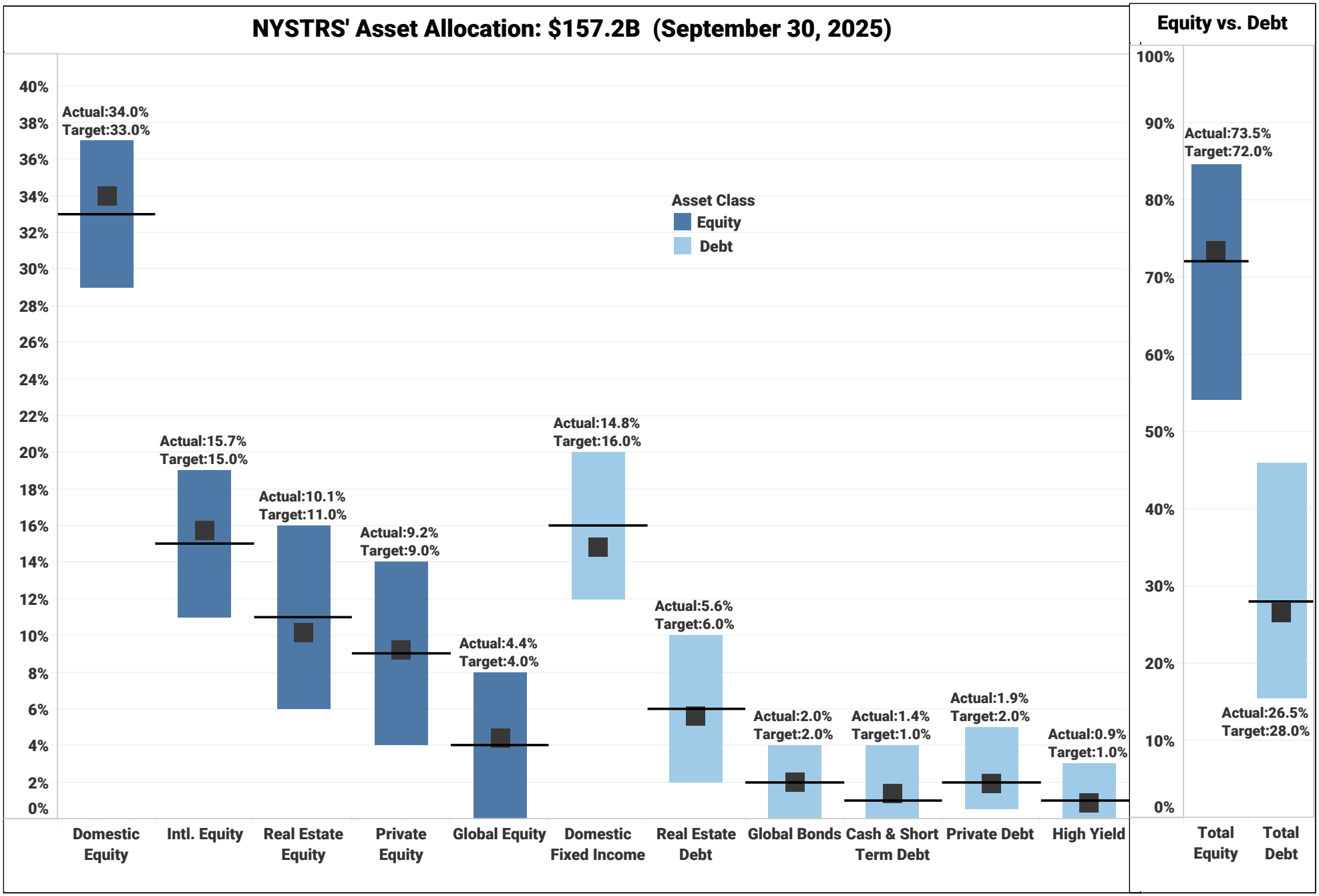
Asset Category	Asset Class	September 30, 2025 Net Asset Value	September 30, 2025 % Net Asset Value	June 30, 2025 Net Asset Value	June 30, 2025 % Net Asset Value	September 30, 2024 Net Asset Value	September 30, 2024 % Net Asset Value
Equity	Domestic Equity	$53,385,693	34.0%	$49,781,738	32.8%	$50,389,930	33.9%
	International Equity	$24,738,913	15.7%	$23,739,399	15.6%	$22,385,442	15.0%
	Global Equity	$6,921,003	4.4%	$6,838,168	4.5%	$6,250,440	4.2%
	Real Estate Equity	$15,952,961	10.1%	$15,825,805	10.4%	$16,176,665	10.9%
	Private Equity	$14,466,302	9.2%	$14,797,202	9.7%	$14,267,749	9.6%
	Asset Category Subtotal	$115,464,872	73.5%	$110,982,312	73.1%	$109,470,226	73.6%
Debt	Domestic Fixed Income	$23,314,271	14.8%	$22,537,039	14.8%	$22,712,316	15.3%
	Global Bonds	$3,090,675	2.0%	$3,032,983	2.0%	$2,692,585	1.8%
	High Yield	$1,353,896	0.9%	$1,320,266	0.9%	$1,594,076	1.1%
	Real Estate Debt	$8,766,834	5.6%	$8,936,157	5.9%	$8,016,895	5.4%
	Private Debt	$2,977,347	1.9%	$2,921,279	1.9%	$2,388,018	1.6%
	Cash & Short Term Debt	$2,205,132	1.4%	$2,119,613	1.4%	$1,929,147	1.3%
	Asset Category Subtotal	$41,708,154	26.5%	$40,867,338	26.9%	$39,333,037	26.4%
	Total Plan	$157,173,027	100.0%	$151,849,649	100.0%	$148,803,264	100.0%

Due to rounding, numbers may not sum to 100%.

Components of Change in Total Investments
FYTD: 7/1/2025 to 9/30/2025
$151.3B to $157.2B

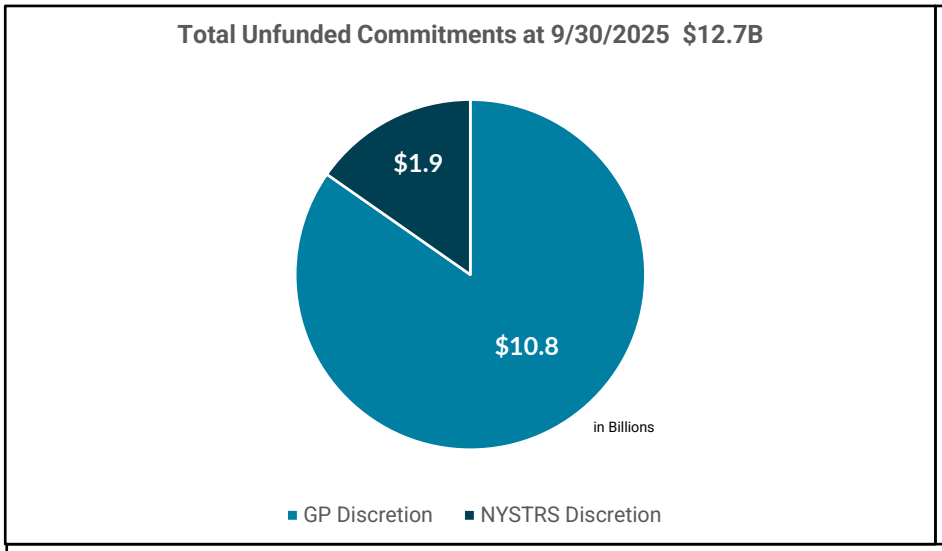


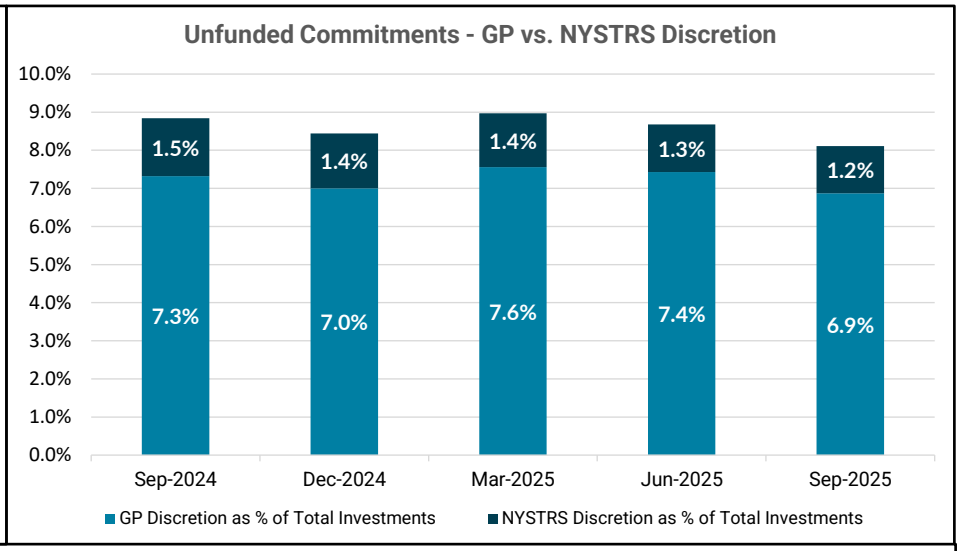
Investment Committee Executive Summary

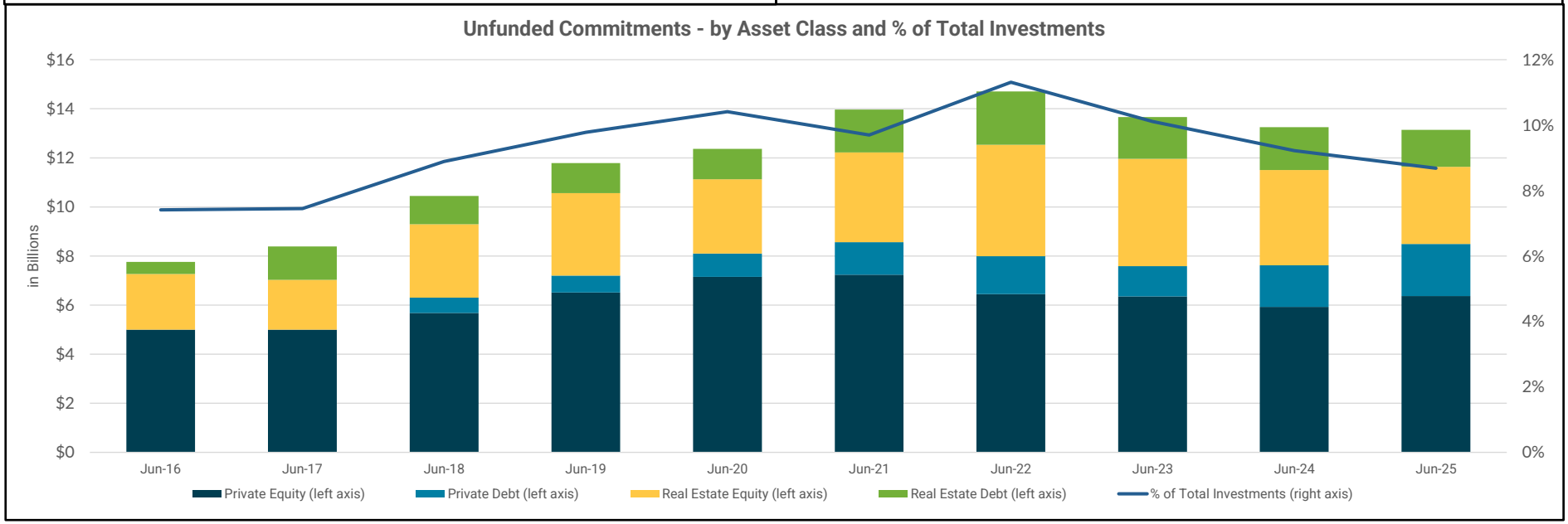


Investment Committee Executive Summary

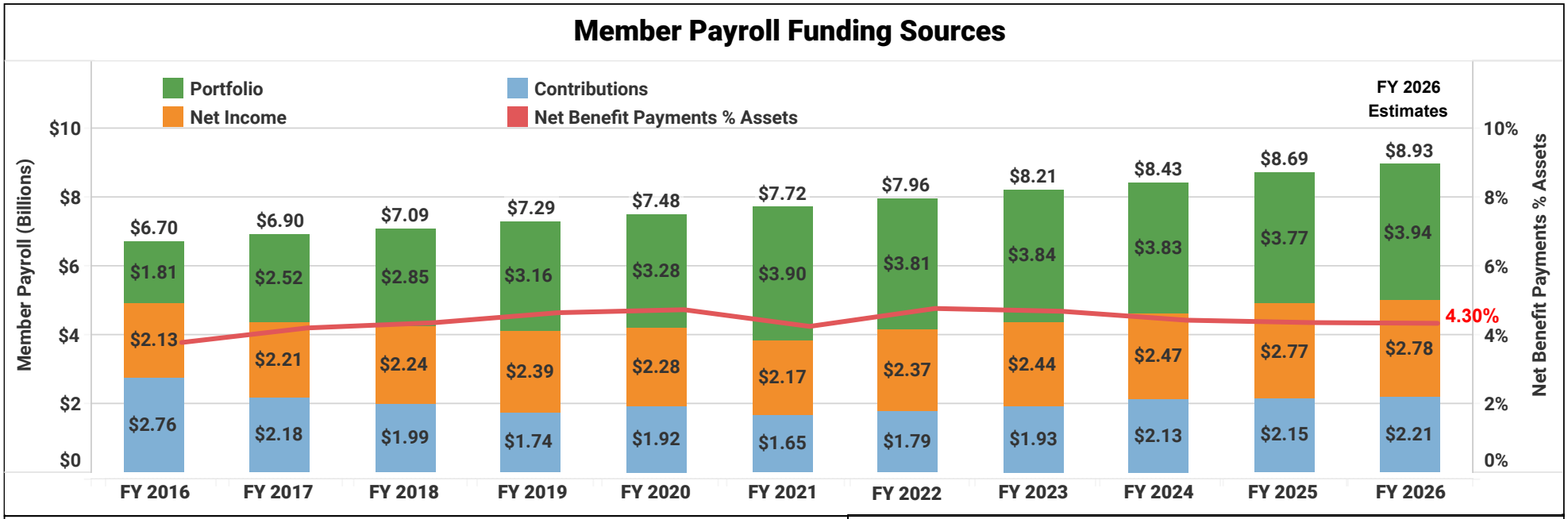
Unfunded Commitments - Private Assets

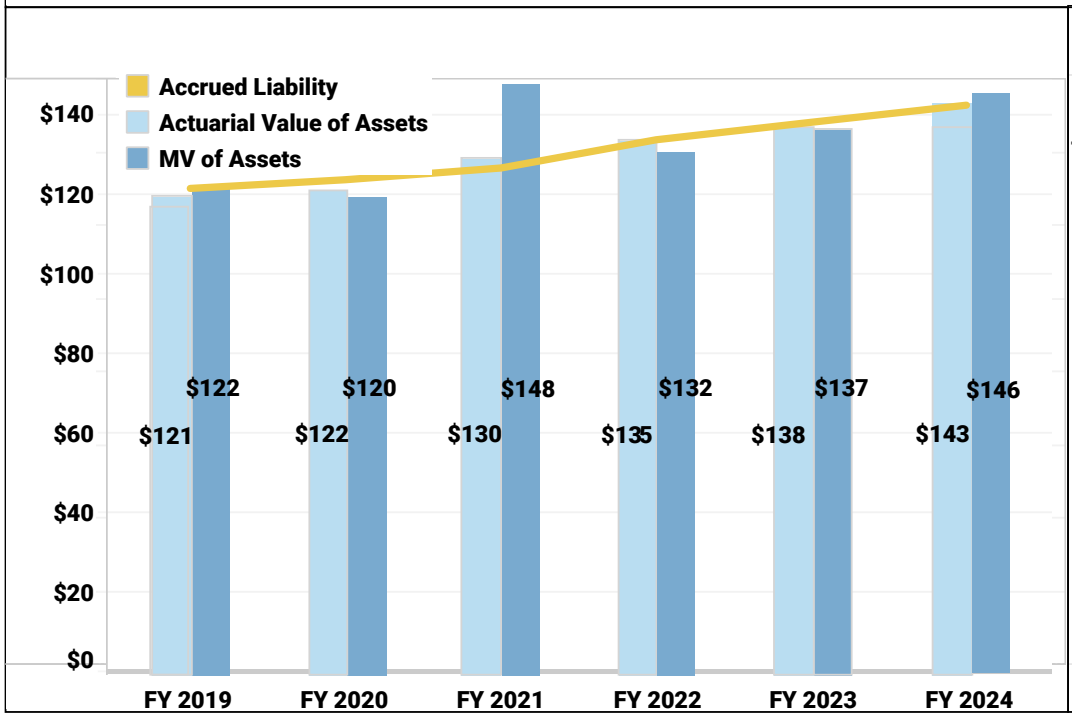


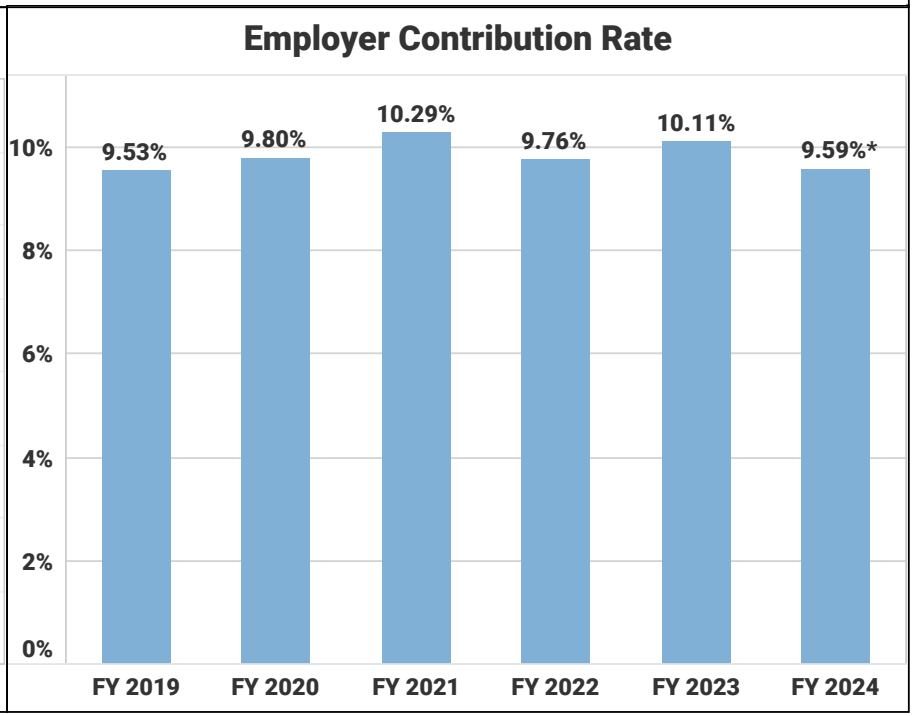




Investment Committee Executive Summary







* The ECR applied to member payroll for the 7/1/25-6/30/26 school year will be 9.59%, collected in Fall 2026.

Investment Committee Executive Summary

Public Market Performance as of September 30, 2025

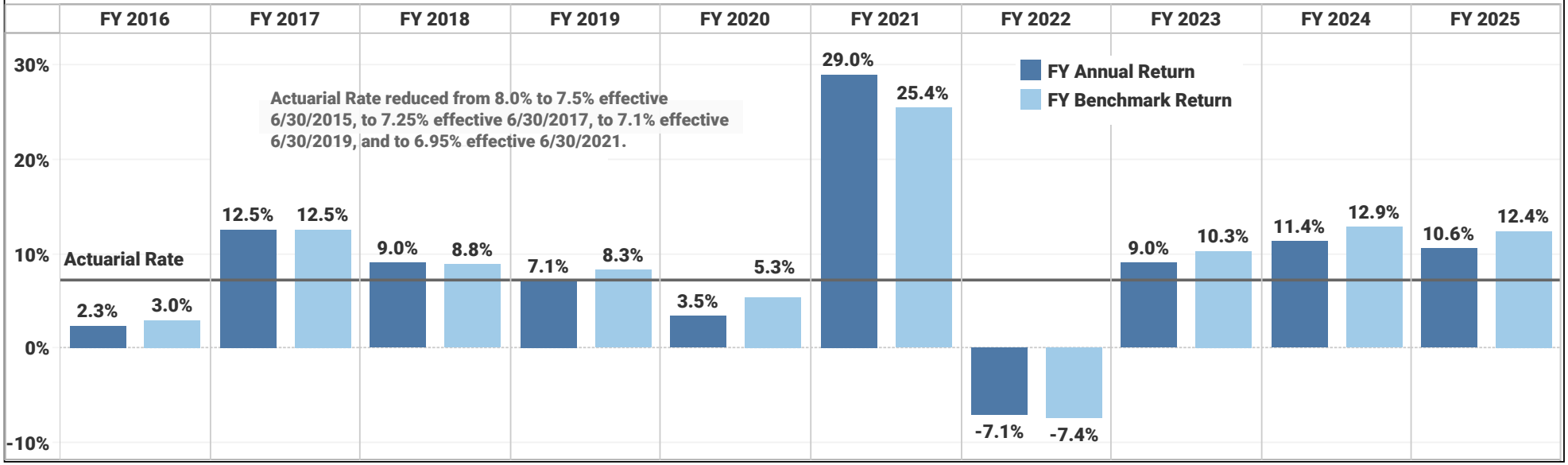
Asset Class	Current QTR Net Return	Current QTR Excess Return
Domestic Equity	8.1%	0.1%
International Equity	6.6%	-0.2%
Global Equity	7.0%	-0.6%
Private Equity	N/A	N/A
Real Estate Equity	3.9%	-0.8%
Domestic Fixed Income	2.0%	0.0%
Global Bonds	1.9%	0.5%
High Yield Bonds	2.5%	0.2%
Private Debt	N/A	N/A
Real Estate Debt	2.3%	0.4%
Short Term	1.1%	0.1%
Total Public Markets	5.9%	0.0%

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, 2025

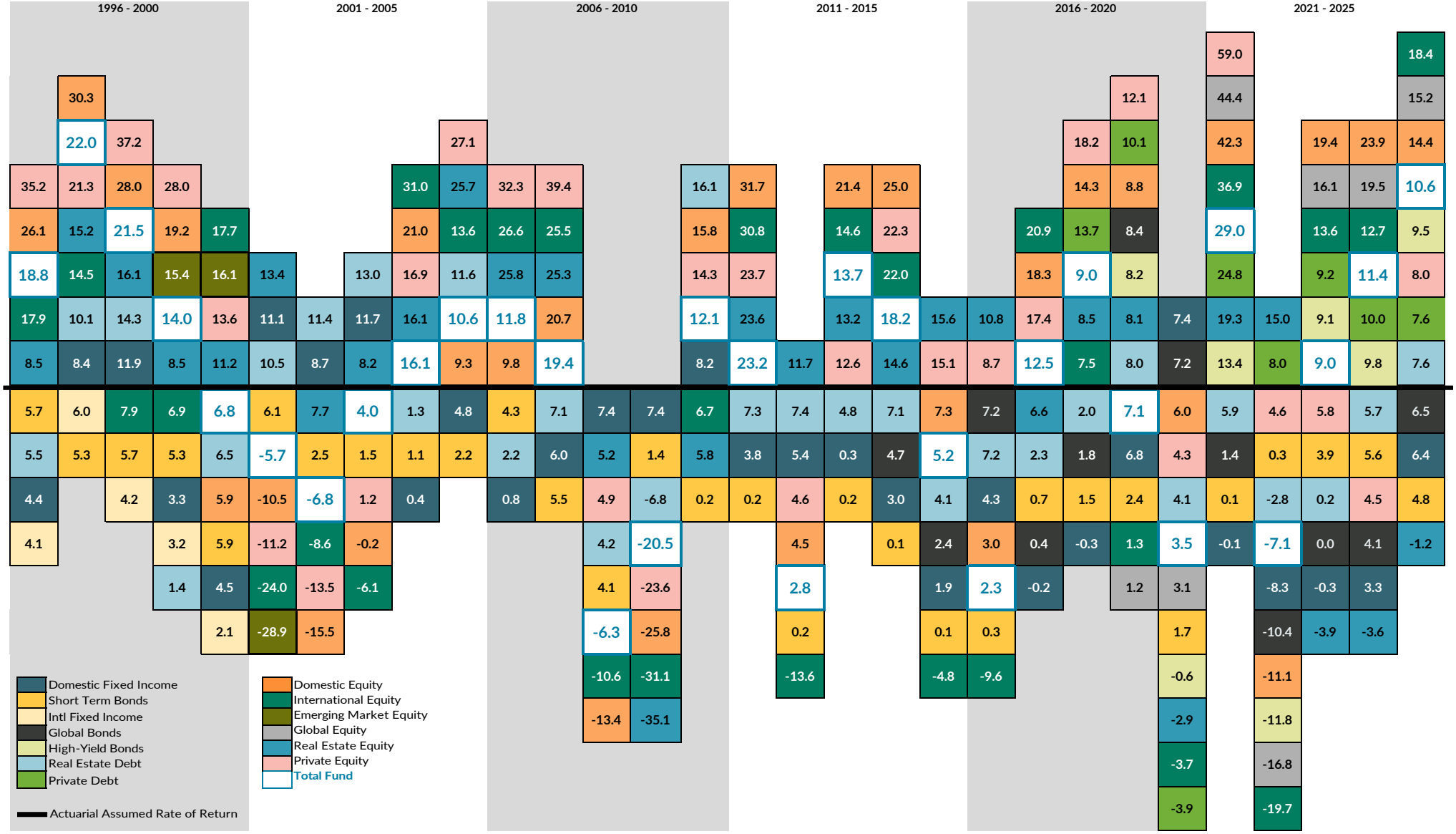
Asset Class	QTR Net Return	QTR Excess Return	FYTD Net Return	FYTD Excess Return	10YR Net Return	10YR Excess Return
Domestic Equity	10.6%	0.1%	14.4%	-0.1%	13.1%	-0.1%
International Equity	12.4%	0.4%	18.4%	0.7%	6.7%	0.6%
Global Equity	10.5%	-1.1%	15.2%	-0.9%	N/A	N/A
Private Equity	3.0%	-9.2%	8.0%	-12.1%	13.3%	-5.3%
Real Estate Equity	-0.3%	-1.1%	-1.2%	-3.8%	5.4%	0.8%
Domestic Fixed Income	1.3%	0.1%	6.4%	0.3%	1.8%	0.0%
Global Bonds	2.0%	0.4%	6.5%	0.4%	2.5%	0.4%
High Yield Bonds	3.6%	0.1%	9.5%	0.4%	N/A	N/A
Private Debt	1.6%	-1.5%	7.6%	-2.7%	N/A	N/A
Real Estate Debt	1.9%	0.1%	7.6%	-1.3%	4.0%	0.4%
Short Term	1.1%	0.1%	4.8%	0.4%	2.1%	0.4%
Total Fund	**6.4%**	**-1.0%**	**10.6%**	**-1.8%**	**8.4%**	**-0.5%**

Annual Performance



Investment Committee Executive Summary

Investment Returns (%) by Asset Class Fiscal Years Ended 1996 - 2025



*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.

Investment Committee Executive Summary

New York State Teachers' Retirement System
Portfolio Turnover Ratios - Internally Managed Portfolios
Period Ending 6/30/2025

Fund Name	Weighted Average Balance	Purchases[1]	Sales[1]	Portfolio Turnover Ratio[2]	Target Range
Passive					
Index2	$37,818,607,194	$518,096,319	$5,400,082,416	1.37%	1 - 6%
S&P 100	$1,513,642,645	$45,674,628	$445,244,749	3.02%	1 - 6%
S&P 500	$1,954,426,685	$49,488,094	$141,899,701	2.53%	1 - 6%
S&P 400	$451,450,583	$54,707,930	$41,163,953	9.12%	5 - 25%
S&P 600	$312,622,919	$57,222,233	$46,649,752	14.92%	5 - 25%
Canadian Index	$105,755,653	$4,439,774	$21,890,632	4.20%	1 - 8%
Active					
Growth Tilt2	$1,771,909,149	$212,735,623	$208,640,005	11.77%	10 - 20%
Value Tilt2	$1,728,353,171	$208,793,284	$204,104,329	11.81%	10 - 20%
AllCap Disc. Equity	$1,272,546,089	$576,840,182	$570,130,093	44.80%	40 - 60%
Long Term Bond[3]	$21,698,225,058	$3,638,990,899	$1,706,256,489	7.86%	0 - 20%
Short Term Bond[3]	$0	$0	$0	0.00%	N/A

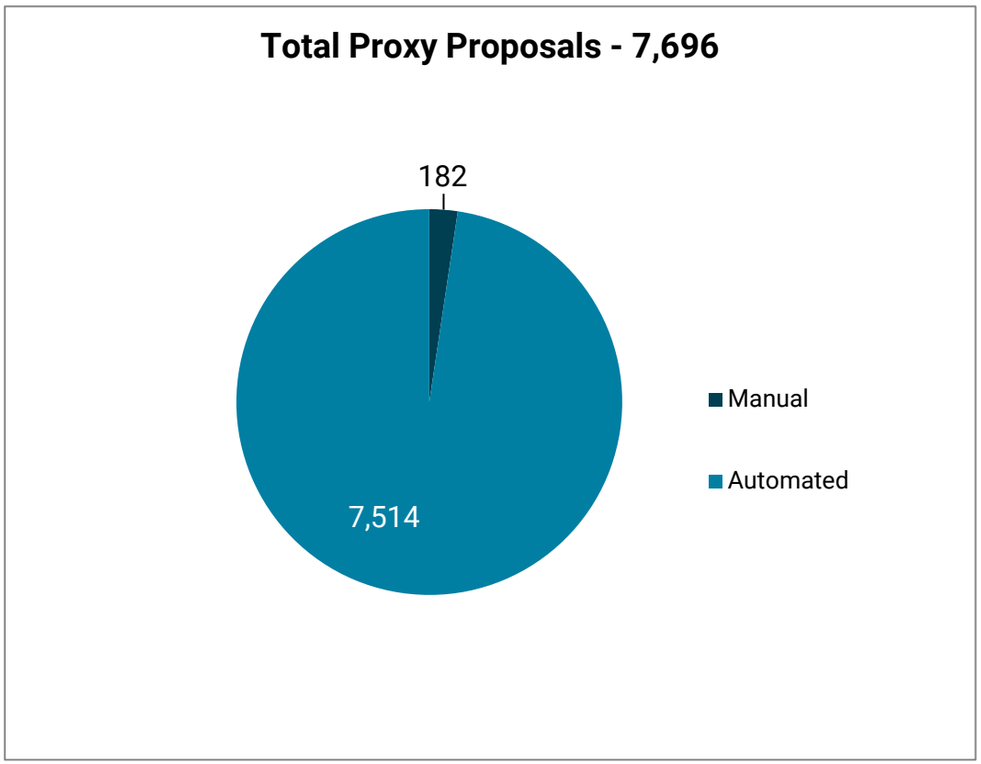
[1]Purchase and sales do not include derivatives, maturities, calls or involuntary corporate actions.

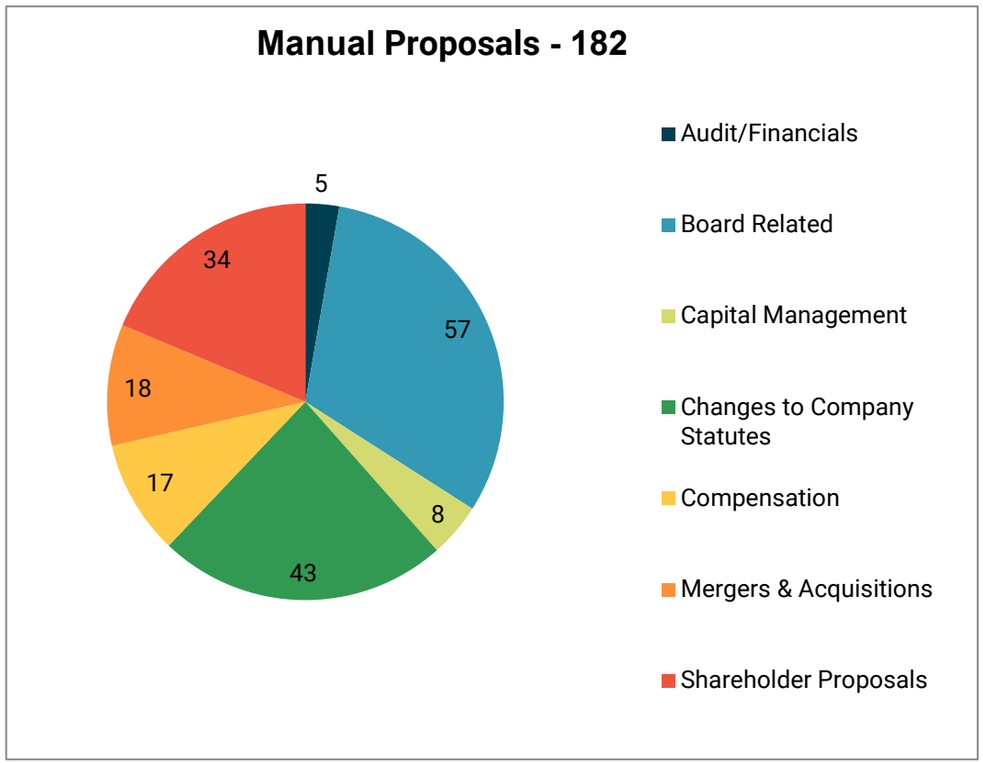
[2]Portfolio Turnover Ratio calculated as the lesser of the last 12 months purchases or sales divided by the weighted average balance.

[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 $2.1 billion at 6/30/25, the preponderance of which matures in less than one year.

Investment Committee Executive Summary

Proxy Voting Summary: 7/1/2025 - 9/30/2025





The System has implemented automated voting for those issues that can reliably be voted according to NYSTRS' Stock Proxy Voting policy without review in the U.S. and Canada and has implemented automated voting for a majority of issues in all other international markets. 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) - Environment: 12, Governance: 12, and Social: 10.

New York State Teachers' Retirement System

Public Equities Managing Director Update

Sandra Maria Schaufler, CFA
Public Equities

Public Equity MD Update

	Mkt Val	Asset Allocation %			Portfolio Net Returns %					Excess Returns %				
	$B*	Actual	Target	Range	Qtr	FYTD	1Y	3Y Ann	5Y Ann	Qtr	FYTD	1Y	3Y Ann	5Y Ann
Public Equities	$ 85.0				7.59	7.59	17.06	23.51	14.54	-0.08	-0.08	0.29	0.35	0.21
Domestic Equities	$ 53.4	33.97	33	29-37	8.11	8.11	16.67	24.28	16.32	0.10	0.10	0.06	0.16	0.09
Domestic Passive	$ 45.8				8.09	8.09	16.62	24.16	16.26	0.07	0.07	0.02	0.05	0.02
Domestic Active	$ 7.5				8.25	8.25	16.96	25.18	16.91	0.24	0.24	0.36	1.06	0.68
International Equities	$ 24.7	15.74	15	11-19	6.64	6.64	17.48	21.54	10.75	-0.25	-0.25	1.04	0.87	0.49
International Passive	$ 17.1				6.96	6.96	16.97	20.98	10.55	0.07	0.07	0.52	0.31	0.29
International Active	$ 7.6				5.93	5.93	18.48	22.83	11.14	-0.96	-0.96	2.04	2.16	0.88
Global Equities	$ 6.9	4.40	4	0-8	7.02	7.02	16.74	22.79	13.92	-0.60	-0.60	-0.53	-0.33	0.38

** Due to rounding, market values may not sum. Note: Data as of 9/30/2025.*

Market Commentary

- Global equities surged in Q3 2025, driven by continued AI momentum, resilient corporate earnings, and a much-anticipated Fed rate cut, despite persistent inflation and softer labor data.
- The S&P 500 rose 8.1% and Nasdaq jumped 11.2%, while small-cap stocks surged over 12% on rate cut optimism. Growth stocks led in large caps, while value stocks showed strength in mid- and small-cap segments.
- MSCI EAFE gained 4.8%, supported by easing trade tensions and improving economic momentum. Japan hit record highs on leadership change optimism, while a weaker pound helped lift UK equities.
- The MSCI EM Index climbed 10.6%, powered by China's economic rebound and AI-driven growth in Taiwan and South Korea.

Portfolio Performance & Activity

- The Public Equities portfolio delivered 7.59% for the quarter, with all three sleeves contributing positively.
- Domestic, International and Global Equities ended the quarter slightly above target allocation, but well within strategic ranges.
- $1.25 B was raised across Domestic, International and Global Equities during the quarter.
- Funded ARGA Investment Management with $250 Mm for an international active strategy.

New York State Teachers' Retirement System

Fixed Income Managing Director Update

Investment Committee October 29, 2025

Aaron VanDerwiel, CFA
Deputy Managing Director of Fixed Income

Fixed Income MD Update

	Mkt Val	Asset Allocation %			Portfolio Net Returns %					Excess Returns %				
	$B	Actual	Target	Range	Qtr	FYTD	1Y	3Y Ann	5Y Ann	Qtr	FYTD	1Y	3Y Ann	5Y Ann
Internally Managed	$26.0	16.6	17	12-24										
Domestic Fixed Income	$23.3	14.8	16	12-20	2.00	2.00	3.13	5.16	0.35	0.01	0.01	0.22	0.21	0.80
Short-Term Bond	$2.2	1.4	1	0-4	1.10	1.10	4.54	4.95	3.12	0.12	0.12	0.38	0.42	0.31
Emerging Market Debt	$0.5	0.3			3.46	3.46				-0.14	-0.14			
Externally Managed	$4.0	2.5	3	0-7										
Global Aggregate Bonds	$2.2	1.4	2	0-4	1.56	1.56	3.18	5.28	0.14	0.16	0.16	0.25	0.19	0.32
Global Carbon Transition	$0.3	0.2			2.22	2.22	4.51			-0.01	-0.01	0.06		
High Yield	$1.4	0.9	1	0-3	2.47	2.47	7.20	10.53	5.16	0.19	0.19	0.34	0.19	0.21

Qtr. Market Commentary:

- **US:** USTs slightly bull steepened while credit sectors continued to thrive
- **Global:** US markets outperformed Europe and Asia while hedged returns exceeded unhedged
- **Credit**: Global investment grade and high yield spreads tightened towards historical lows despite heavy issuance during the quarter
- **EM:** Benefitted from a dovish leaning Fed and rate cuts prompting spread compression

Positioning and Performance:

- **Domestic FI**: $555 million net inflows in qtr.
  - Quarterly performance in-line with benchmark
  - Tracking error low on policy uncertainty
- **EM:** Underperformed on US Treasury exposure and underweight spread sectors: corporate and quasi-sovereign
- **Short-Term:** Portfolio yield declining on Fed rate cut
- **External:** Solid performance in HY & Global Agg; Carbon Transition credit sector/industry allocation detracted

Outlook:

- **Policy**: Upcoming Fed decision while missing key macro data on government shutdown; Trade war with China clouds economic outlook
- **Macro**: Conflict of strong GDP data with weakening labor market; Would Fed cuts improve labor markets and/or stoke inflation
- **Rates:** Downward trend in yields with continued volatility in US and other developed markets
- **Credit**: Corporate and EMD credit fundamentals strong, but historically low spreads are priced to perfection

New York State Teachers' Retirement System

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

Investment Committee - October 29, 2025

David C. Gillan, CPA
Managing Director of Real Estate

CRE Equity Portfolio	9/30/25 Value	Target	Range	Actual	w/Commitments
	$15,953	11%	6%-16%	10.1%	11.8%

Performance for Periods Ended June 30, 2025						
Strategy (Inception Date)	**Net Asset Value**	**Current Quarter**	**1 Year**	**5 Year**	**10 Year**	**Since Inception**
Direct Properties (2/90)	$6,139	-2.8%	-8.1%	2.5%	4.4%	8.4%
Core Funds (7/85)	$1,345	-1.0%	-2.9%	-1.6%	0.8%	5.6%
Value Added (12/89)	$1,877	1.1%	-1.4%	9.5%	12.2%	11.1%
Opportunistic (3/99)	$3,757	2.3%	3.5%	8.7%	7.5%	10.1%
U.S. RE Securities (7/95)	$1,911	0.2%	9.4%	9.0%	7.1%	10.8%
Global RE Securities (9/17)	$550	4.4%	11.7%	5.9%	-	3.3%
Timber (12/98)	$242	1.0%	2.2%	10.4%	6.7%	5.4%
Total CRE Equity Portfolio	**$15,821**	**-0.3%**	**-1.2%**	**4.7%**	**5.4%**	**7.7%**
NCREIF-ODCE (Spliced)	-	0.8%	2.7%	2.5%	4.6%	6.0%

Market Commentary:

- Green Street's CPPI (private asset values) reflected a 2.9% increase over the prior twelve months. The CPPI is now 16.7% below the 2022 peak. At the sector level, performance leaders over the prior twelve months were healthcare (7%), strip retail (6%) and data centers (5%). The top detractor has been self-storage at (-4)%, Office valuations remain 36% below market peak…driven by West Coast and DC office product.
- Overall, average public REIT pricing has reflected a slight discount to private markets for the majority of 2025. However, a wide dispersion of discounts/ premiums exist among the property types, e.g. Health care REITs are trading at a 47.2% premium to the private asset pricing and cold storage REITs are trading at a 23% discount to private assets.
- Continued declines in construction starts across all sectors (ex. Data Centers) should continue to bolster fundamentals. Specifically in retail and office, where construction starts are at their lowest level in 20 years.

Portfolio Activity:

- Acquisitions continues to focus on opportunities with resilient, diversified cash flow in locations with durable long term demand profiles.
- Capital raising activity has been robust in the second half of the year and the pipeline reflects several fund opportunities with existing partners as well as exposure to new fund strategies across infrastructure, multifamily, industrial and diversified strategies.
- Staff continue to monitor financing rates and will look to opportunistically add leverage when accretive to current income in order to invest proceeds elsewhere at a greater return than the borrowing costs.
- During the quarter, the System acquired our partner's ownership interest in 525 Market Street, an office property located in San Francisco; and exited two older industrial properties located in Maryland.

Portfolio Performance & Positioning:

- Over the last 12 months, the CRE Equity portfolio produced a total net return of -1.2%, which underperformed the NCREIF ODCE policy benchmark.
- Drivers of the lower nominal performance for the year continue to be our exposure to office which has been slow to regain occupancy, value declines for multi-family properties in select markets with significant new supply, and primarily due to our cold storage exposure which has been impacted by lower tenant inventory levels, due to the cost of carrying higher priced inventories as well as future inflation expectations in light of the current tariff policies.
- Drivers of the positive relative performance to the benchmark include strong income returns for directly held properties, recovery of value at our NYC office property due to a considerable amount of leasing and the performance of our public security portfolios driven by secular trends in residential, retail and technology.

CRE Debt Portfolio	9/30/25 Value	Target	Range	Actual	w/Commitments
	$8,767	6%	2%-10%	5.6%	6.5%

Performance for Periods Ended June 30, 2025

Strategy (Inception Date)	Net Asset Value	Current Quarter	1 Year	5 Years	10 Years	Since Inception
First Mortgages (7/85)	$2,474	1.9%	7.9%	3.1%	3.9%	7.7%
Commercial MBS (4/01)	$3,568	2.1%	9.4%	3.3%	3.3%	4.6%
Core Plus Strategies (8/04)	$2,241	1.8%	5.7%	3.5%	4.6%	3.9%
Opportunistic Debt (9/01)	$653	1.4%	3.4%	4.5%	6.2%	1.4%
Total CRE Debt Portfolio	**$8,936**	**1.9%**	**7.6%**	**3.2%**	**4.0%**	**7.6%**
GL Custom Index (Spliced)	-	1.9%	8.9%	2.3%	3.5%	7.7%

Market Commentary:

- Reference rates are declining. The Federal Reserve has resumed cutting federal fund rates with a 25 basis points (bps) cut in September, and an anticipation of an additional 25 bps cut at the by the end of October. The key will be whether credit spreads widen for fixed rate mortgages that will keep coupons in the lower 5% range. Borrowers are not looking to go beyond 5-year terms based generally on their expectations that rates will continue to drop.
- Transaction volume has picked up as a result of these incremental lower rates, increasing the System's pipeline for fixed loan opportunities. Tranches of very large loans typically end up in our CMBS portfolio, while NYSTRS, life Co's, private lenders and to a lesser extent banks compete for the bulk of the loan market.

Portfolio Activity:

- Origination staff will continue to focus on the most attractive opportunities based on yield, credit, collateral and duration.
- Even with the decline in interest rates, real estate debt investments continue to provide strong risk adjusted returns.
  - Five-to-seven-year first mortgages on stabilized assets provide yields in the 5.00%-5.25% range.
  - Investment grade CMBS securities provide yields in the 5.00%-7.50% range.
  - Senior mezzanine and bridge loans provide shorter term floating yields in excess of 6.50%.
- During the second quarter, the System closed on two first mortgages totaling $111.4 million. Both mortgages were on stabilized multifamily assets in Tempe, Arizona in the 5.50% to 6.0% range.

Portfolio Performance & Positioning:

- Over the last 12 months, the Debt Portfolio produced a net return of 7.6% which lagged the longer duration policy benchmark.
- CMBS drove positive performance vs the benchmark. Our CMBS portfolio primarily consists of investment grade and single asset/single borrower positions which benefit from individual security and credit selection.
- The existing first mortgage portfolio is impacted by legacy loans primarily on office assets at fixed rates below current market rates, while at the same time benefitting from new originations focused on multi-family and industrial loans.
- We continue to work through legacy mezzanine loans on office and multi-family properties in the debt separate accounts where borrowers are unable to meet full debt service payments, extension tests, or repayment of principal at maturity. Staff continues to restructure these loans through paydowns, cash sweeps, etc.

Commercial Real Estate (CRE) Investments – MD Update

Equity Real Estate Performance for Periods Ended June 30, 2025						
Strategy (Inception Date)	**Net Asset Value**	**Current Quarter**	**1 Year**	**5 Year**	**10 Year**	**Since Inception**
Direct Properties (2/90)	$6,139	-2.8%	-8.1%	2.5%	4.4%	8.4%
Core Funds (7/85)	$1,345	-1.0%	-2.9%	-1.6%	0.8%	5.6%
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Timber (12/98)	$242	1.0%	2.2%	10.4%	6.7%	5.4%
Total CRE Equity Portfolio	**$15,821**	**-0.3%**	**-1.2%**	**4.7%**	**5.4%**	**7.7%**
Blended Benchmark*	**-**	**0.9%**	**4.8%**	**2.7%**	**4.3%**	**5.9%**

Debt Real Estate Performance for Periods Ended June 30, 2025						
Strategy (Inception Date)	**Net Asset Value**	**Current Quarter**	**1 Year**	**5 Years**	**10 Years**	**Since Inception**
First Mortgages (7/85)	$2,474	1.9%	7.9%	3.1%	3.9%	7.7%
Commercial MBS (4/01)	$3,568	2.1%	9.4%	3.3%	3.3%	4.6%
Core Plus Strategies (8/04)	$2,241	1.8%	5.7%	3.5%	4.6%	3.9%
Opportunistic Debt (9/01)	$653	1.4%	3.4%	4.5%	6.2%	1.4%
Total CRE Debt Portfolio	**$8,936**	**1.9%**	**7.6%**	**3.2%**	**4.0%**	**7.6%**
Blended Benchmark*	**-**	**2.0%**	**8.9%**	**2.1%**	**3.4%**	**7.7%**

* The Blended Benchmarks used here represent the market-value weighted average of the underlying benchmarks for all of the public/private 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 29, 2025

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

Private equity summary as of 9/30/2025

	Market Value	Actual Allocation	Target Allocation	Allocation Range		
	$14.5B	9.2%	9.0%	4% - 14%		
Net TWR as of 6/30/25	**1-Year**	**3-Year**	**5-Year**	**10-Year**	**20-Year**	**30-Year**
NYSTRS PE Portfolio	8.0%	6.1%	14.7%	13.3%	13.3%	13.6%
Excess Return						
S&P 500 + 500bps*	-12.2%	-18.6%	-6.9%	-5.3%	-2.4%	-1.9%
S&P 500	-7.2%	-13.6%	-1.9%	-0.3%	2.6%	3.1%
Russell 2000	0.3%	-3.9%	4.7%	6.2%	5.5%	5.1%
MSCI ACWI IMI	-7.9%	-10.7%	1.3%	3.6%	5.1%	5.9%

*Policy Benchmark

Private debt summary as of 9/30/2025

Market Value	Actual Allocation	Target Allocation	Allocation Range
$2.9B	1.9%	2.0%	0.5% - 5%
Net TWR as of 6/30/25	**1-Year**	**3-Year**	**5-Year**
NYSTRS PD Portfolio	7.6%	8.9%	11.7%
Excess Return			
Morningstar LSTA + 300bps*	-2.7%	-3.8%	1.2%
Morningstar LSTA	0.3%	-0.8%	4.2%
Bloomberg HY	-2.7%	-1.0%	5.7%

*Policy Benchmark

Market Commentary:

- Continued improvement in PE market activity and improving liquidity since last year.
- PD continues to grow as an asset class and remains a go to source for buyouts and M&A relative to public markets.
- Yields on PD have come in a bit given slightly lower interest rates and tighter spreads but the asset class continues to be viewed favorably given its risk adjusted returns.

Portfolio Activity & Asset Allocation:

- Quarterly valuations for both private equity and private debt increased 3.0% and 1.6% respectively from 3/31/25.
- For the quarter ended 9/30, six PE funds (reups) and one PD fund (new relationship) were approved by the IIC.
- Cash flows for the fiscal year ended 6/30/25 were positive for PE and negative for PD. PE cashflows since year end continue to be positive.

Portfolio Performance & Positioning:

- Both Private Equity and Private debt are outperforming public markets over the long run.
- Continued focus on diversification in the PD portfolio by adding strategies beyond direct lending such as opportunistic, secondaries, co-investments, asset backed and structured equity.
- Spending time on the PE side looking at ways to expand our growth equity exposure.

Other Updates:

- Staff is recommending a one-year renewal of StepStone as NYSTRS' non-discretionary consultant for Private Equity and Private Debt effective February 1, 2026.
- See next page for additional benchmarking data.

NYSTRS' Returns vs Cambridge Benchmarks as of 3/31/25

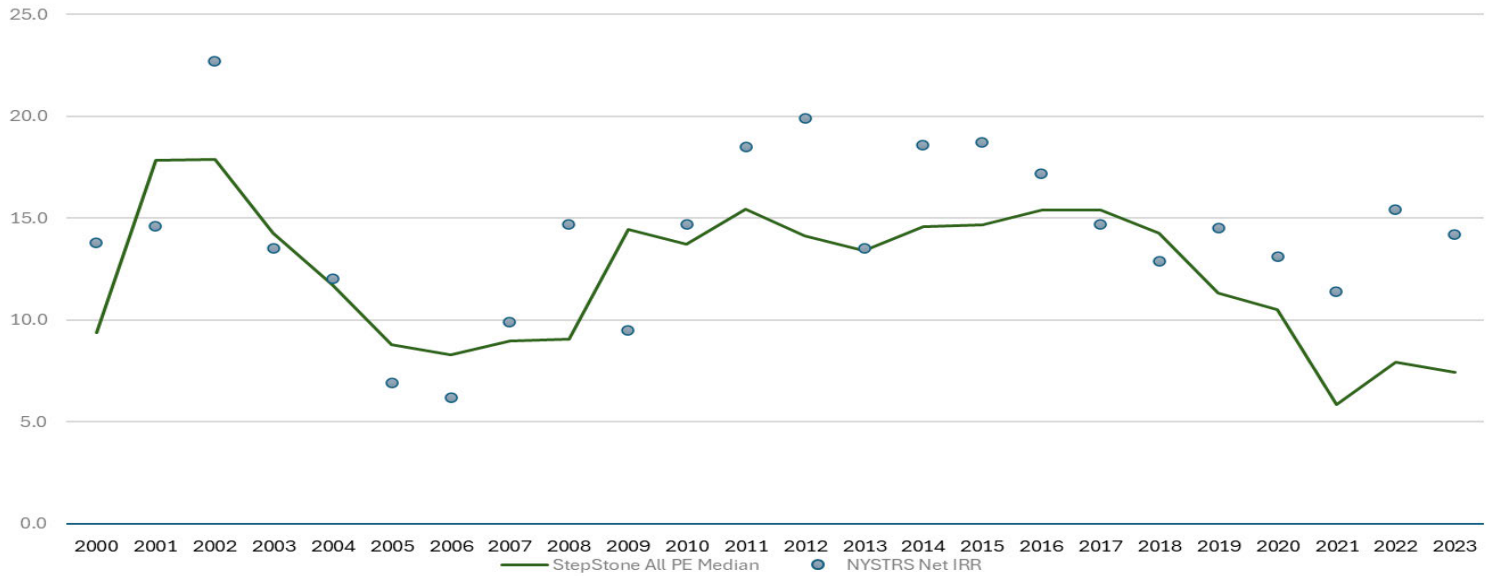
Private Equity Benchmark Returns (Net IRRs)	1-Year	3-Year	5-Year	10-Year	15-Year
Cambride US PE Index*	7.4%	4.7%	18.3%	14.9%	15.8%
NYSTRS Total PE	6.2%	3.5%	17.2%	14.1%	14.2%
NYSTRS US PE	6.9%	4.3%	***18.4%***	14.6%	14.8%
NYSTRS Non US PE	2.6%	0.1%	13.1%	12.1%	11.5%
NYSTRS S/M Buyouts	6.1%	***5.7%***	***21.1%***	***17.6%***	***17.4%***
NYSTRS All Buyouts	5.3%	4.7%	17.8%	***15.6%***	***15.9%***
Cambridge US VC Index*	6.0%	-4.4%	16.4%	13.4%	15.1%
NYSTRS VC/Growth	***19.5%***	***3.1%***	***23.0%***	***15.6%***	14.2%

NYSTRS' IRR's per SPI (StepStone's reporting platform)

* - https://www.cambridgeassociates.com/private-investment-benchmarks/

- Returns from NYSTRS' Buyout (S/M) Portfolio outperformed the 3yr, 5yr, 10yr, and 15yr Cambridge benchmarks
- Returns from NYSTRS' VC/Growth portfolio outperformed the 1yr, 3yr, 5yr, and 10yr Cambridge benchmarks

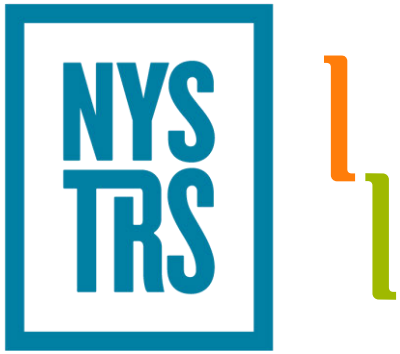
NYSTRS' Net IRRs by Vintage Year vs. StepStone's PE database as of 6/30/25



- In 2010, NYSTRS adjusted the PE program to focus on lower middle market buyouts.
- Returns from NYSTRS' managers have exceeded the median peer performance in 11 of the last 14 years since 2010.

StepStone Median data per SPI (StepStone's reporting platform)

Callan

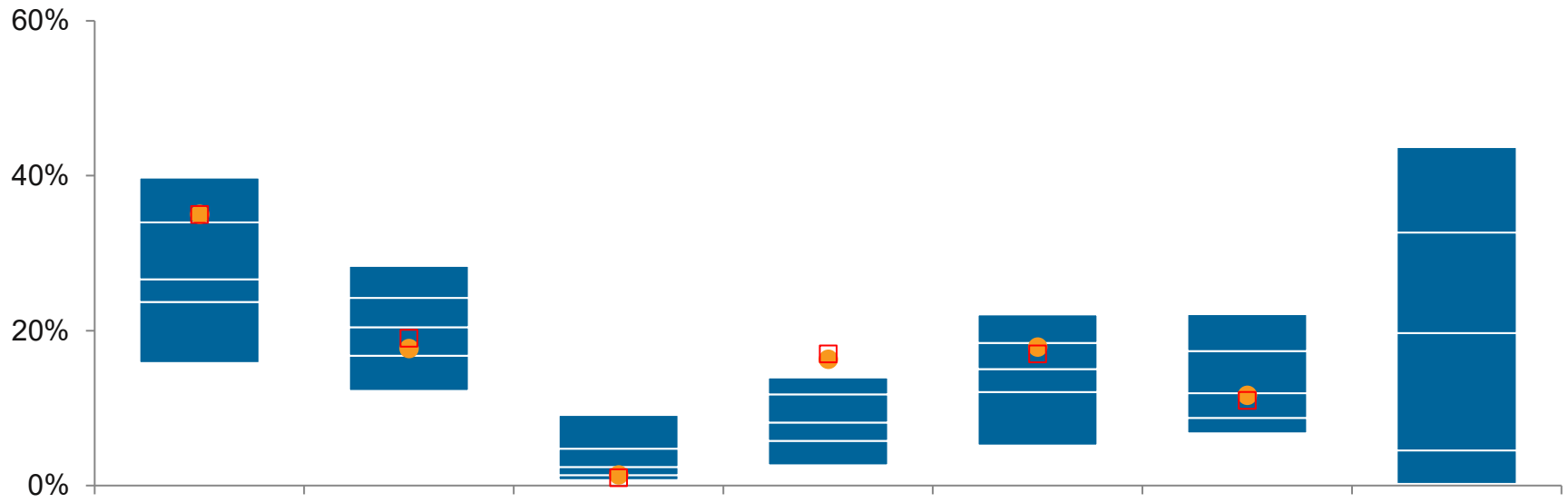


NYSTRS Asset Allocation and Performance Statistics
As of June 30, 2025

Thomas H. Shingler
Fund Sponsor Consulting

Carlo Stadlinger, CFA
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	40%	28%	9%	14%	22%	22%	44%
25th Percentile	34%	24%	5%	12%	18%	17%	33%
Median	**27%**	**20%**	**2%**	**8%**	**15%**	**12%**	**20%**
75th Percentile	24%	17%	1%	6%	12%	9%	5%
90th Percentile	16%	12%	1%	3%	5%	7%	0%
% Group Invested	100%	94%	90%	90%	100%	38%	85%
NYSTRS ●	**35%**	**18%**	**1%**	**16%**	**18%**	**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, 2025. Median values do not sum to 100%. NYSTRS actual allocations may 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 higher than median target allocation to international equity
- NYSTRS has a slightly lower than 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, 90% 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-, 15-, 20-, and 30-year periods, the total fund ranks near or inside the top quartile (26th, 13th, 17th, and 10th percentiles, respectively).

For the shorter term three and five years ended 6/30/25, the NYSTRS total fund ranks in the first and second quartiles (24th and 50th percentiles, respectively).

Over the past year, the total fund slightly trails its median peer, ranking in the 57th percentile.

NYSTRS returns for all periods shown are above the 6.95% discount rate.

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

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 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, indicating strong risk-adjusted results.

Tracking error of the portfolio relative to its target is below that of the median peer's tracking error, reflecting actual asset allocation implementation that adheres closely to the policy target.

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. and International equity
2) Third quartile actual allocation to fixed income

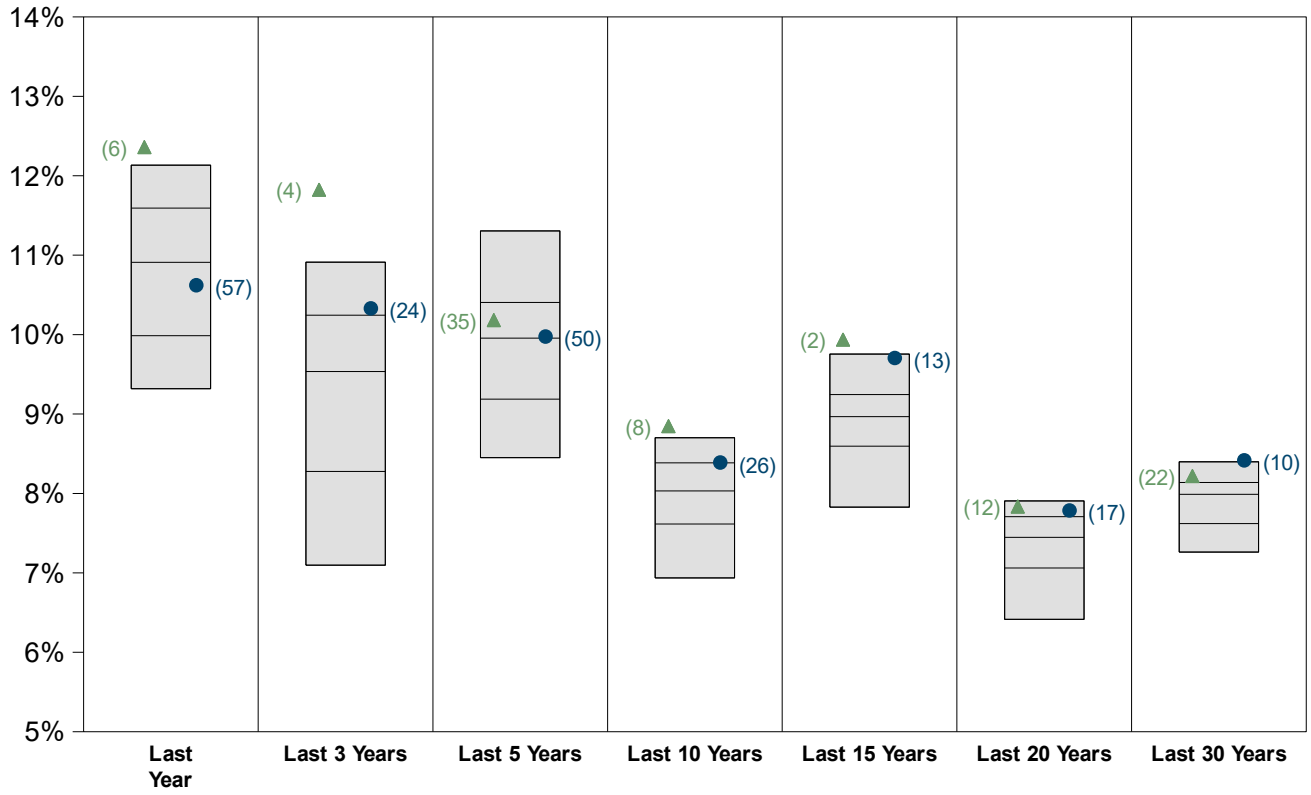
These asset class exposures will typically lead to higher observed volatility relative to the median peer, all else equal.

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 2025 results whereas some peers report lagged figures.

NYSTRS Total Fund Performance Statistics

Periods ending 6/30/25; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

Performance vs Callan Public Fund Spons- V Lg DB (>10B) (Gross)

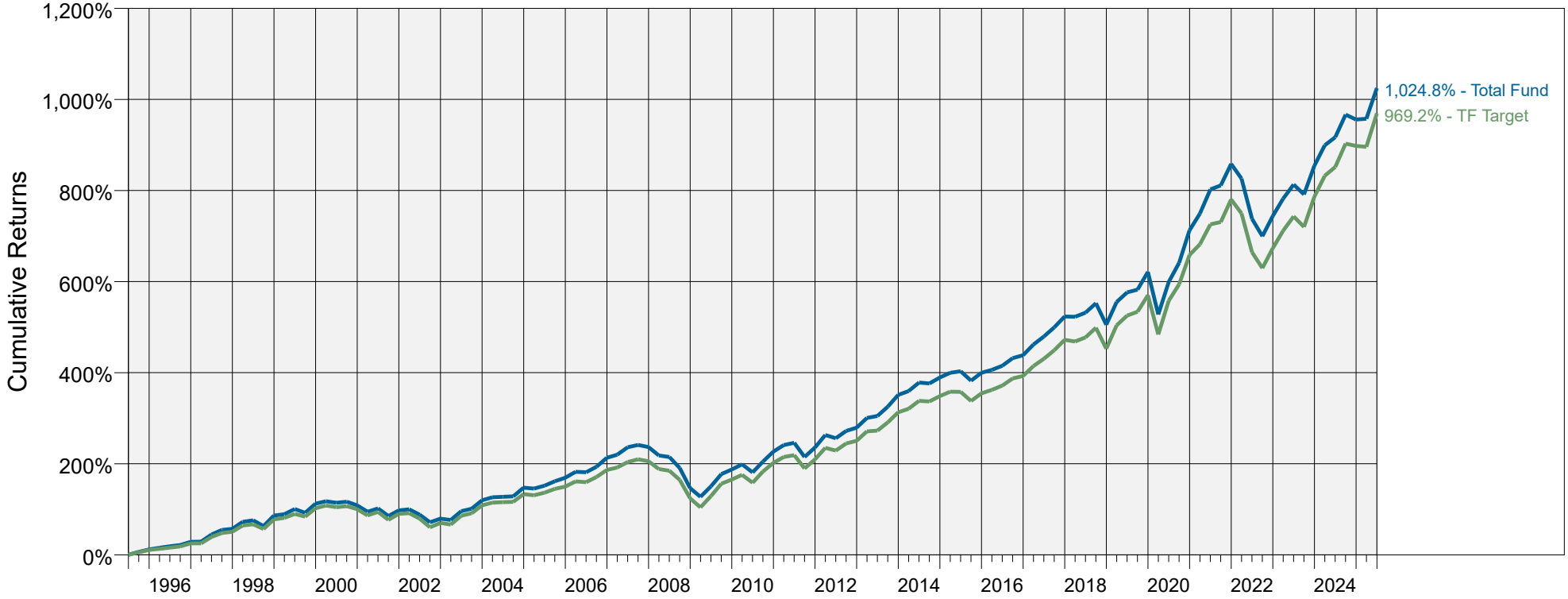


	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years	Last 20 Years	Last 30 Years
10th Percentile	12.13	10.91	11.30	8.70	9.76	7.91	8.40
25th Percentile	11.59	10.24	10.40	8.39	9.25	7.71	8.14
Median	10.91	9.53	9.95	8.03	8.97	7.45	7.99
75th Percentile	9.99	8.28	9.19	7.62	8.59	7.06	7.62
90th Percentile	9.32	7.10	8.45	6.94	7.83	6.42	7.26
NYSTRS Total Fund ●	10.61	10.32	9.96	8.37	9.69	7.77	8.40
NYSTRS Benchmark ▲	12.36	11.82	10.18	8.85	9.94	7.84	8.22

NYSTRS Total Fund Performance Statistics

Periods ending 6/30/25

Cumulative Returns for 30 Years

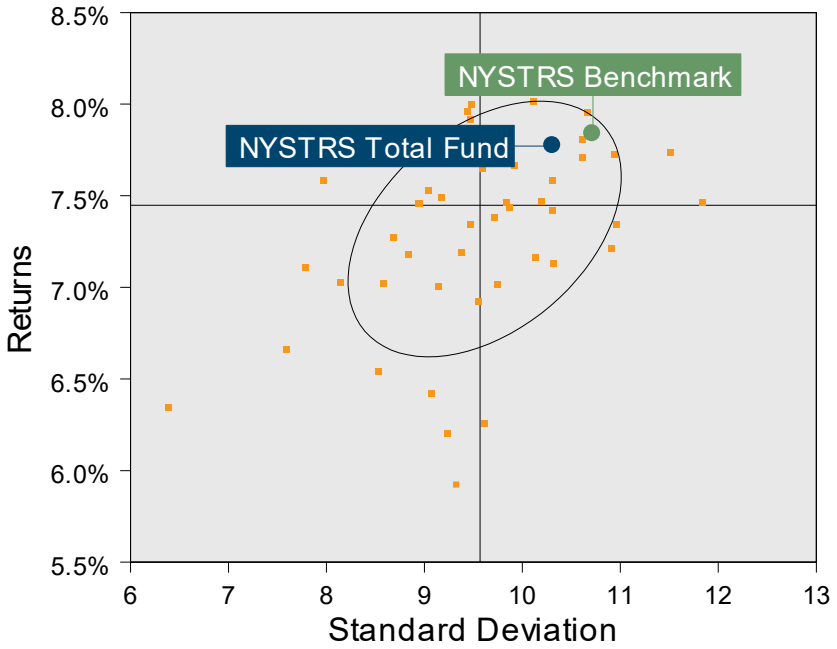


Cumulative Total Fund returns have outpaced the benchmark over the last 30 years.

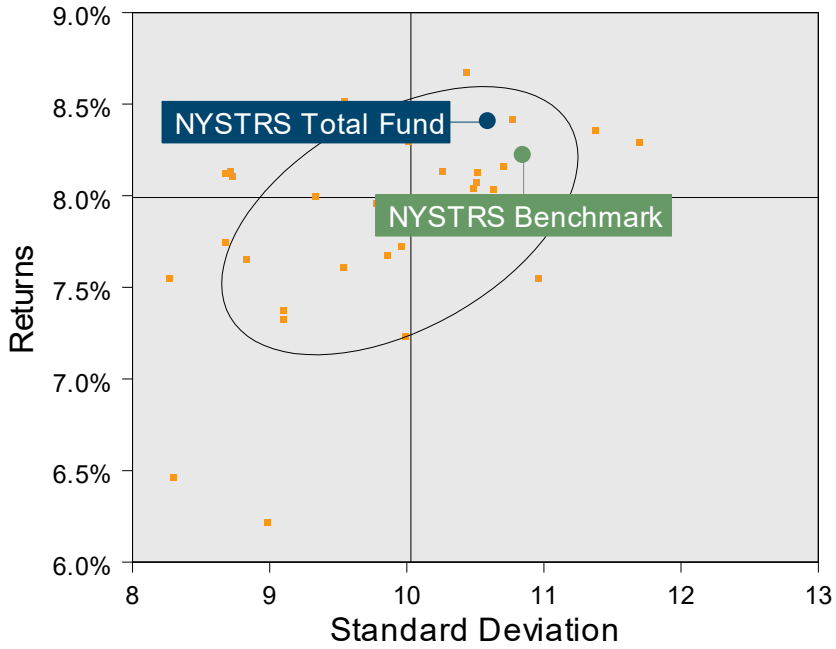
NYSTRS Total Fund Performance Statistics

Periods ending 6/30/25; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

Callan Public Fund Spons- V Lg DB (>10B) (Gross)
Annualized Twenty Year Risk vs Return



Callan Public Fund Spons- V Lg DB (>10B) (Gross)
Annualized Thirty Year Risk vs Return

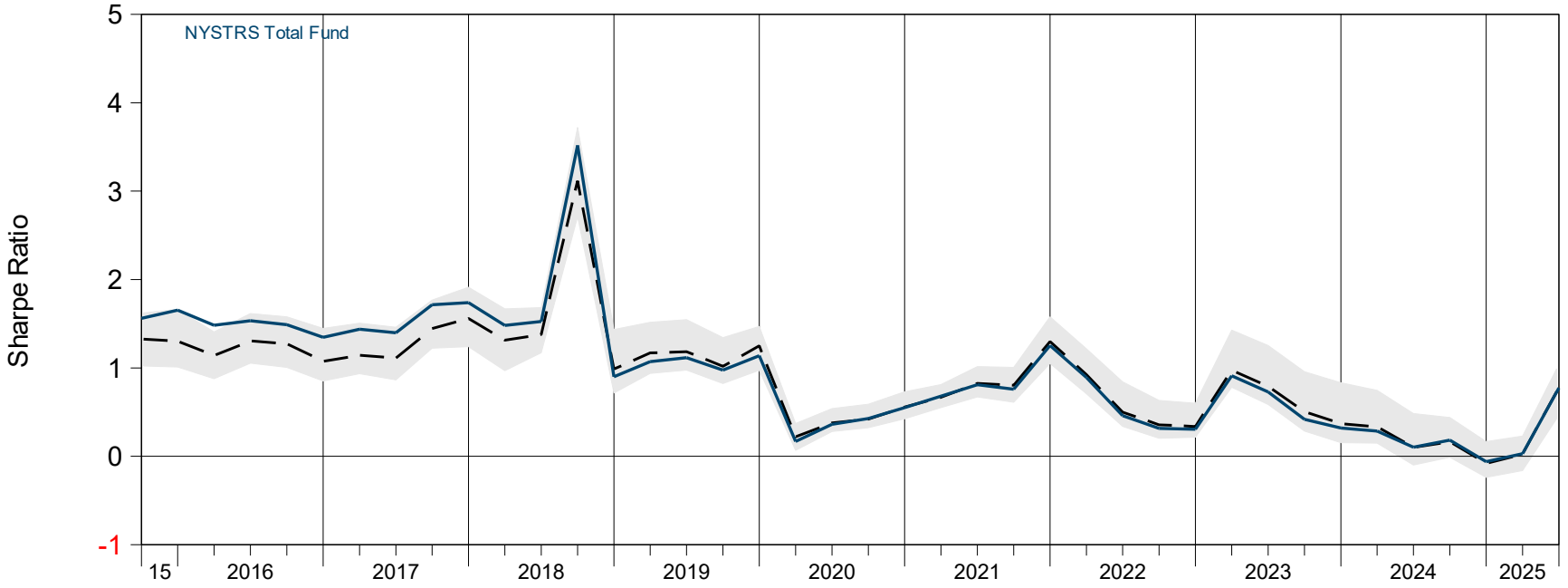


The Total Fund has exhibited less risk than the target benchmark over the trailing 20- and 30-year periods, while having higher returns over the trailing 30-years and comparable returns over 20 years.

NYSTRS Total Fund Risk Statistics

Periods ending 6/30/25; 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, 2025



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Sharpe Ratio	0.88%	0.94%
% Positive Periods	98%	98%
Average Ranking	50	43

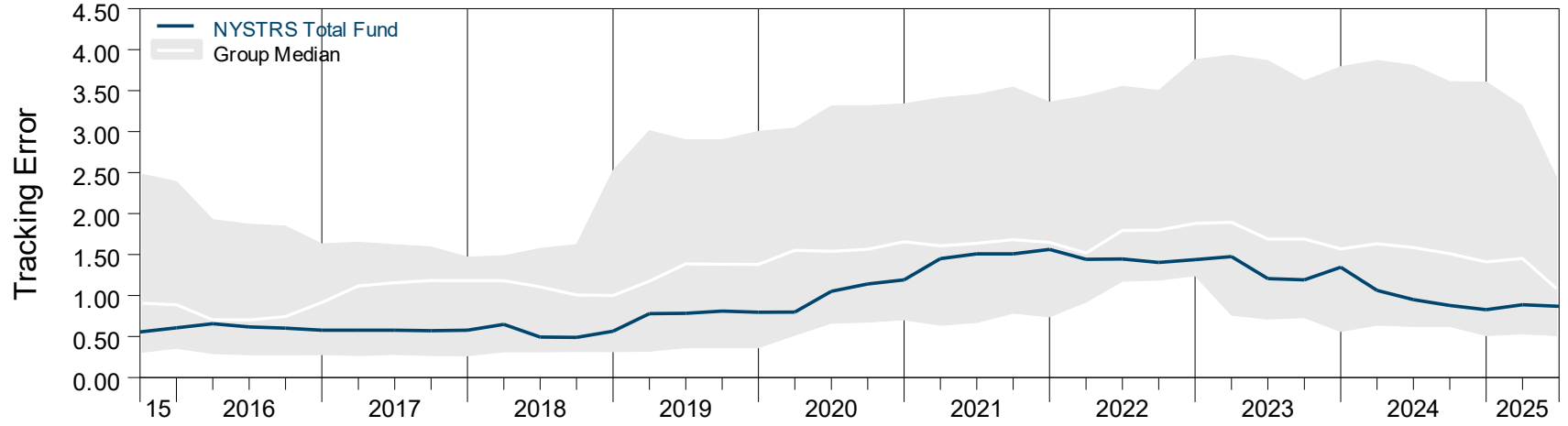
The risk-adjusted returns of the NYSTRS portfolio, as measured by rolling three-year average Sharpe Ratio, are above the median peer, ranking in the second quartile, indicating strong risk-adjusted performance.

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

NYSTRS Total Fund Risk Statistics

Periods ending 6/30/25; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

Rolling 12 Quarter Tracking Error vs Targets Compared to Callan Public Fund Spons- V Lg DB (>10B)

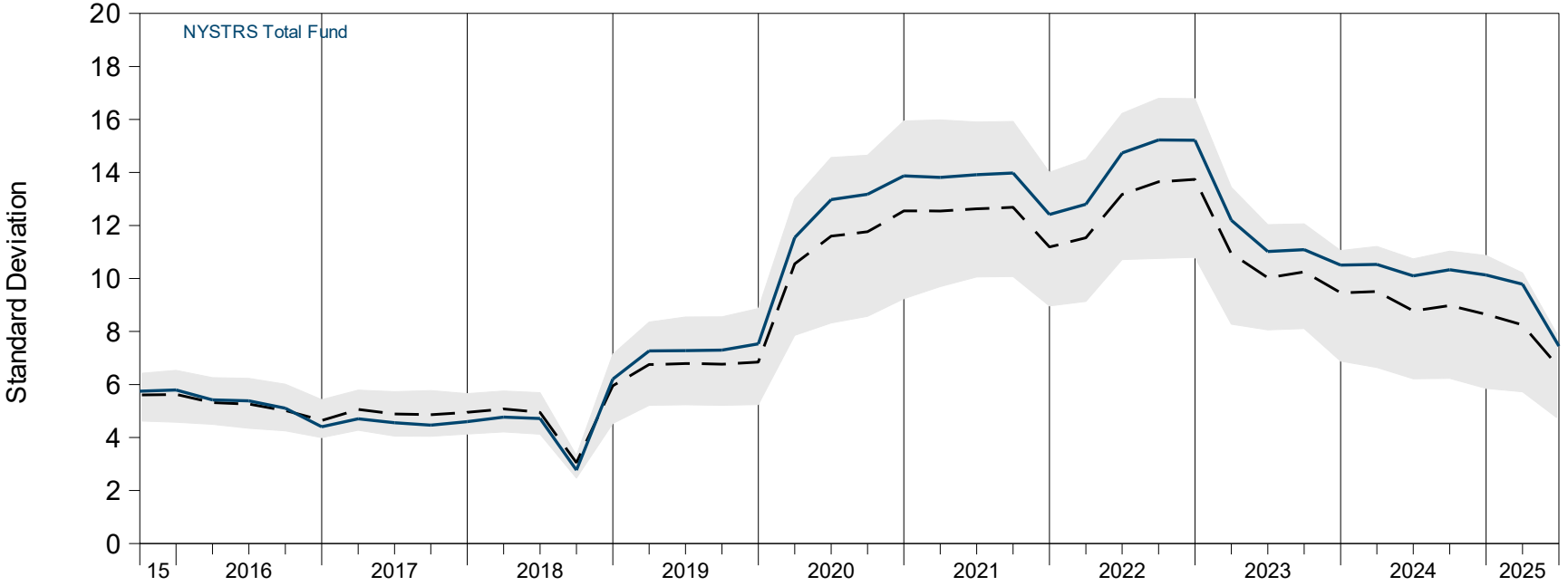


Rolling 3-year tracking error has been lower than the peer median for nearly all time periods measured over the past 10 years, reflecting implementation adherence to the strategic policy target.

NYSTRS Total Fund Risk Statistics

Periods ending 6/30/25; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)

Rolling Three Year Standard Deviation
Ten Years Ended June 30, 2025



Rolling Three Year Period Analysis	Median	Portfolio
Average Annual Standard Deviation	8.42%	9.12%
% Positive Periods	100%	100%
Average Ranking	50	38

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 57 constituent funds

The average AUM is $45.6 BN

The median AUM is $28.1 BN

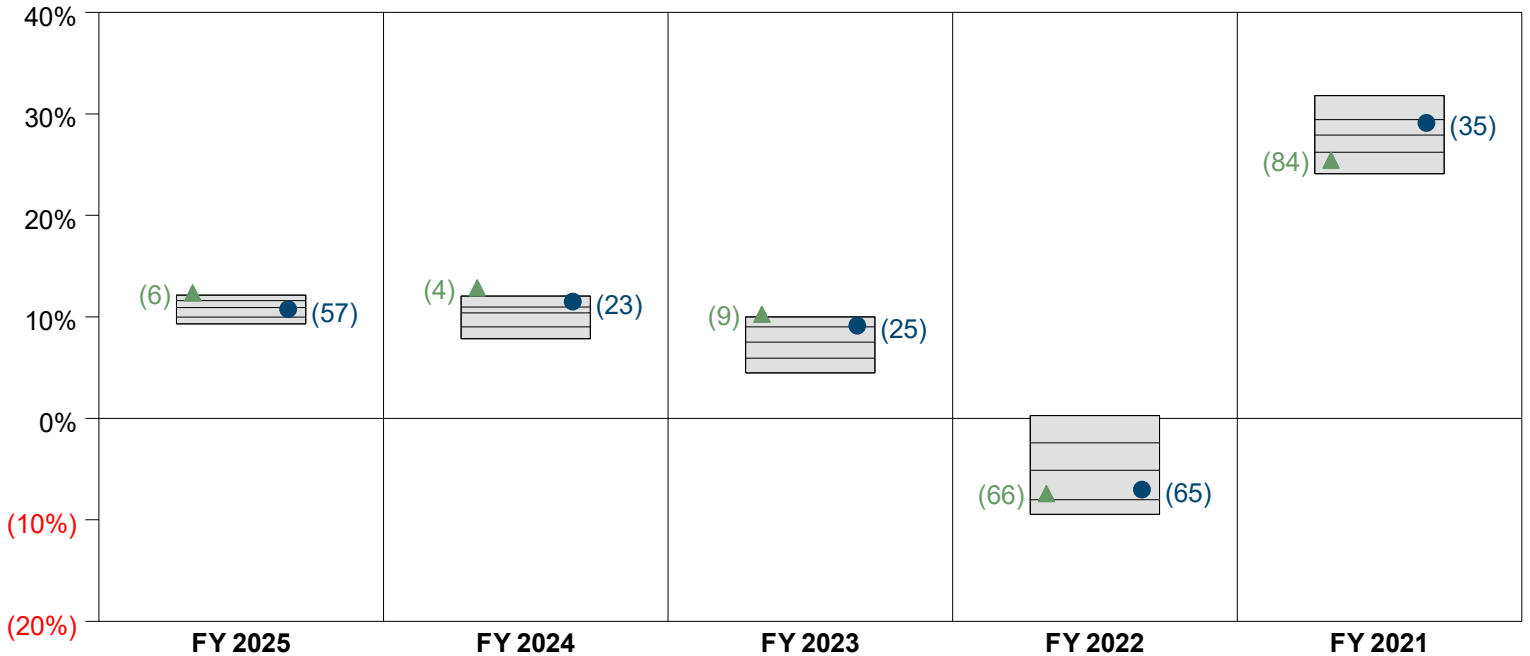
The peer group includes Callan clients and anonymously shared data from BNY Mellon and Investment Metrics

Callan

Appendix

NYSTRS Total Fund Performance Statistics

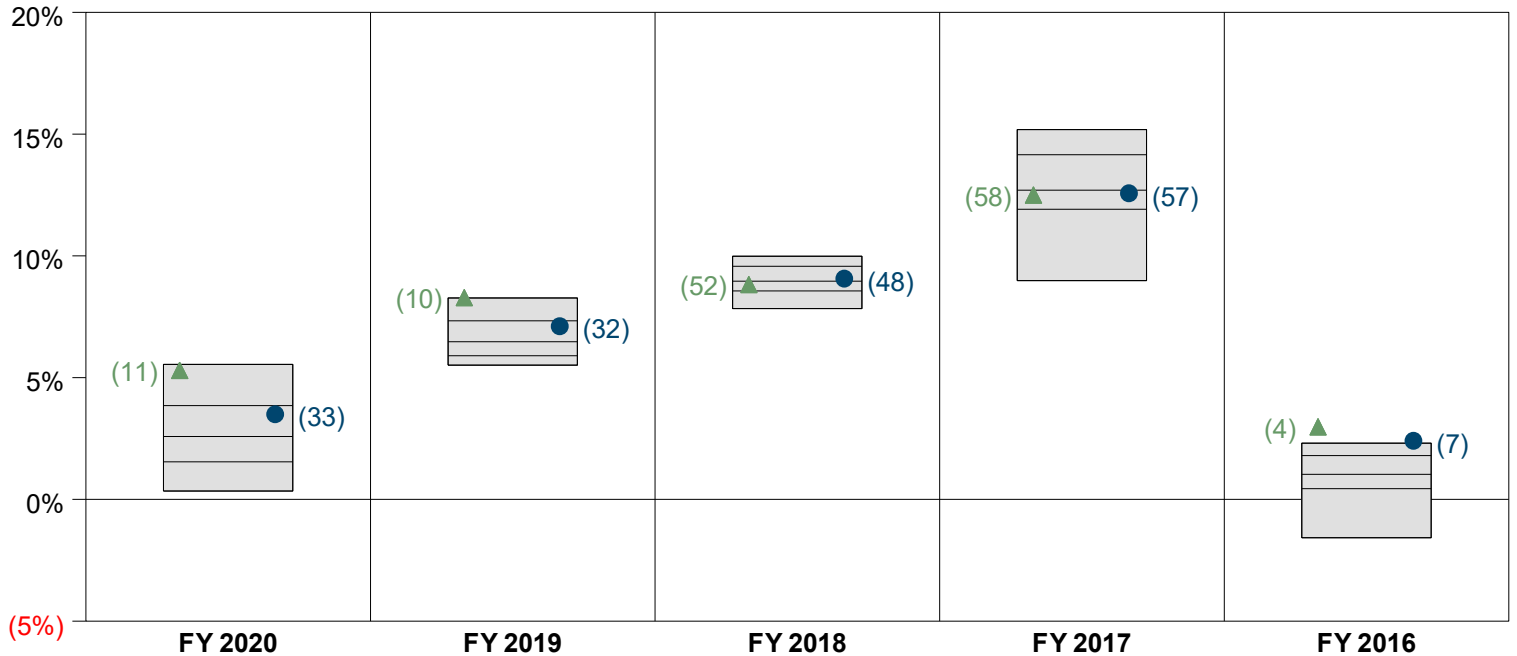
Fiscal Year Performance; Peer Group: Callan Public Fund Sponsor V. Lg DB (>10B) (Gross)



	FY 2025	FY 2024	FY 2023	FY 2022	FY 2021
10th Percentile	12.13	12.05	10.00	0.26	31.79
25th Percentile	11.59	10.97	9.01	(2.41)	29.44
Median	10.91	10.39	7.51	(5.13)	27.92
75th Percentile	9.99	9.02	5.93	(8.02)	26.22
90th Percentile	9.32	7.84	4.47	(9.46)	24.10
NYSTRS Total Fund ●	10.61	11.36	8.99	(7.15)	28.98
NYSTRS Benchmark ▲	12.36	12.87	10.26	(7.42)	25.43

NYSTRS Total Fund Performance Statistics

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



	FY 2020	FY 2019	FY 2018	FY 2017	FY 2016
10th Percentile	5.55	8.27	9.99	15.19	2.31
25th Percentile	3.86	7.33	9.57	14.15	1.80
Median	2.58	6.47	8.96	12.70	1.03
75th Percentile	1.55	5.90	8.56	11.91	0.44
90th Percentile	0.34	5.51	7.84	8.99	(1.57)
NYSTRS Total Fund ●	3.45	7.06	9.01	12.51	2.35
NYSTRS Benchmark ▲	5.30	8.29	8.82	12.50	2.98

Published Research Highlights: 3Q25

Style, Trend, Analysis & Research (STAR) Report: Mid-Year 2025

Research Café: Impact Investing in Fixed Income

New Feature: The Callan Botcast (AI-generated podcasts)

Research Café: Modeling Returns and Managing Market Cap Weights

Recent Blog Posts

What Investors Need to Know about the 2025 Russell Reconstitution

Nicole Wubbena

New Tax on Endowments Will Likely Lead to Portfolio Management Changes

Evan Williams

A Framework for Evaluating Risk-Mitigating Strategies

Sean Lee

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

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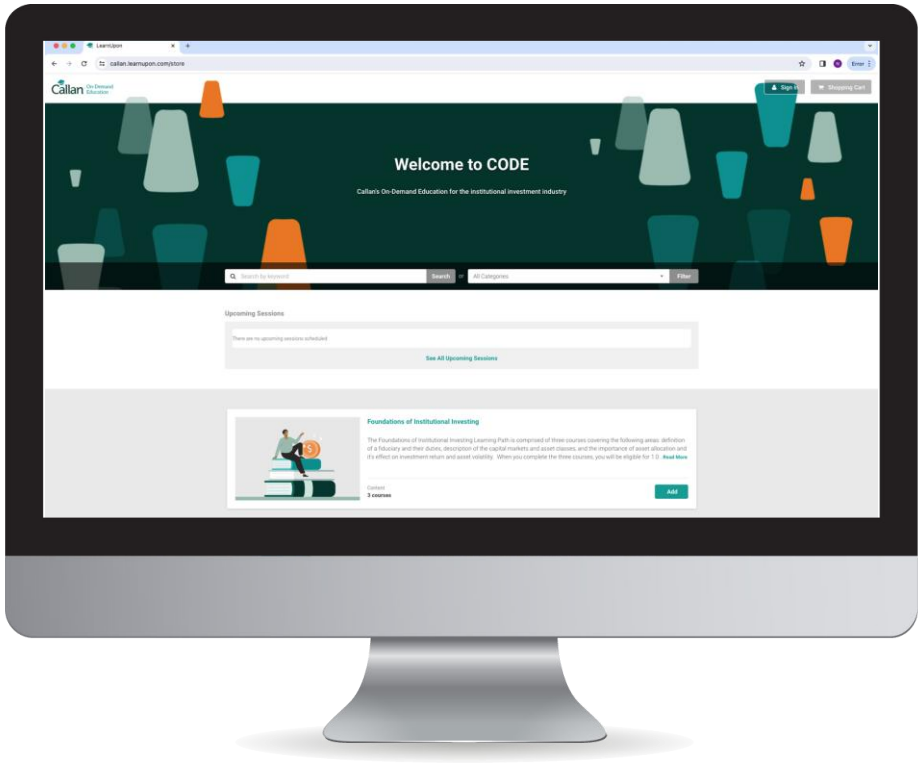

3 Reasons to Take CODE Courses

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, 2025

Total Associates: ~205

Company Ownership:

- 100% employee ownership
- ~70% of employees are equity owners
- Well-diversified ownership

Total 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/asset owner clients with more than $4+ trillion

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- **Welcome to Callan*DNA*:** Learn how to get the most out of Callan's proprietary manager database, including deep-dive details about all managers in your portfolio.

"Callan is a truly special place to develop a career in investment consulting. Since joining the firm, I have enjoyed collaborating with long-tenured colleagues to build successful investment programs for Callan's clients. I look forward to continuing to help my team and clients navigate challenges and seize the opportunities presented in this dynamic industry."

— Uvan Tseng, CFA, SVP, on his promotion to lead Callan's West Coast Consulting team

Glossary

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

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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.

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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.

Investment Committee Meeting October 29, 2025

STEPSTONE GROUP LP

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, 2026 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.

Investment Committee Meeting October 29, 2025

RESOLUTION ON STEPSTONE GROUP REAL ESTATE LP

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, 2026 at an annual retainer not to exceed $467,550 plus the agreed upon price escalation based on the percent change in the Employment Cost Index.

Investment Committee Meeting October 29, 2025

RESOLUTION ON MEKETA INVESTMENT GROUP INC

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, 2026.

Investment Committee Meeting October 29, 2025

RESOLUTION RENEWING AQR CAPITAL MANAGEMENT, LLC

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**AQR Capital Management, LLC**
NYSTRS Department:	Public Equities
Approved Renewal Period:	1/6/2026 – 1/5/2027

Mandate	
• Asset Class:	International Equities
• Account Benchmark:	MSCI ACWI exUS Index
• Active or Passive:	Active

Investment Committee Meeting October 29, 2025

RESOLUTION RENEWING BLACKROCK INSTITUTIONAL

TRUST COMPANY, N.A.

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**BlackRock Institutional Trust, Company N.A.**
NYSTRS Department:	Public Equities
Approved Renewal Period:	12/12/2025 – 12/11/26

Mandate	
• Asset Class:	International Equities
• Account Benchmark:	MSCI ACWI exUS Index
• Active or Passive:	Passive

Investment Committee Meeting October 29, 2025

RESOLUTION RENEWING DIMENSIONAL FUND ADVISORS, LP

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Dimensional Fund Advisors, LP**
NYSTRS Department:	Public Equities
Approved Renewal Period:	2/19/2026 – 2/18/2027

Mandate	
• Asset Class:	International Equities
• Account Benchmark:	MSCI Emerging Markets Index
• Active or Passive:	Active

Investment Committee Meeting – October 29, 2025

RESOLUTION RENEWING

Goldman Sachs Asset Management, L.P.

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Goldman Sachs Asset Management, L.P.**
NYSTRS Department:	Fixed Income
Approved Renewal Period:	**11/12/2025 – 11/11/2026**

Mandate	
• Asset Class:	Fixed Income – Global Bonds
• Account Benchmark:	Bloomberg Global Aggregate Float Adjusted Ex-CNY Bond Index Hedged to USD
• Active or Passive:	Active

Investment Committee Meeting October 29, 2025

RESOLUTION RENEWING HARDING LOEVNER LP

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Harding Loevner LP**
NYSTRS Department:	Public Equities
Approved Renewal Period:	2/27/2026 – 2/26/2027

Mandate	
• Asset Class:	Global Equities
• Account Benchmark:	MSCI ACWI Index
• Active or Passive:	Active

Investment Committee Meeting – October 29, 2025

RESOLUTION RENEWING

Loomis Sayles & Co., L.P.

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Loomis Sayles & Co., L.P.**
NYSTRS Department:	Fixed Income
Approved Renewal Period:	**11/08/2025-11/07/2026**

Mandate	
• Asset Class:	Fixed Income – Global Bonds
• Account Benchmark:	Bloomberg Global Aggregate Float Adjusted Ex-CNY Bond Index Hedged to USD
• Active or Passive:	Active

Investment Committee Meeting October 29, 2025

RESOLUTION RENEWING MARATHON ASSET MANAGEMENT LIMITED

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Marathon Asset Management Limited**
NYSTRS Department:	Public Equities
Approved Renewal Period:	1/24/2026 – 1/23/2027

Mandate	
• Asset Class:	International Equities
• Account Benchmark:	MSCI EAFE Index
• Active or Passive:	Active

Investment Committee Meeting – October 29, 2025

RESOLUTION RENEWING

Nomura Corporate Research and Asset Management Inc.

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**Nomura Corporate Research and Asset Management Inc.**
NYSTRS Department:	Fixed Income
Approved Renewal Period:	**11/28/2025-11/27/2026**

Mandate	
• Asset Class:	Fixed Income – High Yield
• Account Benchmark:	ICE BofAML US High Yield Constrained Index (HUC0)
• Active or Passive:	Active

Investment Committee Meeting October 29, 2025

RESOLUTION RENEWING STATE STREET GLOBAL ADVISORS TRUST COMPANY

RESOLVED, That the Executive Director and Chief Investment Officer, or designee, is authorized to renew the following external investment manager mandate for one year:

Investment Manager:	**State Street Global Advisors Trust Company ***
NYSTRS Department:	Public Equities
Approved Renewal Period:	2/18/2026 – 2/17/2027

Mandate	
• Asset Class:	International Equities
• Account Benchmark:	MSCI ACWI exUS Index
• Active or Passive:	Passive

*State Street Global Advisors Trust Company is the successor-in-interest by assignment to State Street Bank and Trust Company, DBA State Street Investment Management.

Investment Committee Meeting October 29, 2025

RESOLUTION REAPPOINTING JOHANNA FINK TO THE INVESTMENT ADVISORY COMMITTEE

WHEREAS, The term of Johanna Fink, as a member of the Investment Advisory Committee, expires on December 31, 2025; be it

RESOLVED, That the Retirement Board hereby reappoints Ms. Fink to a three-year term as a member of the Investment Advisory Committee, effective January 1, 2026.

RESOLUTION REAPPOINTING LAURA HOTALING TO THE INVESTMENT ADVISORY COMMITTEE

WHEREAS, The term of Laura Hotaling, as a member of the Investment Advisory Committee, expires on December 31, 2025; be it

RESOLVED, That the Retirement Board hereby reappoints Ms. Hotaling to a three-year term as a member of the Investment Advisory Committee, effective January 1, 2026.

Investment Committee Meeting October 29, 2025

RESOLUTION REAPPOINTING STEVEN C. HUBER TO THE INVESTMENT ADVISORY COMMITTEE

WHEREAS, the term of Steven C. Huber as a member of the Investment Advisory Committee expires on December 31, 2025; be it

RESOLVED, That the Retirement Board hereby reappoints Mr. Huber to a three-year term as a member of the Investment Advisory Committee, effective January 1, 2026.

Investment Committee Meeting October 29, 2025

RESOLUTION REAPPOINTING JAMES O'KEEFE TO THE INVESTMENT ADVISORY COMMITTEE

WHEREAS, The term of James O'Keefe, as a member of the Investment Advisory Committee, expires on December 31, 2025; be it

RESOLVED, That the Retirement Board hereby reappoints Mr. O'Keefe to a three-year term as a member of the Investment Advisory Committee, effective January 1, 2026.

Investment Committee Meeting October 29, 2025

RESOLUTION REAPPOINTING MS. BYRNE TO THE REAL ESTATE ADVISORY COMMITTEE

WHEREAS, The term of Ms. Eileen Byrne as a member of the Real Estate Advisory Committee expires on December 31, 2025; be it

RESOLVED, That the Retirement Board hereby reappoints Ms. Eileen Byrne to a three-year term as a member of the Real Estate Advisory Committee effective January 1, 2026.

Investment Committee Meeting October 29, 2025

RESOLUTION REAPPOINTING MR. BULLS TO THE REAL ESTATE ADVISORY COMMITTEE

WHEREAS, The term of Mr. Herman E. Bulls as a member of the Real Estate Advisory Committee expires on December 31, 2025; be it

RESOLVED, That the Retirement Board hereby reappoints Mr. Herman E. Bulls to a three-year term as a member of the Real Estate Advisory Committee effective January 1, 2026.

Investment Committee Meeting October 29, 2025

RESOLUTION ACCEPTING CHANGES TO INVESTMENT POLICY MANUAL

RESOLVED, That the Investment Policy Manual, as presented to the Retirement Board reflecting significant changes through October 2025, as summarized in the grid below, is approved and accepted.

POLICY	SUMMARY OF SIGNIFICANT CHANGES 2025
Selection, Monitoring and Termination of External Managers	• Watch List language deleted
Selection and Evaluation of Broker-Dealers and Counterparties	• New Section in 2025 – replaces "Fixed Income Addendum" and "Broker Selection" sections
Fixed Income Addendum	• This section deleted and replaced by "Selection and Evaluation of Broker-Dealers and Counterparties
Broker Selection	• This section deleted and replaced by "Selection and Evaluation of Broker-Dealers and Counterparties
Statement of Investment Policy; Private Equity; Real Estate	• The general limitation on ownership of commingled funds is changed from 20% to 25% in order to align with ERISA and fiduciary standards

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 2025

Fixed Income

Period	Action Taken	Amount
Q/E 9/30/25	Net cash and securities reallocated **into** internally managed Long-Term Bonds	$555.4 M
Q/E 6/30/25	Net cash and securities reallocated **into** internally managed Emerging Market Debt	$4.8 M

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 2025

Public Equities

Period	Action Taken	Amount
Q/E 9/30/2025	Cash reallocated **out of** externally managed international equity portfolio	$813.08 M
Q/E 9/30/2025	Cash reallocated **in to** externally managed international equity portfolio (ARGA funding)	$250.0 M
Q/E 9/30/2025	Cash reallocated **out of** externally managed Global equity portfolio	$389.93 M
Q/E 9/30/2025	Cash reallocated **out of** internally managed domestic equity portfolio	$300.0 M

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 2025

Real Estate - New Commitments

Date of Internal Inv. Comm. Approval	Investment Name	Amount	New or Existing Relationship
09-24-2025	Starwood Distressed Opportunity Fund XIII	$150M	Existing

Real Estate - Dispositions

Date of Internal Inv. Comm. Approval	Investment Name	Amount	Date Transaction Closed
06-05-2025	Baltimore Industrial Properties	$32.3M	08-20-2025

Real Estate

Period	Action Taken	Amount
Q/E 9/30/25	Net cash reallocated **from** externally managed Domestic REIT Portfolio	$65M

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 2025

Private Equity/Debt – New Commitments

Date of Internal Inv. Comm. Approval	Investment Name	Amount	New or Existing Relationship
07-16-2025	BioPharma Credit Investments V	$150M	New
08-12-2025	CapStreet VI	$100M	Existing
08-12-2025	CapStreet VI Co-Invest SMA I	$25M	Existing
09-02-2025	Valor Equity Partners VII	$100M	Existing
09-02-2025	Valor Equity Partners Opportunity Fund II	$200M	Existing
09-22-2025	Hg Mercury 5	$58.5M (€50M)	Existing
09-22-2025	Hg Genesis 11	$117M (€100M)	Existing

New York State Teachers' Retirement System

Memorandum

TO: Retirement Board

FROM: T. Lee

SUBJECT: Quarterly Board Report of Mail Votes[i] for the period July-September 2025

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

TO: Retirement Board

FROM: T. Lee

SUBJECT: REAC Quarterly Transactions Board Report of for the period July – September 2025

Transaction	Approved by REAC	ED/CIO Discretion Exercised
Baltimore Industrial Portfolio Sale – Direct Transaction	Yes – 6/9/25	$32.3M

New York State Teachers' Retirement System

Agenda

Disability Review Committee Meeting October 29, 2025

COMMITTEE MEMBERS
Eric Iberger, Chair
David Keefe, Scott Levy, Donald A. Little III, Jennifer Longtin, Natalie McKay, Nicholas Smirensky, Mark Stratton

AGENDA p. 197
Call to Order by Chair

A. Approval of Minutes from the July 30, 2025 Disability Committee meeting p. 198

B. There are no Committee recommendations (no resolutions) for the Board at the October 30, 2025 Board meeting

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 July 30, 2025. The meeting was called to order at 11:25 a.m. by Eric Iberger, Chair.

The following individuals were in attendance:

Committee Members: Eric Iberger, David Keefe, Scott Levy, Donald A. Little III, Nicholas Smirensky

Board Members: Phyllis Harrington, Mark Stratton

Upon motion of D. Little, seconded by D. Keefe and unanimously carried, the meeting minutes of April 23, 2025 were approved.

E. Iberger, Chair, reported that the System's Medical Board had met monthly over the prior three months and that a disability denial resolution and a disability rescission resolution would be brought before the Board at its meeting on July 30, 2025.

There being no further business, the Committee unanimously adjourned at 11:27 a.m.

Respectfully submitted,

[redacted]

Thomas K. Lee

New York State Teachers' Retirement System

Agenda

Ethics Committee Meeting October 29, 2025

COMMITTEE MEMBERS
Ruth Mahoney, Chair
Donald A. Little III, Nicholas Smirensky, Thomas K. Lee, Don Ampansiri

AGENDA p. 199

Call to Order by Chair

A. Approval of minutes from July 30, 2025 Ethics Committee meetings p. 200

B. Update on EDCIO Quarterly Disclosures (Motion to go into **Executive Session** pursuant to Open Meetings Law §105 (1)(f) as it relates to the discussion of the financial history of an individual**)**

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 July 30, 2025. The meeting was called to order by Donald A. Little III, acting Chair, at 11:27 a.m.

The following individuals were in attendance:

Committee Members:	Donald A. Little III, Nicholas Smirensky, Thomas K. Lee, Don Ampansiri
Board Members:	Phyllis Harrington, Eric Iberger, David Keefe, Scott Levy, Mark Stratton
NYSTRS Staff:	Matt Albano, Matt Tice

Upon motion of N. Smirensky, seconded by T. Lee and unanimously carried, the minutes from the April 23, 2025 meeting were approved.

D. Little reported that there were no issues with the EDCIO quarterly disclosures.

There being no further business, and with unanimous consent, the meeting adjourned at 11:28 a.m.

Respectfully submitted,

[redacted]

_____
Thomas K. Lee

New York State Teachers' Retirement System

Agenda

Executive Committee Meeting October 29, 2025

COMMITTEE MEMBERS
David Keefe, Chair
Phyllis Harrington, Eric Iberger, Nicholas Smirensky

AGENDA p. 201

Call to Order by Chair

A. Approval of minutes from July 30, 2025 Executive Committee meeting pp. 202-207
B. Estimated Employer Contribution Range and Recommended Actuarial Assumptions
   1. Estimated Employer Contribution Range and Actuarial Assumption and Method Review Presentation pp. 208-235
   2. Review of the Recommended Actuarial Assumptions – Bolton pp. 236-242
   3. Recommended Actuarial Assumptions
      a. Memo p. 243
      b. NYSTRS Recommended Actuarial Assumptions 2025 Report pp. 244-341
      c. Bolton Review Report pp. 342-382
      d. Redline and Clean version of Rules and Regulations 5018 pp. 383-438
      e. Resolution on the Recommended Actuarial Assumptions pp. 439-468
C. Discussion on 2026 Legislative Program pp. 469-481
   1. Resolution on 2026 Legislative Program p. 482
D. Rules and Regulations – Update for Gender Neutrality
   1 Memo p. 483
   2 Redline copy of changes pp. 484-709
   3 Resolution on Rules and Regulations p. 710
E. Board Member Salary Reimbursement Annual Report p. 711
F. Financial/Accounting Data pp. 712-716
G. Quarterly Signatory Additions & Deletions p. 717

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 July 30, 2025.

The following individuals were in attendance:

Committee Members:	Phyllis Harrington, Eric Iberger, David Keefe, Nicholas Smirensky
Board Members:	Scott Levy, Donald A. Little III, Mark Stratton
NYSTRS Staff:	Thomas Lee, Don Ampansiri

The meeting was called to order by D. Keefe, Chair, at 11:29 a.m. The following items were discussed:

1. Approval of minutes from April 23, 2025 meeting

   Upon motion of P. Harrington, seconded by E. Iberger and unanimously carried, the minutes of the April 23, 2025 meeting were approved.

2. Legislative Program

   D. Ampansiri provided a review of the System's 2025 Legislative Program together with legislation of significant interest to the System and a first look at the proposed 2026 Legislative Program (Appendix A, pp. 7-16). The 2026 Legislative Program will be presented for recommendation to the Committee and to the Board at the October 2025 meeting.

3. Changes to Rules and Regulations Section 5021

   a. D. Ampansiri reminded Committee members that the proposed changes, relating to governing the election of a System retiree to the Retirement Board, were introduced to the Committee at the April 23, 2025 meeting (Appendix B, pp. 17-20) and if the Committee supports the proposed changes, it will be asked to recommend the changes to the Board at the July 30, 2025 meeting.

   b. Resolution Amending System Rules and Regulations Part 5021

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

WHEREAS, Part 5021 of the System's Rules and Regulations governs the election of a System retiree to the Retirement Board;

WHEREAS, Staff recommends amendments to the System's Rules and Regulations Section 5021.5, paragraphs (b), (d), and (e) to permit and direct retired members to submit a ballot either electronically or by traditional postmarked mailing.

RESOLVED, That, effective July 30, 2025, the above amendments to Section 5021.5, paragraphs (b), (d), and (e) of the Rules and Regulations of the New York State Teachers' Retirement System be adopted and implemented, a copy of which is annexed hereto and made a part thereof of Appendix B, pp. 17-20.

4. Signatory Authority

A. Annual Signatory Board Report (Appendix C, p. 21);

B. Resolution Identifying Financial and Legal Document Signatories

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

WHEREAS, The Retirement Board has by resolution amended and restated the resolution of January 27, 2022 entitled Delegation Resolution - Financial and Legal Document Execution, providing for the delegation by the Executive Director and Chief Investment Officer of the authority to approve and execute financial and legal documents to other employees of the Retirement System; and

WHEREAS, The Retirement Board has by resolution adopted at its regular meeting on October 26, 1995, amended and restated periodically thereafter, and most recently on July 31, 2024, identifying those employees of the Retirement System that have been delegated such authority; and

WHEREAS, It is necessary to periodically update said resolution by identifying those employees of the Retirement System to whom such authority may be delegated; now therefore be it

RESOLVED, That the employees authorized to approve and execute financial and legal documents of said resolution are identified by department, management level within the organization and by name in the attachment entitled Signatory Authorization Grid- Financial and Legal Documents (Appendix D, pp. 22-23); and be it

RESOLVED, the attachment entitled Signatory Authorization Grid- Financial and Legal Documents sets forth the approvals and signatures needed to approve and execute financial and legal documents; and be it

RESOLVED, That this authorization shall remain in effect for individuals who are promoted within their department; and be it

RESOLVED, That the Executive Director and Chief Investment Officer shall have the authority to designate in writing any such additional employees as may be required by business necessity to serve on an interim basis until the regular meeting of the Retirement Board following the quarter ending June 30; and be it

RESOLVED, That this delegation shall be reviewed by the Retirement Board no less than annually; and be it further

RESOLVED, That this resolution shall take effect July 30, 2025 and, upon taking effect, shall supersede the identifying resolution previously adopted by the Retirement Board on July 31, 2024.

C. Warrant Delegation Resolution

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

WHEREAS, Pursuant to Subdivision 3 of Section 507 of the Education Law, the Retirement Board may designate officials of the Retirement System authorized to sign warrants providing for disbursements from the funds of the Retirement System; and

WHEREAS, Pursuant to 11 CRR-NY 136-1.4 (e) no authorization for disbursement of Retirement System funds shall be valid unless signed by two signatories designated by the Retirement Board; and

WHEREAS, In order to assure the proper and efficient operation of the Retirement System, it is necessary and desirable to provide for the delegation by the Executive Director and Chief Investment Officer of the authority to execute warrants to other employees of the Retirement System; and

WHEREAS, the Retirement Board believes it is desirable to amend and restate the delegation resolution and, among other things, identify the employees of the Retirement System to whom the authority to execute warrants has been delegated by a separate resolution which may hereafter be amended as required; now therefore be it

I
Identification of Signatories

RESOLVED, That, for the purposes of implementing Subdivision 3 of Section 507 of the Education Law, the Executive Director and Chief Investment Officer is hereby authorized to execute warrants and, for the purposes of Section 5 of Article II of the Retirement System's Bylaws, the Retirement Board shall identify by separate resolution, the employees of the

System to whom authority has been delegated to execute warrants, which resolution shall be reauthorized by the Retirement Board as necessary; and be it

II
Administrative Warrants

RESOLVED, That the Executive Director and Chief Investment Officer and any employee of the Retirement System identified as a Group A signatory is authorized to execute and deliver any and all warrants related to the non-investment administration of the Retirement System or may delegate such authority to employees of the Retirement System identified as Group F signatories by such resolution; and be it

III
Real Estate Equity and Debt Investment Warrants

RESOLVED, That the Executive Director and Chief Investment Officer and any employee of the Retirement System identified as a Group A signatory is authorized to execute and deliver any and all warrants relating to real estate investments or may delegate such authority to employees of the Retirement System identified as Group B signatories by such resolution; and be it further

IV
Fixed Income Warrants

RESOLVED, That the Executive Director and Chief Investment Officer and any employee of the Retirement System identified as a Group A signatory is authorized to execute and deliver any and all warrants related to fixed income investmentor may delegate such authority to employees of the Retirement System identified as Group C signatories by such resolution; and be it

V
Public Equity Securities Warrants

RESOLVED, That the Executive Director and Chief Investment Officer and any employee of the Retirement System identified as a Group A signatory is authorized to execute and deliver any and all warrants related to public equity investments or may delegate such authority to employees of the Retirement System identified as Group D signatories by such resolution; and be it

VI
Private Equity and Private Debt Warrants

RESOLVED, That the Executive Director and Chief Investment Officer and any employee of the Retirement System identified as a Group A signatory is authorized to execute and deliver any and all warrants related to private equity and private debt investments or may delegate such authority to employees of the Retirement System identified as Group E signatories by such resolution; and be it further

VII
Rescission of All Prior Inconsistent Resolutions

RESOLVED, That all prior resolutions of the Retirement Board inconsistent with this resolution are hereby rescinded effective MONTH 1, 2024, provided, however, that nothing herein shall affect the validity of any action previously authorized, approved or ratified by the Retirement Board.

D. Resolution Identifying Warrant Signatories

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

WHEREAS, The Retirement Board has by resolution adopted at its regular meeting on October 26, 1995, amended and restated periodically thereafter, and most recently on July 30, 2025, and as further amended concurrent with this resolution, provided for the delegation by the Executive Director and Chief Investment Officer of the authority to execute warrants to other employees of the Retirement System; and

WHEREAS, It is necessary to implement said resolution by identifying those employees of the Retirement System to whom such authority may be delegated; be it
RESOLVED, That the signatories authorized to execute administrative, real estate investment, and fixed income, equity security and alternative investment warrants as provided in Parts II, III, IV, V and VI respectively of said resolution are identified by signatory group, organizational level within the organization and by name in the attached Signatory Authorization Grid (Appendix E, p. 24); and be it further

RESOLVED, That this authorization shall remain in effect for individuals that are promoted within or move among the designated signatory groups, and be it further

RESOLVED, That the Executive Director and Chief Investment Officer shall have the authority to designate any such additional “A”, “B”, “C”, “D”, “E”, and “F” signatories as may be required by business necessity to serve on an interim basis until the regular meeting of the Retirement Board following the quarter ending June 30; and be it further

RESOLVED, That this delegation shall be reviewed by the Retirement Board no less than annually; and be it further

RESOLVED, That this resolution shall take effect July 30, 2025 and, upon taking effect, shall supersede the identifying resolution previously adopted on July 31, 2023.

5. Finance Report

The Committee members reviewed the Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position and Administrative Fund (Appendix F. pp. 25-29).

There being no further business, the Committee unanimously adjourned at 11:50 a.m.

Respectfully submitted,

_____
Thomas K. Lee

New York State Teachers' Retirement System

Estimated ECR Range

Actuarial Assumption & Methods Review

Melody Prangley, FSA, EA, FCA, MAAA
Chief Actuary

Tom King, FSA, EA, CERA, CFA
Director of Actuarial Risk

Heather Marks, FSA, EA, MAAA
Director of Actuary - Valuation

Final Employer Contribution Rate (ECR)

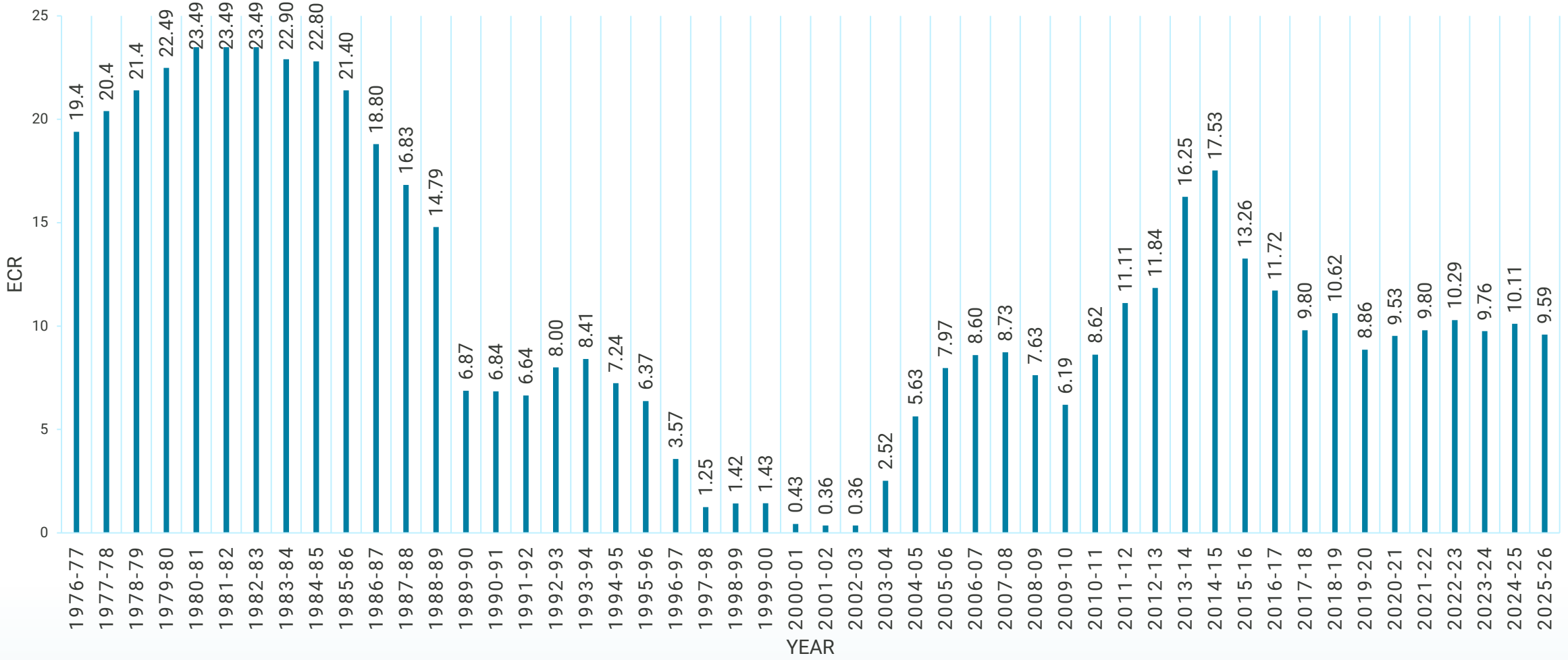
June 30, 2024 Actuarial Valuation

9.59% of Pay

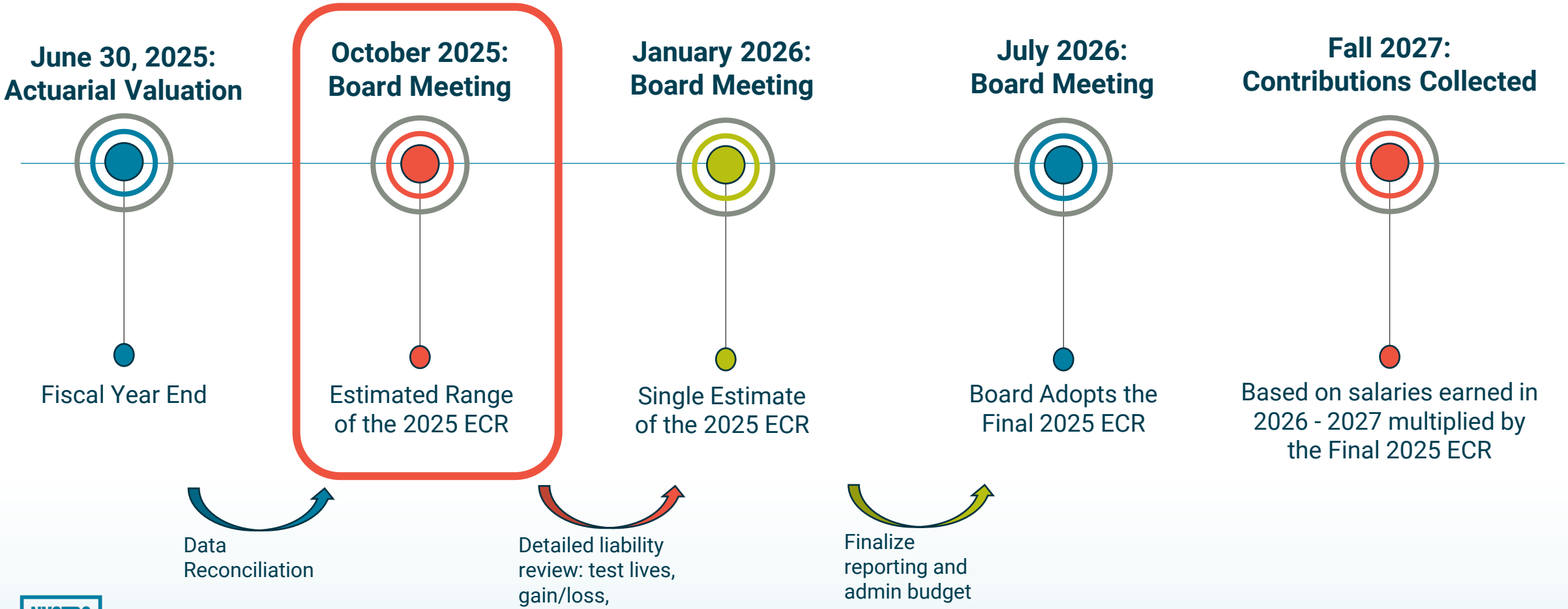
The 9.59% ECR is multiplied by the 2025-2026 fiscal year salaries and collected in Fall 2026 (September, October and November 2026)

Historic 50 Years of ECRs

50-Year Average ECR = 11.14%



June 30, 2025 ECR Timeline



Next ECR:
June 30, 2025 Actuarial Valuation

The ***Estimated*** Range of the next Employer Contribution Rate (ECR):

8.25% - 8.75%

The range ECR is multiplied by the 2026-2027 fiscal year salaries and collected in Fall 2027 (September, October and November 2027)

The estimated range ECR includes the recommended actuarial assumption changes and all actuarial gains / losses

Employer Contribution in Dollars

Collection Date	Employer Contribution	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 (estimated)	10.11%
Fall 2026	$1.9 billion (estimated)	9.59%
Fall 2027	$1.7 - $1.8 billion (estimated)	8.25% – 8.75%

Funded Ratio History

The Funded Ratio is the ratio of plan assets to the plan's accrued liability.

FYE	Funded Ratio Based on MVA	Funded Ratio Based on AVA
6/30/2021	113.0%	99.3%
6/30/2022	97.4%	99.3%
6/30/2023	98.2%	98.6%
6/30/2024	101.5%	99.1%
6/30/2025*	103%	100%

MVA = market value of assets; AVA = actuarial value of assets.
*estimated

Market Value of Assets

As of:	Market Value of Assets (in Billions)
June 30, 2021	$148.1
June 30, 2022	$132.0
June 30, 2023	$137.2
June 30, 2024	$145.8
June 30, 2025	$154.2

Five-Year Period 2020-2025 (in Billions)

Benefit Payments and Expenses	Employer Contributions Collected	Member Contributions Collected
$41.5	$9.1	$1.1

Historic Rates of Return – Last Five Years

Fiscal Year	Rate of Return (net of fees)
2020 – 2021	29.0%
2021 – 2022	-7.1%
2022 – 2023	9.0%
2023 – 2024	11.4%
2024 – 2025	**10.6%**
5-year average:	**10.0%**

5-year geometric average: $[(1.29)x(0.929)x(1.09)x(1.114)x(1.106]^{(1/5)} – 1 = 10.0\ \%$

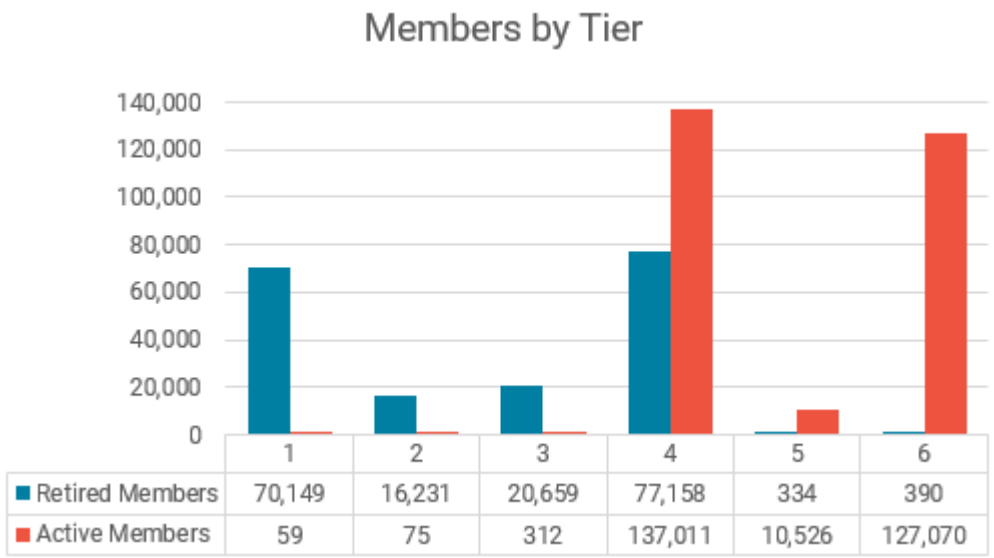
Long-Term Annualized Rates of Return

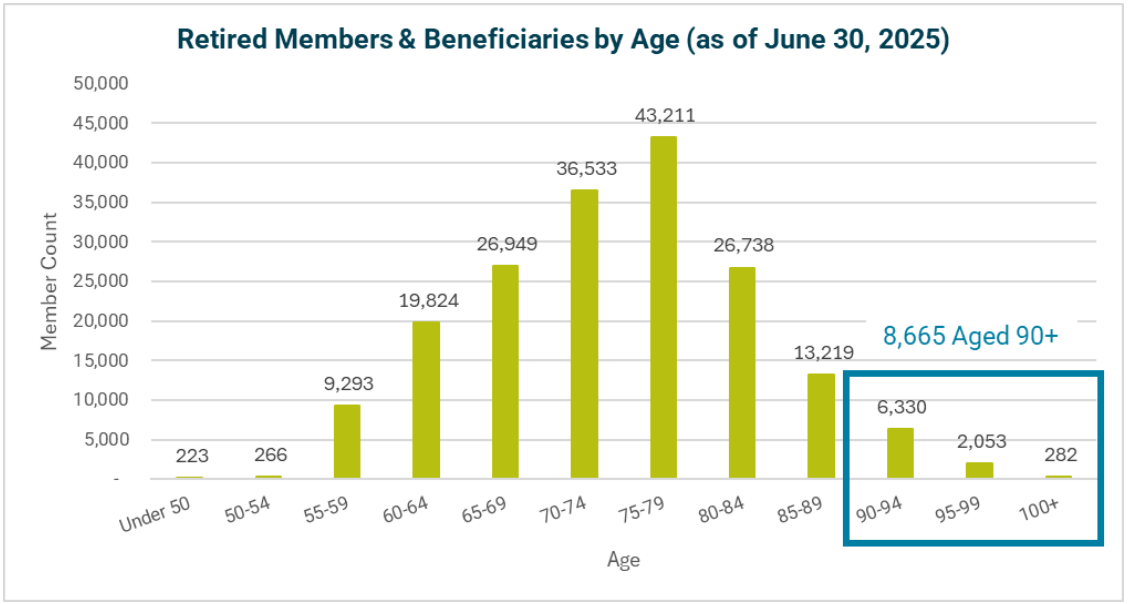
As of June 30, 2025

Period	Rate of Return (net of fees)
1-Year	10.6%
5-Year	10.0%
10-Year	8.4%
15-Year	9.7%
20-Year	7.8%
25-Year	6.9%
30-Year	8.4%

June 30, 2025 Data Summary

Members	June 30, 2025	June 30, 2024	Change
Active	275,053	272,363	+0.99%
Retired	177,262	175,045	+1.27%
Beneficiaries	7,659	7,396	+3.56%
Total	459,974	454,804	+1.14%

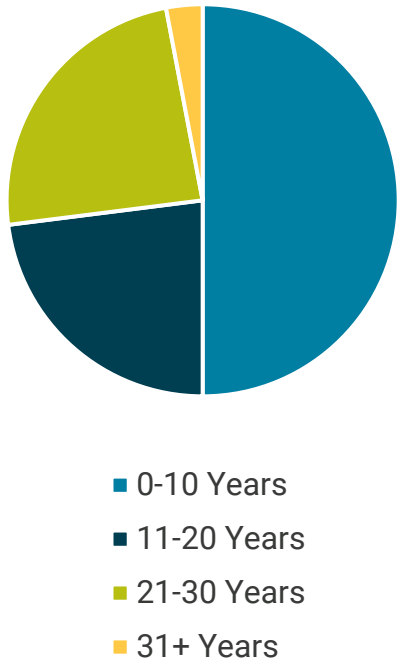




Active Member Statistics

Gender	Average Age	Average Years of Service
Female	44	12
Male	44	13
X	30	1

Active Member by Service



Active Members by Age

Retired Member Statistics

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
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
2025	6,915	60-10	26-0	101,153	54,324

*Averages are for service and vested retirees.

New York State Teachers' Retirement System

Review of Actuarial Assumptions

Periodic Actuarial Studies

The Actuary team completes several studies to ensure that we can accurately measure pension liabilities and the ECR

Experience Study

Annual

Review actual plan experience compared to the actuarial assumptions.

A significant difference could trigger a mid-cycle assumption study

Assumption Study

Quinquennial

Review experience study results over an extended period and recommend new assumptions.

Scheduled for summer / fall 2025.

Asset Liability Study

Quinquennial

After selecting new assumptions, comparison of the liabilities to the assets to determine the long-term strategic asset allocation

Scheduled for winter / spring 2026

6/30/2025 Assumptions & Methods Study

- Actuarial calculations, including the ECR and funded ratio, use assumptions and methods
  - ✓ Assumptions include the expected rates (probabilities) of future events, such as retirement, death or disability and are developed based on actual member experience.
  - ✓ Methods include the actuarial cost method and the actuarial value of assets method

- Assumptions and methods are typically studied every 5 years. The last review was conducted in 2021, delayed one year due to COVID.

- The 2025 study evaluated experience that included the period of the COVID pandemic. For certain assumptions, the rates incurred during the COVID pandemic differed from rates before and after the pandemic and may not be indicative of experience in future years. Each assumption data set was studied to determine what impact COVID had on the experience and which years in the experience period would be appropriate to set the recommended assumptions.

- Bolton reviewed the work and found the assumptions and methods to be reasonable, appropriate and were made in accordance with generally accepted actuarial principles and applicable Actuarial Standards of Practice (ASOP).

Types of Assumptions

The actuarial assumptions are studied in two main groups:

Demographic:

- Mortality
- Retirement
- Withdrawal

Economic:

- Valuation Rate of Interest
- Salary Scale
- Inflation rate

Estimated Impact

The estimated 6/30/2025 ECR range of 8.25% - 8.75% includes the recommended assumption changes

Assumption	ECR Estimated Impact as of June 30, 2024
Economic Assumption	
Valuation Rate of Interest	No change
Salary Scale	+ 0.79%
Cost of Living Assumption (COLA)	+ 0.22%
Demographic Assumption	
Active Member Mortality[1]	+ 0.01%
Healthy Annuitant Mortality[1]	- 0.20%
Disabled Annuitant Mortality[1]	+ 0.01%
Survivor and Beneficiary Annuitant Mortality[1]	- 0.04%
Service Retirement Rates	+ 0.36%
Disability Retirement Rates	No impact: 0.00%
Withdrawal Rates	- 0.13%
Overall Estimated Impact on ECR	**Increase of 1.02% of pay**

[1]Recommended rates will apply the Society of Actuaries MP-2021 mortality improvements on a generational basis.

Valuation Rate of Interest

No change to the assumption – recommend maintaining the assumption of 6.95%

Primary determinant in the calculation of the present value of expected future benefit payments

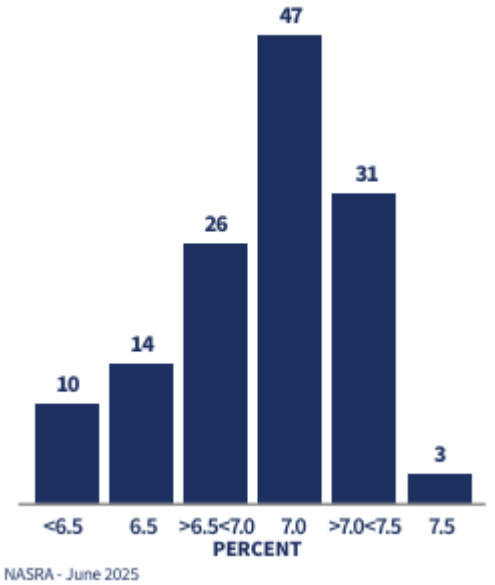
Callan Expectations

	Arithmetic Return	Geometric Return
10-year	8.10%	7.33%
20-year	8.28%	7.51%
30-year	8.43%	7.65%

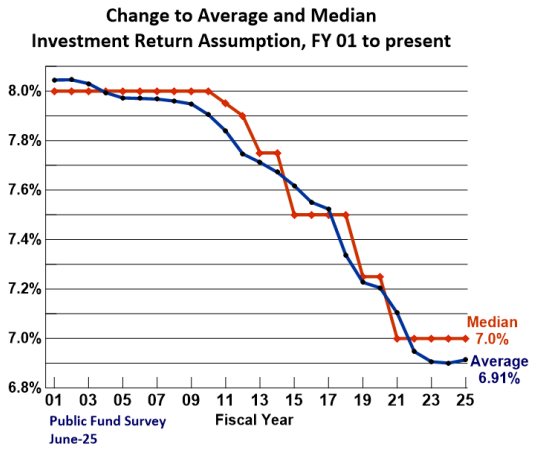
Stochastic Analysis

	50th Percentile Return	25th – 75th Percentile Return
Callan 10-year	7.32%	5.65% - 9.00%
Callan 20-year	7.51%	5.84% - 9.19%
Callan 30-year	7.66%	5.99% - 9.34%
Horizon 10-year	7.09%	5.46% - 8.71%
Horizon 20-year	7.41%	5.79% - 9.03%

Peer System Comparison



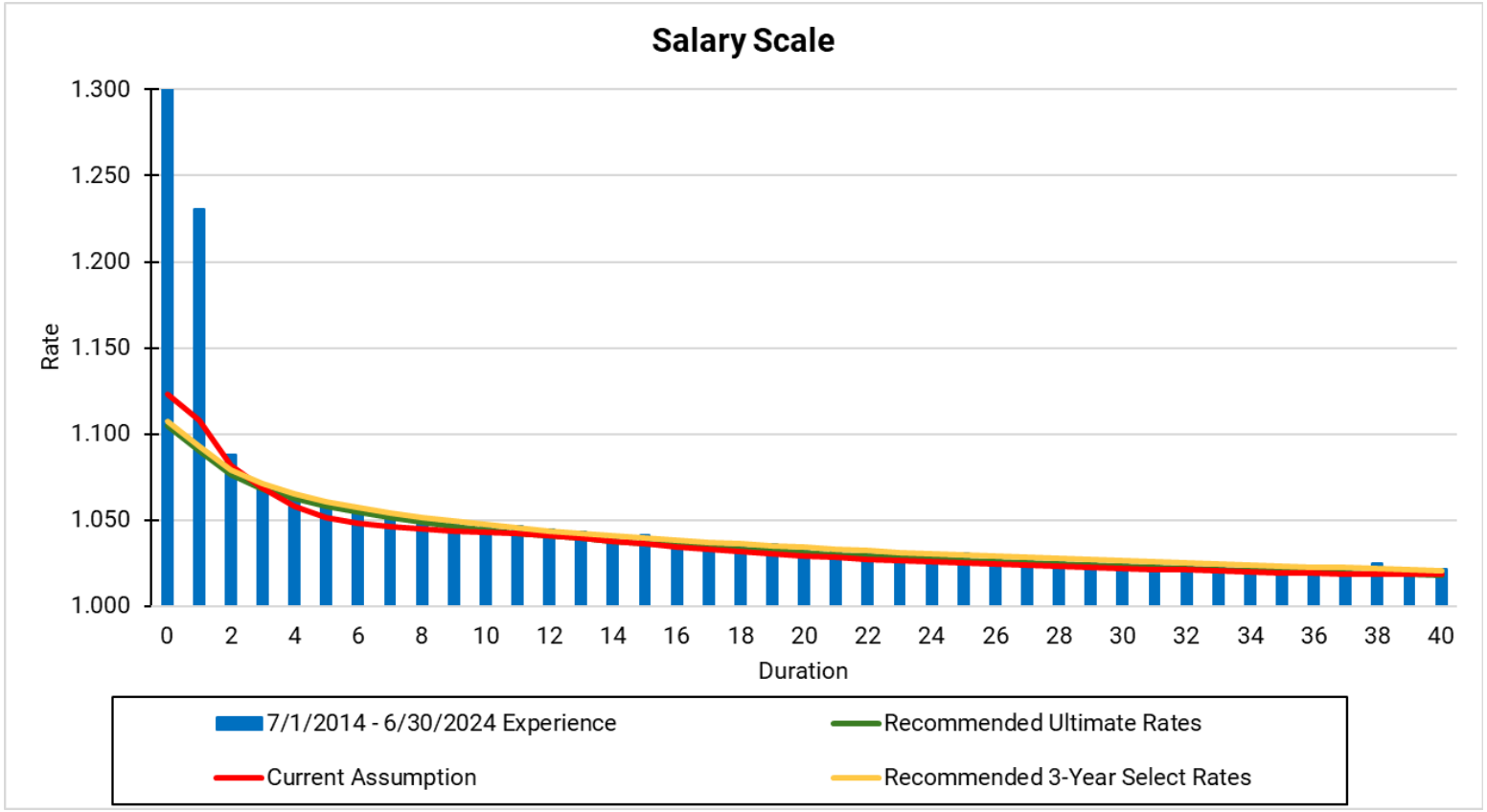
Peer System Comparison



Salary Scale

Increase of 0.79% of pay

- Salary increases include inflation and merit
- Actual salaries were higher than expected salaries during the experience period which resulted in actuarial losses in the ECR
- Recommending higher assumed salary increases on a phased select and ultimate structure:
  - Rates for next 3 years set 0.3% higher than long term rates, to reflect expected short-term inflation (select period)
- Geometric average salary rate increase from 3.67% to 3.73% over a 40-year hypothetical career using the ultimate rates

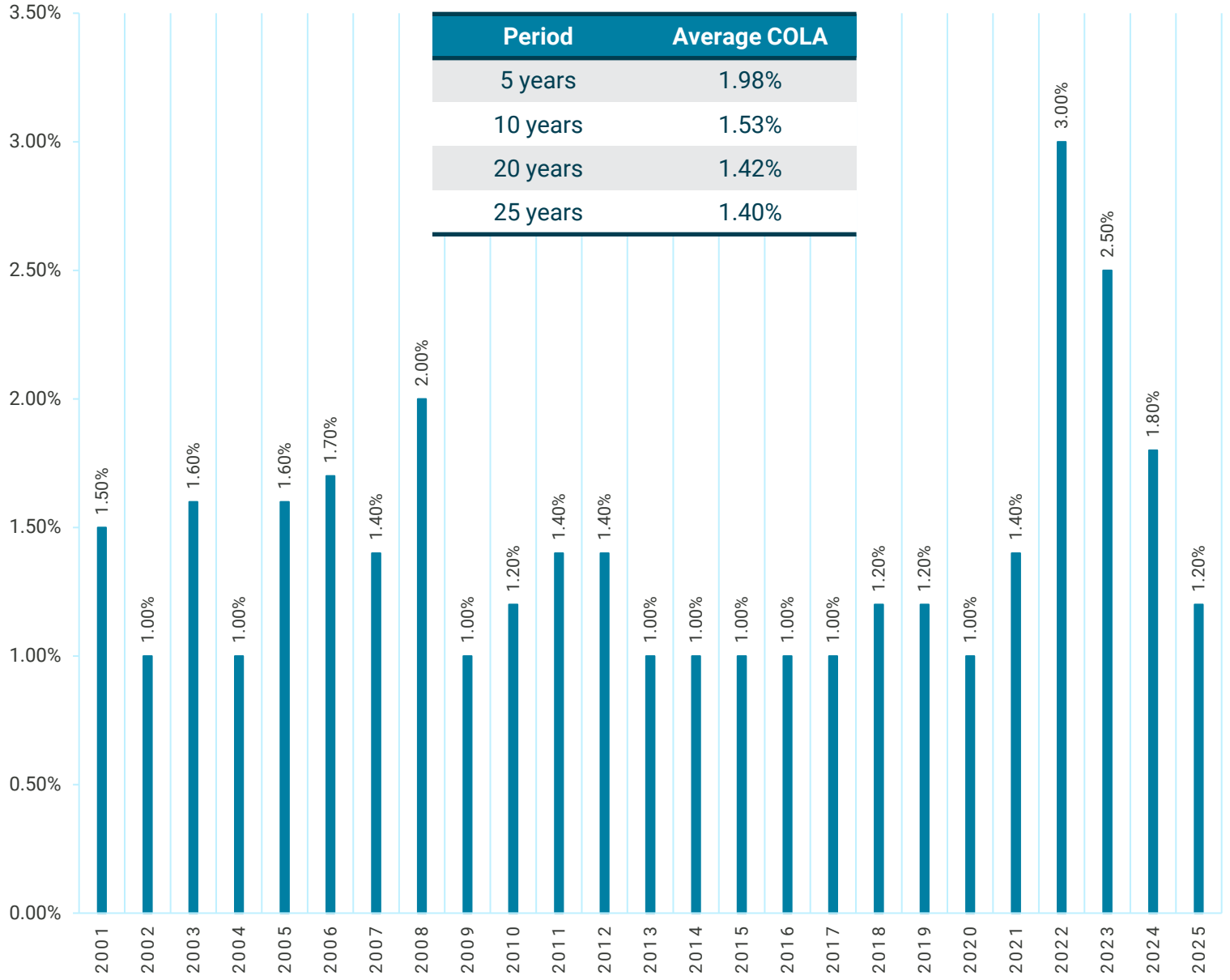


Cost of Living Assumption (COLA)

Increase of 0.22% of pay

- COLA benefit is half the March-31 CPI bounded between 1% to 3%
- Current assumption is 1.3%
- Recommend updating assumption to 1.4%

Period	Average COLA
5 years	1.98%
10 years	1.53%
20 years	1.42%
25 years	1.40%



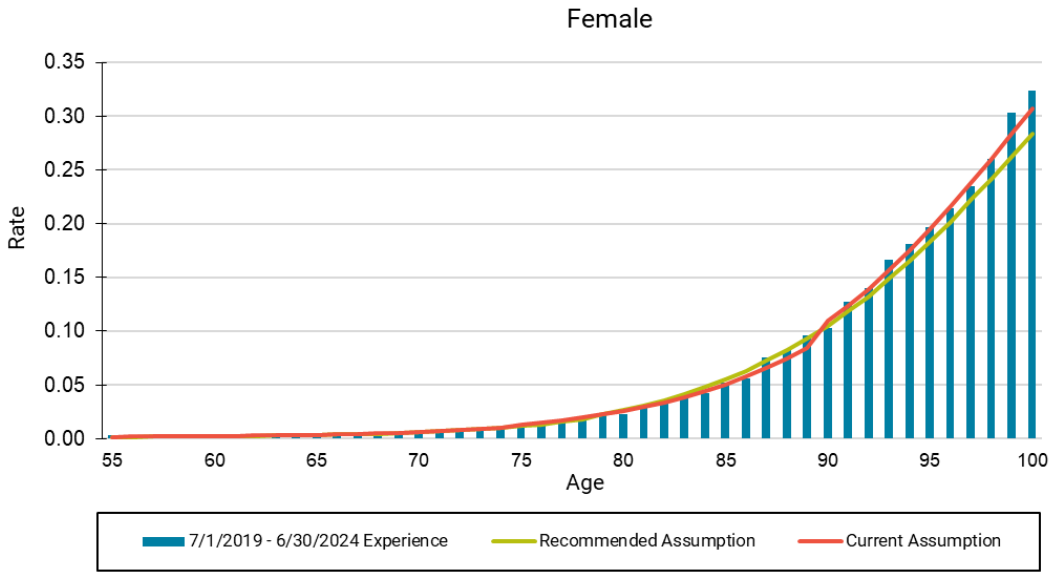
Healthy Annuitant Mortality (HAM)

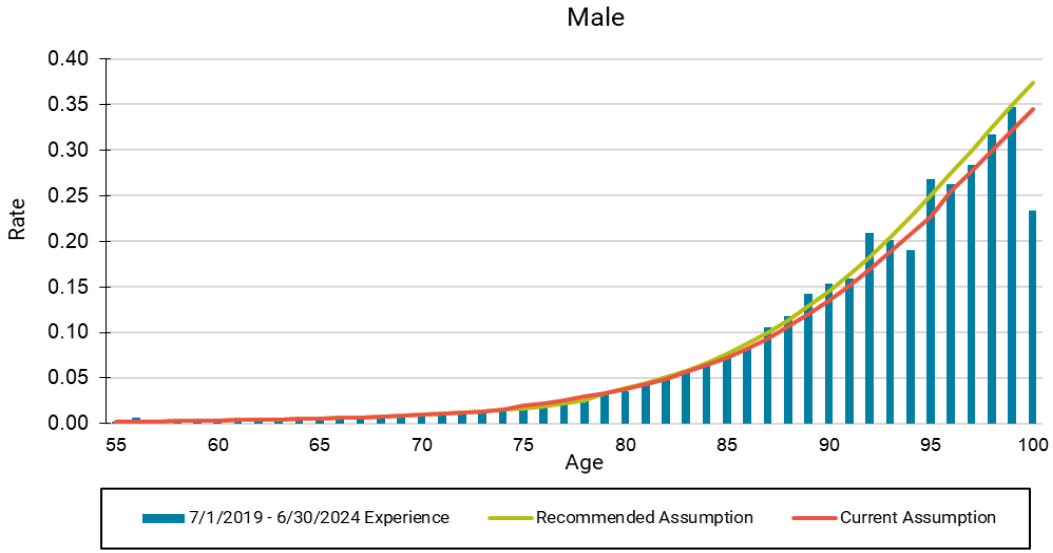
Decrease of 0.20% of pay

- HAM projects most of the deaths given the population size and age = greatest impact
- Over the study period, deaths were higher than expected

Recommended rates consist of two assumptions:

1. Base mortality tables developed from actual experience of NYSTRS membership, blended with a published table
2. Mortality improvement scales to incorporate an assumption that recognizes that those born in more recent years will enjoy longer life expectancy



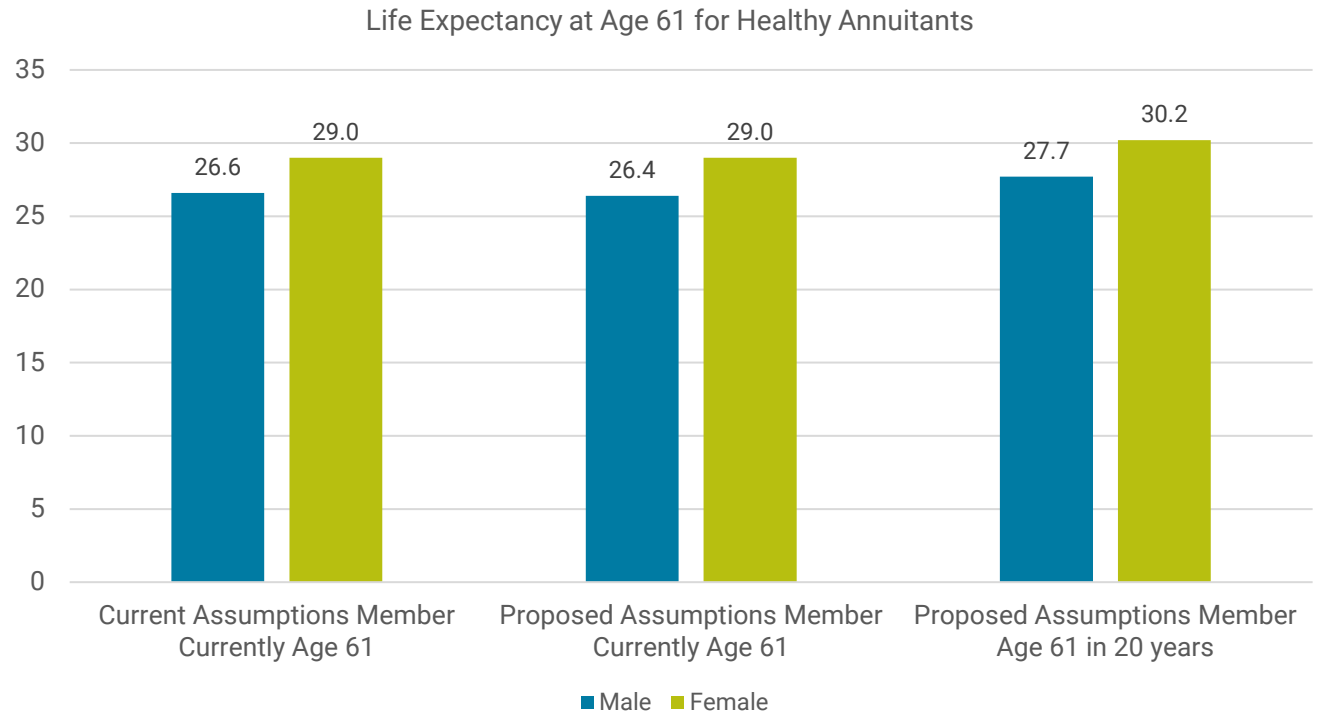


Healthy Annuitant Mortality (HAM)

Life Expectancies

The life expectancies for healthy annuitants were compared both now and 20 years in the future

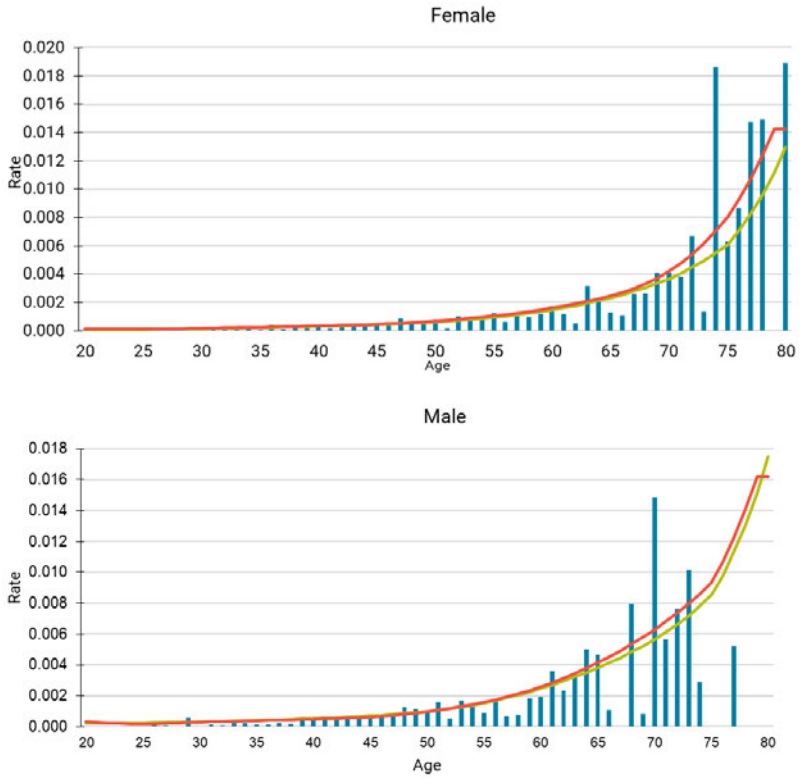
The recommended assumptions maintain consistent life expectancies with the current assumptions.



Active Mortality (AM)

Increase of 0.01% of pay

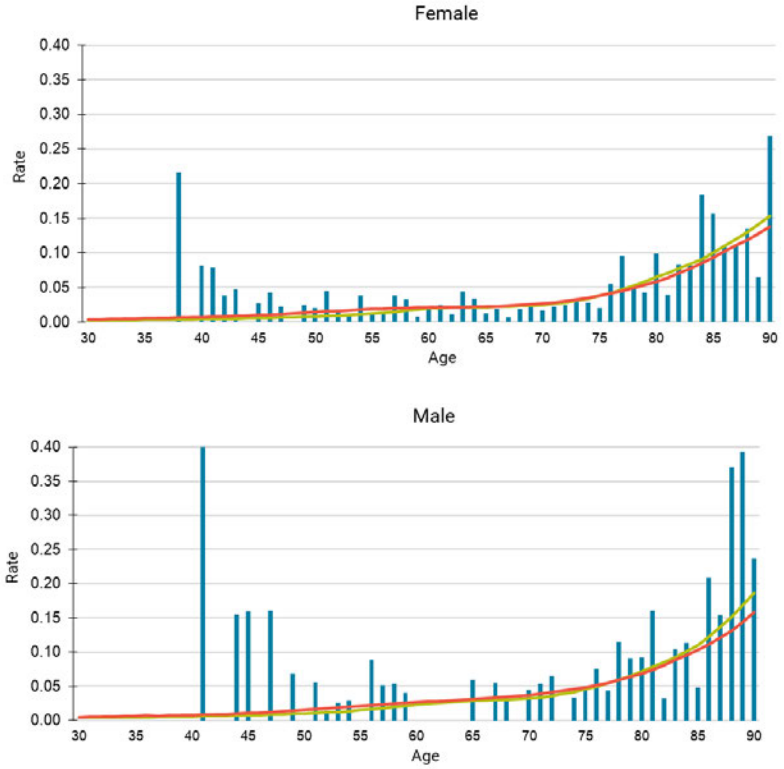
- Over the study period, deaths were lower than expected



Disabled Annuitant Mortality (DAM)

Increase of 0.01% of pay

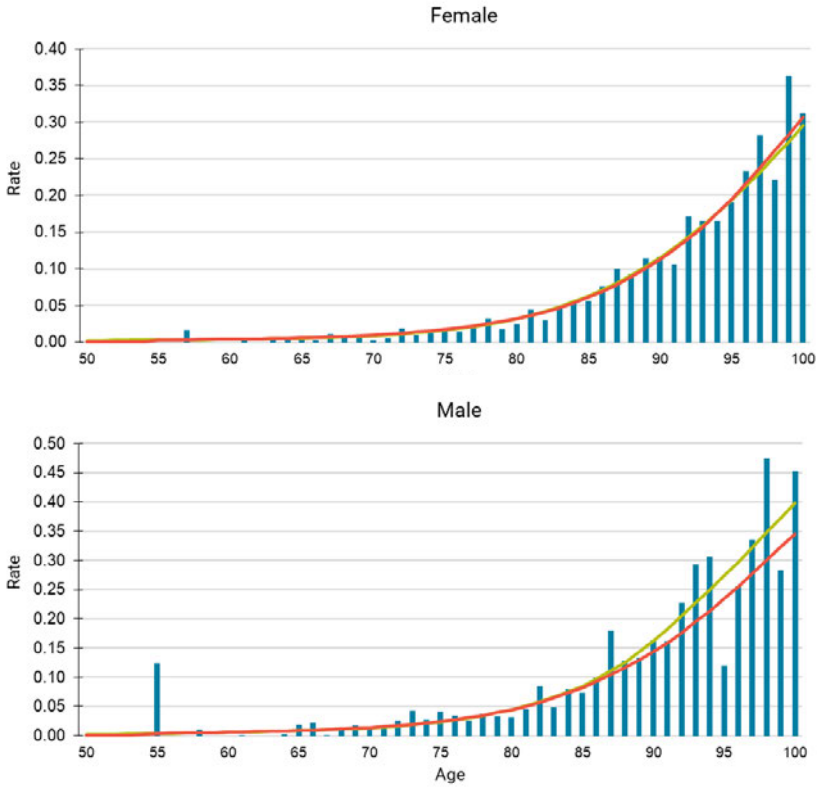
- Over the study period, deaths were lower than expected



Survivor and Beneficiary Mortality (SBM)

Decrease of 0.04% of pay

- Over the study period, deaths were lower for females and higher for males than expected



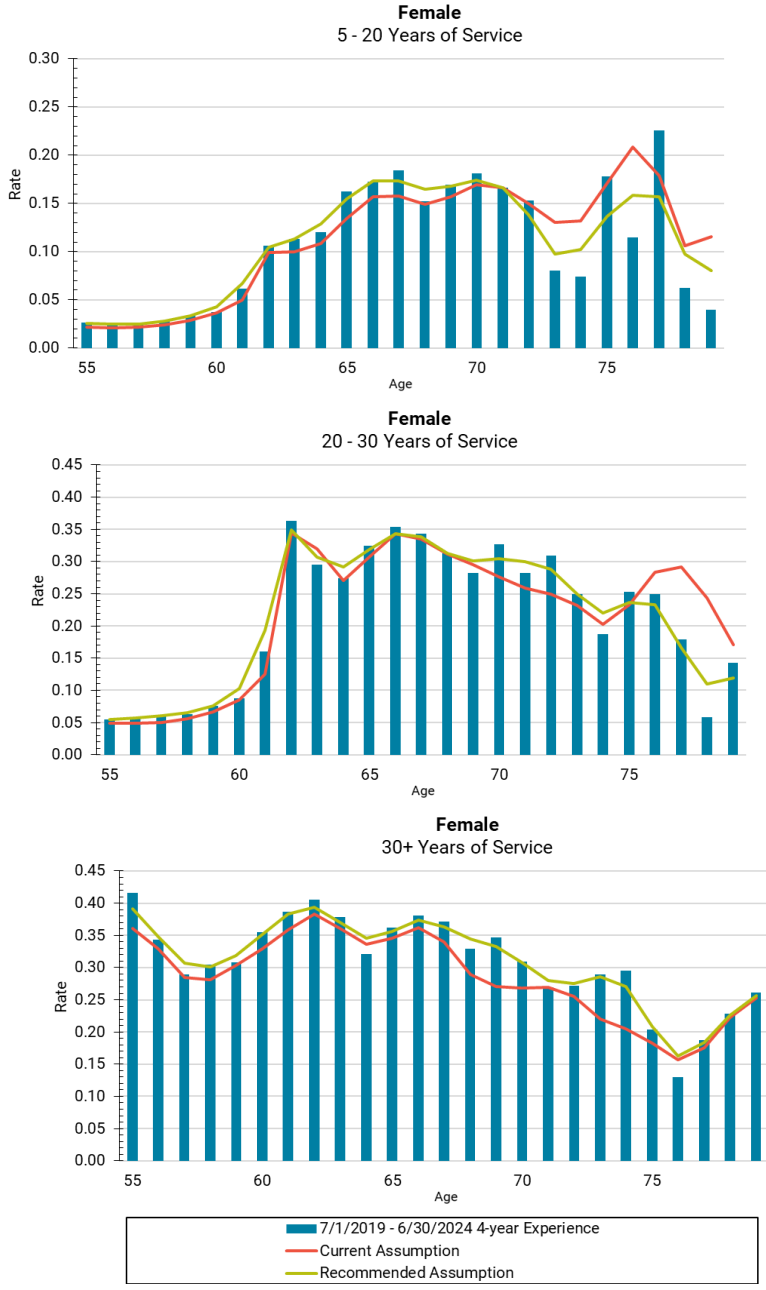
7/1/2019 - 6/30/2024 Experience | Recommended Assumption | Current Assumption

Service Retirement Rates

Increase of 0.36% of pay

- Rates are based on recent retirements and vary by gender, age and service band (5-20 yrs; 20-30 yrs; 30+ yrs)
- A 4-year study period was used given higher than typical rates in 2021
- Over the study period, retirements were higher than expected

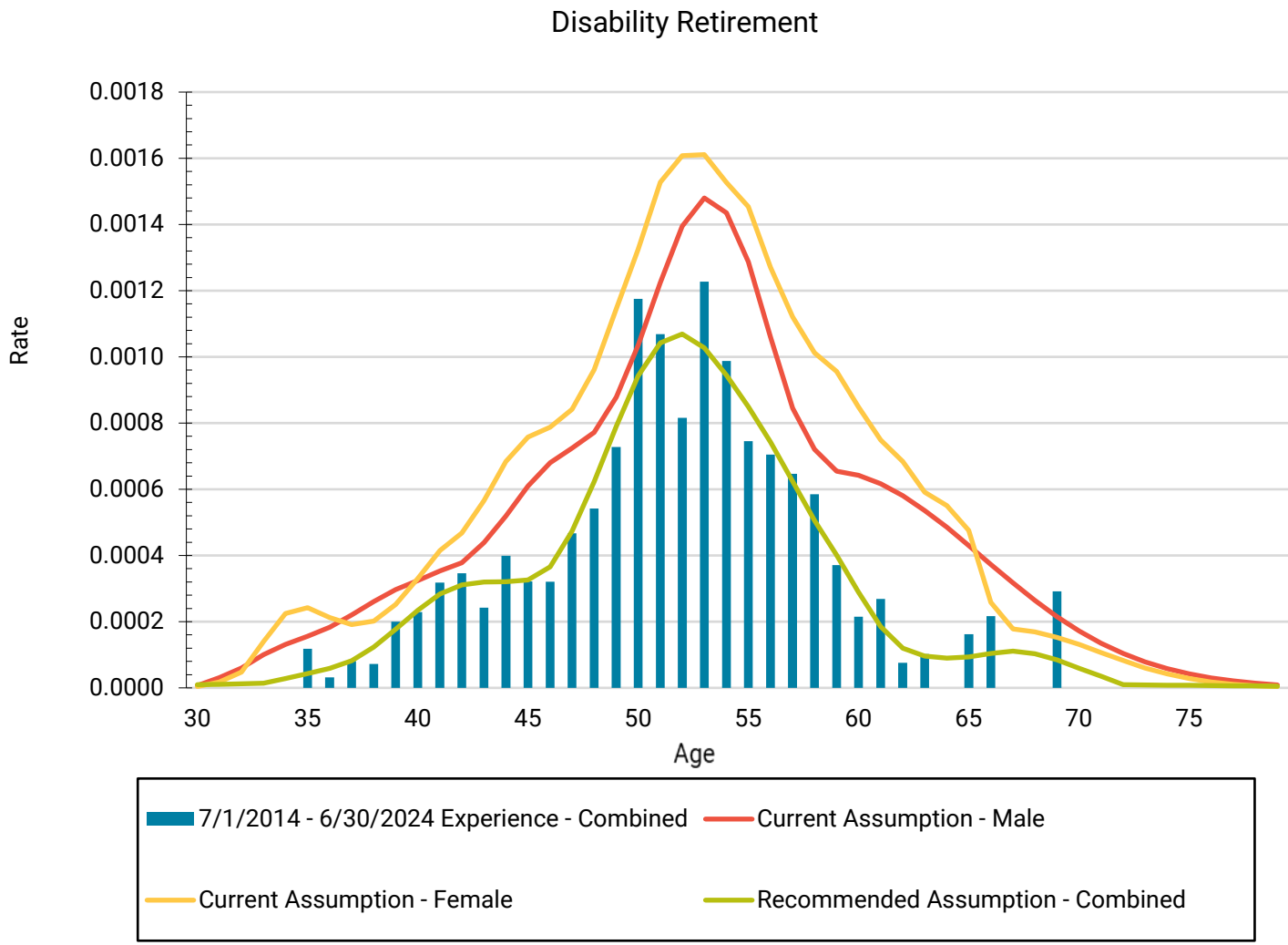
Recommended rates decrease the weighted average retirement age from 60.17 to 59.90



Disability Retirement Rates

No impact on ECR

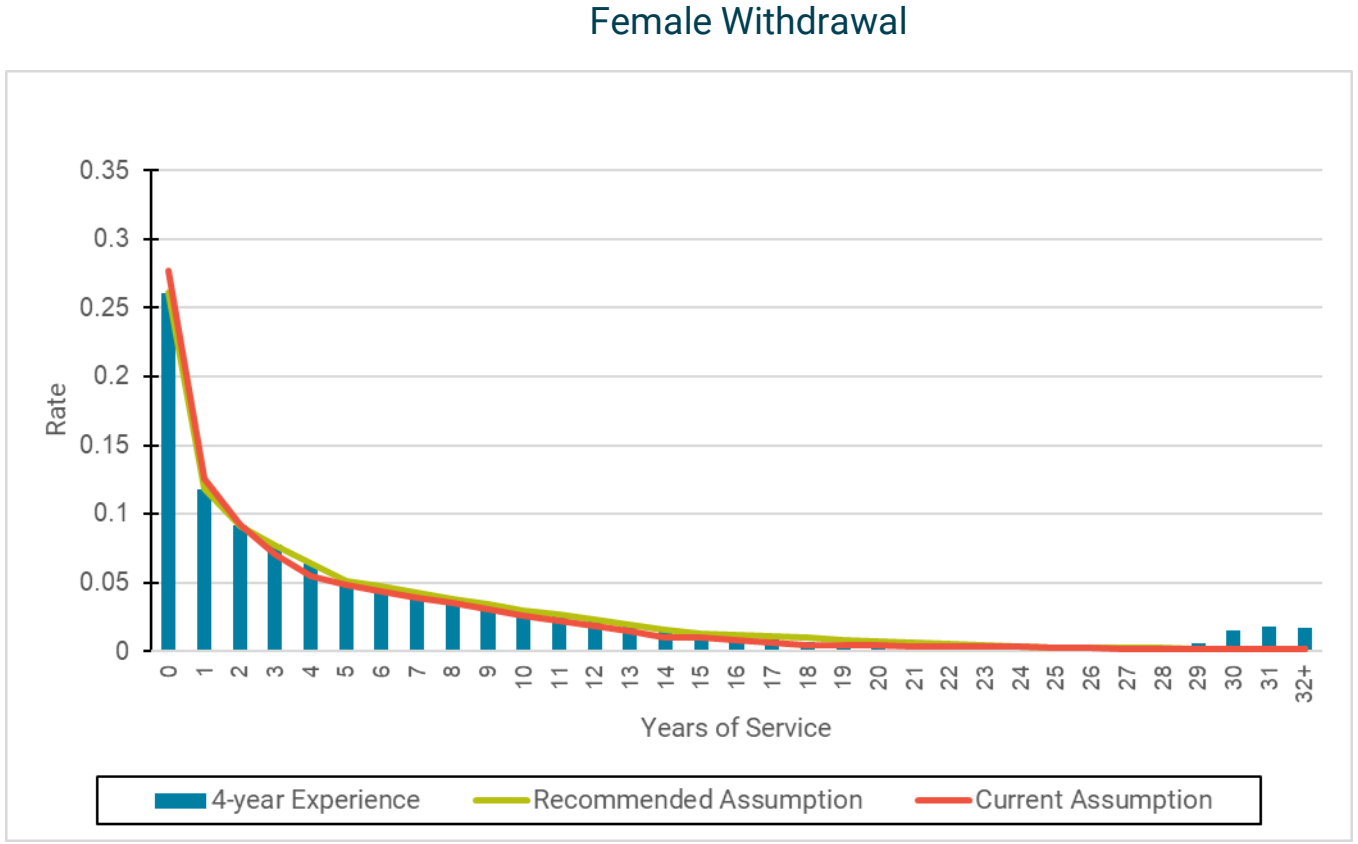
- Rates are based on recent disability retirements and vary by age
- Due to low incidence (<1.2% of all retirements), a 10-year period with combined male and female rates was studied
- Over the study period, retirements were lower than expected



Withdrawal Rates

Decrease of 0.13% of pay

- A 4-year study period was used given higher than typical rates in 2021
- Over the study period, withdrawals were higher than expected
- The average expected future working lifetime for the active population under the recommended assumptions decreased from 12.39 to 11.81.



Questions

Actuarial Certification

The actuarial calculations contained in this report rely on member data provided by the participating employers to the Retirement System's administrative staff. The administrative and actuarial staff review this data for reasonability and completeness as well as reconcile it against prior data. In addition, the valuation relies on financial data provided by the Retirement System's Finance Department. Data is reviewed by the Retirement System's independent auditors as part of the annual audit. We believe the data to be reasonable and appropriate for purposes of this valuation.

The benefits recognized in these projections are prescribed by New York State statute (Article 11 of the Education Law and Articles 11, 14, 15, 18, 19, and 20 of the Retirement and Social Security Law) and are summarized in Appendix 19 of the June 30, 2024 Actuarial Valuation Report. All benefits are included in the actuarial valuation.

Future actuarial measurements such as the funded ratio and employer contribution rate may differ significantly from the current measurements presented in this report due to such factors as: future experience that differs significantly from that predicted by the actuarial assumptions; changes in the actuarial assumptions or methods; and changes in plan provisions or applicable law.

The actuarial methods, calculations, and actuarial assumptions are in accordance with standards of practice prescribed by the Actuarial Standards Board and generally accepted actuarial principles and procedures. The actuarial assumptions, as adopted by the Retirement Board and used in determining the liabilities and costs, are internally consistent and reasonably related to actual and anticipated future experience of the Retirement System. The undersigned are members of the American Academy of Actuaries and the Society of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are currently compliant with the Continuing Professional Development Requirement of the Society of Actuaries.

Melody Prangley, FSA, EA, MAAA, FCA	Chief Actuary
Thomas M. King, FSA, EA, CERA, CFA	Director - Actuarial Risk
Heather Marks, FSA, EA, MAAA	Director - Actuarial Valuation

Bolton

NYSTRS

Review of Recommended Actuarial Assumptions and Methods 2025 Report

October 29, 2025

Jordan McClane, FSA, EA, FCA, MAAA

Tasks

EXAMINE METHODOLOGY AND RESULTS

- ✓ Data grouped and analyzed through an appropriate lens
  - ✓ Age vs service vs sex
- ✓ Relevant current and historical data reflected
  - ✓ COVID experience carefully considered for all assumptions
- ✓ Basis and methodology
  - ✓ Headcount vs amount weighted
  - ✓ Smoothing techniques
  - ✓ Credibility

NOT A REPRODUCTION OF EXPERIENCE STUDY RESULTS

COMMENT ON REASONABLENESS OF RECOMMENDATIONS

- ✓ Recommendations comply with applicable actuarial standards of practice (ASOPs)
- ✓ Recommendations based on expected future experience
- ✓ Recommendations have no significant bias

Scope

B

DEMOGRAPHIC ASSUMPTIONS	ECONOMIC ASSUMPTIONS	ACTUARIAL METHODS	REPORT – ACTUARIAL COMMUNICATION
Mortality	Salary Scale	Actuarial Cost Method	Clarity
Service Retirement	Valuation Rate of Interest	Asset Valuation Method	Documentation
Disability Retirement	Inflation		Rationale
Withdrawal	COLA		

Valuation Rate of Interest

- Most impactful assumption of the valuation
- Bolton performed stochastic analyses based on 5 different sets of CMAs
- The results range from:

Horizon's 10-year CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	56%	54%	52%	51%	49%

To

Callan's 30-year CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	64%	63%	61%	60%	58%

- Current assumption of 6.95% supported

FROM BOLTON'S JUNE 2025 PRESENTATION: NYSTRS STOCHASTIC INVESTMENT RETURN PROJECTIONS
PLEASE SEE THE PRESENTATION FOR THE ASSUMPTIONS AND ACTUARIAL CERTIFICATION

Based on our review, we find the recommended assumptions and methods are reasonable, appropriate, and were developed in accordance with generally accepted actuarial principles and applicable ASOPs.

BOLTON REPORT

THANK YOU

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Bolton

New York State Teachers' Retirement System

Memo

To: Retirement Board
From: M. Prangley
Cc: T. Lee, D. Ampansiri, T. King, H. Marks
Date: October 30, 2025
Re: Updating the Actuarial Assumptions for the Actuarial Valuation as of June 30, 2025

Changes are recommended for actuarial assumptions used in the annual actuarial valuation of the Retirement System's assets and liabilities, as of June 30, 2025. The recommendations include demographic assumption changes: rates of member mortality, retirement, disability and withdrawal and economic assumption changes: cost of living and salary growth. There are no recommended changes to the valuation interest rate or to the actuarial methods. The recommended changes are intended to align the actuarial assumptions with recent member experience and future expectations.

A full actuarial assumption and methods study is typically completed on a quinquennial basis. Actual plan experience is compared to expected experience annually and changes may be recommended sooner, if warranted. The last full actuarial assumptions and methods study was adopted by the Retirement Board on October 28, 2021 and first used in the actuarial valuation as of June 30, 2021. The prior study, scheduled for 2020, was postponed one year due to the COVID pandemic. The mortality improvement scale assumption was separately updated as of the June 30, 2022 valuation to MP-2021 and was adopted by the Retirement Board on October 27, 2022.

The recommended assumptions are estimated to result in a 1.02% increase in the Employer Contribution Rate (ECR), based on the actuarial valuation as of June 30, 2024. Final ECR impacts will be calculated for the June 30, 2025 valuation during the upcoming valuation process.

Recommended Actuarial Assumptions and Methods 2025 Report

New York State Teachers' Retirement System

Office of the Actuary

October 21, 2025

New York State Teachers' Retirement System

Report on the 2025 Recommended Actuarial Assumptions and Methods

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Executive Summary

The purpose of this report is to present to the New York State Teachers' Retirement System's ("NYSTRS" or "the Retirement System" or "the System") Retirement Board the results of the actuarial assumptions and methods study, including the recommended actuarial methods, and economic and demographic assumptions, to first be used in the June 30, 2025 actuarial valuations. In accordance with Sections 501, 508 and 517 of the Education Law, the Retirement Board has the authority to adopt the actuarial assumptions recommended by the Office of the Actuary.

A full actuarial assumption and methods study is typically completed on a quinquennial basis. Actual plan experience is compared to expected experience and reviewed on both an annual and five-year basis. Assumption and method changes may be recommended, if warranted, sooner, based on the annual review.

The last actuarial assumptions and methods study was adopted by the Retirement Board on October 28, 2021 and first used in the actuarial valuation as of June 30, 2021. Note that the last five-year study cycle period ended June 30, 2020, but the study was postponed a year due to the COVID pandemic. The mortality improvement scale assumption was separately updated as of the June 30, 2022 valuation to MP-2021 and was adopted by the Retirement Board on October 27, 2022.

Overview of Results

Changes are recommended for actuarial assumptions used in the annual actuarial valuation of the Retirement System's assets and liabilities, commencing with the actuarial valuation as of June 30, 2025. There are no recommended changes in actuarial methods. The recommended revisions are intended to make the actuarial assumptions more consistent with recent member experience and future expectations. Assumptions have been developed in conformity with the relevant Actuarial Standards of Practice (ASOPs). Actuarial assumptions are grouped into two broad categories: demographic assumptions (rates of employee mortality, retirement, disability and withdrawal) and economic assumptions (valuation interest rate, cost of living and salary growth). Discussion and analysis regarding the actuarial assumptions are provided in the report.

The study evaluated experience that included the period of the COVID pandemic. For certain assumptions, the rates incurred during the COVID pandemic differed from rates before and after the pandemic and may not be indicative of experience in future years. Each assumption data set was studied closely to determine what impact COVID had on the experience and which years in the experience period would be used to set the recommended assumptions. Details for each actuarial assumption are provided in the report.

We recommend that the Employer Contribution Rate ("ECR") produced by the June 30, 2025 actuarial valuation reflect both the change in assumptions and any actuarial gains or losses.

A summary of the individual recommendations for changes in actuarial assumptions and the corresponding estimated impact on the ECR are presented in the table on the following page. The estimated cost impact is based on the June 30, 2024 valuation ECR. Final impacts will be calculated for the June 30, 2025 valuation ECR during the upcoming valuation process.

If adopted, the recommended assumptions are estimated to result in a 1.02% increase, based on the ECR results as of June 30, 2024.

Assumption	Recommendation	ECR Estimated Impact as of June 30, 2024
Valuation Rate of Interest	No change	*No change*
Salary Scale	Increased salary rates to reflect salary increase experience	*Increase of 0.79% of pay*
Cost of Living Assumption (COLA)	Increase from 1.3% to 1.4% to reflect recent higher inflation and COLA rates	*Increase of 0.22% of pay*
Actuarial Value of Assets Method	No change	*No change*
Active Member Mortality[1]	Updated rates reflecting recent active member experience	*Increase of 0.01% of pay*
Healthy Annuitant Mortality[1]	Updated rates reflecting recent healthy retired member experience	*Decrease of 0.20% of pay*
Disabled Annuitant Mortality[1]	Updated rates reflecting recent disabled member experience	*Increase of 0.01% of pay*
Survivor and Beneficiary Annuitant Mortality[1]	Updated rates reflecting recent beneficiary experience	*Decrease of 0.04% of pay*
Service Retirement Rates	Updated rates reflecting recent member experience	*Increase of 0.36% of pay*
Disability Retirement Rates	Recommending Lower rates of disability, reflecting recent member experience	*No impact: 0.00% of pay*
Withdrawal Rates	Recommending Increased rates of withdrawal, reflecting recent member experience	*Decrease of 0.13% of pay*
Overall Estimated Impact on ECR		***Increase of 1.02% of pay***

The life expectancies for healthy annuitants were compared both now and 20 years in the future. The recommended assumptions maintain consistent life expectancies with the current assumptions.

Life Expectancy at Age 61[1]				
Gender	**Current Assumption for a Member Age 61**	**Recommended Assumption for a Member Age 61**	**Current Assumption for a Member Age 61 in 20 Years**	**Recommended Assumption for a Member Age 61 in 20 Years**
Female	29.0 years	29.0 years	30.2 years	30.2 years
Male	26.6 years	26.4 years	27.9 years	27.7 years

The average expected future working lifetime for the active population under the recommended assumptions is 11.82 (compared to 12.39 under the current assumptions). The normal rate is determined by spreading the outstanding liability over the expected future working lifetime, or more specifically over the present value of future salaries.

The report which follows provides greater detail and descriptions of the assumption and method setting processes and resulting analyses that led to the recommendations.

[1] Recommended rates will apply the Society of Actuaries MP-2021 mortality improvements on a generational basis.

Actuarial Certification

The economic and demographic assumptions were developed in accordance with ASOP No. 27 – *Selection of Assumptions for Measuring Pension Obligations.* Data credibility procedures were utilized as required by ASOP No. 25 –*Credibility Procedures,* to review the recommended mortality tables.

The valuation results were developed using models employing standard actuarial techniques. We have reviewed the models, including their inputs, calculations and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice including ASOP No. 56 – *Modeling*. ProVal, a widely used actuarial valuation software program leased from Winklevoss Technologies (WinTech), was used to review assumptions, calculate liabilities and projected benefit payments. We have audited the results produced by this model to a limited degree consistent with ASOP No. 56 and believe the software to be appropriate for the purposes for which it has been used.

This assumption and method study relies on member data provided by the participating employers to the Retirement System's administrative staff. The administrative and actuarial staff review this data for reasonability and completeness as well as reconcile it against prior data. Data is reviewed by the Retirement System's independent auditors as part of the annual audit. We believe the data to be reasonable and appropriate for purposes of this study and in compliance with ASOP No. 23 – *Data Quality*. Data distributions and statistics can be found in the System's Annual Report.

A summary of Plan provisions can be found in the System's Actuarial Valuation Report as of June 30, 2024.

Future actuarial measurements, such as the employer contribution rate, may differ significantly from the measurements presented in this report due to such factors as: future plan experience that differs significantly from that predicted by the actuarial assumptions; changes in the actuarial assumptions or methods; and changes in plan provisions or applicable law.

The recommended assumptions have been developed in accordance with the relevant standards of practice prescribed by the Actuarial Standards Board and generally accepted actuarial principles and procedures. They are internally consistent, reasonably related to actual and anticipated future experience of the Retirement System and expected to have no significant bias. The undersigned are members of the American Academy of Actuaries and the Society of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. The undersigned are currently compliant with the Continuing Professional Development Requirement of the Society of Actuaries. We are not aware of any direct or material indirect conflict of interest that would impair the objectivity of this analysis.

[redacted]

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New York State Teachers' Retirement System

Office of the Actuary

October 21, 2025

Introduction

The annual actuarial valuation utilizes actuarial assumptions and methods to estimate the future occurrence of events to determine the present value of expected future benefit payments. Actuarial assumptions are grouped into two broad categories: demographic assumptions (rates of employee mortality, retirement, disability and withdrawal) and economic assumptions (valuation interest rate, cost of living and salary growth).

The demographic assumptions and the salary growth economic assumption are developed based upon the experience of NYSTRS' membership, blended with general population experience when appropriate. The following procedure was utilized to examine the data and develop recommended assumptions. The remaining sections of the report provide greater detail and descriptions of the processes and resulting analyses that led to each of the recommended assumptions.

1. Valuation data from each fiscal year in the five-year period from July 1, 2019 through June 30, 2024 was collected for both exposure and actual counts. The exposure count represents how many members were exposed to the possibility of a specific decrement or change in status like retirement, disability, death, or withdrawal. The actual count represents how many members decremented for that specific reason. The initial source of the valuation data is NYSTRS' pension administration system, PeopleSoft. The data was reviewed for reasonability, consistency and comparable data used for other purposes. Data was examined to review for incompleteness or missing information and revised, if determined necessary.

2. Experience rates by age and by gender for each assumption were developed by dividing the actual experience count by the exposure count. Withdrawal and salary experience rates were developed based on service instead of age.

   For the mortality assumption, the recommended experience rates were developed as salary-weighted for active employees and by amounts-weighted for those receiving benefits. Amounts-weighted rates reflect when the dollar of benefit will cease being paid due to mortality rather than just when a member dies.

   Genders collected are male and female. As of January 1, 2023, Section 79-Q of the New York Civil Rights Law requires the collection of gender or sex data provide a separate field with the option of marking gender or sex as "X". As of June 30, 2024, 30 active members reported a gender or sex of "X" and no retired members or beneficiaries reported "X". Given the limited data and the demographic mix of the population, these members are included in the female data population for this study.

3. For the mortality assumption, limited fluctuation credibility theory[2] (LFCT) was used to adjust the published mortality table for NYSTRS' experience. The published tables used were the Society of Actuaries PubT-2016 Public Retirement Plans Mortality Tables for Teachers (PubT-2016) and the Society of Actuaries PubG-2016 Public Retirement Plans Mortality Tables for General Employees (PubG-2016). The 2016 tables are the most recent available for mortality and were published in May 2025.

4. Using the experience rates, a trend was fit using a smoothing method that best fits the shape of the experience. Even with several years of experience, actual experience may still contain some

[2] See Appendix B for additional information regarding Statistical Credibility

fluctuations. This is especially true at very young and very old ages when member exposures may be limited. Thus, to minimize these fluctuations, the experience rates are smoothed. The trended and smoothed experience rates were used to set recommended assumptions.

5. The trend was examined to determine if the five-year period needed to be adjusted due to lack of experience or atypical events. Adjustments included:

    a. the disability retirement rates were calculated using a ten-year experience period due to the Retirement System's relatively limited incidence of disability, and, as a result, the inherent volatility of the subject experience;
    b. the service retirement rates were calculated using a four-year experience period due to a period during COVID with atypical retirement rates that are not reflective of expected future retirement patterns;
    c. the withdrawal rates were calculated using a four-year experience period due to a period during COVID with atypical withdrawal rates that are not reflective of expected future withdrawal patterns.

    As to avoid adding bias to the assumptions, each assumption was examined separately and the data used was adjusted accordingly. When a new period of data was used, a new trend rate was established and smoothed using the updated data set.

6. Recommended assumptions were used to recalculate the June 30, 2024 valuation results to estimate the ECR impact.

Demographic Assumptions

Mortality

NYSTRS develops mortality assumptions for the actuarial valuation based on the experience of NYSTRS' members. Some categories of data are less frequently incurred in our membership base, including older ages, disabled annuitants, and survivors and beneficiaries. When there is low frequency in the data, there may be more volatility in the experience. To strengthen the data set, NYSTRS uses a data blend with large, published data sets using a statistical method of limited fluctuation credibility theory[3]. This is called partial statistical credibility and it does not mean that the data is not believable, but that less than 100% statistical weight was assigned to the NYSTRS' data in a weighted average.

In May 2025, the Society of Actuaries Research Institute (SOA) published a mortality study of public pension plans known as Pub-2016. The Teacher PubT-2016 table was used along with the NYSTRS member data, to create the mortality assumption. The survivor and beneficiary members have unknown professions. Thus, instead of using the PubT-2016 Teacher table as the other mortality assumptions do, the survivor and beneficiary mortality (SBM) rates used the PubG-2016 General table for above-median incomes. The above-median table is used for SBM as it best aligns with the System's experience. The SBM rates were developed using PubG-2016 employee rates below age 50 and healthy retiree rates for ages 50 and above. PubG-2016 contingent survivor rates were not used in the development of SBM. PubG-2016 contingent survivor rates were developed solely from experience data for surviving beneficiaries after the death of the primary member. The SBM table includes survivors and beneficiaries of living retirees.

The mortality experience for the PubT-2016 and PubG-2016 tables came from calendar years 2013-2019. Given the timing of this experience, the PubT-2016 and PubG-2016 rates were projected to June 30, 2022 – the middle of the NYSTRS five-year study period – using the most recently published mortality improvement scale MP-2021.

Data was reviewed with and without the data within the COVID timeframe to determine impact. No material impact due to COVID was found and thus the full data period was used. In both data sets, the ratio of actual deaths to expected deaths was not materially different. Further, for active employees, there was a special COVID death benefit provision. Only 15 active employees throughout this data set had a reported COVID death.

Finally, the SOA Mortality Improvement Scale MP-2021 is applied on a generational basis to the recommended base table rates. See the Projection Scale of Mortality Improvement Section in this report for additional information.

Appendix A details the current and proposed mortality tables. While the proposed mortality tables were determined based on the amounts-weighted Pub-2016 tables, the expected deaths shown in Appendix A are based on headcounts.

[3] See Appendix B for additional information regarding Statistical Credibility

Active Member Mortality

The active member mortality (AM) rates are the assumed rates of death for active members prior to retirement. The rates vary by gender and age. As members age, rates of death increase in an exponential pattern for both males and females.

Over the study period, the actual number of deaths were lower than expected.

Actual vs. Expected Deaths (Current Assumptions)			
Gender	Actual	Expected	Actual / Expected Experience Rate
Females	510	573.20	0.890
Males	251	262.00	0.958

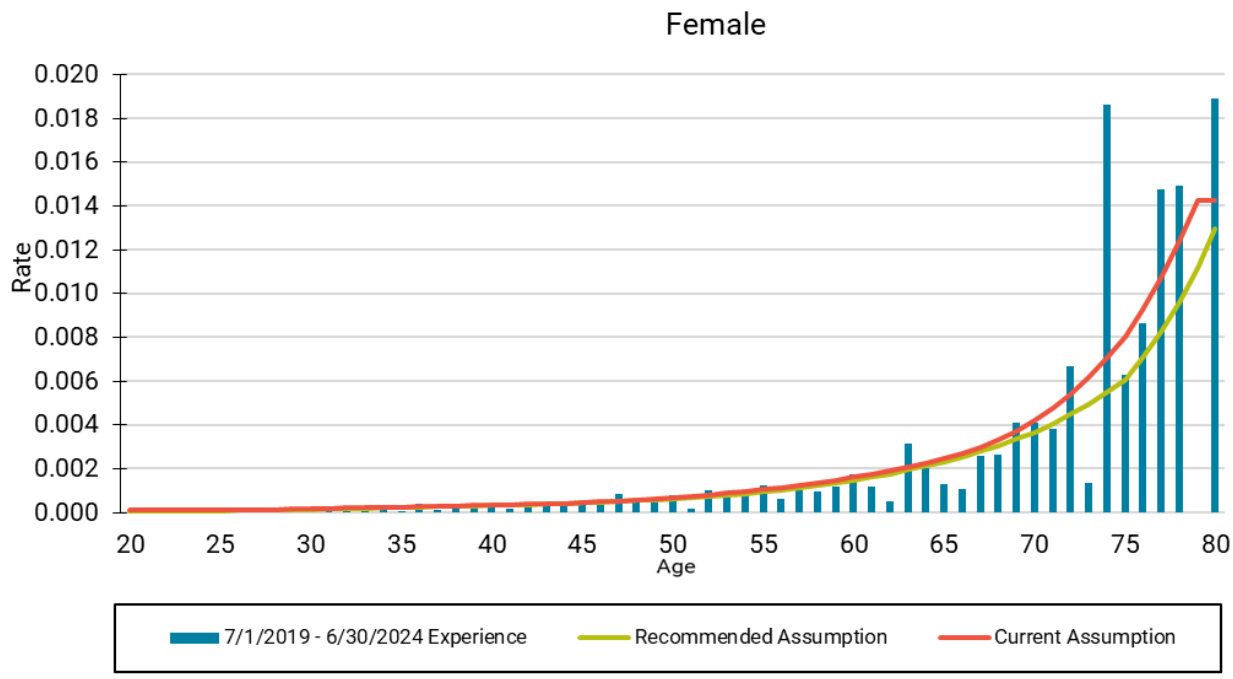
We recommend updating the AM rates to align to recent experience and the newly published SOA PubT-2016 tables. The recommended rates are based upon AM experience during the five-year period from July 1, 2019 through June 30, 2024. To reduce random fluctuations in the data and improve the predictive ability of the assumption, limited fluctuation credibility theory was used in conjunction with the Society of Actuaries published mortality table PubT-2016 active teachers to develop the proposed AM assumption.

The following Z factors were calculated to blend the experience rates and the published tables. Note that the Z factor is the statistical credibility weight assigned to the observed rate. A Z factor less than 1 indicates AM experience is partially credible, and the multiplier for the recommended AM assumption is reliant on both observed experience and the experience used to create PubT-2016.

Gender	Z Statistical Credibility Factor
Female	0.590
Male	0.411

The analysis is on a salary-weighted basis. In our experience studying active member mortality of public pension plans, it was found that actives with a higher salary tend to live longer than actives with lower salaries. The mortality for NYSTRS was studied on both a salary-weighted and headcount-weighted basis and found this to be true. We are recommending continuing to use the salary-weighted basis as it is a better predictor of future liabilities.

The following charts show the experience rates, the current assumption and the recommended assumption. Appendix A details this information by gender and age. The recommended AM rate assumption increases the June 30, 2024 ECR by approximately 0.01%.


Female
0.020
0.018
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Rate
20
25
30
35
40
45
50
55
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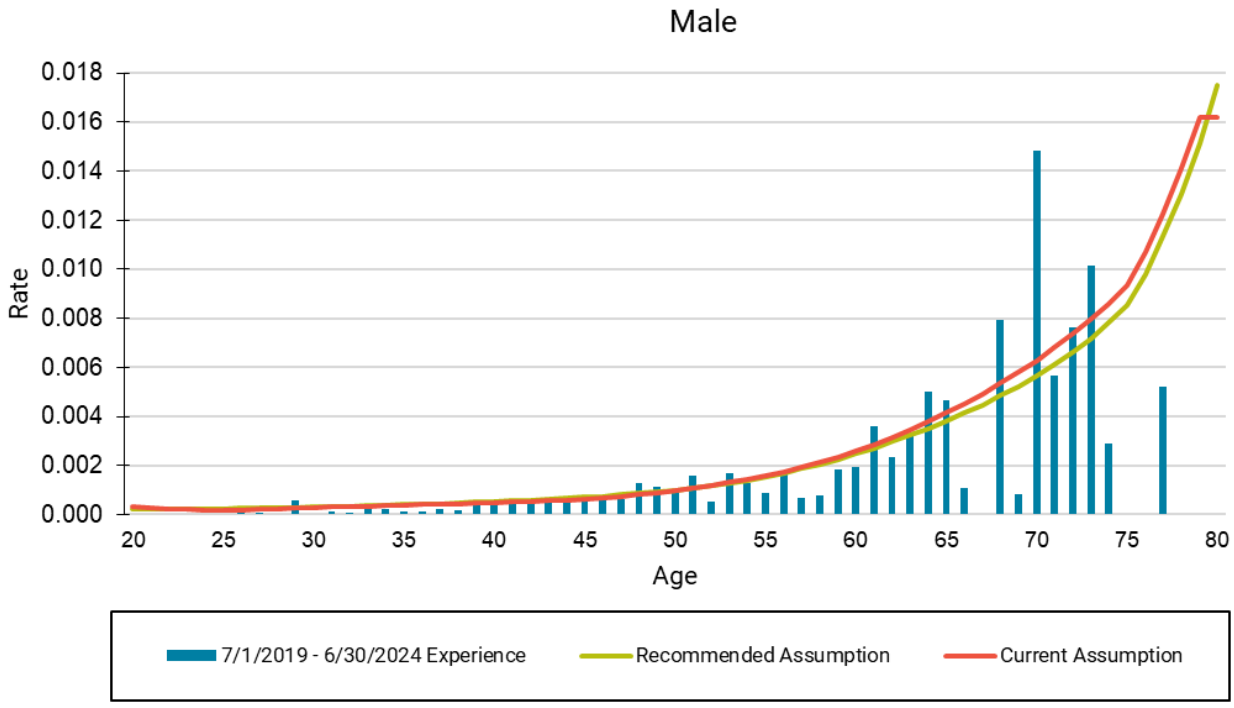
65
70
75
80
Age
7/1/2019 - 6/30/2024 Experience
Recommended Assumption
Current Assumption


Male
0.018
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
Rate
20
25
30
35
40
45
50
55
60
65
70
75
80
Age
7/1/2019 - 6/30/2024 Experience
Recommended Assumption
Current Assumption

Healthy Annuitant Mortality

The healthy annuitant mortality (HAM) rates are the assumed rates of death for service and deferred retired members, i.e., all retirees except those who retired due to a disability. The HAM rates vary by gender and age. As members age, rates of death increase in an exponential pattern for both males and females.

Over the study period, the actual number of deaths were higher than expected.

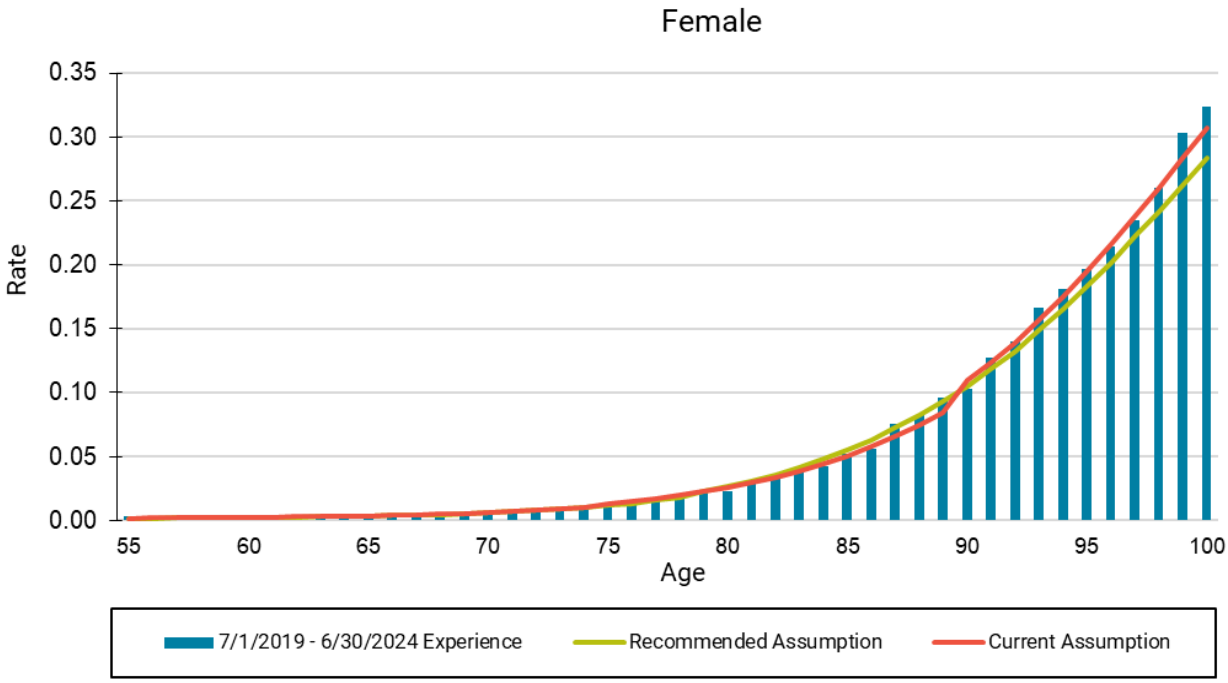
Actual vs. Expected Deaths (Current Assumptions)			
Gender	Actual	Expected	Actual / Expected Experience Rate
Females	12,999	12,618.41	1.030
Males	8,903	8,327.16	1.069

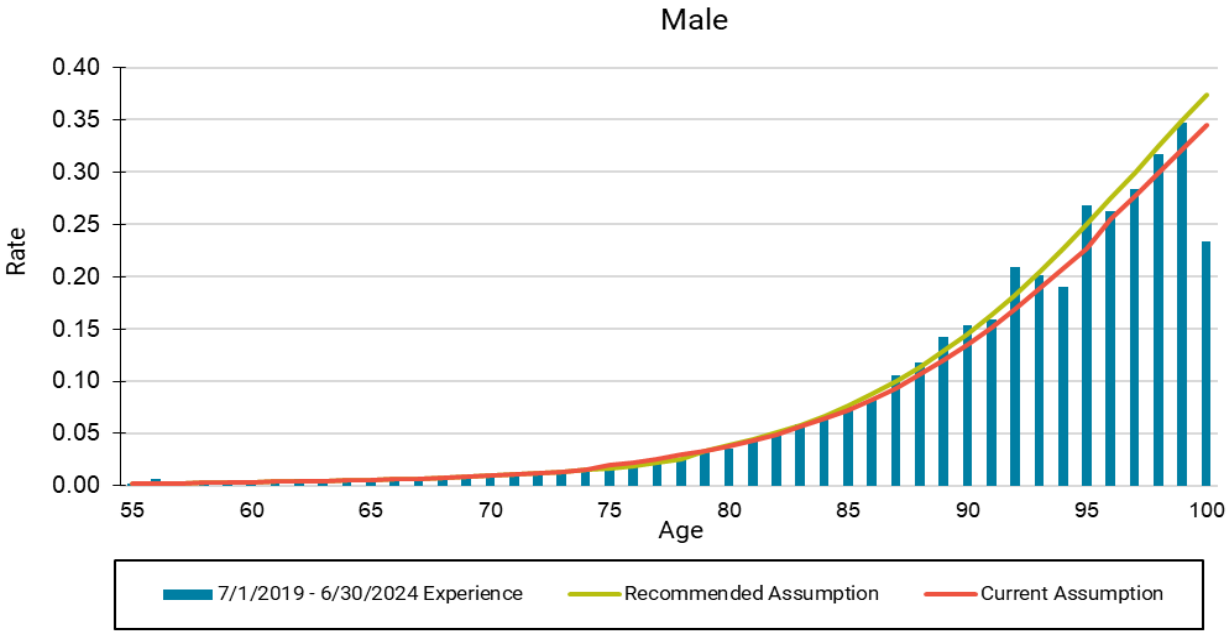
We recommend updating the HAM rates to align to recent experience and the newly published SOA PubT-2016 tables. The recommended base table rates are based upon HAM experience during the five-year period from July 1, 2019 through June 30, 2024. To reduce random fluctuations in the data and improve the predictive ability of the assumption, limited fluctuation credibility theory (LFCT) was used in conjunction with PubT-2016 for retired teachers to develop the proposed HAM assumption. The data was parsed into two groups to best fit the published table to the data. For males and females, the data was broken down into the following age ranges: 55-78 and 79-119. To better fit our data, a multiplier was determined for each age range using LFCT and the appropriate Pub-2016 mortality rates.

The Z factors were calculated to blend the experience rates and the published tables. The Z factor is the statistical credibility weight assigned to the observed rate. Due to the experience levels of the NYSTRS' data, the Z factor for all ages and genders was 1.000. A Z factor of 1.000 indicates that HAM experience is fully credible, and the multiplier for the recommended HAM assumption is only reliant on observed experience.

The analysis is on a benefit-weighted basis. In our experience studying annuitant member mortality of public pension plans, it was found that annuitants with a higher benefit tend to live longer than annuitants with lower benefits. The mortality for NYSTRS was studied on both a benefits-weighted and headcount-weighted basis and found this to be true. We are recommending continuing to use the benefit-weighted basis as it is a better predictor of future liabilities.

The following charts show the Experience Rates, the current assumption and the recommended assumption. Appendix A details this information by gender and age. The recommended HAM rate assumption decreases the June 30, 2024 ECR by approximately 0.20%.


Female
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Rate
55
60
65
70
75
80
85
90
95
100
Age
7/1/2019 - 6/30/2024 Experience
Recommended Assumption
Current Assumption


Male
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Rate
55
60
65
70
75
80
85
90
95
100
Age
7/1/2019 - 6/30/2024 Experience
Recommended Assumption
Current Assumption

Disabled Annuitant Mortality

The disabled annuitant mortality (DAM) rates are the assumed rates of death for members who retire due to a disability. The DAM rates vary by gender and age. As members age, rates of death increase in an exponential pattern for both males and females. Due to the relatively small amount of data for disabled annuitants, there is more volatility and less credibility with plan experience. As a result, more weight was placed on the published data in determining this assumption using the limited fluctuation credibility theory technique.

Over the study period, the actual number of deaths were higher than expected.

Actual vs. Expected Deaths (Current Assumptions)			
Gender	Actual	Expected	Actual / Expected Experience Rate
Females	296	254.73	1.162
Males	117	89.94	1.301

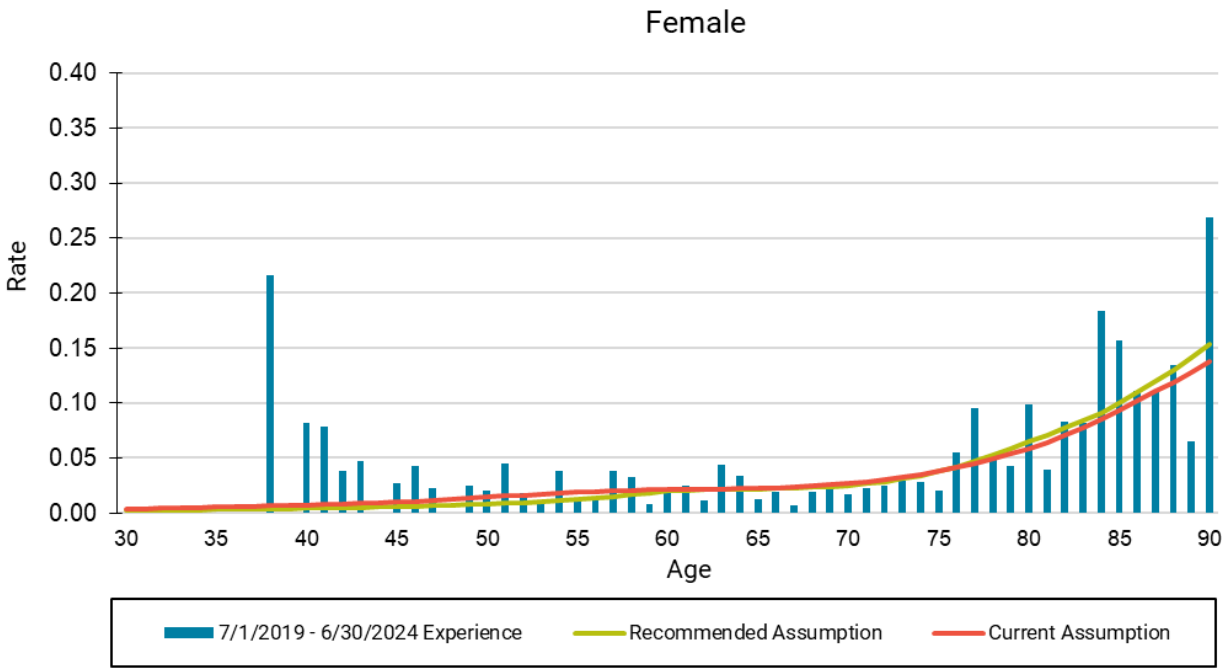
We recommend updating the DAM rates to align to recent experience and the newly published SOA PubT-2016 tables for disabled retired members.

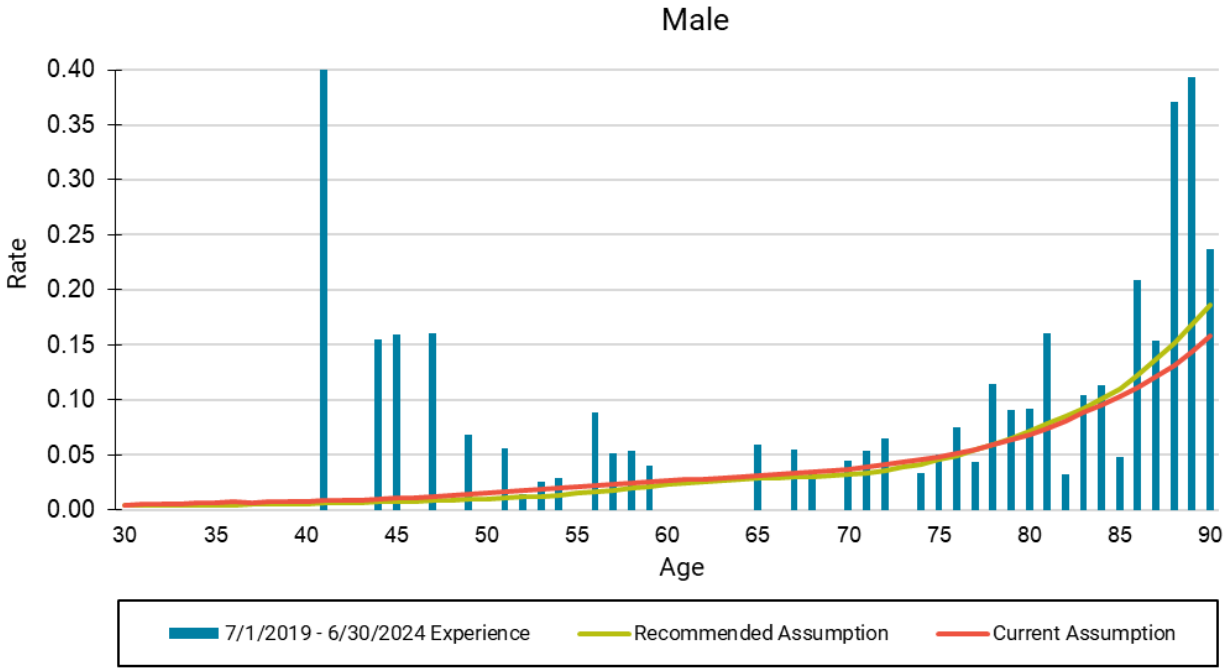
The following Z factors were calculated to blend the experience rates and the published tables. Note that the Z factor is the statistical credibility weight assigned to the observed rate. A Z factor less than 1 indicates DAM experience is partially credible, and multiplier for the recommended DAM assumption is reliant on both observed experience and the experience used to create PubT-2016.

Gender	Z Statistical Credibility Factor
Female	0.445
Male	0.288

The analysis is on a benefit-weighted basis. In our experience studying annuitant member mortality of public pension plans, it was found that annuitants with a higher benefit tend to live longer than annuitants with lower benefits. The mortality for NYSTRS was studied on both a benefits-weighted and headcount-weighted basis and found this to be true. We are recommending continuing to use the benefit-weighted basis as it is a better predictor of future liabilities.

The following charts show the experience rates, the current assumption and the recommended assumption. Appendix A details this information by gender and age. The recommended DAM rate assumption increases the June 30, 2024 ECR by approximately 0.01%.





The male rate on the graph above at age 41 is 1.0 with one exposure and one death. The resulting experience of 1.0 is beyond the scale of the graph and thus is not completely shown.

Survivor and Beneficiary Mortality

The survivor and beneficiary mortality (SBM) rates are the assumed rates of death for beneficiaries. The SBM rates vary by gender and age. As members age, rates of death increase in an exponential pattern for both males and females. Due to the relatively small amount of data for beneficiaries, there is more volatility and less credibility with plan experience. As a result, more weight was placed on the published data in determining this assumption using the limited fluctuation credibility theory technique.

Over the study period, the actual number of deaths were different than expected.

Actual vs. Expected Deaths (Current Assumptions)			
Gender	Actual	Expected	Actual / Expected Experience Rate
Females	1,519	1,527.26	0.995
Males	581	522.48	1.112

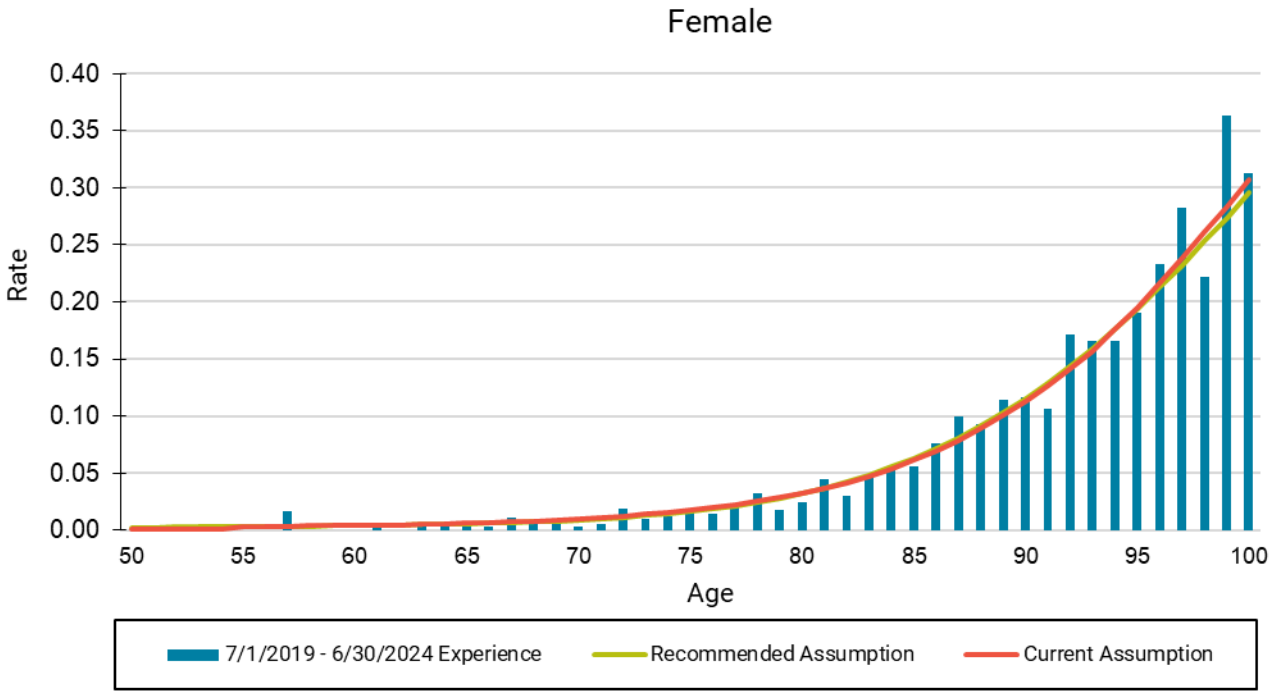
We recommend updating the SBM rates to align to recent experience and the newly published SOA PubG-2016 tables. The recommended rates are based upon SBM experience during the five-year period from July 1, 2019 through June 30, 2024. To reduce random fluctuations in the data and improve the predictive ability of the assumption, limited fluctuation credibility theory was used in conjunction with PubG-2016 general table for above-median incomes to develop the 2025 proposed SBM assumption. The PubG-2016 general table for above-median incomes used are for employees through age 49 and healthy retirees for ages 50-119. Non-contingent rates were used for all ages. The above-median table is used for SBM as it better aligns with the System's experience. PubG-2016 contingent survivor rates were not used in the development of SBM. PubG-2016 contingent survivor rates were developed solely from experience data for surviving beneficiaries after the death of the primary member. The SBM table includes survivors and beneficiaries of living retirees.

The following Z factors were calculated to blend the experience rates and the published tables. Note that the Z factor is the statistical credibility weight assigned to the observed rate. The survivor and beneficiary members have unknown professions. Thus, instead of using the PubT-2016 Teacher published table as the other mortality assumptions used, the survivor and beneficiary mortality (SBM) rates used the PubG-2016 General table for above-median incomes. A Z factor less than 1 indicates SBM experience is partially credible, and multiplier for the recommended SBM assumption is reliant on both observed experience and the experience used to create PubG-2016.

Gender	Z Statistical Credibility Factor
Female	0.914
Male	0.595

The analysis is on a benefit-weighted basis. In our experience studying annuitant member mortality of public pension plans, it was found that annuitants with a higher benefit tend to live longer than annuitants with lower benefits. The mortality for NYSTRS was studied on both a benefits-weighted and headcount-weighted basis and found this to be true. We are recommending continuing to use the benefit-weighted basis as it is a better predictor of future liabilities.

We are recommending modified rates to reflect recent experience. The following charts show the experience rates, the current assumption and the recommended assumption. Appendix A details this information by gender and age. The recommended SBM rate assumption decreases the June 30, 2024 ECR by approximately 0.04%.


Female
Rate
0.40
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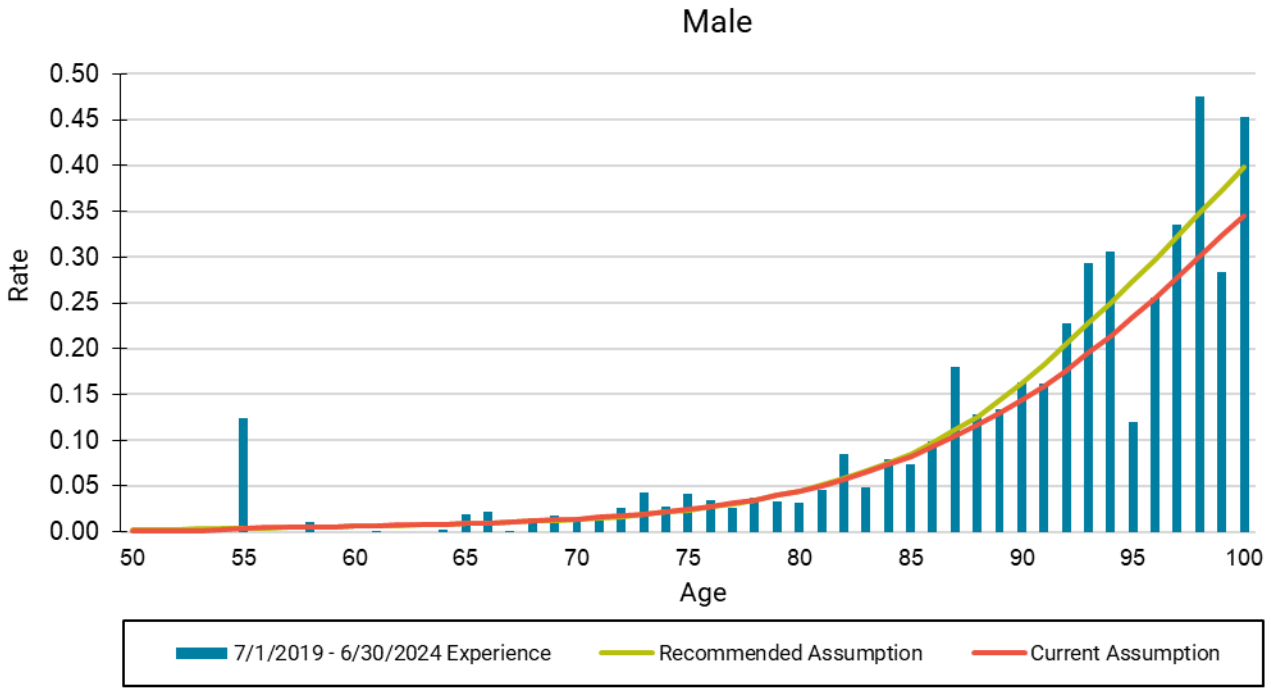
Age
7/1/2019 - 6/30/2024 Experience
Recommended Assumption
Current Assumption


Male
Rate
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95
100
Age
7/1/2019 - 6/30/2024 Experience
Recommended Assumption
Current Assumption

Projection Scale for Mortality Improvement

The current mortality assumption is projected generationally. This approach accounts for mortality rates generally improving over time; each generation will experience different levels of mortality. Generational mortality tables consist of two components – a base table and a projection table. The projection table reflects the expected annual reduction in mortality rates at each age.

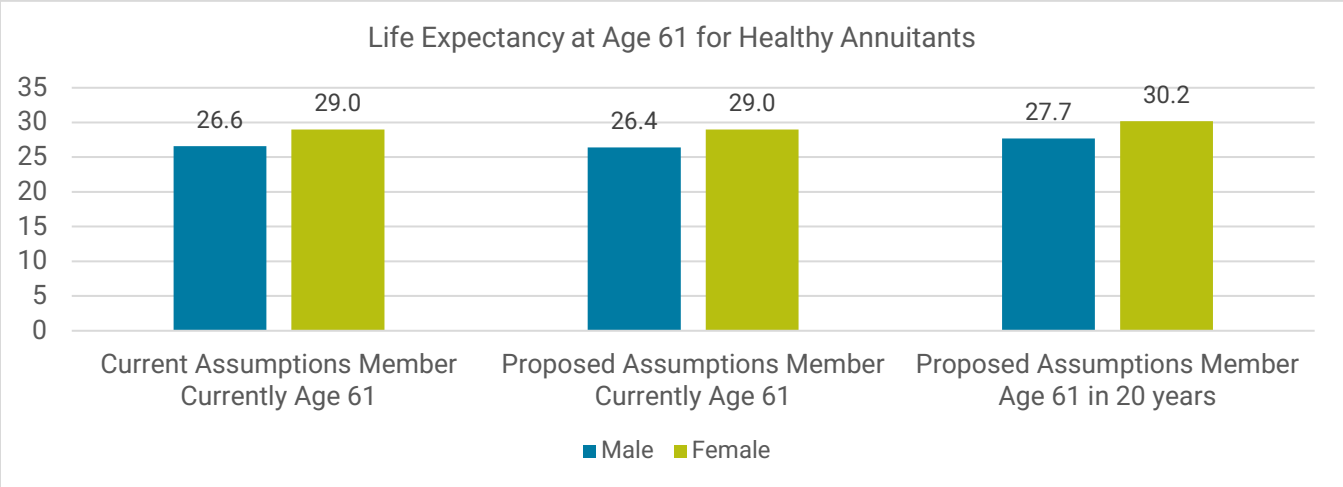
For example, if the mortality rate is 0.2442% for a member currently aged 60, 2,442 deaths out of every 1,000,000 age 60 members are expected over the next year[4]. If the mortality improvements occur at an average rate of 1.133% per year, the future 60-year-olds will have a lower mortality rate than the current 60-year-olds. Applying eight years of mortality improvement[5], 2,229 deaths out of every 1,000,000 members aged 60 are expected eight years from now.

The Society of Actuaries (SOA) released the latest improvement scale, Scale MP-2021 in October 2021. This scale uses historical mortality information published by the Social Security Administration (SSA) in conjunction with the 2021 Old-Age Survivors Insurance and Federal Disability Insurance (OASDI) Trustees' Report. The historical data shows that later generations generally live longer than earlier generations. The data is used to develop Scale MP-2021 to continue to project future lifetime improvements. The SOA has not issued an update to the mortality improvement scale since 2021 due to the increased mortality rates that occurred during the pandemic that may not be reflective of future mortality trends.

We recommend continuing to use the MP-2021 scale generationally. There is no impact on the June 30, 2024 ECR due to this recommendation.

Illustration

The following is an illustration of the impact of Scale MP-2021. The chart below provides a comparison of life expectancy for healthy annuitants who are age 61 as of June 30, 2025. NYSTRS' average retirement age was 60 years and 11 months for retirements in 2024. Recommended mortality and projection scale assumptions increase life expectancy.



[4] 0.2442% x 1,000,000 = 2,442 lives
[5] See Appendix B for details behind this calculation.

Service Retirement

Service retirement rates are the assumed rates of retirement for service from active status. The rates vary by gender, age, and years of service. A summary of NYSTRS' benefit provisions follows:

Tier	Unreduced Retirement	Reduced Retirement
1	All	N/A
2	Age 62 or 55 with 30 years of service	Age 55 reduced 6% for the first 2 years and 3% for the next 5 years
3	Age 62 or 55 with 30 years of service	Age 55 reduced 1/15th for the first 2 years and 1/30th for the next 5 years
4	Age 62 or 55 with 30 years of service	Age 55 reduced 6% for the first 2 years and 3% for the next 5 years
5	Age 62 or 57 with 30 years of service	Age 55 reduced by 6 2/3% for the first 2 years and 5% for the next 5 years
6	Age 63	Age 55 reduced by 6.5% per year

Due to the benefit provision structure, rates of retirements continue to be reviewed based on member's years of service using the following three service categories:

1. Less than 20 years of service (5 – 20 years of service)
2. 20 – 30 years of service (20 – 30 years of service)
3. 30 or more years of service (30+ years of service)

Tier 5 was established with dates of membership beginning January 1, 2010. Tier 6 was established with dates of membership beginning April 1, 2012. As of June 30, 2024, Tier 5 retirees represent approximately 0.15% and Tier 6 represents approximately 0.14% of the retired member and beneficiary population. Without sufficient experience to set separate rates for Tiers 5 and 6, all tiers were included in the analysis and the recommended service retirement rates will apply to all tiers.

Each fiscal year of experience in the study period was reviewed to determine if it was appropriate to include.

- The experience during the fiscal year ending June 30, 2020 had similar active to expected ratios to the post-pandemic data.

- The experience during the fiscal year ending June 30, 2021 showed higher retirement rates than the other years in the study period. The one-year female actual to expected ratios were 1.246 for 5 - 20 years of service, 1.217 for 20 - 30 years of service, and 1.155 for 30+ years of service. The one-year male actual to expected ratios were 1.020 for 5 - 20 years of service, 1.240 for 20 - 30 years of service, and 1.171 for 30+ years of service. This experience was likely caused by differing retirement patterns during the COVID pandemic.

- The experience during the fiscal year ending June 30, 2022 and June 30, 2023 had higher active to expected ratios to the post-pandemic data followed by lower-than-expected experience in the fiscal year ending June 30, 2024. Based on an examination of the data, some members chose to

accelerate their retirement and reviewing the three fiscal years as a whole follows post-pandemic expectations.

A 10-year experience period ending June 30, 2024 was considered to temper the impact of the COVID pandemic increase in experience, but the shape of the graphed data differed too much from the experience since June 30, 2021.

Thus, it was determined that a 4-year experience period from July 1, 2019 to June 30, 2024, excluding the fiscal year ending 2021, would be used to set the recommended service retirement rates.

Over the 4-year study period, the actual service retirements were higher than expected.

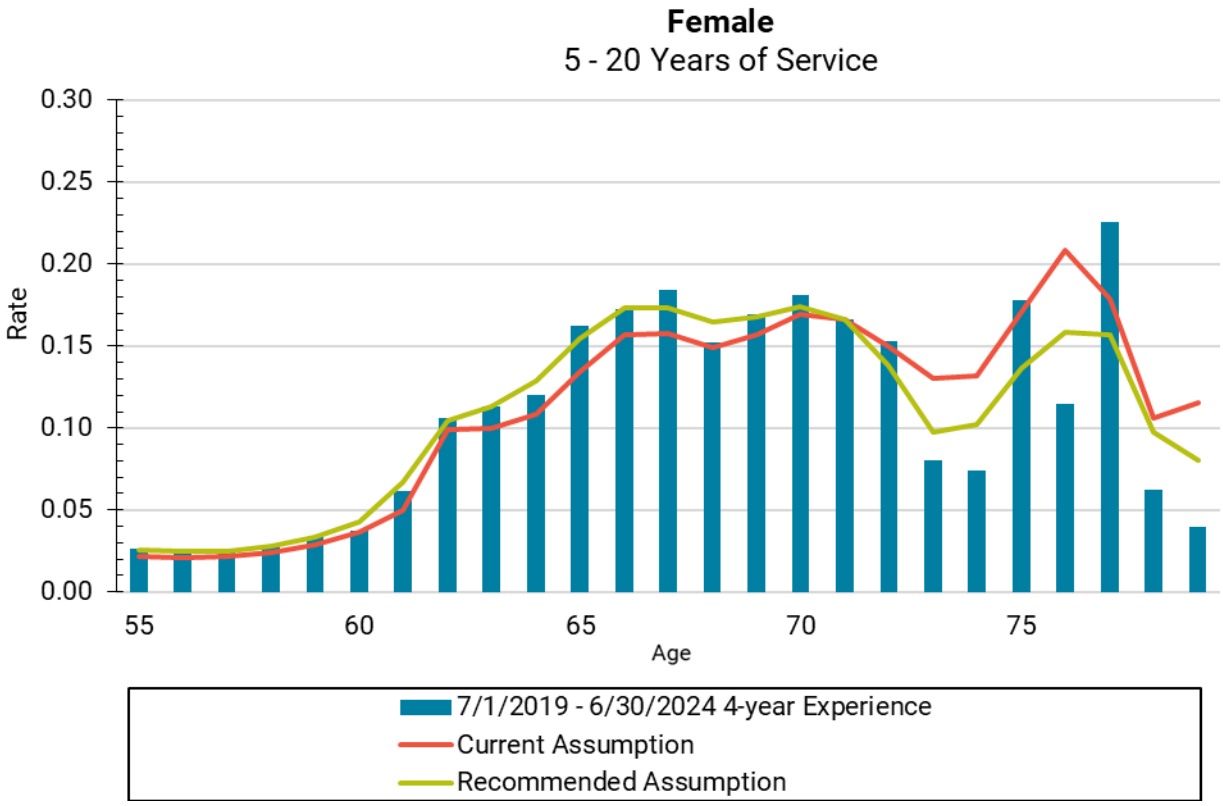
Actual vs. Expected Retirements (Current Assumptions)[6]			
Service	Female Actual	Female Expected	Female Actual / Expected Experience Rate
5 – 20 Years	3,042	2,729	1.115
20 – 30 Years	7,945	7,456	1.066
30+ Years	7,747	7,232	1.071
Service	Male Actual	Male Expected	Male Actual / Expected Experience Rate
5 – 20 Years	638	610	1.046
20 – 30 Years	1,697	1,616	1.050
30+ Years	2,878	2,640	1.090

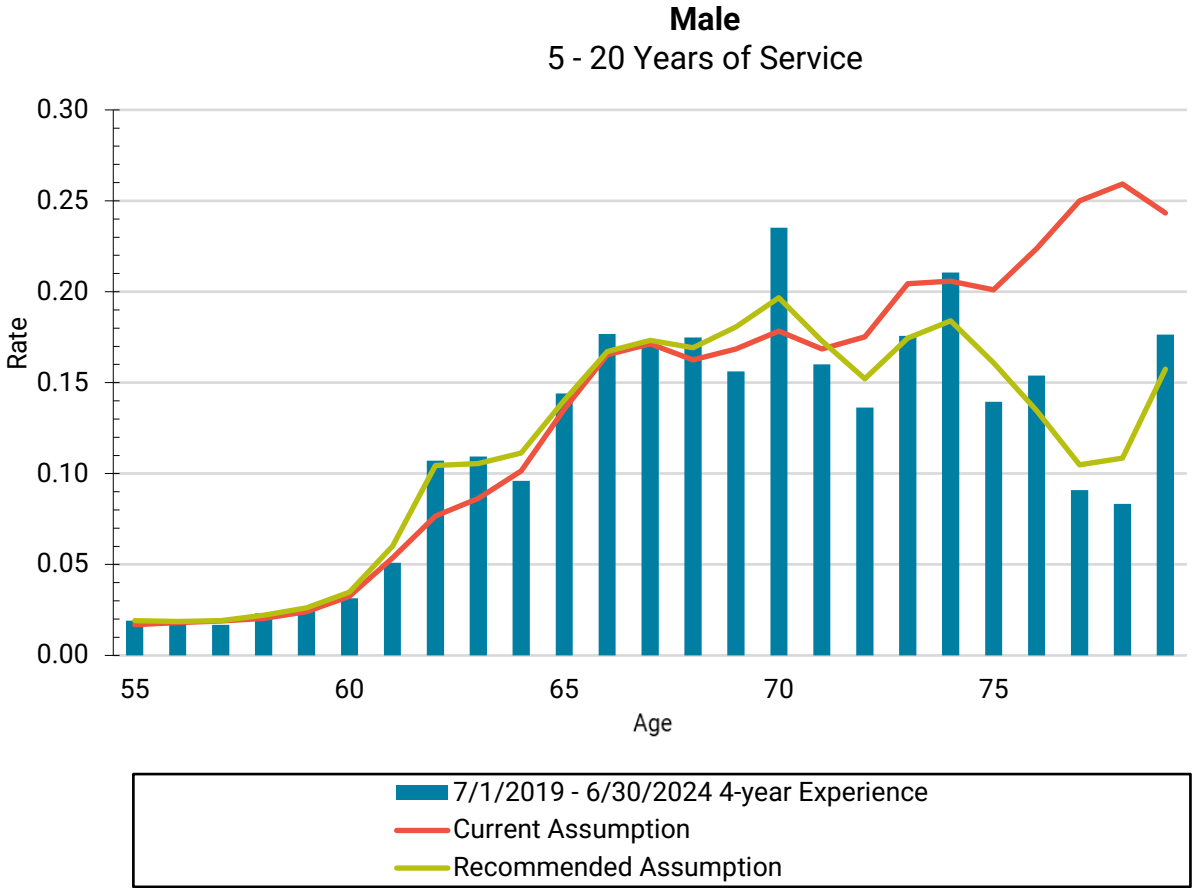
We recommend updating the service retirement rates to align to recent experience.

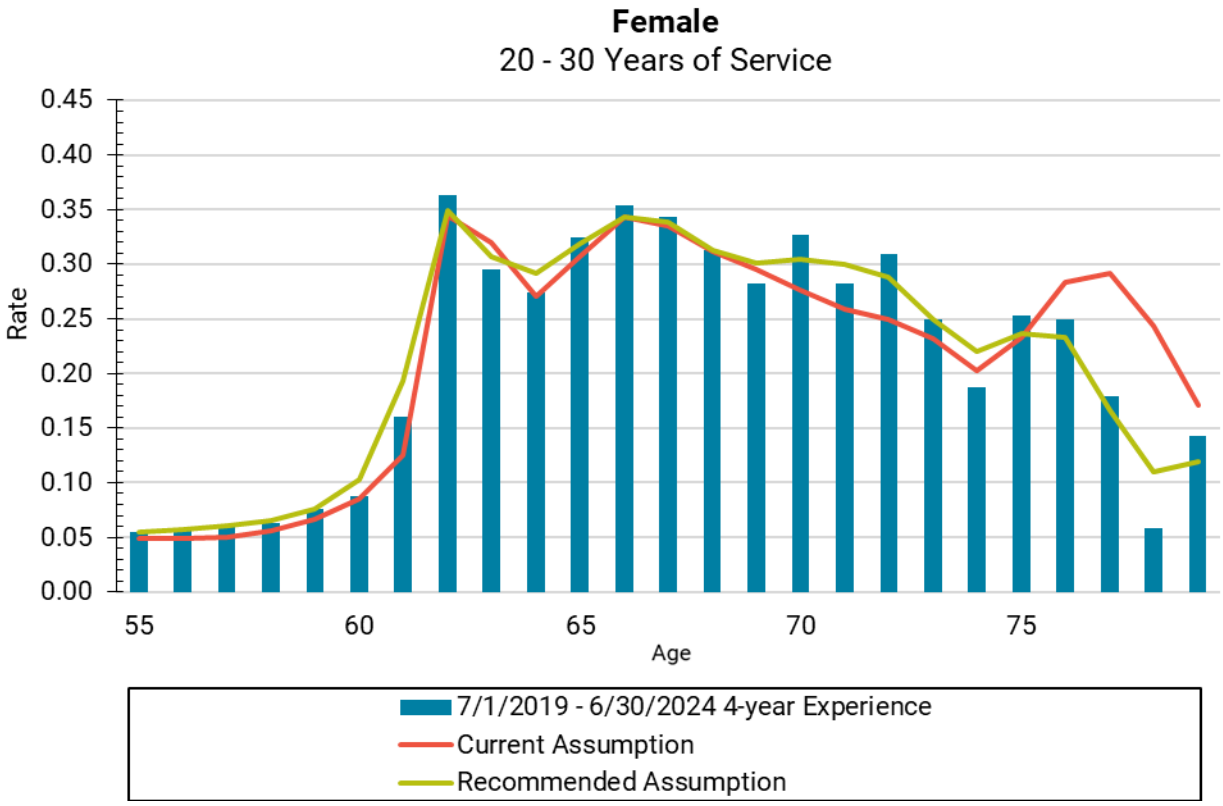
The Moving Weighted Average smoothing technique was used to average data over the period. Each data point within the period is assigned a different weight, with more recent data points having higher weights. This approach smooths short-term fluctuations and highlights longer-term trends while allowing for a more responsive and accurate representation of trends by emphasizing recent data.

We recommend modified service retirement rates to reflect recent experience. The recommended service retirement rates update the weighted average retirement age for the active population from 60.17 to 59.90. The following charts show the Experience Rates, the current assumption, and the recommended assumption. Appendix A details this information by gender and age. The recommended service retirement rate assumptions increase the June 30, 2024 ECR by approximately 0.36%.

[6] Ages 55 through 79


Female
5 - 20 Years of Service
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Rate
55
60
65
70
75
Age
7/1/2019 - 6/30/2024 4-year Experience
Current Assumption
Recommended Assumption


Male
5 - 20 Years of Service
0.30
0.25
0.20
0.15
0.10
0.05
0.00
Rate
55
60
65
70
75
Age
7/1/2019 - 6/30/2024 4-year Experience
Current Assumption
Recommended Assumption


Female
20 - 30 Years of Service
Rate
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
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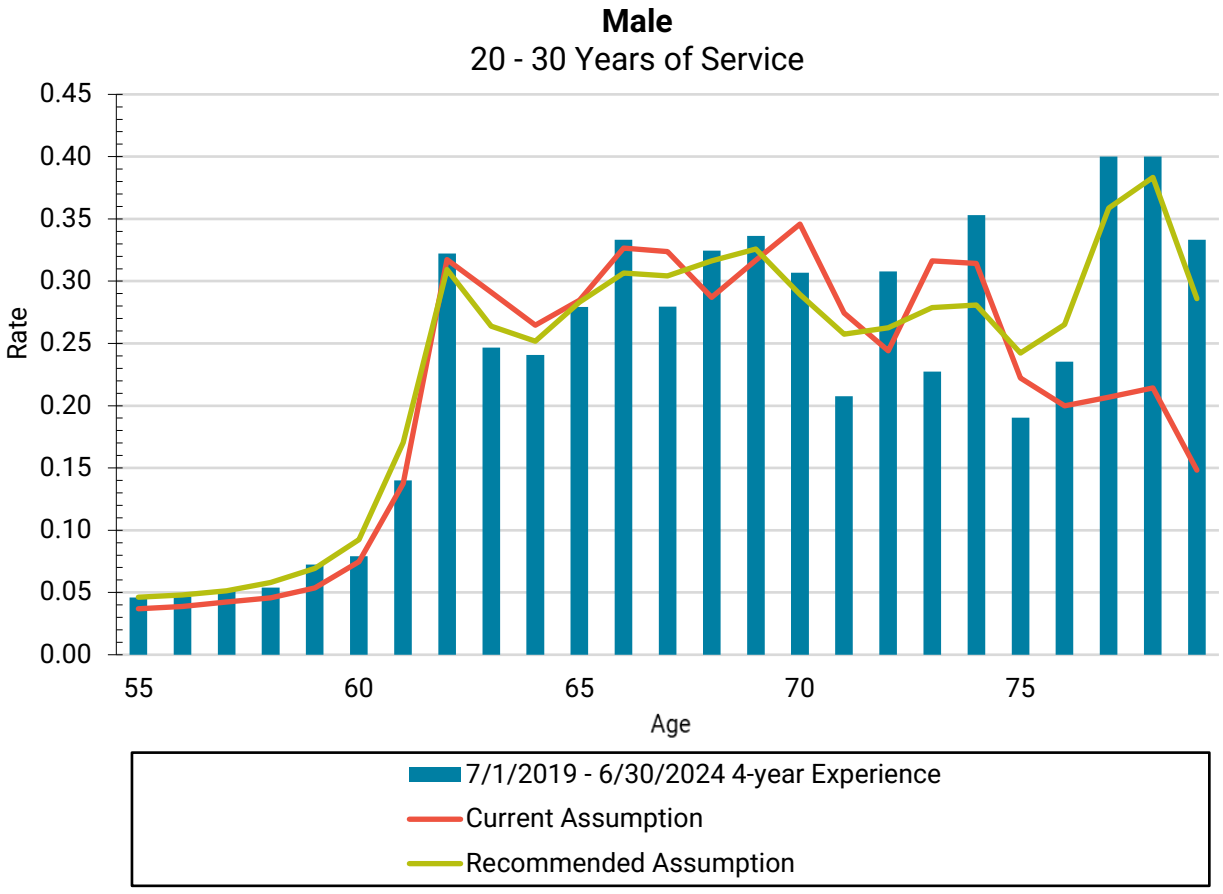
55
60
65
70
75
Age
7/1/2019 - 6/30/2024 4-year Experience
Current Assumption
Recommended Assumption


Male
20 - 30 Years of Service
Rate
0.45
0.40
0.35
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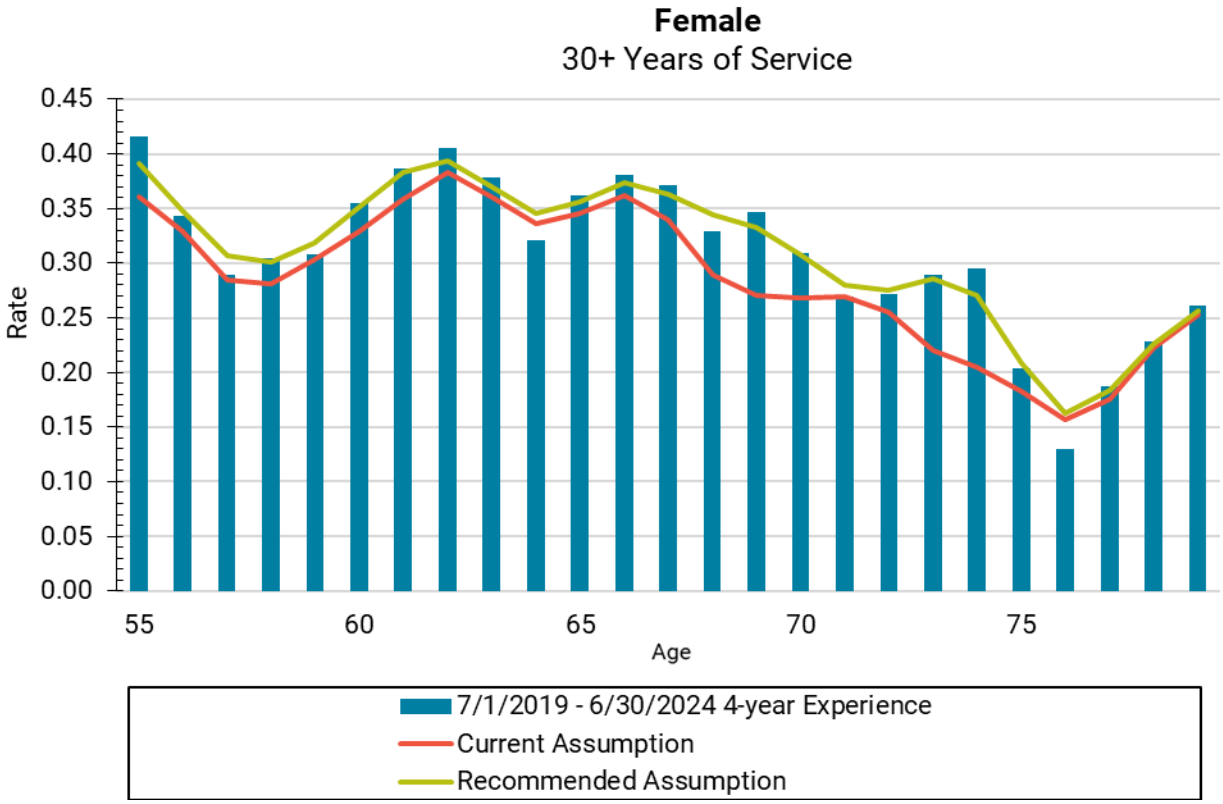
Age
7/1/2019 - 6/30/2024 4-year Experience
Current Assumption
Recommended Assumption


Female
30+ Years of Service
Rate
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
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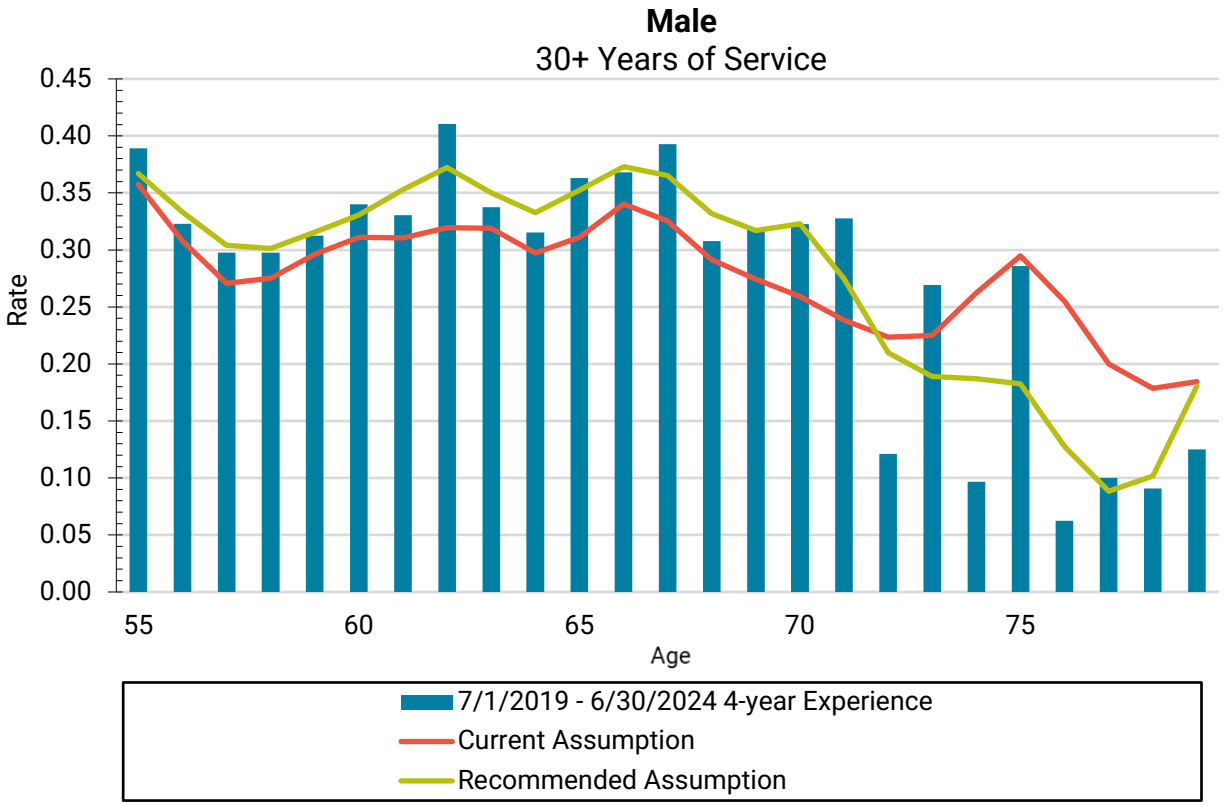
55
60
65
70
75
Age
7/1/2019 - 6/30/2024 4-year Experience
Current Assumption
Recommended Assumption


Male
30+ Years of Service
Rate
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
55
60
65
70
75
Age
7/1/2019 - 6/30/2024 4-year Experience
Current Assumption
Recommended Assumption

Disability Retirement

Disability retirement rates are the assumed rates of retirement due to becoming disabled before being eligible for service retirement. The current assumption varies by gender and age. NYSTRS' members with at least 10 years of service or those who sustained an accident in the performance of duties may qualify for a disability retirement benefit. In general, a member must be totally and permanently incapacitated from all further gainful employment to qualify for disability retirement. As of June 30, 2024 disabled retiree members represented less than 1.2% of all retirements.

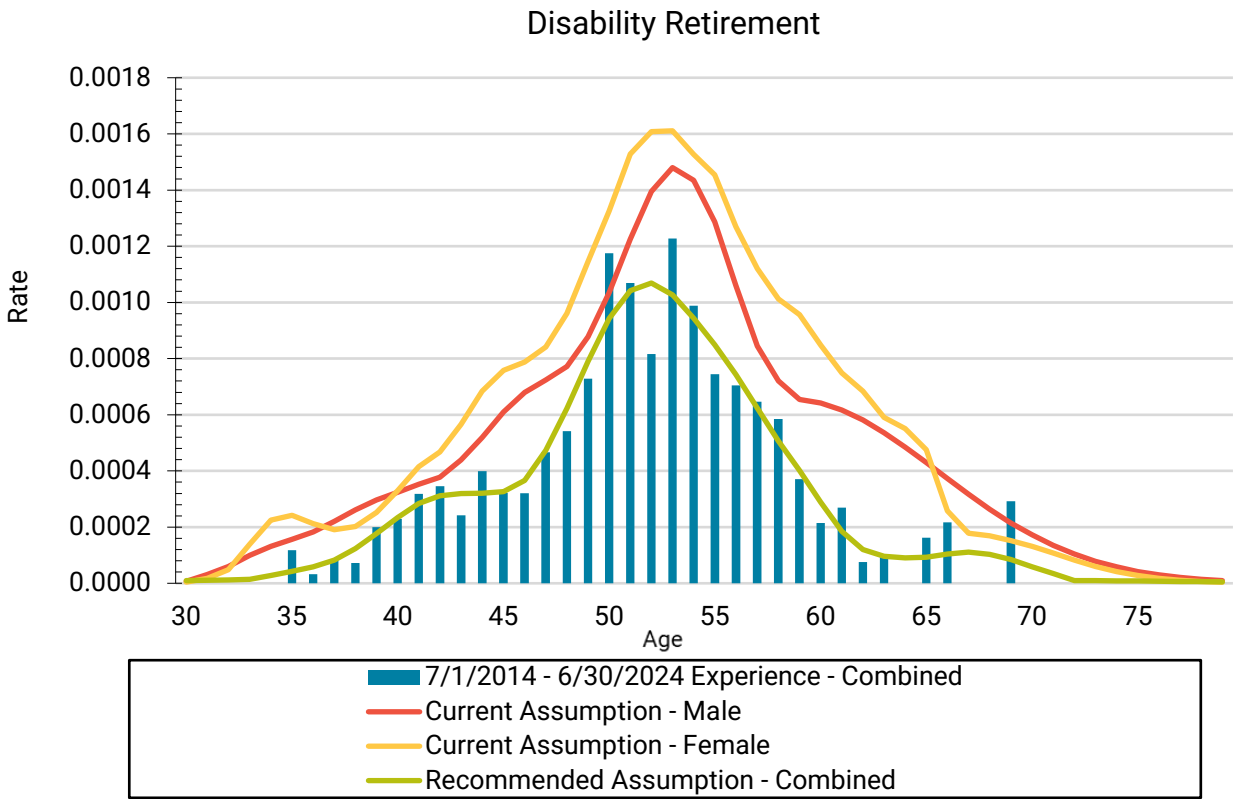
Over the five-year period ending June 30, 2024, disability retirements were lower than expected with a female actual to expected ratio of 0.568 and a male actual to expected ratio of 0.520 for a total of 323 actual disability retirements. Due to the relatively limited disability experience data, a ten-year period from July 1, 2014 to June 30, 2024 was studied with combined male and female rates. Over this ten-year period, the actual number of disability retirements was lower than expected.

Actual vs. Expected Disability Retirements (Current Assumptions)			
Gender	Actual	Expected	Actual / Expected Experience Rate
Females	547	881.39	0.621
Males	119	245.91	0.484
Combined	666	1,127.30	0.591

We recommend updating the disability retirement rates to align with recent experience.

The Moving Weighted Average smoothing technique was used to average data over the period. Each data point within the period is assigned a different weight, with more recent data points having higher weights. This approach smooths short-term fluctuations and highlights longer-term trends while allowing for a more responsive and accurate representation of trends by emphasizing recent data.

The following chart shows the ten-year experience rates, the current assumption for males and females, and the recommended combined gender assumption. Appendix A details this information by age. The recommended disabled retirement rate assumption has no impact on the June 30, 2024 ECR due to rounding.


Disability Retirement
Rate
0.0018
0.0016
0.0014
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
30
35
40
45
50
55
60
65
70
75
Age
7/1/2014 - 6/30/2024 Experience - Combined
Current Assumption - Male
Current Assumption - Female
Recommended Assumption - Combined

Withdrawal

The withdrawal rates are the assumed rates of termination of employment from causes other than death, disability, or retirement. The current withdrawal rates vary by gender and years of service. Service level continues to be the greatest factor affecting rates of withdrawal. In general, active members with short service tend to withdraw at a higher rate than active members with longer service. After seventeen years of service, the withdrawal rates stabilize to near zero and the impact of additional service on the rates is negligible.

Each year of experience in the study period was reviewed to ensure it was appropriate to include. Over the study period, the experience during the fiscal year ending June 30, 2021 resulted in higher withdrawal rates than the other years in the study period. The one-year female actual to expected ratio was 1.309 and the male actual to expected ratio was 1.220. We note that this experience was likely caused by the COVID pandemic. There was some variation in the yearly actual to expected ratios for withdrawals in the other years of the study period, however actual counts were within 10% of expected counts for all years in the study period except fiscal year end 2021. Thus, it was determined that a 4-year experience period from July 1, 2019 to June 30, 2024, excluding the fiscal year ending 2021, would be used to set the recommended withdrawal rates.

Over the 4-year study period, the actual withdrawal rates were higher than expected.

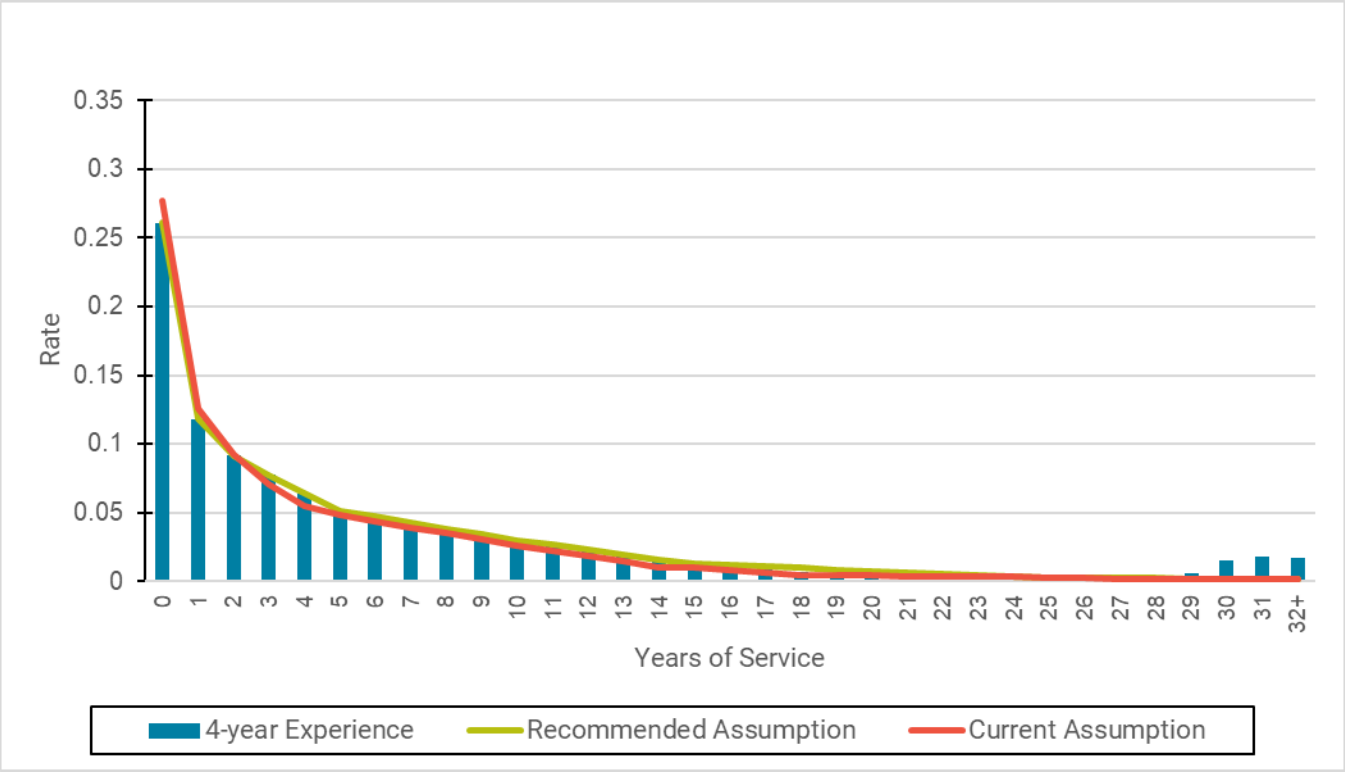
Actual vs. Expected Withdrawals (Current Assumptions)			
Gender	Actual	Expected	Actual / Expected Experience Ratio
Males	7,508	7,219	1.040
Females	25,743	24,773	1.039

We recommend updating the withdrawal rates to align to recent experience.

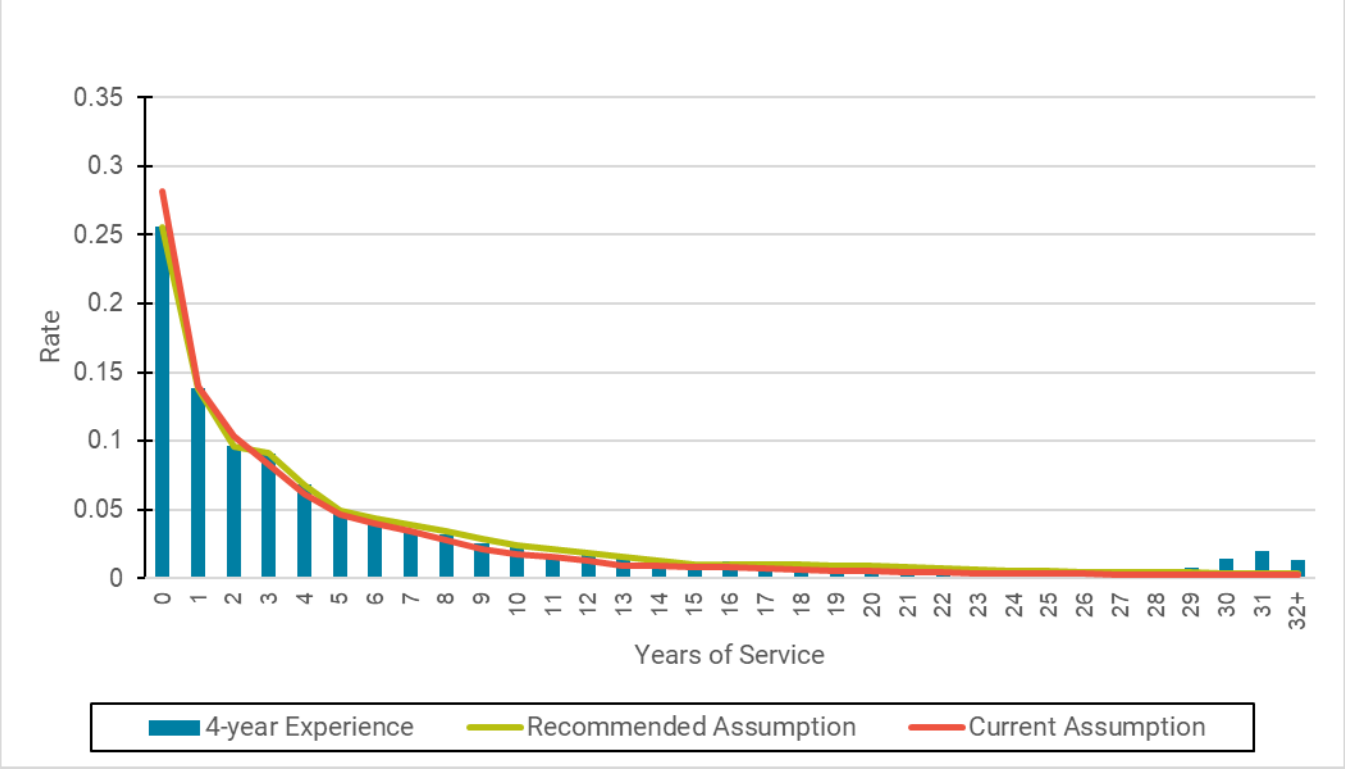
To reduce random fluctuations, the data was grouped into quinquennial service groups and the Experience Rates were graduated. The rate for each of the first five service years and for the quinquennial endpoints were set directly from the experience. The recommended withdrawal rates at individual points of service were then linearly interpolated from the endpoint rates. There is an increase in the experience at twenty-nine years of service that is not an accurate representation of the observed trend or assumption. This is the result of a member reaching eligibility and retiring during the fiscal year, but the valuation software using eligibility at the beginning the fiscal year to determine if there is a retirement or withdrawal decrement. In response, the linear interpolation was continued from service 20-25 into 26-32+ with a slope factor. The decrease towards 0 as service increases is a more accurate representation of member behavior.

In the past, the System used a select and ultimate withdrawal rate structure, which is popular amongst public Systems to reflect vesting rules. Using the current flat structure best fits the member data and setting the first five years directly from experience ensures the vesting requirements are reflected.
We are recommending higher rates to reflect recent experience. The following charts show the Experience Rates, the current assumption, and the recommended assumption. Appendix A details this information by gender and service year. The recommended withdrawal rate assumptions decrease the June 30, 2024 ECR by approximately 0.13%.

Withdrawal - Female



Withdrawal - Male



Economic Assumptions

Salary Scale

The salary scale is the assumed annual rate of increase in compensation. The assumption comprises of two increases: 1) cost-of-living; and 2) merit / productivity increases. The cost-of-living assumption aligns with the inflation assumption. The merit / productivity increases are reviewed with the other demographic assumptions. The recommended salary scale rates are the total rates, incorporating both the recommended cost-of-living assumption from this report and the merit / productivity increase.

The current assumption used a 50/50 blend of the experience from the 2015-2020 period and the previous period of 2009-2014. At the time the current assumption was made, there was uncertainty with respect to how COVID would impact the economy and state and school district budgets. Thus, a longer period was used to set the salary scale to include additional years of high and low economic periods.

Recent salary experience has been higher than expected, as shown in the chart below. Appendix A details this information by service year. The current salary assumption is duration-based and unisex - the assumption varies by years of service and is independent of a member's gender. The percentage increases are greater during the earlier years of employment (when salaries are lower and therefore increments represent a larger percentage) and decline as service increases.

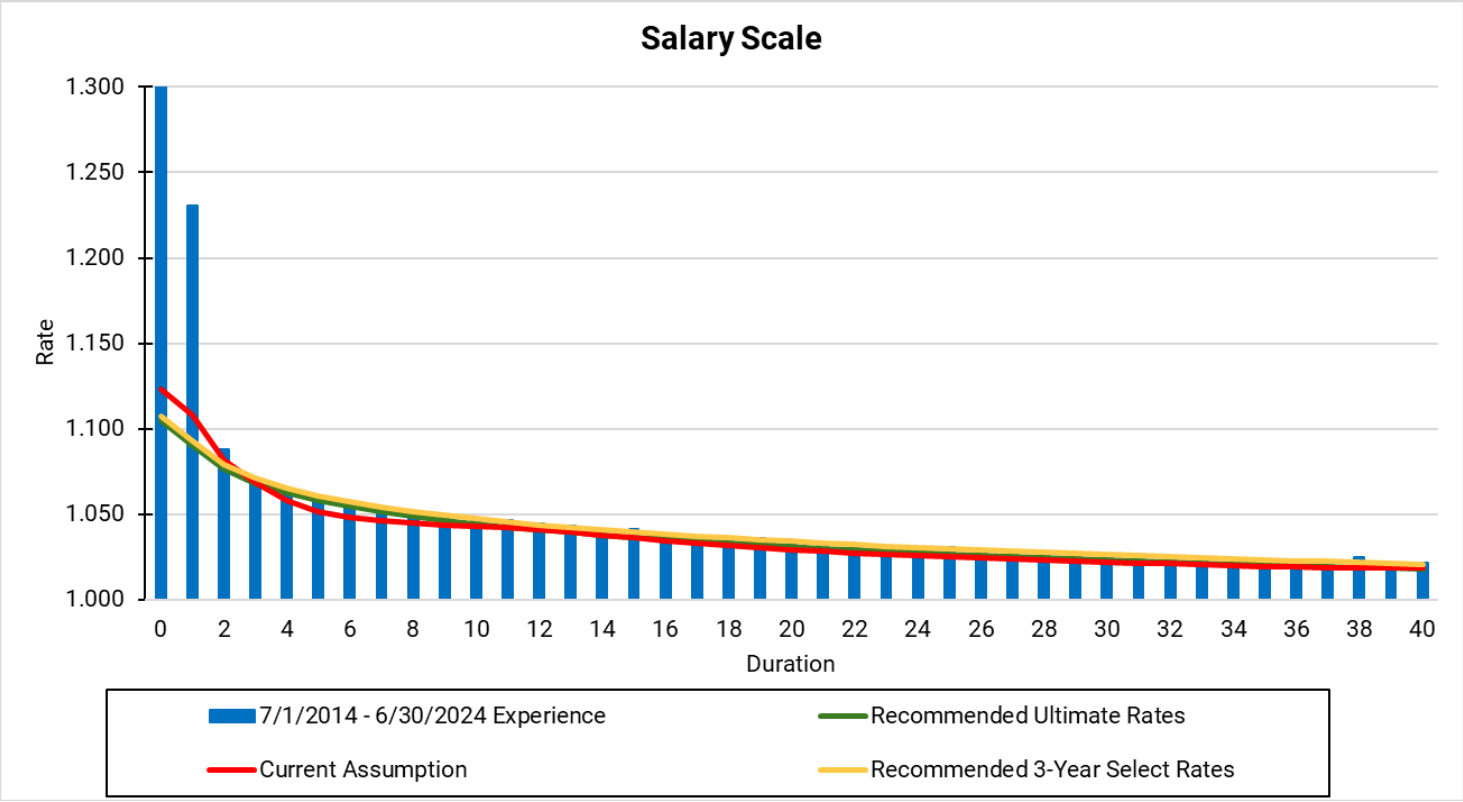
Actual vs. Expected Salary Scale (Current Assumptions)			
Gender	Actual	Expected	Actual / Expected Experience Rate
Males	22,671,134,459	22,590,951,929	100.4%
Females	64,066,103,226	63,614,407,123	100.7%
Total	**86,737,237,685**	**86,205,359,053**	**100.6%**

To account for COVID and recent high inflation, the recommended salary scale uses the last ten years' worth of salary experience. The longer period allows the assumption to better capture the variation in economic conditions and the impact on salary increases. The recommended rates were developed using salary experience for members who were either full-time (nine months of service) or part-time for at least two consecutive years during the ten-year period from July 1, 2014 through June 30, 2024. Additionally, the rate at duration 0 was calculated by projecting backwards due to the wide range of salaries for new hires and the large number of members with less than 1 year of service. The rates were graduated, or smoothed, using the power smoothing method. The power smoothing method is similar to the exponential smoothing method but is more flexible as it does not require the use of e as the exponential constant.

There continues to be uncertainty regarding higher-than-average recent inflation rates and the lagged effect it has on members' salaries. Union contracts are typically 5 years in length and thus additional inflation adjustments are expected over the next several years. Thus, we are recommending using a three-year "select and ultimate" salary scale table. A "select and ultimate" assumption aims to capture the dynamic nature of economic conditions. The "select" period is shorter and reflects current expectations for a period. The "ultimate" period is the longer-term period where a more stable rate is assumed. The recommended select rates are set 0.3% higher than the ultimate rates to account for recent inflation experience to be applied to the following valuation years: 2025 – 2026, 2026- 2027, 2027 – 2028. We are recommending select rates that are 0.3% higher due to recent inflation being approximately 0.3% higher than our long-term inflation expectation. The ultimate rates begin after three years when the impact of recent inflation is expected to be fully reflected in salaries.

The recommended ultimate salary scale has a geometric average annual increase of approximately 3.73% for a hypothetical 40-year career. The current salary scale has a geometric average annual increase of 3.67%. The recommended salary scale assumptions increase the June 30, 2024 ECR by approximately 0.79%.

The following charts show the experience rates, the current assumption and the recommended assumption. Appendix A details this information by service year.



Valuation Rate Of Interest

The valuation rate of interest, or discount rate, is one of the primary determinants in the calculation of the present value of expected future benefit plan payments, representing the time value of money. The valuation rate of interest is used to calculate the actuarial valuation results, including the Employer Contribution Rate (ECR). The current valuation rate of interest is 6.95%. ASOP No. 27, *Selection of Assumptions for Measuring Pension Obligations,* provides guidance to actuaries setting the assumptions of a pension plan. The valuation rate of interest represents the long-term expected return on plan assets.

Investment data evaluated includes current yields to maturity of fixed income securities including government securities and corporate bonds; forecasts of total returns for each asset class; forecasts of inflation and GDP growth; and historical and current investment data. The inflation and the valuation rate of interest are reviewed in parallel.

The history of the NYSTRS valuation rate of interest assumption since 1980 is as follows:

NYSTRS History of the Valuation Rate of Interest Assumption

Fiscal Year	Return Assumption
1980	4.50%
1981 – 1984	6.75%
1985 – 1987	7.25%
1988 – 2014	8.00%
2015 – 2016	7.50%
2017 – 2018	7.25%
2019 – 2020	7.10%
2021 – 2024	6.95%

Historical Rates of Return

The Retirement System's historical annualized rates of return, net of fees, as of June 30, 2025. Since returns are net of fees, no adjustment is needed in the expected return due to investment expenses.

Return Period	Annualized Rate of Return (net of fees)
1 year	10.6%
3 years	10.3%
5 years	10.0%
10 years	8.4%
15 years	9.7%
20 years	7.8%
25 years	6.9%
30 years	8.4%

Asset Allocation

The Retirement System's allocation is approved by the Retirement Board and reviewed annually. Asset allocation changes, if any, are typically of an incremental nature and not large in scale. The current allocation is as follows.

	Target Allocation	Range
Equity		
Domestic Equity	33 %	29 – 37%
International Equity	15 %	11 – 19%
Global Equity	4 %	0 – 8%
Real Estate Equity	11 %	6 – 16%
Private Equity	9 %	4 – 14%
Total Equity	**72 %**	
Debt		
Domestic Fixed Income	16 %	12 – 20%
High-Yield Bonds	1 %	0 – 3%
Global Bonds	2 %	0 – 4%
Real Estate Debt	6 %	2 – 10%
Private Debt	2 %	0.5 – 5%
Cash Equivalents	1 %	0 – 4%
Total Debt	**28 %**	
Total	**100%**	

Capital Market Expectations

The System's investment consultant, Callan Associates, annually provides their long-term expected rates of return and standard deviations, by asset class and for the total fund, accounting for the asset allocation and asset class correlations. These projected returns represent their current expectations over a 10-year, 20-year, and 30-year time horizon using the target weight allocation.

Horizon	Single-Period Arithmetic Return Expectation	Geometric Return Expectation
10-year	8.10%	7.33%
20-year	8.28%	7.51%
30-year	8.43%	7.65%

Callan's capital market assumptions were set at the beginning of 2025. After setting the capital market assumptions, Callan issued an April 2025 report stating that "incredible volatility stemmed from the U.S. tariffs, the changing tariff rates, the implementation and then delay of those tariffs. The true impact of the tariffs is still a moving target". Given the volatility, Callan continues to monitor the markets and has not re-cast capital market assumptions[7].

Stochastic projections were performed by Bolton, an actuarial consulting firm. In the stochastic modeling, ten thousand future financial outcomes over 30 years were generated based on the System's current asset allocation. Two sets of projections were completed – using the Callan capital market assumptions and another using the Horizon Actuarial Survey capital market assumptions. Horizon annually surveys investment consultants and releases a report with the average investment return expectations by asset class. For the 2024

[7] Historic Market Volatility and our 10-Year CMAs by Jay Kloepfer from Callan on April 18, 2025

Horizon survey, 41 different investment consultants provided investment return forecasts. Bolton's Projection Report is included in Appendix C.

Scenario	50th Percentile Return	25th – 75th Percentile Return
Callan 10-year Capital Market Assumptions	7.32%	5.65% - 9.00%
Callan 20-year Capital Market Assumptions	7.51%	5.84% - 9.19%
Callan 30-year Capital Market Assumptions	7.66%	5.99% - 9.34%
Horizon 10-year Capital Market	7.09%	5.46% - 8.71%
Horizon 20-year Capital Market	7.41%	5.79% - 9.03%

Peer System Comparison

The National Association of State Retirement Administrators (NASRA) maintains a public fund database providing data on state and city/county/municipal public retirement systems. NASRA frequently publishes the latest assumptions on their website by Plan, "Latest Investment Return Assumptions" last updated on June 2025 which surveyed 131 plans' investment return assumption. The bar graph in Figure 1 from June 2025 shows the distribution of investment return assumptions used by the survey respondents with the highest number of plans selecting 7.0% for the valuation rate of return assumption. The chart in Figure 2 shows a generally declining valuation rate of return assumption with the median decreasing from 8.0% to 7.0% from 2001 to 2025.

Figure 1: NASRA Investment Return Assumption Survey as of June 2025, Distribution of Investment Return Assumptions

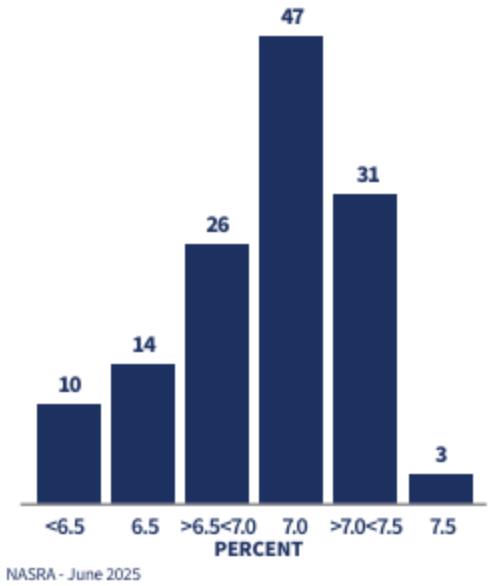
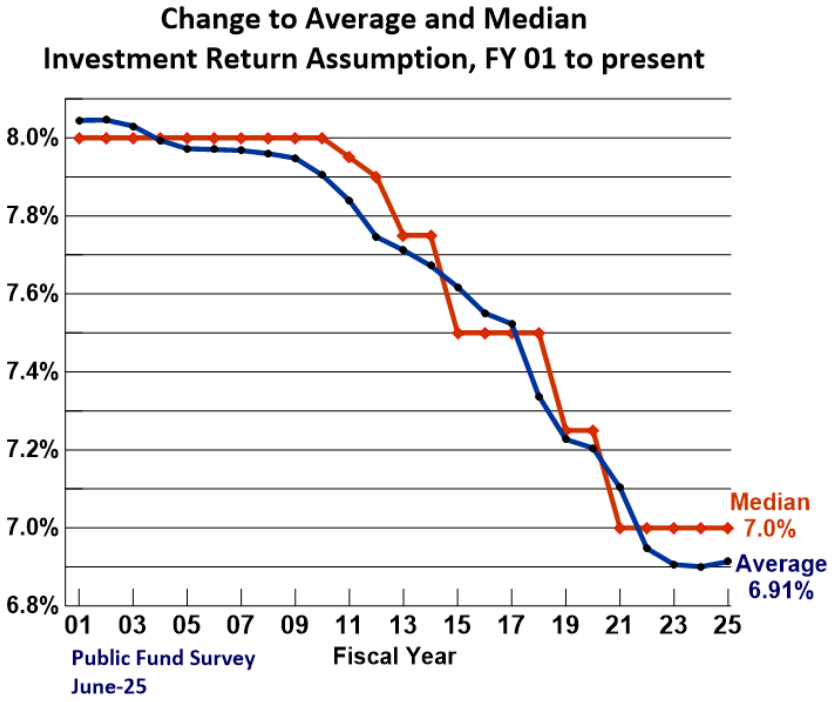


Figure 2: NASRA Investment Return Assumption Survey as of June 2025, Change to Average and Median Investment Return Assumption FY01 to FY25



Recommendation

We recommend maintaining a valuation interest rate assumption of 6.95%, which is supported by the above analysis. Market conditions are historically volatile on a short-term basis thus making long-term expectations difficult to cast. Sustained changes in capital market expectations would lead to a future review of the assumption. There is no impact on the June 30, 2024 ECR due to this recommendation.

Inflation

The inflation assumption has an indirect and direct impact on the valuation. Indirectly, the inflation assumption is used in the development of the valuation rate of interest and salary scale. Directly, the inflation assumption is used to value the cost-of-living adjustment (COLA) for eligible retirees.

Under Section 532-a of the Education Law, members are eligible for the COLA benefit at age 62 and retired for five years or retired for five years under a disability retirement. The COLA benefit is 50% of the increase in the Consumer Price Index (CPI), all urban consumers 1982-84=100 base year, not seasonally adjusted, as reported by the Bureau of Labor Statistics from year to year by March data. The CPI increase is applied only to the first $18,000 of annual benefit and cannot exceed 3.0% nor be less than 1.0% each year.

The actual geometric annualized CPI [8] increases for the periods ending March 31, 2025 are as follows. The 5-year annualized CPI increased from 2.27% in the previous assumption and methods study to 4.38% in the current study. The 20-year annualized CPI increased from 2.46% to 2.55% and 30-year CPI decreased from 2.57% to 2.52%.

Period	*Annualized CPI Increase*
5 years	4.38%
10 years	3.08%
20 years	2.55%
30 years	2.52%
Since 1913 (first available year)	3.19%

The Social Security OASDI Trustees' Report prepared by the Office of the Chief Actuary of the Social Security Administration released in 2025 contains a best-estimate long-term inflation assumption of 2.4%.

NYSTRS' Investment advisor, Callan Associates, produces an estimate of long-term inflation. The 2025 10-year geometric inflation assumption is 2.49%, the 2025 20-year geometric inflation assumption is 2.43% and the 30-year geometric inflation assumption is 2.37%. In the previous assumption and methods study, Callan's long-term inflation assumption was 2.0%.

The average of the Horizon Survey's 20-year inflation forecasts is 2.44%, with investment consultants' projections ranging from a low of 2.0% to a high of 3.0%.

The March 2025 Survey of Consumer Expectations by the Federal Reserve Bank of New York shows that medium-term three-year and five-year inflation expectations are 3.0% and 2.9%, respectively.

Given the recent increases in the historical inflation rates and the increases in the projected inflation rates, we recommend raising the inflation assumption from 2.4% to 2.5%. Since the inflation assumption is indirect, there is no impact to the ECR.

Note that while inflation and valuation rate of interest assumptions are related, they are being established using different bases for this report. The inflation assumption has a recommended increase due to the sustained short-

[8] CPI as measured by CPI-U, U.S. city average, 1982-84=100, as developed by the U.S. Dept. of Labor, Bureau of Labor Statistics

term inflation experience. The interest rate assumption remains unchanged given the market volatility and the analysis which supports the current assumption. Both rates will continue to be monitored during the yearly experience studies. ASOP 27 states that consistency between assumptions does not necessarily require maintaining a constant difference between them.

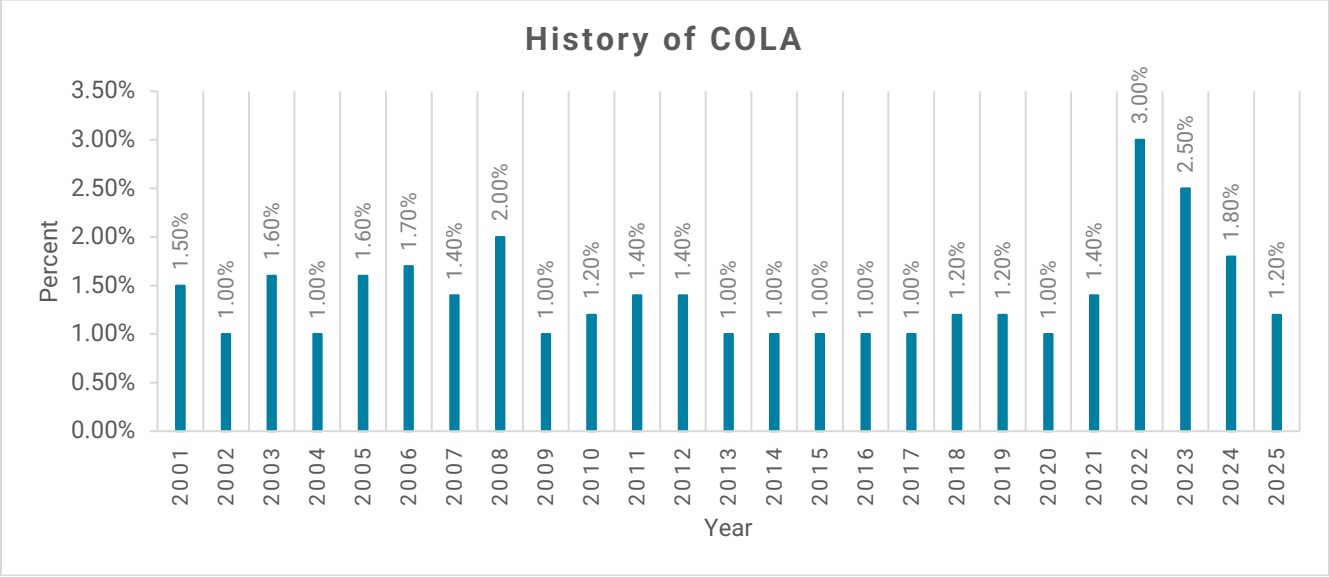
COLA Benefit

The COLA benefit reduces the CPI by 50% and bounds the CPI between 1.0% and 3.0%. Because the COLA increase is capped, any annual CPI increase above 6.0% or below 2.0% are not applied. A review of "bounded-CPI" data for the periods ending March 31, 2025 and 50% of the bounded CPI are included below.

Period	***Annualized Bounded-CPI Increase* [2% – 6%]**	***CPI Benefit: 50% of the Bounded CPI* [1% – 3%]**
5 years	3.89%	1.98%
10 years	3.01%	1.53%
20 years	2.79%	1.42%
25 years	2.76%	1.40%
30 years	2.74%	N/A
Since 1913 (first available year)	3.32%	N/A

A stochastic analysis of 10,000 trials of inflation variability based on Callan's Capital Market Assumptions produces an average COLA benefit percentage of 1.46% and a median COLA benefit percentage of 1.30%.

The chart below details the COLA percentages provided since the program's inception in 2001. The average increase over the 25-year period was 1.40% and the average increase over the last 5 years was 1.98%.



Based on all the above analysis and data points, it is recommended that the assumed COLA benefit rate increase from 1.3% to 1.4%. The recommended COLA rate assumption increases the June 30, 2024 ECR by approximately 0.22%.

Actuarial Methods And Other Assumptions

Actuarial methods are the foundation of determining the liabilities, normal cost and assets used to calculate the ECR. Actuarial Standard of Practice (ASOP) No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs and Contributions*, provides guidance on selecting actuarial methods for defined benefit plans. Actuarial Standard of Practice (ASOP) No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*, provides guidance on selecting methods for recognizing investment gains and losses through the asset valuation method. As part of this assumptions study, the actuarial valuation methods were reviewed in the context of these ASOPs.

Actuarial Cost Method

The cost method used to determine the liabilities and normal cost is the Aggregate Cost Method. As this funding method is required by statute, specifically §517 of the New York State Education Law, no changes to the cost method are recommended.

Each year a normal rate percentage is developed as a level percentage of total member compensation. This percentage equals the portion of the actuarial present value of projected benefits that exceeds the actuarial value of assets divided by the present value of future compensation of the active members, as of the valuation date.

The cost of the first $50,000 of member death benefits, Retirement System administrative expenses, and benefits in excess of the IRC §415 limits are each determined using the pay-as-you-go method, which is not considered to be an actuarial cost method.

Each year, actuarial gains and losses will occur because actual experience will vary from the actuarial assumptions. All gains and losses are effectively amortized as part of the normal rate calculation, over the expected present value of future compensation.

The Conference of Consulting Actuaries published in 2024 a white paper “Actuarial Funding Policies and Practices for Public Pension Plans Second Edition”. The white paper classifies this cost method as acceptable given the actuarial valuation report also publishes the costs and liabilities using the Entry Age method and the single amortization period for the Entry Age Unfunded Actuarial Accrued Liability that, combined with the Entry Age Normal Cost, is equivalent to the Aggregate method Normal Cost. This information is disclosed in the actuarial valuation report each year. The single amortization period for the Entry Age Unfunded Actuarial Accrued Liability that, combined with the Entry Age Normal Cost, is equivalent to the Aggregate method Normal Cost is 6.62 years as of June 30, 2024.

Given the cost method is required by statue, no changes are recommended.

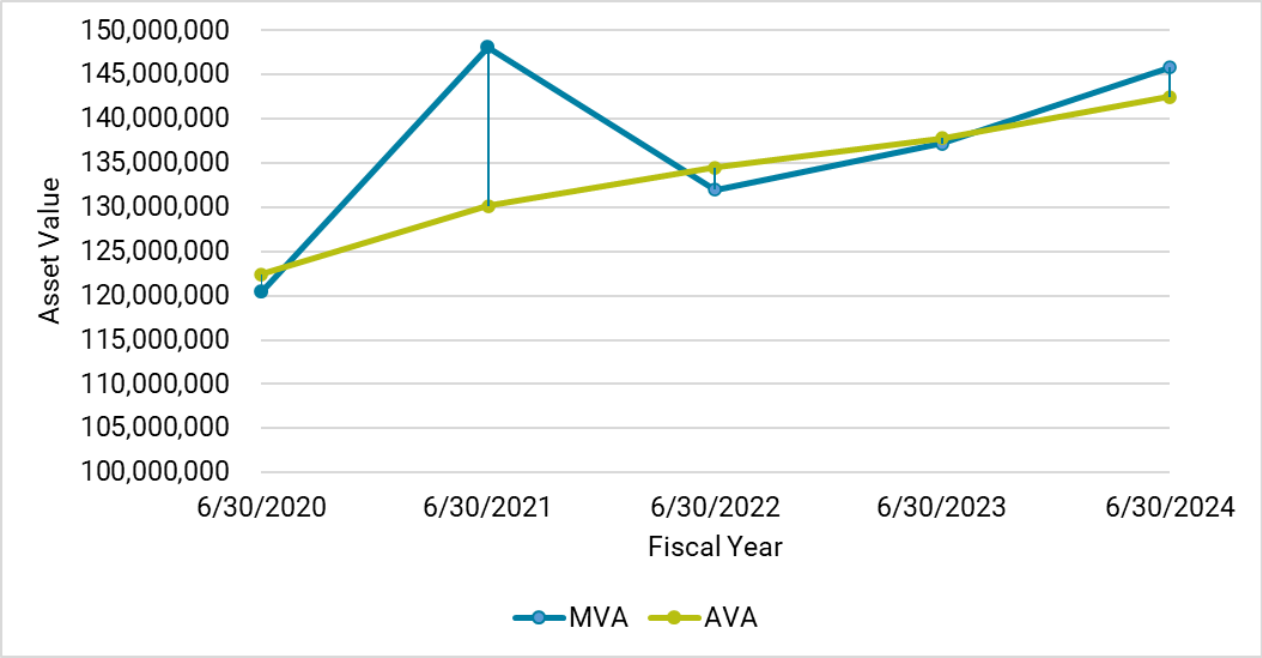
Actuarial Value Of Assets Method

An actuarial valuation has a long-term focus. Since the Market Value of Assets (MVA) are assets at a moment in time and thus contain short term volatility due to the volatility in the capital markets, an Actuarial Value of Assets (AVA) method, or asset smoothing method, is utilized. The utilization of an AVA method is a common practice in the industry. According to the latest NASRA Public Plan Survey published in November 2024 for FY 2023, approximately two-thirds of plans in the survey smooth their investment gains and losses over five years; four-year smoothing is the second-most common period.

The NYSTRS' method used to determine the AVA is a five-year smoothing method that recognizes the difference between the actual return and the expected return based upon the valuation rate of interest assumption for each fiscal year, at the rate of 20% per year. Five years was chosen to strike an appropriate balance between providing lower ECR fluctuations and allowing the ECR to react sufficiently as needed to actual asset values.

The application of a market value corridor to determine the AVA was considered but was determined not to add at this time. Note that in the Conference of Consulting Actuaries' publication titled "Actuarial Funding Policies and Practices for Public Pension Plans", dated August 2024, a five-year fixed smoothing period with no corridor is an acceptable practice for asset smoothing. ASOP 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*, also deems recognition of differences from market value in a sufficiently short period as an acceptable asset valuation method.

The following chart shows a history of the Market Value of Assets (MVA) and the Actuarial Value of Assets (AVA).



There is no change recommended to the AVA method at this time.

Terminated Vested Retirement Assumption

The Terminated Vested retirement rates are the assumed rates of service retirement for members who have terminated and are entitled to receive benefits. The current assumption is that all members retire at age 55 and receive their benefit with the applicable early age reduction as defined by the Plan. As of June 30, 2024, terminated vested members represent 2.4% of the total population and 0.9% of the total liability. For Tiers 1-5, the early retirement reduction factors at age 55 provide a small subsidy, so it is conservative to assume terminated vested members retire at 55. For Tier 6, the early retirement reduction factors are approximately actuarially equivalent.

Over the five-year period ending June 30, 2024, there were 2,744 retirements from terminated vested status. 41% of all retirements were at age 55, which was the mode retirement age. At all ages after age 55, each age had on average 3% of the terminated vested retirements, bringing the median retirement age to 57.

We recommend maintaining the age 55 retirement rate, which has no impact on the June 30, 2024 ECR.

Marital Status And Optional Forms Of Payment Assumption

The System does not maintain data on the marital status of active members. As a result, an explicit assumption regarding the percentage of active members who are married is not made. Instead, for valuation purposes, it is assumed that all active members elect the maximum benefit – the single life annuity option. This approach reflects the fact that the various optional forms of payment available to members are designed to be actuarily equivalent.

While marital status is not tracked directly, member behavior is observed through retirement option elections. From 2021 – 2025, the following forms of payment were elected.

Option	Number Electing	Percent of Election
Maximum – Single Life Annuity	20,142	58.26%
Annuity / Declining Reserve	7	0.02%
Joint & Survivor	3,192	9.23%
Pop-Up	8,884	25.70%
Guarantee	996	2.88%
Alternative	1,353	3.91%
Total	**34,574**	**100.00%**

Since the benefit option forms are actuarially equivalent, the choice of form does not affect the overall liability of the System. The assumption that all members elect the maximum form - single life annuity – therefore continues to provide an appropriate and neutral basis for valuation. We will continue to monitor actual member elections over time, but at present, the current practice remains reasonable and does not warrant adjustment. We recommend maintaining the assumption that active participants are not married, which has no impact on the June 30, 2024 ECR.

Appendix A: Recommended Actuarial Assumptions

Active Member Mortality Rates
Female

Age	Exposure	Actual Experience	Current Rate[9]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
20	1,168	0	0.000134	0	-	0.000082	0	-
21	2,031	0	0.000126	0	-	0.000082	0	-
22	4,052	0	0.000107	0	-	0.000082	0	-
23	8,004	0	0.000098	1	0.0000	0.000082	1	0.0000
24	9,908	1	0.000101	1	1.0000	0.000082	1	1.0000
25	11,019	0	0.000103	1	0.0000	0.000082	1	0.0000
26	11,765	2	0.000117	1	2.0000	0.000091	1	2.0000
27	12,754	1	0.000119	2	0.5000	0.000100	1	1.0000
28	13,905	2	0.000135	2	1.0000	0.000118	2	1.0000
29	14,737	2	0.000150	2	1.0000	0.000127	2	1.0000
30	15,597	2	0.000177	3	0.6667	0.000137	2	1.0000
31	16,401	1	0.000192	3	0.3333	0.000155	3	0.3333
32	17,028	2	0.000205	3	0.6667	0.000173	3	0.6667
33	17,487	2	0.000218	4	0.5000	0.000182	3	0.6667
34	18,160	3	0.000242	4	0.7500	0.000209	4	0.7500
35	19,011	2	0.000251	5	0.4000	0.000219	4	0.5000
36	19,997	10	0.000271	5	2.0000	0.000237	5	2.0000
37	21,075	3	0.000289	6	0.5000	0.000255	5	0.6000
38	22,463	9	0.000303	7	1.2857	0.000282	6	1.5000
39	23,644	4	0.000328	8	0.5000	0.000300	7	0.5714
40	24,746	9	0.000337	8	1.1250	0.000328	8	1.1250
41	25,607	6	0.000357	9	0.6667	0.000337	9	0.6667
42	26,158	8	0.000375	10	0.8000	0.000364	10	0.8000
43	26,239	12	0.000402	11	1.0909	0.000392	10	1.2000
44	26,180	9	0.000418	11	0.8182	0.000410	11	0.8182
45	26,158	11	0.000445	12	0.9167	0.000437	11	1.0000
46	25,917	15	0.000482	12	1.2500	0.000464	12	1.2500
47	25,547	22	0.000520	13	1.6923	0.000501	13	1.6923
48	26,048	14	0.000563	15	0.9333	0.000537	14	1.0000
49	26,848	17	0.000608	16	1.0625	0.000583	16	1.0625
50	26,891	22	0.000657	18	1.2222	0.000628	17	1.2941
51	26,749	8	0.000719	19	0.4211	0.000674	18	0.4444
52	26,291	25	0.000794	21	1.1905	0.000728	19	1.3158
53	25,164	19	0.000865	22	0.8636	0.000792	20	0.9500
54	23,602	19	0.000948	22	0.8636	0.000856	20	0.9500
55	22,306	28	0.001042	23	1.2174	0.000929	21	1.3333
56	19,557	12	0.001136	22	0.5455	0.001011	20	0.6000
57	17,931	16	0.001236	22	0.7273	0.001111	20	0.8000
58	16,788	19	0.001353	23	0.8261	0.001220	20	0.9500
59	15,606	18	0.001472	23	0.7826	0.001329	21	0.8571

[9] Projected to June 30, 2022 using MP-2021.

Active Member Mortality Rates (cont.)
Female (cont.)

Age	Exposure	Actual Experience	Current Rate[10]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
60	14,404	25	0.001602	23	1.0870	0.001466	21	1.1905
61	13,159	16	0.001742	23	0.6957	0.001612	21	0.7619
62	11,526	6	0.001898	22	0.2727	0.001766	20	0.3000
63	8,730	28	0.002063	18	1.5556	0.001949	17	1.6471
64	6,864	18	0.002256	15	1.2000	0.002122	15	1.2000
65	5,673	10	0.002466	14	0.7143	0.002322	13	0.7692
66	4,339	6	0.002707	12	0.5000	0.002540	11	0.5455
67	3,115	11	0.002981	9	1.2222	0.002786	9	1.2222
68	2,357	9	0.003310	8	1.1250	0.003041	7	1.2857
69	1,842	10	0.003701	7	1.4286	0.003342	6	1.6667
70	1,349	5	0.004161	6	0.8333	0.003670	5	1.0000
71	988	4	0.004705	5	0.8000	0.004043	4	1.0000
72	754	5	0.005348	4	1.2500	0.004471	3	1.6667
73	550	2	0.006087	3	0.6667	0.004935	3	0.6667
74	414	5	0.006963	3	1.6667	0.005472	2	2.5000
75	285	1	0.007968	2	0.5000	0.006083	2	0.5000
76	198	2	0.009188	2	1.0000	0.007075	1	2.0000
77	158	3	0.010607	2	1.5000	0.008231	1	3.0000
78	122	1	0.012245	1	1.0000	0.009579	1	1.0000
79	95	0	0.014128	1	0.0000	0.011163	1	0.0000
Total	**837,461**	**522**		**570**	**0.9158**		**524**	**0.9962**

[10] Projected to June 30, 2022 using MP-2021.

Active Member Mortality Rates (cont.)
Male

Age	Exposure	Actual Experience	Current Rate[11]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
20	355	0	0.000330	0	-	0.000221	0	-
21	570	0	0.000295	0	-	0.000230	0	-
22	997	0	0.000252	0	-	0.000239	0	-
23	2,191	0	0.000218	0	-	0.000239	1	0.0000
24	2,951	0	0.000192	1	0.0000	0.000239	1	0.0000
25	3,279	0	0.000176	1	0.0000	0.000239	1	0.0000
26	3,515	1	0.000193	1	1.0000	0.000258	1	1.0000
27	3,742	1	0.000211	1	1.0000	0.000267	1	1.0000
28	3,867	0	0.000229	1	0.0000	0.000285	1	0.0000
29	4,114	3	0.000260	1	3.0000	0.000285	1	3.0000
30	4,336	0	0.000279	1	0.0000	0.000304	1	0.0000
31	4,554	1	0.000310	1	1.0000	0.000322	1	1.0000
32	4,720	1	0.000328	2	0.5000	0.000340	2	0.5000
33	4,932	1	0.000357	2	0.5000	0.000359	2	0.5000
34	5,186	3	0.000372	2	1.5000	0.000377	2	1.5000
35	5,460	1	0.000397	2	0.5000	0.000405	2	0.5000
36	5,912	2	0.000419	2	1.0000	0.000414	2	1.0000
37	6,409	1	0.000437	3	0.3333	0.000442	3	0.3333
38	6,802	2	0.000464	3	0.6667	0.000469	3	0.6667
39	7,303	3	0.000475	3	1.0000	0.000506	4	0.7500
40	7,731	5	0.000494	4	1.2500	0.000534	4	1.2500
41	8,187	6	0.000521	4	1.5000	0.000561	5	1.2000
42	8,488	5	0.000545	5	1.0000	0.000589	5	1.0000
43	8,771	7	0.000576	5	1.4000	0.000635	6	1.1667
44	8,879	5	0.000606	5	1.0000	0.000672	6	0.8333
45	8,946	7	0.000655	6	1.1667	0.000718	6	1.1667
46	8,902	8	0.000702	6	1.3333	0.000754	7	1.1429
47	8,866	7	0.000759	7	1.0000	0.000810	7	1.0000
48	8,967	13	0.000828	7	1.8571	0.000865	8	1.6250
49	9,014	11	0.000898	8	1.3750	0.000920	8	1.3750
50	9,014	9	0.000990	9	1.0000	0.000994	9	1.0000
51	8,895	15	0.001087	10	1.5000	0.001086	10	1.5000
52	8,671	5	0.001189	10	0.5000	0.001168	10	0.5000
53	8,216	14	0.001313	11	1.2727	0.001279	11	1.2727
54	7,689	10	0.001445	11	0.9091	0.001398	11	0.9091
55	7,081	9	0.001583	11	0.8182	0.001546	11	0.8182
56	5,987	12	0.001745	10	1.2000	0.001693	10	1.2000
57	5,199	5	0.001923	10	0.5000	0.001867	10	0.5000
58	4,663	6	0.002121	10	0.6000	0.002061	10	0.6000
59	4,091	10	0.002339	10	1.0000	0.002263	9	1.1111

[11] Projected to June 30, 2022 using MP-2021.

Active Member Mortality Rates (cont.)
Male (cont.)

Age	Exposure	Actual Experience	Current Rate[12]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
60	3,558	7	0.002584	9	0.7778	0.002493	9	0.7778
61	3,112	10	0.002857	9	1.1111	0.002714	8	1.2500
62	2,645	10	0.003148	8	1.2500	0.002971	8	1.2500
63	2,010	7	0.003451	7	1.0000	0.003238	7	1.0000
64	1,676	8	0.003783	6	1.3333	0.003514	6	1.3333
65	1,419	5	0.004141	6	0.8333	0.003818	5	1.0000
66	1,148	2	0.004510	5	0.4000	0.004131	5	0.4000
67	860	0	0.004911	4	0.0000	0.004480	4	0.0000
68	701	4	0.005335	4	1.0000	0.004839	3	1.3333
69	546	1	0.005797	3	0.3333	0.005225	3	0.3333
70	432	5	0.006275	3	1.6667	0.005648	2	2.5000
71	313	2	0.006782	2	1.0000	0.006118	2	1.0000
72	262	1	0.007330	2	0.5000	0.006624	2	0.5000
73	202	3	0.007919	2	1.5000	0.007194	1	3.0000
74	159	1	0.008553	1	1.0000	0.007820	1	1.0000
75	122	0	0.009264	1	0.0000	0.008519	1	0.0000
76	86	0	0.010610	1	0.0000	0.009816	1	0.0000
77	65	1	0.012169	1	1.0000	0.011334	1	1.0000
78	53	0	0.013976	1	0.0000	0.013091	1	0.0000
79	38	0	0.016060	1	0.0000	0.015133	1	0.0000
Total	**256,859**	**256**		**262**	**0.9771**		**263**	**0.9734**

[12] Projected to June 30, 2022 using MP-2021.

Healthy Annuitant Mortality Rates
Female

Age	Exposure	Actual Experience	Current Rate[13]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
55	903	4	0.001729	2	2.0000	0.001655	1	4.0000
56	3,987	5	0.001898	8	0.6250	0.001793	7	0.7143
57	5,861	12	0.002073	12	1.0000	0.001939	11	1.0909
58	7,255	23	0.002257	16	1.4375	0.002094	15	1.5333
59	8,541	17	0.002439	21	0.8095	0.002268	19	0.8947
60	9,703	33	0.002626	25	1.3200	0.002442	24	1.3750
61	10,865	32	0.002823	31	1.0323	0.002625	29	1.1034
62	12,612	37	0.003020	38	0.9737	0.002826	36	1.0278
63	15,351	49	0.003235	50	0.9800	0.003036	47	1.0426
64	17,215	62	0.003471	60	1.0333	0.003274	56	1.1071
65	18,865	78	0.003747	71	1.0986	0.003558	67	1.1642
66	21,039	92	0.004057	85	1.0824	0.003887	82	1.1220
67	23,377	99	0.004429	104	0.9519	0.004289	100	0.9900
68	25,622	146	0.004879	125	1.1680	0.004765	122	1.1967
69	27,632	153	0.005421	150	1.0200	0.005341	148	1.0338
70	29,372	203	0.006075	178	1.1404	0.006027	177	1.1469
71	30,537	226	0.006853	209	1.0813	0.006850	209	1.0813
72	31,449	265	0.007774	244	1.0861	0.007810	246	1.0772
73	30,840	305	0.008862	273	1.1172	0.008935	276	1.1051
74	28,894	311	0.010139	293	1.0614	0.010225	295	1.0542
75	26,420	320	0.012942	342	0.9357	0.011725	310	1.0323
76	24,191	341	0.014861	360	0.9472	0.013481	326	1.0460
77	21,293	346	0.017068	363	0.9532	0.015538	331	1.0453
78	18,808	383	0.019590	368	1.0408	0.017971	338	1.1331
79	17,039	416	0.022481	383	1.0862	0.022835	389	1.0694
80	15,224	375	0.025765	392	0.9566	0.026532	404	0.9282
81	13,259	411	0.029521	391	1.0512	0.030821	409	1.0049
82	11,447	393	0.033779	387	1.0155	0.035791	410	0.9585
83	10,115	422	0.038618	391	1.0793	0.041492	420	1.0048
84	9,069	409	0.044115	400	1.0225	0.047935	435	0.9402
85	8,262	434	0.050316	416	1.0433	0.055199	456	0.9518
86	7,452	435	0.057304	427	1.0187	0.063285	472	0.9216
87	6,768	533	0.065156	441	1.2086	0.072193	489	1.0900
88	6,179	516	0.073980	457	1.1291	0.081992	507	1.0178
89	5,651	538	0.083872	474	1.1350	0.092803	524	1.0267
90	5,128	556	0.109145	560	0.9929	0.104787	537	1.0354
91	4,600	594	0.123431	568	1.0458	0.118073	543	1.0939
92	3,941	542	0.139190	549	0.9872	0.132612	523	1.0363
93	3,298	540	0.156455	516	1.0465	0.148393	489	1.1043
94	2,683	485	0.174942	469	1.0341	0.165207	443	1.0948

[13] Projected to June 30, 2022 using MP-2021.

Healthy Annuitant Mortality Rates (cont.)
Female (cont.)

Age	Exposure	Actual Experience	Current Rate[14]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
95	2,103	414	0.194467	409	1.0122	0.182942	385	1.0753
96	1,597	341	0.215514	344	0.9913	0.201879	322	1.0590
97	1,182	283	0.237417	281	1.0071	0.221588	262	1.0802
98	877	236	0.259905	228	1.0351	0.241878	212	1.1132
99	612	175	0.282808	173	1.0116	0.262589	161	1.0870
100	418	137	0.306058	128	1.0703	0.283701	119	1.1513
101	281	109	0.329597	93	1.1720	0.305023	86	1.2674
102	183	57	0.353360	65	0.8769	0.326475	60	0.9500
103	109	39	0.377238	41	0.9512	0.347828	38	1.0263
104	59	25	0.400864	24	1.0417	0.368939	22	1.1364
105	32	14	0.424197	14	1.0000	0.389650	12	1.1667
106	16	6	0.446836	7	0.8571	0.409660	7	0.8571
107	8	5	0.468885	4	1.2500	0.428988	3	1.6667
108	2	1	0.490057	1	1.0000	0.447385	1	1.0000
109	1	0	0.510204	1	0.0000	0.464809	0	-
110	1	1	0.529292	1	1.0000	0.481191	0	-
111	1	1	0.547201	1	1.0000	0.496462	0	-
112	0	0	0.557211	0	-	0.499087	0	-
113	0	0	0.558383	0	-	0.499638	0	-
114	0	0	0.559502	0	-	0.500089	0	-
115	0	0	0.560678	0	-	0.500590	0	-
116	0	0	0.560847	0	-	0.500790	0	-
117	0	0	0.560903	0	-	0.500890	0	-
118	0	0	0.561015	0	-	0.500991	0	-
119	0	0	0.561015	0	-	0.500991	0	-
120	0	0	1.000000	0	-	1.000000	0	-
Total	**588,229**	**12,985**		**12,464**	**1.0418**		**12,412**	**1.0462**

[14] Projected to June 30, 2022 using MP-2021.

Healthy Annuitant Mortality Rates (cont.)
Male

Age	Exposure	Actual Experience	Current Rate[15]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
55	305	1	0.002034	1	1.0000	0.002064	1	1.0000
56	1,301	8	0.002266	3	2.6667	0.002287	3	2.6667
57	1,901	5	0.002525	5	1.0000	0.002547	5	1.0000
58	2,293	11	0.002816	6	1.8333	0.002835	7	1.5714
59	2,669	9	0.003128	8	1.1250	0.003151	8	1.1250
60	2,981	12	0.003463	10	1.2000	0.003495	10	1.2000
61	3,316	13	0.003826	13	1.0000	0.003886	13	1.0000
62	3,668	29	0.004219	15	1.9333	0.004304	16	1.8125
63	4,321	19	0.004630	20	0.9500	0.004760	21	0.9048
64	4,732	24	0.005088	24	1.0000	0.005252	25	0.9600
65	5,147	39	0.005588	29	1.3448	0.005792	30	1.3000
66	5,605	38	0.006154	34	1.1176	0.006377	36	1.0556
67	6,411	52	0.006799	44	1.1818	0.007028	45	1.1556
68	7,409	56	0.007542	56	1.0000	0.007744	57	0.9825
69	8,415	71	0.008394	71	1.0000	0.008553	72	0.9861
70	9,546	90	0.009388	90	1.0000	0.009492	91	0.9890
71	10,809	124	0.010545	114	1.0877	0.010561	114	1.0877
72	12,394	155	0.011889	147	1.0544	0.011806	146	1.0616
73	13,385	176	0.013447	180	0.9778	0.013247	177	0.9944
74	13,527	218	0.015243	206	1.0583	0.014948	202	1.0792
75	13,383	262	0.019770	265	0.9887	0.016929	227	1.1542
76	12,937	278	0.022496	291	0.9553	0.019234	249	1.1165
77	11,797	281	0.025606	302	0.9305	0.021911	258	1.0891
78	10,392	289	0.029136	303	0.9538	0.025026	260	1.1115
79	9,499	334	0.033162	315	1.0603	0.033499	318	1.0503
80	8,501	326	0.037725	321	1.0156	0.038374	326	1.0000
81	7,521	354	0.042943	323	1.0960	0.044020	331	1.0695
82	6,488	331	0.048913	317	1.0442	0.050537	328	1.0091
83	5,884	351	0.055724	328	1.0701	0.058055	342	1.0263
84	5,363	358	0.063499	341	1.0499	0.066683	358	1.0000
85	4,978	385	0.072307	360	1.0694	0.076486	381	1.0105
86	4,544	385	0.082241	374	1.0294	0.087529	398	0.9673
87	4,233	450	0.093316	395	1.1392	0.099834	423	1.0638
88	3,785	461	0.105703	400	1.1525	0.113478	430	1.0721
89	3,318	480	0.119426	396	1.2121	0.128536	426	1.1268
90	2,800	456	0.134544	377	1.2095	0.144975	406	1.1232
91	2,266	371	0.150997	342	1.0848	0.163080	370	1.0027
92	1,816	381	0.168674	306	1.2451	0.182827	332	1.1476
93	1,410	293	0.187281	264	1.1098	0.204032	288	1.0174
94	1,077	222	0.206669	223	0.9955	0.226510	244	0.9098

[15] Projected to June 30, 2022 using MP-2021.

Healthy Annuitant Mortality Rates (cont.)
Male (cont.)

Age	Exposure	Actual Experience	Current Rate[16]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
95	821	220	0.226529	186	1.1828	0.249815	205	1.0732
96	598	170	0.254243	152	1.1184	0.274338	164	1.0366
97	384	111	0.276376	106	1.0472	0.299297	115	0.9652
98	252	81	0.298737	75	1.0800	0.324353	82	0.9878
99	142	55	0.321175	46	1.1957	0.349279	50	1.1000
100	75	18	0.343502	26	0.6923	0.373857	28	0.6429
101	46	23	0.365808	17	1.3529	0.397978	18	1.2778
102	19	6	0.388101	7	0.8571	0.421511	8	0.7500
103	12	7	0.410014	5	1.4000	0.444305	5	1.4000
104	6	4	0.431533	3	1.3333	0.466315	3	1.3333
105	3	3	0.452311	1	3.0000	0.487063	1	3.0000
106	0	0	0.472348	0	-	0.506766	0	-
107	0	0	0.491738	0	-	0.525230	0	-
108	0	0	0.510013	0	-	0.538046	0	-
109	0	0	0.527522	0	-	0.538851	0	-
110	0	0	0.528921	0	-	0.539602	0	-
111	0	0	0.546872	0	-	0.540309	0	-
112	0	0	0.556877	0	-	0.541125	0	-
113	0	0	0.558160	0	-	0.541876	0	-
114	0	0	0.559390	0	-	0.542692	0	-
115	0	0	0.560566	0	-	0.543399	0	-
116	0	0	0.560735	0	-	0.543671	0	-
117	0	0	0.560903	0	-	0.543834	0	-
118	0	0	0.561015	0	-	0.543998	0	-
119	0	0	0.561015	0	-	0.543998	0	-
120	0	0	1.000000	0	-	1.000000	0	-
Total	**244,485**	**8,896**		**8,243**	**1.0792**		**8,453**	**1.0524**

[16] Projected to June 30, 2022 using MP-2021.

Disabled Annuitant Mortality Rates
Female

Age	Exposure	Actual Experience	Current Rate[17]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
30	0	0	0.003541	0	-	0.001979	0	-
31	0	0	0.003912	0	-	0.002191	0	-
32	0	0	0.004297	0	-	0.002403	0	-
33	0	0	0.004699	0	-	0.002627	0	-
34	0	0	0.005099	0	-	0.002839	0	-
35	0	0	0.005499	0	-	0.003074	0	-
36	0	0	0.005890	0	-	0.003310	0	-
37	1	0	0.006281	0	-	0.003533	0	-
38	6	1	0.006670	0	-	0.003769	0	-
39	6	0	0.007066	0	-	0.004005	0	-
40	11	1	0.007469	0	-	0.004228	0	-
41	16	1	0.007887	0	-	0.004464	0	-
42	20	1	0.008327	0	-	0.004723	0	-
43	36	2	0.008809	0	-	0.004994	0	-
44	44	0	0.009349	0	-	0.005300	0	-
45	58	2	0.009961	1	2.0000	0.005654	0	-
46	65	2	0.010646	1	2.0000	0.006042	0	-
47	81	1	0.011436	1	1.0000	0.006490	1	1.0000
48	88	0	0.012344	1	0.0000	0.006973	1	0.0000
49	103	3	0.013387	1	3.0000	0.007526	1	3.0000
50	109	2	0.014552	2	1.0000	0.008127	1	2.0000
51	135	5	0.015237	2	2.5000	0.008798	1	5.0000
52	147	3	0.015996	2	1.5000	0.009564	1	3.0000
53	155	2	0.016815	3	0.6667	0.010447	2	1.0000
54	177	5	0.017671	3	1.6667	0.011437	2	2.5000
55	206	3	0.018498	4	0.7500	0.012567	3	1.0000
56	212	4	0.019266	4	1.0000	0.013828	3	1.3333
57	225	9	0.019931	4	2.2500	0.015217	3	3.0000
58	245	10	0.020475	5	2.0000	0.016760	4	2.5000
59	251	3	0.020897	5	0.6000	0.018433	5	0.6000
60	248	5	0.021224	5	1.0000	0.020211	5	1.0000
61	256	6	0.021452	5	1.2000	0.020718	5	1.2000
62	261	2	0.021663	6	0.3333	0.021118	6	0.3333
63	262	11	0.021878	6	1.8333	0.021460	6	1.8333
64	255	7	0.022133	6	1.1667	0.021731	6	1.1667
65	259	3	0.022473	6	0.5000	0.021978	6	0.5000
66	260	6	0.022940	6	1.0000	0.022272	6	1.0000
67	262	3	0.023569	6	0.5000	0.022649	6	0.5000
68	283	6	0.024403	7	0.8571	0.023203	7	0.8571
69	298	9	0.025463	8	1.1250	0.023980	7	1.2857

[17] Projected to June 30, 2022 using MP-2021.

Disabled Annuitant Mortality Rates (cont.)
Female (cont.)

Age	Exposure	Actual Experience	Current Rate[18]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
70	319	5	0.026774	9	0.5556	0.025099	8	0.6250
71	331	9	0.028349	9	1.0000	0.026642	9	1.0000
72	338	9	0.030222	10	0.9000	0.028644	10	0.9000
73	311	7	0.032383	10	0.7000	0.031141	10	0.7000
74	282	8	0.034895	10	0.8000	0.034192	10	0.8000
75	241	7	0.037763	9	0.7778	0.037855	9	0.7778
76	215	15	0.041007	9	1.6667	0.042154	9	1.6667
77	173	15	0.044681	8	1.8750	0.047089	8	1.8750
78	153	7	0.048792	7	1.0000	0.052554	8	0.8750
79	134	3	0.053390	7	0.4286	0.058467	8	0.3750
80	118	8	0.058491	7	1.1429	0.064615	8	1.0000
81	89	4	0.064151	6	0.6667	0.070834	6	0.6667
82	79	6	0.070373	6	1.0000	0.077170	6	1.0000
83	61	5	0.077204	5	1.0000	0.083907	5	1.0000
84	55	12	0.084676	5	2.4000	0.091339	5	2.4000
85	42	4	0.092832	4	1.0000	0.099937	4	1.0000
86	37	5	0.101343	4	1.2500	0.109383	4	1.2500
87	33	3	0.110028	4	0.7500	0.119513	4	0.7500
88	32	6	0.118849	4	1.5000	0.130195	4	1.5000
89	25	2	0.127786	3	0.6667	0.141420	4	0.5000
90	25	6	0.136992	3	2.0000	0.153222	4	1.5000
91	21	4	0.146595	3	1.3333	0.165754	3	1.3333
92	16	4	0.156757	3	1.3333	0.179134	3	1.3333
93	13	2	0.167786	2	1.0000	0.193538	3	0.6667
94	14	2	0.179767	3	0.6667	0.208979	3	0.6667
95	12	3	0.194467	2	1.5000	0.225681	3	1.0000
96	10	1	0.215514	2	0.5000	0.244255	2	0.5000
97	10	5	0.237417	2	2.5000	0.264419	3	1.6667
98	5	1	0.259905	1	1.0000	0.286103	1	1.0000
99	5	2	0.282808	1	2.0000	0.309164	2	1.0000
100	4	1	0.306058	1	1.0000	0.333486	1	1.0000
101	4	1	0.329597	1	1.0000	0.358550	1	1.0000
102	2	0	0.353360	1	0.0000	0.383767	1	0.0000
103	2	0	0.377238	1	0.0000	0.408866	1	0.0000
104	2	2	0.400864	1	2.0000	0.433683	1	2.0000
105	0	0	0.424197	0	-	0.458028	0	-
106	0	0	0.446836	0	-	0.481549	0	-
107	0	0	0.468885	0	-	0.504269	0	-
108	0	0	0.490057	0	-	0.525894	0	-
109	0	0	0.510204	0	-	0.546376	0	-

[18] Projected to June 30, 2022 using MP-2021.

Disabled Annuitant Mortality Rates (cont.)
Female (cont.)

Age	Exposure	Actual Experience	Current Rate[19]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
110	0	0	0.529292	0	-	0.565633	0	-
111	0	0	0.547201	0	-	0.583583	0	-
112	0	0	0.557211	0	-	0.586669	0	-
113	0	0	0.558383	0	-	0.587316	0	-
114	0	0	0.559502	0	-	0.587846	0	-
115	0	0	0.560678	0	-	0.588435	0	-
116	0	0	0.560847	0	-	0.588671	0	-
117	0	0	0.560903	0	-	0.588789	0	-
118	0	0	0.561015	0	-	0.588907	0	-
119	0	0	0.561015	0	-	0.588907	0	-
120	0	0	1.000000	0	-	1.000000	0	-
Total	**8,254**	**292**		**263**	**1.1103**		**259**	**1.1274**

[19] Projected to June 30, 2022 using MP-2021.

Disabled Annuitant Mortality Rates (cont.)
Male

Age	Exposure	Actual Experience	Current Rate[20]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
30	0	0	0.004819	0	-	0.004030	0	-
31	0	0	0.005164	0	-	0.004041	0	-
32	0	0	0.005509	0	-	0.004053	0	-
33	1	0	0.005843	0	-	0.004123	0	-
34	1	0	0.006187	0	-	0.004204	0	-
35	1	0	0.006507	0	-	0.004332	0	-
36	1	0	0.006831	0	-	0.004495	0	-
37	0	0	0.007153	0	-	0.004693	0	-
38	0	0	0.007483	0	-	0.004926	0	-
39	0	0	0.007810	0	-	0.005194	0	-
40	0	0	0.008150	0	-	0.005497	0	-
41	1	1	0.008517	0	-	0.005823	0	-
42	3	0	0.008926	0	-	0.006173	0	-
43	6	0	0.009382	0	-	0.006557	0	-
44	7	1	0.009930	0	-	0.006953	0	-
45	7	1	0.010554	0	-	0.007384	0	-
46	12	0	0.011289	0	-	0.007826	0	-
47	15	1	0.012136	0	-	0.008292	0	-
48	19	0	0.013100	0	-	0.008793	0	-
49	25	1	0.014175	0	-	0.009375	0	-
50	34	0	0.015375	1	0.0000	0.010027	0	-
51	43	1	0.016376	1	1.0000	0.010761	0	-
52	48	1	0.017442	1	1.0000	0.011588	1	1.0000
53	46	1	0.018558	1	1.0000	0.012555	1	1.0000
54	39	1	0.019713	1	1.0000	0.013626	1	1.0000
55	32	0	0.020887	1	0.0000	0.014861	0	-
56	46	4	0.022053	1	4.0000	0.016223	1	4.0000
57	43	2	0.023181	1	2.0000	0.017772	1	2.0000
58	52	2	0.024266	1	2.0000	0.019484	1	2.0000
59	54	2	0.025306	1	2.0000	0.021383	1	2.0000
60	53	0	0.026299	1	0.0000	0.023444	1	0.0000
61	46	0	0.027245	1	0.0000	0.024772	1	0.0000
62	44	0	0.028189	1	0.0000	0.025925	1	0.0000
63	36	0	0.029154	1	0.0000	0.026891	1	0.0000
64	30	0	0.030131	1	0.0000	0.027706	1	0.0000
65	41	2	0.031120	1	2.0000	0.028382	1	2.0000
66	44	0	0.032155	1	0.0000	0.028999	1	0.0000
67	44	2	0.033231	1	2.0000	0.029581	1	2.0000
68	55	2	0.034392	2	1.0000	0.030257	2	1.0000
69	65	0	0.035656	2	0.0000	0.031130	2	0.0000

[20] Projected to June 30, 2022 using MP-2021.

Disabled Annuitant Mortality Rates (cont.)
Male (cont.)

Age	Exposure	Actual Experience	Current Rate[21]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
70	71	4	0.037074	3	1.3333	0.032295	2	2.0000
71	78	5	0.038698	3	1.6667	0.033891	3	1.6667
72	89	7	0.040564	4	1.7500	0.035952	3	2.3333
73	89	0	0.042695	4	0.0000	0.038514	3	0.0000
74	93	3	0.045139	4	0.7500	0.041589	4	0.7500
75	85	5	0.047953	4	1.2500	0.045257	4	1.2500
76	86	5	0.051119	4	1.2500	0.049473	4	1.2500
77	84	6	0.054719	5	1.2000	0.054260	5	1.2000
78	68	6	0.058763	4	1.5000	0.059617	4	1.5000
79	58	6	0.063320	4	1.5000	0.065429	4	1.5000
80	48	3	0.068388	3	1.0000	0.071613	3	1.0000
81	36	7	0.074049	3	2.3333	0.078100	3	2.3333
82	26	1	0.080288	2	0.5000	0.084971	2	0.5000
83	29	3	0.087109	3	1.0000	0.092413	3	1.0000
84	27	4	0.094546	3	1.3333	0.100717	3	1.3333
85	25	1	0.102541	3	0.3333	0.110243	3	0.3333
86	26	6	0.111159	3	2.0000	0.122472	3	2.0000
87	15	1	0.120358	2	0.5000	0.136506	2	0.5000
88	11	3	0.130319	1	3.0000	0.151937	2	1.5000
89	13	4	0.142773	2	2.0000	0.168777	2	2.0000
90	13	4	0.156477	2	2.0000	0.186922	2	2.0000
91	9	2	0.170482	2	1.0000	0.205778	2	1.0000
92	7	1	0.184620	1	1.0000	0.224971	2	0.5000
93	6	2	0.198733	1	2.0000	0.244280	1	2.0000
94	3	0	0.212988	1	0.0000	0.263846	1	0.0000
95	1	0	0.227492	0	-	0.283679	0	-
96	2	1	0.254243	1	1.0000	0.304829	1	1.0000
97	2	1	0.276376	1	1.0000	0.326992	1	1.0000
98	1	0	0.298737	0	-	0.350308	0	-
99	1	0	0.321175	0	-	0.374776	0	-
100	1	0	0.343502	0	-	0.400188	0	-
101	0	0	0.365808	0	-	0.426008	0	-
102	0	0	0.388101	0	-	0.451199	0	-
103	0	0	0.410014	0	-	0.475598	0	-
104	0	0	0.431533	0	-	0.499158	0	-
105	0	0	0.452311	0	-	0.521368	0	-
106	0	0	0.472348	0	-	0.542459	0	-
107	0	0	0.491738	0	-	0.562223	0	-
108	0	0	0.510013	0	-	0.575942	0	-
109	0	0	0.527522	0	-	0.576804	0	-

[21] Projected to June 30, 2022 using MP-2021.

Disabled Annuitant Mortality Rates (cont.)
Male (cont.)

Age	Exposure	Actual Experience	Current Rate[22]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
110	0	0	0.528921	0	-	0.577607	0	-
111	0	0	0.546872	0	-	0.578364	0	-
112	0	0	0.556877	0	-	0.579238	0	-
113	0	0	0.558160	0	-	0.580041	0	-
114	0	0	0.559390	0	-	0.580915	0	-
115	0	0	0.560566	0	-	0.581672	0	-
116	0	0	0.560735	0	-	0.581963	0	-
117	0	0	0.560903	0	-	0.582138	0	-
118	0	0	0.561015	0	-	0.582313	0	-
119	0	0	0.561015	0	-	0.582313	0	-
120	0	0	1.000000	0	-	1.000000	0	-
Total	**2,097**	**116**		**95**	**1.2211**		**91**	**1.2747**

[22] Projected to June 30, 2022 using MP-2021.

Survivor and Beneficiary Mortality Rates
Female

Age	Exposure	Actual Experience	Current Rate[23]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
1	0	0	0.000145	0	-	0.000094	0	-
2	0	0	0.000145	0	-	0.000094	0	-
3	0	0	0.000145	0	-	0.000094	0	-
4	0	0	0.000145	0	-	0.000094	0	-
5	0	0	0.000145	0	-	0.000094	0	-
6	0	0	0.000145	0	-	0.000094	0	-
7	0	0	0.000145	0	-	0.000094	0	-
8	0	0	0.000145	0	-	0.000094	0	-
9	0	0	0.000145	0	-	0.000094	0	-
10	0	0	0.000145	0	-	0.000094	0	-
11	0	0	0.000145	0	-	0.000094	0	-
12	0	0	0.000145	0	-	0.000094	0	-
13	0	0	0.000145	0	-	0.000094	0	-
14	0	0	0.000145	0	-	0.000094	0	-
15	1	0	0.000147	0	-	0.000094	0	-
16	0	0	0.000147	0	-	0.000094	0	-
17	0	0	0.000147	0	-	0.000094	0	-
18	0	0	0.000147	0	-	0.000094	0	-
19	1	0	0.000147	0	-	0.000094	0	-
20	0	0	0.000136	0	-	0.000094	0	-
21	0	0	0.000127	0	-	0.000094	0	-
22	1	0	0.000118	0	-	0.000094	0	-
23	0	0	0.000108	0	-	0.000094	0	-
24	1	0	0.000099	0	-	0.000094	0	-
25	1	0	0.000101	0	-	0.000104	0	-
26	3	0	0.000117	0	-	0.000115	0	-
27	4	0	0.000131	0	-	0.000125	0	-
28	4	0	0.000148	0	-	0.000146	0	-
29	2	0	0.000165	0	-	0.000157	0	-
30	0	0	0.000181	0	-	0.000188	0	-
31	4	0	0.000212	0	-	0.000198	0	-
32	5	0	0.000227	0	-	0.000219	0	-
33	9	0	0.000255	0	-	0.000251	0	-
34	10	0	0.000266	0	-	0.000272	0	-
35	13	0	0.000292	0	-	0.000303	0	-
36	12	0	0.000314	0	-	0.000324	0	-
37	8	0	0.000331	0	-	0.000355	0	-
38	5	0	0.000361	0	-	0.000376	0	-
39	5	0	0.000374	0	-	0.000407	0	-

[23] Projected to June 30, 2022 using MP-2021.

Survivor and Beneficiary Mortality Rates (cont.)
Female (cont.)

Age	Exposure	Actual Experience	Current Rate[24]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
40	3	0	0.000396	0	-	0.000439	0	-
41	7	0	0.000417	0	-	0.000470	0	-
42	7	0	0.000435	0	-	0.000491	0	-
43	8	0	0.000464	0	-	0.000522	0	-
44	11	0	0.000493	0	-	0.000564	0	-
45	16	0	0.000521	0	-	0.000585	0	-
46	18	0	0.000552	0	-	0.000627	0	-
47	15	0	0.000594	0	-	0.000668	0	-
48	17	1	0.000641	0	-	0.000721	0	-
49	20	0	0.000690	0	-	0.000762	0	-
50	18	0	0.000754	0	-	0.002235	0	-
51	23	0	0.000823	0	-	0.002423	0	-
52	34	0	0.000897	0	-	0.002569	0	-
53	29	0	0.000995	0	-	0.002663	0	-
54	33	0	0.001088	0	-	0.002778	0	-
55	42	0	0.002952	0	-	0.002903	0	-
56	53	0	0.003158	0	-	0.003050	0	-
57	64	1	0.003364	0	-	0.003196	0	-
58	72	0	0.003580	0	-	0.003394	0	-
59	79	0	0.003808	0	-	0.003634	0	-
60	97	0	0.004071	0	-	0.003896	0	-
61	100	1	0.004360	0	-	0.004157	0	-
62	124	0	0.004699	1	0.0000	0.004439	1	0.0000
63	158	2	0.005074	1	2.0000	0.004742	1	2.0000
64	195	1	0.005507	1	1.0000	0.005086	1	1.0000
65	226	1	0.005992	1	1.0000	0.005483	1	1.0000
66	274	2	0.006546	2	1.0000	0.005963	2	1.0000
67	343	3	0.007178	2	1.5000	0.006548	2	1.5000
68	408	3	0.007914	3	1.0000	0.007227	3	1.0000
69	453	4	0.008771	4	1.0000	0.008042	4	1.0000
70	519	1	0.009762	5	0.2000	0.008992	5	0.2000
71	616	3	0.010903	7	0.4286	0.010110	6	0.5000
72	737	12	0.012226	9	1.3333	0.011394	8	1.5000
73	817	9	0.013733	11	0.8182	0.012877	11	0.8182
74	883	13	0.015459	14	0.9286	0.014601	13	1.0000
75	933	17	0.017427	16	1.0625	0.016606	15	1.1333
76	999	16	0.019657	20	0.8000	0.018883	19	0.8421
77	1,028	23	0.022194	23	1.0000	0.021514	22	1.0455
78	1,030	33	0.025071	26	1.2692	0.024543	25	1.3200
79	1,053	18	0.028357	30	0.6000	0.028021	30	0.6000

[24] Projected to June 30, 2022 using MP-2021.

Survivor and Beneficiary Mortality Rates (cont.)
Female (cont.)

Age	Exposure	Actual Experience	Current Rate[25]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
80	1,117	29	0.032095	36	0.8056	0.032052	36	0.8056
81	1,107	46	0.036383	40	1.1500	0.036742	41	1.1220
82	1,049	32	0.041280	43	0.7442	0.042120	44	0.7273
83	1,032	49	0.046871	48	1.0208	0.048272	50	0.9800
84	991	56	0.053260	53	1.0566	0.055217	55	1.0182
85	966	52	0.060546	58	0.8966	0.062956	61	0.8525
86	937	70	0.068853	65	1.0769	0.071499	67	1.0448
87	877	80	0.078240	69	1.1594	0.080909	71	1.1268
88	800	72	0.088756	71	1.0141	0.091248	73	0.9863
89	736	85	0.100339	74	1.1486	0.102642	76	1.1184
90	652	71	0.112908	74	0.9595	0.115185	75	0.9467
91	587	65	0.126359	74	0.8784	0.128888	76	0.8553
92	552	100	0.140574	78	1.2821	0.143635	79	1.2658
93	469	75	0.156455	73	1.0274	0.159436	75	1.0000
94	399	65	0.174942	70	0.9286	0.176105	70	0.9286
95	360	72	0.194467	70	1.0286	0.193661	70	1.0286
96	300	72	0.215514	65	1.1077	0.212449	64	1.1250
97	222	63	0.237417	53	1.1887	0.232167	52	1.2115
98	170	42	0.259905	44	0.9545	0.252669	43	0.9767
99	126	46	0.282808	36	1.2778	0.273870	35	1.3143
100	79	25	0.306058	24	1.0417	0.295708	23	1.0870
101	52	18	0.329597	17	1.0588	0.317932	17	1.0588
102	39	14	0.353360	14	1.0000	0.340293	13	1.0769
103	23	8	0.377238	9	0.8889	0.362549	8	1.0000
104	12	4	0.400864	5	0.8000	0.384554	5	0.8000
105	5	3	0.424197	2	1.5000	0.406141	2	1.5000
106	2	0	0.446836	1	0.0000	0.426998	1	0.0000
107	3	2	0.468885	1	2.0000	0.447144	1	2.0000
108	2	1	0.490057	1	1.0000	0.466319	1	1.0000
109	1	1	0.510204	1	1.0000	0.484481	0	-
110	0	0	0.529292	0	-	0.501556	0	-
111	0	0	0.547201	0	-	0.517473	0	-
112	0	0	0.557211	0	-	0.520209	0	-
113	0	0	0.558383	0	-	0.520784	0	-
114	0	0	0.559502	0	-	0.521254	0	-
115	0	0	0.560678	0	-	0.521776	0	-
116	0	0	0.560847	0	-	0.521985	0	-
117	0	0	0.560903	0	-	0.522089	0	-
118	0	0	0.561015	0	-	0.522194	0	-
119	0	0	0.561015	0	-	0.522194	0	-
120	0	0	1.000000	0	-	1.000000	0	-
Total	**25,318**	**1,482**		**1445**	**1.0256**		**1453**	**1.0200**

[25] Projected to June 30, 2022 using MP-2021.

Survivor and Beneficiary Mortality Rates (cont.)
Male

Age	Exposure	Actual Experience	Current Rate[26]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
1	0	0	0.000403	0	-	0.000244	0	-
2	0	0	0.000403	0	-	0.000244	0	-
3	0	0	0.000403	0	-	0.000244	0	-
4	0	0	0.000403	0	-	0.000244	0	-
5	0	0	0.000403	0	-	0.000244	0	-
6	0	0	0.000403	0	-	0.000244	0	-
7	0	0	0.000403	0	-	0.000244	0	-
8	0	0	0.000403	0	-	0.000244	0	-
9	0	0	0.000403	0	-	0.000244	0	-
10	0	0	0.000403	0	-	0.000244	0	-
11	0	0	0.000403	0	-	0.000244	0	-
12	0	0	0.000403	0	-	0.000244	0	-
13	0	0	0.000403	0	-	0.000244	0	-
14	0	0	0.000403	0	-	0.000244	0	-
15	0	0	0.000407	0	-	0.000244	0	-
16	0	0	0.000407	0	-	0.000244	0	-
17	0	0	0.000407	0	-	0.000244	0	-
18	0	0	0.000407	0	-	0.000244	0	-
19	0	0	0.000407	0	-	0.000279	0	-
20	1	0	0.000407	0	-	0.000325	0	-
21	1	0	0.000391	0	-	0.000348	0	-
22	1	0	0.000364	0	-	0.000360	0	-
23	0	0	0.000337	0	-	0.000372	0	-
24	1	0	0.000311	0	-	0.000383	0	-
25	1	0	0.000307	0	-	0.000395	0	-
26	2	0	0.000344	0	-	0.000406	0	-
27	2	0	0.000368	0	-	0.000418	0	-
28	5	0	0.000393	0	-	0.000430	0	-
29	6	0	0.000433	0	-	0.000441	0	-
30	9	0	0.000458	0	-	0.000453	0	-
31	9	0	0.000498	0	-	0.000476	0	-
32	8	0	0.000520	0	-	0.000499	0	-
33	6	0	0.000556	0	-	0.000511	0	-
34	11	0	0.000588	0	-	0.000546	0	-
35	13	0	0.000632	0	-	0.000581	0	-
36	15	1	0.000657	0	-	0.000627	0	-
37	13	0	0.000690	0	-	0.000673	0	-
38	12	0	0.000718	0	-	0.000708	0	-
39	10	0	0.000754	0	-	0.000766	0	-

[26] Projected to June 30, 2022 using MP-2021.

Survivor and Beneficiary Mortality Rates (cont.)
Male (cont.)

Age	Exposure	Actual Experience	Current Rate[27]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
40	7	0	0.000783	0	-	0.000813	0	-
41	5	0	0.000806	0	-	0.000871	0	-
42	11	0	0.000839	0	-	0.000929	0	-
43	14	0	0.000880	0	-	0.000975	0	-
44	14	0	0.000919	0	-	0.001033	0	-
45	14	0	0.000967	0	-	0.001091	0	-
46	15	0	0.001029	0	-	0.001161	0	-
47	14	0	0.001090	0	-	0.001219	0	-
48	13	0	0.001167	0	-	0.001300	0	-
49	11	0	0.001247	0	-	0.001370	0	-
50	13	0	0.001342	0	-	0.002624	0	-
51	13	0	0.001455	0	-	0.002821	0	-
52	12	0	0.001574	0	-	0.003065	0	-
53	13	0	0.001711	0	-	0.003332	0	-
54	16	0	0.001867	0	-	0.003622	0	-
55	17	1	0.004154	0	-	0.003982	0	-
56	25	0	0.004528	0	-	0.004354	0	-
57	31	0	0.004927	0	-	0.004795	0	-
58	37	2	0.005363	0	-	0.005248	0	-
59	36	0	0.005821	0	-	0.005736	0	-
60	45	0	0.006301	0	-	0.006246	0	-
61	61	1	0.006805	0	-	0.006769	0	-
62	75	0	0.007323	1	0.0000	0.007280	1	0.0000
63	87	0	0.007871	1	0.0000	0.007837	1	0.0000
64	104	1	0.008455	1	1.0000	0.008406	1	1.0000
65	122	3	0.009109	1	3.0000	0.009045	1	3.0000
66	128	2	0.009869	1	2.0000	0.009776	1	2.0000
67	155	1	0.010748	2	0.5000	0.010589	2	0.5000
68	183	6	0.011759	2	3.0000	0.011529	2	3.0000
69	207	5	0.012921	3	1.6667	0.012609	3	1.6667
70	241	3	0.014261	3	1.0000	0.013863	3	1.0000
71	285	3	0.015784	4	0.7500	0.015326	4	0.7500
72	345	8	0.017532	6	1.3333	0.017044	6	1.3333
73	383	12	0.019528	7	1.7143	0.019041	7	1.7143
74	401	14	0.021828	9	1.5556	0.021363	9	1.5556
75	382	13	0.024456	9	1.4444	0.024080	9	1.4444
76	387	12	0.027455	11	1.0909	0.027203	11	1.0909
77	360	9	0.030897	11	0.8182	0.030791	11	0.8182
78	359	12	0.034816	12	1.0000	0.034924	13	0.9231
79	336	10	0.039290	13	0.7692	0.039661	13	0.7692

[27] Projected to June 30, 2022 using MP-2021.

Survivor and Beneficiary Mortality Rates (cont.)
Male (cont.)

Age	Exposure	Actual Experience	Current Rate[28]	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
80	312	11	0.044403	14	0.7857	0.045060	14	0.7857
81	293	12	0.050238	15	0.8000	0.051202	15	0.8000
82	280	22	0.056873	16	1.3750	0.058191	16	1.3750
83	239	14	0.064348	15	0.9333	0.066145	16	0.8750
84	225	17	0.072729	16	1.0625	0.075224	17	1.0000
85	231	22	0.082053	19	1.1579	0.085592	20	1.1000
86	239	22	0.092346	22	1.0000	0.097435	23	0.9565
87	228	38	0.103568	24	1.5833	0.110914	25	1.5200
88	210	30	0.115852	24	1.2500	0.126171	26	1.1538
89	194	27	0.129144	25	1.0800	0.143389	28	0.9643
90	158	24	0.143434	23	1.0435	0.162581	26	0.9231
91	157	28	0.158978	25	1.1200	0.183259	29	0.9655
92	136	34	0.175915	24	1.4167	0.204982	28	1.2143
93	108	23	0.194071	21	1.0952	0.227390	25	0.9200
94	87	27	0.213345	19	1.4211	0.250309	22	1.2273
95	66	10	0.233413	15	0.6667	0.273519	18	0.5556
96	64	16	0.254949	16	1.0000	0.297749	19	0.8421
97	52	18	0.277188	14	1.2857	0.322456	17	1.0588
98	33	15	0.299741	10	1.5000	0.347616	11	1.3636
99	21	5	0.322372	7	0.7143	0.373171	8	0.6250
100	17	6	0.344837	6	1.0000	0.398958	7	0.8571
101	10	3	0.367230	4	0.7500	0.424698	4	0.7500
102	7	5	0.389609	3	1.6667	0.449811	3	1.6667
103	3	3	0.411609	1	3.0000	0.474135	1	3.0000
104	0	0	0.433211	0	-	0.497623	0	-
105	1	1	0.454070	0	-	0.519764	1	1.0000
106	0	0	0.474184	0	-	0.540791	0	-
107	0	0	0.493650	0	-	0.560494	0	-
108	0	0	0.511996	0	-	0.574171	0	-
109	0	0	0.529573	0	-	0.575030	0	-
110	0	0	0.543585	0	-	0.575831	0	-
111	0	0	0.546872	0	-	0.576586	0	-
112	0	0	0.556877	0	-	0.577456	0	-
113	0	0	0.558160	0	-	0.578257	0	-
114	0	0	0.559390	0	-	0.579128	0	-
115	0	0	0.560566	0	-	0.579883	0	-
116	0	0	0.560735	0	-	0.580173	0	-
117	0	0	0.560903	0	-	0.580347	0	-
118	0	0	0.561015	0	-	0.580522	0	-
119	0	0	0.561015	0	-	0.580522	0	-
120	0	0	1.000000	0	-	1.000000	0	-
Total	**8,474**	**552**		**475**	**1.162**		**517**	**1.068**

[28] Projected to June 30, 2022 using MP-2021.

Service Retirement Rates
Service: At least 5 and less than 20
Female

Age	4-Year Exposure	4-Year Actual Experience	Current Rate	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
55	5,643	147	0.022034	124	1.1855	0.025557	144	1.0208
56	5,372	132	0.020920	112	1.1786	0.024732	133	0.9925
57	5,140	122	0.021583	111	1.0991	0.025008	129	0.9457
58	4,895	137	0.024243	119	1.1513	0.028332	139	0.9856
59	4,551	153	0.028714	131	1.1679	0.033154	151	1.0132
60	4,199	157	0.036747	154	1.0195	0.042513	179	0.8771
61	3,763	232	0.049865	188	1.2340	0.066721	251	0.9243
62	3,296	350	0.098737	325	1.0769	0.104299	344	1.0174
63	2,648	299	0.099499	263	1.1369	0.113000	299	1.0000
64	2,117	254	0.108244	229	1.1092	0.128861	273	0.9304
65	1,747	284	0.134619	235	1.2085	0.154457	270	1.0519
66	1,239	214	0.157206	195	1.0974	0.172981	214	1.0000
67	908	167	0.157651	143	1.1678	0.173225	157	1.0637
68	663	101	0.149321	99	1.0202	0.164568	109	0.9266
69	554	94	0.157048	87	1.0805	0.168203	93	1.0108
70	392	71	0.169309	66	1.0758	0.174499	68	1.0441
71	283	47	0.166236	47	1.0000	0.166585	47	1.0000
72	196	30	0.149874	29	1.0345	0.138184	27	1.1111
73	149	12	0.130584	19	0.6316	0.097129	14	0.8571
74	121	9	0.131818	16	0.5625	0.101845	12	0.7500
75	73	13	0.170940	12	1.0833	0.136325	10	1.3000
76	61	7	0.208633	13	0.5385	0.158349	10	0.7000
77	31	7	0.178744	6	1.1667	0.157217	5	1.4000
78	32	2	0.105960	3	0.6667	0.097702	3	0.6667
79	25	1	0.115385	3	0.3333	0.079980	2	0.5000
80+	-	-	1.000000	-	-	1.000000	-	-
Total	**48,098**	**3,042**		**2,729**	**1.1147**		**3,083**	**0.9867**

Service Retirement Rates (cont.)
Service: At least 20 and less than 30
Female

Age	4-year Exposure	4-year Actual Experience	Current Rate	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
55	7,359	405	0.048946	360	1.1250	0.055256	407	0.9951
56	6,158	343	0.048932	301	1.1395	0.056897	350	0.9800
57	5,429	332	0.050278	273	1.2161	0.060249	327	1.0153
58	5,112	322	0.055984	286	1.1259	0.065882	337	0.9555
59	4,817	368	0.066847	322	1.1429	0.075722	365	1.0082
60	4,615	402	0.085816	396	1.0152	0.102809	474	0.8481
61	4,470	718	0.124821	558	1.2867	0.192886	862	0.8329
62	4,031	1,464	0.344649	1,389	1.0540	0.349640	1,409	1.0390
63	2,788	822	0.320354	893	0.9205	0.306593	855	0.9614
64	2,190	599	0.270180	592	1.0118	0.291683	639	0.9374
65	1,850	601	0.306632	567	1.0600	0.319195	591	1.0169
66	1,386	490	0.343562	476	1.0294	0.343771	476	1.0294
67	985	338	0.335230	330	1.0242	0.338061	333	1.0150
68	733	229	0.312155	229	1.0000	0.312577	229	1.0000
69	549	155	0.294658	162	0.9568	0.300902	165	0.9394
70	392	128	0.276159	108	1.1852	0.304520	119	1.0756
71	283	80	0.258438	73	1.0959	0.300387	85	0.9412
72	197	61	0.248951	49	1.2449	0.287994	57	1.0702
73	144	36	0.231388	33	1.0909	0.249286	36	1.0000
74	80	15	0.202817	16	0.9375	0.219630	18	0.8333
75	71	18	0.232824	17	1.0588	0.236136	17	1.0588
76	44	11	0.283422	12	0.9167	0.233023	10	1.1000
77	28	5	0.291667	8	0.6250	0.166492	5	1.0000
78	17	1	0.243590	4	0.2500	0.109769	2	0.5000
79	14	2	0.170732	2	1.0000	0.118743	2	1.0000
80+	-	-	1.000000	-	-	1.000000	-	-
Total	**53,742**	**7,945**		**7,456**	**1.0656**		**8,170**	**0.9725**

Service Retirement Rates (cont.)
Service: At least 30
Female

Age	4-year Exposure	4-year Actual Experience	Current Rate	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
55	3,644	1,516	0.360457	1,314	1.1537	0.391610	1,427	1.0624
56	2,894	992	0.328854	952	1.0420	0.347754	1,006	0.9861
57	2,498	723	0.285005	712	1.0154	0.306464	766	0.9439
58	2,278	693	0.281178	641	1.0811	0.301503	687	1.0087
59	2,012	620	0.303384	610	1.0164	0.318754	641	0.9672
60	1,811	642	0.329377	597	1.0754	0.350883	635	1.0110
61	1,483	573	0.358157	531	1.0791	0.383246	568	1.0088
62	1,188	482	0.383599	456	1.0570	0.394013	468	1.0299
63	891	337	0.361017	322	1.0466	0.370694	330	1.0212
64	733	235	0.336647	247	0.9514	0.345360	253	0.9289
65	616	223	0.345155	213	1.0469	0.356395	220	1.0136
66	504	192	0.361702	182	1.0549	0.373880	188	1.0213
67	331	123	0.339678	112	1.0982	0.363230	120	1.0250
68	292	96	0.289690	85	1.1294	0.343864	100	0.9600
69	231	80	0.270671	63	1.2698	0.332577	77	1.0390
70	191	59	0.268173	51	1.1569	0.308491	59	1.0000
71	126	34	0.269377	34	1.0000	0.279975	35	0.9714
72	129	35	0.255354	33	1.0606	0.275341	36	0.9722
73	90	26	0.220085	20	1.3000	0.286138	26	1.0000
74	88	26	0.204420	18	1.4444	0.270875	24	1.0833
75	54	11	0.182796	10	1.1000	0.208324	11	1.0000
76	46	6	0.157205	7	0.8571	0.163018	7	0.8571
77	48	9	0.175258	8	1.1250	0.183502	9	1.0000
78	35	8	0.222973	8	1.0000	0.226378	8	1.0000
79	23	6	0.253012	6	1.0000	0.257022	6	1.0000
80+	-	-	1.000000	-	-	1.000000	-	-
Total	**22,236**	**7,747**		**7,232**	**1.0712**		**7,707**	**1.0052**

Service Retirement Rates (cont.)
Service: At least 5 and less than 20
Male

Age	4-year Exposure	4-year Actual Experience	Current Rate	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
55	1,156	22	0.016895	20	1.1000	0.019166	22	1.0000
56	1,029	20	0.018138	19	1.0526	0.018678	19	1.0526
57	952	16	0.018949	18	0.8889	0.019064	18	0.8889
58	905	21	0.020392	18	1.1667	0.022054	20	1.0500
59	840	21	0.023948	20	1.0500	0.026169	22	0.9545
60	699	22	0.032544	23	0.9565	0.034723	24	0.9167
61	687	35	0.053559	37	0.9459	0.060127	41	0.8537
62	588	63	0.076575	45	1.4000	0.104443	61	1.0328
63	503	55	0.086291	43	1.2791	0.105453	53	1.0377
64	448	43	0.101429	45	0.9556	0.111322	50	0.8600
65	382	55	0.135241	52	1.0577	0.140192	54	1.0185
66	328	58	0.165359	54	1.0741	0.167092	55	1.0545
67	246	42	0.171258	42	1.0000	0.173295	43	0.9767
68	223	39	0.162524	36	1.0833	0.169189	38	1.0263
69	160	25	0.168459	27	0.9259	0.180671	29	0.8621
70	136	32	0.178411	24	1.3333	0.196710	27	1.1852
71	100	16	0.168561	17	0.9412	0.172914	17	0.9412
72	88	12	0.175182	15	0.8000	0.152101	13	0.9231
73	74	13	0.204473	15	0.8667	0.174560	13	1.0000
74	57	12	0.205761	12	1.0000	0.184066	10	1.2000
75	43	6	0.201031	9	0.6667	0.160861	7	0.8571
76	26	4	0.223684	6	0.6667	0.134534	3	1.3333
77	22	2	0.250000	6	0.3333	0.104749	2	1.0000
78	12	1	0.259259	3	0.3333	0.108512	1	1.0000
79	17	3	0.243243	4	0.7500	0.157456	3	1.0000
80+	-	-	1.000000	-	-	1.000000	-	-
Total	**9,721**	**638**		**610**	**1.0459**		**645**	**0.9891**

Service Retirement Rates (cont.)
Service: At least 20 and less than 30
Male

Age	4-year Exposure	4-year Actual Experience	Current Rate	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
55	2,830	130	0.036912	104	1.2500	0.046212	131	0.9924
56	2,395	112	0.038733	93	1.2043	0.047932	115	0.9739
57	2,009	105	0.042465	85	1.2353	0.051300	103	1.0194
58	1,651	89	0.045650	75	1.1867	0.058123	96	0.9271
59	1,450	105	0.053792	78	1.3462	0.069431	101	1.0396
60	1,190	94	0.074850	89	1.0562	0.092594	110	0.8545
61	1,043	146	0.137343	143	1.0210	0.170277	178	0.8202
62	835	269	0.317298	265	1.0151	0.309268	258	1.0426
63	584	144	0.291193	170	0.8471	0.263990	154	0.9351
64	428	103	0.264522	113	0.9115	0.251824	108	0.9537
65	340	95	0.284814	97	0.9794	0.283203	96	0.9896
66	273	91	0.326565	89	1.0225	0.306412	84	1.0833
67	186	52	0.323741	60	0.8667	0.304244	57	0.9123
68	151	49	0.287004	43	1.1395	0.316215	48	1.0208
69	113	38	0.316940	36	1.0556	0.325934	37	1.0270
70	75	23	0.345833	26	0.8846	0.289291	22	1.0455
71	53	11	0.274390	15	0.7333	0.257363	14	0.7857
72	39	12	0.244094	10	1.2000	0.262551	10	1.2000
73	22	5	0.316327	7	0.7143	0.278795	6	0.8333
74	17	6	0.314286	5	1.2000	0.280908	5	1.2000
75	21	4	0.222222	5	0.8000	0.242297	5	0.8000
76	17	4	0.200000	3	1.3333	0.265266	5	0.8000
77	10	4	0.206897	2	2.0000	0.358824	4	1.0000
78	10	4	0.214286	2	2.0000	0.383333	4	1.0000
79	6	2	0.148148	1	2.0000	0.285897	2	1.0000
80+	-	-	1.000000	-	-	1.000000	-	-
Total	**15,748**	**1,697**		**1,616**	**1.0501**		**1,753**	**0.9681**

Service Retirement Rates (cont.)
Service: At least 30
Male

Age	4-year Exposure	4-year Actual Experience	Current Rate	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
55	1,447	563	0.357369	517	1.0890	0.367020	531	1.0603
56	1,118	361	0.308100	344	1.0494	0.333159	372	0.9704
57	937	279	0.270702	254	1.0984	0.304031	285	0.9789
58	917	273	0.275266	252	1.0833	0.301400	276	0.9891
59	781	244	0.296323	231	1.0563	0.315623	247	0.9879
60	706	240	0.311082	220	1.0909	0.330707	233	1.0300
61	593	196	0.310642	184	1.0652	0.352851	209	0.9378
62	480	197	0.319459	153	1.2876	0.372204	179	1.1006
63	323	109	0.319013	103	1.0583	0.350139	113	0.9646
64	276	87	0.297225	82	1.0610	0.332700	92	0.9457
65	248	90	0.311052	77	1.1688	0.352289	87	1.0345
66	182	67	0.340284	62	1.0806	0.373006	68	0.9853
67	140	55	0.325405	46	1.1957	0.365385	51	1.0784
68	104	32	0.291372	30	1.0667	0.331771	35	0.9143
69	69	22	0.274286	19	1.1579	0.316989	22	1.0000
70	62	20	0.259067	16	1.2500	0.322897	20	1.0000
71	58	19	0.238434	14	1.3571	0.274741	16	1.1875
72	33	4	0.223404	7	0.5714	0.209810	7	0.5714
73	26	7	0.224806	6	1.1667	0.189112	5	1.4000
74	31	3	0.262136	8	0.3750	0.187123	6	0.5000
75	21	6	0.294872	6	1.0000	0.182676	4	1.5000
76	16	1	0.254902	4	0.2500	0.127679	2	0.5000
77	10	1	0.200000	2	0.5000	0.088352	1	1.0000
78	11	1	0.178571	2	0.5000	0.101705	1	1.0000
79	8	1	0.184615	1	1.0000	0.180465	1	1.0000
80+	-	-	1.000000	-	-	1.000000	-	-
Total	**8,597**	**2,878**		**2,640**	**1.0902**		**2,863**	**1.0052**

Disability Retirement Rates

Age	10-year Male Exposure	10-year Female Exposure	10-year Combined Actual Experience	Current Male Rate	Current Male Expected	Current Female Rate	Current Female Expected	Current Combined Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
30	12	43	0	0.000007	0	0.000004	0	-	0.000010	0	-
31	58	192	0	0.000031	0	0.000018	0	-	0.000011	0	-
32	806	2480	0	0.000060	0	0.000048	0	-	0.000012	0	-
33	2428	7876	0	0.000100	0	0.000140	1	0	0.000014	0	-
34	4,307	13,842	0	0.000131	1	0.000225	3	0.0000	0.000028	1	0.0000
35	6,221	19,171	3	0.000156	1	0.000242	5	0.5000	0.000043	1	3.0000
36	7,912	23,773	1	0.000183	1	0.000212	5	0.1667	0.000059	2	0.5000
37	9,420	27,615	3	0.000220	2	0.000191	5	0.4286	0.000082	3	1.0000
38	10,731	30,690	3	0.000261	3	0.000202	6	0.3333	0.000123	5	0.6000
39	11,853	33,178	9	0.000297	4	0.000252	8	0.7500	0.000177	8	1.1250
40	12,803	35,282	11	0.000324	4	0.000330	12	0.6875	0.000234	11	1.0000
41	13,565	36,759	16	0.000353	5	0.000415	15	0.8000	0.000284	14	1.1429
42	14,187	37,785	18	0.000378	5	0.000468	18	0.7826	0.000311	16	1.1250
43	14,776	38,895	13	0.000439	6	0.000566	22	0.4643	0.000320	17	0.7647
44	15,211	39,951	22	0.000519	8	0.000684	27	0.6286	0.000321	18	1.2222
45	15,534	40,446	18	0.000610	9	0.000758	31	0.4500	0.000326	18	1.0000
46	15,547	40,501	18	0.000680	11	0.000788	32	0.4186	0.000366	21	0.8571
47	15,431	40,283	26	0.000724	11	0.000841	34	0.5778	0.000473	26	1.0000
48	15,197	40,172	30	0.000772	12	0.000961	39	0.5882	0.000623	34	0.8824
49	14,936	40,013	40	0.000878	13	0.001145	46	0.6780	0.000790	43	0.9302
50	14,615	39,843	64	0.001035	15	0.001325	53	0.9412	0.000943	51	1.2549
51	14,294	39,970	58	0.001225	18	0.001528	61	0.7342	0.001042	57	1.0175
52	13,867	40,034	44	0.001395	19	0.001608	64	0.5301	0.001069	58	0.7586
53	13,286	39,700	65	0.001480	20	0.001611	64	0.7738	0.001027	54	1.2037
54	12,666	38,957	51	0.001435	18	0.001527	59	0.6623	0.000944	49	1.0408
55	11,778	37,903	37	0.001287	15	0.001454	55	0.5286	0.000849	42	0.8810
56	10,041	33,904	31	0.001060	11	0.001270	43	0.5741	0.000743	33	0.9394
57	8,786	31,397	26	0.000845	7	0.001121	35	0.6190	0.000624	25	1.0400
58	7,896	29,686	22	0.000721	6	0.001012	30	0.6111	0.000506	19	1.1579
59	7,070	27,972	13	0.000655	5	0.000956	27	0.4063	0.000401	14	0.9286
60	6,255	26,299	7	0.000642	4	0.000848	22	0.2692	0.000289	9	0.7778
61	5,487	24,222	8	0.000617	3	0.000749	18	0.3810	0.000185	5	1.6000
62	4,733	21,691	2	0.000581	3	0.000684	15	0.1111	0.000120	3	0.6667
63	3,558	16,079	2	0.000536	2	0.000591	10	0.1667	0.000096	2	1.0000
64	2,841	12,534	0	0.000485	1	0.000551	7	0.0000	0.000090	1	0.0000
65	2,322	10,022	2	0.000430	1	0.000476	5	0.3333	0.000093	1	2.0000
66	1,792	7,424	2	0.000373	1	0.000258	2	0.6667	0.000104	1	2.0000
67	1,275	5,173	0	0.000317	0	0.000178	1	0.0000	0.000111	1	0.0000
68	948	3,730	0	0.000264	0	0.000169	1	0.0000	0.000103	0	-
69	718	2,709	1	0.000215	0	0.000152	0	-	0.000085	0	-
70	542	1,934	0	0.000172	0	0.000131	0	-	0.000059	0	-
71	378	1,380	0	0.000135	0	0.000107	0	-	0.000035	0	-
72	288	986	0	0.000104	0	0.000083	0	-	0.000010	0	-
73	232	733	0	0.000078	0	0.000060	0	-	0.000009	0	-
74	169	542	0	0.000058	0	0.000042	0	-	0.000008	0	-
75	134	399	0	0.000042	0	0.000028	0	-	0.000008	0	-
76	100	291	0	0.000030	0	0.000018	0	-	0.000007	0	-
77	73	220	0	0.000021	0	0.000011	0	-	0.000006	0	-
78	54	160	0	0.000014	0	0.000006	0	-	0.000006	0	-
79	187	486	0	0.000009	0	0.000004	0	-	0.000005	0	-
Total	347,320	1,045,327	666		245		875	0.5946		663	1.0045

Withdrawal Rates
Male

Service	4-year Exposure	4-year Actual Experience	Current Rate	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
0	7,432	1,900	0.281672	2,093	0.9078	0.255651	1,900	1.0000
1	11,224	1,548	0.139639	1,567	0.9879	0.137919	1,548	1.0000
2	8,252	795	0.103566	855	0.9298	0.096340	795	1.0000
3	6,875	627	0.082839	570	1.1000	0.091200	627	1.0000
4	6,491	441	0.061281	398	1.1080	0.067940	441	1.0000
5	5,808	285	0.046733	271	1.0517	0.049070	285	1.0000
6	5,606	232	0.040304	226	1.0265	0.044076	247	0.9393
7	5,139	178	0.033875	174	1.0230	0.039082	201	0.8856
8	4,856	153	0.027446	133	1.1504	0.034088	166	0.9217
9	4,660	120	0.021017	98	1.2245	0.029093	136	0.8824
10	4,523	109	0.017586	80	1.3625	0.024099	109	1.0000
11	4,599	77	0.015753	72	1.0694	0.021337	98	0.7857
12	4,949	84	0.012379	61	1.3770	0.018574	92	0.9130
13	5,410	90	0.009004	49	1.8367	0.015812	86	1.0465
14	5,959	75	0.008712	52	1.4423	0.013049	78	0.9615
15	6,805	70	0.008419	57	1.2281	0.010287	70	1.0000
16	7,111	85	0.007735	55	1.5455	0.010078	72	1.1806
17	7,465	60	0.007052	53	1.1321	0.009869	74	0.8108
18	7,700	55	0.006368	49	1.1224	0.009661	74	0.7432
19	8,359	51	0.005078	42	1.2143	0.009452	79	0.6456
20	8,438	78	0.005000	42	1.8571	0.009244	78	1.0000
21	8,570	58	0.004633	40	1.4500	0.008389	72	0.8056
22	8,172	46	0.004265	35	1.3143	0.007534	62	0.7419
23	7,866	30	0.003897	31	0.9677	0.006679	53	0.5660
24	7,075	30	0.003530	25	1.2000	0.005824	41	0.7317
25	6,440	32	0.003162	20	1.6000	0.004969	32	1.0000
26	5,615	27	0.003058	17	1.5882	0.004755	27	1.0000
27	4,902	19	0.002953	14	1.3571	0.004541	22	0.8636
28	4,050	10	0.002848	12	0.8333	0.004328	18	0.5556
29	3,797	29	0.002744	10	2.9000	0.004114	16	1.8125
30	3,141	45	0.002639	8	5.6250	0.003900	12	3.7500
31	2,339	47	0.002534	6	7.8333	0.003686	9	5.2222
32+	1,632	22	0.002430	4	5.5000	0.003473	6	3.6667
Total	**201,260**	**7,508**		**7,219**	**1.0400**		**7,626**	**0.9845**

Withdrawal Rates (cont.)
Female

Service	4-year Exposure	4-year Actual Experience	Current Rate	Current Expected	Current Ratio of Actual to Expected	Recommended Rate	Recommended Expected	Recommended Ratio of Actual to Expected
0	23,384	6,103	0.276603	6,468	0.9436	0.260990	6,103	1.0000
1	39,666	4,688	0.125667	4,985	0.9404	0.118187	4,688	1.0000
2	31,183	2,850	0.091900	2,866	0.9944	0.091396	2,850	1.0000
3	26,224	2,027	0.070395	1,846	1.0980	0.077296	2,027	1.0000
4	25,377	1,625	0.054609	1,386	1.1724	0.064034	1,625	1.0000
5	23,755	1,219	0.048608	1,155	1.0554	0.051316	1,219	1.0000
6	22,442	975	0.044007	988	0.9868	0.047038	1,056	0.9233
7	20,758	824	0.039406	818	1.0073	0.042761	888	0.9279
8	19,037	643	0.034805	663	0.9698	0.038484	733	0.8772
9	17,970	516	0.030204	543	0.9503	0.034207	615	0.8390
10	17,107	512	0.025604	438	1.1689	0.029929	512	1.0000
11	17,287	437	0.022445	388	1.1263	0.026459	457	0.9562
12	17,954	401	0.018454	331	1.2115	0.022989	413	0.9709
13	19,517	368	0.014464	282	1.3050	0.019520	381	0.9659
14	21,173	341	0.010474	222	1.5360	0.016050	340	1.0029
15	23,053	290	0.009808	226	1.2832	0.012580	290	1.0000
16	23,695	280	0.008100	192	1.4583	0.011576	274	1.0219
17	24,198	229	0.006392	155	1.4774	0.010572	256	0.8945
18	24,656	174	0.004683	115	1.5130	0.009568	236	0.7373
19	25,788	146	0.004300	111	1.3153	0.008564	221	0.6606
20	25,793	195	0.004251	110	1.7727	0.007560	195	1.0000
21	25,012	135	0.003896	97	1.3918	0.006626	166	0.8133
22	23,372	105	0.003883	91	1.1538	0.005691	133	0.7895
23	21,410	93	0.003869	83	1.1205	0.004757	102	0.9118
24	18,657	66	0.003856	72	0.9167	0.003822	71	0.9296
25	16,277	47	0.002475	40	1.1750	0.002888	47	1.0000
26	13,798	41	0.002156	30	1.3667	0.002654	37	1.1081
27	11,856	23	0.001836	22	1.0455	0.002420	29	0.7931
28	10,409	19	0.001516	16	1.1875	0.002187	23	0.8261
29	9,548	54	0.001230	12	4.5000	0.001953	19	2.8421
30	8,282	128	0.001223	10	12.8000	0.001719	14	9.1429
31	6,097	112	0.001217	7	16.0000	0.001486	9	12.4444
32+	4,536	77	0.001210	5	15.4000	0.001252	6	12.8333
Total	**659,271**	**25,743**		**24,773**	**1.0392**		**26,035**	**0.9888**

Salary Scale

Duration	Previous Year's Salaries (in thousands)	Current Year's Salaries (in thousands)	Recommended Ultimate Rate*	Recommended Expected Salaries (in thousands)	Recommended Ratio of Actual to Expected
0	246,433	964,686	1.1044	272,160	3.5446
1	3,282,262	4,039,479	1.0902	3,578,322	1.1289
2	3,478,848	3,785,698	1.0763	3,744,285	1.0111
3	3,298,284	3,531,638	1.0682	3,523,227	1.0024
4	3,313,118	3,518,914	1.0625	3,520,188	0.9996
5	3,316,435	3,508,191	1.0580	3,508,788	0.9998
6	3,400,389	3,587,846	1.0545	3,585,710	1.0006
7	2,558,747	3,738,171	1.0514	3,741,666	0.9991
8	3,769,197	3,962,122	1.0488	3,953,134	1.0023
9	4,010,522	4,204,789	1.0465	4,197,011	1.0019
10	4,334,836	4,539,123	1.0445	4,527,736	1.0025
11	4,735,628	4,955,880	1.0426	4,937,366	1.0037
12	5,258,935	5,491,783	1.0409	5,474,025	1.0032
13	5,826,908	6,079,080	1.0394	6,056,488	1.0037
14	6,433,543	6,700,643	1.0379	6,677,374	1.0035
15	6,938,924	7,223,825	1.0366	7,192,888	1.0043
16	7,290,880	7,574,471	1.0354	7,548,977	1.0034
17	7,459,477	7,735,899	1.0342	7,714,591	1.0028
18	7,528,091	7,801,008	1.0331	7,777,271	1.0031
19	7,499,333	7,769,850	1.0321	7,740,061	1.0038
20	7,205,862	7,455,311	1.0311	7,429,964	1.0034
21	6,838,770	7,064,093	1.0301	7,044,617	1.0028
22	6,382,922	6,585,737	1.0292	6,569,303	1.0025
23	5,834,102	6,016,145	1.0284	5,999,790	1.0027
24	5,252,908	5,413,467	1.0276	5,397,889	1.0029
25	4,707,625	4,851,146	1.0268	4,833,790	1.0036
26	4,241,017	4,362,195	1.0260	4,351,283	1.0025
27	3,827,895	3,936,965	1.0253	3,924,741	1.0031
28	3,514,422	3,611,286	1.0246	3,600,876	1.0029
29	3,163,984	3,250,991	1.0240	3,239,920	1.0034
30	2,337,695	2,398,102	1.0233	2,392,163	1.0025
31	1,762,705	1,806,724	1.0227	1,802,719	1.0022
32	1,310,137	1,342,406	1.0221	1,339,091	1.0025
33	929,565	952,470	1.0215	949,551	1.0031
34	676,783	693,291	1.0209	690,928	1.0034
35	498,923	510,783	1.0204	509,101	1.0033
36	363,860	371,631	1.0198	371,064	1.0015
37	267,021	272,949	1.0193	272,174	1.0028
38	182,395	186,968	1.0188	185,824	1.0062
39	125,555	128,248	1.0183	127,852	1.0031
40	430,296	439,537	1.0178	437,955	1.0036
Total	**154,835,228**	**162,363,541**		**160,741,863**	**1.0101**

* For the 2025 – 26, 2026- 27, and 2027 – 28 school years, all ultimate rates are increased by 0.30% to account for recent inflation trends.

APPENDIX B: Credibility and Mortality Improvement Illustration

Statistical Credibility Applications for Pension Plans

NYSTRS develops mortality assumptions for the actuarial valuation based on the experience of NYSTRS' members. Some categories of mortality data are less frequently incurred in our membership base, including older ages, disabled annuitants, and survivors and beneficiaries. When there is low frequency in the data, there may be more volatility in the experience. To strengthen our data set, NYSTRS uses credibility procedures that are statistical calculations to blend relevant experience (larger published data sets) with subject experience (NYSTRS data). More subject experience data means more accurate estimates and less variability, and more credibility can be given to the subject experience. NYSTRS' data being less than 100% statistically credible does not mean that the data is not believable, but rather less than 100% statistical weight is assigned in a weighted average.

In this study, the Limited Fluctuation Credibility Theory method was used. This method limits the effect that random fluctuations in the data can have on an estimated rate. It is considered "classical credibility" and is the most widely used credibility method. The method allows rates to fluctuate from year to year based on experience, while limiting those fluctuations by giving less than full credibility to rates based on limited data.

The rates are determined using the Limited Fluctuation method as follows:

- ***Observed Rate*** is a best estimate or a result from an experience study that applies to the group being valued. For this study, the NYSTRS experience is the ***Observed Rate***.
- ***Prior Rate*** is the rate resulting from a much larger experience study. The Limited Fluctuation Method presumes the ***Prior Rate*** to be fully credible. For this study, the Society of Actuaries Pub-2016 Public Retirement Plans Mortality Tables are the ***Prior Rate***.
- ***Z*** is the credibility weight assigned to the ***Observed Rate***, where ***Z*** is equal to 1 when full credibility is assigned to the ***Observed Rate*** and equal to 0 when no credibility is assigned to the ***Observed Rate***. Z is calculated as the square root of the ratio of actual deaths to full credibility deaths. Full credibility deaths are determined using a 90% confidence interval.
- The remainder of the weight, 1-***Z***, sometimes called the complement of credibility, is the weight assigned to the **Prior Rate**.
- The ***Credibility-Weighted Rate*** is calculated as the weighted average of the ***Observed Rate*** and the ***Prior Rate***.

Credibility-Weighted Rate **= (Z)*Observed Rate + (1-Z)*Prior Rate**

For additional details regarding the Limited Fluctuation Model, refer to the Society of Actuaries paper "Credibility Methods Applied to Life, Health, and Pensions" dated February 2019.

Mortality Improvement Illustration

Generational mortality improvement helps to account for the observation that younger individuals tend to have greater longevity than their older counterparts. An illustration of the application of generational mortality improvement is shown below.

The mortality rate for a female annuitant who is age 60 in 2022 is expressed as:

$$q_{60}^{2022} = 0.002442$$

The mortality improvement rates from Scale MP-2021 for an age 60 female are as follows:

2023	2024	2025	2026	2027	2028	2029	2030
0. 72%	0. 95%	1.12%	1.24%	1.27%	1.27%	1.25%	1.24%

This tells us that mortality for a 60-year-old female is expected to improve by 0.72% between calendar year 2022 and 2023 An *improvement* in mortality is expressed as a *reduction* in the actual mortality rate. Therefore, the mortality rate for a 60-year-old female in 2023 can be expressed as:

$$q_{60}^{2023} = q_{60}^{2022} \times (1 - 0.0072) = 0.002442 \times 0.9928 = 0.002424$$

Then, the mortality rate for a female annuitant who will be age 60 in 2030 is:

$$\begin{aligned} q_{60}^{2030} = q_{60}^{2022} &\times (1 - 0.0072) \times (1 - .0095) \times (1 - .0112) \times (1 - .0124) \times (1 - .0127) \times (1 - .0127) \\ &\times (1 - .0125) \times (1 - .0124) \\ &= 0.002442 \times 0.9928 \times 0.9905 \times 0.9888 \times 0.9876 \times 0.9873 \times 0.9873 \times 0.9875 \times 0.9876 \\ &= \mathbf{0.002229} \end{aligned}$$

APPENDIX C: Additional Exhibits

Bolton

NYSTRS Stochastic Investment Return Projections

June 2025

B

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Modeled CMAs

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Return Probability

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Return Distribution

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Detailed CMAs

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Model Assumptions

MODELED CAPITAL MARKET ASSUMPTIONS (CMAs)

Modeled CMAs and Target Allocation

- This analysis compares stochastic projections under various capital market assumptions (CMAs):
  - 2025 Callan 10-Year CMAs
  - 2025 Callan 20-Year CMAs
  - 2025 Callan 30-Year CMAs
  - 2024 Horizon 10-Year CMAs
  - 2024 Horizon 20-Year CMAs

- The target asset allocation is from Callan's 2025 presentation:

Asset Class	Target Allocation
Broad US Equity	33.0%
Global Ex-US Equity	15.0%
Global Equity	4.0%
Real Estate Equity	11.0%
Private Equity	9.0%
Private Debt	2.0%
Core US Fixed Income	16.0%
Global Fixed Income	2.0%
Real Estate Debt	6.0%
High Yield	1.0%
Cash Equivalents	1.0%

RETURN PROBABILITY

Return Probability – Callan

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Callan's 10-year** CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	59%	57%	56%	54%	53%

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Callan's 20-year** CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	62%	60%	59%	57%	56%

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Callan's 30-year** CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	64%	63%	61%	60%	58%

Return Probability – Horizon

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Horizon's 10-year** CMAs

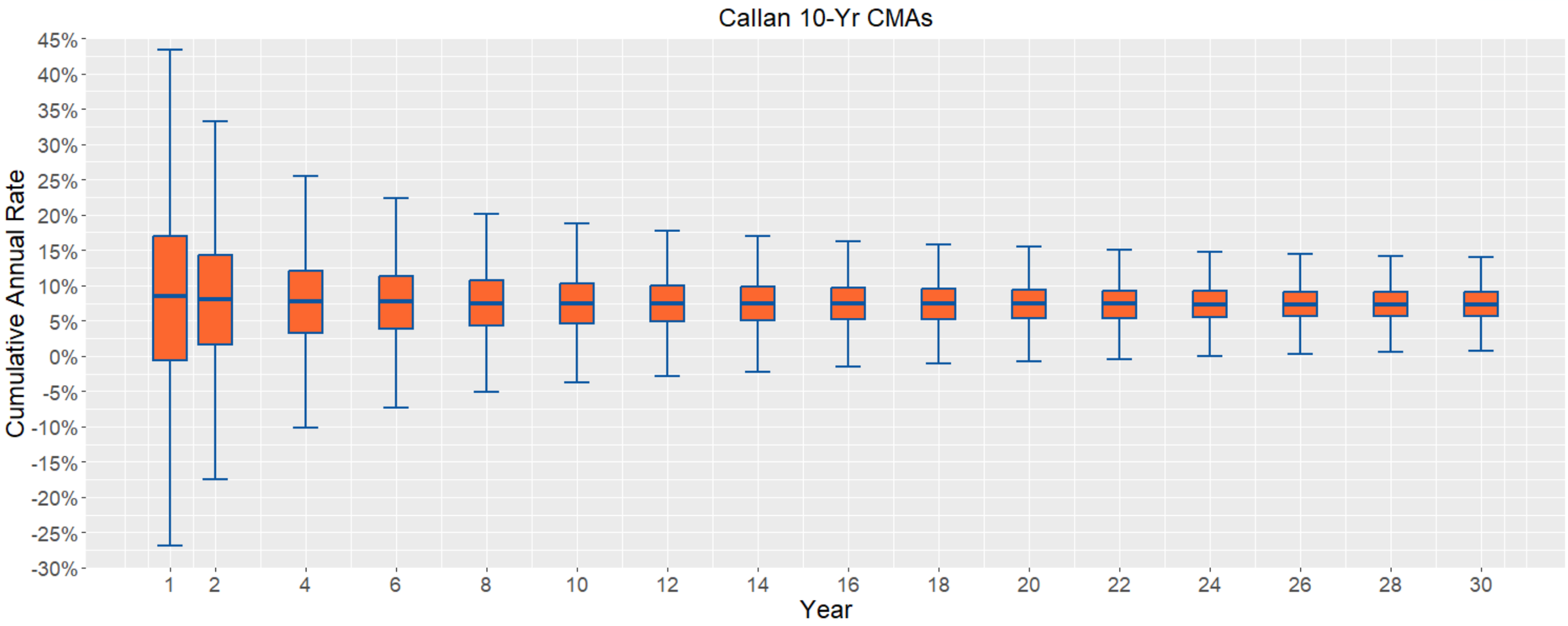
Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	56%	54%	52%	51%	49%

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Horizon's 20-year** CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	61%	59%	57%	56%	54%

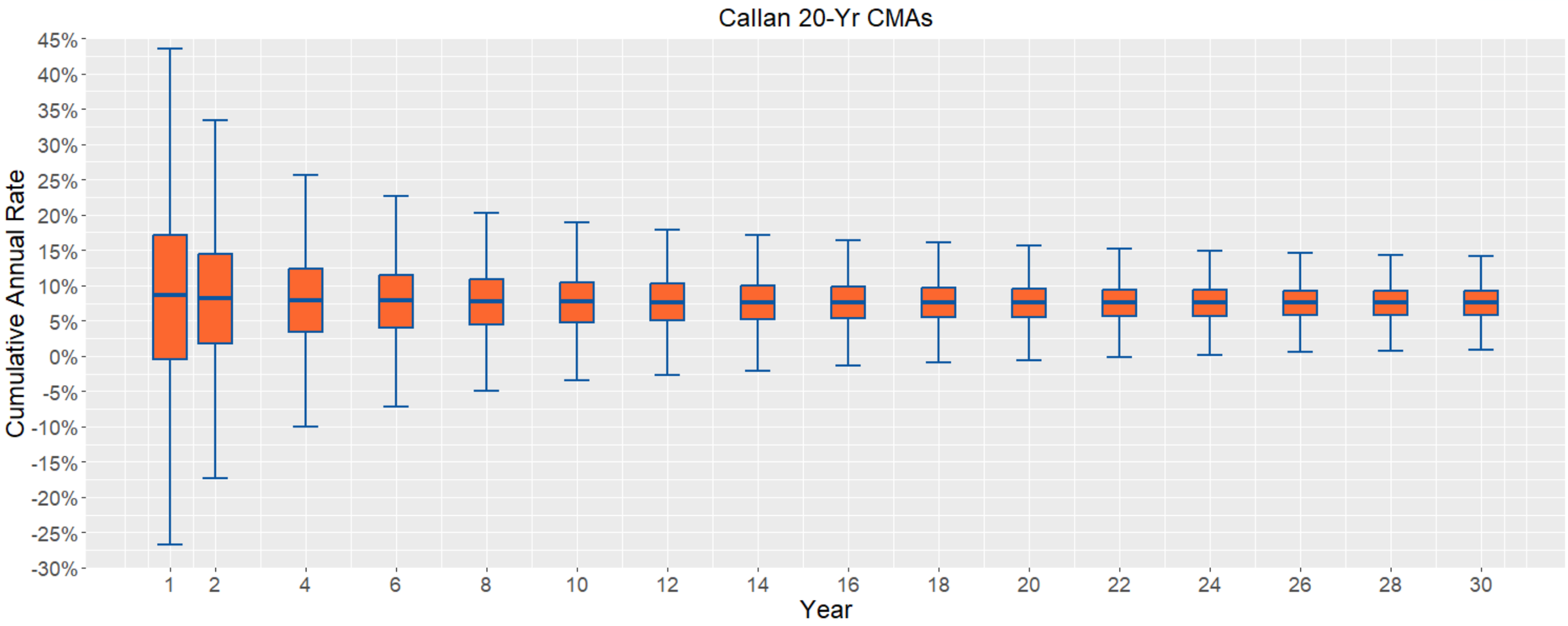
RETURN DISTRIBUTION

Geometric Average Return Distribution Box Plot – Callan 10-Year CMAs



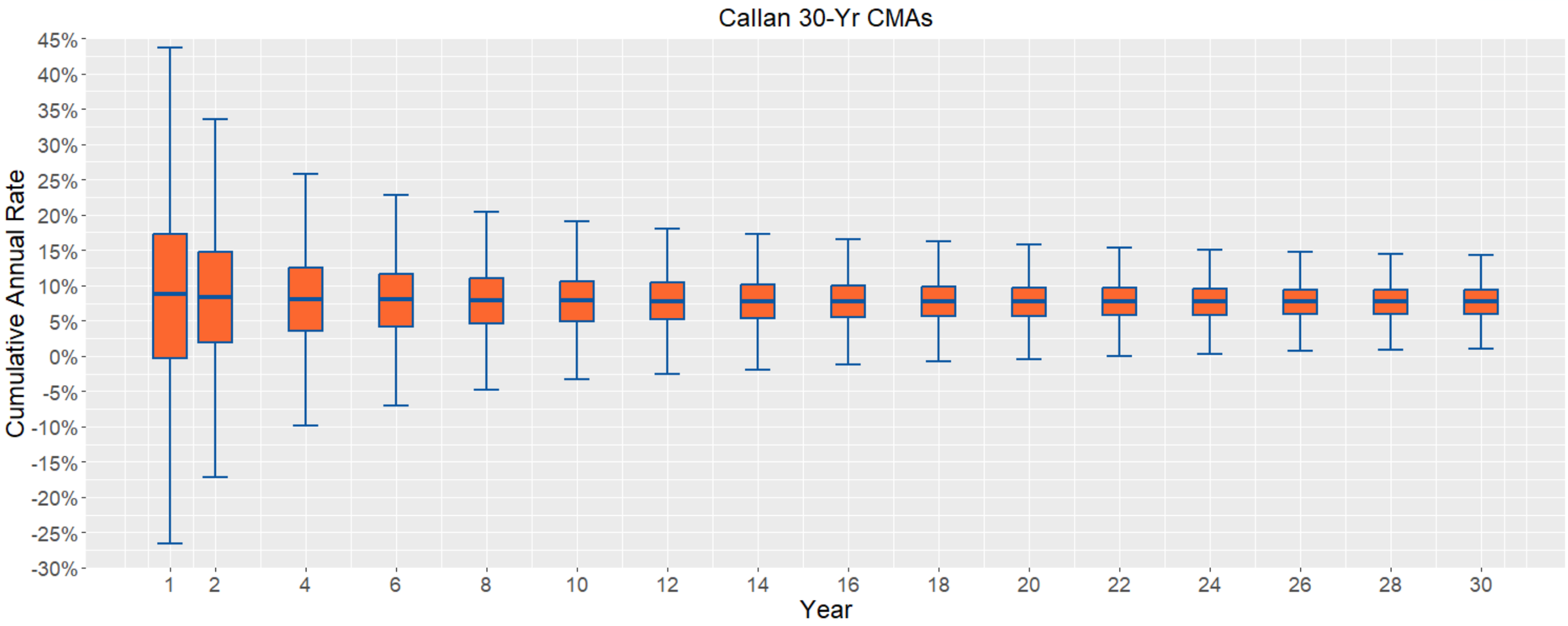
Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	39.05%	29.38%	23.05%	20.33%	18.54%	17.23%	16.19%	15.66%	15.11%	14.66%	14.43%	13.93%	13.64%	13.39%	13.09%	12.96%
95%	30.25%	23.29%	18.58%	16.52%	15.19%	14.34%	13.72%	13.25%	12.80%	12.60%	12.25%	12.03%	11.84%	11.63%	11.46%	11.30%
75%	17.07%	14.33%	12.13%	11.27%	10.65%	10.28%	10.02%	9.82%	9.61%	9.49%	9.37%	9.26%	9.17%	9.10%	9.02%	9.00%
50%	8.48%	8.01%	7.69%	7.67%	7.49%	7.49%	7.45%	7.41%	7.41%	7.37%	7.36%	7.37%	7.33%	7.33%	7.33%	7.32%
25%	-0.64%	1.59%	3.21%	3.81%	4.33%	4.62%	4.84%	4.98%	5.16%	5.23%	5.30%	5.38%	5.49%	5.57%	5.61%	5.65%
5%	-13.19%	-7.66%	-3.39%	-1.44%	-0.16%	0.48%	1.07%	1.43%	1.75%	2.18%	2.48%	2.59%	2.84%	3.01%	3.13%	3.26%
1%	-22.68%	-14.00%	-7.70%	-5.30%	-3.45%	-2.46%	-1.64%	-1.06%	-0.48%	-0.03%	0.29%	0.65%	0.97%	1.28%	1.33%	1.57%

Geometric Average Return Distribution Box Plot – Callan 20-Year CMAs



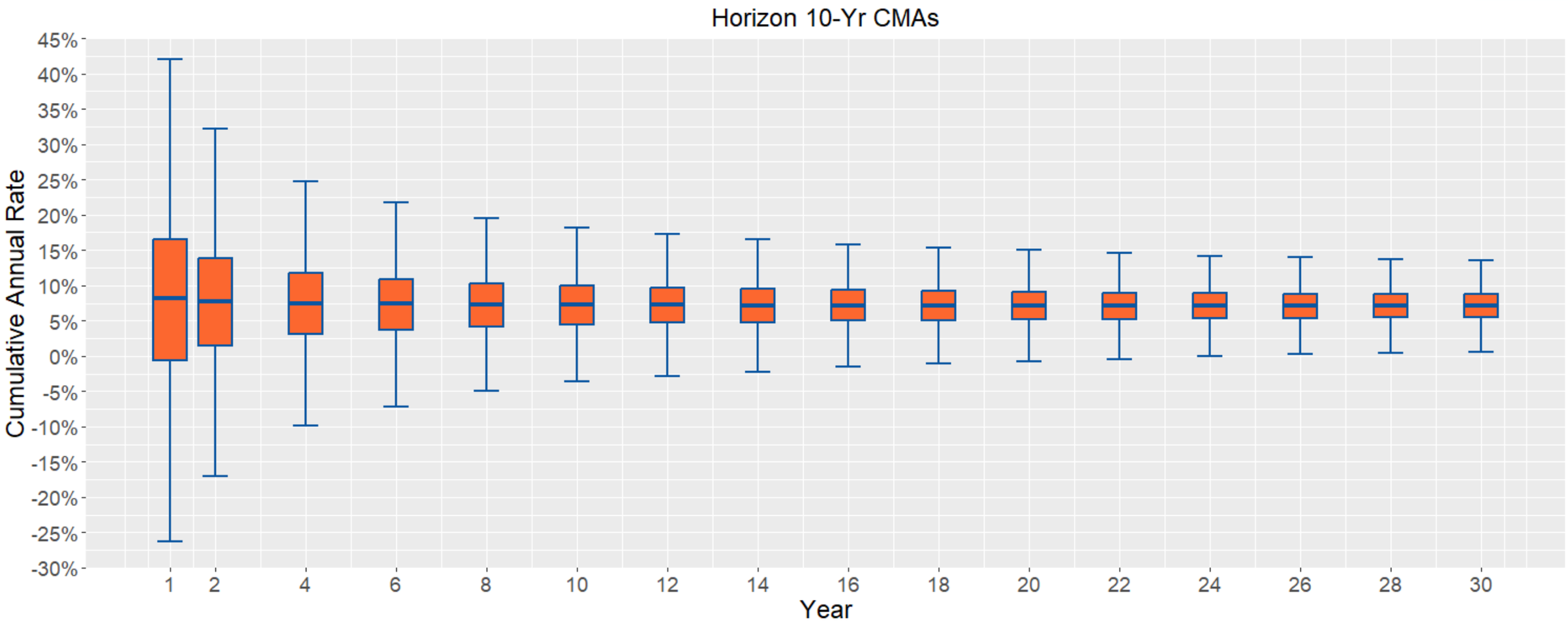
Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	39.23%	29.57%	23.24%	20.52%	18.73%	17.42%	16.38%	15.85%	15.30%	14.85%	14.62%	14.12%	13.83%	13.58%	13.28%	13.15%
95%	30.44%	23.48%	18.77%	16.71%	15.38%	14.53%	13.90%	13.44%	12.99%	12.79%	12.44%	12.22%	12.03%	11.82%	11.65%	11.49%
75%	17.26%	14.51%	12.32%	11.46%	10.84%	10.47%	10.21%	10.01%	9.80%	9.68%	9.56%	9.44%	9.36%	9.29%	9.21%	9.19%
50%	8.66%	8.20%	7.88%	7.86%	7.68%	7.67%	7.64%	7.60%	7.60%	7.56%	7.55%	7.56%	7.52%	7.52%	7.52%	7.51%
25%	-0.46%	1.78%	3.40%	4.00%	4.52%	4.81%	5.03%	5.17%	5.35%	5.42%	5.49%	5.57%	5.68%	5.76%	5.80%	5.84%
5%	-13.00%	-7.46%	-3.20%	-1.25%	0.03%	0.67%	1.26%	1.62%	1.94%	2.37%	2.67%	2.78%	3.03%	3.20%	3.31%	3.45%
1%	-22.50%	-13.81%	-7.51%	-5.11%	-3.25%	-2.27%	-1.45%	-0.87%	-0.29%	0.15%	0.48%	0.84%	1.16%	1.47%	1.52%	1.76%

Geometric Average Return Distribution Box Plot – Callan 30-Year CMAs



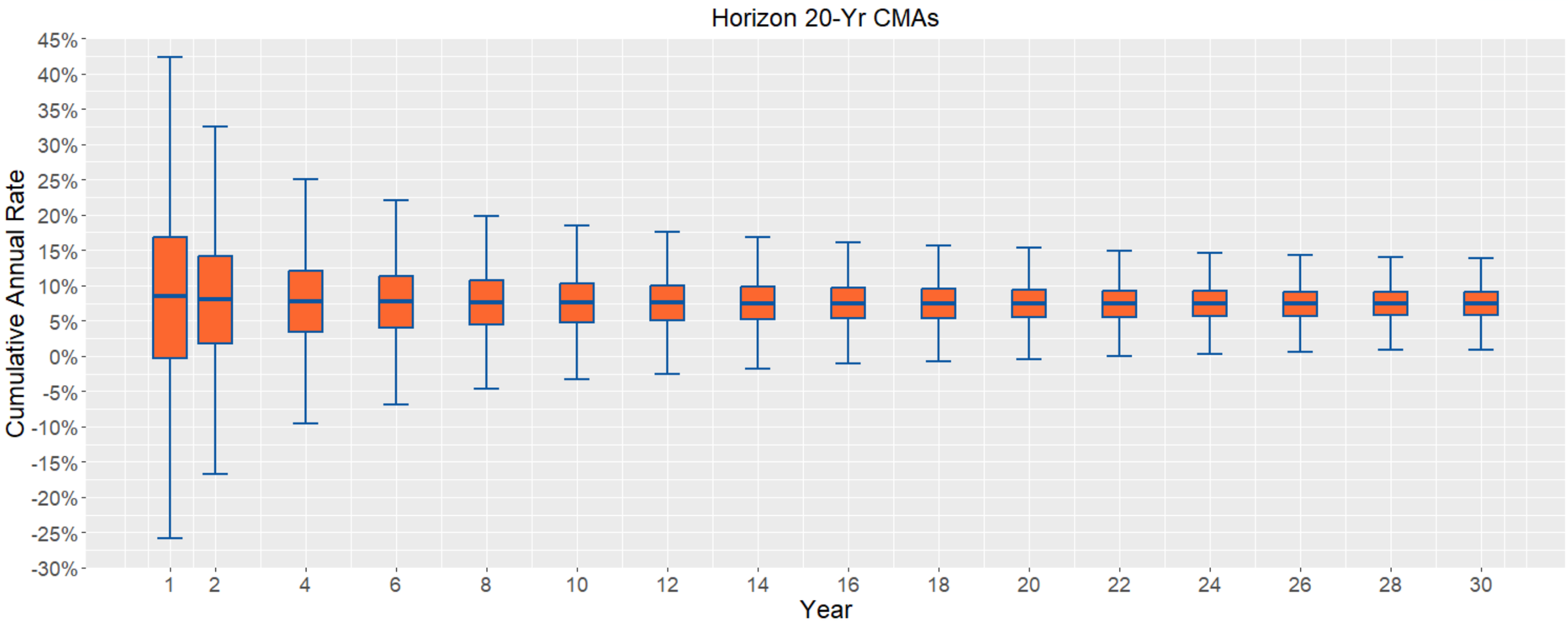
Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	39.38%	29.72%	23.39%	20.67%	18.88%	17.58%	16.53%	16.00%	15.45%	15.00%	14.77%	14.27%	13.98%	13.73%	13.43%	13.30%
95%	30.59%	23.63%	18.92%	16.86%	15.53%	14.68%	14.06%	13.59%	13.14%	12.94%	12.59%	12.38%	12.18%	11.97%	11.80%	11.64%
75%	17.41%	14.66%	12.47%	11.61%	10.99%	10.62%	10.36%	10.16%	9.95%	9.83%	9.71%	9.60%	9.51%	9.44%	9.36%	9.34%
50%	8.82%	8.35%	8.03%	8.01%	7.84%	7.83%	7.79%	7.75%	7.75%	7.72%	7.70%	7.71%	7.67%	7.67%	7.67%	7.66%
25%	-0.31%	1.93%	3.55%	4.15%	4.67%	4.96%	5.19%	5.33%	5.50%	5.57%	5.64%	5.72%	5.83%	5.91%	5.95%	5.99%
5%	-12.85%	-7.31%	-3.05%	-1.10%	0.18%	0.82%	1.41%	1.77%	2.09%	2.53%	2.82%	2.93%	3.19%	3.35%	3.47%	3.60%
1%	-22.35%	-13.66%	-7.36%	-4.96%	-3.10%	-2.11%	-1.29%	-0.71%	-0.14%	0.31%	0.63%	0.99%	1.31%	1.62%	1.67%	1.91%

Geometric Average Return Distribution Box Plot – Horizon 10-Year CMAs



Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	37.87%	28.49%	22.34%	19.71%	17.96%	16.71%	15.69%	15.19%	14.65%	14.21%	13.99%	13.51%	13.22%	12.97%	12.69%	12.56%
95%	29.33%	22.59%	18.01%	16.02%	14.72%	13.90%	13.29%	12.84%	12.41%	12.21%	11.86%	11.66%	11.48%	11.28%	11.10%	10.96%
75%	16.53%	13.88%	11.75%	10.92%	10.32%	9.95%	9.71%	9.51%	9.31%	9.19%	9.08%	8.96%	8.88%	8.82%	8.73%	8.71%
50%	8.19%	7.74%	7.44%	7.42%	7.25%	7.25%	7.21%	7.17%	7.17%	7.14%	7.12%	7.14%	7.09%	7.10%	7.10%	7.09%
25%	-0.67%	1.51%	3.10%	3.67%	4.19%	4.46%	4.68%	4.82%	4.99%	5.06%	5.13%	5.21%	5.31%	5.39%	5.42%	5.46%
5%	-12.85%	-7.45%	-3.31%	-1.42%	-0.17%	0.44%	1.01%	1.37%	1.68%	2.10%	2.39%	2.49%	2.75%	2.90%	3.02%	3.14%
1%	-22.07%	-13.63%	-7.50%	-5.17%	-3.37%	-2.40%	-1.60%	-1.05%	-0.49%	-0.06%	0.25%	0.62%	0.93%	1.23%	1.27%	1.51%

Geometric Average Return Distribution Box Plot – Horizon 20-Year CMAs



Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	38.20%	28.81%	22.67%	20.04%	18.29%	17.03%	16.01%	15.51%	14.97%	14.54%	14.31%	13.83%	13.54%	13.30%	13.01%	12.88%
95%	29.65%	22.91%	18.33%	16.34%	15.04%	14.22%	13.61%	13.16%	12.73%	12.53%	12.19%	11.98%	11.80%	11.60%	11.42%	11.28%
75%	16.86%	14.20%	12.07%	11.24%	10.64%	10.27%	10.03%	9.84%	9.63%	9.52%	9.40%	9.29%	9.20%	9.14%	9.06%	9.03%
50%	8.51%	8.06%	7.76%	7.74%	7.58%	7.57%	7.53%	7.50%	7.49%	7.46%	7.45%	7.46%	7.42%	7.42%	7.42%	7.41%
25%	-0.35%	1.83%	3.42%	4.00%	4.51%	4.79%	5.01%	5.14%	5.31%	5.38%	5.45%	5.53%	5.63%	5.71%	5.75%	5.79%
5%	-12.53%	-7.12%	-2.99%	-1.09%	0.15%	0.76%	1.34%	1.70%	2.01%	2.42%	2.71%	2.82%	3.07%	3.22%	3.34%	3.46%
1%	-21.75%	-13.31%	-7.17%	-4.85%	-3.05%	-2.07%	-1.28%	-0.72%	-0.17%	0.27%	0.57%	0.94%	1.25%	1.56%	1.60%	1.83%

B

DETAILED CMAs

CMAs and Target Allocation – Callan

Asset Class	Target Allocation	10-Year Returns		20-Year Returns		30-Year Returns		Standard Deviation
		Arith.	Geom.	Arith.	Geom.	Arith.	Geom.	
Broad US Equity (1)	33.00%	8.68%	7.34%	8.91%	7.55%	9.09%	7.73%	17.36%
Global Ex-US Equity (2)	15.00%	9.38%	7.43%	9.59%	7.61%	9.76%	7.78%	21.05%
Global Equity (3)	4.00%	8.96%	7.57%	9.18%	7.78%	9.36%	7.95%	17.69%
Real Estate Equity (4)	11.00%	8.34%	7.21%	8.62%	7.47%	8.84%	7.68%	15.97%
Private Equity	9.00%	11.79%	8.52%	11.98%	8.67%	12.15%	8.83%	27.60%
Private Debt	2.00%	8.35%	7.25%	8.39%	7.27%	8.42%	7.30%	15.70%
Core US Fixed Income	16.00%	4.85%	4.76%	4.92%	4.83%	4.97%	4.88%	4.40%
Global Fixed Income (5)	2.00%	4.27%	4.09%	4.53%	4.34%	4.75%	4.57%	6.25%
Real Estate Debt (6)	6.00%	6.06%	5.93%	6.14%	6.01%	6.21%	6.08%	5.03%
High Yield	1.00%	6.65%	6.02%	6.86%	6.22%	7.04%	6.40%	11.75%
Cash Equivalents	1.00%	2.99%	2.99%	2.99%	2.99%	3.00%	3.00%	0.90%
Inflation			2.49%		2.43%		2.37%	1.60%

(1) Broad US equity = 85% large cap, 15% mid and small cap

(2) Global ex-US equity = 75% developed markets, 25% emerging markets

(3) Global Equity = 60% broad US, 40% global ex-US

(4) Current RE Equity = 55% core, 30% non-core, 15% REITs

(5) Global fixed income = 70% global, 10% global corporate, 20% emerging debt USD IG

(6) Real estate debt = 80% commercial mortgages/20% private mezzanine debt

Correlation Matrix – Callan

	Asset Class	1	2	3	4	5	6	7	8	9	10	11
1	Broad US Equity	**1.00**	0.76	0.95	0.58	0.80	0.66	0.08	0.27	0.76	0.76	-0.03
2	Global Ex-US Equity	0.76	**1.00**	0.92	0.57	0.76	0.64	0.04	0.26	0.73	0.74	-0.08
3	Global Equity	0.95	0.92	**1.00**	0.62	0.83	0.69	0.07	0.28	0.79	0.79	-0.06
4	Real Estate Equity	0.58	0.57	0.62	**1.00**	0.69	0.46	0.08	0.19	0.69	0.49	-0.03
5	Private Equity	0.80	0.76	0.83	0.69	**1.00**	0.65	-0.04	0.15	0.86	0.55	-0.04
6	Private Debt	0.66	0.64	0.69	0.46	0.65	**1.00**	0.00	0.20	0.60	0.55	-0.04
7	Core US Fixed Income	0.08	0.04	0.07	0.08	-0.04	0.00	**1.00**	0.71	0.39	0.15	0.16
8	Global Fixed Income	0.27	0.26	0.28	0.19	0.15	0.20	0.71	**1.00**	0.48	0.32	0.11
9	Real Estate Debt	0.76	0.73	0.79	0.69	0.86	0.60	0.39	0.48	**1.00**	0.63	0.04
10	High Yield	0.76	0.74	0.79	0.49	0.55	0.55	0.15	0.32	0.63	**1.00**	-0.03
11	Cash Equivalents	-0.03	-0.08	-0.06	-0.03	-0.04	-0.04	0.16	0.11	0.04	-0.03	**1.00**

CMAs and Target Allocation – Horizon

Asset Class	Target Allocation	10-Year Returns		20-Year Returns		Standard Deviation
		Arith.	Geom.	Arith.	Geom.	
US Equity - Large Cap [1]	30.09%	7.74%	6.46%	8.25%	6.96%	16.52%
US Equity - Small/Mid Cap [2]	5.31%	9.04%	7.07%	9.50%	7.50%	20.57%
Non-US Equity - Developed [3]	12.45%	8.61%	7.08%	9.08%	7.52%	18.06%
Non-US Equity - Emerging [4]	4.15%	10.31%	7.70%	11.00%	8.24%	23.61%
US Corporate Bonds - Core	16.00%	5.10%	4.93%	5.04%	4.88%	5.90%
US Corporate Bonds - High Yield	1.00%	6.61%	6.13%	6.86%	6.36%	9.94%
Non-US Debt - Developed [5]	1.60%	3.95%	3.66%	4.00%	3.71%	7.33%
Non-US Debt - Emerging [6]	0.40%	6.73%	6.17%	6.89%	6.28%	10.76%
US Treasuries (Cash Equivalents)	1.00%	3.69%	3.68%	3.44%	3.43%	1.10%
Real Estate [7]	15.80%	7.43%	6.06%	7.38%	6.17%	16.61%
Private Equity	9.00%	11.55%	9.09%	12.33%	9.71%	22.57%
Private Debt [8]	3.20%	9.02%	8.32%	9.09%	8.44%	12.00%
Inflation		2.43%	2.42%	2.44%	2.44%	1.86%

Mapping Callan's Asset Classes to Horizon's Asset Classes

(1) Includes 85% of Broad US Equity and 60% * 85% of Global Equity
(2) Includes 15% of Broad US Equity and 60% * 15% of Global Equity
(3) Includes 75% of Global Ex-US Equity and 40% * 75% of Global Equity
(4) Includes 25% of Global Ex-US Equity and 40% * 25% of Global Equity
(5) Includes 80% of Global Fixed Income
(6) Includes 20% of Global Fixed Income
(7) Includes 100% of Real Estate Equity and 80% of Real Estate Debt
(8) Includes 100% of Private Debt and 20% of Real Estate Debt

Correlation Matrix – Horizon

	Asset Class	1	2	3	4	5	6	7	8	9	10	11	12
1	US Equity - Large Cap	**1.00**	0.90	0.81	0.70	0.28	0.68	0.21	0.53	-0.03	0.57	0.75	0.55
2	US Equity - Small/Mid Cap	0.90	**1.00**	0.76	0.67	0.23	0.67	0.17	0.50	-0.06	0.57	0.96	0.55
3	Non-US Equity - Developed	0.81	0.76	**1.00**	0.79	0.26	0.64	0.32	0.57	-0.02	0.50	0.66	0.52
4	Non-US Equity - Emerging	0.70	0.67	0.79	**1.00**	0.24	0.62	0.28	0.63	-0.02	0.45	0.61	0.50
5	US Corporate Bonds - Core	0.28	0.23	0.26	0.24	**1.00**	0.49	0.61	0.58	0.14	0.27	0.18	0.17
6	US Corporate Bonds - High Yield	0.68	0.67	0.64	0.62	0.49	**1.00**	0.30	0.66	-0.03	0.49	0.55	0.66
7	Non-US Debt - Developed	0.21	0.17	0.32	0.28	0.61	0.30	**1.00**	0.49	0.14	0.20	0.16	0.10
8	Non-US Debt - Emerging	0.53	0.50	0.57	0.63	0.58	0.66	0.49	**1.00**	0.06	0.40	0.43	0.41
9	US Treasuries (Cash Equivalents)	-0.03	-0.06	-0.02	-0.02	0.14	-0.03	0.14	0.06	**1.00**	-0.03	-0.07	-0.08
10	Real Estate	0.57	0.57	0.50	0.45	0.27	0.49	0.20	0.40	-0.03	**1.00**	0.48	0.37
11	Private Equity	0.75	0.96	0.66	0.61	0.18	0.55	0.16	0.43	-0.07	0.48	**1.00**	0.58
12	Private Debt	0.55	0.55	0.52	0.50	0.17	0.66	0.10	0.41	-0.08	0.37	0.58	**1.00**

MODEL ASSUMPTIONS

Stochastic Model Assumptions

- The results presented in this analysis are based on the following:

  - 10,000 Monte Carlo trials x 30 years
    - Random numbers used to simulate returns are same for all sets of CMAs
    - Random numbers were produced using Microsoft Visual Basic for Application's (VBA's) rnd function
  - Annual returns are normally distributed
  - Whiskers of box plots created using 1.5 x interquartile range (1.5 IQR)

Actuarial Certification

This presentation has been presented for the New York State Teachers' Retirement System (NYSTRS) for the purpose of generating stochastic asset return projections. It is neither intended nor necessary suitable for other purposes. Bolton Partners is not responsible for the consequences of any other use or the reliance on this information by any other party.

In preparing this presentation, we have relied on the following information:

- NYSTRS: target asset allocation, Callan capital market assumptions (returns, standard deviations, and correlation matrix).
- Horizon Actuarial: 2024 capital market assumptions (returns, standard deviations, and correlation matrix)

This 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.

We, Thomas Vicente, Michelle Boyles, and Jordan McClane, are members of the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. We believe the assumptions used in this analysis are reasonable for the purpose of these projections. The actual portfolio returns will depend on the actual asset allocation and the returns of the underlying investments and will differ from those presented in this analysis.

We are currently compliant with the Continuing Professional Development Requirement of the Society of Actuaries. We are not aware of any direct or material indirect conflict of interest that would impair the objectivity of this analysis.

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New York State Teachers' Retirement System

Review of the *Recommended Actuarial Assumptions 2025 Report*

Bolton

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Section I. Executive Summary

The purpose of this report is to present our review of the actuarial methods and assumptions recommended by the Office of the Actuary for the New York State Teachers' Retirement System (NSYTRS) for actuarial valuations commencing with the June 30,2025 valuation.

Based on our review of the *Recommended Actuarial Assumptions 2025 Report*, we find the recommended assumptions and methods are reasonable, appropriate, and were developed in accordance with generally accepted actuarial principles and applicable Actuarial Standards of Practice (ASOP).

Scope of Review

NYSTRS submitted a draft report of its recently completed *Recommended Actuarial Assumptions 2025* report to Bolton. Our assignment was to review the conclusions, methods and findings of the report. As part of our review, we were tasked with examining the results and methodology used to develop those results and commenting on the reasonableness and appropriateness of those results. We are also responsible for providing any commentary on possible additional considerations or approaches that NYSTRS may wish to take in those or future reports.

The review does not entail any collection of census information or programming of valuation systems.

In reviewing the assumptions, we referenced ASOP 27 (Selection of Assumptions for Measuring Pension Obligations). In particular, section 3.5. provides the criteria for selecting a reasonable assumption:

a. It is appropriate for the purpose of the measurement;
b. It reflects current and historical data that is relevant to selecting the assumption for the measurement date, to the extent such relevant data is reasonably available;
c. It reflects the actuary's estimate of future experience, the actuary's observation of the estimates inherent in market data (if any), or a combination thereof; and
d. It is expected to have no significant bias (i.e., it is not significantly optimistic or pessimistic), except when provisions for adverse deviation or plan provisions that are difficult to measure are included or when alternative assumptions are appropriate for the purpose of the measurement.

We evaluated the proposed assumptions using this framework as well as the sections and subsections of ASOP 27 relevant to the studied experience.

Demographic Assumptions

The studied demographic assumptions include mortality assumptions for four groups (active members, healthy annuitants, disabled annuitants, and survivors or beneficiaries), service retirement rates, disability retirement rates, and withdrawal rates.

We find the recommended demographic assumptions are reasonably supported and follow ASOP 27.

The most significant change was the updating of the published mortality table that serves as the basis for the NYSTRS table to reflect the recently published Pub-2016 Public Retirement Plans

Mortality Tables. This update keeps the assumption basis current and helps minimize the risk of cumulative unrecognized adjustments causing a material cost shift in the future.

Section III of this report provides additional detail on our analysis.

Economic Assumptions

The studied economic assumptions include salary scale, the valuation interest rate, the inflation rate, and the Cost-of-Living-Adjustment (COLA) rate.

We find the recommended economic assumptions are reasonably supported and follow ASOP 27.

The salary scale assumption was changed to implement a “select and ultimate” approach in which rates are higher for the next three years in order to capture the remaining higher inflation and pandemic effects being observed.

Section IV of this report provides additional detail on our analysis.

Actuarial Methods Summary

The studied actuarial methods include the actuarial cost method and the asset valuation method.

Bolton’s findings on the actuarial method review are summarized below:

- Actuarial cost method: we find that use of the Aggregate cost method meets the criteria to be considered “Acceptable Practice, with Conditions” as described in the *CCA Funding Policies Paper*. Furthermore, Bolton has no objections to the PAYGO funding approach for certain items.
- Asset valuation method: we find the current asset smoothing method is reasonable.

Section V of this report provides additional detail on our analysis.

Section II. Certification

The purpose of this report is to present our review of the actuarial assumptions recommended by the Office of the Actuary for the New York State Teachers' Retirement System (NYSTRS) for the June 30, 2025 valuation and following valuations.

Our comprehensive review evaluates the assumptions recommended by the Office of the Actuary and opines on the reasonableness of each assumption within this report. We did not attempt to replicate or otherwise validate the computations presented in the NYSTRS report but did review the procedures and outcomes for reasonableness and completeness in the description of the methodology.

In preparing this report we relied on information (both oral and written) supplied by NYSTRS. This information includes but is not limited to the plan provisions, NYSTRS analysis and methodology.

This report was prepared for the internal use of NYSTRS in connection with the purposes stated above. It is neither intended nor necessarily suitable for other purposes. Bolton is not responsible for the consequences of any other use or the reliance upon this report by any other party.

The calculations in this report have been made in accordance with our understanding of generally accepted actuarial principles and practices that are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice. This review was conducted under the supervision of the undersigned actuaries. All the undersigned actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services, that could create a conflict of interest that would impair the objectivity of our work.

Respectfully submitted,

BOLTON

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Section III. Demographic Assumptions

Demographic assumptions are designed to model the interaction of the plan population makeup and participant behavior with the employer and plan provisions. These assumptions are typically derived from actual movements in plan census and/or prescribed assumptions based on larger demographic studies.

The Office of the Actuary reviewed the following demographic assumptions:

- Mortality
- Retirement
- Withdrawal

The recommendations of the experience study are based on experience in conjunction with the actuary's professional judgement. For instance, determining (1) an appropriate number of years of data to include in the study for each decrement, (2) the minimum number of decrements[1] per number of exposure units for credibility[2] and (3) reasonable Actual/Expected (A/E) and r-squared thresholds, which, when surpassed, warrant consideration of a change to the assumption, are left to the actuary's judgement. Additionally, trends or results that appear to be correlated to specific events are analyzed in the overall context of the decrement experience.

Mortality

A mortality assumption is comprised of two parts: the base rate which gives the probability of death for each age as of a base year, and the mortality improvement scale which quantifies how mortality will change in the future. The concept is, for example, that a person age 65 in 2030 would have a lower probability of death than a person who is age 65 today. Due to improvements in longevity, the probability of death (for each age) is expected to gradually decrease each successive year. The rate at which the probability of death decreases is modeled by the mortality improvement scale.

Very large plans can develop their own base mortality tables using the plan's own experience and combine that with a mortality improvement scale. The amount of data needed for this experience review to be credible is fairly large. The Office of the Actuary discusses the credibility of the data, and relies on published mortality tables, created by the Society of Actuaries, when data has limited credibility.

Base mortality rates

The Office of the Actuary recommends updating the base mortality tables to reflect current experience and more recently published tables, specifically sex-distinct, amount-weighted Pub-2016 Teachers and Pub-2016 General Mortality tables. We find that the use of these tables is reasonable since these are the most applicable published tables for the groups within NYSTRS. Special consideration was provided for survivor and beneficiary groups since the professions of this group are not known.

[1] A decrement, such as termination, retirement, disability, or death, defines how an individual leaves active employment.

[2] ASOP 25 (Credibility Procedures) defines credibility as "[a] measure of the predictive value in a given application that the actuary attaches to a particular set of data (*predictive* is used here in the statistical sense and not in the sense of predicting the future)."

In developing the recommended base rates, the Office of the Actuary utilized the Limited Fluctuation Method where the weight of the experience rate is dependent on the credibility or size of the mortality data; the remainder weight is then applied to the prior rate or published rate. This method is reasonable as it reduces any inherent exposure bias seen in the experience data.

The Office of the Actuary also utilized amount-weighted deaths in their analysis. We find this a reasonable approach considering 1) higher benefits or higher compensation generally leads to longer life expectancy and 2) higher benefits or higher compensation imply a higher liability and amount-weighted rates would consequently better track how the liability will develop over time.

In the *Recommended Actuarial Assumptions 2025 Report*, NYSTRS had a significant amount of mortality data for healthy retirees. As would be expected, the actual experience data did not align perfectly with the shape of the published mortality rates. Consequently, the Office of the Actuary parsed the data for healthy retirees into two components (by gender) and applied the limited fluctuation credibility procedures separately to each portion of the appropriate mortality table. We concur with this approach as it is likely to fit NYSTRS' experience more closely than without parsing the published table into two components prior to applying limited fluctuation credibility procedures.

The Office of the Actuary notes within the report that the COVID-19 pandemic period did not have any material impact on experience and therefore the full data period was used.

We find the selected base mortality tables for all groups are reasonably supported and follow ASOP 27.

Mortality Improvement Scale

In the *Recommended Actuarial Assumptions 2025 Report*, the Office of the Actuary recommends continuing the use of the MP-2021 scale applied generationally. This is the latest improvement scale released by the Society of Actuaries (SOA). The SOA had been issuing new improvement scales annually but paused future iterations as a result of the disruption in the mortality improvement patterns caused by the pandemic. Absent the availability of new data, the MP-2021 scale is the most up to date information on mortality improvement developed and is a good basis for future projections.

The development of the base mortality table and the selection of the mortality improvement scale and its application are reasonable and follow ASOP 27.

Service Retirement

Current retirement rate assumptions used for determining active member liabilities vary by gender, age, and service. Experience from all six tiers was included in the analysis. The Office of the Actuary studied the assumption by grouping retirement rates into 3 service categories:

1.) Less than 20 years of service (5 – 20 years of service)
2.) 20 – 30 years of service
3.) 30 or more years of service

In developing the proposed assumption, the Moving Weighted Average smoothing technique was used to average data over the period. That is, retirements seen in recent years were weighed more compared to retirements seen in older years. This approach appears reasonable as more recent trends in retirement are typically a better representation of future retirements when compared to older trends in retirements.

In the *Recommended Actuarial Assumptions 2025 Report*, the Office of the Actuary notes that each year of experience was reviewed to determine if it was appropriate to include in the total data set. They identify that plan year end 2021 showed higher than usual retirements which are likely caused by differing retirement patterns during the COVID-19 pandemic. The Office of the Actuary considered the use of an extended 10-year experience period but determined the shape of the data differed too much from the experience following plan year end 2021. As such, it was determined that a 4-year experience period from July 1, 2019 to June 30, 2024, excluding plan year end 2021, would be used to develop the recommended service retirement rates. We agree with the selection of the experience data as it makes a reasonable effort to exclude potential bias.

We find the development of the recommended service retirement assumption for all groups is reasonably supported and follows ASOP 27.

Disability Retirement

Disability retirement rates are the assumed rates of retirement due to becoming disabled before electing to retire. The current assumption varies by gender and age.

Relatively few disability retirements occurred in the five-year period ending June 30, 2024. Due to the limited experience data, a ten-year period ending on June 30, 2024 was studied with combined male and female rates. We agree with the selection of the experience data as it makes a reasonable effort to strengthen the credibility of the data.

Similar to how retirement rates were studied, the Moving Weighted Average smoothing technique was used to average the data over the period. This approach appears reasonable as more recent trends in disabilities are typically a better representation of future disabilities when compared to older trends in disabilities.

Over the 10-year period, NYSTRS experienced a total of 666 disabilities which was lower than the over 1,100 assumed. It was noted that the previous assumption was also based on a 10-year period with 798 total disabilities. We believe lowering the disability rates is consistent with an industry with generally low disability risk and updating the assumption to reflect more recent experience is reasonable.

We find the development of the recommended disability retirement assumption is reasonably supported and follows ASOP 27.

Withdrawal

The termination or withdrawal rates are the assumed rates of termination of employment from causes other than death, disability, or retirement. The current termination rate assumption varies by gender and service.

In the *Recommended Actuarial Assumptions 2025 Report*, the Office of the Actuary notes that each year of experience was reviewed to determine if it was appropriate to include in the total data set. They identify that plan year end 2021 showed higher than usual terminations which are likely caused by the COVID-19 pandemic. It is further noted that experience in the remaining four years was generally within 10% of expected counts. As such, it was determined that a four-year experience period from July 1, 2019 to June 30, 2024, excluding plan year end 2021, would be used to set the recommended termination rates. We agree with the selection of the experience data as it makes a reasonable effort to exclude potential bias.

To reduce the fluctuations seen between individual service rates, the observed rates were graduated and grouped into quinquennial service groups. The recommended withdrawal rate for each of the first 5 service years and for the quinquennial end points were set directly from the experience. The remaining rates were then linearly interpolated from endpoint rates. Observed rates for service amounts that imply normal retirement eligibility were excluded since these people likely retired instead of terminated.

We find the development of the recommended withdrawal assumption is reasonably supported and follows ASOP 27.

Section IV. Economic Assumptions

Economic assumptions are typically broader in scope than demographic assumptions as they consider the state of the overall (local or broader) economy and, as such, they are generally consistent across regions or systems.

The Office of the Actuary reviewed the following economic assumptions:

- Salary Scale
- Valuation Rate of Interest
- Inflation and COLA

Salary Scale

The salary scale assumption can be considered both an economic and demographic assumption given that the first two foundational building blocks of the assumption relate generally to the economy, while the third component layers on top the correlation of compensation to the skill or knowledge required at different levels throughout a member's career progression. Generally, the three components comprising the salary scale assumption are the following:

- Price inflation
- Wage inflation in excess of price inflation (or productivity)
- Merit increases (increases above productivity)

In the *Recommended Actuarial Assumptions 2025 Report*, the Office of the Actuary notes the confluence of economic and demographic factors in setting the salary scale assumption and reviews the full (combined components) assumption within the Economic Assumptions section of the report. The current assumption has rates that differ by years of service (labeled as "Duration" in Appendix A of the report).

In the prior experience study, which was delayed due to and published after the onset of the COVID-19 pandemic, the Office of the Actuary blended the recent five-year experience with the experience from the five-year period immediately preceding it, effectively using 10 years of experience to set the assumption. Ten years, rather than five years, were used given the uncertainty surrounding the pandemic's impact on the economy and budgets. Given the high levels of inflation over the past several years, the Office of the Actuary again opted to use 10 years of experience in setting the assumption in order to not give undue weight to recent elevated levels.

As noted by the Office of the Actuary, salary increases often lag inflation, and while inflation has stabilized from a peak just a few years ago, it is still considered elevated from a historical context and in comparison to Federal Reserve targets. Thus, the Office of the Actuary is recommending the use of a three-year select-and-ultimate salary scale in which the first three years (for the years ending in 2026, 2027, and 2028) have elevated salary increases. During the three-year select period, an additional 0.3% is added to the ultimate percentage rates at each "duration" to capture the anticipated growth in salaries from recent inflation exceeding the Office of the Actuary's long term target by approximately 0.3%. Section 3.9.3.a. of ASOP 27 provides for the consideration of select-and-ultimate compensation increase rates.

Finally, the Office of the Actuary developed the smoothed or graduated rates using the "power smoothing" method. This method has produced a close fit to recent experience for durations greater than one. After discussions with the Office of the Actuary, we understand that the studied salaries were not annualized. Thus, particularly for new hires, the graphed salary increase rates reflect not just pay raises but could also reflect receiving more paychecks in the second year of employment than in the first year. For this reason, the actual increases shown at durations 0 and 1 are skewed upward and, therefore, are much higher than the proposed assumption.

Given the current economic environment, we agree with the Office of the Actuary's use of a select period and 10 years of experience when setting the assumption. *We find the development of the recommended salary scale assumption is reasonably supported and follows ASOP 27*.

Valuation Rate of Interest

The valuation rate of interest, or discount rate assumption, is generally the most impactful assumption in an actuarial valuation. It is used to determine the value, in dollars as of the valuation date, of the estimated future pension benefits paid from the plan by discounting the expected payment amounts from their expected payment dates to the valuation date.

The current assumption is 6.95% and is equal to the expected return on assets.

For many public sector pension plans, the discount rate assumption is set equal to the long-term expected return assumption to minimize expected gains and losses and reduce contribution volatility. However, the investment return assumption and the discount rate assumption are two distinct assumptions (covered in separate sections, 3.7 [Selecting an Investment Return Assumption] and 3.8 [Selecting a Discount Rate], of ASOP 27) and the application of such an equivalence in a valuation demonstrates that, for the purpose of the valuation, the pension payouts (plan liabilities) are valued in relation to the expected return on assets.

Section 3.7 of ASOP 27 lists a series of considerations when determining the investment return assumption, such as inflation, illiquidity, credit risk, macroeconomic conditions, investment volatility, investment manager performance, expenses, and others. Many of these considerations can be reviewed through an analysis of the expected return and volatility of returns for the plan's assets based on a target allocation of investments, which is often stated in the plan's investment policy statement (IPS).

In reviewing this assumption, the Office of the Actuary received return expectations over 10-, 20-, and 30-year periods from their investment consultant, Callan Associates, based on the System's asset allocation. Additionally, Bolton prepared sets of 30-year stochastic simulations, differing by the capital market assumptions (CMAs) used to simulate future asset returns. Three sets (10-, 20-, and 30-year average geometric returns) of simulations were run using the Callan CMAs and two sets (10- and 20-year average geometric returns) were run using CMAs from Horizon Actuarial's 2024 capital market assumptions survey results (*2024 Horizon Survey*). The June 2025 presentation summarizing the results of the stochastic simulations is included in the Appendix of this report. Of all sets of simulations, the lowest median (50th percentile) geometric return was 7.09%, 14 basis points *higher* than the plan's discount rate assumption, while the highest was 7.66%. These median returns suggest that a return assumption of at least 6.95% (current assumption) is supported.

While the median returns of the sets of simulations are useful in evaluating future returns, they do not provide information on the dispersion of returns or the likelihood of exceeding the current return assumption. The Bolton report, with the 25th and 75th percentiles summarized in the *Recommended Actuarial Assumptions 2025 Report*, provides statistics on the full return distribution. This information is particularly useful for sponsors that utilize a conservative-leaning assumption for their funding valuations since the contribution requirements increase following years in which investment returns do not meet the assumption. As such, they set the discount rate assumption lower than the expected median investment return to increase the probability that the fund's return will meet or exceed the discount rate.

From a fiduciary standpoint, one of the primary goals of a pension system is to adequately and systematically fund the plan to ensure that promised benefits can be paid in full. Achieving this goal often entails the consideration of supporting, and sometimes competing, objectives, such as mitigating undo pressure on the sponsor, participants, or other stakeholders and balancing contribution development and volatility with intergenerational equity.

The Office of the Actuary documents the assumption each year since 1980 and the geometric average return for various periods ending June 30, 2024. For peer comparison, the Office of the Actuary references the National Association of State Retirement Administrators (NASRA) June 2025 Investment Return Assumption Survey results. While past performance does not guarantee future results (historical returns are not a predictor of future returns) and asset returns are a function of the System's own asset allocation and individual investments, both the historical returns and NASRA survey results help provide additional context.

Based on the above analysis, we find that the development of the valuation rate of interest assumption of 6.95% is both reasonable and appropriate.

Inflation

Price inflation is the increase in price over time of a standard basket of goods and services. Despite not having an independent impact on the valuation results, the price inflation assumption has an indirect impact by influencing the development of the other economic assumptions (COLA and investment return rate).

The current inflation assumption is 2.4%.

In analyzing the continued appropriateness of using 2.4%, the Office of the Actuary reviewed the following:

- CPI-U data – geometric average annual increases for the period ending March 2025 for various lengths of time (ranging from last 5 years to 30 years, and since 1913),
- Professional forecasters' expectations for inflation:
    - Intermediate long-term assumption from the 2025 Social Security Administration's Trustee report
    - Callan Associates' long term assumption
    - *2024 Horizon Survey*
    - March 2025 Survey of Consumer Expectations by the Federal Reserve Bank of New York.

The Office of the Actuary recommends increasing the inflation assumption from 2.4% to 2.5%, to better align with projected inflation rates from the sources above.

We find the development of the recommended inflation assumption of 2.5% is reasonable.

Cost-of-living Adjustment (COLA) Assumption

NYSTRS provides post-retirement benefit increases, referred to as cost-of-living adjustments (COLA), to individuals in payment. COLA benefits can have a significant impact on the present value of benefits, and thus, the COLA assumption is critical to the actuarial valuation. However, for NYSTRS, the COLA rate is applied each year to only the first $18,000 of annual benefit. Thus, this assumption has a limited impact compared to a COLA that applies to the entire benefit.

The percentage applied to the first $18,000 of annual benefit to determine the COLA is equal to 50% of the annual increase in the March Consumer Price Index for all urban consumers (CPI-U), but is limited to a minimum increase of 1.0% and a maximum increase of 3.0%.

The current COLA assumption is 1.3%.

In reviewing the COLA assumptions, the Office of the Actuary reviewed the arithmetic average of the percentage increase applied to the first $18,000 of annual benefit over the last 5, 10, 20, and 25 years. Arithmetic averages were reviewed since, for pensioners with annual pensions in excess of $18,000 at the benefit commencement date (these pensioners represent over 80% of the in-pay population), the COLA operates as a “simple” COLA on the first $18,000. Over all periods, the arithmetic average was greater than the current assumption of 1.3%. Recent periods have been higher due to elevated inflation following the onset of the pandemic.

The Office of the Actuary also reviewed stochastic results of COLA based on 10,000 trials of inflation. The average COLA percentage from that analysis was 1.46%.

The Office of the Actuary recommends increasing the COLA assumption from 1.3% to 1.4%. The increase is consistent with the increase in the inflation assumption, aligns with long-term historical COLAs (1.4% arithmetic average over 25 years), and is further supported by the stochastic analysis.

We find the recommended increase in the COLA assumption from 1.3% to 1.4% is both reasonable and appropriate.

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Section V. Actuarial Methods

In the following subsections, we review the actuarial cost method and asset valuation method from the *Recommended Actuarial Assumptions 2025 Report*. These two components along with the amortization method typically make up the principal elements of a plan's funding policy. Since the Aggregate actuarial cost method is used for NYSTRS, there is not a separate amortization method.

Actuarial Cost Method

As noted in the *Recommended Actuarial Assumptions 2025 Report*, the New York State Education Law §517 requires the use of the Aggregate actuarial cost method (Aggregate method). The Aggregate method is referred to as a spread gain actuarial cost method. In a spread gain method, deviations in experience are included as part of the current and future normal costs of the plan, rather than included in the unfunded actuarial accrued liability (there is no actuarial accrued liability associated with the Aggregate method).

Unlike private sector defined benefit plans, public sector defined benefit plans are not subject to the Employee Retirement Income Security Act (ERISA), as amended by the Pension Protection Act (PPA) and other subsequent legislation, and the actuarial methods prescribed therein. Since *federal* law does not prescribe specific actuarial methods for public pension plans, many public pension plan practitioners will reference published guidance issued by actuarial groups when setting or reviewing funding policies. The 2024 publication by the Conference of Consulting Actuaries (CCA) titled *Actuarial Funding Policies and Practices for Public Pension Plans (CCA Funding Policies Paper)*, which is mentioned in the *Recommended Actuarial Assumptions 2025 Report*, is an example of such a publication and may be the most widely recognized of its type. Prior to the 2024 publication, there was a 2014 edition of the *CCA Funding Policies Paper*. Before its publication, many public plan sponsors relied on the Annual Required Contribution described under the Governmental Accounting Standards Board (GASB) standards for pension plans.

The *CCA Funding Policies Paper* categorizes various actuarial methods using the objectives of a level cost allocation model (LCAM), a model developed in the paper, as its guiding principles. The actuarial cost method most consistent (i.e., "Model Practice") with the LCAM is the Entry Age Normal method. The *CCA Funding Policies Paper* categorizes the Aggregate cost method as an "Acceptable Practice, with Conditions", the conditions of which are:

- A normal cost and UAAL under the Entry Age Normal method should also be disclosed.
- Disclose the single amortization period for the Entry Age UAAL that, combined with the Entry Age normal cost, is equivalent to the Aggregate method normal cost.
- Monitor contribution volatility

The Office of the Actuary meets these terms in its 2024 actuarial report. We recommend that the Entry Age normal cost, Entry Age UAAL, and the development of the single amortization period continue to be shown in future reports.

The *CCA Funding Policies Paper* categorizes the Aggregate method into the middle tier of their hierarchy, below "Model Practice" and "Acceptable Practice". One of the drawbacks of the Aggregate method is that contributions developed using this cost method can become subject to significant volatility if the period over which the remaining total liability (PVFB minus assets)

is funded becomes short. Although "short" as it relates to funding periods for actuarial cost methods is not universally defined in actuarial literature, the effective amortization period under the Aggregate method is often shorter than is implied for a LCAM in the *CCA Funding Policies Paper*.

For a stable active population, the Aggregate method is more closely aligned with a rolling amortization approach than with a fixed-period amortization approach. The period for rolling amortization often needs to be shorter than layered, fixed-period amortization, which LCAM "Model Practice" suggests is 15-20 years, in order to be consistent with Actuarial Standard of Practice (ASOP) No. 4 (*Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*). The effective amortization period for NYSTRS has been much shorter for at least the past two years:

Valuation Year	Effective Amortization Period (Years)
2023	6.75
2024	6.62

NYSTRS funds the following on a pay-as-you-go (PAYGO) basis:

- Retirement System administrative expenses
- The first $50,000 of member death benefits (Group Life Insurance Fund)
- Benefits in excess of IRS §415 limits (Excess Benefit Fund)

It is common for anticipated PAYGO administrative expenses to be included as a load to contributions and such a load is consistent with ASOP 27. Separate funds have been established for a portion of the death benefits and for excess benefits and the size of the funds are small relative to the size of the plan (less than 0.5% of total plan assets). **We have no objections to the PAYGO funding approach for the above items.**

Asset Valuation Method

The actuarial value of assets (AVA) for NYSTRS recognizes net investment gains and losses, calculated annually as the difference between the actual return and the expected return on the market value of assets (MVA), over a closed five-year period (20% recognition per year).

The Actuarial Standard of Practice (ASOP) No. 44 (*Selection and Use of Asset Valuation Methods for Pension Valuations*) gives guidance for determining the reasonableness of an asset smoothing method. Under ASOP 44, an acceptable asset smoothing method must create asset values that fall within a reasonable range around market value and differences between the AVA and MVA must be recognized in a reasonable period of time. In lieu of satisfying both principles, a smoothing method could satisfy the requirements if, in the actuary's professional judgment, the range around market value is sufficiently narrow or the differences are recognized in a sufficiently short period.

As indicated in the *Recommended Actuarial Assumptions 2025 Report,* five-year smoothing is a very prevalent asset valuation method in the public sector and most practitioners would likely agree that five years is a "reasonable period of time."

The LCAM Model Practice in the *CCA Funding Policies Paper* includes fixed smoothing periods and a corridor around the MVA tied to the number of years in the smoothing period. The Office of the Actuary notes that although a market value corridor was considered, one has not been added to the asset valuation method.

The current asset smoothing method is reasonable.

Section VI. Conclusions and Recommendations

Bolton has reviewed the recommended assumptions and methods presented in the *Recommended Actuarial Assumptions 2025 Report*. The actuarial assumptions, methods, and procedures are reasonable and are reasonably supported by Actuarial Standards of Practice.

The Office of the Actuary's report provides a thorough and complete analysis of current and proposed assumptions and clearly discloses any adjustments needed to account for disruptions from the pandemic.

Appendix. Stochastic Investment Return Projections Presentation

Bolton

NYSTRS Stochastic Investment Return Projections

June 2025

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Modeled CMAs

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Return Probability

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Return Distribution

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Detailed CMAs

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Model Assumptions

MODELED CAPITAL MARKET ASSUMPTIONS (CMAs)

Modeled CMAs and Target Allocation

- This analysis compares stochastic projections under various capital market assumptions (CMAs):
  - 2025 Callan 10-Year CMAs
  - 2025 Callan 20-Year CMAs
  - 2025 Callan 30-Year CMAs
  - 2024 Horizon 10-Year CMAs
  - 2024 Horizon 20-Year CMAs

- The target asset allocation is from Callan's 2025 presentation:

Asset Class	Target Allocation
Broad US Equity	33.0%
Global Ex-US Equity	15.0%
Global Equity	4.0%
Real Estate Equity	11.0%
Private Equity	9.0%
Private Debt	2.0%
Core US Fixed Income	16.0%
Global Fixed Income	2.0%
Real Estate Debt	6.0%
High Yield	1.0%
Cash Equivalents	1.0%

RETURN PROBABILITY

Return Probability – Callan

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Callan's 10-year** CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	59%	57%	56%	54%	53%

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Callan's 20-year** CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	62%	60%	59%	57%	56%

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Callan's 30-year** CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	64%	63%	61%	60%	58%

Return Probability – Horizon

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Horizon's 10-year** CMAs

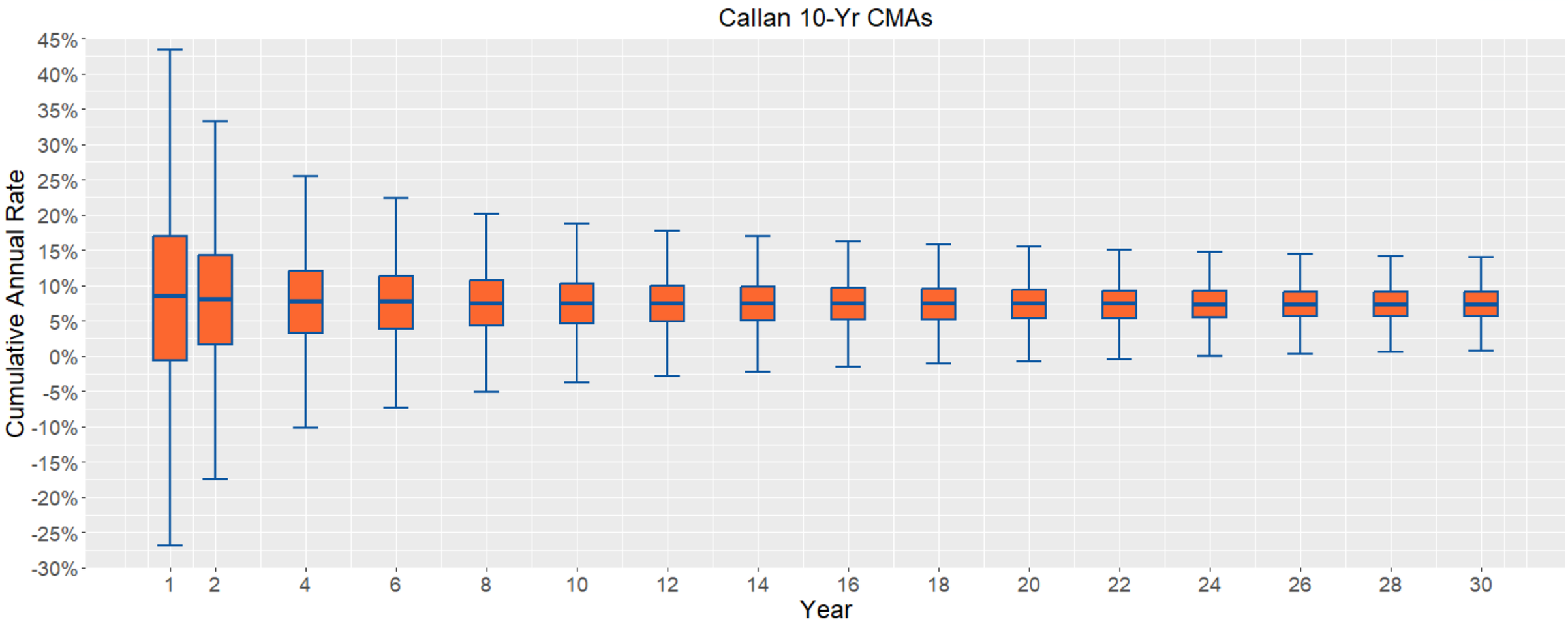
Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	56%	54%	52%	51%	49%

- The table below shows the probability of meeting or exceeding a given geometric average investment return over a 30-year measurement period based on **Horizon's 20-year** CMAs

Probabilities of Meeting Alternative Investment Return Assumptions					
Investment Return Assumption	6.75%	6.85%	6.95%	7.05%	7.15%
Probability of Meeting or Exceeding the Assumption	61%	59%	57%	56%	54%

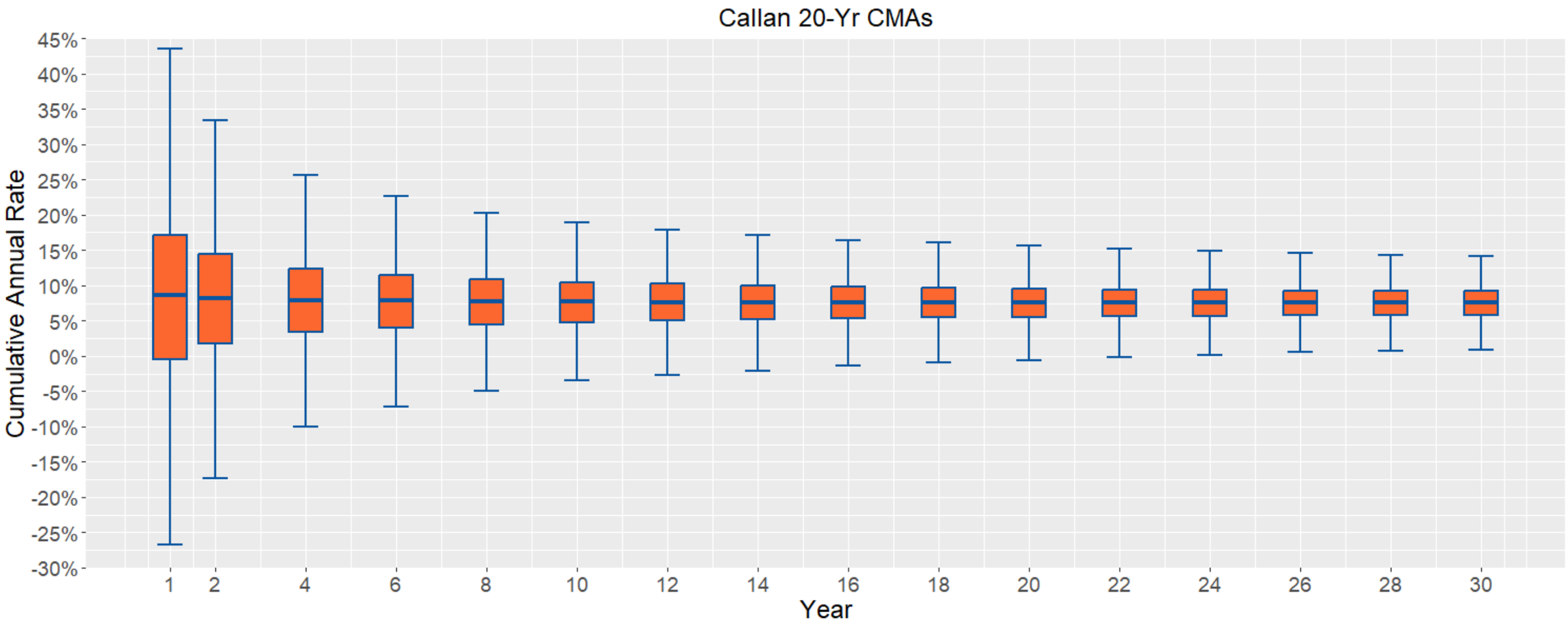
RETURN DISTRIBUTION

Geometric Average Return Distribution Box Plot – Callan 10-Year CMAs



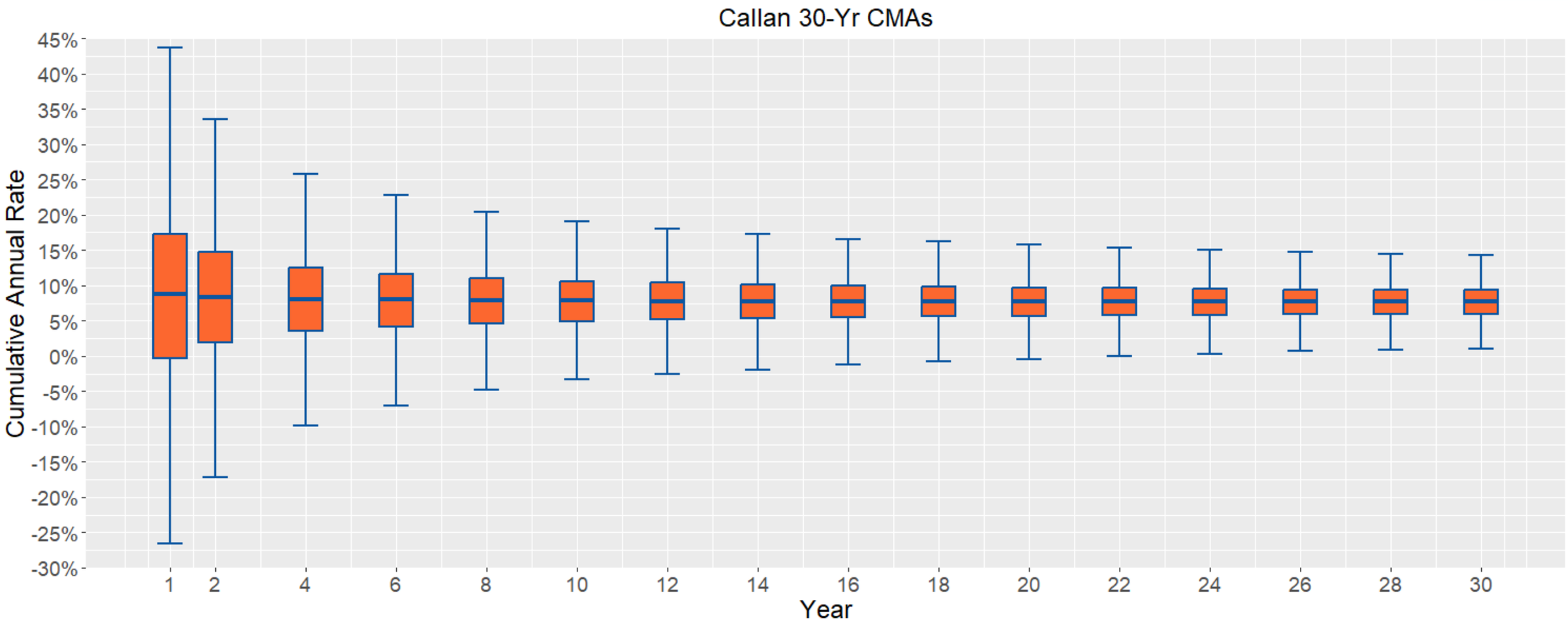
Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	39.05%	29.38%	23.05%	20.33%	18.54%	17.23%	16.19%	15.66%	15.11%	14.66%	14.43%	13.93%	13.64%	13.39%	13.09%	12.96%
95%	30.25%	23.29%	18.58%	16.52%	15.19%	14.34%	13.72%	13.25%	12.80%	12.60%	12.25%	12.03%	11.84%	11.63%	11.46%	11.30%
75%	17.07%	14.33%	12.13%	11.27%	10.65%	10.28%	10.02%	9.82%	9.61%	9.49%	9.37%	9.26%	9.17%	9.10%	9.02%	9.00%
50%	8.48%	8.01%	7.69%	7.67%	7.49%	7.49%	7.45%	7.41%	7.41%	7.37%	7.36%	7.37%	7.33%	7.33%	7.33%	7.32%
25%	-0.64%	1.59%	3.21%	3.81%	4.33%	4.62%	4.84%	4.98%	5.16%	5.23%	5.30%	5.38%	5.49%	5.57%	5.61%	5.65%
5%	-13.19%	-7.66%	-3.39%	-1.44%	-0.16%	0.48%	1.07%	1.43%	1.75%	2.18%	2.48%	2.59%	2.84%	3.01%	3.13%	3.26%
1%	-22.68%	-14.00%	-7.70%	-5.30%	-3.45%	-2.46%	-1.64%	-1.06%	-0.48%	-0.03%	0.29%	0.65%	0.97%	1.28%	1.33%	1.57%

Geometric Average Return Distribution Box Plot – Callan 20-Year CMAs



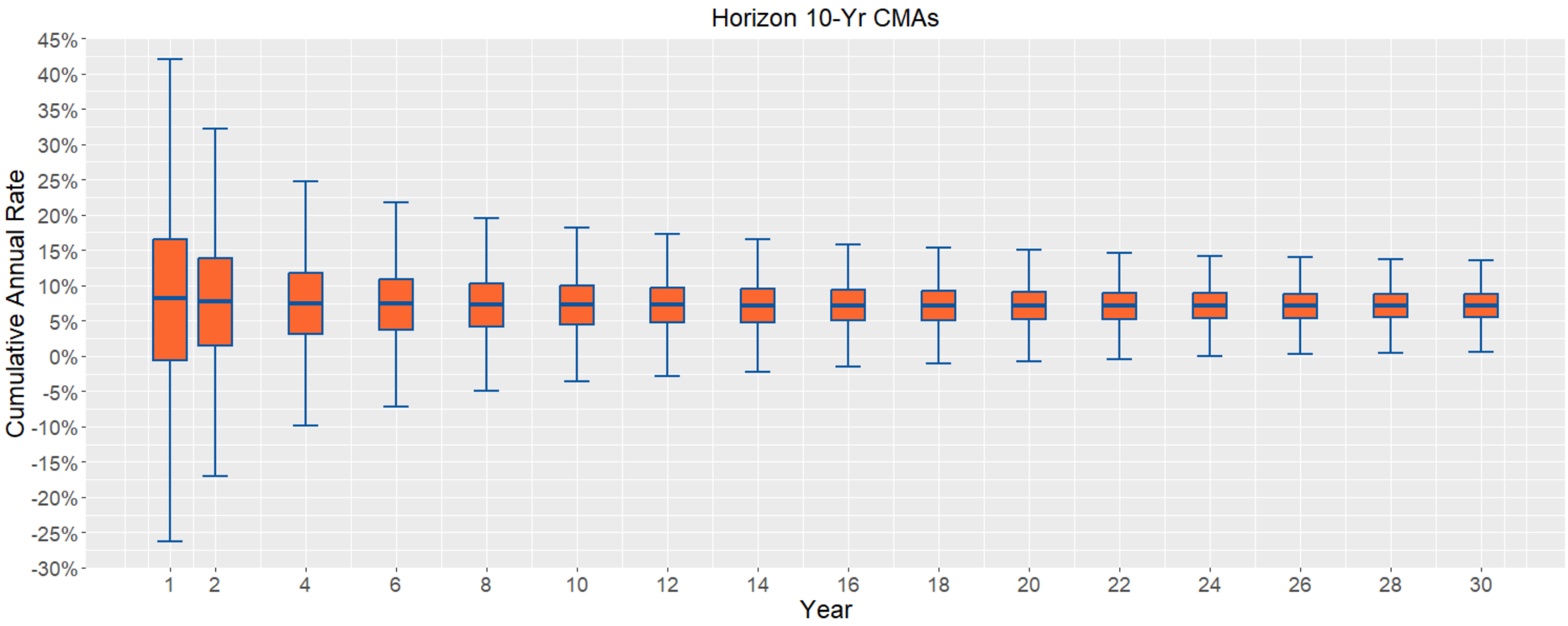
Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	39.23%	29.57%	23.24%	20.52%	18.73%	17.42%	16.38%	15.85%	15.30%	14.85%	14.62%	14.12%	13.83%	13.58%	13.28%	13.15%
95%	30.44%	23.48%	18.77%	16.71%	15.38%	14.53%	13.90%	13.44%	12.99%	12.79%	12.44%	12.22%	12.03%	11.82%	11.65%	11.49%
75%	17.26%	14.51%	12.32%	11.46%	10.84%	10.47%	10.21%	10.01%	9.80%	9.68%	9.56%	9.44%	9.36%	9.29%	9.21%	9.19%
50%	8.66%	8.20%	7.88%	7.86%	7.68%	7.67%	7.64%	7.60%	7.60%	7.56%	7.55%	7.56%	7.52%	7.52%	7.52%	7.51%
25%	-0.46%	1.78%	3.40%	4.00%	4.52%	4.81%	5.03%	5.17%	5.35%	5.42%	5.49%	5.57%	5.68%	5.76%	5.80%	5.84%
5%	-13.00%	-7.46%	-3.20%	-1.25%	0.03%	0.67%	1.26%	1.62%	1.94%	2.37%	2.67%	2.78%	3.03%	3.20%	3.31%	3.45%
1%	-22.50%	-13.81%	-7.51%	-5.11%	-3.25%	-2.27%	-1.45%	-0.87%	-0.29%	0.15%	0.48%	0.84%	1.16%	1.47%	1.52%	1.76%

Geometric Average Return Distribution Box Plot – Callan 30-Year CMAs



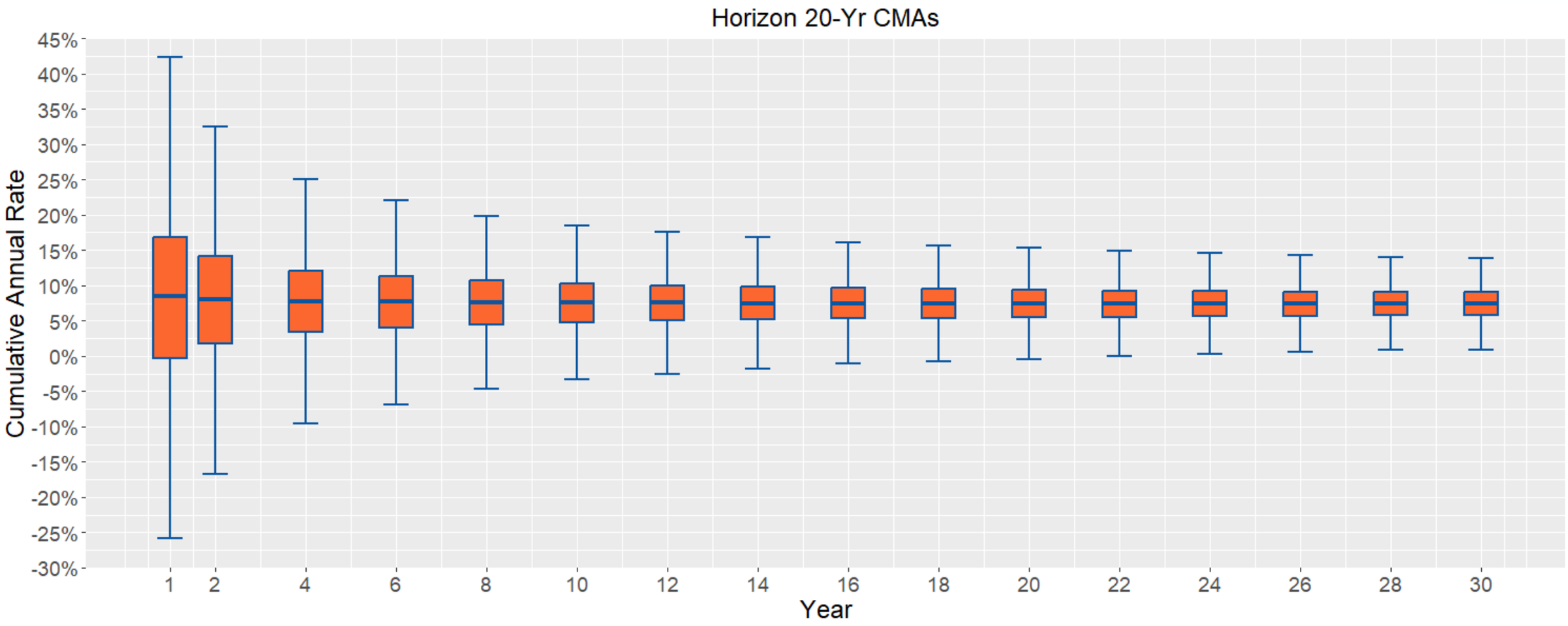
Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	39.38%	29.72%	23.39%	20.67%	18.88%	17.58%	16.53%	16.00%	15.45%	15.00%	14.77%	14.27%	13.98%	13.73%	13.43%	13.30%
95%	30.59%	23.63%	18.92%	16.86%	15.53%	14.68%	14.06%	13.59%	13.14%	12.94%	12.59%	12.38%	12.18%	11.97%	11.80%	11.64%
75%	17.41%	14.66%	12.47%	11.61%	10.99%	10.62%	10.36%	10.16%	9.95%	9.83%	9.71%	9.60%	9.51%	9.44%	9.36%	9.34%
50%	8.82%	8.35%	8.03%	8.01%	7.84%	7.83%	7.79%	7.75%	7.75%	7.72%	7.70%	7.71%	7.67%	7.67%	7.67%	7.66%
25%	-0.31%	1.93%	3.55%	4.15%	4.67%	4.96%	5.19%	5.33%	5.50%	5.57%	5.64%	5.72%	5.83%	5.91%	5.95%	5.99%
5%	-12.85%	-7.31%	-3.05%	-1.10%	0.18%	0.82%	1.41%	1.77%	2.09%	2.53%	2.82%	2.93%	3.19%	3.35%	3.47%	3.60%
1%	-22.35%	-13.66%	-7.36%	-4.96%	-3.10%	-2.11%	-1.29%	-0.71%	-0.14%	0.31%	0.63%	0.99%	1.31%	1.62%	1.67%	1.91%

Geometric Average Return Distribution Box Plot – Horizon 10-Year CMAs



Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	37.87%	28.49%	22.34%	19.71%	17.96%	16.71%	15.69%	15.19%	14.65%	14.21%	13.99%	13.51%	13.22%	12.97%	12.69%	12.56%
95%	29.33%	22.59%	18.01%	16.02%	14.72%	13.90%	13.29%	12.84%	12.41%	12.21%	11.86%	11.66%	11.48%	11.28%	11.10%	10.96%
75%	16.53%	13.88%	11.75%	10.92%	10.32%	9.95%	9.71%	9.51%	9.31%	9.19%	9.08%	8.96%	8.88%	8.82%	8.73%	8.71%
50%	8.19%	7.74%	7.44%	7.42%	7.25%	7.25%	7.21%	7.17%	7.17%	7.14%	7.12%	7.14%	7.09%	7.10%	7.10%	7.09%
25%	-0.67%	1.51%	3.10%	3.67%	4.19%	4.46%	4.68%	4.82%	4.99%	5.06%	5.13%	5.21%	5.31%	5.39%	5.42%	5.46%
5%	-12.85%	-7.45%	-3.31%	-1.42%	-0.17%	0.44%	1.01%	1.37%	1.68%	2.10%	2.39%	2.49%	2.75%	2.90%	3.02%	3.14%
1%	-22.07%	-13.63%	-7.50%	-5.17%	-3.37%	-2.40%	-1.60%	-1.05%	-0.49%	-0.06%	0.25%	0.62%	0.93%	1.23%	1.27%	1.51%

Geometric Average Return Distribution Box Plot – Horizon 20-Year CMAs



Percentile	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
99%	38.20%	28.81%	22.67%	20.04%	18.29%	17.03%	16.01%	15.51%	14.97%	14.54%	14.31%	13.83%	13.54%	13.30%	13.01%	12.88%
95%	29.65%	22.91%	18.33%	16.34%	15.04%	14.22%	13.61%	13.16%	12.73%	12.53%	12.19%	11.98%	11.80%	11.60%	11.42%	11.28%
75%	16.86%	14.20%	12.07%	11.24%	10.64%	10.27%	10.03%	9.84%	9.63%	9.52%	9.40%	9.29%	9.20%	9.14%	9.06%	9.03%
50%	8.51%	8.06%	7.76%	7.74%	7.58%	7.57%	7.53%	7.50%	7.49%	7.46%	7.45%	7.46%	7.42%	7.42%	7.42%	7.41%
25%	-0.35%	1.83%	3.42%	4.00%	4.51%	4.79%	5.01%	5.14%	5.31%	5.38%	5.45%	5.53%	5.63%	5.71%	5.75%	5.79%
5%	-12.53%	-7.12%	-2.99%	-1.09%	0.15%	0.76%	1.34%	1.70%	2.01%	2.42%	2.71%	2.82%	3.07%	3.22%	3.34%	3.46%
1%	-21.75%	-13.31%	-7.17%	-4.85%	-3.05%	-2.07%	-1.28%	-0.72%	-0.17%	0.27%	0.57%	0.94%	1.25%	1.56%	1.60%	1.83%

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DETAILED CMAs

CMAs and Target Allocation – Callan

Asset Class	Target Allocation	10-Year Returns		20-Year Returns		30-Year Returns		Standard Deviation
		Arith.	Geom.	Arith.	Geom.	Arith.	Geom.	
Broad US Equity (1)	33.00%	8.68%	7.34%	8.91%	7.55%	9.09%	7.73%	17.36%
Global Ex-US Equity (2)	15.00%	9.38%	7.43%	9.59%	7.61%	9.76%	7.78%	21.05%
Global Equity (3)	4.00%	8.96%	7.57%	9.18%	7.78%	9.36%	7.95%	17.69%
Real Estate Equity (4)	11.00%	8.34%	7.21%	8.62%	7.47%	8.84%	7.68%	15.97%
Private Equity	9.00%	11.79%	8.52%	11.98%	8.67%	12.15%	8.83%	27.60%
Private Debt	2.00%	8.35%	7.25%	8.39%	7.27%	8.42%	7.30%	15.70%
Core US Fixed Income	16.00%	4.85%	4.76%	4.92%	4.83%	4.97%	4.88%	4.40%
Global Fixed Income (5)	2.00%	4.27%	4.09%	4.53%	4.34%	4.75%	4.57%	6.25%
Real Estate Debt (6)	6.00%	6.06%	5.93%	6.14%	6.01%	6.21%	6.08%	5.03%
High Yield	1.00%	6.65%	6.02%	6.86%	6.22%	7.04%	6.40%	11.75%
Cash Equivalents	1.00%	2.99%	2.99%	2.99%	2.99%	3.00%	3.00%	0.90%
Inflation			2.49%		2.43%		2.37%	1.60%

(1) Broad US equity = 85% large cap, 15% mid and small cap

(2) Global ex-US equity = 75% developed markets, 25% emerging markets

(3) Global Equity = 60% broad US, 40% global ex-US

(4) Current RE Equity = 55% core, 30% non-core, 15% REITs

(5) Global fixed income = 70% global, 10% global corporate, 20% emerging debt USD IG

(6) Real estate debt = 80% commercial mortgages/20% private mezzanine debt

Correlation Matrix – Callan

	Asset Class	1	2	3	4	5	6	7	8	9	10	11
1	Broad US Equity	**1.00**	0.76	0.95	0.58	0.80	0.66	0.08	0.27	0.76	0.76	-0.03
2	Global Ex-US Equity	0.76	**1.00**	0.92	0.57	0.76	0.64	0.04	0.26	0.73	0.74	-0.08
3	Global Equity	0.95	0.92	**1.00**	0.62	0.83	0.69	0.07	0.28	0.79	0.79	-0.06
4	Real Estate Equity	0.58	0.57	0.62	**1.00**	0.69	0.46	0.08	0.19	0.69	0.49	-0.03
5	Private Equity	0.80	0.76	0.83	0.69	**1.00**	0.65	-0.04	0.15	0.86	0.55	-0.04
6	Private Debt	0.66	0.64	0.69	0.46	0.65	**1.00**	0.00	0.20	0.60	0.55	-0.04
7	Core US Fixed Income	0.08	0.04	0.07	0.08	-0.04	0.00	**1.00**	0.71	0.39	0.15	0.16
8	Global Fixed Income	0.27	0.26	0.28	0.19	0.15	0.20	0.71	**1.00**	0.48	0.32	0.11
9	Real Estate Debt	0.76	0.73	0.79	0.69	0.86	0.60	0.39	0.48	**1.00**	0.63	0.04
10	High Yield	0.76	0.74	0.79	0.49	0.55	0.55	0.15	0.32	0.63	**1.00**	-0.03
11	Cash Equivalents	-0.03	-0.08	-0.06	-0.03	-0.04	-0.04	0.16	0.11	0.04	-0.03	**1.00**

CMAs and Target Allocation – Horizon

Asset Class	Target Allocation	10-Year Returns		20-Year Returns		Standard Deviation
		Arith.	Geom.	Arith.	Geom.	
US Equity - Large Cap [1]	30.09%	7.74%	6.46%	8.25%	6.96%	16.52%
US Equity - Small/Mid Cap [2]	5.31%	9.04%	7.07%	9.50%	7.50%	20.57%
Non-US Equity - Developed [3]	12.45%	8.61%	7.08%	9.08%	7.52%	18.06%
Non-US Equity - Emerging [4]	4.15%	10.31%	7.70%	11.00%	8.24%	23.61%
US Corporate Bonds - Core	16.00%	5.10%	4.93%	5.04%	4.88%	5.90%
US Corporate Bonds - High Yield	1.00%	6.61%	6.13%	6.86%	6.36%	9.94%
Non-US Debt - Developed [5]	1.60%	3.95%	3.66%	4.00%	3.71%	7.33%
Non-US Debt - Emerging [6]	0.40%	6.73%	6.17%	6.89%	6.28%	10.76%
US Treasuries (Cash Equivalents)	1.00%	3.69%	3.68%	3.44%	3.43%	1.10%
Real Estate [7]	15.80%	7.43%	6.06%	7.38%	6.17%	16.61%
Private Equity	9.00%	11.55%	9.09%	12.33%	9.71%	22.57%
Private Debt [8]	3.20%	9.02%	8.32%	9.09%	8.44%	12.00%
Inflation		2.43%	2.42%	2.44%	2.44%	1.86%

Mapping Callan's Asset Classes to Horizon's Asset Classes

(1) Includes 85% of Broad US Equity and 60% * 85% of Global Equity
(2) Includes 15% of Broad US Equity and 60% * 15% of Global Equity
(3) Includes 75% of Global Ex-US Equity and 40% * 75% of Global Equity
(4) Includes 25% of Global Ex-US Equity and 40% * 25% of Global Equity
(5) Includes 80% of Global Fixed Income
(6) Includes 20% of Global Fixed Income
(7) Includes 100% of Real Estate Equity and 80% of Real Estate Debt
(8) Includes 100% of Private Debt and 20% of Real Estate Debt

Correlation Matrix – Horizon

	Asset Class	1	2	3	4	5	6	7	8	9	10	11	12
1	US Equity - Large Cap	**1.00**	0.90	0.81	0.70	0.28	0.68	0.21	0.53	-0.03	0.57	0.75	0.55
2	US Equity - Small/Mid Cap	0.90	**1.00**	0.76	0.67	0.23	0.67	0.17	0.50	-0.06	0.57	0.96	0.55
3	Non-US Equity - Developed	0.81	0.76	**1.00**	0.79	0.26	0.64	0.32	0.57	-0.02	0.50	0.66	0.52
4	Non-US Equity - Emerging	0.70	0.67	0.79	**1.00**	0.24	0.62	0.28	0.63	-0.02	0.45	0.61	0.50
5	US Corporate Bonds - Core	0.28	0.23	0.26	0.24	**1.00**	0.49	0.61	0.58	0.14	0.27	0.18	0.17
6	US Corporate Bonds - High Yield	0.68	0.67	0.64	0.62	0.49	**1.00**	0.30	0.66	-0.03	0.49	0.55	0.66
7	Non-US Debt - Developed	0.21	0.17	0.32	0.28	0.61	0.30	**1.00**	0.49	0.14	0.20	0.16	0.10
8	Non-US Debt - Emerging	0.53	0.50	0.57	0.63	0.58	0.66	0.49	**1.00**	0.06	0.40	0.43	0.41
9	US Treasuries (Cash Equivalents)	-0.03	-0.06	-0.02	-0.02	0.14	-0.03	0.14	0.06	**1.00**	-0.03	-0.07	-0.08
10	Real Estate	0.57	0.57	0.50	0.45	0.27	0.49	0.20	0.40	-0.03	**1.00**	0.48	0.37
11	Private Equity	0.75	0.96	0.66	0.61	0.18	0.55	0.16	0.43	-0.07	0.48	**1.00**	0.58
12	Private Debt	0.55	0.55	0.52	0.50	0.17	0.66	0.10	0.41	-0.08	0.37	0.58	**1.00**

MODEL ASSUMPTIONS

Stochastic Model Assumptions

- The results presented in this analysis are based on the following:

  - 10,000 Monte Carlo trials x 30 years
    - Random numbers used to simulate returns are same for all sets of CMAs
    - Random numbers were produced using Microsoft Visual Basic for Application's (VBA's) rnd function
  - Annual returns are normally distributed
  - Whiskers of box plots created using 1.5 x interquartile range (1.5 IQR)

Actuarial Certification

This presentation has been presented for the New York State Teachers' Retirement System (NYSTRS) for the purpose of generating stochastic asset return projections. It is neither intended nor necessary suitable for other purposes. Bolton Partners is not responsible for the consequences of any other use or the reliance on this information by any other party.

In preparing this presentation, we have relied on the following information:

- NYSTRS: target asset allocation, Callan capital market assumptions (returns, standard deviations, and correlation matrix).
- Horizon Actuarial: 2024 capital market assumptions (returns, standard deviations, and correlation matrix)

This 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.

We, Thomas Vicente, Michelle Boyles, and Jordan McClane, are members of the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. We believe the assumptions used in this analysis are reasonable for the purpose of these projections. The actual portfolio returns will depend on the actual asset allocation and the returns of the underlying investments and will differ from those presented in this analysis.

We are currently compliant with the Continuing Professional Development Requirement of the Society of Actuaries. We are not aware of any direct or material indirect conflict of interest that would impair the objectivity of this analysis.

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PART 5018

ACTUARIAL ASSUMPTIONS

(Statutory authority: Education Law §§501 (subd. 9(b), (c)); 508 (subd. 4); 517)

Section

5018.1 Valuation rate of interest and salary scale assumptions
5018.2 Mortality and service tables for valuation purposes
5018.3 Mortality tables for the determination of benefits accrued prior to August 1, 1983
5018.4 Mortality tables for the determination of benefits accruing on or after August 1, 1983
5018.5 Interest rate for calculation of de minimis service retirement benefit
5018.6 Compliance with IRC Section 415

Section 5018.1 VALUATION RATE OF INTEREST, SALARY SCALE AND COLA ASSUMPTIONS. For the purpose of performing the annual actuarial valuation of the Retirement System, effective with the July 1, 2021 valuation, the valuation rate of interest shall be 6.95 percent. Effective with the July 1, 2025 valuation, the assumed rate of COLA increase shall be ~~1.3~~ 1.4 percent. Effective with the July 1, 2025 through July 1, 2027 valuations, ~~and~~ the salary scale assumption shall be as follows:

~~Salary Scale~~

~~Duration~~	~~Rate~~	~~Duration~~	~~Rate~~	~~Duration~~	~~Rate~~
~~0~~	~~1.1231~~	~~14~~	~~1.038~~	~~28~~	~~1.0230~~
~~1~~	~~1.1079~~	~~15~~	~~1.0364~~	~~29~~	~~1.0225~~
~~2~~	~~1.0814~~	~~16~~	~~1.0347~~	~~30~~	~~1.0219~~
~~3~~	~~1.0683~~	~~17~~	~~1.0332~~	~~31~~	~~1.0214~~
~~4~~	~~1.0582~~	~~18~~	~~1.0317~~	~~32~~	~~1.0210~~
~~5~~	~~1.0518~~	~~19~~	~~1.0305~~	~~33~~	~~1.0204~~
~~6~~	~~1.0480~~	~~20~~	~~1.0293~~	~~34~~	~~1.0200~~
~~7~~	~~1.0459~~	~~21~~	~~1.0283~~	~~35~~	~~1.0195~~
~~8~~	~~1.0447~~	~~22~~	~~1.0274~~	~~36~~	~~1.0191~~
~~9~~	~~1.0438~~	~~23~~	~~1.0265~~	~~37~~	~~1.0186~~
~~10~~	~~1.0430~~	~~24~~	~~1.0257~~	~~38~~	~~1.0183~~
~~11~~	~~1.0421~~	~~25~~	~~1.0250~~	~~39~~	~~1.0183~~

~~12~~	~~1.0409~~	~~26~~	~~1.0243~~	~~40~~	~~1.0184~~
~~13~~	~~1.0396~~	~~27~~	~~1.0237~~		

Salary Scale (eff. July 1, 2025 through July 1, 2027)

Duration	Rate	Duration	Rate	Duration	Rate
0	1.1074	14	1.0409	28	1.0276
1	1.0932	15	1.0396	29	1.0270
2	1.0793	16	1.0384	30	1.0263
3	1.0712	17	1.0372	31	1.0257
4	1.0655	18	1.0361	32	1.0251
5	1.0610	19	1.0351	33	1.0245
6	1.0575	20	1.0341	34	1.0239
7	1.0544	21	1.0331	35	1.0234
8	1.0518	22	1.0322	36	1.0228
9	1.0495	23	1.0314	37	1.0223
10	1.0475	24	1.0306	38	1.0218
11	1.0456	25	1.0298	39	1.0213
12	1.0439	26	1.0290	40	1.0208
13	1.0424	27	1.0283		

Effective with the July 1, 2028 valuation, the salary scale assumption shall be as follows:

Salary Scale (eff. July 1, 2028)

Duration	Rate	Duration	Rate	Duration	Rate
0	1.1044	14	1.0379	28	1.0246
1	1.0902	15	1.0366	29	1.0240
2	1.0763	16	1.0354	30	1.0233
3	1.0682	17	1.0342	31	1.0227
4	1.0625	18	1.0331	32	1.0221
5	1.0580	19	1.0321	33	1.0215
6	1.0545	20	1.0311	34	1.0209
7	1.0514	21	1.0301	35	1.0204
8	1.0488	22	1.0292	36	1.0198
9	1.0465	23	1.0284	37	1.0193
10	1.0445	24	1.0276	38	1.0188
11	1.0426	25	1.0268	39	1.0183
12	1.0409	26	1.0260	40	1.0178
13	1.0394	27	1.0253		

Section 5018.2 MORTALITY AND SERVICE TABLES FOR VALUATION PURPOSES. For the purposes of performing the annual actuarial valuation of the Retirement System, effective with the July 1, ~~2021~~ 2025 valuation, the assumptions to be used for the incidence of death, disability, withdrawal, and retirement among active members and for the incidence of death among members who are retired for service and the beneficiaries of active and retired members, and for the incidence of death among members who are retired for disability, shall be as follows:

~~Mortality Rates for Active Members~~

~~Males~~

~~Age~~	~~Rate~~	~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~20~~	~~0.000326~~	~~39~~	~~0.000448~~	~~58~~	~~0.002146~~
~~21~~	~~0.000292~~	~~40~~	~~0.000467~~	~~59~~	~~0.002363~~
~~22~~	~~0.000249~~	~~41~~	~~0.000494~~	~~60~~	~~0.002605~~
~~23~~	~~0.000215~~	~~42~~	~~0.000518~~	~~61~~	~~0.002875~~
~~24~~	~~0.000189~~	~~43~~	~~0.000550~~	~~62~~	~~0.003162~~
~~25~~	~~0.000173~~	~~44~~	~~0.000582~~	~~63~~	~~0.003461~~
~~26~~	~~0.000189~~	~~45~~	~~0.000633~~	~~64~~	~~0.003789~~
~~27~~	~~0.000206~~	~~46~~	~~0.000683~~	~~65~~	~~0.004146~~
~~28~~	~~0.000223~~	~~47~~	~~0.000743~~	~~66~~	~~0.004515~~
~~29~~	~~0.000252~~	~~48~~	~~0.000816~~	~~67~~	~~0.004918~~
~~30~~	~~0.000269~~	~~49~~	~~0.000891~~	~~68~~	~~0.005349~~
~~31~~	~~0.000298~~	~~50~~	~~0.000988~~	~~69~~	~~0.005822~~
~~32~~	~~0.000314~~	~~51~~	~~0.001090~~	~~70~~	~~0.006313~~
~~33~~	~~0.000340~~	~~52~~	~~0.001197~~	~~71~~	~~0.006838~~
~~34~~	~~0.000353~~	~~53~~	~~0.001327~~	~~72~~	~~0.007406~~
~~35~~	~~0.000376~~	~~54~~	~~0.001463~~	~~73~~	~~0.008017~~
~~36~~	~~0.000396~~	~~55~~	~~0.001605~~	~~74~~	~~0.008674~~
~~37~~	~~0.000412~~	~~56~~	~~0.001769~~	~~75~~	~~0.009408~~
~~38~~	~~0.000438~~	~~57~~	~~0.001948~~	~~76~~	~~0.010787~~

~~Age~~	~~Rate~~
~~77~~	~~0.012380~~
~~78~~	~~0.014221~~
~~79~~	~~0.016338~~

Mortality Rates for Active Members

Males

Age	Rate	Age	Rate	Age	Rate
20	0.000221	40	0.000534	60	0.002493
21	0.000230	41	0.000561	61	0.002714
22	0.000239	42	0.000589	62	0.002971
23	0.000239	43	0.000635	63	0.003238
24	0.000239	44	0.000672	64	0.003514
25	0.000239	45	0.000718	65	0.003818
26	0.000258	46	0.000754	66	0.004131
27	0.000267	47	0.000810	67	0.004480
28	0.000285	48	0.000865	68	0.004839
29	0.000285	49	0.000920	69	0.005225
30	0.000304	50	0.000994	70	0.005648
31	0.000322	51	0.001086	71	0.006118
32	0.000340	52	0.001168	72	0.006624
33	0.000359	53	0.001279	73	0.007194
34	0.000377	54	0.001398	74	0.007820
35	0.000405	55	0.001546	75	0.008519
36	0.000414	56	0.001693	76	0.009816
37	0.000442	57	0.001867	77	0.011334
38	0.000469	58	0.002061	78	0.013091
39	0.000506	59	0.002263	79	0.015133

~~Females~~

~~Age~~	~~Rate~~	~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~20~~	~~0.000132~~	~~39~~	~~0.000316~~	~~58~~	~~0.001369~~
~~21~~	~~0.000124~~	~~40~~	~~0.000326~~	~~59~~	~~0.001485~~

~~22~~	~~0.000105~~	~~41~~	~~0.000347~~	~~60~~	~~0.001611~~
~~23~~	~~0.000096~~	~~42~~	~~0.000366~~	~~61~~	~~0.001748~~
~~24~~	~~0.000099~~	~~43~~	~~0.000395~~	~~62~~	~~0.001902~~
~~25~~	~~0.000101~~	~~44~~	~~0.000413~~	~~63~~	~~0.002066~~
~~26~~	~~0.000114~~	~~45~~	~~0.000442~~	~~64~~	~~0.002259~~
~~27~~	~~0.000116~~	~~46~~	~~0.000482~~	~~65~~	~~0.002472~~
~~28~~	~~0.000131~~	~~47~~	~~0.000523~~	~~66~~	~~0.002719~~
~~29~~	~~0.000145~~	~~48~~	~~0.000568~~	~~67~~	~~0.003002~~
~~30~~	~~0.000171~~	~~49~~	~~0.000616~~	~~68~~	~~0.003342~~
~~31~~	~~0.000185~~	~~50~~	~~0.000668~~	~~69~~	~~0.003748~~
~~32~~	~~0.000197~~	~~51~~	~~0.000733~~	~~70~~	~~0.004225~~
~~33~~	~~0.000209~~	~~52~~	~~0.000811~~	~~71~~	~~0.004789~~
~~34~~	~~0.000232~~	~~53~~	~~0.000884~~	~~72~~	~~0.005454~~
~~35~~	~~0.000240~~	~~54~~	~~0.000968~~	~~73~~	~~0.006216~~
~~36~~	~~0.000259~~	~~55~~	~~0.001063~~	~~74~~	~~0.007116~~
~~37~~	~~0.000277~~	~~56~~	~~0.001156~~	~~75~~	~~0.008144~~
~~38~~	~~0.000291~~	~~57~~	~~0.001255~~	~~76~~	~~0.009388~~
				~~77~~	~~0.010829~~
				~~78~~	~~0.012490~~
				~~79~~	~~0.014393~~

Females

Age	Rate	Age	Rate	Age	Rate
20	0.000082	40	0.000328	60	0.001466
21	0.000082	41	0.000337	61	0.001612
22	0.000082	42	0.000364	62	0.001766
23	0.000082	43	0.000392	63	0.001949
24	0.000082	44	0.000410	64	0.002122
25	0.000082	45	0.000437	65	0.002322
26	0.000091	46	0.000464	66	0.002540
27	0.000100	47	0.000501	67	0.002786
28	0.000118	48	0.000537	68	0.003041
29	0.000127	49	0.000583	69	0.003342
30	0.000137	50	0.000628	70	0.003670
31	0.000155	51	0.000674	71	0.004043
32	0.000173	52	0.000728	72	0.004471
33	0.000182	53	0.000792	73	0.004935
34	0.000209	54	0.000856	74	0.005472
35	0.000219	55	0.000929	75	0.006083
36	0.000237	56	0.001011	76	0.007075

37	0.000255	57	0.001111	77	0.008231
38	0.000282	58	0.001220	78	0.009579
39	0.000300	59	0.001329	79	0.011163

~~Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates.~~

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

~~Disability Retirement Rates for Active Members~~

~~Males~~

~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~30~~	~~0.000007~~	~~55~~	~~0.001287~~
~~31~~	~~0.000031~~	~~56~~	~~0.001060~~
~~32~~	~~0.000060~~	~~57~~	~~0.000845~~
~~33~~	~~0.000100~~	~~58~~	~~0.000721~~
~~34~~	~~0.000131~~	~~59~~	~~0.000655~~
~~35~~	~~0.000156~~	~~60~~	~~0.000642~~
~~36~~	~~0.000183~~	~~61~~	~~0.000617~~
~~37~~	~~0.000220~~	~~62~~	~~0.000581~~
~~38~~	~~0.000261~~	~~63~~	~~0.000536~~
~~39~~	~~0.000297~~	~~64~~	~~0.000485~~
~~40~~	~~0.000324~~	~~65~~	~~0.000430~~
~~41~~	~~0.000353~~	~~66~~	~~0.000373~~
~~42~~	~~0.000378~~	~~67~~	~~0.000317~~
~~43~~	~~0.000439~~	~~68~~	~~0.000264~~
~~44~~	~~0.000519~~	~~69~~	~~0.000215~~
~~45~~	~~0.000610~~	~~70~~	~~0.000172~~
~~46~~	~~0.000680~~	~~71~~	~~0.000135~~
~~47~~	~~0.000724~~	~~72~~	~~0.000104~~
~~48~~	~~0.000772~~	~~73~~	~~0.000078~~
~~49~~	~~0.000878~~	~~74~~	~~0.000058~~
~~50~~	~~0.001035~~	~~75~~	~~0.000042~~
~~51~~	~~0.001225~~	~~76~~	~~0.000030~~
~~52~~	~~0.001395~~	~~77~~	~~0.000021~~
~~53~~	~~0.001480~~	~~78~~	~~0.000014~~

~~54~~	~~0.001435~~	~~79~~	~~0.000009~~

Disability Retirement Rates for Active Members

Age	Rate	Age	Rate
30	0.000010	55	0.000849
31	0.000011	56	0.000743
32	0.000012	57	0.000624
33	0.000014	58	0.000506
34	0.000028	59	0.000401
35	0.000043	60	0.000289
36	0.000059	61	0.000185
37	0.000082	62	0.000120
38	0.000123	63	0.000096
39	0.000177	64	0.000090
40	0.000234	65	0.000093
41	0.000284	66	0.000104
42	0.000311	67	0.000111
43	0.000320	68	0.000103
44	0.000321	69	0.000085
45	0.000326	70	0.000059
46	0.000366	71	0.000035
47	0.000473	72	0.000010
48	0.000623	73	0.000009
49	0.000790	74	0.000008
50	0.000943	75	0.000008
51	0.001042	76	0.000007
52	0.001069	77	0.000006
53	0.001027	78	0.000006
54	0.000944	79	0.000005

~~Females~~

~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~30~~	~~0.000004~~	~~59~~	~~0.000956~~
~~31~~	~~0.000018~~	~~60~~	~~0.000848~~
~~32~~	~~0.000048~~	~~61~~	~~0.000749~~
~~33~~	~~0.000140~~	~~62~~	~~0.000684~~
~~34~~	~~0.000225~~	~~63~~	~~0.000591~~
~~35~~	~~0.000242~~	~~64~~	~~0.000551~~
~~36~~	~~0.000212~~	~~65~~	~~0.000476~~

37	0.000191	66	0.000258
38	0.000202	67	0.000178
39	0.000252	68	0.000169
40	0.000330	69	0.000152
41	0.000415	70	0.000131
42	0.000468	71	0.000107
43	0.000566	72	0.000083
44	0.000684	73	0.000060
45	0.000758	74	0.000042
46	0.000788	75	0.000028
47	0.000841	76	0.000018
48	0.000961	77	0.000011
49	0.001145	78	0.000006
50	0.001325	79	0.000004
51	0.001528		
52	0.001608		
53	0.001611		
54	0.001527		
55	0.001454		
56	0.001270		
57	0.001121		
58	0.001012		

Withdrawal Rates for Active Members

	Females	Males
Service	Rate	Rate
0	0.276603	0.281672
1	0.125667	0.139639
2	0.091900	0.103566
3	0.070395	0.082839
4	0.054609	0.061281
5	0.048608	0.046733
6	0.044007	0.040304
7	0.039406	0.033875
8	0.034805	0.027446
9	0.030204	0.021017
10	0.025604	0.017586
11	0.022445	0.015753
12	0.018454	0.012379
13	0.014464	0.009004
14	0.010474	0.008712
15	0.009808	0.008419
16	0.008100	0.007735
17	0.006392	0.007052
18	0.004683	0.006368
19	0.004300	0.005078
20	0.004251	0.005000
21	0.003896	0.004633
22	0.003883	0.004265
23	0.003869	0.003897
24	0.003856	0.003530
25	0.002475	0.003162
26	0.002156	0.003058
27	0.001836	0.002953
28	0.001516	0.002848
29	0.001230	0.002744
30	0.001223	0.002639
31	0.001217	0.002534
32+	0.001210	0.002430

Withdrawal Rates for Active Members

Service	Males Rate	Females Rate
0	0.255651	0.260990
1	0.137919	0.118187
2	0.096340	0.091396
3	0.091200	0.077296
4	0.067940	0.064034
5	0.049070	0.051316
6	0.044076	0.047038
7	0.039082	0.042761
8	0.034088	0.038484
9	0.029093	0.034207
10	0.024099	0.029929
11	0.021337	0.026459
12	0.018574	0.022989
13	0.015812	0.019520
14	0.013049	0.016050
15	0.010287	0.012580
16	0.010078	0.011576
17	0.009869	0.010572
18	0.009661	0.009568
19	0.009452	0.008564
20	0.009244	0.007560
21	0.008389	0.006626
22	0.007534	0.005691
23	0.006679	0.004757
24	0.005824	0.003822
25	0.004969	0.002888
26	0.004755	0.002654
27	0.004541	0.002420
28	0.004328	0.002187
29	0.004114	0.001953
30	0.003900	0.001719
31	0.003686	0.001486
32+	0.003473	0.001252

~~Service Retirement Rates for Active Members with at least 30 Years of Service~~

~~Age~~	~~Males Rate~~	~~Age~~	~~Females Rate~~
~~55~~	~~0.357369~~	~~55~~	~~0.360457~~
~~56~~	~~0.308100~~	~~56~~	~~0.328854~~
~~57~~	~~0.270702~~	~~57~~	~~0.285005~~
~~58~~	~~0.275266~~	~~58~~	~~0.281178~~
~~59~~	~~0.296323~~	~~59~~	~~0.303384~~
~~60~~	~~0.311082~~	~~60~~	~~0.329377~~
~~61~~	~~0.310642~~	~~61~~	~~0.358157~~
~~62~~	~~0.319459~~	~~62~~	~~0.383599~~
~~63~~	~~0.319013~~	~~63~~	~~0.361017~~
~~64~~	~~0.297225~~	~~64~~	~~0.336647~~
~~65~~	~~0.311052~~	~~65~~	~~0.345155~~
~~66~~	~~0.340284~~	~~66~~	~~0.361702~~
~~67~~	~~0.325405~~	~~67~~	~~0.339678~~
~~68~~	~~0.291372~~	~~68~~	~~0.289690~~
~~69~~	~~0.274286~~	~~69~~	~~0.270671~~
~~70~~	~~0.259067~~	~~70~~	~~0.268173~~
~~71~~	~~0.238434~~	~~71~~	~~0.269377~~
~~72~~	~~0.223404~~	~~72~~	~~0.255354~~
~~73~~	~~0.224806~~	~~73~~	~~0.220085~~
~~74~~	~~0.262136~~	~~74~~	~~0.204420~~
~~75~~	~~0.294872~~	~~75~~	~~0.182796~~
~~76~~	~~0.254902~~	~~76~~	~~0.157205~~
~~77~~	~~0.200000~~	~~77~~	~~0.175258~~
~~78~~	~~0.178571~~	~~78~~	~~0.222973~~
~~79~~	~~0.184615~~	~~79~~	~~0.253012~~
~~80+~~	~~1.000000~~	~~80+~~	~~1.000000~~

Service Retirement Rates for Active Members with at least 30 Years of Service

Age	Males Rate	Age	Females Rate
55	0.367020	55	0.391610
56	0.333159	56	0.347754
57	0.304031	57	0.306464
58	0.301400	58	0.301503
59	0.315623	59	0.318754
60	0.330707	60	0.350883

61	0.352851	61	0.383246
62	0.372204	62	0.394013
63	0.350139	63	0.370694
64	0.332700	64	0.345360
65	0.352289	65	0.356395
66	0.373006	66	0.373880
67	0.365385	67	0.363230
68	0.331771	68	0.343864
69	0.316989	69	0.332577
70	0.322897	70	0.308491
71	0.274741	71	0.279975
72	0.209810	72	0.275341
73	0.189112	73	0.286138
74	0.187123	74	0.270875
75	0.182676	75	0.208324
76	0.127679	76	0.163018
77	0.088352	77	0.183502
78	0.101705	78	0.226378
79	0.180465	79	0.257022
80+	1.000000	80+	1.000000

~~Service Retirement Rates for Active Members~~
~~With at Least 20 Years of Service and~~
~~Less than 30 Years of Service~~

	~~Males~~		~~Females~~
~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~55~~	~~0.036912~~	~~55~~	~~0.048946~~
~~56~~	~~0.038733~~	~~56~~	~~0.048932~~
~~57~~	~~0.042465~~	~~57~~	~~0.050278~~
~~58~~	~~0.045650~~	~~58~~	~~0.055984~~
~~59~~	~~0.053792~~	~~59~~	~~0.066847~~
~~60~~	~~0.074850~~	~~60~~	~~0.085816~~
~~61~~	~~0.137343~~	~~61~~	~~0.124821~~
~~62~~	~~0.317298~~	~~62~~	~~0.344649~~
~~63~~	~~0.291193~~	~~63~~	~~0.320354~~
~~64~~	~~0.264522~~	~~64~~	~~0.270180~~
~~65~~	~~0.284814~~	~~65~~	~~0.306632~~
~~66~~	~~0.326565~~	~~66~~	~~0.343562~~
~~67~~	~~0.323741~~	~~67~~	~~0.335230~~
~~68~~	~~0.287004~~	~~68~~	~~0.312155~~
~~69~~	~~0.316940~~	~~69~~	~~0.294658~~
~~70~~	~~0.345833~~	~~70~~	~~0.276159~~
~~71~~	~~0.274390~~	~~71~~	~~0.258438~~
~~72~~	~~0.244094~~	~~72~~	~~0.248951~~

~~73~~	~~0.316327~~	~~73~~	~~0.231388~~
~~74~~	~~0.314286~~	~~74~~	~~0.202817~~
~~75~~	~~0.222222~~	~~75~~	~~0.232824~~
~~76~~	~~0.200000~~	~~76~~	~~0.283422~~
~~77~~	~~0.206897~~	~~77~~	~~0.291667~~
~~78~~	~~0.214286~~	~~78~~	~~0.243590~~
~~79~~	~~0.148148~~	~~79~~	~~0.170732~~
~~80+~~	~~1.000000~~	~~80+~~	~~1.000000~~

Service Retirement Rates for Active Members
With at Least 20 Years of Service and
Less than 30 Years of Service

	Males		Females
Age	Rate	Age	Rate
55	0.046212	55	0.055256
56	0.047932	56	0.056897
57	0.051300	57	0.060249
58	0.058123	58	0.065882
59	0.069431	59	0.075722
60	0.092594	60	0.102809
61	0.170277	61	0.192886
62	0.309268	62	0.349640
63	0.263990	63	0.306593
64	0.251824	64	0.291683
65	0.283203	65	0.319195
66	0.306412	66	0.343771
67	0.304244	67	0.338061
68	0.316215	68	0.312577
69	0.325934	69	0.300902
70	0.289291	70	0.304520
71	0.257363	71	0.300387
72	0.262551	72	0.287994
73	0.278795	73	0.249286
74	0.280908	74	0.219630
75	0.242297	75	0.236136
76	0.265266	76	0.233023
77	0.358824	77	0.166492
78	0.383333	78	0.109769
79	0.285897	79	0.118743
80+	1.000000	80+	1.000000

~~Service Retirement Rates for Active Members With at Least 5 Years of Service and Less Than 20 Years of Service~~

~~Age~~	~~Males Rate~~	~~Age~~	~~Females Rate~~
~~55~~	~~0.016895~~	~~55~~	~~0.022034~~
~~56~~	~~0.018138~~	~~56~~	~~0.020920~~
~~57~~	~~0.018949~~	~~57~~	~~0.021583~~
~~58~~	~~0.020392~~	~~58~~	~~0.024243~~
~~59~~	~~0.023948~~	~~59~~	~~0.028714~~
~~60~~	~~0.032544~~	~~60~~	~~0.036747~~
~~61~~	~~0.053559~~	~~61~~	~~0.049865~~
~~62~~	~~0.076575~~	~~62~~	~~0.098737~~
~~63~~	~~0.086291~~	~~63~~	~~0.099499~~
~~64~~	~~0.101429~~	~~64~~	~~0.108244~~
~~65~~	~~0.135241~~	~~65~~	~~0.134619~~
~~66~~	~~0.165359~~	~~66~~	~~0.157206~~
~~67~~	~~0.171258~~	~~67~~	~~0.157651~~
~~68~~	~~0.162524~~	~~68~~	~~0.149321~~
~~69~~	~~0.168459~~	~~69~~	~~0.157048~~
~~70~~	~~0.178411~~	~~70~~	~~0.169309~~
~~71~~	~~0.168561~~	~~71~~	~~0.166236~~
~~72~~	~~0.175182~~	~~72~~	~~0.149874~~
~~73~~	~~0.204473~~	~~73~~	~~0.130584~~
~~74~~	~~0.205761~~	~~74~~	~~0.131818~~
~~75~~	~~0.201031~~	~~75~~	~~0.170940~~
~~76~~	~~0.223684~~	~~76~~	~~0.208633~~
~~77~~	~~0.250000~~	~~77~~	~~0.178744~~
~~78~~	~~0.259259~~	~~78~~	~~0.105960~~
~~79~~	~~0.243243~~	~~79~~	~~0.115385~~
~~80+~~	~~1.000000~~	~~80+~~	~~1.000000~~

Service Retirement Rates for Active Members With at Least 5 Years of Service and Less Than 20 Years of Service

Age	Males Rate	Age	Females Rate
55	0.019166	55	0.025557
56	0.018678	56	0.024732
57	0.019064	57	0.025008
58	0.022054	58	0.028332
59	0.026169	59	0.033154

60	0.034723	60	0.042513
61	0.060127	61	0.066721
62	0.104443	62	0.104299
63	0.105453	63	0.113000
64	0.111322	64	0.128861
65	0.140192	65	0.154457
66	0.167092	66	0.172981
67	0.173295	67	0.173225
68	0.169189	68	0.164568
69	0.180671	69	0.168203
70	0.196710	70	0.174499
71	0.172914	71	0.166585
72	0.152101	72	0.138184
73	0.174560	73	0.097129
74	0.184066	74	0.101845
75	0.160861	75	0.136325
76	0.134534	76	0.158349
77	0.104749	77	0.157217
78	0.108512	78	0.097702
79	0.157456	79	0.079980
80+	1.000000	80+	1.000000

~~Mortality Base Rates for Healthy Annuitant~~

	~~Males~~		~~Females~~
~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~55~~	~~0.002062~~	~~55~~	~~0.001763~~
~~56~~	~~0.002298~~	~~56~~	~~0.001932~~
~~57~~	~~0.002558~~	~~57~~	~~0.002104~~
~~58~~	~~0.002850~~	~~58~~	~~0.002284~~
~~59~~	~~0.003160~~	~~59~~	~~0.002461~~
~~60~~	~~0.003492~~	~~60~~	~~0.002642~~
~~61~~	~~0.003850~~	~~61~~	~~0.002833~~
~~62~~	~~0.004238~~	~~62~~	~~0.003026~~
~~63~~	~~0.004643~~	~~63~~	~~0.003239~~
~~64~~	~~0.005097~~	~~64~~	~~0.003476~~
~~65~~	~~0.005594~~	~~65~~	~~0.003756~~
~~66~~	~~0.006160~~	~~66~~	~~0.004075~~
~~67~~	~~0.006809~~	~~67~~	~~0.004460~~
~~68~~	~~0.007562~~	~~68~~	~~0.004926~~
~~69~~	~~0.008430~~	~~69~~	~~0.005489~~
~~70~~	~~0.009446~~	~~70~~	~~0.006169~~
~~71~~	~~0.010632~~	~~71~~	~~0.006976~~
~~72~~	~~0.012012~~	~~72~~	~~0.007929~~
~~73~~	~~0.013614~~	~~73~~	~~0.009050~~
~~74~~	~~0.015459~~	~~74~~	~~0.010362~~
~~75~~	~~0.020078~~	~~75~~	~~0.013227~~
~~76~~	~~0.022872~~	~~76~~	~~0.015184~~
~~77~~	~~0.026050~~	~~77~~	~~0.017425~~
~~78~~	~~0.029647~~	~~78~~	~~0.019982~~
~~79~~	~~0.033736~~	~~79~~	~~0.022903~~
~~80~~	~~0.038367~~	~~80~~	~~0.026219~~
~~81~~	~~0.043643~~	~~81~~	~~0.029999~~
~~82~~	~~0.049675~~	~~82~~	~~0.034278~~
~~83~~	~~0.056541~~	~~83~~	~~0.039141~~
~~84~~	~~0.064371~~	~~84~~	~~0.044654~~
~~85~~	~~0.073241~~	~~85~~	~~0.050874~~
~~86~~	~~0.083220~~	~~86~~	~~0.057876~~
~~87~~	~~0.094351~~	~~87~~	~~0.065733~~
~~88~~	~~0.106789~~	~~88~~	~~0.074568~~
~~89~~	~~0.120557~~	~~89~~	~~0.084462~~
~~90~~	~~0.135736~~	~~90~~	~~0.109847~~
~~91~~	~~0.152258~~	~~91~~	~~0.124150~~
~~92~~	~~0.169997~~	~~92~~	~~0.139945~~
~~93~~	~~0.188712~~	~~93~~	~~0.157256~~
~~94~~	~~0.208207~~	~~94~~	~~0.175838~~

~~Males~~ ~~Females~~

~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~95~~	~~0.228238~~	~~95~~	~~0.195482~~
~~96~~	~~0.256135~~	~~96~~	~~0.216617~~
~~97~~	~~0.278405~~	~~97~~	~~0.238632~~
~~98~~	~~0.300930~~	~~98~~	~~0.261262~~
~~99~~	~~0.323597~~	~~99~~	~~0.284370~~
~~100~~	~~0.346058~~	~~100~~	~~0.307717~~
~~101~~	~~0.368382~~	~~101~~	~~0.331284~~
~~102~~	~~0.390636~~	~~102~~	~~0.355062~~
~~103~~	~~0.412527~~	~~103~~	~~0.378941~~
~~104~~	~~0.433960~~	~~104~~	~~0.402553~~
~~105~~	~~0.454672~~	~~105~~	~~0.425814~~
~~106~~	~~0.474623~~	~~106~~	~~0.448404~~
~~107~~	~~0.493810~~	~~107~~	~~0.470342~~
~~108~~	~~0.511957~~	~~108~~	~~0.491432~~
~~109~~	~~0.529320~~	~~109~~	~~0.511431~~
~~110~~	~~0.530405~~	~~110~~	~~0.530405~~
~~111~~	~~0.548187~~	~~111~~	~~0.548187~~
~~112~~	~~0.557992~~	~~112~~	~~0.557992~~
~~113~~	~~0.558942~~	~~113~~	~~0.558942~~
~~114~~	~~0.559950~~	~~114~~	~~0.559950~~
~~115~~	~~0.560902~~	~~115~~	~~0.560902~~
~~116~~	~~0.560959~~	~~116~~	~~0.560959~~
~~117~~	~~0.561015~~	~~117~~	~~0.561015~~
~~118~~	~~0.561015~~	~~118~~	~~0.561015~~
~~119~~	~~0.561015~~	~~119~~	~~0.561015~~
~~120~~	~~1.000000~~	~~120~~	~~1.000000~~

~~Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates~~

Mortality Base Rates for Healthy Annuitants

	Males		Females
Age	Rate	Age	Rate
55	0.002064	55	0.001655
56	0.002287	56	0.001793
57	0.002547	57	0.001939
58	0.002835	58	0.002094
59	0.003151	59	0.002268
60	0.003495	60	0.002442
61	0.003886	61	0.002625
62	0.004304	62	0.002826
63	0.004760	63	0.003036
64	0.005252	64	0.003274
65	0.005792	65	0.003558
66	0.006377	66	0.003887

67	0.007028	67	0.004289
68	0.007744	68	0.004765
69	0.008553	69	0.005341
70	0.009492	70	0.006027
71	0.010561	71	0.006850
72	0.011806	72	0.007810
73	0.013247	73	0.008935
74	0.014948	74	0.010225
75	0.016929	75	0.011725
76	0.019234	76	0.013481
77	0.021911	77	0.015538
78	0.025026	78	0.017971
79	0.033499	79	0.022835
80	0.038374	80	0.026532
81	0.044020	81	0.030821
82	0.050537	82	0.035791
83	0.058055	83	0.041492
84	0.066683	84	0.047935
85	0.076486	85	0.055199
86	0.087529	86	0.063285
87	0.099834	87	0.072193
88	0.113478	88	0.081992
89	0.128536	89	0.092803
90	0.144975	90	0.104787
91	0.163080	91	0.118073
92	0.182827	92	0.132612
93	0.204032	93	0.148393
94	0.226510	94	0.165207

	Males		Females
Age	Rate	Age	Rate
95	0.249815	95	0.182942
96	0.274338	96	0.201879
97	0.299297	97	0.221588
98	0.324353	98	0.241878
99	0.349279	99	0.262589
100	0.373857	100	0.283701
101	0.397978	101	0.305023
102	0.421511	102	0.326475
103	0.444305	103	0.347828
104	0.466315	104	0.368939
105	0.487063	105	0.389650
106	0.506766	106	0.409660
107	0.525230	107	0.428988
108	0.538046	108	0.447385

109	0.538851	109	0.464809
110	0.539602	110	0.481191
111	0.540309	111	0.496462
112	0.541125	112	0.499087
113	0.541876	113	0.499638
114	0.542692	114	0.500089
115	0.543399	115	0.500590
116	0.543671	116	0.500790
117	0.543834	117	0.500890
118	0.543998	118	0.500991
119	0.543998	119	0.500991
120	1.000000	120	1.000000

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Mortality Base Rates for Survivors and Beneficiaries

Males

Age	Rate	Age	Rate	Age	Rate
1	0.000403	38	0.000677	75	0.024837
2	0.000403	39	0.000712	76	0.027914
3	0.000403	40	0.000740	77	0.031432
4	0.000403	41	0.000764	78	0.035426
5	0.000403	42	0.000798	79	0.039971
6	0.000403	43	0.000841	80	0.045158
7	0.000403	44	0.000883	81	0.051057
8	0.000403	45	0.000935	82	0.057759
9	0.000403	46	0.001001	83	0.065291
10	0.000403	47	0.001068	84	0.073728
11	0.000403	48	0.001151	85	0.083113
12	0.000403	49	0.001237	86	0.093445
13	0.000403	50	0.001339	87	0.104717
14	0.000403	51	0.001459	88	0.117043
15	0.000403	52	0.001585	89	0.130367
16	0.000403	53	0.001729	90	0.144705
17	0.000403	54	0.001890	91	0.160306
18	0.000403	55	0.004211	92	0.177295
19	0.000403	56	0.004591	93	0.195554
20	0.000403	57	0.004992	94	0.214933
21	0.000387	58	0.005427	95	0.235173
22	0.000360	59	0.005881	96	0.256846
23	0.000333	60	0.006353	97	0.279223
24	0.000306	61	0.006847	98	0.301941
25	0.000302	62	0.007355	99	0.324803
26	0.000338	63	0.007893	100	0.347403
27	0.000360	64	0.008469	101	0.369814
28	0.000383	65	0.009119	102	0.392154
29	0.000420	66	0.009879	103	0.414131
30	0.000442	67	0.010764	104	0.435647
31	0.000479	68	0.011791	105	0.456440
32	0.000498	69	0.012977	106	0.476468
33	0.000530	70	0.014348	107	0.495730
34	0.000559	71	0.015914	108	0.513947
35	0.000599	72	0.017714	109	0.531378
36	0.000621	73	0.019770	110	0.545110
37	0.000651	74	0.022137	111	0.548187

~~112~~	~~0.557992~~
~~113~~	~~0.558942~~
~~114~~	~~0.559950~~
~~115~~	~~0.560902~~
~~116~~	~~0.560959~~
~~117~~	~~0.561015~~
~~118~~	~~0.561015~~
~~119~~	~~0.561015~~
~~120~~	~~1.000000~~

~~Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates~~

Mortality Base Rates for Survivors and Beneficiaries
Males

Age	Rate	Age	Rate	Age	Rate
1	0.000244	41	0.000871	81	0.051202
2	0.000244	42	0.000929	82	0.058191
3	0.000244	43	0.000975	83	0.066145
4	0.000244	44	0.001033	84	0.075224
5	0.000244	45	0.001091	85	0.085592
6	0.000244	46	0.001161	86	0.097435
7	0.000244	47	0.001219	87	0.110914
8	0.000244	48	0.001300	88	0.126171
9	0.000244	49	0.001370	89	0.143389
10	0.000244	50	0.002624	90	0.162581
11	0.000244	51	0.002821	91	0.183259
12	0.000244	52	0.003065	92	0.204982
13	0.000244	53	0.003332	93	0.227390
14	0.000244	54	0.003622	94	0.250309
15	0.000244	55	0.003982	95	0.273519
16	0.000244	56	0.004354	96	0.297749
17	0.000244	57	0.004795	97	0.322456
18	0.000244	58	0.005248	98	0.347616
19	0.000279	59	0.005736	99	0.373171
20	0.000325	60	0.006246	100	0.398958
21	0.000348	61	0.006769	101	0.424698
22	0.000360	62	0.007280	102	0.449811
23	0.000372	63	0.007837	103	0.474135
24	0.000383	64	0.008406	104	0.497623
25	0.000395	65	0.009045	105	0.519764
26	0.000406	66	0.009776	106	0.540791
27	0.000418	67	0.010589	107	0.560494
28	0.000430	68	0.011529	108	0.574171

29	0.000441	69	0.012609	109	0.575030
30	0.000453	70	0.013863	110	0.575831
31	0.000476	71	0.015326	111	0.576586
32	0.000499	72	0.017044	112	0.577456
33	0.000511	73	0.019041	113	0.578257
34	0.000546	74	0.021363	114	0.579128
35	0.000581	75	0.024080	115	0.579883
36	0.000627	76	0.027203	116	0.580173
37	0.000673	77	0.030791	117	0.580347
38	0.000708	78	0.034924	118	0.580522
39	0.000766	79	0.039661	119	0.580522
40	0.000813	80	0.045060	120	0.577456

Females

Age	Rate	Age	Rate	Age	Rate
1	0.000145	38	0.000346	75	0.017811
2	0.000145	39	0.000360	76	0.020084
3	0.000145	40	0.000383	77	0.022658
4	0.000145	41	0.000405	78	0.025572
5	0.000145	42	0.000425	79	0.028889
6	0.000145	43	0.000456	80	0.032661
7	0.000145	44	0.000487	81	0.036972
8	0.000145	45	0.000518	82	0.041889
9	0.000145	46	0.000552	83	0.047505
10	0.000145	47	0.000597	84	0.053910
11	0.000145	48	0.000647	85	0.061218
12	0.000145	49	0.000699	86	0.069540
13	0.000145	50	0.000767	87	0.078933
14	0.000145	51	0.000839	88	0.089461
15	0.000145	52	0.000916	89	0.101045
16	0.000145	53	0.001017	90	0.113634
17	0.000145	54	0.001111	91	0.127095
18	0.000145	55	0.003011	92	0.141336
19	0.000145	56	0.003214	93	0.157256
20	0.000134	57	0.003415	94	0.175838
21	0.000125	58	0.003623	95	0.195482
22	0.000116	59	0.003842	96	0.216617
23	0.000106	60	0.004095	97	0.238632
24	0.000097	61	0.004376	98	0.261262
25	0.000099	62	0.004709	99	0.284370
26	0.000114	63	0.005081	100	0.307717
27	0.000128	64	0.005515	101	0.331284
28	0.000144	65	0.006007	102	0.355062
29	0.000160	66	0.006574	103	0.378941
30	0.000175	67	0.007228	104	0.402553
31	0.000204	68	0.007991	105	0.425814
32	0.000218	69	0.008882	106	0.448404
33	0.000244	70	0.009913	107	0.470342
34	0.000255	71	0.011099	108	0.491432
35	0.000279	72	0.012469	109	0.511431
36	0.000300	73	0.014025	110	0.530405
37	0.000317	74	0.015798	111	0.548187

~~112~~	~~0.557992~~
~~113~~	~~0.558942~~
~~114~~	~~0.559950~~
~~115~~	~~0.560902~~
~~116~~	~~0.560959~~
~~117~~	~~0.561015~~
~~118~~	~~0.561015~~
~~119~~	~~0.561015~~
~~120~~	~~1.000000~~

~~Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates~~

Females

Age	Rate	Age	Rate	Age	Rate
1	0.000094	41	0.000470	81	0.036742
2	0.000094	42	0.000491	82	0.042120
3	0.000094	43	0.000522	83	0.048272
4	0.000094	44	0.000564	84	0.055217
5	0.000094	45	0.000585	85	0.062956
6	0.000094	46	0.000627	86	0.071499
7	0.000094	47	0.000668	87	0.080909
8	0.000094	48	0.000721	88	0.091248
9	0.000094	49	0.000762	89	0.102642
10	0.000094	50	0.002235	90	0.115185
11	0.000094	51	0.002423	91	0.128888
12	0.000094	52	0.002569	92	0.143635
13	0.000094	53	0.002663	93	0.159436
14	0.000094	54	0.002778	94	0.176105
15	0.000094	55	0.002903	95	0.193661
16	0.000094	56	0.003050	96	0.212449
17	0.000094	57	0.003196	97	0.232167
18	0.000094	58	0.003394	98	0.252669
19	0.000094	59	0.003634	99	0.273870
20	0.000094	60	0.003896	100	0.295708
21	0.000094	61	0.004157	101	0.317932
22	0.000094	62	0.004439	102	0.340293
23	0.000094	63	0.004742	103	0.362549
24	0.000094	64	0.005086	104	0.384554
25	0.000104	65	0.005483	105	0.406141
26	0.000115	66	0.005963	106	0.426998
27	0.000125	67	0.006548	107	0.447144
28	0.000146	68	0.007227	108	0.466319
29	0.000157	69	0.008042	109	0.484481

30	0.000188	70	0.008992	110	0.501556
31	0.000198	71	0.010110	111	0.517473
32	0.000219	72	0.011394	112	0.520209
33	0.000251	73	0.012877	113	0.520784
34	0.000272	74	0.014601	114	0.521254
35	0.000303	75	0.016606	115	0.521776
36	0.000324	76	0.018883	116	0.521985
37	0.000355	77	0.021514	117	0.522089
38	0.000376	78	0.024543	118	0.522194
39	0.000407	79	0.028021	119	0.522194
40	0.000439	80	0.032052	120	1.000000

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

~~Mortality Base Rates for Disabled Annuitants~~

~~Males~~

~~Age~~	~~Rate~~	~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~30~~	~~0.004652~~	~~57~~	~~0.023488~~	~~84~~	~~0.095845~~
~~31~~	~~0.004963~~	~~58~~	~~0.024557~~	~~85~~	~~0.103866~~
~~32~~	~~0.005272~~	~~59~~	~~0.025566~~	~~86~~	~~0.112482~~
~~33~~	~~0.005569~~	~~60~~	~~0.026516~~	~~87~~	~~0.121693~~
~~34~~	~~0.005877~~	~~61~~	~~0.027415~~	~~88~~	~~0.131659~~
~~35~~	~~0.006163~~	~~62~~	~~0.028313~~	~~89~~	~~0.144125~~
~~36~~	~~0.006456~~	~~63~~	~~0.029236~~	~~90~~	~~0.157863~~
~~37~~	~~0.006751~~	~~64~~	~~0.030182~~	~~91~~	~~0.171906~~
~~38~~	~~0.007059~~	~~65~~	~~0.031154~~	~~92~~	~~0.186069~~
~~39~~	~~0.007371~~	~~66~~	~~0.032187~~	~~93~~	~~0.200252~~
~~40~~	~~0.007705~~	~~67~~	~~0.033281~~	~~94~~	~~0.214573~~
~~41~~	~~0.008073~~	~~68~~	~~0.034485~~	~~95~~	~~0.229208~~
~~42~~	~~0.008491~~	~~69~~	~~0.035810~~	~~96~~	~~0.256135~~
~~43~~	~~0.008966~~	~~70~~	~~0.037301~~	~~97~~	~~0.278405~~
~~44~~	~~0.009542~~	~~71~~	~~0.039017~~	~~98~~	~~0.300930~~
~~45~~	~~0.010203~~	~~72~~	~~0.040985~~	~~99~~	~~0.323597~~
~~46~~	~~0.010984~~	~~73~~	~~0.043225~~	~~100~~	~~0.346058~~
~~47~~	~~0.011887~~	~~74~~	~~0.045778~~	~~101~~	~~0.368382~~
~~48~~	~~0.012917~~	~~75~~	~~0.048700~~	~~102~~	~~0.390636~~
~~49~~	~~0.014064~~	~~76~~	~~0.051973~~	~~103~~	~~0.412527~~
~~50~~	~~0.015343~~	~~77~~	~~0.055667~~	~~104~~	~~0.433960~~
~~51~~	~~0.016424~~	~~78~~	~~0.059793~~	~~105~~	~~0.454672~~
~~52~~	~~0.017566~~	~~79~~	~~0.064417~~	~~106~~	~~0.474623~~
~~53~~	~~0.018749~~	~~80~~	~~0.069552~~	~~107~~	~~0.493810~~
~~54~~	~~0.019960~~	~~81~~	~~0.075256~~	~~108~~	~~0.511957~~

~~55~~	~~0.021172~~	~~82~~	~~0.081539~~	~~109~~	~~0.529320~~
~~56~~	~~0.022361~~	~~83~~	~~0.088386~~	~~110~~	~~0.530405~~
				~~111~~	~~0.548187~~
				~~112~~	~~0.557992~~
				~~113~~	~~0.558942~~
				~~114~~	~~0.559950~~
				~~115~~	~~0.560902~~
				~~116~~	~~0.560959~~
				~~117~~	~~0.561015~~
				~~118~~	~~0.561015~~
				~~119~~	~~0.561015~~
				~~120~~	~~1.000000~~

~~Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates~~

Mortality Base Rates for Disabled Annuitants

Males

Age	Rate	Age	Rate	Age	Rate
30	0.004030	60	0.023444	90	0.186922
31	0.004041	61	0.024772	91	0.205778
32	0.004053	62	0.025925	92	0.224971
33	0.004123	63	0.026891	93	0.244280
34	0.004204	64	0.027706	94	0.263846
35	0.004332	65	0.028382	95	0.283679
36	0.004495	66	0.028999	96	0.304829
37	0.004693	67	0.029581	97	0.326992
38	0.004926	68	0.030257	98	0.350308
39	0.005194	69	0.031130	99	0.374776
40	0.005497	70	0.032295	100	0.400188
41	0.005823	71	0.033891	101	0.426008
42	0.006173	72	0.035952	102	0.451199
43	0.006557	73	0.038514	103	0.475598
44	0.006953	74	0.041589	104	0.499158
45	0.007384	75	0.045257	105	0.521368
46	0.007826	76	0.049473	106	0.542459
47	0.008292	77	0.05426	107	0.562223
48	0.008793	78	0.059617	108	0.575942
49	0.009375	79	0.065429	109	0.576804
50	0.010027	80	0.071613	110	0.577607
51	0.010761	81	0.078100	111	0.578364
52	0.011588	82	0.084971	112	0.579238
53	0.012555	83	0.092413	113	0.580041
54	0.013626	84	0.100717	114	0.580915
55	0.014861	85	0.110243	115	0.581672

56	0.016223	86	0.122472	116	0.581963
57	0.017772	87	0.136506	117	0.582138
58	0.019484	88	0.151937	118	0.582313
59	0.021383	89	0.168777	119	0.582313
				120	1.000000

~~Females~~

~~Age~~	~~Rate~~	~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~30~~	~~0.003422~~	~~57~~	~~0.020231~~	~~84~~	~~0.085710~~
~~31~~	~~0.003769~~	~~58~~	~~0.020721~~	~~85~~	~~0.093862~~
~~32~~	~~0.004129~~	~~59~~	~~0.021082~~	~~86~~	~~0.102354~~
~~33~~	~~0.004505~~	~~60~~	~~0.021350~~	~~87~~	~~0.111003~~
~~34~~	~~0.004881~~	~~61~~	~~0.021532~~	~~88~~	~~0.119794~~
~~35~~	~~0.005259~~	~~62~~	~~0.021709~~	~~89~~	~~0.128685~~
~~36~~	~~0.005634~~	~~63~~	~~0.021906~~	~~90~~	~~0.137873~~
~~37~~	~~0.006015~~	~~64~~	~~0.022166~~	~~91~~	~~0.147449~~
~~38~~	~~0.006401~~	~~65~~	~~0.022529~~	~~92~~	~~0.157607~~
~~39~~	~~0.006802~~	~~66~~	~~0.023039~~	~~93~~	~~0.168645~~
~~40~~	~~0.007219~~	~~67~~	~~0.023732~~	~~94~~	~~0.180687~~
~~41~~	~~0.007660~~	~~68~~	~~0.024639~~	~~95~~	~~0.195482~~
~~42~~	~~0.008131~~	~~69~~	~~0.025784~~	~~96~~	~~0.216617~~
~~43~~	~~0.008652~~	~~70~~	~~0.027188~~	~~97~~	~~0.238632~~
~~44~~	~~0.009236~~	~~71~~	~~0.028858~~	~~98~~	~~0.261262~~
~~45~~	~~0.009899~~	~~72~~	~~0.030823~~	~~99~~	~~0.284370~~
~~46~~	~~0.010640~~	~~73~~	~~0.033071~~	~~100~~	~~0.307717~~
~~47~~	~~0.011491~~	~~74~~	~~0.035661~~	~~101~~	~~0.331284~~
~~48~~	~~0.012463~~	~~75~~	~~0.038596~~	~~102~~	~~0.355062~~
~~49~~	~~0.013571~~	~~76~~	~~0.041899~~	~~103~~	~~0.378941~~
~~50~~	~~0.014803~~	~~77~~	~~0.045616~~	~~104~~	~~0.402553~~
~~51~~	~~0.015537~~	~~78~~	~~0.049768~~	~~105~~	~~0.425814~~
~~52~~	~~0.016336~~	~~79~~	~~0.054392~~	~~106~~	~~0.448404~~
~~53~~	~~0.017181~~	~~80~~	~~0.059522~~	~~107~~	~~0.470342~~
~~54~~	~~0.018046~~	~~81~~	~~0.065190~~	~~108~~	~~0.491432~~
~~55~~	~~0.018866~~	~~82~~	~~0.071412~~	~~109~~	~~0.511431~~
~~56~~	~~0.019608~~	~~83~~	~~0.078249~~	~~110~~	~~0.530405~~
				~~111~~	~~0.548187~~
				~~112~~	~~0.557992~~
				~~113~~	~~0.558942~~
				~~114~~	~~0.559950~~
				~~115~~	~~0.560902~~
				~~116~~	~~0.560959~~
				~~117~~	~~0.561015~~
				~~118~~	~~0.561015~~
				~~119~~	~~0.561015~~
				~~120~~	~~1.000000~~

~~Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates~~

Females

Age	Rate	Age	Rate	Age	Rate
30	0.001979	60	0.020211	90	0.153222

31	0.002191	61	0.020718	91	0.165754
32	0.002403	62	0.021118	92	0.179134
33	0.002627	63	0.021460	93	0.193538
34	0.002839	64	0.021731	94	0.208979
35	0.003074	65	0.021978	95	0.225681
36	0.003310	66	0.022272	96	0.244255
37	0.003533	67	0.022649	97	0.264419
38	0.003769	68	0.023203	98	0.286103
39	0.004005	69	0.023980	99	0.309164
40	0.004228	70	0.025099	100	0.333486
41	0.004464	71	0.026642	101	0.358550
42	0.004723	72	0.028644	102	0.383767
43	0.004994	73	0.031141	103	0.408866
44	0.005300	74	0.034192	104	0.433683
45	0.005654	75	0.037855	105	0.458028
46	0.006042	76	0.042154	106	0.481549
47	0.006490	77	0.047089	107	0.504269
48	0.006973	78	0.052554	108	0.525894
49	0.007526	79	0.058467	109	0.546376
50	0.008127	80	0.064615	110	0.565633
51	0.008798	81	0.070834	111	0.583583
52	0.009564	82	0.077170	112	0.586669
53	0.010447	83	0.083907	113	0.587316
54	0.011437	84	0.091339	114	0.587846
55	0.012567	85	0.099937	115	0.588435
56	0.013828	86	0.109383	116	0.588671
57	0.015217	87	0.119513	117	0.588789
58	0.016760	88	0.130195	118	0.588907
59	0.018433	89	0.141420	119	0.588907
				120	1.000000

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Section 5018.3 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS ACCRUING PRIOR TO AUGUST 1, 1983.

(a)(2) Effective ~~October 29, 2015~~October 30, 2025, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4% for members who joined prior to July 1, 1948 and 3% for members who joined subsequent to June 30, 1948 shall be used in conjunction with the following tables:

~~(i) Males~~

~~Age~~	~~Rate~~	~~Age~~	~~Rate~~	~~Age~~	~~Rate~~
~~1~~	~~0.000410~~	~~38~~	~~0.000445~~	~~75~~	~~0.021524~~
~~2~~	~~0.000277~~	~~39~~	~~0.000464~~	~~76~~	~~0.024380~~
~~3~~	~~0.000230~~	~~40~~	~~0.000490~~	~~77~~	~~0.027633~~
~~4~~	~~0.000179~~	~~41~~	~~0.000524~~	~~78~~	~~0.031346~~
~~5~~	~~0.000157~~	~~42~~	~~0.000566~~	~~79~~	~~0.035590~~
~~6~~	~~0.000141~~	~~43~~	~~0.000619~~	~~80~~	~~0.040445~~
~~7~~	~~0.000124~~	~~44~~	~~0.000684~~	~~81~~	~~0.045997~~
~~8~~	~~0.000105~~	~~45~~	~~0.000760~~	~~82~~	~~0.052342~~
~~9~~	~~0.000085~~	~~46~~	~~0.000849~~	~~83~~	~~0.059585~~
~~10~~	~~0.000072~~	~~47~~	~~0.000949~~	~~84~~	~~0.067844~~
~~11~~	~~0.000076~~	~~48~~	~~0.001060~~	~~85~~	~~0.077246~~
~~12~~	~~0.000113~~	~~49~~	~~0.001183~~	~~86~~	~~0.087929~~
~~13~~	~~0.000149~~	~~50~~	~~0.001316~~	~~87~~	~~0.100040~~
~~14~~	~~0.000183~~	~~51~~	~~0.001461~~	~~88~~	~~0.113741~~
~~15~~	~~0.000218~~	~~52~~	~~0.001618~~	~~89~~	~~0.129208~~
~~16~~	~~0.000253~~	~~53~~	~~0.001951~~	~~90~~	~~0.141713~~
~~17~~	~~0.000290~~	~~54~~	~~0.002311~~	~~91~~	~~0.158130~~
~~18~~	~~0.000256~~	~~55~~	~~0.002522~~	~~92~~	~~0.175288~~
~~19~~	~~0.000288~~	~~56~~	~~0.002753~~	~~93~~	~~0.193131~~
~~20~~	~~0.000317~~	~~57~~	~~0.003004~~	~~94~~	~~0.211674~~
~~21~~	~~0.000351~~	~~58~~	~~0.003279~~	~~95~~	~~0.230976~~
~~22~~	~~0.000381~~	~~59~~	~~0.003579~~	~~96~~	~~0.251106~~
~~23~~	~~0.000397~~	~~60~~	~~0.003906~~	~~97~~	~~0.272113~~
~~24~~	~~0.000403~~	~~61~~	~~0.004264~~	~~98~~	~~0.293848~~
~~25~~	~~0.000378~~	~~62~~	~~0.004654~~	~~99~~	~~0.313988~~
~~26~~	~~0.000361~~	~~63~~	~~0.005050~~	~~100~~	~~0.334365~~

27	0.000351	64	0.005564	101	0.354599
28	0.000347	65	0.006204	102	0.374524
29	0.000348	66	0.006976	103	0.393982
30	0.000353	67	0.007886	104	0.412831
31	0.000361	68	0.008942	105	0.430946
32	0.000372	69	0.010151	106	0.448227
33	0.000384	70	0.011524	107	0.464592
34	0.000397	71	0.013074	108	0.479987
35	0.000408	72	0.014821	109	0.494376
36	0.000418	73	0.016788	110	0.500000
37	0.000430	74	0.019009		

(ii) Females

Age	Rate	Age	Rate	Age	Rate
1	0.0003 61	38	0.000310	75	0.014602
2	0.000236	39	0.000334	76	0.016603
3	0.000176	40	0.000362	77	0.018909
4	0.000132	41	0.000396	78	0.021567
5	0.000119	42	0.000436	79	0.024631
6	0.000110	43	0.000484	80	0.028162
7	0.000102	44	0.000539	81	0.032228
8	0.000094	45	0.000601	82	0.036904
9	0.000087	46	0.000671	83	0.042268
10	0.000082	47	0.000747	84	0.048410
11	0.000084	48	0.000829	85	0.055421
12	0.000097	49	0.000916	86	0.063404
13	0.000110	50	0.001008	87	0.072465
14	0.000121	51	0.001104	88	0.082724
15	0.000132	52	0.001203	89	0.094308
16	0.000142	53	0.001419	90	0.107360
17	0.000150	54	0.001645	91	0.122037
18	0.000144	55	0.001805	92	0.138518
19	0.000148	56	0.001980	93	0.157000
20	0.000148	57	0.002172	94	0.177701
21	0.000148	58	0.002382	95	0.191477
22	0.000148	59	0.002613	96	0.210235
23	0.000152	60	0.002866	97	0.229998
24	0.000155	61	0.003053	98	0.250723
25	0.000158	62	0.003298	99	0.270858

~~26~~	~~0.000164~~	~~63~~	~~0.003604~~	~~100~~	~~0.291040~~
~~27~~	~~0.000171~~	~~64~~	~~0.003976~~	~~101~~	~~0.311444~~
~~28~~	~~0.000179~~	~~65~~	~~0.004417~~	~~102~~	~~0.331900~~
~~29~~	~~0.000189~~	~~66~~	~~0.004931~~	~~103~~	~~0.352232~~
~~30~~	~~0.000199~~	~~67~~	~~0.005524~~	~~104~~	~~0.372273~~
~~31~~	~~0.000211~~	~~68~~	~~0.006203~~	~~105~~	~~0.391860~~
~~32~~	~~0.000223~~	~~69~~	~~0.006979~~	~~106~~	~~0.410849~~
~~33~~	~~0.000236~~	~~70~~	~~0.007864~~	~~107~~	~~0.429112~~
~~34~~	~~0.000249~~	~~71~~	~~0.008874~~	~~108~~	~~0.446544~~
~~35~~	~~0.000262~~	~~72~~	~~0.010029~~	~~109~~	~~0.463061~~
~~36~~	~~0.000275~~	~~73~~	~~0.011349~~	~~110~~	~~0.478604~~
~~37~~	~~0.000291~~	~~74~~	~~0.012863~~		

Age	Males Rate	Females Rate	Age	Males Rate	Females Rate
55	0.002064	0.001655	88	0.113478	0.081992
56	0.002287	0.001793	89	0.128536	0.092803
57	0.002547	0.001939	90	0.144975	0.104787
58	0.002835	0.002094	91	0.163080	0.118073
59	0.003151	0.002268	92	0.182827	0.132612
60	0.003495	0.002442	93	0.204032	0.148393
61	0.003886	0.002625	94	0.226510	0.165207
62	0.004304	0.002826	95	0.249815	0.182942
63	0.004760	0.003036	96	0.274338	0.201879
64	0.005252	0.003274	97	0.299297	0.221588
65	0.005792	0.003558	98	0.324353	0.241878
66	0.006377	0.003887	99	0.349279	0.262589
67	0.007028	0.004289	100	0.373857	0.283701
68	0.007744	0.004765	101	0.397978	0.305023
69	0.008553	0.005341	102	0.421511	0.326475
70	0.009492	0.006027	103	0.444305	0.347828
71	0.010561	0.006850	104	0.466315	0.368939
72	0.011806	0.007810	105	0.487063	0.389650
73	0.013247	0.008935	106	0.506766	0.409660
74	0.014948	0.010225	107	0.525230	0.428988
75	0.016929	0.011725	108	0.538046	0.447385
76	0.019234	0.013481	109	0.538851	0.464809
77	0.021911	0.015538	110	0.539602	0.481191

78	0.025026	0.017971	111	0.540309	0.496462
79	0.033499	0.022835	112	0.541125	0.499087
80	0.038374	0.026532	113	0.541876	0.499638
81	0.044020	0.030821	114	0.542692	0.500089
82	0.050537	0.035791	115	0.543399	0.500590
83	0.058055	0.041492	116	0.543671	0.500790
84	0.066683	0.047935	117	0.543834	0.500890
85	0.076486	0.055199	118	0.543998	0.500991
86	0.087529	0.063285	119	0.543998	0.500991
87	0.099834	0.072193	120	1.000000	1.000000

Section 5018.4 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS ACCRUING ON OR AFTER AUGUST 1, 1983.

(a)(2) Effective ~~October 29, 2015~~October 30, 2025, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4% for members who joined prior to July 1, 1948 and 3% for members who joined subsequent to June 30, 1948 shall be used in conjunction with the following tables:

~~Age~~	~~Qx value~~	~~Age~~	~~Qx value~~	~~Age~~	~~Qx value~~
~~1~~	~~0.000398~~	~~38~~	~~0.000411~~	~~75~~	~~0.019794~~
~~2~~	~~0.000267~~	~~39~~	~~0.000432~~	~~76~~	~~0.022436~~
~~3~~	~~0.000217~~	~~40~~	~~0.000458~~	~~77~~	~~0.025452~~
~~4~~	~~0.000167~~	~~41~~	~~0.000492~~	~~78~~	~~0.028901~~
~~5~~	~~0.000148~~	~~42~~	~~0.000534~~	~~79~~	~~0.032850~~
~~6~~	~~0.000133~~	~~43~~	~~0.000585~~	~~80~~	~~0.037374~~
~~7~~	~~0.000119~~	~~44~~	~~0.000648~~	~~81~~	~~0.042555~~
~~8~~	~~0.000102~~	~~45~~	~~0.000720~~	~~82~~	~~0.048483~~
~~9~~	~~0.000086~~	~~46~~	~~0.000805~~	~~83~~	~~0.055256~~
~~10~~	~~0.000075~~	~~47~~	~~0.000899~~	~~84~~	~~0.062986~~
~~11~~	~~0.000078~~	~~48~~	~~0.001002~~	~~85~~	~~0.071790~~
~~12~~	~~0.000109~~	~~49~~	~~0.001116~~	~~86~~	~~0.081798~~
~~13~~	~~0.000139~~	~~50~~	~~0.001239~~	~~87~~	~~0.093146~~
~~14~~	~~0.000168~~	~~51~~	~~0.001372~~	~~88~~	~~0.105987~~
~~15~~	~~0.000197~~	~~52~~	~~0.001514~~	~~89~~	~~0.120483~~
~~16~~	~~0.000225~~	~~53~~	~~0.001818~~	~~90~~	~~0.133125~~
~~17~~	~~0.000255~~	~~54~~	~~0.002145~~	~~91~~	~~0.149107~~
~~18~~	~~0.000228~~	~~55~~	~~0.002343~~	~~92~~	~~0.166096~~
~~19~~	~~0.000253~~	~~56~~	~~0.002560~~	~~93~~	~~0.184098~~
~~20~~	~~0.000275~~	~~57~~	~~0.002796~~	~~94~~	~~0.203181~~
~~21~~	~~0.000300~~	~~58~~	~~0.003055~~	~~95~~	~~0.221101~~
~~22~~	~~0.000323~~	~~59~~	~~0.003338~~	~~96~~	~~0.240888~~
~~23~~	~~0.000336~~	~~60~~	~~0.003646~~	~~97~~	~~0.261584~~
~~24~~	~~0.000341~~	~~61~~	~~0.003961~~	~~98~~	~~0.283067~~
~~25~~	~~0.000323~~	~~62~~	~~0.004315~~	~~99~~	~~0.303206~~
~~26~~	~~0.000312~~	~~63~~	~~0.004689~~	~~100~~	~~0.323534~~
~~27~~	~~0.000306~~	~~64~~	~~0.005167~~	~~101~~	~~0.343810~~
~~28~~	~~0.000305~~	~~65~~	~~0.005757~~	~~102~~	~~0.363868~~
~~29~~	~~0.000308~~	~~66~~	~~0.006465~~	~~103~~	~~0.383545~~

~~30~~	~~0.000315~~	~~67~~	~~0.007296~~	~~104~~	~~0.402692~~
~~31~~	~~0.000324~~	~~68~~	~~0.008257~~	~~105~~	~~0.421175~~
~~32~~	~~0.000335~~	~~69~~	~~0.009358~~	~~106~~	~~0.438883~~
~~33~~	~~0.000347~~	~~70~~	~~0.010609~~	~~107~~	~~0.455722~~
~~34~~	~~0.000360~~	~~71~~	~~0.012024~~	~~108~~	~~0.471626~~
~~35~~	~~0.000372~~	~~72~~	~~0.013623~~	~~109~~	~~0.486547~~
~~36~~	~~0.000382~~	~~73~~	~~0.015428~~	~~110~~	~~0.494651~~
~~37~~	~~0.000395~~	~~74~~	~~0.017473~~		

Age	Rate	Age	Rate
55	0.001798	88	0.093012
56	0.001966	89	0.105310
57	0.002152	90	0.118853
58	0.002353	91	0.133825
59	0.002577	92	0.150187
60	0.002811	93	0.167867
61	0.003066	94	0.186663
62	0.003343	95	0.206348
63	0.003639	96	0.227240
64	0.003966	97	0.248786
65	0.004340	98	0.270744
66	0.004759	99	0.292931
67	0.005248	100	0.315256
68	0.005808	101	0.337557
69	0.006465	102	0.359738
70	0.007240	103	0.381595
71	0.008149	104	0.403021
72	0.009209	105	0.423745
73	0.010444	106	0.443647
74	0.011878	107	0.462673
75	0.013546	108	0.479116
76	0.015495	109	0.490724
77	0.017769	110	0.501635
78	0.020440	111	0.511808
79	0.026567	112	0.513800

80	0.030677	113	0.514421
81	0.035441	114	0.515000
82	0.040952	115	0.515573
83	0.047289	116	0.515798
84	0.054497	117	0.515920
85	0.062649	118	0.516043
86	0.071770	119	0.516043
87	0.081867	120	1.000000

PART 5018

ACTUARIAL ASSUMPTIONS

(Statutory authority: Education Law §§501 (subd. 9(b), (c)); 508 (subd. 4); 517)

Section

5018.1 Valuation rate of interest, salary scale and COLA assumptions.
5018.2 Mortality and service tables for valuation purposes
5018.3 Mortality tables for the determination of benefits accrued prior to August 1, 1983
5018.4 Mortality tables for the determination of benefits accruing on or after August 1, 1983
5018.5 Interest rate for calculation of de minimis service retirement benefit
5018.6 Compliance with IRC Section 415

Section 5018.1 VALUATION RATE OF INTEREST, SALARY SCALE AND COLA ASSUMPTIONS. For the purpose of performing the annual actuarial valuation of the Retirement System, effective with the July 1, 2021 valuation, the valuation rate of interest shall be 6.95 percent. Effective with the July 1, 2025 valuation, the assumed rate of COLA increase shall be 1.4 percent. Effective with the July 1, 2025 through July 1, 2027 valuations, the salary scale assumption shall be as follows:

Salary Scale (eff. July 1, 2025 through July 1, 2027)

Duration	Rate	Duration	Rate	Duration	Rate
0	1.1074	14	1.0409	28	1.0276
1	1.0932	15	1.0396	29	1.0270
2	1.0793	16	1.0384	30	1.0263
3	1.0712	17	1.0372	31	1.0257
4	1.0655	18	1.0361	32	1.0251
5	1.0610	19	1.0351	33	1.0245
6	1.0575	20	1.0341	34	1.0239
7	1.0544	21	1.0331	35	1.0234
8	1.0518	22	1.0322	36	1.0228
9	1.0495	23	1.0314	37	1.0223
10	1.0475	24	1.0306	38	1.0218
11	1.0456	25	1.0298	39	1.0213
12	1.0439	26	1.0290	40	1.0208
13	1.0424	27	1.0283		

Effective with the July 1, 2028 valuation, the salary scale assumption shall be as follows:

Salary Scale (eff. July 1, 2028)

Duration	Rate	Duration	Rate	Duration	Rate
0	1.1044	14	1.0379	28	1.0246
1	1.0902	15	1.0366	29	1.0240
2	1.0763	16	1.0354	30	1.0233
3	1.0682	17	1.0342	31	1.0227
4	1.0625	18	1.0331	32	1.0221
5	1.0580	19	1.0321	33	1.0215
6	1.0545	20	1.0311	34	1.0209
7	1.0514	21	1.0301	35	1.0204
8	1.0488	22	1.0292	36	1.0198
9	1.0465	23	1.0284	37	1.0193
10	1.0445	24	1.0276	38	1.0188
11	1.0426	25	1.0268	39	1.0183
12	1.0409	26	1.0260	40	1.0178
13	1.0394	27	1.0253		

Section 5018.2 MORTALITY AND SERVICE TABLES FOR VALUATION PURPOSES. For the purpose of performing the annual actuarial valuation of the Retirement System, effective with the July 1, 2025 valuation, the assumptions to be used for the incidence of death, disability, withdrawal, and retirement among active members, and for the incidence of death among members who are retired for service and the beneficiaries of active and retired members, and for the incidence of death among members who are retired for disability, shall be as follows:

Mortality Rates for Active Members

Males

Age	Rate	Age	Rate	Age	Rate
20	0.000221	40	0.000534	60	0.002493
21	0.000230	41	0.000561	61	0.002714
22	0.000239	42	0.000589	62	0.002971
23	0.000239	43	0.000635	63	0.003238
24	0.000239	44	0.000672	64	0.003514
25	0.000239	45	0.000718	65	0.003818
26	0.000258	46	0.000754	66	0.004131
27	0.000267	47	0.000810	67	0.004480
28	0.000285	48	0.000865	68	0.004839
29	0.000285	49	0.000920	69	0.005225
30	0.000304	50	0.000994	70	0.005648
31	0.000322	51	0.001086	71	0.006118
32	0.000340	52	0.001168	72	0.006624
33	0.000359	53	0.001279	73	0.007194
34	0.000377	54	0.001398	74	0.007820
35	0.000405	55	0.001546	75	0.008519
36	0.000414	56	0.001693	76	0.009816
37	0.000442	57	0.001867	77	0.011334
38	0.000469	58	0.002061	78	0.013091
39	0.000506	59	0.002263	79	0.015133

Females					
Age	Rate	Age	Rate	Age	Rate
20	0.000082	40	0.000328	60	0.001466
21	0.000082	41	0.000337	61	0.001612
22	0.000082	42	0.000364	62	0.001766
23	0.000082	43	0.000392	63	0.001949
24	0.000082	44	0.000410	64	0.002122
25	0.000082	45	0.000437	65	0.002322
26	0.000091	46	0.000464	66	0.002540
27	0.000100	47	0.000501	67	0.002786
28	0.000118	48	0.000537	68	0.003041
29	0.000127	49	0.000583	69	0.003342
30	0.000137	50	0.000628	70	0.003670
31	0.000155	51	0.000674	71	0.004043
32	0.000173	52	0.000728	72	0.004471
33	0.000182	53	0.000792	73	0.004935
34	0.000209	54	0.000856	74	0.005472
35	0.000219	55	0.000929	75	0.006083
36	0.000237	56	0.001011	76	0.007075
37	0.000255	57	0.001111	77	0.008231
38	0.000282	58	0.001220	78	0.009579
39	0.000300	59	0.001329	79	0.011163

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Disability Retirement Rates for Active Members

Age	Rate	Age	Rate
30	0.000010	55	0.000849
31	0.000011	56	0.000743
32	0.000012	57	0.000624
33	0.000014	58	0.000506
34	0.000028	59	0.000401
35	0.000043	60	0.000289
36	0.000059	61	0.000185
37	0.000082	62	0.000120
38	0.000123	63	0.000096
39	0.000177	64	0.000090
40	0.000234	65	0.000093
41	0.000284	66	0.000104
42	0.000311	67	0.000111
43	0.000320	68	0.000103
44	0.000321	69	0.000085
45	0.000326	70	0.000059
46	0.000366	71	0.000035
47	0.000473	72	0.000010
48	0.000623	73	0.000009
49	0.000790	74	0.000008
50	0.000943	75	0.000008
51	0.001042	76	0.000007
52	0.001069	77	0.000006
53	0.001027	78	0.000006
54	0.000944	79	0.000005

Withdrawal Rates for Active Members

Service	Males Rate	Females Rate
0	0.255651	0.260990
1	0.137919	0.118187
2	0.096340	0.091396
3	0.091200	0.077296
4	0.067940	0.064034
5	0.049070	0.051316
6	0.044076	0.047038
7	0.039082	0.042761
8	0.034088	0.038484
9	0.029093	0.034207
10	0.024099	0.029929
11	0.021337	0.026459
12	0.018574	0.022989
13	0.015812	0.019520
14	0.013049	0.016050
15	0.010287	0.012580
16	0.010078	0.011576
17	0.009869	0.010572
18	0.009661	0.009568
19	0.009452	0.008564
20	0.009244	0.007560
21	0.008389	0.006626
22	0.007534	0.005691
23	0.006679	0.004757
24	0.005824	0.003822
25	0.004969	0.002888
26	0.004755	0.002654
27	0.004541	0.002420
28	0.004328	0.002187
29	0.004114	0.001953
30	0.003900	0.001719
31	0.003686	0.001486
32+	0.003473	0.001252

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Service Retirement Rates for Active Members
with at least 30 Years of Service

Males		Females	
Age	Rate	Age	Rate
55	0.367020	55	0.391610
56	0.333159	56	0.347754
57	0.304031	57	0.306464
58	0.301400	58	0.301503
59	0.315623	59	0.318754
60	0.330707	60	0.350883
61	0.352851	61	0.383246
62	0.372204	62	0.394013
63	0.350139	63	0.370694
64	0.332700	64	0.345360
65	0.352289	65	0.356395
66	0.373006	66	0.373880
67	0.365385	67	0.363230
68	0.331771	68	0.343864
69	0.316989	69	0.332577
70	0.322897	70	0.308491
71	0.274741	71	0.279975
72	0.209810	72	0.275341
73	0.189112	73	0.286138
74	0.187123	74	0.270875
75	0.182676	75	0.208324
76	0.127679	76	0.163018
77	0.088352	77	0.183502
78	0.101705	78	0.226378
79	0.180465	79	0.257022
80+	1.000000	80+	1.000000

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Service Retirement Rates for Active Members
With at Least 20 Years of Service and
Less than 30 Years of Service

Males		Females	
Age	Rate	Age	Rate
55	0.046212	55	0.055256
56	0.047932	56	0.056897
57	0.051300	57	0.060249
58	0.058123	58	0.065882
59	0.069431	59	0.075722
60	0.092594	60	0.102809
61	0.170277	61	0.192886
62	0.309268	62	0.349640
63	0.263990	63	0.306593
64	0.251824	64	0.291683
65	0.283203	65	0.319195
66	0.306412	66	0.343771
67	0.304244	67	0.338061
68	0.316215	68	0.312577
69	0.325934	69	0.300902
70	0.289291	70	0.304520
71	0.257363	71	0.300387
72	0.262551	72	0.287994
73	0.278795	73	0.249286
74	0.280908	74	0.219630
75	0.242297	75	0.236136
76	0.265266	76	0.233023
77	0.358824	77	0.166492
78	0.383333	78	0.109769
79	0.285897	79	0.118743
80+	1.000000	80+	1.000000

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Service Retirement Rates for Active Members
With at Least 5 Years of Service and Less Than 20 Years of Service

Males		Females	
Age	Rate	Age	Rate
55	0.019166	55	0.025557
56	0.018678	56	0.024732
57	0.019064	57	0.025008
58	0.022054	58	0.028332
59	0.026169	59	0.033154
60	0.034723	60	0.042513
61	0.060127	61	0.066721
62	0.104443	62	0.104299
63	0.105453	63	0.113000
64	0.111322	64	0.128861
65	0.140192	65	0.154457
66	0.167092	66	0.172981
67	0.173295	67	0.173225
68	0.169189	68	0.164568
69	0.180671	69	0.168203
70	0.196710	70	0.174499
71	0.172914	71	0.166585
72	0.152101	72	0.138184
73	0.174560	73	0.097129
74	0.184066	74	0.101845
75	0.160861	75	0.136325
76	0.134534	76	0.158349
77	0.104749	77	0.157217
78	0.108512	78	0.097702
79	0.157456	79	0.079980
80+	1.000000	80+	1.000000

Mortality Base Rates for Healthy Annuitants

Males		Females	
Age	Rate	Age	Rate
55	0.002064	55	0.001655
56	0.002287	56	0.001793
57	0.002547	57	0.001939
58	0.002835	58	0.002094
59	0.003151	59	0.002268
60	0.003495	60	0.002442
61	0.003886	61	0.002625
62	0.004304	62	0.002826
63	0.004760	63	0.003036
64	0.005252	64	0.003274
65	0.005792	65	0.003558
66	0.006377	66	0.003887
67	0.007028	67	0.004289
68	0.007744	68	0.004765
69	0.008553	69	0.005341
70	0.009492	70	0.006027
71	0.010561	71	0.006850
72	0.011806	72	0.007810
73	0.013247	73	0.008935
74	0.014948	74	0.010225
75	0.016929	75	0.011725
76	0.019234	76	0.013481
77	0.021911	77	0.015538
78	0.025026	78	0.017971
79	0.033499	79	0.022835
80	0.038374	80	0.026532
81	0.044020	81	0.030821
82	0.050537	82	0.035791
83	0.058055	83	0.041492
84	0.066683	84	0.047935
85	0.076486	85	0.055199
86	0.087529	86	0.063285
87	0.099834	87	0.072193
88	0.113478	88	0.081992
89	0.128536	89	0.092803
90	0.144975	90	0.104787
91	0.163080	91	0.118073
92	0.182827	92	0.132612
93	0.204032	93	0.148393
94	0.226510	94	0.165207

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	Males		Females
Age	Rate	Age	Rate
95	0.249815	95	0.182942
96	0.274338	96	0.201879
97	0.299297	97	0.221588
98	0.324353	98	0.241878
99	0.349279	99	0.262589
100	0.373857	100	0.283701
101	0.397978	101	0.305023
102	0.421511	102	0.326475
103	0.444305	103	0.347828
104	0.466315	104	0.368939
105	0.487063	105	0.389650
106	0.506766	106	0.409660
107	0.525230	107	0.428988
108	0.538046	108	0.447385
109	0.538851	109	0.464809
110	0.539602	110	0.481191
111	0.540309	111	0.496462
112	0.541125	112	0.499087
113	0.541876	113	0.499638
114	0.542692	114	0.500089
115	0.543399	115	0.500590
116	0.543671	116	0.500790
117	0.543834	117	0.500890
118	0.543998	118	0.500991
119	0.543998	119	0.500991
120	1.000000	120	1.000000

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

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Mortality Base Rates for Survivors and Beneficiaries
Males

Age	Rate	Age	Rate	Age	Rate
1	0.000244	41	0.000871	81	0.051202
2	0.000244	42	0.000929	82	0.058191
3	0.000244	43	0.000975	83	0.066145
4	0.000244	44	0.001033	84	0.075224
5	0.000244	45	0.001091	85	0.085592
6	0.000244	46	0.001161	86	0.097435
7	0.000244	47	0.001219	87	0.110914
8	0.000244	48	0.001300	88	0.126171
9	0.000244	49	0.001370	89	0.143389
10	0.000244	50	0.002624	90	0.162581
11	0.000244	51	0.002821	91	0.183259
12	0.000244	52	0.003065	92	0.204982
13	0.000244	53	0.003332	93	0.227390
14	0.000244	54	0.003622	94	0.250309
15	0.000244	55	0.003982	95	0.273519
16	0.000244	56	0.004354	96	0.297749
17	0.000244	57	0.004795	97	0.322456
18	0.000244	58	0.005248	98	0.347616
19	0.000279	59	0.005736	99	0.373171
20	0.000325	60	0.006246	100	0.398958
21	0.000348	61	0.006769	101	0.424698
22	0.000360	62	0.007280	102	0.449811
23	0.000372	63	0.007837	103	0.474135
24	0.000383	64	0.008406	104	0.497623
25	0.000395	65	0.009045	105	0.519764
26	0.000406	66	0.009776	106	0.540791
27	0.000418	67	0.010589	107	0.560494
28	0.000430	68	0.011529	108	0.574171
29	0.000441	69	0.012609	109	0.575030
30	0.000453	70	0.013863	110	0.575831
31	0.000476	71	0.015326	111	0.576586
32	0.000499	72	0.017044	112	0.577456
33	0.000511	73	0.019041	113	0.578257
34	0.000546	74	0.021363	114	0.579128
35	0.000581	75	0.024080	115	0.579883
36	0.000627	76	0.027203	116	0.580173
37	0.000673	77	0.030791	117	0.580347
38	0.000708	78	0.034924	118	0.580522
39	0.000766	79	0.039661	119	0.580522
40	0.000813	80	0.045060	120	0.577456

Females

Age	Rate	Age	Rate	Age	Rate
1	0.000094	41	0.000470	81	0.036742
2	0.000094	42	0.000491	82	0.042120
3	0.000094	43	0.000522	83	0.048272
4	0.000094	44	0.000564	84	0.055217
5	0.000094	45	0.000585	85	0.062956
6	0.000094	46	0.000627	86	0.071499
7	0.000094	47	0.000668	87	0.080909
8	0.000094	48	0.000721	88	0.091248
9	0.000094	49	0.000762	89	0.102642
10	0.000094	50	0.002235	90	0.115185
11	0.000094	51	0.002423	91	0.128888
12	0.000094	52	0.002569	92	0.143635
13	0.000094	53	0.002663	93	0.159436
14	0.000094	54	0.002778	94	0.176105
15	0.000094	55	0.002903	95	0.193661
16	0.000094	56	0.003050	96	0.212449
17	0.000094	57	0.003196	97	0.232167
18	0.000094	58	0.003394	98	0.252669
19	0.000094	59	0.003634	99	0.273870
20	0.000094	60	0.003896	100	0.295708
21	0.000094	61	0.004157	101	0.317932
22	0.000094	62	0.004439	102	0.340293
23	0.000094	63	0.004742	103	0.362549
24	0.000094	64	0.005086	104	0.384554
25	0.000104	65	0.005483	105	0.406141
26	0.000115	66	0.005963	106	0.426998
27	0.000125	67	0.006548	107	0.447144
28	0.000146	68	0.007227	108	0.466319
29	0.000157	69	0.008042	109	0.484481
30	0.000188	70	0.008992	110	0.501556
31	0.000198	71	0.010110	111	0.517473
32	0.000219	72	0.011394	112	0.520209
33	0.000251	73	0.012877	113	0.520784
34	0.000272	74	0.014601	114	0.521254
35	0.000303	75	0.016606	115	0.521776
36	0.000324	76	0.018883	116	0.521985
37	0.000355	77	0.021514	117	0.522089
38	0.000376	78	0.024543	118	0.522194
39	0.000407	79	0.028021	119	0.522194
40	0.000439	80	0.032052	120	1.000000

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

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Mortality Base Rates for Disabled Annuitants

Males

Age	Rate	Age	Rate	Age	Rate
30	0.004030	60	0.023444	90	0.186922
31	0.004041	61	0.024772	91	0.205778
32	0.004053	62	0.025925	92	0.224971
33	0.004123	63	0.026891	93	0.244280
34	0.004204	64	0.027706	94	0.263846
35	0.004332	65	0.028382	95	0.283679
36	0.004495	66	0.028999	96	0.304829
37	0.004693	67	0.029581	97	0.326992
38	0.004926	68	0.030257	98	0.350308
39	0.005194	69	0.031130	99	0.374776
40	0.005497	70	0.032295	100	0.400188
41	0.005823	71	0.033891	101	0.426008
42	0.006173	72	0.035952	102	0.451199
43	0.006557	73	0.038514	103	0.475598
44	0.006953	74	0.041589	104	0.499158
45	0.007384	75	0.045257	105	0.521368
46	0.007826	76	0.049473	106	0.542459
47	0.008292	77	0.05426	107	0.562223
48	0.008793	78	0.059617	108	0.575942
49	0.009375	79	0.065429	109	0.576804
50	0.010027	80	0.071613	110	0.577607
51	0.010761	81	0.078100	111	0.578364
52	0.011588	82	0.084971	112	0.579238
53	0.012555	83	0.092413	113	0.580041
54	0.013626	84	0.100717	114	0.580915
55	0.014861	85	0.110243	115	0.581672
56	0.016223	86	0.122472	116	0.581963
57	0.017772	87	0.136506	117	0.582138
58	0.019484	88	0.151937	118	0.582313
59	0.021383	89	0.168777	119	0.582313
				120	1.000000

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Females

Age	Rate	Age	Rate	Age	Rate
30	0.001979	60	0.020211	90	0.153222
31	0.002191	61	0.020718	91	0.165754
32	0.002403	62	0.021118	92	0.179134
33	0.002627	63	0.021460	93	0.193538
34	0.002839	64	0.021731	94	0.208979
35	0.003074	65	0.021978	95	0.225681
36	0.003310	66	0.022272	96	0.244255
37	0.003533	67	0.022649	97	0.264419
38	0.003769	68	0.023203	98	0.286103
39	0.004005	69	0.023980	99	0.309164
40	0.004228	70	0.025099	100	0.333486
41	0.004464	71	0.026642	101	0.358550
42	0.004723	72	0.028644	102	0.383767
43	0.004994	73	0.031141	103	0.408866
44	0.005300	74	0.034192	104	0.433683
45	0.005654	75	0.037855	105	0.458028
46	0.006042	76	0.042154	106	0.481549
47	0.006490	77	0.047089	107	0.504269
48	0.006973	78	0.052554	108	0.525894
49	0.007526	79	0.058467	109	0.546376
50	0.008127	80	0.064615	110	0.565633
51	0.008798	81	0.070834	111	0.583583
52	0.009564	82	0.077170	112	0.586669
53	0.010447	83	0.083907	113	0.587316
54	0.011437	84	0.091339	114	0.587846
55	0.012567	85	0.099937	115	0.588435
56	0.013828	86	0.109383	116	0.588671
57	0.015217	87	0.119513	117	0.588789
58	0.016760	88	0.130195	118	0.588907
59	0.018433	89	0.141420	119	0.588907
				120	1.000000

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

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Section 5018.3 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS ACCRUING PRIOR TO AUGUST 1, 1983.

(a)(2) Effective October 30, 2025, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4% for members who joined prior to July 1, 1948 and 3% for members who joined subsequent to June 30, 1948 shall be used in conjunction with the following tables:

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Age	Males Rate	Females Rate	Age	Males Rate	Females Rate
55	0.002064	0.001655	88	0.113478	0.081992
56	0.002287	0.001793	89	0.128536	0.092803
57	0.002547	0.001939	90	0.144975	0.104787
58	0.002835	0.002094	91	0.163080	0.118073
59	0.003151	0.002268	92	0.182827	0.132612
60	0.003495	0.002442	93	0.204032	0.148393
61	0.003886	0.002625	94	0.226510	0.165207
62	0.004304	0.002826	95	0.249815	0.182942
63	0.004760	0.003036	96	0.274338	0.201879
64	0.005252	0.003274	97	0.299297	0.221588
65	0.005792	0.003558	98	0.324353	0.241878
66	0.006377	0.003887	99	0.349279	0.262589
67	0.007028	0.004289	100	0.373857	0.283701
68	0.007744	0.004765	101	0.397978	0.305023
69	0.008553	0.005341	102	0.421511	0.326475
70	0.009492	0.006027	103	0.444305	0.347828
71	0.010561	0.006850	104	0.466315	0.368939
72	0.011806	0.007810	105	0.487063	0.389650
73	0.013247	0.008935	106	0.506766	0.409660
74	0.014948	0.010225	107	0.525230	0.428988
75	0.016929	0.011725	108	0.538046	0.447385
76	0.019234	0.013481	109	0.538851	0.464809
77	0.021911	0.015538	110	0.539602	0.481191
78	0.025026	0.017971	111	0.540309	0.496462
79	0.033499	0.022835	112	0.541125	0.499087
80	0.038374	0.026532	113	0.541876	0.499638
81	0.044020	0.030821	114	0.542692	0.500089
82	0.050537	0.035791	115	0.543399	0.500590
83	0.058055	0.041492	116	0.543671	0.500790
84	0.066683	0.047935	117	0.543834	0.500890
85	0.076486	0.055199	118	0.543998	0.500991
86	0.087529	0.063285	119	0.543998	0.500991
87	0.099834	0.072193	120	1.000000	1.000000

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Section 5018.4 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS ACCRUING ON OR AFTER AUGUST 1, 1983.

(a)(2) Effective October 30, 2025, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4% for members who joined prior to July 1, 1948 and 3% for members who joined subsequent to June 30, 1948 shall be used in conjunction with the following tables:

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Age	Rate	Age	Rate
55	0.001798	88	0.093012
56	0.001966	89	0.105310
57	0.002152	90	0.118853
58	0.002353	91	0.133825
59	0.002577	92	0.150187
60	0.002811	93	0.167867
61	0.003066	94	0.186663
62	0.003343	95	0.206348
63	0.003639	96	0.227240
64	0.003966	97	0.248786
65	0.004340	98	0.270744
66	0.004759	99	0.292931
67	0.005248	100	0.315256
68	0.005808	101	0.337557
69	0.006465	102	0.359738
70	0.007240	103	0.381595
71	0.008149	104	0.403021
72	0.009209	105	0.423745
73	0.010444	106	0.443647
74	0.011878	107	0.462673
75	0.013546	108	0.479116
76	0.015495	109	0.490724
77	0.017769	110	0.501635
78	0.020440	111	0.511808
79	0.026567	112	0.513800
80	0.030677	113	0.514421
81	0.035441	114	0.515000
82	0.040952	115	0.515573
83	0.047289	116	0.515798
84	0.054497	117	0.515920
85	0.062649	118	0.516043
86	0.071770	119	0.516043
87	0.081867	120	1.000000

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Executive Committee October 29, 2025

WHEREAS, The Actuary has completed their investigation of the Retirement System's experience in accordance with subdivision 5 of Section 508 of the Education Law, and has recommended the adoption of new actuarial assumptions for the incidence of death, disability, withdrawal and retirement among active members, for the incidence of death among members who are retired for service, for the incidence of death among beneficiaries of active and retired members, for the incidence of death among members who are retired for disability, for the salary increments of active members, and for the COLA increases of eligible retired members, and

WHEREAS, The Retirement Board, after deliberation, has determined the adoption of these new actuarial assumptions as recommended by the Actuary is necessary for the proper operation of the Retirement System, be it

RESOLVED, That, the existing sections 5018.1, 5018.2, 5018.3 (a) (2) and 5018.4 (a) (2) of the Rules and Regulations of the New York State Teachers' Retirement System shall be replaced by new Sections 5018.1, 5018.2, 5018.3 (a) (2) and 5018.4 (a) (2), a copy of which is annexed hereto and made a part thereof as Appendix ， page ，and be it further

RESOLVED, Such new actuarial assumptions shall be used in performing the annual actuarial valuations of the Retirement System beginning with the actuarial valuation as of June 30, 2025, which shall become effective for the fiscal year beginning July 1, 2026.

PART 5018

ACTUARIAL ASSUMPTIONS

§ 5018.1 VALUATION RATE OF INTEREST, SALARY SCALE AND COLA ASSUMPTIONS.

For the purpose of performing the annual actuarial valuation of the Retirement System, the valuation rate of interest shall be 6.95%, the assumed rate of COLA increase shall be [1.30%] 1.40%, and the salary scale assumption shall be as follows:

Salary Scale

For the June 30, 2025, 2026 and 2027 valuations, all rates are increased by 0.30% to account for recent inflation.

Duration	Rate	Duration	Rate
0	1.1044	35	1.0204
1	1.0902	36	1.0198
2	1.0763	37	1.0193
3	1.0682	38	1.0188
4	1.0625	39	1.0183
5	1.0580	40	1.0178
6	1.0545		
7	1.0514		
8	1.0488		
9	1.0465		
10	1.0445		
11	1.0426		
12	1.0409		
13	1.0394		
14	1.0379		
15	1.0366		
16	1.0354		
17	1.0342		
18	1.0331		
19	1.0321		
20	1.0311		
21	1.0301		
22	1.0292		
23	1.0284		
24	1.0276		
25	1.0268		
26	1.0260		
27	1.0253		
28	1.0246		
29	1.0240		
30	1.0233		
31	1.0227		
32	1.0221		
33	1.0215		
34	1.0209		

§ 5018.2 MORTALITY AND SERVICE TABLES FOR VALUATION PURPOSES.

For the purposes of performing the annual actuarial valuation of the Retirement System, the assumptions to be used for the incidence of death, disability, withdrawal, and retirement among active members and for the incidence of death among members who are retired for service, and for the incidence of death among beneficiaries of active and retired members, and for the incidence of death among members who are retired for disability, shall be as follows:

Active Member Mortality Rates

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
20	0.000221	0.000082	55	0.001546	0.000929
21	0.000230	0.000082	56	0.001693	0.001011
22	0.000239	0.000082	57	0.001867	0.001111
23	0.000239	0.000082	58	0.002061	0.001220
24	0.000239	0.000082	59	0.002263	0.001329
25	0.000239	0.000082	60	0.002493	0.001466
26	0.000258	0.000091	61	0.002714	0.001612
27	0.000267	0.000100	62	0.002971	0.001766
28	0.000285	0.000118	63	0.003238	0.001949
29	0.000285	0.000127	64	0.003514	0.002122
30	0.000304	0.000137	65	0.003818	0.002322
31	0.000322	0.000155	66	0.004131	0.002540
32	0.000340	0.000173	67	0.004480	0.002786
33	0.000359	0.000182	68	0.004839	0.003041
34	0.000377	0.000209	69	0.005225	0.003342
35	0.000405	0.000219	70	0.005648	0.003670
36	0.000414	0.000237	71	0.006118	0.004043
37	0.000442	0.000255	72	0.006624	0.004471
38	0.000469	0.000282	73	0.007194	0.004935
39	0.000506	0.000300	74	0.007820	0.005472
40	0.000534	0.000328	75	0.008519	0.006083
41	0.000561	0.000337	76	0.009816	0.007075
42	0.000589	0.000364	77	0.011334	0.008231
43	0.000635	0.000392	78	0.013091	0.009579
44	0.000672	0.000410	79	0.015133	0.011163
45	0.000718	0.000437			
46	0.000754	0.000464			
47	0.000810	0.000501			
48	0.000865	0.000537			
49	0.000920	0.000583			
50	0.000994	0.000628			
51	0.001086	0.000674			
52	0.001168	0.000728			
53	0.001279	0.000792			
54	0.001398	0.000856			

Healthy Annuitant Mortality Rates

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
55	0.002064	0.001655	90	0.144975	0.104787
56	0.002287	0.001793	91	0.163080	0.118073
57	0.002547	0.001939	92	0.182827	0.132612
58	0.002835	0.002094	93	0.204032	0.148393
59	0.003151	0.002268	94	0.226510	0.165207
60	0.003495	0.002442	95	0.249815	0.182942
61	0.003886	0.002625	96	0.274338	0.201879
62	0.004304	0.002826	97	0.299297	0.221588
63	0.004760	0.003036	98	0.324353	0.241878
64	0.005252	0.003274	99	0.349279	0.262589
65	0.005792	0.003558	100	0.373857	0.283701
66	0.006377	0.003887	101	0.397978	0.305023
67	0.007028	0.004289	102	0.421511	0.326475
68	0.007744	0.004765	103	0.444305	0.347828
69	0.008553	0.005341	104	0.466315	0.368939
70	0.009492	0.006027	105	0.487063	0.389650
71	0.010561	0.006850	106	0.506766	0.409660
72	0.011806	0.007810	107	0.525230	0.428988
73	0.013247	0.008935	108	0.538046	0.447385
74	0.014948	0.010225	109	0.538851	0.464809
75	0.016929	0.011725	110	0.539602	0.481191
76	0.019234	0.013481	111	0.540309	0.496462
77	0.021911	0.015538	112	0.541125	0.499087
78	0.025026	0.017971	113	0.541876	0.499638
79	0.033499	0.022835	114	0.542692	0.500089
80	0.038374	0.026532	115	0.543399	0.500590
81	0.044020	0.030821	116	0.543671	0.500790
82	0.050537	0.035791	117	0.543834	0.500890
83	0.058055	0.041492	118	0.543998	0.500991
84	0.066683	0.047935	119	0.543998	0.500991
85	0.076486	0.055199	120	1.000000	1.000000
86	0.087529	0.063285			
87	0.099834	0.072193			
88	0.113478	0.081992			
89	0.128536	0.092803			

Disabled Annuitant Mortality Rates

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
30	0.004030	0.001979	65	0.028382	0.021978
31	0.004041	0.002191	66	0.028999	0.022272
32	0.004053	0.002403	67	0.029581	0.022649
33	0.004123	0.002627	68	0.030257	0.023203
34	0.004204	0.002839	69	0.031130	0.023980
35	0.004332	0.003074	70	0.032295	0.025099
36	0.004495	0.003310	71	0.033891	0.026642
37	0.004693	0.003533	72	0.035952	0.028644
38	0.004926	0.003769	73	0.038514	0.031141
39	0.005194	0.004005	74	0.041589	0.034192
40	0.005497	0.004228	75	0.045257	0.037855
41	0.005823	0.004464	76	0.049473	0.042154
42	0.006173	0.004723	77	0.054260	0.047089
43	0.006557	0.004994	78	0.059617	0.052554
44	0.006953	0.005300	79	0.065429	0.058467
45	0.007384	0.005654	80	0.071613	0.064615
46	0.007826	0.006042	81	0.078100	0.070834
47	0.008292	0.006490	82	0.084971	0.077170
48	0.008793	0.006973	83	0.092413	0.083907
49	0.009375	0.007526	84	0.100717	0.091339
50	0.010027	0.008127	85	0.110243	0.099937
51	0.010761	0.008798	86	0.122472	0.109383
52	0.011588	0.009564	87	0.136506	0.119513
53	0.012555	0.010447	88	0.151937	0.130195
54	0.013626	0.011437	89	0.168777	0.141420
55	0.014861	0.012567	90	0.186922	0.153222
56	0.016223	0.013828	91	0.205778	0.165754
57	0.017772	0.015217	92	0.224971	0.179134
58	0.019484	0.016760	93	0.244280	0.193538
59	0.021383	0.018433	94	0.263846	0.208979
60	0.023444	0.020211	95	0.283679	0.225681
61	0.024772	0.020718	96	0.304829	0.244255
62	0.025925	0.021118	97	0.326992	0.264419
63	0.026891	0.021460	98	0.350308	0.286103
64	0.027706	0.021731	99	0.374776	0.309164

Disabled Annuitant Mortality Rates (cont.)

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
100	0.400188	0.333486	110	0.577607	0.565633
101	0.426008	0.358550	111	0.578364	0.583583
102	0.451199	0.383767	112	0.579238	0.586669
103	0.475598	0.408866	113	0.580041	0.587316
104	0.499158	0.433683	114	0.580915	0.587846
105	0.521368	0.458028	115	0.581672	0.588435
106	0.542459	0.481549	116	0.581963	0.588671
107	0.562223	0.504269	117	0.582138	0.588789
108	0.575942	0.525894	118	0.582313	0.588907
109	0.576804	0.546376	119	0.582313	0.588907
			120	1.000000	1.000000

Survivor and Beneficiary Mortality Rates

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
0	0.000000	0.000000	35	0.000581	0.000303
1	0.000244	0.000094	36	0.000627	0.000324
2	0.000244	0.000094	37	0.000673	0.000355
3	0.000244	0.000094	38	0.000708	0.000376
4	0.000244	0.000094	39	0.000766	0.000407
5	0.000244	0.000094	40	0.000813	0.000439
6	0.000244	0.000094	41	0.000871	0.000470
7	0.000244	0.000094	42	0.000929	0.000491
8	0.000244	0.000094	43	0.000975	0.000522
9	0.000244	0.000094	44	0.001033	0.000564
10	0.000244	0.000094	45	0.001091	0.000585
11	0.000244	0.000094	46	0.001161	0.000627
12	0.000244	0.000094	47	0.001219	0.000668
13	0.000244	0.000094	48	0.001300	0.000721
14	0.000244	0.000094	49	0.001370	0.000762
15	0.000244	0.000094	50	0.002624	0.002235
16	0.000244	0.000094	51	0.002821	0.002423
17	0.000244	0.000094	52	0.003065	0.002569
18	0.000244	0.000094	53	0.003332	0.002663
19	0.000279	0.000094	54	0.003622	0.002778
20	0.000325	0.000094	55	0.003982	0.002903
21	0.000348	0.000094	56	0.004354	0.003050
22	0.000360	0.000094	57	0.004795	0.003196
23	0.000372	0.000094	58	0.005248	0.003394
24	0.000383	0.000094	59	0.005736	0.003634
25	0.000395	0.000104	60	0.006246	0.003896
26	0.000406	0.000115	61	0.006769	0.004157
27	0.000418	0.000125	62	0.007280	0.004439
28	0.000430	0.000146	63	0.007837	0.004742
29	0.000441	0.000157	64	0.008406	0.005086
30	0.000453	0.000188	65	0.009045	0.005483
31	0.000476	0.000198	66	0.009776	0.005963
32	0.000499	0.000219	67	0.010589	0.006548
33	0.000511	0.000251	68	0.011529	0.007227
34	0.000546	0.000272	69	0.012609	0.008042

Survivor and Beneficiary Mortality Rates (cont.)

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate
70	0.013863	0.008992
71	0.015326	0.010110
72	0.017044	0.011394
73	0.019041	0.012877
74	0.021363	0.014601
75	0.024080	0.016606
76	0.027203	0.018883
77	0.030791	0.021514
78	0.034924	0.024543
79	0.039661	0.028021
80	0.045060	0.032052
81	0.051202	0.036742
82	0.058191	0.042120
83	0.066145	0.048272
84	0.075224	0.055217
85	0.085592	0.062956
86	0.097435	0.071499
87	0.110914	0.080909
88	0.126171	0.091248
89	0.143389	0.102642
90	0.162581	0.115185
91	0.183259	0.128888
92	0.204982	0.143635
93	0.227390	0.159436
94	0.250309	0.176105
95	0.273519	0.193661
96	0.297749	0.212449
97	0.322456	0.232167
98	0.347616	0.252669
99	0.373171	0.273870
100	0.398958	0.295708
101	0.424698	0.317932
102	0.449811	0.340293
103	0.474135	0.362549
104	0.497623	0.384554
105	0.519764	0.406141
106	0.540791	0.426998
107	0.560494	0.447144
108	0.574171	0.466319
109	0.575030	0.484481
110	0.575831	0.501556
111	0.576586	0.517473
112	0.577456	0.520209
113	0.578257	0.520784
114	0.579128	0.521254
115	0.579883	0.521776
116	0.580173	0.521985
117	0.580347	0.522089
118	0.580522	0.522194
119	0.580522	0.522194
120	1.000000	1.000000

Service Retirement Rates

	Service: at least 5; less than 20		Service: at least 20; less than 30		Service: at least 30	
Age	**Male Rate**	**Female Rate**	**Male Rate**	**Female Rate**	**Male Rate**	**Female Rate**
55	0.019166	0.025557	0.046212	0.055256	0.367020	0.391610
56	0.018678	0.024732	0.047932	0.056897	0.333159	0.347754
57	0.019064	0.025008	0.051300	0.060249	0.304031	0.306464
58	0.022054	0.028332	0.058123	0.065882	0.301400	0.301503
59	0.026169	0.033154	0.069431	0.075722	0.315623	0.318754
60	0.034723	0.042513	0.092594	0.102809	0.330707	0.350883
61	0.060127	0.066721	0.170277	0.192886	0.352851	0.383246
62	0.104443	0.104299	0.309268	0.349640	0.372204	0.394013
63	0.105453	0.113000	0.263990	0.306593	0.350139	0.370694
64	0.111322	0.128861	0.251824	0.291683	0.332700	0.345360
65	0.140192	0.154457	0.283203	0.319195	0.352289	0.356395
66	0.167092	0.172981	0.306412	0.343771	0.373006	0.373880
67	0.173295	0.173225	0.304244	0.338061	0.365385	0.363230
68	0.169189	0.164568	0.316215	0.312577	0.331771	0.343864
69	0.180671	0.168203	0.325934	0.300902	0.316989	0.332577
70	0.196710	0.174499	0.289291	0.304520	0.322897	0.308491
71	0.172914	0.166585	0.257363	0.300387	0.274741	0.279975
72	0.152101	0.138184	0.262551	0.287994	0.209810	0.275341
73	0.174560	0.097129	0.278795	0.249286	0.189112	0.286138
74	0.184066	0.101845	0.280908	0.219630	0.187123	0.270875
75	0.160861	0.136325	0.242297	0.236136	0.182676	0.208324
76	0.134534	0.158349	0.265266	0.233023	0.127679	0.163018
77	0.104749	0.157217	0.358824	0.166492	0.088352	0.183502
78	0.108512	0.097702	0.383333	0.109769	0.101705	0.226378
79	0.157456	0.079980	0.285897	0.118743	0.180465	0.257022
80+	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Disability Retirement Rates

Age	Rate	Age	Rate
30	0.000010	65	0.000093
31	0.000011	66	0.000104
32	0.000012	67	0.000111
33	0.000014	68	0.000103
34	0.000028	69	0.000085
35	0.000043	70	0.000059
36	0.000059	71	0.000035
37	0.000082	72	0.000010
38	0.000123	73	0.000009
39	0.000177	74	0.000008
40	0.000234	75	0.000008
41	0.000284	76	0.000007
42	0.000311	77	0.000006
43	0.000320	78	0.000006
44	0.000321	79	0.000005
45	0.000326		
46	0.000366		
47	0.000473		
48	0.000623		
49	0.000790		
50	0.000943		
51	0.001042		
52	0.001069		
53	0.001027		
54	0.000944		
55	0.000849		
56	0.000743		
57	0.000624		
58	0.000506		
59	0.000401		
60	0.000289		
61	0.000185		
62	0.000120		
63	0.000096		
64	0.000090		

Withdrawal Rates

Service	Male Rate	Female Rate
0	0.255651	0.260990
1	0.137919	0.118187
2	0.096340	0.091396
3	0.091200	0.077296
4	0.067940	0.064034
5	0.049070	0.051316
6	0.044076	0.047038
7	0.039082	0.042761
8	0.034088	0.038484
9	0.029093	0.034207
10	0.024099	0.029929
11	0.021337	0.026459
12	0.018574	0.022989
13	0.015812	0.019520
14	0.013049	0.016050
15	0.010287	0.012580
16	0.010078	0.011576
17	0.009869	0.010572
18	0.009661	0.009568
19	0.009452	0.008564
20	0.009244	0.007560
21	0.008389	0.006626
22	0.007534	0.005691
23	0.006679	0.004757
24	0.005824	0.003822
25	0.004969	0.002888
26	0.004755	0.002654
27	0.004541	0.002420
28	0.004328	0.002187
29	0.004114	0.001953
30	0.003900	0.001719
31	0.003686	0.001486
32+	0.003473	0.001252

§ 5018.3 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS PRIOR TO AUGUST 1, 1983.

(a)(2) Effective October 30, 2025, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4% for members who joined prior to July 1, 1948 and 3% for members who joined subsequent to June 30, 1948 shall be used in conjunction with the following tables:

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
55	0.002064	0.001655	90	0.144975	0.104787
56	0.002287	0.001793	91	0.163080	0.118073
57	0.002547	0.001939	92	0.182827	0.132612
58	0.002835	0.002094	93	0.204032	0.148393
59	0.003151	0.002268	94	0.226510	0.165207
60	0.003495	0.002442	95	0.249815	0.182942
61	0.003886	0.002625	96	0.274338	0.201879
62	0.004304	0.002826	97	0.299297	0.221588
63	0.004760	0.003036	98	0.324353	0.241878
64	0.005252	0.003274	99	0.349279	0.262589
65	0.005792	0.003558	100	0.373857	0.283701
66	0.006377	0.003887	101	0.397978	0.305023
67	0.007028	0.004289	102	0.421511	0.326475
68	0.007744	0.004765	103	0.444305	0.347828
69	0.008553	0.005341	104	0.466315	0.368939
70	0.009492	0.006027	105	0.487063	0.389650
71	0.010561	0.006850	106	0.506766	0.409660
72	0.011806	0.007810	107	0.525230	0.428988
73	0.013247	0.008935	108	0.538046	0.447385
74	0.014948	0.010225	109	0.538851	0.464809
75	0.016929	0.011725	110	0.539602	0.481191
76	0.019234	0.013481	111	0.540309	0.496462
77	0.021911	0.015538	112	0.541125	0.499087
78	0.025026	0.017971	113	0.541876	0.499638
79	0.033499	0.022835	114	0.542692	0.500089
80	0.038374	0.026532	115	0.543399	0.500590
81	0.044020	0.030821	116	0.543671	0.500790
82	0.050537	0.035791	117	0.543834	0.500890
83	0.058055	0.041492	118	0.543998	0.500991
84	0.066683	0.047935	119	0.543998	0.500991
85	0.076486	0.055199	120	1.000000	1.000000
86	0.087529	0.063285			
87	0.099834	0.072193			
88	0.113478	0.081992			
89	0.128536	0.092803			

§ 5018.3 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS ACCRUING ON OR AFTER AUGUST 1, 1983.

(a)(2) Effective October 30, 2025, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4% for members who joined prior to July 1, 1948 and 3% for members who joined subsequent to June 30, 1948 shall be used in conjunction with the following tables:

Age	Rate	Age	Rate
55	0.001798	90	0.118853
56	0.001966	91	0.133825
57	0.002152	92	0.150187
58	0.002353	93	0.167867
59	0.002577	94	0.186663
60	0.002811	95	0.206348
61	0.003066	96	0.227240
62	0.003343	97	0.248786
63	0.003639	98	0.270744
64	0.003966	99	0.292931
65	0.004340	100	0.315256
66	0.004759	101	0.337557
67	0.005248	102	0.359738
68	0.005808	103	0.381595
69	0.006465	104	0.403021
70	0.007240	105	0.423745
71	0.008149	106	0.443647
72	0.009209	107	0.462673
73	0.010444	108	0.479116
74	0.011878	109	0.490724
75	0.013546	110	0.501635
76	0.015495	111	0.511808
77	0.017769	112	0.513800
78	0.020440	113	0.514421
79	0.026567	114	0.515000
80	0.030677	115	0.515573
81	0.035441	116	0.515798
82	0.040952	117	0.515920
83	0.047289	118	0.516043
84	0.054497	119	0.516043
85	0.062649	120	1.000000
86	0.071770		
87	0.081867		
88	0.093012		
89	0.105310		

Executive Committee October 29, 2025

WHEREAS, The Actuary has completed their investigation of the Retirement System's experience in accordance with subdivision 5 of Section 508 of the Education Law, and has recommended the adoption of new actuarial assumptions for the incidence of death, disability, withdrawal and retirement among active members, for the incidence of death among members who are retired for service, for the incidence of death among beneficiaries of active and retired members, for the incidence of death among members who are retired for disability, for the salary increments of active members, and for the COLA increases of eligible retired members, and

WHEREAS, The Retirement Board, after deliberation, has determined the adoption of these new actuarial assumptions as recommended by the Actuary is necessary for the proper operation of the Retirement System, be it

RESOLVED, That, the existing sections 5018.1, 5018.2, 5018.3 (a) (2) and 5018.4 (a) (2) of the Rules and Regulations of the New York State Teachers' Retirement System shall be replaced by new Sections 5018.1, 5018.2, 5018.3 (a) (2) and 5018.4 (a) (2), a copy of which is annexed hereto and made a part thereof as Appendix ， page ，and be it further

RESOLVED, Such new actuarial assumptions shall be used in performing the annual actuarial valuations of the Retirement System beginning with the actuarial valuation as of June 30, 2025, which shall become effective for the fiscal year beginning July 1, 2026.

PART 5018

ACTUARIAL ASSUMPTIONS

§ 5018.1 VALUATION RATE OF INTEREST, SALARY SCALE AND COLA ASSUMPTIONS.

For the purpose of performing the annual actuarial valuation of the Retirement System, the valuation rate of interest shall be 6.95%, the assumed rate of COLA increase shall be [1.30%] 1.40%, and the salary scale assumption shall be as follows:

Salary Scale

For the June 30, 2025, 2026 and 2027 valuations, all rates are increased by 0.30% to account for recent inflation.

Duration	Rate	Duration	Rate
0	1.1044	35	1.0204
1	1.0902	36	1.0198
2	1.0763	37	1.0193
3	1.0682	38	1.0188
4	1.0625	39	1.0183
5	1.0580	40	1.0178
6	1.0545		
7	1.0514		
8	1.0488		
9	1.0465		
10	1.0445		
11	1.0426		
12	1.0409		
13	1.0394		
14	1.0379		
15	1.0366		
16	1.0354		
17	1.0342		
18	1.0331		
19	1.0321		
20	1.0311		
21	1.0301		
22	1.0292		
23	1.0284		
24	1.0276		
25	1.0268		
26	1.0260		
27	1.0253		
28	1.0246		
29	1.0240		
30	1.0233		
31	1.0227		
32	1.0221		
33	1.0215		
34	1.0209		

§ 5018.2 MORTALITY AND SERVICE TABLES FOR VALUATION PURPOSES.

For the purposes of performing the annual actuarial valuation of the Retirement System, the assumptions to be used for the incidence of death, disability, withdrawal, and retirement among active members and for the incidence of death among members who are retired for service, and for the incidence of death among beneficiaries of active and retired members, and for the incidence of death among members who are retired for disability, shall be as follows:

Active Member Mortality Rates

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
20	0.000221	0.000082	55	0.001546	0.000929
21	0.000230	0.000082	56	0.001693	0.001011
22	0.000239	0.000082	57	0.001867	0.001111
23	0.000239	0.000082	58	0.002061	0.001220
24	0.000239	0.000082	59	0.002263	0.001329
25	0.000239	0.000082	60	0.002493	0.001466
26	0.000258	0.000091	61	0.002714	0.001612
27	0.000267	0.000100	62	0.002971	0.001766
28	0.000285	0.000118	63	0.003238	0.001949
29	0.000285	0.000127	64	0.003514	0.002122
30	0.000304	0.000137	65	0.003818	0.002322
31	0.000322	0.000155	66	0.004131	0.002540
32	0.000340	0.000173	67	0.004480	0.002786
33	0.000359	0.000182	68	0.004839	0.003041
34	0.000377	0.000209	69	0.005225	0.003342
35	0.000405	0.000219	70	0.005648	0.003670
36	0.000414	0.000237	71	0.006118	0.004043
37	0.000442	0.000255	72	0.006624	0.004471
38	0.000469	0.000282	73	0.007194	0.004935
39	0.000506	0.000300	74	0.007820	0.005472
40	0.000534	0.000328	75	0.008519	0.006083
41	0.000561	0.000337	76	0.009816	0.007075
42	0.000589	0.000364	77	0.011334	0.008231
43	0.000635	0.000392	78	0.013091	0.009579
44	0.000672	0.000410	79	0.015133	0.011163
45	0.000718	0.000437			
46	0.000754	0.000464			
47	0.000810	0.000501			
48	0.000865	0.000537			
49	0.000920	0.000583			
50	0.000994	0.000628			
51	0.001086	0.000674			
52	0.001168	0.000728			
53	0.001279	0.000792			
54	0.001398	0.000856			

Healthy Annuitant Mortality Rates

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
55	0.002064	0.001655	90	0.144975	0.104787
56	0.002287	0.001793	91	0.163080	0.118073
57	0.002547	0.001939	92	0.182827	0.132612
58	0.002835	0.002094	93	0.204032	0.148393
59	0.003151	0.002268	94	0.226510	0.165207
60	0.003495	0.002442	95	0.249815	0.182942
61	0.003886	0.002625	96	0.274338	0.201879
62	0.004304	0.002826	97	0.299297	0.221588
63	0.004760	0.003036	98	0.324353	0.241878
64	0.005252	0.003274	99	0.349279	0.262589
65	0.005792	0.003558	100	0.373857	0.283701
66	0.006377	0.003887	101	0.397978	0.305023
67	0.007028	0.004289	102	0.421511	0.326475
68	0.007744	0.004765	103	0.444305	0.347828
69	0.008553	0.005341	104	0.466315	0.368939
70	0.009492	0.006027	105	0.487063	0.389650
71	0.010561	0.006850	106	0.506766	0.409660
72	0.011806	0.007810	107	0.525230	0.428988
73	0.013247	0.008935	108	0.538046	0.447385
74	0.014948	0.010225	109	0.538851	0.464809
75	0.016929	0.011725	110	0.539602	0.481191
76	0.019234	0.013481	111	0.540309	0.496462
77	0.021911	0.015538	112	0.541125	0.499087
78	0.025026	0.017971	113	0.541876	0.499638
79	0.033499	0.022835	114	0.542692	0.500089
80	0.038374	0.026532	115	0.543399	0.500590
81	0.044020	0.030821	116	0.543671	0.500790
82	0.050537	0.035791	117	0.543834	0.500890
83	0.058055	0.041492	118	0.543998	0.500991
84	0.066683	0.047935	119	0.543998	0.500991
85	0.076486	0.055199	120	1.000000	1.000000
86	0.087529	0.063285			
87	0.099834	0.072193			
88	0.113478	0.081992			
89	0.128536	0.092803			

Disabled Annuitant Mortality Rates

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
30	0.004030	0.001979	65	0.028382	0.021978
31	0.004041	0.002191	66	0.028999	0.022272
32	0.004053	0.002403	67	0.029581	0.022649
33	0.004123	0.002627	68	0.030257	0.023203
34	0.004204	0.002839	69	0.031130	0.023980
35	0.004332	0.003074	70	0.032295	0.025099
36	0.004495	0.003310	71	0.033891	0.026642
37	0.004693	0.003533	72	0.035952	0.028644
38	0.004926	0.003769	73	0.038514	0.031141
39	0.005194	0.004005	74	0.041589	0.034192
40	0.005497	0.004228	75	0.045257	0.037855
41	0.005823	0.004464	76	0.049473	0.042154
42	0.006173	0.004723	77	0.054260	0.047089
43	0.006557	0.004994	78	0.059617	0.052554
44	0.006953	0.005300	79	0.065429	0.058467
45	0.007384	0.005654	80	0.071613	0.064615
46	0.007826	0.006042	81	0.078100	0.070834
47	0.008292	0.006490	82	0.084971	0.077170
48	0.008793	0.006973	83	0.092413	0.083907
49	0.009375	0.007526	84	0.100717	0.091339
50	0.010027	0.008127	85	0.110243	0.099937
51	0.010761	0.008798	86	0.122472	0.109383
52	0.011588	0.009564	87	0.136506	0.119513
53	0.012555	0.010447	88	0.151937	0.130195
54	0.013626	0.011437	89	0.168777	0.141420
55	0.014861	0.012567	90	0.186922	0.153222
56	0.016223	0.013828	91	0.205778	0.165754
57	0.017772	0.015217	92	0.224971	0.179134
58	0.019484	0.016760	93	0.244280	0.193538
59	0.021383	0.018433	94	0.263846	0.208979
60	0.023444	0.020211	95	0.283679	0.225681
61	0.024772	0.020718	96	0.304829	0.244255
62	0.025925	0.021118	97	0.326992	0.264419
63	0.026891	0.021460	98	0.350308	0.286103
64	0.027706	0.021731	99	0.374776	0.309164

Disabled Annuitant Mortality Rates (cont.)

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
100	0.400188	0.333486	110	0.577607	0.565633
101	0.426008	0.358550	111	0.578364	0.583583
102	0.451199	0.383767	112	0.579238	0.586669
103	0.475598	0.408866	113	0.580041	0.587316
104	0.499158	0.433683	114	0.580915	0.587846
105	0.521368	0.458028	115	0.581672	0.588435
106	0.542459	0.481549	116	0.581963	0.588671
107	0.562223	0.504269	117	0.582138	0.588789
108	0.575942	0.525894	118	0.582313	0.588907
109	0.576804	0.546376	119	0.582313	0.588907
			120	1.000000	1.000000

Survivor and Beneficiary Mortality Rates

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
0	0.000000	0.000000	35	0.000581	0.000303
1	0.000244	0.000094	36	0.000627	0.000324
2	0.000244	0.000094	37	0.000673	0.000355
3	0.000244	0.000094	38	0.000708	0.000376
4	0.000244	0.000094	39	0.000766	0.000407
5	0.000244	0.000094	40	0.000813	0.000439
6	0.000244	0.000094	41	0.000871	0.000470
7	0.000244	0.000094	42	0.000929	0.000491
8	0.000244	0.000094	43	0.000975	0.000522
9	0.000244	0.000094	44	0.001033	0.000564
10	0.000244	0.000094	45	0.001091	0.000585
11	0.000244	0.000094	46	0.001161	0.000627
12	0.000244	0.000094	47	0.001219	0.000668
13	0.000244	0.000094	48	0.001300	0.000721
14	0.000244	0.000094	49	0.001370	0.000762
15	0.000244	0.000094	50	0.002624	0.002235
16	0.000244	0.000094	51	0.002821	0.002423
17	0.000244	0.000094	52	0.003065	0.002569
18	0.000244	0.000094	53	0.003332	0.002663
19	0.000279	0.000094	54	0.003622	0.002778
20	0.000325	0.000094	55	0.003982	0.002903
21	0.000348	0.000094	56	0.004354	0.003050
22	0.000360	0.000094	57	0.004795	0.003196
23	0.000372	0.000094	58	0.005248	0.003394
24	0.000383	0.000094	59	0.005736	0.003634
25	0.000395	0.000104	60	0.006246	0.003896
26	0.000406	0.000115	61	0.006769	0.004157
27	0.000418	0.000125	62	0.007280	0.004439
28	0.000430	0.000146	63	0.007837	0.004742
29	0.000441	0.000157	64	0.008406	0.005086
30	0.000453	0.000188	65	0.009045	0.005483
31	0.000476	0.000198	66	0.009776	0.005963
32	0.000499	0.000219	67	0.010589	0.006548
33	0.000511	0.000251	68	0.011529	0.007227
34	0.000546	0.000272	69	0.012609	0.008042

Survivor and Beneficiary Mortality Rates (cont.)

Rates are projected on a fully generational basis using the Society of Actuaries Mortality Improvement Scale MP-2021. The base tables rates use 2022 as the base year.

Age	Male Rate	Female Rate
70	0.013863	0.008992
71	0.015326	0.010110
72	0.017044	0.011394
73	0.019041	0.012877
74	0.021363	0.014601
75	0.024080	0.016606
76	0.027203	0.018883
77	0.030791	0.021514
78	0.034924	0.024543
79	0.039661	0.028021
80	0.045060	0.032052
81	0.051202	0.036742
82	0.058191	0.042120
83	0.066145	0.048272
84	0.075224	0.055217
85	0.085592	0.062956
86	0.097435	0.071499
87	0.110914	0.080909
88	0.126171	0.091248
89	0.143389	0.102642
90	0.162581	0.115185
91	0.183259	0.128888
92	0.204982	0.143635
93	0.227390	0.159436
94	0.250309	0.176105
95	0.273519	0.193661
96	0.297749	0.212449
97	0.322456	0.232167
98	0.347616	0.252669
99	0.373171	0.273870
100	0.398958	0.295708
101	0.424698	0.317932
102	0.449811	0.340293
103	0.474135	0.362549
104	0.497623	0.384554
105	0.519764	0.406141
106	0.540791	0.426998
107	0.560494	0.447144
108	0.574171	0.466319
109	0.575030	0.484481
110	0.575831	0.501556
111	0.576586	0.517473
112	0.577456	0.520209
113	0.578257	0.520784
114	0.579128	0.521254
115	0.579883	0.521776
116	0.580173	0.521985
117	0.580347	0.522089
118	0.580522	0.522194
119	0.580522	0.522194
120	1.000000	1.000000

Service Retirement Rates

	Service: at least 5; less than 20		Service: at least 20; less than 30		Service: at least 30	
Age	**Male Rate**	**Female Rate**	**Male Rate**	**Female Rate**	**Male Rate**	**Female Rate**
55	0.019166	0.025557	0.046212	0.055256	0.367020	0.391610
56	0.018678	0.024732	0.047932	0.056897	0.333159	0.347754
57	0.019064	0.025008	0.051300	0.060249	0.304031	0.306464
58	0.022054	0.028332	0.058123	0.065882	0.301400	0.301503
59	0.026169	0.033154	0.069431	0.075722	0.315623	0.318754
60	0.034723	0.042513	0.092594	0.102809	0.330707	0.350883
61	0.060127	0.066721	0.170277	0.192886	0.352851	0.383246
62	0.104443	0.104299	0.309268	0.349640	0.372204	0.394013
63	0.105453	0.113000	0.263990	0.306593	0.350139	0.370694
64	0.111322	0.128861	0.251824	0.291683	0.332700	0.345360
65	0.140192	0.154457	0.283203	0.319195	0.352289	0.356395
66	0.167092	0.172981	0.306412	0.343771	0.373006	0.373880
67	0.173295	0.173225	0.304244	0.338061	0.365385	0.363230
68	0.169189	0.164568	0.316215	0.312577	0.331771	0.343864
69	0.180671	0.168203	0.325934	0.300902	0.316989	0.332577
70	0.196710	0.174499	0.289291	0.304520	0.322897	0.308491
71	0.172914	0.166585	0.257363	0.300387	0.274741	0.279975
72	0.152101	0.138184	0.262551	0.287994	0.209810	0.275341
73	0.174560	0.097129	0.278795	0.249286	0.189112	0.286138
74	0.184066	0.101845	0.280908	0.219630	0.187123	0.270875
75	0.160861	0.136325	0.242297	0.236136	0.182676	0.208324
76	0.134534	0.158349	0.265266	0.233023	0.127679	0.163018
77	0.104749	0.157217	0.358824	0.166492	0.088352	0.183502
78	0.108512	0.097702	0.383333	0.109769	0.101705	0.226378
79	0.157456	0.079980	0.285897	0.118743	0.180465	0.257022
80+	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

Disability Retirement Rates

Age	Rate	Age	Rate
30	0.000010	65	0.000093
31	0.000011	66	0.000104
32	0.000012	67	0.000111
33	0.000014	68	0.000103
34	0.000028	69	0.000085
35	0.000043	70	0.000059
36	0.000059	71	0.000035
37	0.000082	72	0.000010
38	0.000123	73	0.000009
39	0.000177	74	0.000008
40	0.000234	75	0.000008
41	0.000284	76	0.000007
42	0.000311	77	0.000006
43	0.000320	78	0.000006
44	0.000321	79	0.000005
45	0.000326		
46	0.000366		
47	0.000473		
48	0.000623		
49	0.000790		
50	0.000943		
51	0.001042		
52	0.001069		
53	0.001027		
54	0.000944		
55	0.000849		
56	0.000743		
57	0.000624		
58	0.000506		
59	0.000401		
60	0.000289		
61	0.000185		
62	0.000120		
63	0.000096		
64	0.000090		

Withdrawal Rates

Service	Male Rate	Female Rate
0	0.255651	0.260990
1	0.137919	0.118187
2	0.096340	0.091396
3	0.091200	0.077296
4	0.067940	0.064034
5	0.049070	0.051316
6	0.044076	0.047038
7	0.039082	0.042761
8	0.034088	0.038484
9	0.029093	0.034207
10	0.024099	0.029929
11	0.021337	0.026459
12	0.018574	0.022989
13	0.015812	0.019520
14	0.013049	0.016050
15	0.010287	0.012580
16	0.010078	0.011576
17	0.009869	0.010572
18	0.009661	0.009568
19	0.009452	0.008564
20	0.009244	0.007560
21	0.008389	0.006626
22	0.007534	0.005691
23	0.006679	0.004757
24	0.005824	0.003822
25	0.004969	0.002888
26	0.004755	0.002654
27	0.004541	0.002420
28	0.004328	0.002187
29	0.004114	0.001953
30	0.003900	0.001719
31	0.003686	0.001486
32+	0.003473	0.001252

§ 5018.3 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS PRIOR TO AUGUST 1, 1983.

(a)(2) Effective October 30, 2025, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4% for members who joined prior to July 1, 1948 and 3% for members who joined subsequent to June 30, 1948 shall be used in conjunction with the following tables:

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
55	0.002064	0.001655	90	0.144975	0.104787
56	0.002287	0.001793	91	0.163080	0.118073
57	0.002547	0.001939	92	0.182827	0.132612
58	0.002835	0.002094	93	0.204032	0.148393
59	0.003151	0.002268	94	0.226510	0.165207
60	0.003495	0.002442	95	0.249815	0.182942
61	0.003886	0.002625	96	0.274338	0.201879
62	0.004304	0.002826	97	0.299297	0.221588
63	0.004760	0.003036	98	0.324353	0.241878
64	0.005252	0.003274	99	0.349279	0.262589
65	0.005792	0.003558	100	0.373857	0.283701
66	0.006377	0.003887	101	0.397978	0.305023
67	0.007028	0.004289	102	0.421511	0.326475
68	0.007744	0.004765	103	0.444305	0.347828
69	0.008553	0.005341	104	0.466315	0.368939
70	0.009492	0.006027	105	0.487063	0.389650
71	0.010561	0.006850	106	0.506766	0.409660
72	0.011806	0.007810	107	0.525230	0.428988
73	0.013247	0.008935	108	0.538046	0.447385
74	0.014948	0.010225	109	0.538851	0.464809
75	0.016929	0.011725	110	0.539602	0.481191
76	0.019234	0.013481	111	0.540309	0.496462
77	0.021911	0.015538	112	0.541125	0.499087
78	0.025026	0.017971	113	0.541876	0.499638
79	0.033499	0.022835	114	0.542692	0.500089
80	0.038374	0.026532	115	0.543399	0.500590
81	0.044020	0.030821	116	0.543671	0.500790
82	0.050537	0.035791	117	0.543834	0.500890
83	0.058055	0.041492	118	0.543998	0.500991
84	0.066683	0.047935	119	0.543998	0.500991
85	0.076486	0.055199	120	1.000000	1.000000
86	0.087529	0.063285			
87	0.099834	0.072193			
88	0.113478	0.081992			
89	0.128536	0.092803			

§ 5018.3 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS ACCRUING ON OR AFTER AUGUST 1, 1983.

(a)(2) Effective October 30, 2025, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4% for members who joined prior to July 1, 1948 and 3% for members who joined subsequent to June 30, 1948 shall be used in conjunction with the following tables:

Age	Rate	Age	Rate
55	0.001798	90	0.118853
56	0.001966	91	0.133825
57	0.002152	92	0.150187
58	0.002353	93	0.167867
59	0.002577	94	0.186663
60	0.002811	95	0.206348
61	0.003066	96	0.227240
62	0.003343	97	0.248786
63	0.003639	98	0.270744
64	0.003966	99	0.292931
65	0.004340	100	0.315256
66	0.004759	101	0.337557
67	0.005248	102	0.359738
68	0.005808	103	0.381595
69	0.006465	104	0.403021
70	0.007240	105	0.423745
71	0.008149	106	0.443647
72	0.009209	107	0.462673
73	0.010444	108	0.479116
74	0.011878	109	0.490724
75	0.013546	110	0.501635
76	0.015495	111	0.511808
77	0.017769	112	0.513800
78	0.020440	113	0.514421
79	0.026567	114	0.515000
80	0.030677	115	0.515573
81	0.035441	116	0.515798
82	0.040952	117	0.515920
83	0.047289	118	0.516043
84	0.054497	119	0.516043
85	0.062649	120	1.000000
86	0.071770		
87	0.081867		
88	0.093012		
89	0.105310		

New York State Teachers' Retirement System

2026 Legislative Program

New York State Teachers' Retirement System

To: **Retirement Board**
From: **D. Ampansiri, Jr./ K. Vrbanac**
CC: **T. Lee**
Date: **October 21, 2025**
Re: **NYSTRS 2026 Legislative Program**

2026 Legislative Program

Staff recommend the following 2026 Legislative Program. Specifically, and as this is the second year of the current legislative cycle, we recommend carrying forward the 1 bill remaining from the 2025 Legislative Program not acted upon by the Legislature.

Program bill 25-1 (MWBE Report) will be carried forward as program bill 26-1.

- **26-1** Amends Education Law Section 508-a subdivision 2(b) to change 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).
  - All data needed for the MWBE report are not finalized until after September 1st. That finalized data is published with NYSTRS' Annual Comprehensive Financial Report (ACFR) on or about November 10th.
  - To complete our reporting requirements, NYSTRS submits a preliminary report by September 1st but with certain data estimated. Thereafter, NYSTRS submits a final true-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 redundancy in preparing the two substantially similar and nearly identical reports.

Together with this Memorandum, please find the Proposed 2026 Legislative Program, the Bill Memo, Bill text with proposed changes, and fiscal note updated for the 2026 legislative session.

2025 Legislation of Interest to NYSTRS Chart

Attached please also find the updated 2025 Legislation of Interest to NYSTRS chart. This chart contains bills that were not proposed by NYSTRS that could have a potential impact on the System, that either passed one or both houses and/or were signed into law. The chart also contains a list of proposed Special Interest bills pertaining to specific NYSTRS members/retirees (not proposed by NYSTRS) that have not been acted upon by the Legislature.

Staff will provide an update at the January Board meeting of any action the Governor takes on these bills (those that have passed both houses).

New York State Teachers' Retirement System

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President, Hempstead

Phyllis S. Harrington
Oceanside

Eric J. Iberger
Bayport-Blue Point

Scott R. Levy
Byram Hills

Jennifer J. Longtin
Ballston Lake

Nicholas Smirensky
Vice President, Delmar

Donald A. Little III
Syracuse

Ruth Mahoney
Albany

Natalie McKay
Schoharie

Mark R. Stratton
Corinth

Proposed 2026 Legislative Program

Bill No.	Bill Purpose
26-1	Amends Education Law Section 508-a subdivision 2(b) to change the date by which the New York State Teachers' Retirement System 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.

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2026 NYSTRS Legislative Program

2025 Bill Numbers	Subject	2026 Program Number	2026 Cost
S8234	Amends Education Law Section 508-a subdivision 2(b) to change the date by which the New York State Teachers' Retirement System must submit the MWBE report from 60 days after NYSTRS fiscal year end to on or before December 31st after NYSTRS fiscal year end.	26-1	No Cost

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NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
BILL NO. 26-1

MEMORANDUM

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 of June 30th, the MWBE report is currently due on or before September 1st. The report submitted in September is preliminary and contains 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.

NOTE: This bill was prepared under the direction of the New York State Teachers' Retirement System Board and was introduced at its request.

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.

NOTE: This bill was prepared under the direction of the New York State Teachers' Retirement System Board and was introduced at its request.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM BILL NO. 26-1

AN ACT to amend the Education Law, Section 508-a subdivision 2(b) to change the date by which the New York State Teachers' Retirement System must submit the MWBE report from 60 days after NYSTRS fiscal year end 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 sixty days of fiscal year end."

"There would be no cost to the participating employers of the New York State Teachers' Retirement if this bill is enacted. There would be a reduction in administrative costs as it would eliminate the need for the preparation of both a preliminary draft report with estimated figures and a final report later in the year."

"Member data as of June 30, 2025, prepared for the most recent actuarial valuation is used in determining costs. The most recent data distributions and statistics can be found in the System's Annual Report for the fiscal year ended June 30, 2025. System assets are as reported in the System's financial statements which can be found in the System's Annual Report. This data can also be found in the System's Actuarial Valuation Report as of June 30, 2025."

"A summary of actuarial assumptions and methods will be provided in the System's Actuarial Valuation Report as of June 30, 2025. Further details can be found in the Recommended Actuarial Assumptions 2025 Report."

"We, the undersigned actuaries for the New York State Teachers' Retirement System, certify the following:

1. The actuarial assumptions, methods, and data used for the purposes of this fiscal note are reasonable, internally consistent and are in accordance with standards of practice prescribed by the Actuarial Standards Board and generally accepted actuarial principles and procedures.

2. We relied on member data supplied by the participating employers of the New York State Teachers' Retirement System and assets as supplied in the annual financial statements by NYSTRS' Finance Department.

3. Results were prepared based on our current understanding of the bill as of the date of this fiscal note. If the language or our understanding of the bill changes, the results could change and require the issuance of a new fiscal note. The next annual update of the actuarial valuation could also produce different results. Results should not be relied upon for any other purpose.

4. This fiscal note was prepared in accordance with New York State Retirement and Social Security Law, New York State Education Law, applicable Internal Revenue Code, and accepted actuarial standards of practice as of the date of this fiscal note. This fiscal note does not constitute a legal opinion on the viability of this legislative proposal.

5. We are members of the American Academy of Actuaries and the Society of Actuaries, and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. We are currently compliant with the Continuing Professional Development Requirement of the Society of Actuaries."

"This Fiscal Note numbered 2026-1 and dated September 30, 2025, was prepared by the Office of the Actuary of the New York State Teachers' Retirement System and is intended for use only during the 2026 Legislative Session."

New York State Teachers' Retirement System

10 Corporate Woods Drive
Albany, NY 12211-2395
800-348-7298
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2026

Executive Committee Meeting October 29, 2025

RESOLUTION APPROVING 2026 LEGISLATIVE PROGRAM

RESOLVED, That the 2026 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.

New York State Teachers' Retirement System

To:	**Retirement Board**
From:	**D. Ampansiri, Jr., M. Anderson**
CC:	**T. Lee**
Date:	**October 30, 2025**
Re:	**Amendments to the System's Rules and Regulations**

Chapter 21 of the Laws of 2024 amended the State Technology Law to require all state agencies to use gender neutral terminology on their websites for new or updated content. While the definition for covered entity, or "state agency", may not clearly and unequivocally include the System, staff recommends that we nonetheless honor the spirit and intent of same. Accordingly, staff proposes for Retirement Board approval of the following gender neutral amendments to the System's rules and regulations. A mark-up copy of the proposed amendments accompanies this memo for your consideration.

Amending the System's Rules and Regulations to be Gender Neutral

The proposed change would amend the rules and regulations to reflect gender neutral terminology. Specifically, all references to "he," "she," "his," and "her" have been replaced by gender neutral language such as "the member" or "them".

The proposed amendments also mirror and reflect existing NYSTRS practice with regards to correspondences, publications, website content and forms, including forms accessible through the website created by NYSTRS. Staff recommends an immediate effective date.

NYSTRS' Rules and Regulations
Overview
As amended through July 30, 2025

The Rules and Regulations found on this website have been promulgated by the New York State Teachers' Retirement System (the "System") and are the official rules and regulations of the System with the force of law in all legal proceedings. These Rules and Regulations have been adopted by the System's Retirement Board pursuant to enabling legislation in Article 11 of the Education Law, Articles 14 and 15 of the Retirement and Social Security Law and other statutes. The Rules and Regulations have been filed with the Secretary of State and are published in Title 21 Volume C of the Official Compilation, Codes, Rules and Regulations of the State of New York.

The System's Rules and Regulations are divided into a number of separate 'Parts', each of which addresses a specific topic. Each Part incorporates all relevant statutes and case law.

The following is a brief overview of the System's Rules and Regulations:

Membership: Part 5000 governs the general provisions relating to membership; Part 5006 provides the rules relating to cessation of membership; and Part 5008 governs the transfers of memberships between the various public retirement systems of New York State. In addition, Part 5025 governs the reinstatement of previous expired memberships in public retirement systems in certain cases; and Part 5026 contains rules governing admission of teachers in charter schools to membership in the System.

Benefits, Rights and Features: Part 5001 provides rules addressing eligibility for service credit and the computation of benefits; Part 5002 governs prior service; Part 5003 governs the Final Average Salary computation; Part 5009 addresses vesting and deferred retirement; Part 5020 governs disability retirement determinations; and Part 5024 contains the rules related to the accelerated death benefit. Part 5004 sets forth rules pertaining to loans, while Part 5007 addresses refunds of contributions. Part 5010 addresses employee contributions required of Tier 3 through 6 members.

Beneficiaries: At the time of retirement, System members are entitled to select from a number of different retirement options. These retirement options are described in detail in Part 5014. Also, Part 5011 establishes a group life insurance plan consistent with Internal Revenue Service ("IRS") rulings. Pursuant to §5011.5, the Group Life Insurance plan will exist so long as the favorable IRS rulings remain in effect. Part 5012 governs the creation of savings accounts for beneficiaries under a legal disability, and Part 5013 governs the designation of trusts as beneficiaries.

Actuarial Assumptions: The System is a *defined benefit* plan. In other words, benefits provided by the System are calculated on the basis of statutory formulas; for example, in the case of retirement benefits, the benefits are based upon (i) years of service credit and (ii) final average salary. Employer and employee contributions to the System are applied together with System investment earnings to fund the benefits paid by the System. Contributions are not allocated to individual members such as in a 401(k) plan. The required level of employer contributions is determined annually based upon an actuarial valuation. This actuarial valuation projects future member benefits utilizing actuarial assumptions, such as the valuation rate of interest, rates of salary increase, and mortality. These assumptions are set forth in Part 5018.

Additionally, the calculation of certain benefits requires the use of actuarial assumptions, including those with respect to life expectancies of members and their beneficiaries.

Miscellaneous: Other topics (duties of employers) are covered in Part 5015 ; Part 5016 governs the election of delegates to the System's annual meeting; Part 5017 governs the amendment of the Rules and Regulations; Part 5019 provides the rules relating to requests for information under the Freedom of Information Law; Part 5021 governs the election of the retired teacher Retirement Board member; Part 5022 sets forth the rules relating to direct rollover of certain benefit distributions; Part 5023 governs the employment of System retirees; and Part 5029 sets forth the rules relating to the use of electronic signatures and the filing of documents.

NEW YORK STATE

TEACHERS' RETIREMENT SYSTEM

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PART 5000

MEMBERSHIP

(Statutory authority: Education Law, §§501 [subd. 3 & 4], 503)

Section
5000.1 General provisions
5000.2 Definitions

Section 5000.1 GENERAL PROVISIONS.

(a) All applications for membership, retirement, optional selections, loans, refunds, military service credit, prior service credit, transfer, and designation of beneficiary shall be made on appropriate forms to be furnished by the System and must be received at the System's office to be effective. Provided, however, whenever a statute requires that a document must be filed or moneys deposited with the System within a prescribed period of time or by a specified date in order for a member to be eligible for service credit or a benefit from the System, the document shall be deemed filed or the moneys deposited with the System on the day they are mailed either through (i) the United States Postal Service, provided the mailing is by registered or certified mail, or (ii) such other equivalent postal mail service specifically permitted by the System, provided a tracking service confirms and produces in writing a date of mailing.

Notwithstanding these provisions, no such document shall be deemed filed or moneys deposited with the System on the mailing date unless actually received by the System as the result of such mailing.

(b) All regularly employed (on a per annum basis) full-time teachers, as provided in subdivision 4 of Section 501 of the Education Law shall be required to become members of the System.

(c) Membership in the System as set forth in (b) of this Section shall become effective when full-time employment commences whether or not application for membership is made.

(d) Membership shall be optional on an individual basis for any class of teachers, as provided in subdivision 4 of Section 501 of the Education Law, whose compensation is only partly paid by the employer or who are serving on a temporary or any other than a per annum basis.

(e) Commencing July 1, 2004, membership which is optional pursuant to (d) of this Section shall commence on the earlier of

(1) the first day of a month during which a membership application is notarized, provided the individual has rendered teaching service during that month and the membership application is filed within a reasonable time after it has been notarized, or

(2) the first day of a month during which the individual renders teaching service eligible for membership pursuant to (d) of this Section on which the employer has withheld member contributions mandated pursuant to Section 613 of the Retirement and Social Security Law, provided such service has been reported by the employer to the System.

(f) Notwithstanding any provision of this plan to the contrary, contributions, benefits and service credit with respect to qualified military service will be provided in accordance with Section 414(u) of the Internal Revenue Code of 1986, as amended. Effective for deaths occurring on or after January 1, 2007, if a member dies while performing qualified military service as defined in Section 414(u) of the Internal Revenue Code of 1986, the survivors of the member shall be entitled to any additional benefits as determined under Section 401(a)(37) of

the Internal Revenue Code of 1986 provided under the System had the member resumed their prior employment with an employer that maintains the System and then terminated employment on account of death, and service for vesting purposes shall be credited to such deceased member for the period of their qualified military service. For purposes of (f) of this section, the term "additional benefits" shall not include benefit accruals relating to the period of qualified military service.

(g) Commencing July 1, 2013, employee contributions for a Tier 6 member who has been granted a retroactive mandatory membership shall have the rate of contribution determined by the actual wages earned by such Tier 6 member during the plan years affected by the mandatory membership.

(h) The System intends to satisfy Section 401(a) of the Internal Revenue Code by meeting the requirements of Section 414(d) of the Internal Revenue Code relating to the establishment of retirement plans for governmental employees of a state or political subdivision thereof.

(i) Notwithstanding any other provision of law, no funds of the System shall be expended for any purpose other than the expense of administration of the System, investments for the benefit of the System, and the provision of benefits to the members and retired members of the System and their survivors and beneficiaries; provided, however, that reversions will be permitted only to the extent allowed under the Internal Revenue Code and any related guidance thereunder, including, but not limited to, a mistake of fact as permitted under Internal Revenue Ruling 91-4, or other applicable guidance.

Section 5000.2 DEFINITIONS. As used in this Chapter:

(a) “System” or “Retirement System” shall mean the New York State Teachers’

Retirement System.

(b) "Plan year" shall mean the fiscal year of the System of July 1 – June 30.

(c) "Tier 1 member" shall mean a member of the System with a date of membership prior to July 1, 1973, whose benefits are determined pursuant to the provisions of Article 11 of the Education Law.

(d) "Tier 2 member" shall mean a member of the System with a date of membership on or after July 1, 1973, but before July 27, 1976, whose benefits are determined pursuant to the provisions of Article 11 of the Education Law subject to the provisions of Article 11 of the Retirement and Social Security Law.

(e) "Tier 3 member" shall mean a member of the System with a date of membership on or after July 27, 1976, but before September 1, 1983, whose benefits are determined pursuant to the provisions of Article 14 of the Retirement and Social Security Law.

(f) "Tier 4 member" shall mean a member of the System with a date of membership on or after September 1, 1983, but before January 1, 2010, whose benefits are governed by the provisions of Article 15 of the Retirement and Social Security Law.

(g) "Tier 5 member" shall mean a member of the System with a date of membership on or after January 1, 2010, but before April 1, 2012, whose benefits are determined pursuant to the provisions of Article 15 of the Retirement and Social Security Law as amended by Chapter 504 of the Laws of 2009.

(h) "Tier 6 member" shall mean a member of the System with a date of membership on or after April 1, 2012, whose benefits are determined pursuant to the provisions of Article 15 of the Retirement and Social Security Law as amended by Chapter

18 of the Laws of 2012.

(i) “Dependent parent”, for the purposes of the accidental death benefits provided for under Education Law Section 512 and Retirement and Social Security Law Sections 509 and 607 which in certain specified situations may be payable to the dependent father or dependent mother of a deceased beneficiary, dependent father and dependent mother, respectively, shall mean a parent, father and mother who have been claimed as a dependent on the deceased member's final Federal income tax return or the Federal income tax return filed in the taxable year immediately preceding the year of the member's death. However, an individual shall not be considered either a dependent parent, dependent father or a dependent mother where the Internal Revenue Service has disallowed the deceased member's claim that he or she is a dependent parent.

PART 5001

SERVICE CREDIT

(Statutory authority: Education Law, §§501 [subd. 11, 19]; 503 [subd. 3]; 509; 511-a [subd. 3]; Retirement and Social Security Law, §§446 [subd. d, e]; 513 [subd. d, e]; 609 [subd. d, e]; 1000)

Section

5001.1 Definitions as used in this Part
5001.2 General
5001.3 Leaves of absence
5001.4 Twenty-year service requirement, retention of membership, and in-service requirement
5001.5 Minimum compensation rate
5001.6 Service credit for members of the Retirement Board who have been elected by the membership of the System
5001.7 Credit for military service rendered during periods of military conflict
5001.8 Determination of attainment of 10 years of credited service for the purposes of cessation of regular 3 percent contributions of a Tier 3 or Tier 4 member

Section 5001.1 DEFINITIONS AS USED IN THIS PART.

(a) School year. A school year (July 1 - June 30) shall be deemed one year for the purposes of service credit. However, a teacher will be entitled to one year of service credit where such teacher has been in the employ of a public school district for the full period the schools are required by law to be in session. No teacher will be entitled to more than one year's credit in any one school year.

(b) Employment base. The employment base for a given school year is the number of days a member will be employed during the year according to the terms of their agreement with the school district. The employment base shall in no case be less than 200 days.

(c) Annualized contract salary. Annualized contract salary for a member who is employed full time (the teacher is on a per annum contract and is required to work the

entire regular daily school session) is the full-time annual rate of compensation of a member for their regular teaching duties (department chairman salary included) or, for a member employed less than full time, the salary the member would receive if they were employed on a full-time basis. All other moneys, such as for coaching, night school, termination pay, etc., are not considered part of the contract salary. The annualized contract salary of a part-time SUNY or a part-time community college faculty member shall be the campus minimum for the particular full-time professional category in which the faculty member is employed. In the case of a part-time SUNY or a part-time community college faculty member who is employed on other than a per hour or per diem basis, if the annual salary which the faculty member would receive had they been employed on a full-time basis is no less than the campus minimum for the professional category in which such faculty member is employed, they are allowed the benefit of that full-time equivalent as an annualized contract salary.

(d) Termination pay. Termination pay is any payment received in anticipation of the termination of a member's employment, for any reason, or any payment for accrued sick leave, annual leave, deferred compensation, or other credits for time not worked.

(e) Salary received. Salary received is the total of all salary legally paid to a teacher, for all teaching duties.

(f) Salary earned. Salary earned is the total of all salary earned by a teacher for all teaching duties rendered during a school year, exclusive of termination pay.

(g) Service credit. Service credit earned in a given school year shall be determined as follows:

$$\frac{\text{Salary earned}}{\text{Annualized contract salary adjusted to the lower full day.}} \times \text{Employment base} = \text{Days of service credit}$$

(h) Anything in this Part 5001 to the contrary notwithstanding, commencing July 1, 2004,

(1) the number of days of service credit earned in a given school year shall not be determined pursuant to (g) above but shall be determined using the actual number of paid days (or parts thereof) of service a teacher worked as a member and days of leave as determined pursuant to Section 5001.3 hereof; and,

(2) the term "annual base pay rate" shall be substituted for the term "annualized contract salary" wherever it appears in this Part 5001.

Section 5001.2 GENERAL. Credit for service shall be granted as follows in computing benefits:

(a) No credit shall be given for less than 20 days of service in a school year.

(b) One day shall be the length of the school district's regular session, but, with the exception of SUNY and community college faculty members, in no event less than five hours. Anything in the foregoing notwithstanding, effective for service rendered on or after July 1, 1993, where the length of the full-time workday established for teaching assistants employed by a school district is less than the length of the school district's regular session, but is at least six hours, one day for the purposes of determining the annualized contract salary of members who are employed as teaching assistants by such district on other than a full-time per annum basis shall be the length of such full-time workday.

(c) Twenty days shall equal one month.

(d) Credit for more than 20 days shall be computed as follows:

20 to 29 days	= 1 month
30 to 49 days	= 2 months
50 to 69 days	= 3 months

70 to 89 days	= 4 months
90 to 109 days	= 5 months
110 to 129 days	= 6 months
130 to 149 days	= 7 months
150 to 169 days	= 8 months
170 and above	= 1 year

Section 5001.3 LEAVES OF ABSENCE.

(a) A member who is on a leave of absence and earning at least half pay for the period of their leave may be granted full service credit, or, service credit at half the full rate, whichever is more beneficial.

(b) A member who is on a leave of absence and earning less than half pay for the period of their leave may be granted a fraction of the rate of service credit allowable to members on leave at half pay, and such fraction shall be the fraction of half pay which the member earned while on their leave.

Section 5001.4 TWENTY-YEAR SERVICE REQUIREMENT, RETENTION OF MEMBERSHIP, AND IN-SERVICE REQUIREMENT.

(a) Twenty days of service rendered in any school year on and after July 1, 1968 shall entitle the member to one year of service credit in satisfaction of the 20-year service requirement of Section 511-a of the Education Law and in satisfaction of the service requirement for retention of membership under subdivision 3 of Section 503 of the Education Law.

(b) For purposes of satisfying the requirement of subdivision 3 of Section 511-a of the Education Law that a member attain age 55 or over while in service, a member shall be considered to be in service if they were employed for 20 days during the semester in which they attained age 55 or over, or for 20 days in the preceding semester.

Section 5001.5 MINIMUM COMPENSATION RATE. The Retirement Board shall exclude as a basis for service credit, or as a basis for eligibility for benefit, or as a basis for membership in the System, any service rendered at a compensation rate less than that established by law.

Section 5001.6 SERVICE CREDIT FOR MEMBERS OF THE RETIREMENT BOARD WHO HAVE BEEN ELECTED BY THE MEMBERSHIP OF THE SYSTEM. Each member of the Retirement Board who has been elected by the membership of the Retirement System and has been granted a leave of absence, pursuant to subdivision 6 of Section 506 of the Education Law, shall receive a year of service credit for each year of service on the Retirement Board, or where such service is less than one year, credit shall be granted in accordance with Section 5001.2.

Section 5001.7 CREDIT FOR MILITARY SERVICE RENDERED DURING PERIODS OF MILITARY CONFLICT.

(a) This Section implements Section 1000 of the Retirement and Social Security Law providing for retirement credit for military service rendered by members and eligible retired members during periods of military conflict.

(b) No claim for retirement credit under Section 1000 shall be deemed filed with the System until the member or retiree of the System has filed a Certificate of Release or Discharge from Active Duty, officially DD Form 214, generally referred to as a "DD-214" or equivalent documentation with respect to the military service being claimed. However, a member or retiree shall be deemed to have filed a claim for retirement credit as of the effective date of Section 1000 if such member or retiree has on file with the System on the effective date of Section 1000 a DD-214 or equivalent documentation which covers the military service for which retirement credit may be granted under Section 1000.

(c) For purposes of determining the cost to be paid by the eligible member for such credit, the "member's compensation earned during the 12 months of credited service immediately preceding the date the member made application for credit" shall be the compensation earned by the member during the plan year(s) during which the member most recently earned one year of credited service, beginning with the plan year last ending immediately prior to the date on which the member filed their application for military service credit and working backwards from the end of such plan year. In the case of a retiree eligible to obtain military credit under Section 1000, "the twelve month period immediately preceding retirement" shall be the period during which the member last accrued one year of credited service beginning from the plan year last ending immediately prior to the member's date of retirement and working backwards from the end of such plan year. "Compensation" for purposes of Section 1000 shall be salary earned as defined in Section 5001.1(f).

(d) An eligible member or retiree shall pay the cost of retirement credit no later than the end of the plan year following the plan year in which the System bills the member for such cost. Otherwise, the application for retirement credit shall be deemed to have been abandoned and such member or retiree shall request updated costs to obtain credit for such service.

(e) In the event a member is not able to benefit from any retirement credit purchased pursuant to Section 1000, the cost for such credit shall be refunded to such member at retirement or death with interest at the rate of 5 percent per annum. SECTION 5001.8 DETERMINATION OF ATTAINMENT OF 10 YEARS OF CREDITED SERVICE FOR THE PURPOSES OF CESSATION OF REGULAR 3 PERCENT CONTRIBUTIONS OF A TIER 3 OR TIER 4 MEMBER.

(a) This Section implements Article 19 of the Retirement and Social Security Law, as amended by Chapter 110 of the Laws of 2000, with respect to the cessation of regular 3 percent member contributions by a Tier 3 or Tier 4 member by prescribing how the System shall determine when members have attained 10 years of credited service in cases where members are eligible to purchase credit for prior service.

(b) Subject to (c) and (d) of this Section, no prior service may be taken into account for the purposes of Article 19 unless and until it has been paid for by the member.

(c) If, at the beginning of a plan year, a member has prior service which, together with the service credited to the member as of the beginning of such plan year, would give the member at least 10 years of credited service, the member shall be deemed to have attained 10 years of credited service as of the beginning of such plan year, provided the member shall have claimed and paid for such prior service no later than the end (June 30th) of such plan year. For example, a member has eight years of credited service at the beginning of a plan year and has the right to purchase up to three years of credit for prior service. If the member claims and pays for at least two years of credit for prior service by the end of the plan year, the member will be deemed to have attained 10 years of credited service at the beginning of the plan year. If the member fails to claim and pay for at least two years of prior service by the end of the plan year, the foregoing rule will not apply.

(d) If, at the beginning of a plan year, a member has prior service which, together with the service already credited to the member at the beginning of a plan year and any service credited to the member during such plan year, would give the member 10 years of credited service at a point in time during such plan year, the member shall be

deemed to have attained 10 years of credited service at such point in time during such plan year, provided the member shall have claimed and paid for such prior service no later than the end (June 30th) of such plan year. For example, a member has eight years and five months of credited service at the beginning of a plan year and has the right to purchase up to three years of credit for prior service. The member renders a full year of credited service during the plan year. The member claims and pays for one year of credit for prior service by the end of the plan year. The member will be deemed to have attained 10 years of credited service at the point in the plan year when the member rendered four months of credited service for that plan year.

PART 5002

CREDIT FOR PRIOR/PREVIOUS SERVICE

(Statutory authority: Education Law, §509; Retirement and Social Security Law, §§446, 513, 609; Chapter 769 of the Laws of 1975)

Section

5002.1 Prior/previous service credit under Section 509 of the Education Law or Sections 446, 513 and 609 of the Retirement and Social Security Law
5002.2 Special rules and regulations for Tier 2 members interpreting subdivision b of Section 446 of the Retirement and Social Security Law
5002.3 Payment for previous service for Tier 3 members who are eligible to purchase such service
5002.4 Payment for previous service for Tier 4 members who are eligible to purchase such service
5002.5 Method of payment
5002.6 Credit for prior service as a Comprehensive Employment and Training Act (CETA) employee
5002.7 Payment for previous service for Tier 5 members who are eligible to purchase such service
5002.8 Payment for previous service for Tier 6 who are eligible to purchase such service

Section 5002.1 PRIOR/PREVIOUS SERVICE CREDIT UNDER SECTION 509 OF THE EDUCATION LAW OR SECTIONS 446, 513 AND 609 OF THE RETIREMENT AND SOCIAL SECURITY LAW. In order to secure credit for prior/previous service as set forth in Section 509 of the Education Law or Sections 446, 513 or 609 of the Retirement and Social Security Law, the following requirements must be met:

(a) The member must file a valid claim form with the System.

(b) The member must have rendered and been credited with the appropriate minimum service required by Section 509 of the Education Law or Sections 446, 513 or 609 of the Retirement and Social Security Law, whichever is applicable.

(c) The member must secure verification satisfactory to the System.

(d) For those members joining on and after April 24, 1962, the System must receive certification that the member is not now receiving or will not in the future receive a benefit from another retirement system for the service.

(e) The member must forward the appropriate payment to the System and said payment must be received by the System (i) prior to the member's death or (ii) prior to the date of termination due to insufficient service within a seven year period.

(f) Except as permitted pursuant to Section 802 of the Retirement and Social Security Law, no credit shall be allowed for service which has been credited in any retirement system if the member, on or after April 30, 1963, withdraws their contributions to such retirement system and terminates their membership therein during the period in which their membership in such other system would have been valid and, because of such withdrawal or termination, transfer of such credit from such other retirement system cannot be made to the System pursuant to Section 522 of the Education Law. The foregoing restriction shall not apply to members who retire under Articles 11, 14 or 15 of the Retirement and Social Security Law on or after October 27, 1994. Section 5002.2 SPECIAL RULES AND REGULATIONS FOR TIER 2 MEMBERS INTERPRETING SUBDIVISION B OF SECTION 446 OF THE RETIREMENT AND SOCIAL SECURITY LAW.

(a) Credit for service which predates the date of entry into the System may be granted without the member being required to render a minimum of five years of credited service after July 1, 1973, provided such service is otherwise creditable, and either:

(1) was rendered by an employee during which employment they became a member of the System; or,

(2) was rendered by an employee during which employment they were ineligible to join a public retirement system.

(b) Service rendered by an employee during which employment they became a member of the System shall be defined as follows:

(1) Previous service which was rendered by an employee during which employment they became a member of the System shall mean continuous employment with the same employer during which they joined the System.

(2) Previous service as an itinerant substitute teacher on a day-to-day basis shall be considered as separate employment for each day of such service.

Section 5002.3 PAYMENT FOR PREVIOUS SERVICE FOR TIER 3 MEMBERS WHO ARE ELIGIBLE TO PURCHASE SUCH SERVICE.

(a) The amount of money to be paid for previous service which was originally credited under a Tier 1 or Tier 2 membership shall be 3 percent of wages earned for such service.

(b) The amount of money to be paid for previous service which was originally credited under a Tier 3 membership shall be 3 percent of wages earned for such service, together with interest from the date of such service through the date of payment at the rate of 5 percent per annum compounded annually.

(c) The amount of money to be paid for previous service which was not previously credited in a public retirement system in New York State which predates the entry in the Retirement System, pursuant to subdivision b of Section 513 of the Retirement and Social Security Law, shall be 3 percent of wages earned for such service.

Section 5002.4 PAYMENT FOR PREVIOUS SERVICE FOR TIER 4 MEMBERS WHO ARE ELIGIBLE TO PURCHASE SUCH SERVICE.

(a) The amount of money to be paid for previous service which was originally credited under a Tier 1 or Tier 2 membership shall be as follows:

(1) Three percent of the wages earned for service rendered prior to July 27, 1976, together with interest from July 27, 1976 through the date of payment at the rate of 5 percent per annum compounded annually;

(2) Three percent of the wages earned for service rendered on and after July 27, 1976, together with interest at the rate of 5 percent per annum compounded annually from the date of such service through the date of payment.

(b) The amount of money to be paid for previous service which was originally rendered and credited under a Tier 3 or Tier 4 membership shall be 3 percent of the wages earned together with interest at the rate of 5 percent per annum compounded annually from the date of such service through the date of payment.

(c) The amount of money to be paid for previous service which predates the entry in the Retirement System, pursuant to subdivision b of Section 609 of the Retirement and Social Security Law, shall be 3 percent of the wages earned together with interest at the rate of 5 percent per annum compounded annually from the date of such service through the date of payment.

Section 5002.5 METHOD OF PAYMENT. Payments for prior/previous service must be made in multiples of one year except when less than one year of service has been rendered during the year claimed. Under no circumstances will credit for prior/previous service be granted until payment is made.

Section 5002.6 CREDIT FOR PRIOR SERVICE AS A COMPREHENSIVE EMPLOYMENT AND TRAINING ACT (CETA) EMPLOYEE. Any person who, on or after September 1, 1975, was employed in transitional public employment service as defined in Section one of Chapter 769 of the Laws of 1975, in a position which, except for the exclusion from membership contained in Section two of that Chapter, would have been creditable in this System, and who, within 90 days of termination of service in such position, renders five years or more of service in another position pursuant to which such person becomes a member of this System and for which service credit is granted in this System, may obtain up to four years of credit for such period of transitional public employment service, provided that:

(a) the member makes application to the System for credit within one year after completion of such five years of creditable service; and,

(b) the member secures verification satisfactory to the System; and,

(c) the member and the employer for whom the member rendered transitional public employment service make the required payments no later than one year from the date the member makes application for the service credit; provided, however, that such employer or member may elect to deposit such amounts as may be necessary over a period of time no greater than the period for which credit is being claimed. If the full amount of such payments is not made, the amount of service credited shall be proportional to the total amount of the payments made.

Section 5002.7 PAYMENT FOR PREVIOUS SERVICE FOR TIER 5 MEMBERS WHO ARE ELIGIBLE TO PURCHASE SUCH SERVICE. The amount of money to be paid for previous service which predates the member's date of membership in the case of Tier 5 members shall be 3.5 percent of wages earned together with interest at the rate of 5

percent per annum compounded annually from the date of such service through the date of payment.

Section 5002.8 PAYMENT FOR PREVIOUS SERVICE FOR TIER 6 MEMBERS WHO ARE ELIGIBLE TO PURCHASE SUCH SERVICE. The amount of money to be paid for previous service which predates the member's date of membership in the case of Tier 6 members shall be 6 percent of wages earned together with interest at the rate of 5 percent per annum compounded annually from the date of such service through the date of payment.

PART 5003

COMPUTATION OF FINAL AVERAGE SALARY

(Statutory authority: Education Law, §§501, 3602; Retirement and Social Security Law, §§431, 443, 501, 512, 601, 608)

Section

5003.1 Three-year final average salary for members with a date of membership prior to July 1, 1976
5003.2 Five-year final average salary for Tier 1 members
5003.3 Salaries for elected members of the Retirement Board while on leave of absence during service on the Retirement Board
5003.4 Final average salary for members with a date of membership on or after July 1, 1976 and prior to April 1, 2012
5003.5 Moneys paid pursuant to the Excellence In Teaching Program
5003.6 Final average salary for Tier 6 members

Section 5003.1 THREE-YEAR FINAL AVERAGE SALARY FOR MEMBERS WITH A DATE OF MEMBERSHIP PRIOR TO JULY 1, 1976. A three-year final average salary is defined as the highest average annual regular salary earned by a member over a period covering three consecutive years of New York State service credit. Regular salary earned shall exclude termination pay and payments which are not part of the salary base and/or are not paid over a period of years; for example, bonuses and one-time-only increments. It shall also exclude any earnings in excess of 120 percent of the earnings for the preceding year of service credit (the preceding two years of service credit for those members with a date of membership on and after July 1, 1973 and before July 1, 1976), after such earnings have been adjusted to exclude the termination pay.

If the member has fewer than three years of service credit, then their final average salary shall be computed over the actual period of service.

Section 5003.2 FIVE-YEAR FINAL AVERAGE SALARY FOR TIER 1 MEMBERS.

(a) A five-year final average salary is defined as the highest average annual salary earned by a member over a period covering five consecutive years of New York State service credit.

(b) In the case of members who joined the System prior to June 17, 1971, termination pay, provided it constitutes compensation earned as a teacher, is includable in the computation of final average salary.

(c) In the case of members with a date of membership on or after June 17, 1971, salary earned shall exclude termination pay and any earnings in excess of 120 percent of the earnings for the preceding year of service credit. (Termination pay as defined in Section 5001.1(d) of this Chapter.)

(d) If the member has fewer than five years of service credit, then their final average salary shall be computed over the actual period of service.

(e) Any member of the System who is a discontinued member under the provisions of the Optional Retirement Program, and who became such a discontinued member prior to July 1, 1969, is restricted to a five-year computation of their final average salary.

(f) The five-year final average salary is not applicable to those members with a date of membership on and after July 1, 1973.

Section 5003.3 SALARIES FOR ELECTED MEMBERS OF THE RETIREMENT BOARD WHILE ON LEAVE OF ABSENCE DURING SERVICE ON THE RETIREMENT BOARD. A member of the System who has been elected to the Retirement Board and who has been granted a leave of absence to serve on the Board, pursuant to subdivision 6 of Section 506 of the Education Law, shall be entitled to use the salaries earned, as reported in Section

5015.2 of this Chapter, in the calculation of final average salary so long as they meet all the other requirements as specified in Sections 5003.1 and 5003.2 of this Part.

Section 5003.4 FINAL AVERAGE SALARY FOR MEMBERS WITH A DATE OF MEMBERSHIP ON OR AFTER JULY 1, 1976 AND PRIOR TO APRIL 1, 2012.

(a) A member's final average salary shall be the average wages earned by such a member during any three consecutive years of New York State service credit which provide the highest average wage; provided, however, if the wages earned during any year included in the period used to determine final average salary exceeds that of the average of the previous two years by more than 10 percent, the amount in excess of 10 percent shall be excluded from the computation of final average salary. Where the period used to determine final average salary is the period which immediately precedes the date of retirement, any month or months (not in excess of 12) which would otherwise be included in computing final average salary, but during which the member was on authorized leave of absence at partial pay or without pay shall be excluded from the computation of final average salary and the month or an equal number of months immediately preceding such period shall be substituted in lieu thereof.

(b) Wages shall mean regular compensation earned by and paid to a member by a public employer.

Section 5003.5 MONEYS PAID PURSUANT TO THE EXCELLENCE IN TEACHING PROGRAM. All moneys paid to a member pursuant to the Excellence In Teaching Program as provided in the former subdivision 27 of Section 3602 of the Education Law, which are not paid as termination pay or otherwise in anticipation of retirement shall be deemed regular compensation for purposes of computing the member's final average salary.

Section 5003.6 FINAL AVERAGE SALARY FOR TIER 6 MEMBERS.

(a) A member's final average salary shall be the average wages earned by such a member during any five consecutive years of New York State service credit which provide the highest average wage; provided, however, if the wages earned during any year included in the period used to determine final average salary exceeds that of the average of the previous four years by more than 10 percent, the amount in excess of 10 percent shall be excluded from the computation of final average salary. Where the period used to determine final average salary is the period which immediately precedes the date of retirement, any month or months (not in excess of 12) which would otherwise be included in computing final average salary, but during which the member was on authorized leave of absence at partial pay or without pay shall be excluded from the computation of final average salary and the month or an equal number of months immediately preceding such period shall be substituted in lieu thereof.

(b) Wages shall mean regular compensation earned by and paid to a member by a public employer. Wages paid during a school year in excess of the annual salary paid to the Governor pursuant to Section three of Article IV of the New York Constitution and wages paid by any one or more employers other than the two employers paying the highest wages during a school year shall be excluded from the calculation of the member's final average salary.

PART 5004

LOANS

(Statutory authority: Education Law, §512-b; Retirement and Social Security Law, §§517-b, 613-a)

Section
5004.1 General requirements for all loans
5004.2 Additional eligibility requirements for Tier 1 and Tier 2 members
5004.3 Additional eligibility requirements for Tier 3 through 6 members
5004.4 Repayment of loans
5004.5 Interest on loans
5004.6 Insurance on loans
5004.7 Charges
5004.8 The effect on unpaid loans of death, retirement, withdrawal or transfer to another retirement system for Tier 1 and Tier 2 members
5004.9 The effect on unpaid loans of death, retirement, withdrawal or transfer to another retirement system for Tier 3 through 6 members
5004.10 Loan default
5004.11 Executive Director's authority
5004.12 Loan repayments during periods of military service

Section 5004.1 GENERAL REQUIREMENTS FOR ALL LOANS.

(a) All applications for loans shall be made on forms approved and provided by the System.

(b) Any member who is credited with at least one year of service may apply for a loan.

(c) The unpaid balance of any defaulted loan must be fully repaid.

(d) Nothing in this Part 5004 shall authorize or require the System to make a loan which is not permitted under the applicable provisions of the Internal Revenue Code.

Section 5004.2 ADDITIONAL ELIGIBILITY REQUIREMENTS FOR TIER 1 AND TIER 2 MEMBERS.

(a) Members must not have previously received a loan during the semi-annual period (January 1 - June 30 or July 1 - December 31, as applicable) in which the loan is to be issued. A member must apply by June 15 in order to assure the loan is issued by June 30 and must apply by December 15 in order to assure the loan is issued by December 31.

(b) A loan shall be at least three hundred dollars ($300.00) and, together with any outstanding loan balance, shall not exceed 75 percent of the member's accumulated contributions. To the extent that the loan satisfies the requirements of Section 72(p) of the Internal Revenue Code except that the amount loaned exceeds the limitations of Section 72(p)(2)(A) of the Internal Revenue Code, the amount of the loan in excess of the limitations of Section 72(p)(2)(A) shall be treated as a deemed distribution for Federal income tax purposes at the time the loan is made in accordance with Treasury Regulation Section 1.72(p)-1, Q&A-4 and Q&A-12.

Section 5004.3 ADDITIONAL ELIGIBILITY REQUIREMENTS FOR TIER 3 THROUGH 6 MEMBERS.

(a) Members must not have previously received a loan during the calendar year (January 1 - December 31) in which the loan is to be issued. A member must apply by December 15 in order to assure the loan is issued by December 31.

(b) For members with a date of membership prior to July 1, 2022, a loan shall be at least one thousand dollars ($1000.00) and, together with any outstanding loan balance, shall not exceed 75 percent of the member's total contribution balance.

(c) For members who first join the System on or after July 1, 2022, a loan shall be at least one thousand dollars ($1000.00), and, together with any outstanding loan

balance, shall not exceed 50 percent of the member's total contribution balance or $50,000, whichever is less.

(d) To the extent that the loan satisfies the requirements of Section 72(p) of the Internal Revenue Code except that the amount loaned exceeds the limitations of Section 72(p)(2)(A) of the Internal Revenue Code, the amount of the loan in excess of the limitations of Section 72(p)(2)(A) shall be treated as a deemed distribution for Federal income tax purposes at the time the loan is made in accordance with Treasury Regulation Section 1.72(p)-1, Q&A-4 and Q&A-12.

Section 5004.4 REPAYMENT OF LOANS.

(a) Loans may be repaid by one of two methods.

(1) Direct repayment - the member sends payment directly to the System. This method shall be used in the case of members who are not in service or are on an unpaid leave of absence or for whom the employer is unable to deduct the full amount of the loan payment from the member's compensation.

(2) Payroll deduction repayment - the member's full loan payment is automatically deducted from the member's compensation by the employer. This method shall be used in the case of members who are in service unless the employer is unable to deduct the full amount of the loan payment from the member's compensation.

(b) The amount borrowed, together with interest and insurance premiums on any unpaid balance thereof, shall be repaid in equal payments.

(c) Payment shall be made monthly on a 10-month basis, September to June of each regular school year.

(d) Payments may be in such amount as the member elects; however, payments shall be at an annual rate of at least 2 percent of the member's contract salary and sufficient to repay the amount borrowed, together with interest and insurance premiums on unpaid balances thereof, within a period not in excess of five years.

(e) Notwithstanding (d), the loan repayment period for Tier 1 and Tier 2 members may exceed five years if the member makes a written request for a longer repayment period. Tier 1 and Tier 2 members must also make payments in an amount sufficient to repay the amount borrowed, together with interest and insurance premiums on the unpaid balance thereof, within a period not in excess of 30 years.

(f) In the event a member is on leave of absence without pay or not in service and wishes to secure a loan, the last working year's contract salary shall be used to determine the amount of repayment. In the event the member was employed on other than a per annum basis, the member's annualized contract salary as defined in Section 5001.1(c) shall be deemed to be the member's contract salary.

(g) The System, at any time, may in its discretion accept additional payments on a loan from a member who is otherwise current and such payments will be considered a pre-payment.

Pre-payments may be made in one of two methods:

(1) An additional payment in an exact multiple installment amount will be applied to succeeding installments of the loan to advance the loan due date, unless the member provides express instructions that such additional payments be applied to the principal of the loan.

(2) An additional payment in less than the exact multiple installment amount will

first be applied to any outstanding interest and insurance accrued, with the remainder being applied to the principal of the loan, unless the member provides express instructions otherwise.

(h) If the last payment on a loan is ten dollars ($10.00) or more in excess of that required to fully repay the loan, the amount in excess shall be refunded to the member.

(i) In the event that the member has failed to pay a loan payment in full when due, any payment thereafter received from the member shall be applied first to the loan payment which has not been paid in full before being applied to any subsequent loan payments. If a payment is insufficient to pay an outstanding installment in full, the payment shall be applied in the following order: first to the interest portion, then the insurance portion, and finally the principal portion of the outstanding installment. In the event that more than one loan payment has not been paid in full, any payment thereafter received from the member shall first be applied to the earliest outstanding installment until it is paid in full.

Section 5004.5 INTEREST ON LOANS.

(a) For Tier 1 and Tier 2 members, the rate of interest payable on loans shall be at the rate of 5 percent per annum. Any increase or decrease in the interest rate shall apply, from the effective date thereof, to unpaid balances of loans outstanding on such date and to new loans made thereafter.

(b) For Tier 3 through 6 members, the rate of interest payable on loans shall be 1 percent less than regular interest pursuant to Education Law Section 501(9)(b); however, in no event shall the rate be less than set forth in Retirement and Social Security Law Sections 517(c) or 613(c). Whenever there is a change in the interest rate it shall be applicable to loans made or renegotiated after the date of such change in the interest rate.

Effective July 1, 1991, for Tier 3 through 6 members, the rate of interest payable on loans shall be at the rate of 7 percent per annum. Effective July 1, 2016, for Tier 3 through 6 members, the rate of interest payable on loans shall be at the rate of 6.50 percent per annum. Effective July 1, 2018, for Tier 3 through 6 members, the rate of interest payable on loans shall be at the rate of 6.25 percent per annum. Effective July 1, 2020, for Tier 3 through 6 members, the rate of interest payable on loans shall be at the rate of 6.1 percent per annum. Effective July 1, 2022, for Tier 3 through 6 members, the rate of interest payable on loans shall be at the rate of 5.95 percent per annum.

(1) When a Tier 3 through 6 member transfers to this System from another public retirement system with an outstanding loan from that system, the loan will be reestablished in this System, using the rate of interest in effect in this System on the date the loan was originally issued in the other public retirement system.

(2) When a Tier 3 through 6 member of this System who has an outstanding loan, transfers a Tier 3 through 6 membership from another public retirement system bringing an outstanding loan balance from the other system, the two loans will be combined and reestablished using the rate of interest applicable to the loan which was originally issued from this System.

Section 5004.6 INSURANCE ON LOANS.

(a) Each loan not in default shall be insured against the death of the member in an amount equal to the amount of the loan outstanding at any given time except there will be no insurance for the first 30 days.

(b) The loan insurance coverage for an additional loan obtained while there is an outstanding balance on a loan shall be administered as follows:

(1) The balance of the old loan shall be considered to be fully insured at the new loan issuance date;

(c) In cases of death where payments have been made on the new loan within 30 days after the loan issuance date, the payments shall be prorated between the old balance and the amount of the new loan. Insurance shall be provided through the Retirement System Insurance Fund.

(d) Upon the death of a member, the amount of insurance payable shall be credited to their loan account. The loan insurance premium shall be at a rate of .10 percent per annum of the outstanding loan balance.

(e) The Retirement Board on any July 1 may increase or reduce the premium, modify the terms or conditions of coverage, or discontinue the insurance of loans.

Section 5004.7 CHARGES.

(a) A service charge payable upon loans shall be set by the Retirement Board in an amount sufficient to cover the cost of administering the loan and it shall be a minimum of thirty dollars ($30.00).

(1) The System will review the service charge payable upon loans on a five year basis and make a recommendation to the Retirement Board.

(2) The service charge shall be a unit of direct labor cost.

(3) For the purposes of this section, “direct labor cost” shall mean

salaries, benefits and payroll taxes of staff responsible for loan issuance.

(4) In the event the direct labor cost is less than the service charge set forth in paragraph (b) of this section, the difference shall be attributed to overhead cost.

(b) The current service charge on each loan shall be thirty dollars ($30.00).

(c) A loan payment shall be considered delinquent when it is 10 days past due and for each such payment a ten dollar ($10.00) charge shall be added to the loan. A loan payment must be paid in full in order not to be considered delinquent. A charge of twenty dollars ($20.00) shall be made for each dishonored check sent in payment of a loan.

Section 5004.8 THE EFFECT ON UNPAID LOANS OF DEATH, RETIREMENT, WITHDRAWAL OR TRANSFER TO ANOTHER RETIREMENT SYSTEM FOR TIER 1 AND TIER 2 MEMBERS.

(a) A Tier 1 or Tier 2 member's loan shall become due and payable upon death, retirement, withdrawal or transfer to another retirement system.

(b) In the event such amount is not repaid, the balance of the loan with interest and insurance premium to date shall be deducted from the member's annuity savings account.

(c) In the case where a borrowing member dies prior to the repayment of a loan not in default the loan shall be fully insured. If there are payments on this loan which are in arrears at the date of death, the arrears payments shall be deducted from the member's annuity savings account and the balance of the loan shall be closed to the Retirement System Insurance Fund.

Section 5004.9 THE EFFECT ON UNPAID LOANS OF DEATH, RETIREMENT, WITHDRAWAL OR TRANSFER TO ANOTHER RETIREMENT SYSTEM FOR TIER 3 THROUGH 6 MEMBERS.

(a) Whenever a member for whom a loan is outstanding becomes entitled to the return of their contributions because of withdrawal from the System or death (in the case of an uninsured loan), the amount of any loan outstanding on such date, including accrued interest, shall be construed to already have been returned to such member and the refund of contributions to which they shall then be entitled shall be the net amount of such contributions, together with interest thereon, pursuant to Retirement and Social Security Law Section 517(c) or 613(c).

(b) (1) Whenever a member for whom a loan is outstanding retires for service, the member will have 30 days from the date of retirement to make payment on the outstanding loan. If no such payment is received by the System, the retirement allowance payable without optional modification shall be reduced by a life annuity which is actuarially equivalent to the amount of the outstanding loan. Such life annuity shall be calculated utilizing the average annual percentage interest rate on the Nominal 10-year United States Treasury constant maturity obligations as published in the Federal Reserve Selected Interest Rates H.15 Historical Data report for the days during the calendar year preceding the calendar year in which the retirement becomes effective, truncated to two decimal places and pursuant to the mortality tables for options available under Retirement and Social Security Law Section 514 or 610.

(2) Whenever a member for whom a loan is outstanding retires under a disability retirement, the member will have the later of: (i) 30 days following the date on

which the retirement application is approved by the System's Retirement Board; or (ii) 30 days following the date on which retirement occurs to make payment on the outstanding loan. If no such payment is received by the System, the retirement allowance payable without optional modification shall be reduced by a life annuity which is actuarially equivalent to the amount of the outstanding loan. Such life annuity shall be calculated utilizing the average annual percentage interest rate on the Nominal 10-year United States Treasury constant maturity obligations as published in the Federal Reserve Selected Interest Rates H.15 Historical Data report for the days during the calendar year preceding the calendar year in which the retirement becomes effective, truncated to two decimal places and pursuant to the mortality tables for options available under Retirement and Social Security Law Section 514 or 610.

(c) Whenever a member for whom a loan is outstanding transfers to another public retirement system, this System shall transfer to the retirement system to which the member is transferring the difference between the full value of the member's contributions as of the date of transfer as if there were no loan outstanding and the member's outstanding loan balance with interest at the time of the transfer.

Section 5004.10 LOAN DEFAULT.

(a) A loan shall be considered to be in default when a payment has not been made by the due date for such payment or within three months following such date.

(b) In the event of default, the System shall be authorized to collect such payment due from the employer of such member through payroll deduction and such member shall forfeit all future entitlement to borrow from the System until the unpaid balance of the loan outstanding at the time of default is fully paid.

(c) In the event of default by a Tier 1 or Tier 2 member:

(1) If the member is not employed as a teacher under Article 11 of the Education Law at the time of default, the loan shall be closed to the annuity savings account;

(2) If the member has claimed bankruptcy, the loan shall be closed to the annuity savings account;

(3) Any loan which has been declared in default and closed to the annuity savings account of the member may not be repaid as a loan. Should such a member desire to repay their defaulted loan, they must do so by making a special arrangement with the System to make an additional contribution to their annuity savings account.

(d) In the event of default by a Tier 3 through 6 member:

(1) The loan shall continue to accrue interest charges until repayment in full, death, cessation of membership withdrawal or retirement;

(2) The System shall have no right to bring suit in any court against any member to enforce the amount due and the System's sole remedy upon death, withdrawal, cessation of membership or retirement shall be to offset the amount outstanding including interest from the member's account or other benefits payable to or on behalf of the member;

(3) Repayment of a defaulted loan must be made by bank or certified check or money order.

Section 5004.11 EXECUTIVE DIRECTOR'S AUTHORITY.

(a) The Executive Director shall be authorized to approve all loans provided that such loans are made in conformity with the statute and rules and regulations.

(b) The Executive Director is authorized, in case of extreme hardship to the member, to waive the failure to make payment on any loan for a period of three months in addition to the three-month period allowed before default, which period, however, may not extend beyond the end of the quarter following the quarter in which the unpaid installment was due.

Section 5004.12 LOAN REPAYMENTS DURING PERIODS OF MILITARY SERVICE.

Loan repayments will be suspended under this plan in accordance with the provisions of Section 414(u) of the Internal Revenue Code of 1986, as amended.

PART 5005

APPLICATIONS FOR RETIREMENT

(Statutory authority: Education Law, §§510, 511, 511-a, 512-a, 535, 539; Retirement and Social Security Law, §603(i))

Section
5005.1 Who may file a retirement application
5005.2 Acknowledgment of signature
5005.3 Effective date of service, disability and deferred retirement applications
5005.4 Withdrawal of application for retirement
5005.5 Early service retirement reductions in the case of Tier 5 members
5005.6 Early service retirement reductions in the case of Tier 6 members

Section 5005.1 WHO MAY FILE A RETIREMENT APPLICATION.

(a) A member who meets the eligibility requirements for retirement may file an application for service, disability or deferred retirement.

(b) The System shall not be obliged to inquire as to the competency of the member. If the System, however, receives information which, in the System's sole judgment, raises a question as to the member's competency, the System may, in its sole discretion, take such actions as it may deem appropriate including, but not limited to, requiring a statement, completed by a qualified physician, attesting to the member's competence to file a retirement application.

(c) A duly appointed guardian of the person or the property of a member may file an application on behalf of a member, provided such guardian has been authorized to do so by the court which appointed such guardian. A certified copy of the court order must be submitted to the System.

(d) If the application is signed by the member with their mark (x), their mark must be notarized or must be witnessed by two individuals and, in addition, the following affidavits will be required:

(1) An affidavit executed by each witness stating that the mark (x) is the signature of said member, and explaining why the member is incapable of signing themself, and

(2) A statement executed by a qualified physician explaining why the member is incapable of signing themself.

(e) An employer may file an application for disability retirement on behalf of a member who is otherwise eligible to retire for disability. A true copy of the resolution of the employer's governing body authorizing the representative of the employer to file an application on behalf of the member must be submitted to the System.

(f) A person may file an application for service, deferred or disability retirement on behalf of a member of the System where such person has been authorized to do so pursuant to a valid power of attorney which has been properly executed pursuant to applicable law. However, the person filing such application may, in the System's sole discretion, be required to prove the member's competency as set forth in paragraph (b) of this Section, unless the power of attorney expressly provides that it shall not be affected by the subsequent disability or incompetence of the member and the System determines in its sole judgment that such proof is not necessary or required to protect the System. A copy of the power of attorney must be filed with the System.

Section 5005.2 ACKNOWLEDGMENT OF SIGNATURE.

The member's signature must be acknowledged by a notary public or a verified electronic signature shall be deemed acknowledged in accordance with provision (b) of Section 5029.3.

Section 5005.3 EFFECTIVE DATE OF SERVICE, DISABILITY AND DEFERRED RETIREMENT APPLICATIONS.

(a) A retirement application may take effect, as duly requested by the member, on the date the retirement application is filed or on a date following such filing, subject to the following. An application for service or deferred retirement may not take effect more than 90 days after such application was filed with the System. An application for retirement may not take effect until the member has ceased to be paid on the payroll of a participating employer, except as permitted in subdivision 8 of Section 511 of the Education Law, and an application for disability pursuant to Article 14 of the Retirement and Social Security Law may not take effect until the date on which primary Social Security benefits commence. A retirement application filed by a teacher for retirement during a calendar year in which the teacher will attain or has attained age 65, however, may take effect on the date requested in the application, provided that, no later than the day preceding such date, the teacher has resigned from the position or positions in which such teacher has been employed and has surrendered any and all rights appurtenant to such position or positions and such teacher shall be deemed and held to have taken such actions unless the teacher rescinds their retirement application prior to the date requested.

(b) An application for retirement must be submitted on a form furnished by the System.

Section 5005.4 WITHDRAWAL OF APPLICATION FOR RETIREMENT.

An application for service or deferred retirement must be unconditional but may be withdrawn at any time prior to the expiration of 14 days after the effective date of retirement by filing a written request for such withdrawal. In order to be effective, the

request must be filed with the System's office no later than the last day of such 14-day period. An application for disability retirement must be unconditional but may be withdrawn by filing a written request for such withdrawal in the System's office, at any time prior to the date the Retirement Board acts upon the application or the day before the retirement becomes effective, whichever is later.

Section 5005.5 EARLY SERVICE RETIREMENT REDUCTIONS IN THE CASE OF TIER 5 MEMBERS. In the case of any Tier 5 member retiring for service prior to age 62 but no earlier than age 55, other than any such member who has attained age 57 and accrued at least 30 years of service, the reductions in such member's service retirement benefit otherwise computed without optional modification shall be administered as follows:

(a) for each full month of the first 24 full months by which retirement predates age 62, such benefit shall be reduced by 1/180 per month; and, in addition, if applicable,

(b) for each full month of the first 60 full months by which retirement predates age 60, such benefit shall be reduced by a further 1/240 per month.

Section 5005.6 EARLY SERVICE RETIREMENT REDUCTIONS IN THE CASE OF TIER 6 MEMBERS. In the case of any Tier 6 member retiring for service prior to age 63 but no earlier than age 55, the reductions in such member's service retirement benefit otherwise computed without optional modification shall be administered as follows: for each full month by which retirement predates age 63, such benefit shall be reduced by 6.5/1200 per month.

PART 5006

CESSATION OF MEMBERSHIP

(Statutory authority: Education Law, §503 [subd. 3])

Section
5006.1 Definitions as used in Part 5006
5006.2 General

Section 5006.1 DEFINITIONS AS USED IN PART 5006.

(a) Service: Twenty days of service rendered on and after July 1, 1968, shall be equivalent to one year of service solely for the purpose of continuing membership.

(b) Year: A year means a school year beginning July 1 of one year and ending June 30 of the following year.

Section 5006.2 GENERAL.

(a) The membership of any person in the Retirement System shall cease upon the withdrawal by a contributor of their accumulated contributions, or upon retirement on a pension, or at death, or when seven years have elapsed since the member has performed service as a teacher which was credited with the Retirement System (at least 20 days in a school year), except that a membership shall not be cancelled under the following conditions:

(1) when vesting has occurred;

(2) where a member who has not had sufficient service to be eligible for a disability and who, prior to the cancellation of their membership, proves to the satisfaction of the Retirement Board that they were disabled at the time they ceased teaching and continues to be disabled from the same disability which caused cessation of teaching;

(3) where a member is eligible for a retirement allowance other than a disability;

(4) while a member is on an approved military leave, pursuant to Section 243 of the Military Law.

(b) All memberships are cancelled as of June 30 of the school year during which membership ceases.

(c) When membership ceases, interest is credited to the member's annuity savings fund to the date of cancellation of membership if the member was sent a warning that membership would cease. If the System did not send such warning, interest is credited to the date of notification of cancellation of membership. However, under no circumstances is interest credited after the date of death of a member.

(d) Notwithstanding that during the first year of membership, the member fails to render at least the equivalent of 20 days of teaching service, their membership will not be cancelled. However, the base period for determining membership cessation will begin with the date of membership.

(e) Notwithstanding the provisions of subdivision (a) of this Section, the membership of any person who last joined the Retirement System prior to July 1, 1984 shall not be cancelled if such person has at least five years of credited service as a teacher in any period of 10 consecutive years as hereinafter set forth:

(1) To retain membership, a member must have at least one year of service in a six-year period, two years of service in a seven-year period, three years of service in an eight-year period, four years of service in a nine-year period, or five years of service in a 10-year period.

(2) A membership will cease on June 30 of the year that the member is out of teaching for five consecutive years, unless the member renders 20 days of teaching service prior to June 30 of the following year.

PART 5007

REFUND OF CONTRIBUTIONS OF MEMBERS WITH TIER 1 AND TIER 2 MEMBERSHIP

(Statutory authority: Education Law, §§501, 508, 511-a(2), 512, 516, 539)

Section
5007.1 Moneys refunded
5007.2 Active membership refunds
5007.3 Refunds at retirement
5007.4 Interest on contributions

Section 5007.1 MONEYS REFUNDED.

(a) A member's accumulated contributions shall consist of all their contributions in the annuity savings fund, together with credited interest.

(b) Moneys refunded shall be paid from the annuity savings fund, except in the following instances where they are paid from the pension accumulation fund:

(1) Where the employer's share is paid by the member in order to purchase military service credit under Section 243 of the Military Law and subdivision 10 of Section 503 of the Education Law.

(2) Where the member's accumulated contributions have been deemed abandoned pursuant to Section 531 of the Education Law.

Section 5007.2 ACTIVE MEMBERSHIP REFUNDS.

(a) Refund on demand: A member who ceases to be a teacher and has not vested or become a discontinued member under the provisions of the "Optional Retirement Program" shall be entitled to a refund of their accumulated contributions on demand.

(b) Crediting of interest on refund of accumulated contributions: A member who applies for a refund of their accumulated contributions shall receive interest credited to such contributions to the date of refund.

(c) Refund with loan outstanding: Where a member has a current outstanding loan and withdraws from the System, such loan shall become due and payable. This outstanding loan will be satisfied effective the date of refund of the withdrawal. The amount of the loan still outstanding, including interest and insurance, shall be deemed to have been refunded to the member. In such cases the member shall be entitled to the net amount of their accumulated contributions, less the outstanding loan balance.

(d) Refund of military service payments: Where a member dies prior to retirement or withdraws from membership and was required to pay the employer's share as provided by Section 243 of the Military Law or subdivision 10 of Section 503 of the Education Law for the purchase of military service credit, a refund of this employer's share plus interest shall be granted from the pension accumulation fund.

(e) Refund upon death of member: Upon the death of a member, either the member's designated beneficiary on file with the System or, in the absence of such a nomination, the member's estate, shall be entitled to their accumulated contributions.

(f) Refund of excess special service retirement contributions:

(1) A member having withdrawn an election to contribute towards special service retirement, upon application filed with the System, shall be entitled to a refund of the special service retirement contributions.

(2) Where a member who applies for and is granted a refund of special service retirement contributions has an outstanding loan, said refund shall not exceed an amount which would cause the remaining balance of said loan to exceed

75 percent of the amount remaining in the member's account in the annuity savings fund, after the refund is made.

(3) Where a member who defaults on a loan subsequently applies for and is granted a refund of special service retirement contributions, such refund shall be computed as of the date of default, with interest credited to the date of refund and in accordance with paragraph (2) above.

Section 5007.3 REFUNDS AT RETIREMENT.

(a) A member may withdraw the accumulated contributions credited to their individual account in the annuity savings fund by filing an application for withdrawal of contributions no earlier than the date the member files an application for disability, service, or deferred retirement; provided, however, that no refund of contributions made pursuant to this Section shall be paid to the member until after the member is actually retired. Such application may not be made any later than the last date for the selection, change or withdrawal of an option selection.

(b) Where a member has a current outstanding loan and applies for a withdrawal of contributions at retirement, such loan shall become due and payable. The amount of the loan still outstanding, including interest and insurance, shall be deemed to have been refunded to the member. In such case, after retirement the member shall be entitled to receive the net amount of their accumulated contributions, less the outstanding loan balance.

Section 5007.4 INTEREST ON CONTRIBUTIONS. Interest on contributions made by members after July 1, 1957, shall be computed from the time of deduction and added to the accumulated contributions. Interest in the annuity savings fund shall be credited to the date on which, as applicable, a member dies, has their contributions refunded, retires

where the member elects to receive an annuity from the System, or receives, following retirement, a total withdrawal distribution of their annuity savings, or membership otherwise ceases, and when membership ceases no interest will be allowed on contributions left in the annuity savings fund.

PART 5008

TRANSFERS OF MEMBERSHIP

(Statutory authority: Education Law, §522; Retirement and Social Security Law §43)

Section
5008.1 General
5008.2 Transfers to the System
5008.3 Transfer to another public retirement system in this State
5008.4 Eligibility for transfer under Chapter 974 of the Laws of 1977

Section 5008.1 GENERAL. The System will approve transfers pursuant to this Part, provided its requirements are met in full.

Section 5008.2 TRANSFERS TO THE SYSTEM.

(a) Eligibility.

A member of this System who also is a member of another public retirement system in this State shall be eligible to transfer their membership in such other retirement system to this System, provided that the member:

(1) is no longer in a position of employment reportable to the other retirement system;

(2) gives proper written notice to that system of their intention to transfer; and

(3) has accepted a position reportable to this System and is on payroll with such employer.

(b) Date of Membership.

The date of membership of an individual who transfers to this System shall be the date they joined this System or the date they joined the system from which they transferred, whichever is earlier.

(c) Service Credit.

(1) A transferee will receive, for a school year, credit in this System for all service credited to the transferee in the transferee's former system for the same period including concurrent service, up to a maximum of one year of service within a school year.

(2) A transferee to this System shall be deemed to have been a member of this System during the entire period of the transferee's membership in the system from which they transferred.

(d) Calculation of Benefits.

(1) The final average salary of a transferee who retires receiving credit for teaching service after the date of transfer may be based on the salaries earned in both systems.

(2) The date of transfer as used hereinabove shall be the date the request to transfer was filed.

(e) Effect of Transfer on Obligation to Make Contributions Pursuant to Article 14 or 15 of the Retirement and Social Security Law.

When a member subject to the provisions of Article 14 or 15 of the Retirement and Social Security Law has a membership subject to either such Article transferred to the System and such member's obligation to make contributions had not previously ceased by reason of Section 902(b) of the Retirement and Social Security Law, if applicable, the member's obligation to make contributions pursuant to either such Article, if and to the extent Section 902(b) of the Retirement and Social Security Law is applicable, shall cease by reason of having attained 10 or more years of membership as of the later of:

(1) the first day of the plan year in which the System receives certification of membership from the transferor system (or, if earlier, the first day of the plan year in which the member requested a transfer from such system to the System); or,

(2) the first day of the month next following the day on which the member attains 10 or more years of membership after giving effect to the transfer.

The right of the member to cease contributions by reason of having accumulated 10 or more years of credited service shall be determined pursuant to the rules in Section 5001.8 of these Rules and Regulations.

(f) Effect of Transfer on 3.5 Percent Contributions Previously Made Pursuant to Sections 609 and 613 of the Retirement and Social Security Law as amended by Chapter 504 of the Laws of 2009.

When a Tier 5 member has a membership dated on or after July 27, 1976 but before January 1, 2010 transferred to the System, such transfer shall not affect any 3.5 percent contributions made by such member prior to the first day of the plan year in which the System receives certification of membership from the transferor system or, if earlier, the first day of the plan year in which the member requested a transfer from such system to the System.

(g) Effect of Transfer on Contributions Previously Made Pursuant to Sections 609, 613 and 1000 of the Retirement and Social Security Law as amended by Chapter 18 of the Laws of 2012.

When a Tier 6 member has a membership dated on or after July 27, 1976 but before April 1, 2012 transferred to the System, such transfer shall not affect any contributions made by such member pursuant to Sections 609, 613 and 1000 of the Retirement and Social Security Law, as amended by Chapter 18 of the Laws of 2012, prior to the first day of the plan year in which the System receives certification of membership from the transferor system or, if earlier,

the first day of the plan year in which the member requested a transfer from such system to the System.

(h) Effect of Transfer on Determining a Tier 6 Member's Contribution Rate Pursuant to Section 613(g) of the Retirement and Social Security Law as amended by Chapter 18 of the Laws of 2012.

In the case of a Tier 6 member transferring a membership to the Retirement System on or after April 1, 2012, such member's rate of contribution and employer projection period shall be determined by the date the member last entered the Retirement System.

Section 5008.3 TRANSFER TO ANOTHER PUBLIC RETIREMENT SYSTEM IN THIS STATE.

(a) Eligibility.

A member of this System who is also a member of another public retirement system in this State shall be eligible to transfer their membership in this System to such other retirement system, provided that the member:

(1) is no longer in a position of employment reportable to this System;

(2) gives proper written notice to this System of their intention to transfer; and

(3) is in a position reportable to such other retirement system.

(b) Date of Membership.

The date of membership of an individual who transfers from this System shall be provided to the system which they are transferring to.

Section 5008.4 ELIGIBILITY FOR TRANSFER UNDER CHAPTER 974 OF THE LAWS OF 1977.

(a) The term "negligence", for purposes of interpreting that term in Chapter 974 of the Laws of 1977, shall mean a member's act of withdrawing contributions from their former teachers' retirement system, thereby terminating their membership in that system, after being advised in writing that such an act would prevent the member being able to claim, as prior service credit in the successor teachers' retirement system, the service with which they had been credited in their former teachers' retirement system.

(b) The following criteria shall be employed by System staff in determining persons eligible to transfer service credits pursuant to Chapter 974 of the Laws of 1977: in determining eligibility to transfer service credits pursuant to Chapter 974 of the Laws of 1977, the right to transfer will be available to those persons who had concurrent membership and who withdrew their accumulated contributions from their former retirement system, without knowledge that in so doing they would be prevented from effecting transfer, to the successor retirement system, of service credited to them in their former retirement system.

PART 5009

VESTING (DEFERRED RETIREMENT)

(Statutory authority: Education Law, §§509, 512-a; Retirement and Social Security Law, §§516, 612, 1000)

Section
5009.1 Automatic vesting for Tier 1 and Tier 2 members
5009.2 Rights of Tier 1 and Tier 2 members who have vested
5009.3 Rights of a Tier 3 member who has vested
5009.4 Rights of a Tier 4 member who has vested
5009.5 Rights of Tier 5 and Tier 6 members who have vested
5009.6 Forfeitures

Section 5009.1 AUTOMATIC VESTING FOR TIER 1 AND TIER 2 MEMBERS. A member of the System who is eligible to vest and fails to file an election to do so shall be deemed to have filed it the day before their membership would cease and shall be "automatically" vested. Such member may apply for a deferred retirement allowance when eligible.

Section 5009.2 RIGHTS OF TIER 1 AND TIER 2 MEMBERS WHO HAVE VESTED.

(a) A vested member automatically revokes their election to vest by returning to service for at least 20 full days in a school year. A member who revokes their vesting election may subsequently revest.

(b) A vested member may withdraw their accumulated contributions, which will terminate their membership in this System, thereby forfeiting the right to any benefit.

(c) A vested member with a date of membership prior to July 1, 1970, may redeposit by a single payment in the System the sum of any contributions formerly withdrawn therefrom or at the time of retirement may purchase an additional annuity

which will increase their retirement allowance to one-half of their final average salary.

(d) A vested member may apply for prior service credit and military service credit pursuant to Section 243 of the Military Law or Section 1000 of the Retirement and Social Security Law, provided all the eligibility requirements of the appropriate provisions of law have otherwise been met.

(e) A vested member may not receive a service retirement allowance or a disability retirement allowance.

(f) A vested member with less than 10 years of credited service and their beneficiary have no right to a death benefit or a death gamble under Section 512 of the Education Law. Upon the death of such member, the beneficiary shall receive the member's accumulated contributions in the annuity savings fund.

(g) A vested member continues to receive regular interest on their accumulated contributions.

(h) A member who has accumulated at least five years of credited service and discontinues service on or after July 1, 1965, continues membership with the privilege of applying for a deferred retirement benefit pursuant to Section 535(5) of the Education Law, but in no case prior to the date they attain age 55.

(i) A member who has accumulated at least 10 years of credited service and is otherwise eligible for a deferred retirement benefit pursuant to any provision of law shall be deemed to have filed a vesting election when applying for a retirement benefit, if such election would provide a better benefit.

Section 5009.3 RIGHTS OF A TIER 3 MEMBER WHO HAS VESTED.

(a) A member who has five or more years of credited service upon termination of employment shall be automatically vested and entitled to a deferred vested benefit to be computed in accordance with the provisions of Section 516(b) of the Retirement and Social Security Law. Such deferred vested benefit may be paid in the form of an early service retirement benefit, or may be postponed until after normal retirement age, in which event the benefit will be subject to reduction or escalation as provided in Section 504(c) of the Retirement and Social Security Law.

(b) In lieu of the rights set forth in subdivision (a) of this Section, such a member may elect to receive the rights set forth in Section 5009.4 of this Part. However, in the event of such an election, the member will receive only the benefits provided under Article 15 of the Retirement and Social Security Law, and may not mix the provisions of Article 14 and Article 15 to change the eligibility requirements for a benefit under either Article.

Section 5009.4 RIGHTS OF A TIER 4 MEMBER WHO HAS VESTED.

(a) A member who has five or more years of credited service on termination of employment shall be automatically vested and shall be entitled to a deferred vested benefit at retirement age in accordance with the provisions of Sections 603 and 604 of the Retirement and Social Security Law.

(b) In no event shall the vested retirement allowance payable without optional modification be less than the actuarial equivalent of the total which results from the member's contributions accumulated with interest at 5 percent per annum compounded annually to the date of retirement.

Section 5009.5 RIGHTS OF TIER 5 AND TIER 6 MEMBERS WHO HAVE VESTED.

(a) A member who has 10 or more years of credited service on termination of employment shall be automatically vested and shall be entitled to a deferred vested benefit at retirement age in accordance with the provisions of Sections 603 and 604 of the Retirement and Social Security Law.

(b) In no event shall the vested retirement allowance payable without optional modification be less than the actuarial equivalent of the total which results from the member's contributions accumulated with interest at 5 percent per annum compounded annually to the date of retirement.

Section 5009.6 FORFEITURES. Forfeitures arising under the System for any reason may not be applied to increase the benefits of any members at any time prior to the termination of the System within the meaning of Section 401(a)(8) of the Internal Revenue Code or any successor thereto. In the event of termination of the System or a complete or permanent discontinuance of contributions thereunder, the rights of members to accrued benefits, to the extent funded, will become vested to the extent required by, and upon the events set forth in, Treasury Regulation Section 1.401-6(a)(1) and Internal Revenue Code Section 401(a)(4) and 401(a)(7) as in effect on September 1, 1974.

PART 5010

CONTRIBUTIONS OF TIER 3 THROUGH TIER 6 MEMBERS

(Statutory authority: Education Law, §§509, 512; Retirement and Social Security Law, §§517, 613)

Section
5010.1 Establishment of fund
5010.2 Withdrawal and refund of contributions

Section 5010.1 ESTABLISHMENT OF FUND. Pursuant to Sections 517 and 613 of the Retirement and Social Security Law, the System shall establish a special fund to be known as the Tier 3 through 6 Member Contributions Fund to account for the contributions deducted from members' wages. All moneys withheld from such members' wages shall be recorded in individual accounts within such fund and all withdrawals and refunds of such contributions shall be deducted from the accounts in such fund.

Section 5010.2 WITHDRAWAL AND REFUND OF CONTRIBUTIONS.

(a) In the event of termination of employment, other than as a result of transfer to another public employer, a Tier 3 member who has not accumulated at least 10 years of credited service may withdraw their accumulated contributions by filing an application for such withdrawal with the System. Upon such withdrawal, the membership of such member shall terminate and all rights in the System enjoyed by such member shall cease. In the event a Tier 3 membership shall terminate, other than as a result of transfer to another public employer, any contributions remaining to the credit of the member shall be refunded upon filing an application for such refund with the System. If the refund is paid as a result of the death of the member, their contributions shall be refunded to

their designated beneficiary(ies) on file with the System or, in the absence of such nomination, to the member's estate.

(b) A person whose Tier 4, 5 or 6 membership is terminated other than as the result of transfer, retirement or death, or a Tier 4, 5 or 6 member who has not accumulated at least 10 years of credited service and who no longer is employed by a participating employer of this System in a position upon which their membership is based, may withdraw their member contributions by filing a written demand for withdrawal of contributions and membership with the System. Upon such withdrawal, the membership of such member shall terminate and all rights in the System enjoyed by such member shall cease. Upon the death of a person whose membership previously terminated due to lack of credited service and who did not withdraw their member contributions, or upon the death of a member, provided a death benefit pursuant to Section 607 of the Retirement and Social Security Law is not paid, the member contributions of such person shall be refunded to such person as they shall have nominated to receive a death benefit by written designation duly executed and filed with the System, or, in the absence of such designation, to ~~their~~ the member's estate. For purposes of such refunds, interest shall be credited at the rate of 5 percent per annum compounded annually to the date of termination of membership. Provided, however, if a death benefit is paid pursuant to Section 607 of the Retirement and Social Security Law, such benefit shall be in lieu of the refund of such contributions. However, in no event shall such death benefit be less than the amount payable pursuant to this subdivision.

(c) Whenever a Tier 3 through 6 member for whom a loan is outstanding becomes entitled to a refund of their contributions because of withdrawal from the System or death (in the case of an uninsured loan), the amount of any loan outstanding on

such date, including accrued interest, shall be construed to already have been returned to such member and the refund of contributions to which they shall then be entitled shall be the net amount of such contributions together with interest thereon.

(d) A Tier 3 through 6 member who has more than 10 years of service with the System and who has permanently ceased teaching in New York may withdraw their contributions, in accordance with subdivision g of Section 512 of the Education Law, for the purposes of obtaining credit in a public retirement system in another state.

PART 5011

GROUP LIFE INSURANCE

(Statutory authority: Education Law, §§504, 509, 512; Retirement and Social Security Law, §§448, 448-a, 508, 508-a, 606, 606-a, Article 4-B)

Section

5011.1 New York State Teachers' Retirement System Member Group Life Insurance Plan established
5011.2 New York State Teachers' Retirement System Member Group Life Insurance Plan Reserve Fund
5011.3 Insurance payable in the event of death
5011.4 Premiums
5011.5 Effective period of insurance

Section 5011.1 NEW YORK STATE TEACHERS' RETIREMENT SYSTEM MEMBER GROUP LIFE INSURANCE PLAN ESTABLISHED. The New York State Teachers' Retirement System Member Group Life Insurance Plan, hereinafter referred to as the "Plan", is hereby established and created, for the purpose of providing group life insurance for the payment of the benefits, or portions thereof, required by Section 512 of the Education Law and Sections 448, 448-a, 508, 508-a, 606 and 606-a of the Retirement and Social Security Law.

Section 5011.2 NEW YORK STATE TEACHERS' RETIREMENT SYSTEM MEMBER GROUP LIFE INSURANCE PLAN RESERVE FUND. A separate fund, to be known as the New York State Teachers' Retirement System Member Group Life Insurance Plan Reserve Fund, is hereby established within the System, to be held in trust by the Retirement Board. Such fund shall consist of all premiums paid by the employers and other moneys received and paid into the fund for group term life insurance purposes, and of the investment earnings upon such moneys, and shall be used only to pay the group term life insurance prescribed by Section 5011.3 of this Part. Concurrent with the determination of the initial

liability of the Plan for the balance of the fiscal year on and after May 8, 1970, for the group term life insurance provided and to be paid for pursuant to this Plan, there shall be segregated and transferred from the pension accumulation fund of the System, to the reserve fund created by this Section, such amounts determined by the actuary to be necessary to pay anticipated group term life insurance claims. Subsequent segregations and transfers shall be made as shall be required to pay the insurance prescribed by Section 5011.3 of this Part from the reserve fund provided by this Section.

Section 5011.3 INSURANCE PAYABLE IN THE EVENT OF DEATH. In the case of the death of a qualified member during the effective period of insurance, the estate, or designated beneficiary(ies), shall receive the benefits provided pursuant to Section 512 of the Education Law or Section 448, 448-a, 508, 508-a, 606 or 606-a of the Retirement and Social Security Law, whichever is applicable, from the Plan, as hereinafter provided. Nevertheless, the amount of insurance payable upon the death of a member, and the eligibility to receive such payment, shall be determined in accordance with the applicable provision of law. However, in no case shall the amount of insurance payable by the Plan upon the death of a member exceed fifty thousand dollars ($50,000). In the event an amount in excess of fifty thousand dollars ($50,000) is payable to the estate or beneficiary(ies) of a deceased member, the sum of fifty thousand dollars ($50,000) shall be payable as group term life insurance as specified herein, and the excess over fifty thousand dollars ($50,000) shall be paid as otherwise provided in the applicable provision of law.

5011.4 PREMIUMS. The actuary shall investigate the Plan's claim experience as provided by Sections 508 and 517 of the Education Law. On the basis of such investigations and upon the recommendation of the actuary, the Retirement Board shall

certify the premium rates computed to be necessary to fund the group term life insurance authorized to be paid by the Plan. As soon as practicable after the close of each fiscal year, the Retirement Board shall determine the premium which the employers participating in the System are required to pay into the reserve fund to discharge the obligations of the Plan of the past fiscal year.

5011.5 EFFECTIVE PERIOD OF INSURANCE. The New York State Teachers' Retirement System Member Group Life Insurance Plan, as established in accordance with Article 4-B of the Retirement and Social Security Law, shall remain in effect as long as the current favorable Internal Revenue Service rulings continue in full force.

PART 5012

SAVINGS ACCOUNTS FOR MONEYS DUE CERTAIN BENEFICIARIES

(Statutory authority: Education Law, §508 (13))

Section
5012.1 Establishment of accounts
5012.2 Interest
5012.3 Effect of establishment of accounts
5012.4 Payment of funds
5012.5 Release of liability
5012.6 Removal of legal disability
5012.7 Nomenclature

Section 5012.1 ESTABLISHMENT OF ACCOUNTS. When a benefit payable by the System accrues to a person who is under a legal disability, and no legal representative is duly appointed within six months of the date the benefit accrued, a savings account in the name of the beneficiary(ies) shall be established effective as of the date such six-month period lapsed.

Section 5012.2 INTEREST. Interest shall be credited to each such savings account in the same manner and amount as is credited to the accumulated contributions of each member's individual account in the annuity savings fund.

Section 5012.3 EFFECT OF ESTABLISHMENT OF ACCOUNTS. The establishment of such accounts shall not be considered to afford such person(s) any rights of membership in this System nor to confer upon them any other right except the right to claim such funds under this Part.

Section 5012.4 PAYMENT OF FUNDS. The funds in such account shall be payable, within a reasonable time after proper notification to the System, to a guardian of the

property, committee or other such legal representative after such legal representative is appointed, or to the beneficiary(ies) once the legal disability is removed.

Section 5012.5 RELEASE OF LIABILITY. Payments made pursuant to the provisions of this Part shall release the System from any liability whatsoever.

Section 5012.6 REMOVAL OF LEGAL DISABILITY. In the event that the legal disability is removed or a legal representative is appointed and no claim is made for the moneys, and after the System has notified the individual or the legal representative of the existence of the "beneficiary savings account" and the balance thereof, the moneys shall be treated in accordance with the provisions of Section 531 of the Education Law.

Section 5012.7 NOMENCLATURE. Savings accounts established pursuant to these Rules and Regulations shall be known as "beneficiary savings accounts".

PART 5013

INTER-VIVOS OR TESTAMENTARY TRUST AS BENEFICIARY

(Statutory authority: Education Law, §§512, 513)

Section
5013.1 Inter-vivos trust as beneficiary
5013.2 Testamentary trust as beneficiary
5013.3 Required certifications pursuant to IRC Section 401(a)(9)

Section 5013.1 INTER-VIVOS TRUST AS BENEFICIARY. The designation of a trustee(s) of an inter-vivos trust as beneficiary to receive the return of the accumulated contributions in a lump sum, a lump sum death benefit, including take-home-pay reserve, if any, the Lump Sum Option pursuant to Section 5014.2(a), the commuted value of a Five- or Ten-Year Guarantee Option pursuant to Section 5014.2(b), or a Lump Sum Alternative Option pursuant to Section 5014.2(c), shall be proper if the following conditions are met:

(a) The designation must be on a form supplied by the System;

(b) The trustee(s) to whom a benefit may become payable must be a person or corporation, and must be definitely ascertainable from the trust instrument. If the member is a trustee, the trust instrument must clearly identify a person or corporation appointed as successor trustee;

(c) The designation filed with the System

(1) must specify the name and address of the trustee(s),

(2) must recite the date of the trust instrument, and

(3) must be accompanied by a true copy of the trust instrument;

(d) The form which the designation must take is as follows:

"Firstname Lastname, 275 State Street, Albany, New York 12210, as trustee of a trust created by instrument, dated April 19, 1959, a true copy of which is annexed hereto."

(e) The trust instrument must contain the name and address of the trustee(s) and -successor trustee(s).

Notwithstanding the foregoing, the System may, in lieu of requiring a true copy of the entire trust instrument, accept a true copy of such portion(s) of the trust instrument as the System may determine, in its sole discretion, are necessary to identify the trustee(s) and successor trustee(s) to whom a benefit may become payable.

Section 5013.2 TESTAMENTARY TRUST AS BENEFICIARY. The designation of a trustee(s) of a testamentary trust as beneficiary to receive the return of the accumulated contributions in a lump sum, a lump sum death benefit including take-home-pay reserve, if any, the Lump Sum Option pursuant to Section 5014.2(a), the commuted value of a Five- or Ten-Year Guarantee Option pursuant to Section 5014.2(b), or a Lump Sum Alternative Option pursuant to Section 5014.2(c), shall be proper if the following conditions are met:

(a) The designation must be on a form supplied by the System;

(b) The trustee to whom a benefit may become payable must be a person or corporation, and must be definitely ascertainable from the will;

(c) The form which the designation must take is substantially as follows:

"Trustee(s) of the testamentary trust established by my last will."

(d) The will under which the trust is established must be the member's or beneficiary's will; and,

(e) The System must be furnished, at or before the time a benefit becomes payable, with a certified copy of the letters of trusteeship or other evidence which, in the System's sole judgment, establishes the authority of the trustee(s) to receive payment. Section 5013.3 REQUIRED CERTIFICATIONS PURSUANT TO IRC SECTION 401(a)(9).

(a) Whenever a member or retiree wishes to make a trust a beneficiary of a death benefit, lump sum survivor option elected at retirement, or other lump sum payment by the System, where otherwise permitted by law, the member shall submit a certificate in substantially the following form:

"I have designated (identify trust) as beneficiary of my death benefit, a lump sum under an optional form of retirement elected by me at retirement, or other lump sum payment due from the System following my death, as applicable. In accordance with the requirements of the Internal Revenue Service, I hereby certify as follows:

"1. Attached to this certification and furnished with it is a list which is, to the best of my knowledge, a true, correct and complete list of all the beneficiaries of the trust (including any contingent or remaining beneficiaries with a description of the conditions to their entitlement).

"2. The trust is a valid trust under state law, or would be but for the fact that there is no corpus.

"3. The trust is irrevocable or will, by its terms, become irrevocable upon my death.

"4. The beneficiaries of the trust who are beneficiaries with respect to the trust's interest in my benefit are identifiable from the trust instrument.

"5. If the trust instrument is ever amended at any time after the date of this certification, I will, within a reasonable time, provide the System with corrected certification(s) to the extent that the amendment changes any of the information to which I have previously certified.

"6. I agree to provide a true copy of the trust instrument to the System upon demand."

(b) The trustee of a trust designated by a deceased member or retiree as a beneficiary of a death benefit, lump sum survivor option selected at retirement, or other lump sum payment, where otherwise permitted by law, shall as a condition precedent to the payment of such benefit submit a certificate in substantially the following form:

"I am the trustee of (identify trust) which had been designated by (identify member or retiree) as a beneficiary of a death benefit, lump sum under an optional form of retirement elected at retirement, or other lump sum payment due from the System following the death of the member or retiree, as applicable. In accordance with the requirements of the Internal Revenue Service, I hereby certify as follows:

"1. Attached to this certification and furnished with it is, to the best of my knowledge, a true, correct and complete final list of all the beneficiaries of the trust (including any contingent or remaining beneficiaries with a description of the conditions to their entitlement) as of the end of the calendar year following the calendar year in which the above named member or retiree died.

"2. The trust is a valid trust under state law, or would be but for the fact that there is no corpus.

"3. The trust is irrevocable or has, by its terms, become irrevocable upon the death of the above named member or retiree.

"4. The beneficiaries of the trust who are beneficiaries with respect to the trust's interest in the above named member or retiree's benefit are identifiable from the trust instrument.

"5. I agree to provide a true copy of the trust instrument to the System upon demand."

(c) The provisions of (a) and (b) of this Section shall not apply where the member and trustee respectively have provided the System with a true copy of the entire trust instrument; in such circumstances, the member and trustee shall be deemed to have agreed and shall be obligated, whenever such instrument is amended at any time, to provide a true copy of such amendment to the System.

PART 5014

OPTIONS

(Statutory authority: Education Law, §§503(5), 513, 539; Retirement and Social Security Law, §§447, 514, 610)

Section

5014.1 Options available to members at retirement - general
5014.2 Options available to members at retirement - definitions and statutory authorization
5014.3 Suspension of retirement allowance where option has been elected
5014.4 Procedure for electing an option
5014.5 Definitions as used in Part 5014
5014.6 Compliance with IRC Section 401(a)(9)

Section 5014.1 OPTIONS AVAILABLE TO MEMBERS AT RETIREMENT - GENERAL.

A member may elect at retirement, in lieu of the maximum benefit, one of the following options, as applicable:

Lump Sum Option:

Declining Reserve (Tier 1 members only)

Annuity Reserve (Tier 1 and Tier 2 members only)

Guarantee Option:

5-Year

10-Year

Alternative Option (Tier 1 and Tier 2, Tier 4 through 6 members only):

Alternative Option (Tier 3 members only)

Survivor Option:

100%

75%

50%

25%

Pop-up Option:

100%

75% (Tier 1 and Tier 2, Tier 4 through 6 members only)

50%

25% (Tier 1 and Tier 2, Tier 4 through 6 members only)

Each option is defined in Section 5014.2 of these Rules and Regulations.

Section 5014.2 OPTIONS AVAILABLE TO MEMBERS AT RETIREMENT - DEFINITIONS AND STATUTORY AUTHORIZATION. The options available for election by a member, as applicable in lieu of the maximum benefit, are as follows:

(a) Lump Sum Option

(1) Declining Reserve - Pursuant to Education Law Section 513(1) (Option 1), a lesser allowance payable over the life of the Tier 1 member with the provision that, if the member dies before the member shall have received in payments the present value of the member's retirement allowance at the time of retirement, the balance of such present value shall be paid to the beneficiary(ies) or the member's legal representative(s), if no beneficiary(ies) has been designated.

(2) Annuity Reserve - Pursuant to Education Law Section 513(1) (Option 4), a lesser retirement allowance payable over the life of the Tier 1 or Tier 2 member with the provision that all pension payments shall cease at the member's death but that, if the member dies before receiving in annuity payments, the present value of the member's annuity at the time of retirement, the balance of such present value shall be paid to the beneficiary(ies) or to the member's legal representative(s), if no beneficiary(ies) has been designated.

(b) Guarantee Option

(1) 5-Year - Pursuant to Education Law Section 513(1) (Option 4), Retirement and Social Security Law Section 447(a)(1), Retirement and Social

Security Law Section 514(a) (Option 3) and Retirement and Social Security Law Section 610(a) (Option 3), as applicable, a lesser allowance payable over the life of the member with the provision that such allowance shall be guaranteed for a minimum of five years following retirement and, should such member die prior to the end of the five-year period, said payments shall continue to the beneficiary for the unexpired balance of the five-year guarantee period. If such beneficiary shall predecease the member, the commuted value of any remaining installments due during the unexpired portion of the five-year period shall be paid in a single sum to the member's duly designated contingent beneficiary(ies) or legal representative(s), if none has been designated. If a beneficiary who has commenced receipt of payments dies prior to the end of the five-year period, the commuted value of any remaining installments due during the unexpired portion of the five-year period shall be paid in a single sum to the member's duly designated contingent beneficiary(ies) or, if no contingent beneficiary(ies) has been designated, to the legal representative(s) of the beneficiary. A testamentary or inter-vivos trust may be designated in accordance with Part 5013 as either a primary or contingent beneficiary to receive the commuted value of any such remaining installments, payable in a single sum.

(2) 10-Year - Pursuant to Education Law Section 513(1) (Option 4), Retirement and Social Security Law Section 447(a)(2), Retirement and Social Security Law Section 514(a) (Option 4) and Retirement and Social Security Law Section 610(a) (Option 4), as applicable, a lesser allowance payable over the life of the member with the provision that such allowance shall be guaranteed for a minimum of 10 years following retirement and, should the member die before the

end of the 10-year period, said payments shall continue to the beneficiary for the unexpired balance of the 10-year guarantee period. If such beneficiary shall predecease the member, the commuted value of any remaining installments due during the unexpired portion of the 10-year period shall be paid in a single sum to the member's duly designated contingent beneficiary(ies) or legal representative(s), if none has been designated. If a beneficiary who has commenced receipt of payments dies prior to the end of the 10-year period, the commuted value of any remaining installments due during the unexpired portion of the 10-year period shall be paid in a single sum to the member's duly designated contingent beneficiary(ies) or, if no contingent beneficiary(ies) has been designated, to the legal representative(s) of the beneficiary. A testamentary or inter-vivos trust may be designated in accordance with Part 5013 as either a primary or contingent beneficiary to receive the commuted value of any such remaining installments, payable in a single sum.

(c) Alternative Option

(1) For Tier 1 and Tier 2, Tier 4 through 6 members - Pursuant to Education Law Section 513(1) (Option 4) and Retirement and Social Security Law Section 610(a-1), a lesser retirement allowance payable over the life of the Tier 1, 2, 4, 5 or 6 member with the provision that upon the member's death a lump sum, guaranteed benefit or other survivor benefit shall be paid to a beneficiary(ies), provided that such benefit(s), together with such lesser retirement allowance, shall be certified by the System's actuary to be of equivalent actuarial value to the maximum benefit and shall be approved by the System's Retirement Board.

(2) For Tier 3 members - Pursuant to Retirement and Social Security Law Section 514(a) (Option 2), a lesser retirement allowance payable over the life of the Tier 3 member with the provision that upon the member's death 1 percent to 90 percent, as elected by such member at retirement, of such retirement allowance shall be continued through the life of and paid to the beneficiary(ies) nominated by such member at the time of retirement.

(d) Survivor Option

(1) 100% - Pursuant to Education Law Section 513(1) (Option 2), Retirement and Social Security Law Section 514(a) (Option 1) and Retirement and Social Security Law Section 610(a) (Option 1), as applicable, a lesser retirement allowance payable over the life of the member with the provision that upon the member's death such retirement allowance shall be continued through the life of and paid to the beneficiary nominated by such member at the time of retirement.

(2) 75% - Pursuant to Education Law Section 513(1) (Option 4), Retirement and Social Security Law Section 514(a) (Option 2) and Retirement and Social Security Law Section 610(a) (Option 2), as applicable, a lesser retirement allowance payable over the life of the member with the provision that upon the member's death three-quarters of such retirement allowance shall be continued through the life of and paid to the beneficiary nominated by such member at the time of retirement.

(3) 50% - Pursuant to Education Law Section 513(1) (Option 3), Retirement and Social Security Law Section 514(a) (Option 2) and Retirement and Social Security Law Section 610(a) (Option 2), as applicable, a lesser retirement allowance payable over the life of the member with the provision that upon the

member's death one-half of such retirement allowance shall be continued through the life of and paid to the beneficiary nominated by such member at the time of retirement.

(4) 25% - Pursuant to Education Law Section 513(1) (Option 4), Retirement and Social Security Law Section 514(a) (Option 2) and Retirement and Social Security Law Section 610(a) (Option 2), as applicable, a lesser retirement allowance payable over the life of the member with the provision that upon the member's death one-quarter of such retirement allowance shall be continued through the life of and paid to the beneficiary nominated by such member at the time of retirement.

(e) Pop-up Option

(1) 100% - Pursuant to Education Law Section 513(1) (Option 4), Retirement and Social Security Law Section 514(a) (Option 5) and Retirement and Social Security Law Section 610(a) (Option 5), as applicable, a lesser retirement allowance payable over the life of the member with the provision that upon the member's death the retirement allowance shall be continued through the life of and paid to the beneficiary nominated by such member at the time of retirement and with the further provision that, if such beneficiary shall predecease such member, the retirement allowance payable throughout the remaining life of the member after the date of the beneficiary's death shall be the maximum benefit which would have been paid to the member, had the member not elected such option.

(2) 75% (Tier 1 and Tier 2, Tier 4 through 6 members only) - Pursuant to Education Law Section 513(1) (Option 4) and Retirement and Social Security Law Section 610(a-1), a lesser retirement allowance payable over the life of a Tier 1, 2, 4, 5 or 6 member with the provision that upon such member's death three-quarters of

such retirement allowance shall be continued through the life of and paid to the beneficiary nominated by the member at the time of retirement and with the further provision that, if such beneficiary shall predecease such member, the retirement allowance payable throughout the remaining life of the member after the date of the beneficiary's death shall be the maximum benefit which would have been paid to the member, had the member not elected such option.

(3) 50% - Pursuant to Education Law Section 513(1) (Option 4), Retirement and Social Security Law Section 514(a) (Option 5) and Retirement and Social Security Law Section 610(a) (Option 5), as applicable, a lesser retirement allowance payable over the life of the member with the provision that upon the member's death one-half of such retirement allowance shall be continued through the life of and paid to the beneficiary nominated by the member at the time of retirement and with the further provision that, if such beneficiary shall predecease such member, the retirement allowance payable throughout the remaining life of the member after the date of the beneficiary's death shall be the maximum benefit which would have been paid to the member, had the member not elected such option.

(4) 25% (Tier 1 and Tier 2, Tier 4 through 6 members only) - Pursuant to Education Law Section 513(1) (Option 4) and Retirement and Social Security Law Section 610(a-1), a lesser retirement allowance payable over the life of a Tier 1, 2, 4, 5 or 6 member with the provision that upon such member's death one-quarter of such retirement allowance shall be continued through the life of and paid to the beneficiary nominated by the member at the time of retirement and with the further provision that, if such beneficiary shall predecease such member, the retirement allowance payable throughout the remaining life of the member after the date of the

beneficiary's death shall be the maximum benefit which would have been paid to the member, had the member not elected such option.

Section 5014.3 SUSPENSION OF RETIREMENT ALLOWANCE WHERE OPTION HAS BEEN ELECTED. In the event a member's retirement allowance is suspended in accordance with subdivision 5 of Section 503 of the Education Law, such member who selected an option at the time of retirement shall be permitted to elect at the time of the suspension to pay to the fund or funds of the System from which such retirement allowance would otherwise be payable, the amount by which the member's monthly retirement allowance was reduced by the selection of the option, in which event the amount so paid, together with the reduced allowance, shall be deemed equivalent to the suspension of the member's maximum retirement allowance, and the survivor portion of such option shall be payable in the event of such member's death as if the member had continued in receipt of such retirement allowance without suspension.

Section 5014.4 PROCEDURE FOR ELECTING AN OPTION.

(a) Upon filing an application for retirement, a member may elect one of the optional allowances available to such member, as applicable. In order to be valid, such election must be on a form supplied by the System or in a written request.

(b) In the case of service or deferred retirement, such election must be duly executed and acknowledged, and must be filed with the System no later than 30 days following the date on which the retirement becomes effective.

(c) In the case of disability retirement, such election must be duly executed and acknowledged, and, except as provided in subdivision 8 of Section 511 of the Education Law, must be filed with the System no later than the later of:

(1) thirty days following the date on which the retirement application is approved by the System's Retirement Board for members retiring under Section 511 of the Education Law or under Section 605 of the Retirement and Social Security Law or by the System for members retiring under Section 506 or Section 507 of the Retirement and Social Security Law; or

(2) thirty days following the date on which retirement occurs.

(d) A member's election of an option must be unconditional.

Section 5014.5 DEFINITIONS AS USED IN PART 5014.

(a) Maximum benefit - The largest possible annual allowance which may be paid over a member's remaining lifetime following retirement with all payments ceasing at the member's death.

(b) Option - The actuarial equivalent of the member's maximum benefit in the form of a lesser allowance payable over the remaining life of the member with a provision for the payment of a benefit(s) upon the member's death and such other applicable provisions, if any, as specified under law.

(c) Beneficiary - The person nominated to receive the survivor portion of the option elected by the member by written designation duly acknowledged and filed with the System.

Section 5014.6 COMPLIANCE WITH IRC SECTION 401(a)(9).

(a) The System shall comply with IRC Section 401(a)(9). Notwithstanding any other provision of law to the contrary, the System shall comply with Section 401(a)(9) of the Internal Revenue Code, including the minimum distribution incidental benefits rule of Section 401(a)(9)(G) of the Internal Revenue Code, pursuant to a reasonable and

good faith interpretation of Section 401(a)(9) of the Internal Revenue Code in accordance with Treasury Regulation Section 1.401(a)(9)-1.

(b) The entire interest of a member shall be distributed

(1) to the member not later than the required beginning date or

(2) in accordance with IRC Section 401(a)(9), over the life of the member or over the lives of the member and a designated beneficiary (or over a period not extending beyond the life expectancy of the member or the life expectancy of the member and a designated beneficiary).

(c) Where distributions have begun under (b)(2) of this Section and the member dies before their entire interest is distributed to such member, the remaining portion of such interest shall be distributed at least as rapidly as under the method of distribution being used as of the date of death.

(d) If the member dies before the distribution of the member's interest has begun, the entire interest of the member, if any, shall be distributed within five years after the member's death, except that, if any portion of the member's interest is payable to or for the benefit of a designated beneficiary(ies) and such portion will be distributed (in accordance with such regulations) over the life of such designated beneficiary(ies) (or over a period not extending beyond the life expectancy of such beneficiary(ies)) and such distributions begin not later than one year after the date of the member's death (or such later date as may be permitted by the United States Secretary of the Treasury), such portion shall be treated as distributed on the date such distributions began.

(e) For the purposes of this Section:

(1) The term "required beginning date" means April 1 of the calendar year following the later of the calendar year in which the member attains age the age required pursuant to IRC Section 401(a)(9) or the calendar year in which the member retires.

(2) The term "designated beneficiary" means any individual designated as a beneficiary by the member.

(3) The term "entire interest of the member" does not include ancillary benefits (such as lump sum death benefits) which are in no event available to the member.

(4) The term "IRC Section 401(a)(9)" means Section 401(a)(9) of the Internal Revenue Code of 1986, as amended and as hereafter may be amended, and any regulations promulgated thereunder, if and to the extent applicable to the System.

(f) Any distribution required under the incidental death benefit requirements of IRC Section 401(a) shall be treated as a distribution subject to IRC Section 401(a)(9).

(g) No option shall be permitted whereby a member would receive in retirement less than 50 percent of the actuarial equivalent of the member's retirement allowance without optional modification during the member's life expectancy, provided, however, that the foregoing shall not apply if the surviving beneficiary is the retiree's spouse.

(h) Nothing in this Section shall be construed to require the System to provide any benefit not permitted under the laws governing the System.

(i) In cases where the sole beneficiary of the option designated at retirement is the member's spouse, a member will not be permitted to elect an option otherwise

permitted under this Part 5014 which provides for a guaranteed payment for a period of years that exceeds the greater of

(1) the joint and last survivor life expectancy of the member and the member's spouse; or,

(2) the distribution period for required minimum distributions permitted under regulations of the United States Department of Treasury implementing IRC Section 401(a)(9). In cases where the sole beneficiary of the option designated at retirement is not the member's spouse, a member will not be permitted to elect an option otherwise permitted under this Part 5014 which provides for a guaranteed payment for a period of years that exceeds the distribution period for required minimum distributions permitted under regulations of the United States Department of Treasury implementing IRC Section 401(a)(9).

PART 5015

DUTIES OF EMPLOYERS

(Statutory authority: Education Law, §520; Retirement and Social Security Law §613)

Section
5015.1 General
5015.2 Members of Retirement Board who have been elected by the membership of the System
5015.3 Duty to report
5015.4 Duties of employers in the case of Tier 6 members
5015.5 Duties of employers in the case of certain payments made to Tier 6 members

Section 5015.1 GENERAL. It shall be the duty of each board of education to include in the annual report to the Retirement Board such information as the Board may require and to furnish such other information as the Board finds necessary. Collection of contributions from members are to be retained by employers and a corresponding amount is to be deducted from the apportionment otherwise payable to such employers, except in the case of any employer instructed otherwise by the Board.

Section 5015.2 MEMBERS OF RETIREMENT BOARD WHO HAVE BEEN ELECTED BY THE MEMBERSHIP OF THE SYSTEM. It shall be the duty of each board of education which has granted a leave of absence, pursuant to subdivision 6 of Section 506 of the Education Law, to a member of the System who has been elected by the membership to the Retirement Board to annually report to the System the salary which said Board member would have earned for the said year had they not been on leave of absence.

Section 5015.3 DUTY TO REPORT. Employers shall furnish such information and make such reports as the System may from time to time require in the discharge of its functions. The responsibility of the employer to make reports and provide information as required by the System is nondelegable and may not be made subject to any

agreement with a member, member's representative or third party. Any agreement by an employer with any member, member's representative or third party to make a report or provide information to the System in a particular manner or to withhold information which is required to be reported to the System is contrary to public policy and shall be null and void and of no effect.

Section 5015.4 DUTIES OF EMPLOYERS IN THE CASE OF TIER 6 MEMBERS.

(a) In the case of each Tier 6 member employed by an employer, it shall be the duty of the employer, during each of the first three plan years of such member's membership, to project the annual wages of such member to be paid by such employer during a plan year for the purposes of determining the rate at which such member shall contribute to the System from the wages paid by such employer to such member during such plan year.

(b) Each such projection shall be made in good faith based upon the actual terms of the employment contract, agreement or understanding between the employer and the member.

(c) Each such projection shall be made at the beginning of the plan year or, if later, at the time the member is employed during the plan year; when making a projection, an employer shall take into account only the wages which the employer anticipates in good faith, at the time the projection is made, it will pay to the member during such plan year.

(d) All projections required under this Section shall be maintained by the employer in the member's permanent employment records. The employer shall furnish such projections to the System as the System shall require.

(e) The System reserves the right to audit employer projections and to adjust projections not complying with this Section as determined by the System. The System also

reserves the right to adjust employer projections to take into account the employment of members by multiple employers during a plan year in such manner as the System shall determine.

Section 5015.5 DUTIES OF EMPLOYERS IN THE CASE OF CERTAIN PAYMENTS MADE TO TIER 6 MEMBERS. When making a holdover, retroactive, contract settlement or other payment to a Tier 6 member for service rendered in a plan year prior to the year of payment, the employer shall apply the rate of contribution established for that member in the year in which the payment is made or, if the member has retired, in the member's last year of service.

PART 5016

ELECTION OF DELEGATES TO ANNUAL CONVENTION

(Statutory authority: Education Law, §505)

Section
5016.1 Territorial unit representation
5016.2 Term
5016.3 Alternates
5016.4 Election procedure

Section 5016.1 TERRITORIAL UNIT REPRESENTATION.

(a) A territorial unit shall be the territory under the jurisdiction of a city or village superintendent or district superintendent; a school district within a supervisory district having at least 75 members of the System, including a board of cooperative educational services and a vocational education and extension board; the State Education Department; or a unit of the State University.

(b) Each territorial unit shall be entitled to a minimum of one delegate for each 200 members of the System contractually employed on a per annum basis. For the purposes of this Section, "per annum basis" shall mean credited with a full year of service in said unit. The number of delegates to which each territorial unit shall be entitled shall be equal to the number of such members divided by 200 rounded to the nearest whole number as determined according to the following schedule:

A unit having fewer than 300 members shall have one delegate;
A unit with 300 - 499 members shall have two delegates;
A unit with 500 - 699 members shall have three delegates;
A unit with 700 - 899 members shall have four delegates;
A unit with 900 - 1099 members shall have five delegates;
A unit with 1100 - 1299 members shall have six delegates; etc.

Section 5016.2 TERM. Delegates to the System's annual convention shall be elected in odd-numbered years to a two-year term commencing August 1 of the year of election and ending July 31 of the following odd-numbered years. A delegate elected in a special election held in an even-numbered year shall serve out the remainder of the regular election term.

Section 5016.3 ALTERNATES.

(a) Each delegate may have an alternate. The vote for the delegate candidate shall constitute a vote for the corresponding alternate candidate.

(b) If the delegate position becomes vacant for any reason, the System shall be provided with reasonable notice. The corresponding alternate, if any, shall automatically assume the delegate position in such event.

(c) If the delegate is unable to attend the annual convention and exercise their voting right, the corresponding alternate may attend and exercise such voting right provided the System receives reasonable notice.

(d) Any failure to have a corresponding alternate for a delegate shall not disqualify the delegate from serving as a delegate. If the delegate relinquishes their position and there is no corresponding alternate, the delegate position will remain vacant until it can be filled either during a special election or during the next regular election, whichever occurs first.

(e) No member of the System may be elected to more than one position.

(f) In no case shall a delegate, or corresponding alternate acting in their stead, have more than one vote.

Section 5016.4 ELECTION PROCEDURE.

(a) Election of delegates shall be held in odd-numbered years no earlier than March 1 and no later than June 1 in accordance with rules adopted by the chief administrative officer of each territorial unit, or their designee. The chief administrative officer shall have the sole responsibility to adopt rules governing the election procedure and the sole authority to conduct the election in accordance with said rules.

(b) A vote for the delegate candidate shall constitute a vote for the corresponding alternate candidate. The candidates for delegate and corresponding alternate receiving a plurality of the votes cast shall be deemed elected. If the territorial unit is entitled to more than one delegate, the voters shall cast a vote for sufficient persons in the number needed to represent the territorial unit and those candidates receiving the most votes and their corresponding alternates shall be declared elected. If there is an uncontested election, no formal election is required.

(c) Each delegate and corresponding alternate must be a member of the System and employed as a teacher on a per annum basis as defined in Section 5016.1(b) in the territorial unit in which they represents.

(d) The chief administrative officer, or their designee, shall file with the System, no later than July 1, a certificate of election which shall be in a form prescribed by the System, containing the names and addresses of the delegates and the alternates elected and/or such other information as may be required by the System.

(e) The chief administrative officer, or their designee, shall furnish each delegate with a copy of said certificate of their election.

(f) A special election may be held only if both the delegate position and its corresponding alternate position become vacant. Such special election shall be held in an

even-numbered year no earlier than March 1 and no later than October 1 and in the same manner as the regular election. Those elected will serve the remaining portion of the regular election term. The chief administrative officer, or their designee, shall no later than October 6, provide the results of such special election and file with the System a certificate of election. The chief administrative officer shall furnish the delegate so elected with a copy of said certificate of their election.

PART 5017

AMENDMENT OF RULES AND REGULATIONS

(Statutory authority: Education Law, §§504 [subd. 1], 506 [subd. 5])

Section
5017.1 General

Section 5017.1 GENERAL. The Rules and Regulations may be amended by a majority vote of the entire Retirement Board at any duly called meeting, provided notice of the substance of the amendment is mailed to the members of the Retirement Board at least seven days prior to the date of the meeting.

PART 5018

ACTUARIAL ASSUMPTIONS

(Statutory authority: Education Law §§501 (subd. 9(b), (c)); 508 (subd. 4); 517)

Section

5018.1 Valuation rate of interest and salary scale assumptions
5018.2 Mortality and service tables for valuation purposes
5018.3 Mortality tables for the determination of benefits accrued prior to August 1, 1983
5018.4 Mortality tables for the determination of benefits accruing on or after August 1, 1983
5018.5 Interest rate for calculation of de minimis service retirement benefit
5018.6 Compliance with IRC Section 415

Section 5018.1 VALUATION RATE OF INTEREST, SALARY SCALE AND COLA ASSUMPTIONS. For the purpose of performing the annual actuarial valuation of the Retirement System, effective with the July 1, 2021 valuation, the valuation rate of interest shall be 6.95 percent, the assumed rate of COLA increase shall be 1.3 percent, and the salary scale assumption shall be as follows:

Salary Scale

Duration	Rate	Duration	Rate	Duration	Rate
0	1.1231	14	1.038	28	1.0230
1	1.1079	15	1.0364	29	1.0225
2	1.0814	16	1.0347	30	1.0219
3	1.0683	17	1.0332	31	1.0214
4	1.0582	18	1.0317	32	1.0210
5	1.0518	19	1.0305	33	1.0204
6	1.0480	20	1.0293	34	1.0200
7	1.0459	21	1.0283	35	1.0195
8	1.0447	22	1.0274	36	1.0191
9	1.0438	23	1.0265	37	1.0186
10	1.0430	24	1.0257	38	1.0183
11	1.0421	25	1.0250	39	1.0183
12	1.0409	26	1.0243	40	1.0184
13	1.0396	27	1.0237		

Section 5018.2 MORTALITY AND SERVICE TABLES FOR VALUATION PURPOSES. For the purposes of performing the annual actuarial valuation of the Retirement System, effective with the July 1, 2021 valuation, the assumptions to be used for the incidence of death, disability, withdrawal, and retirement among active members and for the incidence of death among members who are retired for service and the beneficiaries of active and retired members, and for the incidence of death among members who are retired for disability, shall be as follows:

Mortality Rates for Active Members

Males

Age	Rate	Age	Rate	Age	Rate
20	0.000326	39	0.000448	58	0.002146
21	0.000292	40	0.000467	59	0.002363
22	0.000249	41	0.000494	60	0.002605
23	0.000215	42	0.000518	61	0.002875
24	0.000189	43	0.000550	62	0.003162
25	0.000173	44	0.000582	63	0.003461
26	0.000189	45	0.000633	64	0.003789
27	0.000206	46	0.000683	65	0.004146
28	0.000223	47	0.000743	66	0.004515
29	0.000252	48	0.000816	67	0.004918
30	0.000269	49	0.000891	68	0.005349
31	0.000298	50	0.000988	69	0.005822
32	0.000314	51	0.001090	70	0.006313
33	0.000340	52	0.001197	71	0.006838
34	0.000353	53	0.001327	72	0.007406
35	0.000376	54	0.001463	73	0.008017
36	0.000396	55	0.001605	74	0.008674
37	0.000412	56	0.001769	75	0.009408
38	0.000438	57	0.001948	76	0.010787

Age	Rate
77	0.012380
78	0.014221
79	0.016338

Females

Age	Rate	Age	Rate	Age	Rate
20	0.000132	39	0.000316	58	0.001369
21	0.000124	40	0.000326	59	0.001485
22	0.000105	41	0.000347	60	0.001611
23	0.000096	42	0.000366	61	0.001748
24	0.000099	43	0.000395	62	0.001902
25	0.000101	44	0.000413	63	0.002066
26	0.000114	45	0.000442	64	0.002259
27	0.000116	46	0.000482	65	0.002472
28	0.000131	47	0.000523	66	0.002719
29	0.000145	48	0.000568	67	0.003002
30	0.000171	49	0.000616	68	0.003342
31	0.000185	50	0.000668	69	0.003748
32	0.000197	51	0.000733	70	0.004225
33	0.000209	52	0.000811	71	0.004789
34	0.000232	53	0.000884	72	0.005454
35	0.000240	54	0.000968	73	0.006216
36	0.000259	55	0.001063	74	0.007116
37	0.000277	56	0.001156	75	0.008144
38	0.000291	57	0.001255	76	0.009388
				77	0.010829
				78	0.012490
				79	0.014393

Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates.

Disability Retirement Rates for Active Members

Males

Age	Rate	Age	Rate
30	0.000007	55	0.001287
31	0.000031	56	0.001060
32	0.000060	57	0.000845
33	0.000100	58	0.000721
34	0.000131	59	0.000655
35	0.000156	60	0.000642
36	0.000183	61	0.000617
37	0.000220	62	0.000581
38	0.000261	63	0.000536
39	0.000297	64	0.000485
40	0.000324	65	0.000430
41	0.000353	66	0.000373
42	0.000378	67	0.000317
43	0.000439	68	0.000264
44	0.000519	69	0.000215
45	0.000610	70	0.000172
46	0.000680	71	0.000135
47	0.000724	72	0.000104
48	0.000772	73	0.000078
49	0.000878	74	0.000058
50	0.001035	75	0.000042
51	0.001225	76	0.000030
52	0.001395	77	0.000021
53	0.001480	78	0.000014
54	0.001435	79	0.000009

Females			
Age	Rate	Age	Rate
30	0.000004	59	0.000956
31	0.000018	60	0.000848
32	0.000048	61	0.000749
33	0.000140	62	0.000684
34	0.000225	63	0.000591
35	0.000242	64	0.000551
36	0.000212	65	0.000476
37	0.000191	66	0.000258
38	0.000202	67	0.000178
39	0.000252	68	0.000169
40	0.000330	69	0.000152
41	0.000415	70	0.000131
42	0.000468	71	0.000107
43	0.000566	72	0.000083
44	0.000684	73	0.000060
45	0.000758	74	0.000042
46	0.000788	75	0.000028
47	0.000841	76	0.000018
48	0.000961	77	0.000011
49	0.001145	78	0.000006
50	0.001325	79	0.000004
51	0.001528		
52	0.001608		
53	0.001611		
54	0.001527		
55	0.001454		
56	0.001270		
57	0.001121		
58	0.001012		

Withdrawal Rates for Active Members

Service	Females Rate	Males Rate
0	0.276603	0.281672
1	0.125667	0.139639
2	0.091900	0.103566
3	0.070395	0.082839
4	0.054609	0.061281
5	0.048608	0.046733
6	0.044007	0.040304
7	0.039406	0.033875
8	0.034805	0.027446
9	0.030204	0.021017
10	0.025604	0.017586
11	0.022445	0.015753
12	0.018454	0.012379
13	0.014464	0.009004
14	0.010474	0.008712
15	0.009808	0.008419
16	0.008100	0.007735
17	0.006392	0.007052
18	0.004683	0.006368
19	0.004300	0.005078
20	0.004251	0.005000
21	0.003896	0.004633
22	0.003883	0.004265
23	0.003869	0.003897
24	0.003856	0.003530
25	0.002475	0.003162
26	0.002156	0.003058
27	0.001836	0.002953
28	0.001516	0.002848
29	0.001230	0.002744
30	0.001223	0.002639
31	0.001217	0.002534
32+	0.001210	0.002430

Service Retirement Rates for Active Members
with at least 30 Years of Service

Males		Females	
Age	Rate	Age	Rate
55	0.357369	55	0.360457
56	0.308100	56	0.328854
57	0.270702	57	0.285005
58	0.275266	58	0.281178
59	0.296323	59	0.303384
60	0.311082	60	0.329377
61	0.310642	61	0.358157
62	0.319459	62	0.383599
63	0.319013	63	0.361017
64	0.297225	64	0.336647
65	0.311052	65	0.345155
66	0.340284	66	0.361702
67	0.325405	67	0.339678
68	0.291372	68	0.289690
69	0.274286	69	0.270671
70	0.259067	70	0.268173
71	0.238434	71	0.269377
72	0.223404	72	0.255354
73	0.224806	73	0.220085
74	0.262136	74	0.204420
75	0.294872	75	0.182796
76	0.254902	76	0.157205
77	0.200000	77	0.175258
78	0.178571	78	0.222973
79	0.184615	79	0.253012
80+	1.000000	80+	1.000000

Service Retirement Rates for Active Members
With at Least 20 Years of Service and
Less than 30 Years of Service

Males		Females	
Age	Rate	Age	Rate
55	0.036912	55	0.048946
56	0.038733	56	0.048932
57	0.042465	57	0.050278
58	0.045650	58	0.055984
59	0.053792	59	0.066847
60	0.074850	60	0.085816
61	0.137343	61	0.124821
62	0.317298	62	0.344649
63	0.291193	63	0.320354
64	0.264522	64	0.270180
65	0.284814	65	0.306632
66	0.326565	66	0.343562
67	0.323741	67	0.335230
68	0.287004	68	0.312155
69	0.316940	69	0.294658
70	0.345833	70	0.276159
71	0.274390	71	0.258438
72	0.244094	72	0.248951
73	0.316327	73	0.231388
74	0.314286	74	0.202817
75	0.222222	75	0.232824
76	0.200000	76	0.283422
77	0.206897	77	0.291667
78	0.214286	78	0.243590
79	0.148148	79	0.170732
80+	1.000000	80+	1.000000

Service Retirement Rates for Active Members
With at Least 5 Years of Service and Less Than 20 Years of Service

Males		Females	
Age	Rate	Age	Rate
55	0.016895	55	0.022034
56	0.018138	56	0.020920
57	0.018949	57	0.021583
58	0.020392	58	0.024243
59	0.023948	59	0.028714
60	0.032544	60	0.036747
61	0.053559	61	0.049865
62	0.076575	62	0.098737
63	0.086291	63	0.099499
64	0.101429	64	0.108244
65	0.135241	65	0.134619
66	0.165359	66	0.157206
67	0.171258	67	0.157651
68	0.162524	68	0.149321
69	0.168459	69	0.157048
70	0.178411	70	0.169309
71	0.168561	71	0.166236
72	0.175182	72	0.149874
73	0.204473	73	0.130584
74	0.205761	74	0.131818
75	0.201031	75	0.170940
76	0.223684	76	0.208633
77	0.250000	77	0.178744
78	0.259259	78	0.105960
79	0.243243	79	0.115385
80+	1.000000	80+	1.000000

Mortality Base Rates for Healthy Annuitant

Males		Females	
Age	Rate	Age	Rate
55	0.002062	55	0.001763
56	0.002298	56	0.001932
57	0.002558	57	0.002104
58	0.002850	58	0.002284
59	0.003160	59	0.002461
60	0.003492	60	0.002642
61	0.003850	61	0.002833
62	0.004238	62	0.003026
63	0.004643	63	0.003239
64	0.005097	64	0.003476
65	0.005594	65	0.003756
66	0.006160	66	0.004075
67	0.006809	67	0.004460
68	0.007562	68	0.004926
69	0.008430	69	0.005489
70	0.009446	70	0.006169
71	0.010632	71	0.006976
72	0.012012	72	0.007929
73	0.013614	73	0.009050
74	0.015459	74	0.010362
75	0.020078	75	0.013227
76	0.022872	76	0.015184
77	0.026050	77	0.017425
78	0.029647	78	0.019982
79	0.033736	79	0.022903
80	0.038367	80	0.026219
81	0.043643	81	0.029999
82	0.049675	82	0.034278
83	0.056541	83	0.039141
84	0.064371	84	0.044654
85	0.073241	85	0.050874
86	0.083220	86	0.057876
87	0.094351	87	0.065733
88	0.106789	88	0.074568
89	0.120557	89	0.084462
90	0.135736	90	0.109847
91	0.152258	91	0.124150
92	0.169997	92	0.139945
93	0.188712	93	0.157256
94	0.208207	94	0.175838

Males		Females	
Age	Rate	Age	Rate
95	0.228238	95	0.195482
96	0.256135	96	0.216617
97	0.278405	97	0.238632
98	0.300930	98	0.261262
99	0.323597	99	0.284370
100	0.346058	100	0.307717
101	0.368382	101	0.331284
102	0.390636	102	0.355062
103	0.412527	103	0.378941
104	0.433960	104	0.402553
105	0.454672	105	0.425814
106	0.474623	106	0.448404
107	0.493810	107	0.470342
108	0.511957	108	0.491432
109	0.529320	109	0.511431
110	0.530405	110	0.530405
111	0.548187	111	0.548187
112	0.557992	112	0.557992
113	0.558942	113	0.558942
114	0.559950	114	0.559950
115	0.560902	115	0.560902
116	0.560959	116	0.560959
117	0.561015	117	0.561015
118	0.561015	118	0.561015
119	0.561015	119	0.561015
120	1.000000	120	1.000000

Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates

Mortality Base Rates for Survivors and Beneficiaries

Males

Age	Rate	Age	Rate	Age	Rate
1	0.000403	38	0.000677	75	0.024837
2	0.000403	39	0.000712	76	0.027914
3	0.000403	40	0.000740	77	0.031432
4	0.000403	41	0.000764	78	0.035426
5	0.000403	42	0.000798	79	0.039971
6	0.000403	43	0.000841	80	0.045158
7	0.000403	44	0.000883	81	0.051057
8	0.000403	45	0.000935	82	0.057759
9	0.000403	46	0.001001	83	0.065291
10	0.000403	47	0.001068	84	0.073728
11	0.000403	48	0.001151	85	0.083113
12	0.000403	49	0.001237	86	0.093445
13	0.000403	50	0.001339	87	0.104717
14	0.000403	51	0.001459	88	0.117043
15	0.000403	52	0.001585	89	0.130367
16	0.000403	53	0.001729	90	0.144705
17	0.000403	54	0.001890	91	0.160306
18	0.000403	55	0.004211	92	0.177295
19	0.000403	56	0.004591	93	0.195554
20	0.000403	57	0.004992	94	0.214933
21	0.000387	58	0.005427	95	0.235173
22	0.000360	59	0.005881	96	0.256846
23	0.000333	60	0.006353	97	0.279223
24	0.000306	61	0.006847	98	0.301941
25	0.000302	62	0.007355	99	0.324803
26	0.000338	63	0.007893	100	0.347403
27	0.000360	64	0.008469	101	0.369814
28	0.000383	65	0.009119	102	0.392154
29	0.000420	66	0.009879	103	0.414131
30	0.000442	67	0.010764	104	0.435647
31	0.000479	68	0.011791	105	0.456440
32	0.000498	69	0.012977	106	0.476468
33	0.000530	70	0.014348	107	0.495730
34	0.000559	71	0.015914	108	0.513947
35	0.000599	72	0.017714	109	0.531378
36	0.000621	73	0.019770	110	0.545110
37	0.000651	74	0.022137	111	0.548187

112	0.557992
113	0.558942
114	0.559950
115	0.560902
116	0.560959
117	0.561015
118	0.561015
119	0.561015
120	1.000000

Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates

Females

Age	Rate	Age	Rate	Age	Rate
1	0.000145	38	0.000346	75	0.017811
2	0.000145	39	0.000360	76	0.020084
3	0.000145	40	0.000383	77	0.022658
4	0.000145	41	0.000405	78	0.025572
5	0.000145	42	0.000425	79	0.028889
6	0.000145	43	0.000456	80	0.032661
7	0.000145	44	0.000487	81	0.036972
8	0.000145	45	0.000518	82	0.041889
9	0.000145	46	0.000552	83	0.047505
10	0.000145	47	0.000597	84	0.053910
11	0.000145	48	0.000647	85	0.061218
12	0.000145	49	0.000699	86	0.069540
13	0.000145	50	0.000767	87	0.078933
14	0.000145	51	0.000839	88	0.089461
15	0.000145	52	0.000916	89	0.101045
16	0.000145	53	0.001017	90	0.113634
17	0.000145	54	0.001111	91	0.127095
18	0.000145	55	0.003011	92	0.141336
19	0.000145	56	0.003214	93	0.157256
20	0.000134	57	0.003415	94	0.175838
21	0.000125	58	0.003623	95	0.195482
22	0.000116	59	0.003842	96	0.216617
23	0.000106	60	0.004095	97	0.238632
24	0.000097	61	0.004376	98	0.261262
25	0.000099	62	0.004709	99	0.284370
26	0.000114	63	0.005081	100	0.307717
27	0.000128	64	0.005515	101	0.331284
28	0.000144	65	0.006007	102	0.355062
29	0.000160	66	0.006574	103	0.378941
30	0.000175	67	0.007228	104	0.402553
31	0.000204	68	0.007991	105	0.425814
32	0.000218	69	0.008882	106	0.448404
33	0.000244	70	0.009913	107	0.470342
34	0.000255	71	0.011099	108	0.491432
35	0.000279	72	0.012469	109	0.511431
36	0.000300	73	0.014025	110	0.530405
37	0.000317	74	0.015798	111	0.548187

112	0.557992
113	0.558942
114	0.559950
115	0.560902
116	0.560959
117	0.561015
118	0.561015
119	0.561015
120	1.000000

Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates

Mortality Base Rates for Disabled Annuitants

Males

Age	Rate	Age	Rate	Age	Rate
30	0.004652	57	0.023488	84	0.095845
31	0.004963	58	0.024557	85	0.103866
32	0.005272	59	0.025566	86	0.112482
33	0.005569	60	0.026516	87	0.121693
34	0.005877	61	0.027415	88	0.131659
35	0.006163	62	0.028313	89	0.144125
36	0.006456	63	0.029236	90	0.157863
37	0.006751	64	0.030182	91	0.171906
38	0.007059	65	0.031154	92	0.186069
39	0.007371	66	0.032187	93	0.200252
40	0.007705	67	0.033281	94	0.214573
41	0.008073	68	0.034485	95	0.229208
42	0.008491	69	0.035810	96	0.256135
43	0.008966	70	0.037301	97	0.278405
44	0.009542	71	0.039017	98	0.300930
45	0.010203	72	0.040985	99	0.323597
46	0.010984	73	0.043225	100	0.346058
47	0.011887	74	0.045778	101	0.368382
48	0.012917	75	0.048700	102	0.390636
49	0.014064	76	0.051973	103	0.412527
50	0.015343	77	0.055667	104	0.433960
51	0.016424	78	0.059793	105	0.454672
52	0.017566	79	0.064417	106	0.474623
53	0.018749	80	0.069552	107	0.493810
54	0.019960	81	0.075256	108	0.511957
55	0.021172	82	0.081539	109	0.529320
56	0.022361	83	0.088386	110	0.530405
				111	0.548187
				112	0.557992
				113	0.558942
				114	0.559950
				115	0.560902
				116	0.560959
				117	0.561015
				118	0.561015
				119	0.561015
				120	1.000000

Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates

Females

Age	Rate	Age	Rate	Age	Rate
30	0.003422	57	0.020231	84	0.085710
31	0.003769	58	0.020721	85	0.093862
32	0.004129	59	0.021082	86	0.102354
33	0.004505	60	0.021350	87	0.111003
34	0.004881	61	0.021532	88	0.119794
35	0.005259	62	0.021709	89	0.128685
36	0.005634	63	0.021906	90	0.137873
37	0.006015	64	0.022166	91	0.147449
38	0.006401	65	0.022529	92	0.157607
39	0.006802	66	0.023039	93	0.168645
40	0.007219	67	0.023732	94	0.180687
41	0.007660	68	0.024639	95	0.195482
42	0.008131	69	0.025784	96	0.216617
43	0.008652	70	0.027188	97	0.238632
44	0.009236	71	0.028858	98	0.261262
45	0.009899	72	0.030823	99	0.284370
46	0.010640	73	0.033071	100	0.307717
47	0.011491	74	0.035661	101	0.331284
48	0.012463	75	0.038596	102	0.355062
49	0.013571	76	0.041899	103	0.378941
50	0.014803	77	0.045616	104	0.402553
51	0.015537	78	0.049768	105	0.425814
52	0.016336	79	0.054392	106	0.448404
53	0.017181	80	0.059522	107	0.470342
54	0.018046	81	0.065190	108	0.491432
55	0.018866	82	0.071412	109	0.511431
56	0.019608	83	0.078249	110	0.530405
				111	0.548187
				112	0.557992
				113	0.558942
				114	0.559950
				115	0.560902
				116	0.560959
				117	0.561015
				118	0.561015
				119	0.561015
				120	1.000000

Society of Actuaries Mortality Improvement Scale MP-2021 will be applied on a generational basis to base table rates

Section 5018.3 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS ACCRUED PRIOR TO AUGUST 1, 1983. The mortality tables to be used in the computation of benefits accrued prior to August 1, 1983 shall be as follows:

(a) Service annuitants.

(1) In calculating regular annuities without optional modification and annuity without optional modification on account of additional contributions, the interest rate of 4 percent shall be used in conjunction with the following tables:

(i) For male members who join prior to February 1, 1946:

Age	Qx value	Age	Qx value	Age	Qx value
2	0.00743	37	0.00957	72	0.06189
3	0.00744	38	0.00979	73	0.06699
4	0.00745	39	0.01002	74	0.07256
5	0.00746	40	0.01028	75	0.07861
6	0.00747	41	0.01056	76	0.08522
7	0.00748	42	0.01088	77	0.09240
8	0.00750	43	0.01122	78	0.10021
9	0.00751	44	0.01159	79	0.10869
10	0.00753	45	0.01200	80	0.11789
11	0.00754	46	0.01244	81	0.12790
12	0.00757	47	0.01294	82	0.13873
13	0.00759	48	0.01347	83	0.15044
14	0.00761	49	0.01406	84	0.16310
15	0.00763	50	0.01471	85	0.17678
16	0.00766	51	0.01542	86	0.19151
17	0.00770	52	0.01619	87	0.20737
18	0.00773	53	0.01704	88	0.22437
19	0.00777	54	0.01798	89	0.24264
20	0.00781	55	0.01900	90	0.26213
21	0.00785	56	0.02011	91	0.28296
22	0.00790	57	0.02134	92	0.30514
23	0.00796	58	0.02267	93	0.32853
24	0.00802	59	0.02414	94	0.35353
25	0.00808	60	0.02575	95	0.37975
26	0.00815	61	0.02750	96	0.40726
27	0.00823	62	0.02943	97	0.43544
28	0.00832	63	0.03153	98	0.46674
29	0.00841	64	0.03384	99	0.49672
30	0.00851	65	0.03635	100	0.53043
31	0.00863	66	0.03911	101	0.55556
32	0.00875	67	0.04212	102	0.60417
33	0.00889	68	0.04541	103	0.63158
34	0.00903	69	0.04900	104	0.71429
35	0.00920	70	0.05293	105	0.50000
36	0.00938	71	0.05722	106	1.00000

(ii) For female members who join prior to February 1, 1946:

Age	Qx value	Age	Qx value	Age	Qx value
20	0.00870	49	0.01280	78	0.07110
21	0.00870	50	0.01330	79	0.07690
22	0.00870	51	0.01370	80	0.08340
23	0.00880	52	0.01420	81	0.09030
24	0.00880	53	0.01480	82	0.09780
25	0.00880	54	0.01540	83	0.10600
26	0.00890	55	0.01610	84	0.11490
27	0.00890	56	0.01690	85	0.12450
28	0.00900	57	0.01770	86	0.13500
29	0.00910	58	0.01860	87	0.14630
30	0.00910	59	0.01960	88	0.15860
31	0.00920	60	0.02060	89	0.17180
32	0.00930	61	0.02180	90	0.18610
33	0.00940	62	0.02310	91	0.20140
34	0.00950	63	0.02450	92	0.21790
35	0.00960	64	0.02610	93	0.23570
36	0.00970	65	0.02770	94	0.25460
37	0.00980	66	0.02960	95	0.27480
38	0.01000	67	0.03160	96	0.29650
39	0.01010	68	0.03380	97	0.31930
40	0.01030	69	0.03630	98	0.34370
41	0.01050	70	0.03890	99	0.36920
42	0.01070	71	0.04180	100	0.40880
43	0.01090	72	0.04500	101	0.44940
44	0.01120	73	0.04840	102	0.50760
45	0.01150	74	0.05220	103	0.60590
46	0.01180	75	0.05630	104	0.79660
47	0.01210	76	0.06090	105	1.00000
48	0.01240	77	0.06580		

(iii) For male members who joined on or after February 1, 1946, but prior to January 1, 1956:

Age	Qx value	Age	Qx value	Age	Qx value
5	0.00356	40	0.00622	75	0.07088
6	0.00357	41	0.00649	76	0.07714
7	0.00358	42	0.00678	77	0.08395
8	0.00359	43	0.00711	78	0.09136
9	0.00361	44	0.00746	79	0.09943
10	0.00362	45	0.00784	80	0.10818
11	0.00364	46	0.00827	81	0.11768
12	0.00366	47	0.00873	82	0.12799
13	0.00368	48	0.00924	83	0.13915
14	0.00370	49	0.00980	84	0.15121
15	0.00373	50	0.01041	85	0.16426
16	0.00375	51	0.01107	86	0.17833
17	0.00378	52	0.01181	87	0.19348
18	0.00381	53	0.01261	88	0.20978
19	0.00385	54	0.01348	89	0.22728
20	0.00389	55	0.01445	90	0.24600
21	0.00393	56	0.01551	91	0.26601
22	0.00398	57	0.01666	92	0.28737
23	0.00403	58	0.01793	93	0.31008
24	0.00408	59	0.01932	94	0.33403
25	0.00415	60	0.02083	95	0.35953
26	0.00421	61	0.02249	96	0.38617
27	0.00429	62	0.02431	97	0.41432
28	0.00437	63	0.02630	98	0.44369
29	0.00446	64	0.02848	99	0.47406
30	0.00456	65	0.03086	100	0.50484
31	0.00466	66	0.03346	101	0.53906
32	0.00478	67	0.03631	102	0.56780
33	0.00490	68	0.03942	103	0.60784
34	0.00505	69	0.04283	104	0.65000
35	0.00520	70	0.04654	105	0.71429
36	0.00537	71	0.05060	106	0.50000
37	0.00556	72	0.05503	107	1.00000
38	0.00576	73	0.05986		
39	0.00598	74	0.06513		

(iv) For female members who joined on or after February 1, 1946, but prior to January 1, 1956:

Age	Qx value	Age	Qx value	Age	Qx value
9	0.00356	44	0.00622	79	0.07088
10	0.00357	45	0.00649	80	0.07714
11	0.00358	46	0.00678	81	0.08395
12	0.00359	47	0.00711	82	0.09137
13	0.00361	48	0.00746	83	0.09942
14	0.00362	49	0.00785	84	0.10818
15	0.00364	50	0.00827	85	0.11768
16	0.00366	51	0.00873	86	0.12799
17	0.00368	52	0.00924	87	0.13915
18	0.00370	53	0.00980	88	0.15121
19	0.00373	54	0.01040	89	0.16426
20	0.00375	55	0.01107	90	0.17833
21	0.00378	56	0.01181	91	0.19349
22	0.00382	57	0.01261	92	0.20977
23	0.00385	58	0.01349	93	0.22729
24	0.00389	59	0.01445	94	0.24601
25	0.00383	60	0.01551	95	0.26601
26	0.00398	61	0.01666	96	0.28735
27	0.00403	62	0.01793	97	0.31009
28	0.00408	63	0.01932	98	0.33404
29	0.00415	64	0.02083	99	0.35947
30	0.00421	65	0.02249	100	0.38617
31	0.00429	66	0.02431	101	0.41426
32	0.00437	67	0.02630	102	0.44374
33	0.00446	68	0.02848	103	0.47368
34	0.00455	69	0.03086	104	0.50588
35	0.00466	70	0.03347	105	0.53968
36	0.00478	71	0.03631	106	0.56897
37	0.00491	72	0.03942	107	0.60000
38	0.00505	73	0.04283	108	0.65000
39	0.00520	74	0.04654	109	0.71429
40	0.00537	75	0.05060	110	0.50000
41	0.00556	76	0.05503	111	1.00000
42	0.00576	77	0.05986		
43	0.00598	78	0.06513		

(v) For male members who joined on or after January 1, 1956, but prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
7	0.00356	42	0.00622	77	0.07088
8	0.00357	43	0.00649	78	0.07714
9	0.00358	44	0.00678	79	0.08395
10	0.00359	45	0.00711	80	0.09136
11	0.00361	46	0.00746	81	0.09943
12	0.00362	47	0.00784	82	0.10818
13	0.00364	48	0.00827	83	0.11768
14	0.00366	49	0.00873	84	0.12799
15	0.00368	50	0.00924	85	0.13915
16	0.00370	51	0.00980	86	0.15121
17	0.00373	52	0.01041	87	0.16426
18	0.00375	53	0.01107	88	0.17833
19	0.00378	54	0.01181	89	0.19348
20	0.00381	55	0.01261	90	0.20978
21	0.00385	56	0.01349	91	0.22728
22	0.00389	57	0.01445	92	0.24600
23	0.00393	58	0.01551	93	0.26601
24	0.00398	59	0.01666	94	0.28737
25	0.00403	60	0.01793	95	0.31008
26	0.00408	61	0.01932	96	0.33403
27	0.00415	62	0.02083	97	0.35953
28	0.00421	63	0.02249	98	0.38617
29	0.00429	64	0.02431	99	0.41432
30	0.00437	65	0.02630	100	0.44369
31	0.00446	66	0.02848	101	0.47406
32	0.00456	67	0.03086	102	0.50434
33	0.00466	68	0.03346	103	0.53906
34	0.00478	69	0.03631	104	0.56780
35	0.00490	70	0.03942	105	0.60784
36	0.00505	71	0.04283	106	0.65000
37	0.00520	72	0.04654	107	0.71429
38	0.00537	73	0.05060	108	0.50000
39	0.00556	74	0.05503	109	1.00000
40	0.00576	75	0.05986		
41	0.00598	76	0.06513		

(vi) For female members who joined on or after January 1, 1956, but prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
11	0.00356	46	0.00622	81	0.07088
12	0.00357	47	0.00649	82	0.07714
13	0.00358	48	0.00678	83	0.08395
14	0.00359	49	0.00711	84	0.09137
15	0.00361	50	0.00746	85	0.09942
16	0.00362	51	0.00785	86	0.10818
17	0.00364	52	0.00827	87	0.11768
18	0.00366	53	0.00873	88	0.12799
19	0.00368	54	0.00924	89	0.13915
20	0.00370	55	0.00980	90	0.15121
21	0.00373	56	0.01040	91	0.16426
22	0.00375	57	0.01107	92	0.17833
23	0.00378	58	0.01181	93	0.19349
24	0.00382	59	0.01261	94	0.20977
25	0.00385	60	0.01349	95	0.22729
26	0.00389	61	0.01445	96	0.24601
27	0.00393	62	0.01551	97	0.26601
28	0.00398	63	0.01666	98	0.28735
29	0.00403	64	0.01793	99	0.31009
30	0.00408	65	0.01932	100	0.33404
31	0.00415	66	0.02083	101	0.35947
32	0.00421	67	0.02249	102	0.38617
33	0.00429	68	0.02431	103	0.41426
34	0.00437	69	0.02630	104	0.44374
35	0.00446	70	0.02848	105	0.47368
36	0.00455	71	0.03086	106	0.50588
37	0.00466	72	0.03347	107	0.53968
38	0.00478	73	0.03631	108	0.56897
39	0.00491	74	0.03942	109	0.60000
40	0.00505	75	0.04283	110	0.65000
41	0.00520	76	0.04654	111	0.71429
42	0.00537	77	0.05060	112	0.50000
43	0.00556	78	0.05503	113	1.00000
44	0.00576	79	0.05986		
45	0.00598	80	0.06513		

(vii) For male members who join on or after July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
8	0.00356	43	0.00622	78	0.07088
9	0.00357	44	0.00649	79	0.07714
10	0.00358	45	0.00678	80	0.08395
11	0.00359	46	0.00711	81	0.09136
12	0.00361	47	0.00746	82	0.09943
13	0.00362	48	0.00784	83	0.10818
14	0.00364	49	0.00827	84	0.11768
15	0.00366	50	0.00873	85	0.12799
16	0.00368	51	0.00924	86	0.13915
17	0.00370	52	0.00980	87	0.15121
18	0.00373	53	0.01041	88	0.16426
19	0.00375	54	0.01107	89	0.17833
20	0.00378	55	0.01181	90	0.19348
21	0.00381	56	0.01261	91	0.20978
22	0.00385	57	0.01349	92	0.22728
23	0.00389	58	0.01445	93	0.24600
24	0.00393	59	0.01551	94	0.26601
25	0.00398	60	0.01666	95	0.28737
26	0.00403	61	0.01793	96	0.31008
27	0.00408	62	0.01932	97	0.33403
28	0.00415	63	0.02083	98	0.35953
29	0.00421	64	0.02249	99	0.38617
30	0.00429	65	0.02431	100	0.41432
31	0.00437	66	0.02630	101	0.44369
32	0.00446	67	0.02848	102	0.47406
33	0.00456	68	0.03086	103	0.50484
34	0.00466	69	0.03346	104	0.53906
35	0.00478	70	0.03631	105	0.56780
36	0.00490	71	0.03942	106	0.60784
37	0.00505	72	0.04283	107	0.65000
38	0.00520	73	0.04654	108	0.71429
39	0.00537	74	0.05060	109	0.50000
40	0.00556	75	0.05503	110	1.00000
41	0.00576	76	0.05986		
42	0.00598	77	0.06513		

(viii) For female members who join on or after July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
12	0.00356	46	0.00598	81	0.06513
13	0.00357	47	0.00622	82	0.07088
14	0.00358	48	0.00649	83	0.07714
15	0.00359	49	0.00678	84	0.08385
16	0.00361	50	0.00711	85	0.09137
17	0.00362	51	0.00746	86	0.09942
18	0.00364	52	0.00785	87	0.10818
19	0.00366	53	0.00827	88	0.11768
20	0.00368	54	0.00873	89	0.12799
21	0.00370	55	0.00924	90	0.13915
22	0.00373	56	0.00980	91	0.15121
23	0.00375	57	0.01040	92	0.16426
24	0.00378	58	0.01107	93	0.17833
25	0.00382	59	0.01181	94	0.19349
26	0.00385	60	0.01261	95	0.20977
27	0.00389	61	0.01349	96	0.22729
28	0.00393	62	0.01445	97	0.24601
29	0.00398	63	0.01551	98	0.26601
30	0.00403	64	0.01666	99	0.28735
31	0.00408	65	0.01793	100	0.31009
32	0.00415	66	0.01932	101	0.33404
33	0.00421	67	0.02083	102	0.35947
34	0.00429	68	0.02249	103	0.38617
35	0.00437	69	0.02431	104	0.41426
36	0.00446	70	0.02630	105	0.44374
37	0.00455	71	0.02848	106	0.47368
38	0.00466	72	0.03086	107	0.50588
39	0.00478	73	0.03347	108	0.53968
40	0.00491	74	0.03631	109	0.56897
41	0.00505	75	0.42830	110	0.60000
42	0.00520	77	0.04654	111	0.65000
43	0.00537	78	0.05060	112	0.71429
44	0.00556	79	0.05503	113	0.50000
45	0.00576	80	0.05986	114	1.00000

(2) Effective October 29, 2015, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4 percent for members who joined prior to July 1, 1948, and 3 percent for members who joined subsequent to June 30, 1948, shall be used in conjunction with the following tables:

(i) Males

Age	Rate	Age	Rate	Age	Rate
1	0.000410	38	0.000445	75	0.021524
2	0.000277	39	0.000464	76	0.024380
3	0.000230	40	0.000490	77	0.027633
4	0.000179	41	0.000524	78	0.031346
5	0.000157	42	0.000566	79	0.035590
6	0.000141	43	0.000619	80	0.040445
7	0.000124	44	0.000684	81	0.045997
8	0.000105	45	0.000760	82	0.052342
9	0.000085	46	0.000849	83	0.059585
10	0.000072	47	0.000949	84	0.067844
11	0.000076	48	0.001060	85	0.077246
12	0.000113	49	0.001183	86	0.087929
13	0.000149	50	0.001316	87	0.100040
14	0.000183	51	0.001461	88	0.113741
15	0.000218	52	0.001618	89	0.129208
16	0.000253	53	0.001951	90	0.141713
17	0.000290	54	0.002311	91	0.158130
18	0.000256	55	0.002522	92	0.175288
19	0.000288	56	0.002753	93	0.193131
20	0.000317	57	0.003004	94	0.211674
21	0.000351	58	0.003279	95	0.230976
22	0.000381	59	0.003579	96	0.251106
23	0.000397	60	0.003906	97	0.272113
24	0.000403	61	0.004264	98	0.293848
25	0.000378	62	0.004654	99	0.313988
26	0.000361	63	0.005050	100	0.334365
27	0.000351	64	0.005564	101	0.354599
28	0.000347	65	0.006204	102	0.374524
29	0.000348	66	0.006976	103	0.393982
30	0.000353	67	0.007886	104	0.412831
31	0.000361	68	0.008942	105	0.430946
32	0.000372	69	0.010151	106	0.448227
33	0.000384	70	0.011524	107	0.464592
34	0.000397	71	0.013074	108	0.479987
35	0.000408	72	0.014821	109	0.494376
36	0.000418	73	0.016788	110	0.500000
37	0.000430	74	0.019009		

(ii) Females

Age	Rate	Age	Rate	Age	Rate
1	0.0003 61	38	0.000310	75	0.014602
2	0.000236	39	0.000334	76	0.016603
3	0.000176	40	0.000362	77	0.018909
4	0.000132	41	0.000396	78	0.021567
5	0.000119	42	0.000436	79	0.024631
6	0.000110	43	0.000484	80	0.028162
7	0.000102	44	0.000539	81	0.032228
8	0.000094	45	0.000601	82	0.036904
9	0.000087	46	0.000671	83	0.042268
10	0.000082	47	0.000747	84	0.048410
11	0.000084	48	0.000829	85	0.055421
12	0.000097	49	0.000916	86	0.063404
13	0.000110	50	0.001008	87	0.072465
14	0.000121	51	0.001104	88	0.082724
15	0.000132	52	0.001203	89	0.094308
16	0.000142	53	0.001419	90	0.107360
17	0.000150	54	0.001645	91	0.122037
18	0.000144	55	0.001805	92	0.138518
19	0.000148	56	0.001980	93	0.157000
20	0.000148	57	0.002172	94	0.177701
21	0.000148	58	0.002382	95	0.191477
22	0.000148	59	0.002613	96	0.210235
23	0.000152	60	0.002866	97	0.229998
24	0.000155	61	0.003053	98	0.250723
25	0.000158	62	0.003298	99	0.270858
26	0.000164	63	0.003604	100	0.291040
27	0.000171	64	0.003976	101	0.311444
28	0.000179	65	0.004417	102	0.331900
29	0.000189	66	0.004931	103	0.352232
30	0.000199	67	0.005524	104	0.372273
31	0.000211	68	0.006203	105	0.391860
32	0.000223	69	0.006979	106	0.410849
33	0.000236	70	0.007864	107	0.429112
34	0.000249	71	0.008874	108	0.446544
35	0.000262	72	0.010029	109	0.463061
36	0.000275	73	0.011349	110	0.478604
37	0.000291	74	0.012863		

(3) In calculating option factors for regular annuities, additional annuities and pensions, the following tables[1] will be used:

(i) For male members:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.000410	38	0.000445	75	0.021524
2	0.000277	39	0.000464	76	0.024380
3	0.000230	40	0.000490	77	0.027633
4	0.000179	41	0.000524	78	0.031346
5	0.000157	42	0.000566	79	0.035590
6	0.000141	43	0.000619	80	0.040445
7	0.000124	44	0.000684	81	0.045997
8	0.000105	45	0.000760	82	0.052342
9	0.000085	46	0.000849	83	0.059585
10	0.000072	47	0.000949	84	0.067844
11	0.000076	48	0.001060	85	0.077246
12	0.000113	49	0.001183	86	0.087929
13	0.000149	50	0.001316	87	0.100040
14	0.000183	51	0.001461	88	0.113741
15	0.000218	52	0.001618	89	0.129208
16	0.000253	53	0.001951	90	0.141713
17	0.000290	54	0.002311	91	0.158130
18	0.000256	55	0.002522	92	0.175288
19	0.000288	56	0.002753	93	0.193131
20	0.000317	57	0.003004	94	0.211674
21	0.000351	58	0.003279	95	0.230976
22	0.000381	59	0.003579	96	0.251106
23	0.000397	60	0.003906	97	0.272113
24	0.000403	61	0.004264	98	0.293848
25	0.000378	62	0.004654	99	0.313988
26	0.000361	63	0.005050	100	0.334365
27	0.000351	64	0.005564	101	0.354599
28	0.000347	65	0.006204	102	0.374524
29	0.000348	66	0.006976	103	0.393982
30	0.000353	67	0.007886	104	0.412831
31	0.000361	68	0.008942	105	0.430946
32	0.000372	69	0.010151	106	0.448227
33	0.000384	70	0.011524	107	0.464592
34	0.000397	71	0.013074	108	0.479987
35	0.000408	72	0.014821	109	0.494376
36	0.000418	73	0.016788	110	0.500000
37	0.000430	74	0.019009		

[1]Statutes authorize the System to implement changes in mortality tables, but case law requires the non-diminution and preservation of option factors impacting benefits to members or beneficiaries. In any cases where option factors would have resulted in a lower benefit, option factors based on prior mortality tables adopted pursuant to a Retirement Board resolution effective for service retirements on or after January 1, 2001 are applied.

(ii) For female members:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.000361	38	0.000310	75	0.014602
2	0.000236	39	0.000334	76	0.016603
3	0.000176	40	0.000362	77	0.018909
4	0.000132	41	0.000396	78	0.021567
5	0.000119	42	0.000436	79	0.024631
6	0.000110	43	0.000484	80	0.028162
7	0.000102	44	0.000539	81	0.032228
8	0.000094	45	0.000601	82	0.036904
9	0.000087	46	0.000671	83	0.042268
10	0.000082	47	0.000747	84	0.048410
11	0.000084	48	0.000829	85	0.055421
12	0.000097	49	0.000916	86	0.063404
13	0.000110	50	0.001008	87	0.072465
14	0.000121	51	0.001104	88	0.082724
15	0.000132	52	0.001203	89	0.094308
16	0.000142	53	0.001419	90	0.107360
17	0.000150	54	0.001645	91	0.122037
18	0.000144	55	0.001805	92	0.138518
19	0.000148	56	0.001980	93	0.157000
20	0.000148	57	0.002172	94	0.177701
21	0.000148	58	0.002382	95	0.191477
22	0.000148	59	0.002613	96	0.210235
23	0.000152	60	0.002866	97	0.229998
24	0.000155	61	0.003053	98	0.250723
25	0.000158	62	0.003298	99	0.270858
26	0.000164	63	0.003604	100	0.291040
27	0.000171	64	0.003976	101	0.311444
28	0.000179	65	0.004417	102	0.331900
29	0.000189	66	0.004931	103	0.352232
30	0.000199	67	0.005524	104	0.372273
31	0.000211	68	0.006203	105	0.391860
32	0.000223	69	0.006979	106	0.410849
33	0.000236	70	0.007864	107	0.429112
34	0.000249	71	0.008874	108	0.446544
35	0.000262	72	0.010029	109	0.463061
36	0.000275	73	0.011349	110	0.478604
37	0.000291	74	0.012863		

(iii) For male beneficiaries of members:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.000410	38	0.000570	75	0.026826
2	0.000277	39	0.000595	76	0.029608
3	0.000230	40	0.000628	77	0.032735
4	0.000179	41	0.000671	78	0.036258
5	0.000157	42	0.000725	79	0.040232
6	0.000141	43	0.000793	80	0.044722
7	0.000124	44	0.000876	81	0.049795
8	0.000105	45	0.000973	82	0.055526
9	0.000085	46	0.001087	83	0.061996
10	0.000072	47	0.001215	84	0.069290
11	0.000076	48	0.001358	85	0.077497
12	0.000113	49	0.001515	86	0.086712
13	0.000149	50	0.004064	87	0.097038
14	0.000183	51	0.004384	88	0.108591
15	0.000218	52	0.004709	89	0.121499
16	0.000253	53	0.005042	90	0.135908
17	0.000290	54	0.005384	91	0.151322
18	0.000328	55	0.005735	92	0.167422
19	0.000369	56	0.006099	93	0.184030
20	0.000406	57	0.006478	94	0.201074
21	0.000449	58	0.006877	95	0.218559
22	0.000488	59	0.007305	96	0.236535
23	0.000509	60	0.007771	97	0.255059
24	0.000516	61	0.008284	98	0.274170
25	0.000484	62	0.008854	99	0.293848
26	0.000462	63	0.009492	100	0.313988
27	0.000449	64	0.010209	101	0.334365
28	0.000444	65	0.011013	102	0.354599
29	0.000446	66	0.011916	103	0.374524
30	0.000452	67	0.012930	104	0.393982
31	0.000463	68	0.014067	105	0.412831
32	0.000477	69	0.015342	106	0.430946
33	0.000492	70	0.016769	107	0.448227
34	0.000508	71	0.018363	108	0.464592
35	0.000523	72	0.020141	109	0.479987
36	0.000536	73	0.022127	110	0.494376
37	0.000551	74	0.024345		

(iv) For female beneficiaries of members:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.000361	38	0.000339	75	0.020938
2	0.000236	39	0.000365	76	0.023118
3	0.000176	40	0.000396	77	0.025554
4	0.000132	41	0.000433	78	0.028288
5	0.000119	42	0.000477	79	0.031366
6	0.000110	43	0.000529	80	0.034844
7	0.000102	44	0.000589	81	0.038783
8	0.000094	45	0.000657	82	0.043246
9	0.000087	46	0.000733	83	0.048305
10	0.000082	47	0.000816	84	0.054032
11	0.000084	48	0.000906	85	0.060504
12	0.000097	49	0.001001	86	0.067801
13	0.000110	50	0.002768	87	0.076012
14	0.000121	51	0.002905	88	0.085230
15	0.000132	52	0.003057	89	0.095563
16	0.000142	53	0.003225	90	0.107126
17	0.000150	54	0.003412	91	0.119744
18	0.000157	55	0.003622	92	0.133299
19	0.000162	56	0.003858	93	0.147720
20	0.000162	57	0.004128	94	0.162971
21	0.000162	58	0.004436	95	0.179034
22	0.000162	59	0.004789	96	0.195903
23	0.000166	60	0.005191	97	0.213565
24	0.000169	61	0.005646	98	0.231991
25	0.000173	62	0.006156	99	0.251123
26	0.000179	63	0.006723	100	0.270858
27	0.000187	64	0.007352	101	0.291040
28	0.000196	65	0.008048	102	0.311444
29	0.000206	66	0.008821	103	0.331900
30	0.000218	67	0.009679	104	0.352232
31	0.000231	68	0.010633	105	0.372273
32	0.000244	69	0.011692	106	0.391860
33	0.000258	70	0.012868	107	0.410849
34	0.000272	71	0.014171	108	0.429112
35	0.000286	72	0.015614	109	0.446544
36	0.000300	73	0.017210	110	0.463061
37	0.000318	74	0.018977		

(b) Disability annuitants.

(1) In calculating regular annuities without optional modification and annuities without optional modification on account of additional contributions, the interest rate of 4 percent shall be used in conjunction with the following tables:

(i) For male members who join prior to February 1, 1946:

Age	Qx value	Age	Qx value	Age	Qx value
22	0.06096	50	0.03640	78	0.10884
23	0.06086	51	0.03700	79	0.11615
24	0.05718	52	0.03764	80	0.12393
25	0.05122	53	0.03838	81	0.13261
26	0.04470	54	0.03915	82	0.14172
27	0.03911	55	0.04001	83	0.15198
28	0.03521	56	0.04095	84	0.16275
29	0.03294	57	0.04198	85	0.17452
30	0.03187	58	0.04312	86	0.18735
31	0.03150	59	0.04435	87	0.20093
32	0.03145	60	0.04571	88	0.21584
33	0.03151	61	0.04720	89	0.23170
34	0.03162	62	0.04881	90	0.24910
35	0.03176	63	0.05059	91	0.26707
36	0.03191	64	0.05253	92	0.28668
37	0.03208	65	0.05466	93	0.30742
38	0.03226	66	0.05700	94	0.32964
39	0.03246	67	0.05952	95	0.35308
40	0.03267	68	0.06233	96	0.37801
41	0.03292	69	0.06536	97	0.40395
42	0.03317	70	0.06866	98	0.43129
43	0.03346	71	0.07232	99	0.45997
44	0.03377	72	0.07629	100	0.48922
45	0.03412	73	0.08061	101	0.52032
46	0.03449	74	0.08532	102	0.55171
47	0.03491	75	0.09045	103	0.58364
48	0.03536	76	0.09610	104	1.00000
49	0.03586	77	0.10224		

(ii) For female members who join prior to February 1, 1946:

Age	Qx value	Age	Qx value	Age	Qx value
14	0.02060	43	0.01114	72	0.06136
15	0.02330	44	0.01149	73	0.06644
16	0.02539	45	0.01190	74	0.07195
17	0.02692	46	0.01234	75	0.07795
18	0.02793	47	0.01283	76	0.08451
19	0.02821	48	0.01337	77	0.08162
20	0.02823	49	0.01395	78	0.09938
21	0.02799	50	0.01458	79	0.10781
22	0.02748	51	0.01529	80	0.11695
23	0.02668	52	0.01606	81	0.12684
24	0.02560	53	0.01690	82	0.13763
25	0.02427	54	0.01783	83	0.14823
26	0.02273	55	0.01884	84	0.16183
27	0.02106	56	0.01994	85	0.17534
28	0.01931	57	0.02115	86	0.19002
29	0.01756	58	0.02249	87	0.20571
30	0.01589	59	0.02393	88	0.22262
31	0.01439	60	0.02553	89	0.24092
32	0.01309	61	0.02728	90	0.26001
33	0.01200	62	0.02918	91	0.28100
34	0.01117	63	0.03127	92	0.30283
35	0.01059	64	0.03354	93	0.32665
36	0.01022	65	0.03606	94	0.35035
37	0.01005	66	0.03878	95	0.37773
38	0.01002	67	0.04176	96	0.40351
39	0.01011	68	0.04502	97	0.43529
40	0.01028	69	0.04860	98	0.45833
41	0.01051	70	0.05247	99	0.50000
42	0.01081	71	0.05674		

(iii) For male members who joined on or after February 1, 1946, but prior to January 1, 1956:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.00743	36	0.00957	71	0.06189
2	0.00744	37	0.00979	72	0.06699
3	0.00745	38	0.01002	73	0.07256
4	0.00746	39	0.01028	74	0.07861
5	0.00747	40	0.01056	75	0.08522
6	0.00748	41	0.01088	76	0.09240
7	0.00750	42	0.01122	77	0.10021
8	0.00751	43	0.01159	78	0.10869
9	0.00753	44	0.01200	79	0.11789
10	0.00754	45	0.01244	80	0.12790
11	0.00757	46	0.01294	81	0.13873
12	0.00759	47	0.01347	82	0.15044
13	0.00761	48	0.01406	83	0.16310
14	0.00763	49	0.01471	84	0.17678
15	0.00766	50	0.01542	85	0.19151
16	0.00770	51	0.01619	86	0.20737
17	0.00773	52	0.01704	87	0.22437
18	0.00777	53	0.01798	88	0.24264
19	0.00781	54	0.01900	89	0.26213
20	0.00785	55	0.02011	90	0.28296
21	0.00790	56	0.02134	91	0.30514
22	0.00796	57	0.02267	92	0.32853
23	0.00802	58	0.02414	93	0.35353
24	0.00808	59	0.02575	94	0.37975
25	0.00815	60	0.02750	95	0.40726
26	0.00823	61	0.02943	96	0.43544
27	0.00832	62	0.03153	97	0.46674
28	0.00841	63	0.03384	98	0.49672
29	0.00851	64	0.03635	99	0.53043
30	0.00863	65	0.03911	100	0.55556
31	0.00875	66	0.04212	101	0.60417
32	0.00889	67	0.04541	102	0.63158
33	0.00903	68	0.04900	103	0.71429
34	0.00920	69	0.05293	104	0.50000
35	0.00938	70	0.05722	105	1.00000

(iv) For female members who joined on or after February 1, 1946, but prior to January 1, 1956:

Age	Qx value	Age	Qx value	Age	Qx value
15	0.02060	45	0.01149	75	0.07195
16	0.02330	46	0.01190	76	0.07795
17	0.02539	47	0.01234	77	0.08451
18	0.02692	48	0.01283	78	0.09162
19	0.02793	49	0.01337	79	0.09938
20	0.02821	50	0.01395	80	0.10781
21	0.02823	51	0.01458	81	0.11695
22	0.02799	52	0.01529	82	0.12684
23	0.02748	53	0.01606	83	0.13763
24	0.02668	54	0.01690	84	0.14923
25	0.02560	55	0.01783	85	0.16183
26	0.02427	56	0.01884	86	0.17534
27	0.02273	57	0.01994	87	0.19002
28	0.02106	58	0.02115	88	0.20571
29	0.01931	59	0.02249	89	0.22262
30	0.01756	60	0.02393	90	0.24092
31	0.01589	61	0.02553	91	0.26001
32	0.01439	62	0.02728	92	0.28100
33	0.01309	63	0.02918	93	0.30293
34	0.01200	64	0.03127	94	0.32665
35	0.01117	65	0.03354	95	0.35035
36	0.01059	66	0.03606	96	0.37773
37	0.01022	67	0.03878	97	0.40351
38	0.01005	68	0.04176	98	0.43529
39	0.01002	69	0.04502	99	0.45833
40	0.01011	70	0.04860	100	0.50000
41	0.01028	71	0.05247	101	0.53846
42	0.01051	72	0.05674	102	0.58333
43	0.01081	73	0.06136	103	0.60000
44	0.01114	74	0.06644	104	1.00000

(v) For male members who joined on or after January 1, 1956, but prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.00743	36	0.00957	71	0.06189
2	0.00744	37	0.00979	72	0.06699
3	0.00745	38	0.01002	73	0.07256
4	0.00746	39	0.01028	74	0.07861
5	0.00747	40	0.01056	75	0.08522
6	0.00748	41	0.01088	76	0.09240
7	0.00750	42	0.01122	77	0.10021
8	0.00751	43	0.01159	78	0.10869
9	0.00753	44	0.01200	79	0.11789
10	0.00754	45	0.01244	80	0.12790
11	0.00757	46	0.01294	81	0.13873
12	0.00759	47	0.01347	82	0.15044
13	0.00761	48	0.01406	83	0.16310
14	0.00763	49	0.01471	84	0.17678
15	0.00766	50	0.01542	85	0.19151
16	0.00770	51	0.01619	86	0.20737
17	0.00773	52	0.01704	87	0.22437
18	0.00777	53	0.01798	88	0.24264
19	0.00781	54	0.01900	89	0.26213
20	0.00785	55	0.02011	90	0.28296
21	0.00790	56	0.02134	91	0.30514
22	0.00796	57	0.02267	92	0.32853
23	0.00802	58	0.02414	93	0.35353
24	0.00808	59	0.02575	94	0.37975
25	0.00815	60	0.02750	95	0.40726
26	0.00823	61	0.02943	96	0.43544
27	0.00832	62	0.03153	97	0.46674
28	0.00841	63	0.03384	98	0.49672
29	0.00851	64	0.03635	99	0.53043
30	0.00863	65	0.03911	100	0.55556
31	0.00875	66	0.04212	101	0.60417
32	0.00889	67	0.04541	102	0.63158
33	0.00903	68	0.04900	103	0.71429
34	0.00920	69	0.05293	104	0.50000
35	0.00938	70	0.05722	105	1.00000

(vi) For female members who joined on or after January 1, 1956, but prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
17	0.02060	47	0.01149	77	0.07195
18	0.02330	48	0.01190	78	0.07795
19	0.02539	49	0.01234	79	0.08451
20	0.02692	50	0.01283	80	0.09162
21	0.02793	51	0.01337	81	0.09938
22	0.02821	52	0.01395	82	0.10781
23	0.02823	53	0.01458	83	0.11695
24	0.02799	54	0.01529	84	0.12684
25	0.02748	55	0.01606	85	0.13763
26	0.02668	56	0.01690	86	0.14923
27	0.02560	57	0.01783	87	0.16183
28	0.02427	58	0.01884	88	0.17534
29	0.02273	59	0.01994	89	0.19002
30	0.02106	60	0.02115	90	0.20571
31	0.01931	61	0.02249	91	0.22262
32	0.01756	62	0.02393	92	0.24092
33	0.01589	63	0.02553	93	0.26001
34	0.01439	64	0.02728	94	0.28100
35	0.01309	65	0.02918	95	0.30293
36	0.01200	66	0.03127	96	0.32665
37	0.01117	67	0.03354	97	0.35035
38	0.01059	68	0.03606	98	0.37773
39	0.01022	69	0.03878	99	0.40351
40	0.01005	70	0.04176	100	0.43529
41	0.01002	71	0.04502	101	0.45833
42	0.01011	72	0.04860	102	0.50000
43	0.01028	73	0.05247	103	0.53846
44	0.01051	74	0.05674	104	0.58333
45	0.01081	75	0.06136	105	0.60000
46	0.01114	76	0.06644	106	1.00000

(vii) For male members who join on or after July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.00743	36	0.00957	71	0.06189
2	0.00744	37	0.00979	72	0.06699
3	0.00745	38	0.01002	73	0.07256
4	0.00746	39	0.01028	74	0.07861
5	0.00747	40	0.01056	75	0.08522
6	0.00748	41	0.01088	76	0.09240
7	0.00750	42	0.01122	77	0.10021
8	0.00751	43	0.01159	78	0.10869
9	0.00753	44	0.01200	79	0.11789
10	0.00754	45	0.01244	80	0.12790
11	0.00757	46	0.01294	81	0.13873
12	0.00759	47	0.01347	82	0.15044
13	0.00761	48	0.01406	83	0.16310
14	0.00763	49	0.01471	84	0.17678
15	0.00766	50	0.01542	85	0.19151
16	0.00770	51	0.01619	86	0.20737
17	0.00773	52	0.01704	87	0.22437
18	0.00777	53	0.01798	88	0.24264
19	0.00781	54	0.01900	89	0.26213
20	0.00785	55	0.02011	90	0.28296
21	0.00790	56	0.02134	91	0.30514
22	0.00796	57	0.02267	92	0.32853
23	0.00802	58	0.02414	93	0.35353
24	0.00808	59	0.02575	94	0.37975
25	0.00815	60	0.02750	95	0.40726
26	0.00823	61	0.02943	96	0.43544
27	0.00832	62	0.03153	97	0.46674
28	0.00841	63	0.03384	98	0.49672
29	0.00851	64	0.03635	99	0.53043
30	0.00863	65	0.03911	100	0.55556
31	0.00875	66	0.04212	101	0.60417
32	0.00889	67	0.04541	102	0.63158
33	0.00903	68	0.04900	103	0.71429
34	0.00920	69	0.05293	104	0.50000
35	0.00938	70	0.05722	105	1.00000

(viii) For female members who join on or after July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
19	0.02060	49	0.01149	79	0.07195
20	0.02330	50	0.01190	80	0.07795
21	0.02539	51	0.01234	81	0.08451
22	0.02692	52	0.01283	82	0.09162
23	0.02793	53	0.01337	83	0.09938
24	0.02821	54	0.01395	84	0.10781
25	0.02823	55	0.01458	85	0.11695
26	0.02799	56	0.01529	86	0.12684
27	0.02748	57	0.01606	87	0.13763
28	0.02668	58	0.01690	88	0.14923
28	0.02560	59	0.01783	89	0.16183
30	0.02427	60	0.01884	90	0.17534
31	0.02273	61	0.01994	91	0.19002
32	0.02106	62	0.02115	92	0.20571
33	0.01931	63	0.02249	93	0.22262
34	0.01756	64	0.02393	94	0.24092
35	0.01589	65	0.02553	95	0.26001
36	0.01439	66	0.02728	96	0.28100
37	0.01309	67	0.02918	97	0.30293
38	0.01200	68	0.03127	98	0.32665
39	0.01117	69	0.03354	99	0.35035
40	0.01059	70	0.03606	100	0.37773
41	0.01022	71	0.03878	101	0.40351
42	0.01005	72	0.04176	102	0.43529
43	0.01002	73	0.04502	103	0.45833
44	0.01011	74	0.04860	104	0.50000
45	0.01028	75	0.05247	105	0.53846
46	0.01051	76	0.05674	106	0.58333
47	0.01081	77	0.06136	107	0.60000
48	0.01114	78	0.06644	108	1.00000

(2) In calculating option factors for regular annuities, additional annuities and pensions, the interest rate of 4 percent shall be used in conjunction with the following tables:

(i) For male annuitants who joined prior to July 1, 1976, use appropriate table set forth in paragraph (1) of this subdivision, depending upon the annuitant's date of membership.

(ii) For female annuitants who joined prior to July 1, 1976, use appropriate table set forth in paragraph (1) of this subdivision, depending upon the annuitant's date of membership.

(iii) For male members who join on or after July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
30	0.02500	57	0.06690	84	0.11150
31	0.02750	58	0.06700	85	0.12150
32	0.03000	59	0.06720	86	0.13250
33	0.03250	60	0.06730	87	0.14750
34	0.03500	61	0.06750	88	0.16500
35	0.03750	62	0.06780	89	0.18250
36	0.04000	63	0.06800	90	0.20000
37	0.04300	64	0.06840	91	0.22000
38	0.04620	65	0.06870	92	0.24250
39	0.04950	66	0.06910	93	0.27000
40	0.05260	67	0.06960	94	0.29750
41	0.05570	68	0.07020	95	0.32250
42	0.05890	69	0.07090	96	0.35750
43	0.06210	70	0.07170	97	0.39250
44	0.06520	71	0.07260	98	0.43500
45	0.06630	72	0.07360	99	0.47750
46	0.06630	73	0.07480	100	0.52000
47	0.06630	74	0.07620	101	0.56250
48	0.06630	75	0.07790	102	0.60500
49	0.06640	76	0.07840	103	0.64750
50	0.06640	77	0.08200	104	0.69250
51	0.06640	78	0.08470	105	0.73750
52	0.06650	79	0.08770	106	0.78750
53	0.06650	80	0.09110	107	0.84250
54	0.06660	81	0.09520	108	0.90000
55	0.06670	82	0.09990	109	1.00000
56	0.06680	83	0.10530		

(iv) For female members who join on or after July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
30	0.02700	57	0.02950	84	0.10110
31	0.02750	58	0.02600	85	0.11110
32	0.02820	59	0.02480	86	0.12110
33	0.02910	60	0.02480	87	0.13010
34	0.03010	61	0.02480	88	0.14050
35	0.03100	62	0.02480	89	0.14940
36	0.03200	63	0.02500	90	0.16010
37	0.03300	64	0.02570	91	0.17800
38	0.03410	65	0.02680	92	0.19100
39	0.03520	66	0.02800	93	0.22100
40	0.03640	67	0.02910	94	0.24200
41	0.03800	68	0.03000	95	0.26500
42	0.04000	69	0.03100	96	0.29100
43	0.04200	70	0.03200	97	0.32100
44	0.04500	71	0.03300	98	0.35100
45	0.04800	72	0.03400	99	0.38200
46	0.05100	73	0.03500	100	0.41200
47	0.05400	74	0.03650	101	0.45700
48	0.05500	75	0.03800	102	0.50900
49	0.05520	76	0.04100	103	0.56000
50	0.05450	77	0.04600	104	0.62100
51	0.05310	78	0.05100	105	0.68300
52	0.05100	79	0.05850	106	0.74500
53	0.04800	80	0.06610	107	0.81500
54	0.04400	81	0.07310	108	0.88500
55	0.03950	82	0.08010		
56	0.03400	83	0.09110		

(v) For male beneficiaries of members who join prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
4	0.00353	40	0.00576	76	0.06513
5	0.00354	41	0.00598	77	0.07088
6	0.00355	42	0.00622	78	0.07714
7	0.00356	43	0.00649	79	0.08395
8	0.00357	44	0.00678	80	0.09136
9	0.00358	45	0.00711	81	0.09943
10	0.00359	46	0.00746	82	0.10818
11	0.00361	47	0.00784	83	0.11768
12	0.00362	48	0.00827	84	0.12799
13	0.00364	49	0.00873	85	0.13915
14	0.00366	50	0.00924	86	0.15121
15	0.00368	51	0.00980	87	0.16426
16	0.00370	52	0.01041	88	0.17833
17	0.00373	53	0.01107	89	0.19348
18	0.00375	54	0.01181	90	0.20878
19	0.00378	55	0.01261	91	0.22728
20	0.00381	56	0.01349	92	0.24600
21	0.00385	57	0.01445	93	0.26601
22	0.00389	58	0.01551	94	0.28737
23	0.00393	59	0.01666	95	0.31008
24	0.00398	60	0.01793	96	0.33403
25	0.00403	61	0.01932	97	0.35953
26	0.00408	62	0.02083	98	0.38617
27	0.00415	63	0.02249	99	0.41432
28	0.00421	64	0.02431	100	0.44369
29	0.00429	65	0.02630	101	0.47406
30	0.00437	66	0.02848	102	0.50484
31	0.00446	67	0.03086	103	0.53906
32	0.00456	68	0.03346	104	0.56780
33	0.00466	69	0.03631	105	0.60784
34	0.00478	70	0.03942	106	0.65000
35	0.00490	71	0.04283	107	0.71429
36	0.00505	72	0.04654	108	0.50000
37	0.00520	73	0.05060	109	1.00000
38	0.00537	74	0.05503		
39	0.00556	75	0.05986		

(vi) for female beneficiaries of members who join prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
8	0.00353	44	0.00576	80	0.06513
9	0.00354	45	0.00598	81	0.07088
10	0.00355	46	0.00622	82	0.07714
11	0.00356	47	0.00649	83	0.08395
12	0.00357	48	0.00678	84	0.09137
13	0.00358	49	0.00711	85	0.09942
14	0.00359	50	0.00746	86	0.10818
15	0.00361	51	0.00785	87	0.11768
16	0.00362	52	0.00827	88	0.12799
17	0.00364	53	0.00873	89	0.13915
18	0.00366	54	0.00924	90	0.15121
19	0.00368	55	0.00980	91	0.16426
20	0.00370	56	0.01040	92	0.17833
21	0.00373	57	0.01107	93	0.19348
22	0.00375	58	0.01181	94	0.20977
23	0.00378	59	0.01261	95	0.22729
24	0.00382	60	0.01349	96	0.24601
25	0.00385	61	0.01445	97	0.26601
26	0.00389	62	0.01551	98	0.28735
27	0.00393	63	0.01666	99	0.31009
28	0.00398	64	0.01793	100	0.33404
29	0.00403	65	0.01932	101	0.35947
30	0.00408	66	0.02083	102	0.38617
31	0.00415	67	0.02249	103	0.41426
32	0.00421	68	0.02431	104	0.44374
33	0.00429	69	0.02630	105	0.47368
34	0.00437	70	0.02848	106	0.50588
35	0.00446	71	0.03086	107	0.53968
36	0.00455	72	0.03347	108	0.56897
37	0.00466	73	0.03631	109	0.60000
38	0.00478	74	0.03942	110	0.65000
39	0.00491	75	0.04283	111	0.71429
40	0.00505	76	0.04654	112	0.50000
41	0.00520	77	0.05060	113	1.00000
42	0.00537	78	0.05503		
43	0.00556	79	0.05986		

(vii) For male beneficiaries of members who joined on or after July 1, 1961, but prior to July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
5	0.00353	41	0.00576	77	0.06513
6	0.00354	42	0.00598	78	0.07088
7	0.00355	43	0.00622	79	0.07714
8	0.00356	44	0.00649	80	0.08395
9	0.00357	45	0.00678	81	0.09136
10	0.00358	46	0.00711	82	0.09943
11	0.00359	47	0.00746	83	0.10818
12	0.00361	48	0.00784	84	0.11768
13	0.00362	49	0.00827	85	0.12799
14	0.00364	50	0.00873	86	0.13915
15	0.00366	51	0.00924	87	0.15121
16	0.00368	52	0.00980	88	0.16426
17	0.00370	53	0.01041	89	0.17833
18	0.00373	54	0.01107	90	0.19348
19	0.00375	55	0.01181	91	0.20978
20	0.00378	56	0.01261	92	0.22728
21	0.00381	57	0.01349	93	0.24600
22	0.00385	58	0.01445	94	0.26601
23	0.00389	59	0.01551	95	0.28737
24	0.00393	60	0.01666	96	0.31008
25	0.00398	61	0.01793	97	0.33403
26	0.00403	62	0.01932	98	0.35953
27	0.00408	63	0.02083	99	0.38617
28	0.00415	64	0.02249	100	0.41432
29	0.00421	65	0.02431	101	0.44369
30	0.00429	66	0.02630	102	0.47406
31	0.00437	67	0.02848	103	0.50484
32	0.00446	68	0.03086	104	0.53906
33	0.00456	69	0.03346	105	0.56780
34	0.00466	70	0.03631	106	0.60784
35	0.00478	71	0.03942	107	0.65000
36	0.00490	72	0.04283	108	0.71429
37	0.00505	73	0.04654	109	0.50000
38	0.00520	74	0.05060	110	1.00000
39	0.00537	75	0.05503		
40	0.00556	76	0.05986		

(viii) For female beneficiaries of members who joined on or after July 1, 1961, but prior to July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
9	0.00353	45	0.00576	81	0.06513
10	0.00354	46	0.00598	82	0.07088
11	0.00355	47	0.00622	83	0.07714
12	0.00356	48	0.00649	84	0.08395
13	0.00357	49	0.00678	85	0.09137
14	0.00358	50	0.00711	86	0.09942
15	0.00359	51	0.00746	87	0.10818
16	0.00361	52	0.00785	88	0.11768
17	0.00362	53	0.00827	89	0.12799
18	0.00364	54	0.00873	90	0.13915
19	0.00366	55	0.00924	91	0.15121
20	0.00368	56	0.00980	92	0.16426
21	0.00370	57	0.01040	93	0.17833
22	0.00373	58	0.01107	94	0.19349
23	0.00375	59	0.01181	95	0.20977
24	0.00378	60	0.01261	96	0.22729
25	0.00382	61	0.01349	97	0.24601
26	0.00385	62	0.01445	98	0.26601
27	0.00389	63	0.01551	99	0.28735
28	0.00393	64	0.01666	100	0.31009
29	0.00398	65	0.01793	101	0.33404
30	0.00403	66	0.01932	102	0.35947
31	0.00408	67	0.02083	103	0.38617
32	0.00415	68	0.02249	104	0.41426
33	0.00421	69	0.02431	105	0.44374
34	0.00429	70	0.02630	106	0.47368
35	0.00437	71	0.02848	107	0.50588
36	0.00446	72	0.03086	108	0.53968
37	0.00455	73	0.03347	109	0.56897
38	0.00466	74	0.03631	110	0.60000
39	0.00478	75	0.03942	111	0.65000
40	0.00491	76	0.04283	112	0.71429
41	0.00505	77	0.04654	113	0.50000
42	0.00520	78	0.05060	114	1.00000
43	0.00537	79	0.05503		
44	0.00556	80	0.05986		

(ix) For male beneficiaries of members who join on or after July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
10	0.00470	43	0.00590	76	0.04680
11	0.00470	44	0.00600	77	0.05130
12	0.00470	45	0.00610	78	0.05630
13	0.00470	46	0.00620	79	0.06190
14	0.00470	47	0.00640	80	0.06810
15	0.00470	48	0.00660	81	0.07500
16	0.00470	49	0.00680	82	0.08460
17	0.00470	50	0.00700	83	0.09100
18	0.00470	51	0.00730	84	0.10000
19	0.00470	52	0.00750	85	0.10050
20	0.00470	53	0.00780	86	0.11250
21	0.00470	54	0.00810	87	0.12150
22	0.00470	55	0.00840	88	0.13400
23	0.00500	56	0.00870	89	0.15000
24	0.00500	57	0.00910	90	0.16750
25	0.00500	58	0.00940	91	0.18500
26	0.00500	59	0.00990	92	0.20500
27	0.00500	60	0.01060	93	0.22750
28	0.00500	61	0.01150	94	0.25300
29	0.00510	62	0.01260	95	0.28500
30	0.00510	63	0.01390	96	0.33000
31	0.00510	64	0.01530	97	0.35900
32	0.00510	65	0.01680	98	0.39040
33	0.00520	66	0.01840	99	0.42370
34	0.00520	67	0.02010	100	0.46510
35	0.00530	68	0.02210	101	0.50790
36	0.00530	69	0.02430	102	0.55260
37	0.00540	70	0.02680	103	0.59950
38	0.00540	71	0.02960	104	0.64970
39	0.00550	72	0.03270	105	0.70150
40	0.00560	73	0.03590	106	0.75630
41	0.00570	74	0.03910	107	0.81450
42	0.00580	75	0.04280	108	0.87670

(x) For female beneficiaries of members who join on or after July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
10	0.00210	43	0.00240	76	0.02780
11	0.00210	44	0.00250	77	0.03020
12	0.00210	45	0.00250	78	0.03570
13	0.00210	46	0.00260	79	0.03880
14	0.00210	47	0.00270	80	0.04400
15	0.00210	48	0.00280	81	0.04860
16	0.00210	49	0.00300	82	0.05430
17	0.00210	50	0.00310	83	0.06250
18	0.00210	51	0.00330	84	0.07040
19	0.00210	52	0.00340	85	0.07840
20	0.00210	53	0.00360	86	0.08700
21	0.00210	54	0.00380	87	0.09680
22	0.00210	55	0.00410	88	0.10510
23	0.00210	56	0.00440	89	0.11760
24	0.00210	57	0.00470	90	0.13250
25	0.00210	58	0.00490	91	0.15080
26	0.00220	59	0.00520	92	0.16250
27	0.00220	60	0.00560	93	0.17750
28	0.00220	61	0.00610	94	0.19250
29	0.00220	62	0.00670	95	0.20750
30	0.00220	63	0.00740	96	0.22500
31	0.00220	64	0.00820	97	0.25000
32	0.00220	65	0.00900	98	0.27500
33	0.00220	66	0.01000	99	0.30250
34	0.00220	67	0.01100	100	0.33500
35	0.00230	68	0.01210	101	0.37250
36	0.00230	69	0.01340	102	0.41500
37	0.00230	70	0.01490	103	0.46000
38	0.00230	71	0.01660	104	0.51500
39	0.00240	72	0.01850	105	0.57500
40	0.00240	73	0.02050	106	0.65000
41	0.00240	74	0.02300	107	0.73750
42	0.00240	75	0.02650	108	0.84000

(c) Beneficiaries of active members.

(1) In calculating straight life annuities in lieu of a return of contributions and/or a lump sum death benefit, the interest rate of 4 percent shall be used in conjunction with the following tables:

(i) Males:

Age	Qx value	Age	Qx value	Age	Qx value
6	0.00353	42	0.00576	78	0.06513
7	0.00354	43	0.00598	79	0.07088
8	0.00355	44	0.00622	80	0.07714
9	0.00356	45	0.00649	81	0.08395
10	0.00357	46	0.00678	82	0.09136
11	0.00358	47	0.00711	83	0.09943
12	0.00359	48	0.00746	84	0.10818
13	0.00361	49	0.00784	85	0.11768
14	0.00362	50	0.00827	86	0.12799
15	0.00364	51	0.00873	87	0.13915
16	0.00366	52	0.00824	88	0.15121
17	0.00368	53	0.00980	89	0.16426
18	0.00370	54	0.01041	90	0.17833
19	0.00373	55	0.01107	91	0.19948
20	0.00375	56	0.01181	92	0.20978
21	0.00378	57	0.01261	93	0.22728
22	0.00381	58	0.01349	94	0.24600
23	0.00385	59	0.01445	95	0.26601
24	0.00389	60	0.01551	96	0.28737
25	0.00393	61	0.01666	97	0.31008
26	0.00398	62	0.01793	98	0.33403
27	0.00403	63	0.01932	99	0.35953
28	0.00408	64	0.02083	100	0.38617
29	0.00415	65	0.02249	101	0.41432
30	0.00421	66	0.02431	102	0.44369
31	0.00429	67	0.02630	103	0.47406
32	0.00437	68	0.02848	104	0.50484
33	0.00446	69	0.03086	105	0.53906
34	0.00456	70	0.03346	106	0.56780
35	0.00466	71	0.03631	107	0.60784
36	0.00478	72	0.03942	108	0.65000
37	0.00490	73	0.04283	109	0.71429
38	0.00505	74	0.04654	110	0.50000
39	0.00520	75	0.05060	111	1.00000
40	0.00537	76	0.05503		
41	0.00556	77	0.05986		

(ii) Females:

Age	Qx value	Age	Qx value	Age	Qx value
10	0.00353	46	0.00576	82	0.06513
11	0.00354	47	0.00598	83	0.07088
12	0.00355	48	0.00622	84	0.07714
13	0.00356	49	0.00649	85	0.08395
14	0.00357	50	0.00678	86	0.09137
15	0.00358	51	0.00711	87	0.09942
16	0.00359	52	0.00746	88	0.10818
17	0.00361	53	0.00785	89	0.11768
18	0.00362	54	0.00827	90	0.12799
19	0.00364	55	0.00873	91	0.13915
20	0.00366	56	0.00924	92	0.15121
21	0.00368	57	0.00980	93	0.16426
22	0.00370	58	0.01040	94	0.17833
23	0.00373	59	0.01107	95	0.19349
24	0.00375	60	0.01181	96	0.20977
25	0.00378	61	0.01261	97	0.22729
26	0.00382	62	0.01349	98	0.24601
27	0.00385	63	0.01445	99	0.26601
28	0.00389	64	0.01551	100	0.28735
29	0.00393	65	0.01666	101	0.31009
30	0.00398	66	0.01793	102	0.33404
31	0.00403	67	0.01932	103	0.35947
32	0.00408	68	0.02083	104	0.38617
33	0.00415	69	0.02249	105	0.41426
34	0.00421	70	0.02431	106	0.44374
35	0.00429	71	0.02630	107	0.47368
36	0.00437	72	0.02848	108	0.50588
37	0.00446	73	0.03086	109	0.53968
38	0.00455	74	0.03347	110	0.56897
39	0.00466	75	0.03631	111	0.60000
40	0.00478	76	0.03942	112	0.65000
41	0.00491	77	0.04283	113	0.71429
42	0.00505	78	0.04654	114	0.50000
43	0.00520	79	0.05060	115	1.00000
44	0.00537	80	0.05503		
45	0.00556	81	0.05986		

(2) To calculate cash refund annuities in lieu of a return of contributions and/or a lump sum death benefit, convert the straight line annuity by an option factor based on a 4-percent interest rate and the following tables:

(i) Males:

Age	Qx value	Age	Qx value	Age	Qx value
6	0.00353	42	0.00576	78	0.06513
7	0.00354	43	0.00598	79	0.07088
8	0.00355	44	0.00622	80	0.07714
9	0.00356	45	0.00649	81	0.08395
10	0.00357	46	0.00678	82	0.09136
11	0.00358	47	0.00711	83	0.09943
12	0.00359	48	0.00746	84	0.10818
13	0.00361	49	0.00784	85	0.11768
14	0.00362	50	0.00827	86	0.12799
15	0.00364	51	0.00873	87	0.13915
16	0.00366	52	0.00924	88	0.15121
17	0.00368	53	0.00980	89	0.16426
18	0.00370	54	0.01041	90	0.17833
19	0.00373	55	0.01107	91	0.19348
20	0.00375	56	0.01181	92	0.20978
21	0.00378	57	0.01261	93	0.22728
22	0.00381	58	0.01349	94	0.24600
23	0.00385	59	0.01445	95	0.26601
24	0.00389	60	0.01551	96	0.28737
25	0.00393	61	0.01666	97	0.31008
26	0.00398	62	0.01793	98	0.33403
27	0.00403	63	0.01932	99	0.35953
28	0.00408	64	0.02083	100	0.38617
29	0.00415	65	0.02249	101	0.41432
30	0.00421	66	0.02431	102	0.44369
31	0.00429	67	0.02630	103	0.47406
32	0.00437	68	0.02848	104	0.50484
33	0.00446	69	0.03086	105	0.53906
34	0.00456	70	0.03346	106	0.56780
35	0.00466	71	0.03631	107	0.60784
36	0.00478	72	0.03942	108	0.65000
37	0.00490	73	0.04283	109	0.71429
38	0.00505	74	0.04654	110	0.50000
39	0.00520	75	0.05060	111	1.00000
40	0.00537	76	0.05503		
41	0.00556	77	0.05986		

(ii) Females:

Age	Qx value	Age	Qx value	Age	Qx value
10	0.00353	46	0.00576	82	0.06513
11	0.00354	47	0.00598	83	0.07088
12	0.00355	48	0.00622	84	0.07714
13	0.00356	49	0.00649	85	0.08395
14	0.00357	50	0.00678	86	0.09137
15	0.00358	51	0.00711	87	0.09942
16	0.00359	52	0.00746	88	0.10818
17	0.00361	53	0.00785	89	0.11767
18	0.00362	54	0.00827	90	0.12799
19	0.00364	55	0.00873	91	0.13915
20	0.00366	56	0.00924	92	0.15121
21	0.00368	57	0.00980	93	0.16426
22	0.00370	58	0.01040	94	0.17833
23	0.00373	59	0.01107	95	0.19349
24	0.00375	60	0.01181	96	0.20977
25	0.00378	61	0.01261	97	0.22729
26	0.00382	62	0.01349	98	0.24601
27	0.00385	63	0.01445	99	0.26601
28	0.00389	64	0.01551	100	0.28735
29	0.00393	65	0.01666	101	0.31009
30	0.00398	66	0.01793	102	0.33404
31	0.00403	67	0.01932	103	0.35947
32	0.00408	68	0.02083	104	0.38617
33	0.00415	69	0.02249	105	0.41426
34	0.00421	70	0.02431	106	0.44374
35	0.00429	71	0.02630	107	0.47368
36	0.00437	72	0.02848	108	0.50588
37	0.00446	73	0.03086	109	0.53968
38	0.00455	74	0.03347	110	0.56897
39	0.00466	75	0.03631	111	0.60000
40	0.00478	76	0.03942	112	0.65000
41	0.00491	77	0.04283	113	0.71429
42	0.00505	78	0.04654	114	0.50000
43	0.00520	79	0.05060	115	1.00000
44	0.00537	80	0.05503		
45	0.00556	81	0.05986		

Section 5018.4 MORTALITY TABLES FOR THE DETERMINATION OF BENEFITS ACCRUING ON OR AFTER AUGUST 1, 1983. The mortality tables to be used in the computation of benefits accruing on or after August 1, 1983 shall be as follows:

(a) Service annuitants

(1) In calculating regular annuities without optional modification and annuities without optional modification on account of additional contributions, the interest rate of 4 percent shall be used in conjunction with the following tables:

(i) For members who join prior to February 1, 1946:

Age	Qx value	Age	Qx value	Age	Qx value
20	0.00848	49	0.01312	78	0.07838
21	0.00849	50	0.01365	79	0.08485
22	0.00850	51	0.01413	80	0.09202
23	0.00859	52	0.01470	81	0.09970
24	0.00861	53	0.01536	82	0.10803
25	0.00862	54	0.01605	83	0.11711
26	0.00871	55	0.01683	84	0.12695
27	0.00873	56	0.01770	85	0.13757
28	0.00883	57	0.01861	86	0.14913
29	0.00893	58	0.01962	87	0.16157
30	0.00895	59	0.02074	88	0.17504
31	0.00906	60	0.02189	89	0.18951
32	0.00916	61	0.02323	90	0.20511
33	0.00927	62	0.02468	91	0.22179
34	0.00938	63	0.02626	92	0.23971
35	0.00950	64	0.02804	93	0.25891
36	0.00962	65	0.02986	94	0.27933
37	0.00974	66	0.03198	95	0.30104
38	0.00995	67	0.03423	96	0.32419
39	0.01008	68	0.03670	97	0.34834
40	0.01030	69	0.03948	98	0.37446
41	0.01052	70	0.04241	99	0.40108
42	0.01075	71	0.04566	100	0.43921
43	0.01098	72	0.04922	101	0.47594
44	0.01130	73	0.05305	102	0.53174
45	0.01163	74	0.05729	103	0.61232
46	0.01196	75	0.06188	104	0.77602
47	0.01231	76	0.06698	105	0.87500
48	0.01267	77	0.07245		

(ii) For members who joined on or after February 1, 1946, but prior to January 1, 1956:

Age	Qx value	Age	Qx value	Age	Qx value
9	0.00357	42	0.00602	75	0.05567
10	0.00358	43	0.00626	76	0.06056
11	0.00360	44	0.00653	77	0.06588
12	0.00361	45	0.00683	78	0.07169
13	0.00363	46	0.00715	79	0.07802
14	0.00364	47	0.00752	80	0.08490
15	0.00366	48	0.00791	81	0.09238
16	0.00368	49	0.00834	82	0.10053
17	0.00371	50	0.00881	83	0.10935
18	0.00373	51	0.00932	84	0.11894
19	0.00376	52	0.00988	85	0.12933
20	0.00379	53	0.01050	86	0.14058
21	0.00382	54	0.01117	87	0.15273
22	0.00386	55	0.01192	88	0.16585
23	0.00390	56	0.01274	89	0.18002
24	0.00394	57	0.01362	90	0.19525
25	0.00399	58	0.01460	91	0.21162
26	0.00404	59	0.01567	92	0.22917
27	0.00410	60	0.01684	93	0.24799
28	0.00415	61	0.01812	94	0.26802
29	0.00423	62	0.01953	95	0.28939
30	0.00430	63	0.02107	96	0.31206
31	0.00438	64	0.02274	97	0.33615
32	0.00447	65	0.02458	98	0.36145
33	0.00457	66	0.02660	99	0.38812
34	0.00468	67	0.02880	100	0.41584
35	0.00480	68	0.03122	101	0.44546
36	0.00493	69	0.03385	102	0.47476
37	0.00507	70	0.03674	103	0.50722
38	0.00523	71	0.03988	104	0.54191
39	0.00540	72	0.04332	105	0.58333
40	0.00558	73	0.04709	106	0.55173
41	0.00579	74	0.05119	107	0.70000

(iii) For members who joined on or after January 1, 1956, but prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
8	0.00354	42	0.00558	76	0.05119
9	0.00355	43	0.00579	77	0.05567
10	0.00356	44	0.00602	78	0.06056
11	0.00357	45	0.00626	79	0.06588
12	0.00358	46	0.00653	80	0.07169
13	0.00360	47	0.00683	81	0.07802
14	0.00361	48	0.00715	82	0.08490
15	0.00363	49	0.00752	83	0.09238
16	0.00364	50	0.00791	84	0.10053
17	0.00366	51	0.00834	85	0.10935
18	0.00368	52	0.00881	86	0.11894
19	0.00371	53	0.00932	87	0.12933
20	0.00373	54	0.00988	88	0.14058
21	0.00376	55	0.01050	89	0.15273
22	0.00379	56	0.01117	90	0.16585
23	0.00382	57	0.01192	91	0.18002
24	0.00386	58	0.01274	92	0.19525
25	0.00390	59	0.01362	93	0.21162
26	0.00394	60	0.01460	94	0.22917
27	0.00399	61	0.01567	95	0.24799
28	0.00404	62	0.01684	96	0.26802
29	0.00410	63	0.01812	97	0.28939
30	0.00415	64	0.01953	98	0.31206
31	0.00423	65	0.02107	99	0.33615
32	0.00430	66	0.02274	100	0.36145
33	0.00438	67	0.02458	101	0.38812
34	0.00447	68	0.02660	102	0.41584
35	0.00457	69	0.02880	103	0.44546
36	0.00468	70	0.03122	104	0.47476
37	0.00480	71	0.03385	105	0.50722
38	0.00493	72	0.03674	106	0.54191
39	0.00507	73	0.03988	107	0.58333
40	0.00523	74	0.04332	108	0.55173
41	0.00540	75	0.04709	109	0.70000

(iv) For members who join on or after July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
9	0.00354	44	0.00579	79	0.06056
10	0.00355	45	0.00602	80	0.06588
11	0.00356	46	0.00626	81	0.07169
12	0.00357	47	0.00653	82	0.07802
13	0.00358	48	0.00683	83	0.08490
14	0.00360	49	0.00715	84	0.09238
15	0.00361	50	0.00752	85	0.10053
16	0.00363	51	0.00791	86	0.10935
17	0.00364	52	0.00834	87	0.11894
18	0.00366	53	0.00881	88	0.12933
19	0.00368	54	0.00932	89	0.14058
20	0.00371	55	0.00988	90	0.15273
21	0.00373	56	0.01050	91	0.16585
22	0.00376	57	0.01117	92	0.18002
23	0.00379	58	0.01192	93	0.19525
24	0.00382	59	0.01274	94	0.21162
25	0.00386	60	0.01362	95	0.22917
26	0.00390	61	0.01460	96	0.24799
27	0.00394	62	0.01567	97	0.26802
28	0.00399	63	0.01684	98	0.28939
29	0.00404	64	0.01812	99	0.31206
30	0.00410	65	0.01953	100	0.33615
31	0.00415	66	0.02107	101	0.36145
32	0.00423	67	0.02274	102	0.38812
33	0.00430	68	0.02458	103	0.41584
34	0.00438	69	0.02660	104	0.44546
35	0.00447	70	0.02880	105	0.47476
36	0.00457	71	0.03122	106	0.50722
37	0.00468	72	0.03385	107	0.54191
38	0.00480	73	0.03674	108	0.58333
39	0.00493	74	0.03988	109	0.55173
40	0.00507	75	0.04332	110	0.70000
41	0.00523	76	0.04709	111	1.00000
42	0.00540	77	0.05119		
43	0.00558	78	0.05567		

(2) Effective October 29, 2015, in calculating the benefits pursuant to subdivision b.3 of Section 512 of the Education Law, the interest rate of 4 percent for members who joined prior to July 1, 1948, and 3 percent for members who joined subsequent to June 30, 1948, shall be used in conjunction with the following tables:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.000398	38	0.000411	75	0.019794
2	0.000267	39	0.000432	76	0.022436
3	0.000217	40	0.000458	77	0.025452
4	0.000167	41	0.000492	78	0.028901
5	0.000148	42	0.000534	79	0.032850
6	0.000133	43	0.000585	80	0.037374
7	0.000119	44	0.000648	81	0.042555
8	0.000102	45	0.000720	82	0.048483
9	0.000086	46	0.000805	83	0.055256
10	0.000075	47	0.000899	84	0.062986
11	0.000078	48	0.001002	85	0.071790
12	0.000109	49	0.001116	86	0.081798
13	0.000139	50	0.001239	87	0.093146
14	0.000168	51	0.001372	88	0.105987
15	0.000197	52	0.001514	89	0.120483
16	0.000225	53	0.001818	90	0.133125
17	0.000255	54	0.002145	91	0.149107
18	0.000228	55	0.002343	92	0.166096
19	0.000253	56	0.002560	93	0.184098
20	0.000275	57	0.002796	94	0.203181
21	0.000300	58	0.003055	95	0.221101
22	0.000323	59	0.003338	96	0.240888
23	0.000336	60	0.003646	97	0.261584
24	0.000341	61	0.003961	98	0.283067
25	0.000323	62	0.004315	99	0.303206
26	0.000312	63	0.004689	100	0.323534
27	0.000306	64	0.005167	101	0.343810
28	0.000305	65	0.005757	102	0.363868
29	0.000308	66	0.006465	103	0.383545
30	0.000315	67	0.007296	104	0.402692
31	0.000324	68	0.008257	105	0.421175
32	0.000335	69	0.009358	106	0.438883
33	0.000347	70	0.010609	107	0.455722
34	0.000360	71	0.012024	108	0.471626
35	0.000372	72	0.013623	109	0.486547
36	0.000382	73	0.015428	110	0.494651
37	0.000395	74	0.017473		

(3) In calculating option factors for regular annuities, additional annuities and pensions, the following tables[2] will be used:

(i) For members:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.000378	38	0.000357	75	0.017025
2	0.000250	39	0.000380	76	0.019325
3	0.000195	40	0.000407	77	0.021962
4	0.000148	41	0.000441	78	0.024990
5	0.000132	42	0.000482	79	0.028467
6	0.000121	43	0.000531	80	0.032461
7	0.000110	44	0.000590	81	0.037047
8	0.000098	45	0.000657	82	0.042307
9	0.000086	46	0.000733	83	0.048329
10	0.000079	47	0.000818	84	0.055212
11	0.000081	48	0.000910	85	0.063060
12	0.000103	49	0.001009	86	0.071988
13	0.000124	50	0.001116	87	0.082116
14	0.000143	51	0.001229	88	0.093580
15	0.000162	52	0.001348	89	0.106523
16	0.000181	53	0.001605	90	0.119384
17	0.000199	54	0.001878	91	0.134670
18	0.000183	55	0.002056	92	0.151388
19	0.000197	56	0.002251	93	0.169646
20	0.000207	57	0.002463	94	0.189592
21	0.000219	58	0.002696	95	0.205302
22	0.000230	59	0.002951	96	0.224540
23	0.000238	60	0.003230	97	0.244738
24	0.000242	61	0.003477	98	0.265817
25	0.000235	62	0.003773	99	0.285954
26	0.000233	63	0.004110	100	0.306204
27	0.000234	64	0.004532	101	0.326548
28	0.000238	65	0.005042	102	0.346818
29	0.000245	66	0.005647	103	0.366845
30	0.000253	67	0.006351	104	0.386468
31	0.000264	68	0.007162	105	0.405540
32	0.000275	69	0.008089	106	0.423931
33	0.000288	70	0.009145	107	0.441530
34	0.000301	71	0.010344	108	0.458249
35	0.000313	72	0.011706	109	0.474021
36	0.000325	73	0.013253	110	0.486093
37	0.000340	74	0.015014		

[2] Statutes authorize the System to implement changes in mortality tables, but case law requires the non-diminution and preservation of option factors impacting benefits to members or beneficiaries. In any cases where option factors would have resulted in a lower benefit, option factors based on prior mortality tables adopted pursuant to a Retirement Board resolution effective for service retirements on or after January 1, 2001 are applied

(ii) For beneficiaries of members:

Age	Qx value	Age	Qx value	Age	Qx value
1	0.000393	38	0.000489	75	0.024765
2	0.000263	39	0.000515	76	0.027337
3	0.000211	40	0.000547	77	0.030222
4	0.000163	41	0.000588	78	0.033469
5	0.000144	42	0.000638	79	0.037129
6	0.000130	43	0.000701	80	0.041265
7	0.000116	44	0.000776	81	0.045941
8	0.000101	45	0.000862	82	0.051228
9	0.000086	46	0.000963	83	0.057204
10	0.000076	47	0.001075	84	0.063950
11	0.000079	48	0.001200	85	0.071549
12	0.000107	49	0.001335	86	0.080093
13	0.000135	50	0.003610	87	0.089679
14	0.000161	51	0.003866	88	0.100415
15	0.000188	52	0.004131	89	0.112421
16	0.000214	53	0.004406	90	0.125834
17	0.000241	54	0.004694	91	0.140270
18	0.000268	55	0.004995	92	0.155479
19	0.000297	56	0.005315	93	0.171322
20	0.000321	57	0.005656	94	0.187738
21	0.000349	58	0.006023	95	0.204725
22	0.000374	59	0.006424	96	0.222314
23	0.000389	60	0.006868	97	0.240536
24	0.000395	61	0.007361	98	0.259407
25	0.000375	62	0.007910	99	0.278894
26	0.000363	63	0.008523	100	0.298893
27	0.000357	64	0.009209	101	0.319201
28	0.000003	65	0.009975	102	0.339495
29	0.000362	66	0.010833	103	0.359606
30	0.000370	67	0.011792	104	0.379370
31	0.000382	68	0.012865	105	0.398636
32	0.000395	69	0.014065	106	0.417266
33	0.000410	70	0.015404	107	0.435145
34	0.000425	71	0.016896	108	0.452174
35	0.000440	72	0.018557	109	0.468282
36	0.000453	73	0.020406	110	0.483416
37	0.000469	74	0.022466		

(b) Disability annuitants.

(1) In calculating regular annuities without optional modification and annuities without optional modification on account of additional contributions, the interest rate of 4 percent shall be used in conjunction with the following tables:

(i) For members who join prior to February 1, 1946:

Age	Qx value	Age	Qx value	Age	Qx value
22	0.03585	50	0.02004	78	0.10175
23	0.03523	51	0.02072	79	0.10990
24	0.03350	52	0.02146	80	0.11870
25	0.03101	53	0.02227	81	0.12828
26	0.02822	54	0.02316	82	0.13865
27	0.02557	55	0.02413	83	0.14992
28	0.02329	56	0.02519	84	0.16206
29	0.02141	57	0.02636	85	0.17514
30	0.01989	58	0.02765	86	0.18935
31	0.01867	59	0.02904	87	0.20452
32	0.01768	60	0.03058	88	0.22093
33	0.01688	61	0.03226	89	0.23862
34	0.01628	62	0.03409	90	0.25728
35	0.01588	63	0.03610	91	0.27752
36	0.01564	64	0.03829	92	0.29887
37	0.01556	65	0.04071	93	0.32184
38	0.01558	66	0.04334	94	0.34517
39	0.01570	67	0.04620	95	0.37157
40	0.01588	68	0.04935	96	0.39714
41	0.01611	69	0.05279	97	0.42746
42	0.01640	70	0.05652	98	0.45157
43	0.01672	71	0.06064	99	0.48999
44	0.01706	72	0.06509	100	0.52615
45	0.01746	73	0.06998	101	0.56788
46	0.01788	74	0.07529	102	0.58793
47	0.01835	75	0.08108	103	0.89591
48	0.01887	76	0.08741		
49	0.01943	77	0.09428		

(ii) For members who joined on or after February 1, 1946, but prior to January 1, 1956:

Age	Qx value	Age	Qx value	Age	Qx value
15	0.01737	45	0.01173	75	0.07527
16	0.01940	46	0.01216	76	0.08156
17	0.02098	47	0.01262	77	0.08844
18	0.02213	48	0.01314	78	0.09589
19	0.02290	49	0.01371	79	0.10401
20	0.02312	50	0.01432	80	0.11283
21	0.02315	51	0.01498	81	0.12240
22	0.02298	52	0.01573	82	0.13274
23	0.02262	53	0.01654	83	0.14400
24	0.02203	54	0.01743	84	0.15612
25	0.02124	55	0.01840	85	0.16925
26	0.02026	56	0.01947	86	0.18335
27	0.01913	57	0.02062	87	0.19861
28	0.01790	58	0.02190	88	0.21494
29	0.01661	59	0.02331	89	0.23250
30	0.01533	60	0.02482	90	0.25143
31	0.01411	61	0.02651	91	0.27129
32	0.01302	62	0.02834	92	0.29288
33	0.01208	63	0.03035	93	0.31558
34	0.01130	64	0.03254	94	0.33993
35	0.01072	65	0.03493	95	0.36458
36	0.01034	66	0.03758	96	0.39216
37	0.01011	67	0.04044	97	0.41932
38	0.01004	68	0.04357	98	0.45065
39	0.01009	69	0.04700	99	0.47636
40	0.01022	70	0.05076	100	0.51389
41	0.01043	71	0.05483	101	0.55489
42	0.01069	72	0.05930	102	0.59539
43	0.01101	73	0.06416	103	0.62857
44	0.01136	74	0.06948	104	0.87500

(iii) For members who joined on or after January 1, 1956, but prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
17	0.01738	47	0.01199	77	0.07902
18	0.01942	48	0.01244	78	0.08564
19	0.02100	49	0.01293	79	0.08286
20	0.02215	50	0.01348	80	0.10069
21	0.02292	51	0.01408	81	0.10822
22	0.02315	52	0.01472	82	0.11847
23	0.02318	53	0.01543	83	0.12849
24	0.02301	54	0.01622	84	0.13933
25	0.02265	55	0.01707	85	0.15110
26	0.02207	56	0.01801	86	0.16377
27	0.02128	57	0.01904	87	0.17747
28	0.02031	58	0.02017	88	0.19217
29	0.01918	59	0.02139	89	0.20805
30	0.01795	60	0.02274	90	0.22502
31	0.01667	61	0.02423	91	0.24325
32	0.01539	62	0.02583	92	0.26282
33	0.01418	63	0.02761	93	0.28339
34	0.01309	64	0.02855	94	0.30569
35	0.01216	65	0.03166	95	0.32901
36	0.01139	66	0.03398	96	0.35385
37	0.01083	67	0.03651	97	0.37945
38	0.01045	68	0.03930	98	0.40748
39	0.01024	69	0.04232	99	0.43524
40	0.01018	70	0.04563	100	0.46536
41	0.01024	71	0.04924	101	0.49479
42	0.01039	72	0.05320	102	0.53290
43	0.01061	73	0.05748	103	0.58242
44	0.01088	74	0.06221	104	0.56250
45	0.01122	75	0.06733	105	0.70000
46	0.01159	76	0.07293		

(iv) For members who join on or after July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
19	0.01740	48	0.01187	77	0.07107
20	0.01944	49	0.01230	78	0.07700
21	0.02102	50	0.01278	79	0.08344
22	0.02218	51	0.01330	80	0.09044
23	0.02295	52	0.01388	81	0.09807
24	0.02318	53	0.01452	82	0.10633
25	0.02321	54	0.01521	83	0.11531
26	0.02305	55	0.01596	84	0.12505
27	0.02269	56	0.01680	85	0.13559
28	0.02211	57	0.01771	86	0.14697
29	0.02133	58	0.01871	87	0.15932
30	0.02036	59	0.01981	88	0.17258
31	0.01924	60	0.02101	89	0.18691
32	0.01802	61	0.02231	90	0.20225
33	0.01674	62	0.02375	91	0.21880
34	0.01547	63	0.02533	92	0.23642
35	0.01426	64	0.02704	93	0.25535
36	0.01319	65	0.02893	94	0.27563
37	0.01227	66	0.03099	95	0.29682
38	0.01151	67	0.03324	96	0.31961
39	0.01095	68	0.03570	97	0.34388
40	0.01058	69	0.03839	98	0.36817
41	0.01039	70	0.04135	99	0.38537
42	0.01034	71	0.04456	100	0.42219
43	0.01041	72	0.04807	101	0.45368
44	0.01058	73	0.05191	102	0.48436
45	0.01082	74	0.05610	103	0.52232
46	0.01112	75	0.06066	104	0.50000
47	0.01148	76	0.06566	105	0.65385

(2) In calculating option factors for regular annuities, additional annuities and pensions, the interest rate of 4 percent shall be used in conjunction with the following tables:

(i) For members who join prior to February 1, 1946:

Age	Qx value	Age	Qx value	Age	Qx value
22	0.05259	50	0.03095	78	0.10648
23	0.05232	51	0.03157	79	0.11407
24	0.04929	52	0.03225	80	0.12219
25	0.04448	53	0.03301	81	0.13117
26	0.03921	54	0.03382	82	0.14070
27	0.03460	55	0.03472	83	0.15129
28	0.03124	56	0.03570	84	0.16252
29	0.02910	57	0.03677	85	0.17473
30	0.02788	58	0.03796	86	0.18802
31	0.02722	59	0.03925	87	0.20213
32	0.02686	60	0.04067	88	0.21754
33	0.02663	61	0.04222	89	0.23401
34	0.02651	62	0.04390	90	0.25183
35	0.02647	63	0.04576	91	0.27055
36	0.02649	64	0.04778	92	0.29074
37	0.02657	65	0.05001	93	0.31223
38	0.02670	66	0.05245	94	0.33482
39	0.02687	67	0.05508	95	0.35924
40	0.02707	68	0.05800	96	0.38439
41	0.02732	69	0.06117	97	0.41179
42	0.02758	70	0.06461	98	0.43805
43	0.02788	71	0.06843	99	0.46998
44	0.02820	72	0.07256	100	0.50153
45	0.02857	73	0.07707	101	0.53607
46	0.02895	74	0.08198	102	0.56378
47	0.02939	75	0.08733	103	0.68773
48	0.02986	76	0.09320		
49	0.03038	77	0.09959		

(ii) For members who joined on or after February 1, 1946, but prior to January 1, 1956:

Age	Qx value	Age	Qx value	Age	Qx value
15	0.01090	45	0.01220	76	0.08879
16	0.01160	46	0.01268	77	0.09629
17	0.01215	47	0.01319	78	0.10442
18	0.01256	48	0.01375	79	0.11326
19	0.01284	49	0.01438	80	0.12288
20	0.01294	50	0.01505	81	0.13329
21	0.01298	51	0.01579	82	0.14454
22	0.01297	52	0.01660	83	0.15673
23	0.01289	53	0.01750	84	0.16989
24	0.01273	54	0.01848	85	0.18409
25	0.01251	55	0.01954	86	0.19936
26	0.01224	56	0.02072	87	0.21578
27	0.01192	57	0.02199	88	0.23341
28	0.01157	58	0.02339	89	0.25225
29	0.01121	59	0.02494	90	0.27245
30	0.01086	60	0.02661	91	0.29386
31	0.01054	61	0.02846	92	0.31665
32	0.01027	62	0.03047	93	0.34088
33	0.01005	63	0.03268	94	0.36648
34	0.00990	64	0.03508	95	0.39303
35	0.00983	65	0.03772	96	0.42101
36	0.00983	67	0.04061	97	0.45093
37	0.00990	68	0.04375	98	0.48136
38	0.01003	69	0.04719	99	0.51241
39	0.01022	70	0.05095	100	0.54167
40	0.01045	71	0.05507	101	0.58774
41	0.01073	72	0.05954	102	0.61952
42	0.01104	73	0.06443	103	0.68572
43	0.01140	74	0.07557	104	0.62500
44	0.01179	75	0.08190		

(iii) For members who joined on or after January 1, 1956, but prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
17	0.01095	47	0.01298	77	0.09315
18	0.01165	48	0.01352	78	0.10101
19	0.01221	49	0.01412	79	0.10955
20	0.01262	50	0.01477	80	0.11883
21	0.01291	51	0.01549	81	0.12889
22	0.01302	52	0.01627	82	0.13978
23	0.01307	53	0.01713	83	0.15156
24	0.01306	54	0.01807	84	0.16430
25	0.01298	55	0.01910	85	0.17804
26	0.01284	56	0.02023	86	0.19284
27	0.01264	57	0.02146	87	0.20874
28	0.01238	58	0.02282	88	0.22582
29	0.01207	59	0.02430	89	0.24410
30	0.01174	60	0.02591	90	0.26365
31	0.01139	61	0.02770	91	0.28451
32	0.01106	62	0.02963	92	0.30663
33	0.01075	63	0.03176	93	0.33015
34	0.01050	64	0.03408	94	0.35506
35	0.01031	65	0.03663	95	0.38118
36	0.01018	66	0.03941	96	0.40824
37	0.01014	67	0.04244	97	0.43764
38	0.01016	68	0.04577	98	0.46697
39	0.01027	69	0.04939	99	0.49870
40	0.01043	70	0.05336	100	0.52549
41	0.01067	71	0.05767	101	0.56771
42	0.01094	72	0.06239	102	0.59869
43	0.01126	73	0.06754	103	0.67033
44	0.01163	74	0.07314	104	0.52083
45	0.01203	75	0.07926	105	0.90000
46	0.01249	76	0.08591		

(iv) For members who joined on or after July 1, 1961, but prior to July 1, 1976

Age	Qx value	Age	Qx value	Age	Qx value
19	0.01101	48	0.01333	77	0.09050
20	0.01171	49	0.01391	78	0.09813
21	0.01227	50	0.01454	79	0.10641
22	0.01270	51	0.01523	80	0.11541
23	0.01300	52	0.01599	81	0.12518
24	0.01311	53	0.01683	82	0.13574
25	0.01317	54	0.01774	83	0.14717
26	0.01317	55	0.01873	84	0.15954
27	0.01311	56	0.01983	85	0.17287
28	0.01298	57	0.02102	86	0.18724
29	0.01278	58	0.02233	87	0.20269
30	0.01254	59	0.02377	88	0.21929
31	0.01225	60	0.02534	89	0.23706
32	0.01193	61	0.02706	90	0.25606
33	0.01160	62	0.02894	91	0.27636
34	0.01129	63	0.03100	92	0.29783
35	0.01101	64	0.03325	93	0.32080
36	0.01078	65	0.03572	94	0.34504
37	0.01062	66	0.03841	95	0.37045
38	0.01052	67	0.04135	96	0.39683
39	0.01050	68	0.04457	97	0.42579
40	0.01057	69	0.04808	98	0.45420
41	0.01072	70	0.05193	99	0.48541
42	0.01093	71	0.05611	100	0.51110
43	0.01120	72	0.06068	101	0.55401
44	0.01153	73	0.06568	102	0.58251
45	0.01190	74	0.07111	103	0.65030
46	0.01233	75	0.07703	104	0.50000
47	0.01281	76	0.08349	105	0.88462

(v) For members who join on or after July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
30	0.02550	57	0.05755	84	0.10890
31	0.02750	58	0.05675	85	0.11890
32	0.02955	59	0.05660	86	0.12965
33	0.03165	60	0.05668	87	0.14315
34	0.03378	61	0.05683	88	0.15888
35	0.03588	62	0.05705	89	0.17423
36	0.03800	63	0.05725	90	0.19003
37	0.04050	64	0.05773	91	0.20950
38	0.04318	65	0.05823	92	0.22963
39	0.04593	66	0.05883	93	0.25775
40	0.04855	67	0.05948	94	0.28363
41	0.05128	68	0.06015	95	0.30813
42	0.05418	69	0.06093	96	0.34088
43	0.05708	70	0.06178	97	0.37463
44	0.06015	71	0.06270	98	0.41400
45	0.06173	72	0.06370	99	0.45363
46	0.06248	73	0.06485	100	0.49300
47	0.06323	74	0.06628	101	0.53613
48	0.06348	75	0.06793	102	0.58100
49	0.06360	76	0.06905	103	0.62563
50	0.06343	77	0.07300	104	0.67463
51	0.06308	78	0.07628	105	0.72388
52	0.06263	79	0.08040	106	0.77688
53	0.06188	80	0.08485	107	0.83563
54	0.06095	81	0.08968	108	0.89625
55	0.05990	82	0.09495		
56	0.05860	83	0.10175		

(vi) For beneficiaries of members who join prior to July 1, 1961:

Age	Qx value	Age	Qx value	Age	Qx value
8	0.00354	42	0.00558	76	0.05119
9	0.00355	43	0.00579	77	0.05567
10	0.00356	44	0.00602	78	0.06056
11	0.00357	45	0.00626	79	0.06588
12	0.00358	46	0.00653	80	0.07169
13	0.00360	47	0.00683	81	0.07802
14	0.00361	48	0.00715	82	0.08490
15	0.00363	49	0.00752	83	0.09238
16	0.00364	50	0.00791	84	0.10053
17	0.00366	51	0.00834	85	0.10935
18	0.00368	52	0.00881	86	0.11894
19	0.00371	53	0.00932	87	0.12933
20	0.00373	54	0.00988	88	0.14058
21	0.00376	55	0.01050	89	0.15273
22	0.00379	56	0.01117	90	0.16585
23	0.00382	57	0.01192	91	0.18002
24	0.00386	58	0.01274	92	0.19525
25	0.00390	59	0.01362	93	0.21162
26	0.00394	60	0.01460	94	0.22917
27	0.00399	61	0.01567	95	0.24799
28	0.00404	62	0.01684	96	0.26802
29	0.00410	63	0.01812	97	0.28939
30	0.00415	64	0.01953	98	0.31206
31	0.00423	65	0.02107	99	0.33615
32	0.00430	66	0.02274	100	0.36145
33	0.00438	67	0.02458	101	0.38812
34	0.00447	68	0.02660	102	0.41584
35	0.00457	69	0.02880	103	0.44546
36	0.00468	70	0.03122	104	0.47476
37	0.00480	71	0.03385	105	0.50722
38	0.00493	72	0.03674	106	0.54191
39	0.00507	73	0.03988	107	0.58333
40	0.00523	74	0.04332	108	0.55173
41	0.00540	75	0.04709	109	0.70000

(vii) For beneficiaries of members who joined on or after July 1, 1961, but prior to July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
9	0.00354	44	0.00579	79	0.06056
10	0.00355	45	0.00602	80	0.06588
11	0.00356	46	0.00626	81	0.07169
12	0.00357	47	0.00653	82	0.07802
13	0.00358	48	0.00683	83	0.08490
14	0.00360	49	0.00715	84	0.09238
15	0.00361	50	0.00752	85	0.10053
16	0.00363	51	0.00791	86	0.10935
17	0.00364	52	0.00834	87	0.11894
18	0.00366	53	0.00881	88	0.12933
19	0.00368	54	0.00932	89	0.14058
20	0.00371	55	0.00988	90	0.15273
21	0.00373	56	0.01050	91	0.16585
22	0.00376	57	0.01117	92	0.18002
23	0.00379	58	0.01192	93	0.19525
24	0.00382	59	0.01274	94	0.21162
25	0.00386	60	0.01362	95	0.22917
26	0.00390	61	0.01460	96	0.24799
27	0.00394	62	0.01567	97	0.26802
28	0.00399	63	0.01684	98	0.28939
29	0.00404	64	0.01812	99	0.31206
30	0.00410	65	0.01953	100	0.33615
31	0.00415	66	0.02107	101	0.36145
32	0.00423	67	0.02274	102	0.38812
33	0.00430	68	0.02458	103	0.41584
34	0.00438	69	0.02660	104	0.44546
35	0.00447	70	0.02880	105	0.47476
36	0.00457	71	0.03122	106	0.50722
37	0.00468	72	0.03385	107	0.54191
38	0.00480	73	0.03674	108	0.58333
39	0.00493	74	0.03988	109	0.55173
40	0.00507	75	0.04332	110	0.70000
41	0.00523	76	0.04709	111	1.00000
42	0.00540	77	0.05119		
43	0.00558	78	0.05567		

(viii) For beneficiaries of members who join on or after July 1, 1976:

Age	Qx value	Age	Qx value	Age	Qx value
10	0.00275	43	0.00328	76	0.03255
11	0.00275	44	0.00338	77	0.03548
12	0.00275	45	0.00340	78	0.04085
13	0.00275	46	0.00350	79	0.04458
14	0.00275	47	0.00363	80	0.05003
15	0.00275	48	0.00375	81	0.05520
16	0.00275	49	0.00395	82	0.06188
17	0.00275	50	0.00408	83	0.06963
18	0.00275	51	0.00430	84	0.07780
19	0.00275	52	0.00443	85	0.08393
20	0.00275	53	0.00465	86	0.09338
21	0.00275	54	0.00488	87	0.10298
22	0.00275	55	0.00518	88	0.11233
23	0.00283	56	0.00548	89	0.12570
24	0.00283	57	0.00580	90	0.14125
25	0.00283	58	0.00603	91	0.15935
26	0.00290	59	0.00638	92	0.17313
27	0.00290	60	0.00685	93	0.19000
28	0.00290	61	0.00745	94	0.20763
29	0.00293	62	0.00818	95	0.22688
30	0.00293	63	0.00903	96	0.25125
31	0.00293	64	0.00998	97	0.27725
32	0.00293	65	0.01095	98	0.30385
33	0.00295	66	0.01210	99	0.33280
34	0.00295	67	0.01328	100	0.36753
35	0.00305	68	0.01460	101	0.40635
36	0.00305	69	0.01613	102	0.44940
37	0.00308	70	0.01788	103	0.49488
38	0.00308	71	0.01985	104	0.54868
39	0.00318	72	0.02205	105	0.60663
40	0.00320	73	0.02435	106	0.67658
41	0.00323	74	0.02703	107	0.75675
42	0.00325	75	0.03058	108	0.84918

(c) Beneficiaries of active members.

(1) In calculating straight life annuities in lieu of a return of contributions and/or a lump sum death benefit, the interest rate of 4 percent shall be used in conjunction with the following table:

Age	Qx value	Age	Qx value	Age	Qx value
10	0.00354	44	0.00558	78	0.05119
11	0.00355	45	0.00579	79	0.05567
12	0.00356	46	0.00602	80	0.06056
13	0.00357	47	0.00626	81	0.06588
14	0.00358	48	0.00653	82	0.07169
15	0.00360	49	0.00683	83	0.07802
16	0.00361	50	0.00715	84	0.08490
17	0.00363	51	0.00752	85	0.09238
18	0.00364	52	0.00791	86	0.10053
19	0.00366	53	0.00834	87	0.10935
20	0.00368	54	0.00881	88	0.11894
21	0.00371	55	0.00932	89	0.12933
22	0.00373	56	0.00988	90	0.14058
23	0.00376	57	0.01050	91	0.15273
24	0.00379	58	0.01117	92	0.16585
25	0.00382	59	0.01192	93	0.18002
26	0.00386	60	0.01274	94	0.19525
27	0.00390	61	0.01362	95	0.21162
28	0.00394	62	0.01460	96	0.22917
29	0.00399	63	0.01567	97	0.24799
30	0.00404	64	0.01684	98	0.26802
31	0.00410	65	0.01812	99	0.28939
32	0.00415	66	0.01953	100	0.31206
33	0.00423	67	0.02107	101	0.33615
34	0.00430	68	0.02274	102	0.36145
35	0.00438	69	0.02458	103	0.38812
36	0.00447	70	0.02660	104	0.41584
37	0.00457	71	0.02880	105	0.44546
38	0.00468	72	0.03122	106	0.47476
39	0.00480	73	0.03385	107	0.50722
40	0.00493	74	0.03674	108	0.54191
41	0.00507	75	0.03988	109	0.58333
42	0.00523	76	0.04332	110	0.55173
43	0.00540	77	0.04709	111	0.70000

(2) To calculate cash refund annuities in lieu of a return of contributions and/or a lump sum death benefit, convert straight life annuities by an option factor based on a 4-percent interest rate, and the following table:

Age	Qx value	Age	Qx value	Age	Qx value
10	0.00354	44	0.00558	78	0.05119
11	0.00355	45	0.00579	79	0.05567
12	0.00356	46	0.00602	80	0.06056
13	0.00357	47	0.00626	81	0.06588
14	0.00358	48	0.00653	82	0.07169
15	0.00360	49	0.00683	83	0.07802
16	0.00361	50	0.00715	84	0.08490
17	0.00363	51	0.00752	85	0.09238
18	0.00364	52	0.00791	86	0.10053
19	0.00366	53	0.00834	87	0.10935
20	0.00368	54	0.00881	88	0.11894
21	0.00371	55	0.00932	89	0.12933
22	0.00373	56	0.00988	90	0.14058
23	0.00376	57	0.01050	91	0.15273
24	0.00379	58	0.01117	92	0.16585
25	0.00382	59	0.01192	93	0.18002
26	0.00386	60	0.01274	94	0.19525
27	0.00390	61	0.01362	95	0.21162
28	0.00394	62	0.01460	96	0.22917
29	0.00399	63	0.01567	97	0.24799
30	0.00404	64	0.01684	98	0.26802
31	0.00410	65	0.01812	99	0.28939
32	0.00415	66	0.01953	100	0.31206
33	0.00423	67	0.02107	101	0.33615
34	0.00430	68	0.02274	102	0.36145
35	0.00438	69	0.02458	103	0.38812
36	0.00447	70	0.02660	104	0.41584
37	0.00457	71	0.02880	105	0.44546
38	0.00468	72	0.03122	106	0.47476
39	0.00480	73	0.03385	107	0.50722
40	0.00493	74	0.03674	108	0.54191
41	0.00507	75	0.03988	109	0.58333
42	0.00523	76	0.04332	110	0.55173
43	0.00540	77	0.04709	111	0.70000

Section 5018.5 INTEREST RATE FOR CALCULATION OF DE MINIMIS SERVICE RETIREMENT BENEFIT. The lump sum payment of a de minimis service retirement benefit pursuant to Section 537 of the Education Law shall be calculated utilizing the average annual percentage interest rate on the Nominal 10-year United States Treasury constant maturity obligations as published in the Federal Reserve Selected Interest Rates H.15 Historical Data report for the days during the calendar year preceding the calendar year in which the retirement becomes effective, truncated to two decimal places.

Section 5018.6 COMPLIANCE WITH IRC SECTION 415. In connection with the System's compliance with Section 415 of the Internal Revenue Code which limits contributions to or benefits paid by the System,

(a) the interest rate and mortality tables used in determining the application of the defined benefit limitations of IRC Section 415(b) shall be the interest rate pursuant to IRC Section 415(b)(2)(E)(i) and the mortality tables prescribed by the Secretary of the Treasury of the United States pursuant to IRC Section 415(b)(2)(E)(v);

(b) the combined plan fraction rule of former subsection (e) of IRC Section 415 governing the implementation of the defined benefit and defined contribution limitations of said Section in cases where a member of the System concurrently participates in a defined contribution plan maintained by an employer participating in the System shall not apply;

(c) the limitation of Section 415(b)(1)(B) providing that a member's benefit may not exceed 100 percent of the member's average compensation for the member's high three years shall not apply;

(d) the limitations in IRC Sections 415(b)(2)(C) and 415(b)(5) on the amount of benefits which may be paid by the System with respect to any member shall not apply to any benefit payable to the member as a result of the member becoming disabled by reason of sickness or personal injuries or payable to a beneficiary, survivor or estate of the member by reason of the death of a member;

(e) the rules of IRC Section 415(n) relating to the application of the IRC Section 415 limitations on benefits paid by and contributions to the System in circumstances where a member has purchased or seeks to purchase service credit as permitted under law, which rules, among other things, permit the System to apply the defined benefit limitation of IRC Section 415(b) to the member's entire benefit without regard to member contributions to purchase service credit, shall apply.

(f) The defined benefit payable to a member of the System shall not exceed the applicable limits under Section 415(b) of the Internal Revenue Code, as periodically adjusted by the Secretary of the Treasury pursuant to Section 415(d) of the Internal Revenue Code. The limitation year is the fiscal year. This limit shall apply to a member who has had a severance from employment or, if earlier, an annuity starting date. Benefits that are subject to Section 415(b) of the Internal Revenue Code shall comply with the foregoing limit in each year during which payments are made. The foregoing limit shall be adjusted pursuant to the requirements of Sections 415(b)(2)(C) and (D) of the Internal Revenue Code relating to the commencement of benefits at a date prior to age 62 or after age 65, subject to other applicable rules under Section 415 of the Internal Revenue Code. No adjustment shall be required to a benefit subject to an automatic benefit

increase feature described in Treasury Regulation Section 1.415(b)-1(c)(5). To the extent that Section 415 of the Internal Revenue Code and the Treasury Regulations thereunder require that an interest rate under Section 417(e) of the Internal Revenue Code apply, the applicable lookback month shall be the calendar month preceding the current month and the applicable stability period is one calendar month.

(g) If a member is, or has ever been, a participant in another qualified defined benefit plan (without regard to whether the plan has been terminated) maintained by the member's employer, as determined pursuant to Sections 414(b), 415(c), and 415 of the Internal Revenue Code, the sum of the participant's benefits payable annually in the form of a straight life annuity from all such plans may not exceed the limit described in paragraph (f) of this Section. Where the member's employer-provided benefits under all such defined benefit plans (determined as of the same age) would exceed the limit described in paragraph (f) of this Section applicable at that age, the benefits accrued under all such other plans shall be reduced first in order to avoid exceeding the limit and only to the extent that the reduction under such other plans is insufficient to avoid exceeding the limit.

(h) Solely for purposes of applying the limits under Section 415(c) of the Internal Revenue Code and the Treasury Regulations thereunder to benefits subject to such limits, the term “compensation” shall be defined in accordance with Section 415(c)(3) of the Internal Revenue Code and Treasury Regulation Section 1.415(c)-2(d)(4), including, to the extent provided by paragraph (e)(3)(i) of Treasury Regulation Section 1.415(c)-2, payments described in paragraph (e)(3)(ii) thereof. Effective for years beginning after December 31, 2008, solely for purposes of this

paragraph (h), the term "compensation" for purposes of applying the limits under Section 415(c) of the Internal Revenue Code and the Treasury Regulations thereunder shall also include differential wage payments described in Section 3401(h) of the Internal Revenue Code.

PART 5019

ACCESS TO PUBLIC AND PERSONAL RECORDS

(Statutory authority: Public Officers Law, §§87(1)(b), 94(2))

Section
5019.1 Additional definitions as used in Part 5019
5019.2 Purpose and scope
5019.3 Access to records
5019.4 Times and places for inspecting records
5019.5 Procedures governing inspection of records
5019.6 Subject matter list
5019.7 Appeals of denial of access to records
5019.8 Copying of records
5019.9 Records not available for inspection or copying

Section 5019.1 ADDITIONAL DEFINITIONS AS USED IN PART 5019.

(a) Records shall mean any information kept, held, filed, produced or reproduced by, with or for the System.

(b) Records Access Officer shall mean the System's officer, or their authorized designee, responsible for public information and compliance with the Freedom of Information Law and the Personal Privacy Protection Law.

(c) Records Appeals Officer shall mean the System's Managing Director of Operations or their authorized designee.

Section 5019.2 PURPOSE AND SCOPE. This Part, governing public and personal access to certain records of the System, is promulgated solely for the purpose of implementing the provisions of the Freedom of Information Law and the Personal Privacy Protection Law. Nothing in this Part shall be deemed to require the System to reduce any information to physical form or create any record not possessed or maintained by it.

Section 5019.3 ACCESS TO RECORDS. Any application to inspect, copy, correct or amend information from records pursuant to this Part shall be made in person or in writing to the System's Records Access Officer, 10 Corporate Woods Drive, Albany, NY 12211-2395. Upon such application, the Records Access Officer shall:

(a) Be available to individuals and members of the public to receive and process requests for access to records during the hours prescribed by this Part.

(b) Impose the statutory fee for copies of records as established in this Part.

(c) Upon request, certify a copy as being true and correct.

(d) Upon request, and upon failure to locate records, certify that:

(1) the System does not have possession of such records; or,

(2) such records cannot be found after a diligent search.

(e) Upon locating the records requested, take one of the following actions:

(1) make records available for inspection;

(2) make the requested correction or amendment;

(3) deny access to the records in whole or in part and explain in writing the reasons therefor; or,

(4) deny the request for correction or amendment of the records in whole or in part and explain in writing the reasons therefor.

(f) Upon requests made pursuant to the Personal Privacy Protection Law, the Records Access Officer shall also:

(1) inform an individual if records are kept by the System pertaining to them; and

(2) require production of appropriate identification, such as a driver's license or membership number, before providing access to records.

(g) Anything in the foregoing to the contrary notwithstanding, applications and requests pursuant to this Part may be made by email addressed to foil@nystrs.org. Section 5019.4 TIMES AND PLACES FOR INSPECTING RECORDS. Records shall be available for inspection and copying by individuals and members of the public on each day the offices of the System, located at 10 Corporate Woods Drive, Albany, NY 12211-2395, are open for the transaction of business during regular business hours. Records shall be inspected at the location designated by the Records Access Officer.

Section 5019.5 PROCEDURES GOVERNING INSPECTION OF RECORDS. The inspection and copying of records shall be made in the following manner:

(a) Requests by members of the public for access to records shall be made to the Records Access Officer.

(b) Members of the public shall be required to submit any such requests on forms prepared by the Records Access Officer. A request shall reasonably describe the records sought.

(c) Within five business days of the receipt of the request for a record reasonably described, the Records Access Officer shall:

(1) make such record available to the requestor;

(2) deny such request in writing; or,

(3) furnish a written acknowledgment of the receipt of such request and a statement of the approximate date when such request will be granted or denied.

(d) If the System determines to grant a request in whole or in part, and if circumstances prevent disclosure of the record to the requestor within 20 business days from the date of the acknowledgment of the receipt of the request, the Records Access Officer shall state, in writing, both the reason for the inability to grant the request within

20 business days and a date certain within a reasonable period, depending on the circumstances, when the request will be granted in whole or in part.

Section 5019.6 SUBJECT MATTER LIST. The Records Access Officer shall maintain a reasonably detailed current list, by subject matter, of all records in the System's possession, regardless of whether such records are available pursuant to the Freedom of Information Law or the Personal Privacy Protection Law. Such list shall be posted on the System's website (www.nystrs.org).

Section 5019.7 APPEALS OF DENIAL OF ACCESS TO RECORDS.

(a) A person whose request for access to, or correction or amendment of their records is denied by the Records Access Officer, may within 30 days appeal, in writing, such denial to the Managing Director of Operations of the System, 10 Corporate Woods Drive, Albany, NY 12211-2395, who shall be the System's Records Appeals Officer. The duties of the Records Appeals Officer are as follows:

(1) within 10 business days after receipt of such appeal, the Records Appeals Officer shall fully explain in writing to the person making the request the reasons for denial, or provide access to the records sought; and,

(2) the Records Appeals Officer shall immediately forward to the State Committee on Open Government a copy of such appeal and the determination thereon.

(b) The time for deciding an appeal by the Records Appeals Officer shall commence only upon receipt of a copy of the decision of the Records Access Officer being appealed, and a written appeal identifying:

(1) the date of the decision of the Records Access Officer denying access to the records sought;

(2) the date of the requests for records;

(3) the records to which the person making the request was denied access; and,

(4) the name and address of the person whose request was denied.

(c) Nothing contained in this Part shall in any way extend the statute of limitations or any other time limitation for the review of any benefit determination or any other final determination made by the System.

Section 5019.8 COPYING OF RECORDS.

(a) The fee for copies of records is hereby fixed at 25 cents ($.25) for each page or portion of a page measuring up to 9 x 14 inches. Fees for computer printouts or other copies exceeding 9 x 14 inches shall be reasonably commensurate with the cost to the System of producing the same. Copies will be made only when the required fee is paid to the Records Access Officer.

(b) Copying may be done only by System personnel, and will be done only when such copying will not delay the use of System mechanical reproduction equipment for System business.

(c) In determining the actual cost of reproducing a record, the System may include only:

(1) an amount equal to the hourly salary attributed to the lowest paid System employee who has the necessary skill required to prepare a copy of the requested record;

(2) the actual cost of the storage devices or media provided to the person making the request in complying with such request;

(3) the actual cost to the System of engaging an outside professional service to prepare a copy of a record, but only when the System's information technology equipment is inadequate to prepare a copy, if such service is used to prepare the copy; and,

(4) preparing a copy shall not include search time or administrative costs, and no fee shall be charged unless at least two hours of System employee time is needed to prepare a copy of the record requested. A person requesting a record shall be informed of the estimated cost of preparing a copy of the record if more than two hours of a System employee's time is needed, or if an outside professional service would be retained to prepare a copy of the record.

Section 5019.9 RECORDS NOT AVAILABLE FOR INSPECTION OR COPYING. Notwithstanding anything to the contrary contained in this Part, the System shall not be required to make records available for public or personal inspection or copying that are:

(a) exempted from disclosure under the Freedom of Information Law, the Personal Privacy Protection Law, or any other applicable State or Federal law; or,

(b) not otherwise required to be made available for inspection under the Freedom of Information Law.

PART 5020

DISABILITY RETIREMENT DETERMINATIONS

(Statutory authority: Education Law, §511; Retirement and Social Security Law, §§506, 507, 605)

Section

5020.1 Standard for determining disability retirement for Tier 1 and Tier 2 members and who meet the eligibility requirements of Section 511 of the Education Law
5020.2 Standard for determining disability retirement for Tier 3 members and who meet the eligibility requirements of Section 506 and/or Section 507 of the Retirement and Social Security Law
5020.3 Standard for determining disability retirement for Tier 4 through 6 members and who meet the eligibility requirements of Section 605 of the Retirement and Social Security Law
5020.4 Procedures for determining initial entitlement of an applicant to disability retirement and to continued entitlement to disability retirement
5020.5 Appointment of alternates to the Medical Board
5020.6 Workers' Compensation or Other Employer-Funded Disability Programs

Section 5020.1 STANDARD FOR DETERMINING DISABILITY RETIREMENT FOR TIER 1 AND TIER 2 MEMBERS AND WHO MEET THE ELIGIBILITY REQUIREMENTS OF SECTION 511 OF THE EDUCATION LAW. It must be determined that the member is totally and permanently disabled and was so disabled at the time the member ceased performance of duties. To be deemed totally disabled, it must be concluded that the member is unable to perform all the substantial and material acts necessary to the prosecution of teaching duties in a customary and usual manner. To be deemed permanently disabled, the condition must be such to justify a deduction that any recovery by the member is far removed in the future and that the end of the disability cannot be foreseen for at least one year. In addition, total disability is not permanent if during the period for which recovery is sought or at any time thereafter the member may alleviate or control the condition by availing themself of a standard treatment which is not

inherently dangerous. The member shall have the burden of establishing all of the foregoing to the satisfaction of the Retirement Board.

Section 5020.2 STANDARD FOR DETERMINING DISABILITY RETIREMENT FOR TIER 3 MEMBERS AND WHO MEET THE ELIGIBILITY REQUIREMENTS OF SECTION 506 AND/OR SECTION 507 OF THE RETIREMENT AND SOCIAL SECURITY LAW.

(a) A Tier 3 member who meets the eligibility requirements of Section 506 of the Retirement and Social Security Law, shall be eligible for an ordinary disability benefit if such member has been determined to be eligible for primary Social Security disability benefits.

(b) A Tier 3 member who meets the eligibility requirements of Section 507 of the Retirement and Social Security Law, shall be eligible for an accidental disability benefit if it is determined that such member was disabled as the natural and proximate result of an accident sustained in active service and not caused by the member, and if such member has been determined to be eligible for primary Social Security disability benefits.

(c) In lieu of the disability benefit set forth in subdivisions (a) and (b) of this Section, a Tier 3 member who also meets the eligibility requirements of Section 605 of the Retirement and Social Security Law may elect the disability benefit set forth in that Section, to be determined in accordance with the provisions of Section 5020.3 of this Part. However, in the event of such an election, the member will receive only the benefits provided under Article 15 of the Retirement and Social Security Law and may not mix the provisions of Article 14 and Article 15 to change the eligibility requirements for a benefit under either Article.

Section 5020.3 STANDARD FOR DETERMINING DISABILITY RETIREMENT FOR TIER 4 THROUGH 6 MEMBERS AND WHO MEET THE ELIGIBILITY REQUIREMENTS OF SECTION 605 OF THE RETIREMENT AND SOCIAL SECURITY LAW. In order for a member to be entitled to disability retirement under Section 605 of the Retirement and Social Security Law, it must be determined that the member is totally and permanently disabled and that the member was so disabled at the time they ceased performance of duties. To be deemed totally disabled it must be concluded that the member is physically or mentally incapacitated for the performance of gainful employment. Gainful employment, as used in this Section, shall be physical and/or mental activity which a member is regularly able to engage in as a means of earning a living. To be deemed permanently disabled, the condition must be such to justify a deduction that any recovery by the member is far removed in the future and that the end of the disability cannot be foreseen for at least one year. In addition, total disability is not permanent if, during the period for which recovery is sought or at any time thereafter, the member may alleviate or control the condition by availing themself of a standard treatment which is not inherently dangerous. The member shall have the burden of establishing all of the foregoing to the satisfaction of the Retirement Board.

5020.4 PROCEDURES FOR DETERMINING INITIAL ENTITLEMENT OF AN APPLICANT TO DISABILITY RETIREMENT AND TO CONTINUED ENTITLEMENT TO DISABILITY RETIREMENT.

(a) The Medical Board appointed pursuant to subdivision 6 of Section 507 of the Education Law shall review applications for disability retirement and make a recommendation approving or disapproving each qualifying application and shall

annually, or at such other time as it shall determine, review the case of each disability retiree and make a recommendation either to rescind or continue the disability retirement.

(b) The Medical Board may designate other physicians to make such medical examinations as it may require. Should any disability applicant refuse to submit to such medical examination, the application shall be summarily denied, and should any disability retiree refuse to submit to such medical examination, the disability retirement shall be automatically terminated and all rights to their disability retirement allowance shall be forfeited.

(c) A member who:

(1) has duly filed an application for disability retirement,

(2) has validly elected, as applicable, the Declining Reserve Option or the Alternative Option providing for the payment of a lump sum only, and

(3) is otherwise eligible to retire for disability pursuant to Section 511 of the Education Law or Section 605 of the Retirement and Social Security Law, shall be eligible to have such optional allowance paid in lieu of any active service death benefit, notwithstanding the member's death before the retirement becomes effective, provided it is established the cause of the member's death is directly related to the member's physical or mental incapacitation.

(d) A member who:

(1) is eligible to retire for service and has duly filed an application for service retirement, and

(2) has validly elected, as applicable, the Declining Reserve Option or the Alternative Option providing for the payment of a lump sum only, but

(3) is otherwise eligible to retire for disability pursuant to Section 511 of the Education Law or Section 605 of the Retirement and Social Security Law, shall be deemed to have simultaneously applied for disability retirement and shall be eligible to have such optional allowance paid in lieu of any active service death benefit, notwithstanding the member's death before the retirement becomes effective, provided it is established the cause of the member's death is directly related to the member's physical or mental incapacitation. Insofar as such application shall be deemed an application for disability retirement, such application for disability retirement shall be deemed canceled upon the member's retirement for service.

(e) In the cases described in paragraphs (c) and (d) of this Section, the burden of establishing the mental or physical incapacitation, the cause of death, and the relationship of such incapacitation to the cause of death shall be upon the person(s) seeking to avail themselves of this paragraph. Physician, hospital and medical records relating to the foregoing shall, upon receipt by the System, be deemed a part of the member's application for disability retirement.

Section 5020.5 APPOINTMENT OF ALTERNATES TO THE MEDICAL BOARD. The Retirement Board may appoint an alternate for each of the doctors appointed to the Medical Board. The alternate shall be board certified in the medical specialty of the doctor for whom they will serve as alternate. In the event that one of the appointed doctors is unable to attend a regularly scheduled Medical Board meeting, the alternate shall be notified and, whenever possible, shall serve in the doctor's place. The alternate shall have the same powers and privileges as the appointed doctor whenever they are serving on the Medical Board in the appointed doctor's place.

Section 5020.6 WORKERS' COMPENSATION OR OTHER EMPLOYER-FUNDED DISABILITY PROGRAMS. For the purposes of eligibility for timely filing an application for disability retirement benefits, members who are receiving benefit payments from either workers' compensation or other employer-funded disability programs and whose employment has not terminated by resignation, employer action or any other means, shall be considered to be in service upon which membership in the System is based for a period not exceeding 12 months from the date the member was last paid on the employer payroll.

PART 5021

ELECTION OF SYSTEM RETIREE TO THE RETIREMENT BOARD

(Statutory authority: Education Law, §505-a)

Section
5021.1 General provisions
5021.2 Eligibility requirements
5021.3 Nominating process
5021.4 Candidate mailings
5021.5 Election
5021.6 Counting ballots and certifying the election
5021.7 Procedures in the event of a tie vote
5021.8 Vacancy

Section 5021.1 GENERAL PROVISIONS. The member of the Retirement Board who is a retired teacher shall be elected in accordance with the procedures set forth in this Part. The regular election for the position of retired teacher member of the Retirement Board shall be held in October 1998 and in October of every third year thereafter. The retired teacher member of the Retirement Board elected in the regular election shall serve a term of three years commencing January first of the year next following the year in which the election is held.

Section 5021.2 ELIGIBILITY REQUIREMENTS. The retired member of the Retirement Board must be a retired member of the New York State Teachers' Retirement System. Any candidate or alternate candidate for election to the position of retired member of the Board must have retired no later than the first day of July of the year in which the election for the position is held.

Section 5021.3 NOMINATING PROCESS.

(a) The System will announce the impending election of the retired member of the Retirement Board in the issue of "Resource" published in the

spring of the year in which the election is held.

(b) A form of nominating petition shall be prepared by the System and shall be made available following the publication of the "Resource", but no later than July 1.

(c) All nominating petitions must be filed with the System no later than August 15.

(d) The nominating petition on behalf of each candidate must be signed by not less than 100 retired members of the System.

(e) The nominating petition shall

(1) set forth the position and term of office;

(2) contain the name and address of the candidate and the name and address of the alternate candidate;

(3) be accompanied by a notarized written acceptance of the nomination by the candidate named in the petition; and,

(4) be accompanied by a notarized written statement of the retired member named as the alternate candidate to the effect that, in the event of the death, disability, disqualification or withdrawal/resignation of the candidate prior to the election or from the position of retired teacher member of the Retirement Board following election, they shall accept the nomination or serve on the Retirement Board in such contingency.

Section 5021.4 CANDIDATE MAILINGS.

(a) The System will implement one mailing for each qualified candidate who so requests and makes payment therefor.

(b) A mailing by the System shall be requested by a candidate on a form prescribed by the System filed no later than September 1 in the year in which the election is

held.

(c) The System shall determine the cost of the requested mailing and shall notify the candidate of same in writing. The cost of the mailing, to be paid by the candidate, shall include all postage and material costs as well as the cost of System personnel required to implement the mailing. Payment shall be made by bank or certified check which must be received by the System no later than September 10.

(d) It shall be the responsibility of any candidate desiring to merge the mailing on the candidate's behalf with the mailing on behalf of another candidate(s) to obtain the approval of such other candidate(s), which approval must be in writing and filed with the System no later than September 1. In the event of a merged mailing, the System shall allocate the cost of the mailing on such basis as it determines to be equitable.

(e) The System reserves the right to bill and collect from any candidate any additional or unforeseen costs not covered by a candidate's payment.

Section 5021.5 ELECTION.

(a) All retired members of the New York State Teachers' Retirement System as of October 1 of the year in which the election is held shall be entitled to vote in the election.

(b) The election shall be by secret, paper and/or electronic ballot in a form prescribed by the System.

(c) The names of candidates and alternate candidates on the ballot shall be listed in the order in which the petitions on their behalf have been filed with the System.

(d) Paper ballots shall be mailed by first class mail on or after October 1 but no later than October 15. The paper ballot will direct retired members to vote by the method of their choice: return paper ballot or electronically.

(e) In order to be eligible to be counted in the election, paper ballots must be

delivered by October 31 or sent by mail postmarked no later than October 31 and received no later

than the Saturday before the day on which the election is certified; electronic ballots must be submitted no later than October 31.. Paper ballots shall be delivered or mailed to a location within New York State designated by the System for the purposes of counting the ballots and certifying the election.

(f) If only one candidate is nominated, no election shall be held and the candidate shall be deemed to have been elected.

(g) Anything in the foregoing to the contrary notwithstanding, the Retirement Board may by resolution establish an alternative procedure for the conduct of an election by other means which provide comparable security and convenience for voting by retired teachers.

Section 5021.6 COUNTING BALLOTS AND CERTIFYING THE ELECTION.

(a) The Board of Elections shall consist of two active or retired members of the System appointed by each candidate and a Chair appointed by the President of the Retirement Board. Candidate appointments shall be made by filing the names and addresses of such candidate's appointees on a form prescribed by the System. The form must be filed with the System no later than September 15 in the year in which the election is held. The President of the Retirement Board shall appoint an active or retired member of the System to serve as Chair of the Board of Elections by filing a written designation with the System. No member of the Board of Elections shall be a candidate or alternate candidate.

(b) No later than October 15, the System shall notify the members of the Board of Elections in writing of their appointment and of the date and time for the counting of the ballots.

(c) The ballots shall be counted in accordance with a written procedure

established by the System. On the second Monday in November, the Board of Elections

shall meet at the location within New York State established by the System for the purpose of certifying the election of the candidate receiving the highest number of valid ballots cast in the election.

(d) The members of the Board of Elections shall be reimbursed for reasonable expenses actually incurred in accordance with the System's written reimbursement policies.

(e) The Chair of the Board of Elections shall notify the candidate so elected within five days after the Board of Elections certifies the election of such candidate.

(f) If, by reason of a tie vote, no candidate can be certified by the Board of Elections as having won, the Board of Elections shall certify the tie vote and order a special election to be held in accordance with the procedures set forth in Section 5021.7.

(g) Ballots shall be preserved by the System for at least 90 days after such certification pursuant to a written procedure established by the System. No recount of the ballots shall be required except upon written petition of a candidate or alternate candidate or of 100 retired members of the System eligible to vote in such election. Such petition must be filed with the System no later than 30 days after the date on which the ballots were counted. Any recount shall be paid in advance at the expense of the person(s) requesting the recount, unless the margin by which a candidate was elected is less than 1 percent of the votes cast, in which event the cost of the recount shall be borne by the System.

Section 5021.7 PROCEDURES IN THE EVENT OF A TIE VOTE.

(a) A ballot shall be prepared setting forth the names of the candidates and alternate candidates who tied and listing them in the order in which they appeared on the original ballot.

(b) Ballots shall be mailed by first class mail to all retired members of the System

eligible to vote in the regular election during the month of November as soon as reasonably practical after the tie vote has been certified.

(c) All ballots must be delivered or mailed to the location within New York State established by the System. In order to be counted in the special election, ballots must be delivered or sent by mail post-marked no later than December 14 and received no more than one day (exclusive of Sunday) prior to the certification of the election.

(d) The Chair of the Board of Elections shall fix a date and time mutually convenient for the members of the Board, but no later than December 31 in the year in which the election is held, to certify the election in accordance with the procedures set forth in Section 5021.6. For the purposes of this Section, however, the Board of Elections shall consist of the Chair and those appointees of the candidates standing for the special election.

(e) The Board of Elections shall certify the election of the candidate receiving the highest number of valid ballots cast in the election and the Chair of the Board of Elections shall give written notice to the candidate so elected as soon as reasonably practicable after such certification. In the event of a tie, the winner of the election shall be determined by the Board of Elections by lot.

Section 5021.8 VACANCY.

(a) In the event the position of retired member of the Retirement Board becomes vacant by reason of death, disability, disqualification or resignation, the President of the Retirement Board shall notify the alternate candidate to such retired member at the time such member was last elected to the Retirement Board of such vacancy and shall request such alternate candidate to serve out the unexpired term of such retired member of the Retirement Board.

(b) If the alternate candidate is unwilling or unable to serve out such unexpired term or, after assuming office, thereafter dies, becomes disabled, is disqualified or resigns, the President of the Retirement Board shall request the three members of the Retirement Board who were elected from among the active members of the System to appoint a retired member of the System to serve out the remainder of such unexpired term. The appointment shall be made by a unanimous written declaration filed with the System naming the retired member so appointed.

PART 5022

DIRECT ROLLOVER OF ELIGIBLE ROLLOVER DISTRIBUTIONS

(Statutory authority: Education Law §§504(1), 512, 513, 516 [subd. 6], Retirement and Social Security Law §§517 [subd. b], 613 [subd. c])

Section
5022.1 Application
5022.2 General provision
5022.3 Definitions as used in Part 5022

Section 5022.1 APPLICATION. This Part is intended to implement the System's compliance with Section 401(a)(31) of the Internal Revenue Code, as added pursuant to the Unemployment Compensation Act Amendments of 1992, Pub. L. 102-318, 106 Stat. 290, and as thereafter amended. This Part applies to distributions made on or after January 1, 1993. Notwithstanding any provision of the System to the contrary, the System shall comply with Section 401(a)(31)(B) of the Internal Revenue Code with respect to any mandatory distributions from the System commencing with the plan year following the close of the 2006 legislative session.

Section 5022.2 GENERAL PROVISION. Notwithstanding any provision of these Rules and Regulations to the contrary that would limit a distributee's election under this Part, a distributee may elect, at the time and in the manner prescribed by the System, to have all or any portion of an eligible rollover distribution paid directly to an eligible retirement plan specified by the distributee in a direct rollover.

Section 5022.3 DEFINITIONS AS USED IN PART 5022.

(a) Eligible rollover distribution. An eligible rollover distribution is any distribution of all or any portion of the balance to the credit of the distributee, except an eligible rollover distribution does not include any distribution which, under the Internal

Revenue Code or any regulations thereunder, may not be rolled over, such as: any distribution which is one of a series of substantially equal periodic payments (not less frequently than annually) made for the life (or life expectancy) of the distributee or the joint lives (or joint life expectancies) of the distributee and the distributee's designated beneficiary, or for a specified period of 10 years or more; any distribution to the extent such distribution is required by Section 401(a)(9) of the Internal Revenue Code; and the portion of any distribution that is not includible in gross income.

Anything in the foregoing to the contrary notwithstanding, in the case of distributions made after December 31, 2001, a portion of a distribution shall not fail to be an eligible rollover distribution merely because the portion consists of after-tax employee contributions which are not includible in gross income. However, such portion may be transferred only to an individual retirement account or annuity described in Section 408(a) or 408(b) of the Internal Revenue Code or to a qualified defined contribution plan described in Section 401(a) or 403(a) of the Internal Revenue Code or, for distributions made after December 31, 2006, to any type of qualified plan described in Section 401(a) of the Internal Revenue Code (whether or not a defined contribution plan) or to an annuity contract described in Section 403(b) of the Internal Revenue Code or, for distributions made after December 31, 2007, to a Roth IRA described in Section 408A of the Internal Revenue Code, that agrees to separately account for amounts so transferred, including separately accounting for the portion of such distribution which is includible in gross income and the portion of such distribution which is not so includible.

(b) Eligible retirement plan. An eligible retirement plan is, as permitted under Section 401(a)(31) of the Internal Revenue Code or any regulation thereunder, an individual retirement account described in Section 408(a) of the Internal Revenue Code,

an individual retirement annuity described in Section 408(b) of the Internal Revenue Code, an annuity plan described in described in Section 403(a) of the Internal Revenue Code, or a qualified trust described in Section 401(a) of the Internal Revenue Code that accepts a distributee's eligible rollover distribution. However, in the case of an eligible rollover distribution to a surviving spouse, an eligible retirement plan is an individual retirement account or an individual retirement annuity.

Anything in the foregoing to the contrary notwithstanding, in the case of distributions made after December 31, 2001,

(1) an eligible retirement plan shall also include an annuity contract described in Section 403(b) of the Internal Revenue Code and an eligible plan under Section 457(b) of the Internal Revenue Code which is maintained by a state, political subdivision of a state or any agency or instrumentality of a state or political subdivision of a state and which agrees to separately account for amounts transferred into such plan from the System and

(2) the definition of eligible retirement plan shall also apply in the case of a distribution to a surviving spouse or former spouse who is the alternate payee under a qualified domestic relations order as defined in Section 414(p) of the Internal Revenue Code.

Anything in the foregoing to the contrary notwithstanding, effective for distributions made after December 31, 2007, an eligible retirement plan shall also include a Roth IRA described in Section 408A of the Internal Revenue Code.

(c) Distributee. A distributee includes a teacher or former teacher. In addition, the teacher's or former teacher's surviving spouse and the teacher's or former teacher's spouse or former spouse who is the alternate payee under a qualified domestic relations

order, as defined in Section 414(p) of the Internal Revenue Code, are distributees with regard to the interest of the spouse or former spouse. A distributee also includes a person other than a spouse who is a designated beneficiary eligible to receive a benefit because of a member or retiree's death; in such case, the distributee's only rollover option is a direct rollover to an inherited individual retirement account or inherited individual retirement annuity.

(d) Direct rollover. A direct rollover is a payment by the System to the eligible retirement plan specified by the distributee.

PART 5023

EMPLOYMENT OF RETIRED TEACHERS

(Statutory authority: Education Law §503(11); Retirement and Social Security Law §§212, 613(g) and 902(b))

Section
5023.1 Application of Retirement and Social Security Law Section 212
5023.2 Reporting earnings subject to Retirement and Social Security Law Section 212
5023.3 Contribution obligation of certain retired teachers who rejoin the System upon a return to teaching service

Section 5023.1 APPLICATION OF RETIREMENT AND SOCIAL SECURITY LAW SECTION 212.

(a) A retired teacher who enters into a position in public service, other than a retired teacher who has not attained age 65 in a calendar year and is employed in a substantially full-time position of public service under which the retired teacher will earn more than the amount permitted under Section 212 of the Retirement and Social Security Law during such calendar year or who is not permitted under the provisions of the Internal Revenue Code, and the rules and regulations promulgated thereunder, to receive a retirement allowance while being employed in public service, shall be entitled to elect the benefits of Section 212 of the Retirement and Social Security Law. Such retired teacher shall be presumed to have elected the benefits of Section 212 of the Retirement and Social Security Law. Such presumption, however, shall not apply to a retired teacher who earns or purchases retirement credit in a public employee retirement system of New York State for such service.

(b) A retired teacher who has elected the benefits of Section 212 shall receive their retirement allowance during the portion of a calendar year in which they

earn an amount in such calendar year which is no greater than the maximum amount permitted under Section 212. However, if such retired teacher earns any amount in excess of the maximum amount in a calendar year, their retirement allowance shall be suspended for the period during which such excess amount is earned.

(c) A retired teacher who has not attained age 65 during a calendar year and enters into a regular position in public service under which the retired teacher will earn more than the amount permitted under Section 212 of the Retirement and Social Security law during such calendar year shall notify the System upon entering into such employment.

Section 5023.2 REPORTING EARNINGS SUBJECT TO RETIREMENT AND SOCIAL SECURITY LAW SECTION 212.

(a) A retired teacher who is eligible to elect the benefits of Section 212 of the Retirement and Social Security Law shall not be required to file a statement of election pursuant to said Section.

(b) In lieu of the statement of election, where a retired teacher expects to earn or has earned from public service during a calendar year any amount greater than the maximum amount permitted by Section 212 to be earned from public service during such calendar year, such retired teacher shall provide written notice to the System containing the following information:

(1) said teacher's name and address;

(2) said teacher's employee identification number; and,

(3) the gross earnings of said teacher to date from public service during the calendar year, together with the name of the employer(s) by whom said teacher was employed.

(c) Notification pursuant to paragraph (b) of this Section shall be filed with the System no later than the end of the month in which the retired teacher first expects to earn or earns, whichever occurs earlier, an amount greater than said maximum permitted amount.

(d) The System shall give notice of the foregoing requirement to each retiree at the time of retirement and at least annually in an issue of the "Resource."

Section 5023.3 CONTRIBUTION OBLIGATION OF CERTAIN RETIRED TEACHERS WHO REJOIN THE SYSTEM UPON A RETURN TO TEACHING SERVICE. The following rules shall apply in the case of certain retired teachers who rejoin the System upon a return to teaching service with a participating employer:

(a) A System retiree with a Tier 3 or Tier 4 membership at retirement shall not be required to contribute to the System unless such retiree had not attained either 10 years of service and/or 10 years of membership at retirement. In such event, the retiree shall contribute at the rate of 3 percent of wages, but only until the retiree shall have attained 10 years of service credit or, if earlier, 10 years of membership based upon the member's date of membership and service at retirement or, if earlier, until such retiree again retires.

(b) A System retiree with a Tier 5 membership at retirement shall contribute at the rate of 3.5 percent of wages until such retiree again retires.

(c) In the case of a Tier 6 member who retires and rejoins the Retirement System, such member's rate of contribution and employer projection period shall be determined by the date the member last entered the Retirement System.

PART 5024

ACCELERATED DEATH BENEFIT

(Statutory authority: Education Law §511(9))

Section
5024.1 Implementation of accelerated death benefit
5024.2 Additional definitions as used in Part 5024
5024.3 Procedures

Section 5024.1 IMPLEMENTATION OF ACCELERATED DEATH BENEFIT. This Part implements subdivision 9 of Section 511 of the Education Law added by Chapter 616 of the Laws of 1998. That provision enables certain members who are eligible to be retired for disability (disregarding any service requirement) to receive, while still living, the death benefit that would have been paid pursuant to Education Law Section 512 or Retirement and Social Security Law Sections 448, 508 or 606, as applicable, had the member died on the member's last day on the payroll in full pay status. In other words, the applicable death benefit is not paid after the member's death but is accelerated and paid during the member's lifetime. The accelerated death benefit provided pursuant to the provision is expressly in lieu of any disability retirement benefit, including any optional survivor benefit, to which the member would otherwise have been entitled. The member, however, is otherwise treated as having been retired for disability.

Section 5024.2 ADDITIONAL DEFINITIONS AS USED IN PART 5024. For the purposes of subdivision 9 of Section 511 of the Education Law and this Part:

(a) "terminal illness" means an illness or medical condition resulting in a life expectancy of no more than 12 months;

(b) a “medical condition requiring extraordinary care or treatment” means a disabling condition which is grave and results in the member being indefinitely unable to perform (without substantial and continuous assistance from another individual) the activities of daily living or in being indefinitely confined to a hospital or nursing home pursuant to a recognized program of treatment; and

(c) an “activity of daily living” includes, but is not limited to, eating, toileting, transferring, bathing, dressing and continence.

Section 5024.3 PROCEDURES

(a) Application for the accelerated death benefit shall be made by filing a disability retirement application with the System.

(b) An accelerated death benefit may be paid if the member would have been eligible for the death benefit on the date the disability application is filed with the System.

(c) Once the member has been determined to be eligible to be retired for disability and meets the eligibility requirements for the accelerated death benefit pursuant to (g) of this Section, the member shall be notified by the System of such determination and of the member’s right to elect the accelerated death benefit in lieu of the disability retirement benefit, if any, to which the member may otherwise be entitled.

(d) The election of the accelerated death benefit shall be made on a form provided by the System duly signed by the member and acknowledged by a notary public.

(e) In order to be effective, such election must be filed with the System no later than the latest of

(1) 30 days following the date of notification pursuant to (c) of this Section,

(2) the retirement date specified on the application, and

(3) the date the member was last paid on the payroll. Any election filed by the member prior to the date of notification shall be ineffective.

(f) Upon filing with the System on or after the date of notification pursuant to (c) of this Section, an election of the accelerated death benefit shall be irrevocable.

(g) An accelerated death benefit shall only be payable to a member where the System's Medical Board shall have determined that such member has

(1) a terminal illness, or

(2) a medical condition requiring extraordinary care or treatment of a long continued and indefinite duration regardless of life expectancy.

(h) Should the member die after filing the election of the accelerated death benefit, and satisfaction of all other conditions to the payment of such benefit but prior to payment by the System, payment of such benefit shall be made to the member's estate.

PART 5025

REINSTATEMENT OF A PRIOR MEMBERSHIP IN A PUBLIC RETIREMENT SYSTEM

(Statutory authority: Retirement and Social Security Law §645)

Section
5025.1 Purpose
5025.2 Definitions as used in this Part
5025.3 Application for reinstatement of prior membership
5025.4 Effect of reinstatement

Section 5025.1 PURPOSE. This Part implements Section 645 of the Retirement and Social Security Law added by Chapter 640 of the Laws of 1998 providing for the reinstatement of a prior membership in a public retirement system.

Section 5025.2 DEFINITIONS AS USED IN THIS PART. As used in this Part, the term "public retirement system" shall mean this System, the New York State and Local Employees' Retirement System, the New York State and Local Police and Fire Retirement System, the New York City Employees' Retirement System, the New York City Teachers' Retirement System, the New York City Board of Education Retirement System, the New York City Police Pension Fund, or the New York City Fire Department Pension Fund, unless the context otherwise requires a different meaning.

Section 5025.3 APPLICATION FOR REINSTATEMENT OF PRIOR MEMBERSHIP.

(a) A member may apply for reinstatement of a prior membership in a public retirement system by filing the form provided to such member by the System duly signed by the member and acknowledged by a notary public or, upon joining or rejoining the System, by completing the appropriate portion of a membership application filed with the System.

(b) Where a member is required to repay amounts previously refunded at the time such prior membership in a public retirement system ceased as a condition to reinstatement of such prior membership, such amounts, together with interest thereon, must be paid in a lump sum. Repayments of previously paid out benefits shall comply with Section 415(k)(3) of the Internal Revenue Code and any Treasury Regulations thereunder.

(c) A member of this System subject to Article 14 or 15 of the Retirement and Social Security Law may not obtain reinstatement of a prior membership not subject to either Article unless and until such member shall have repaid in full any loan of the member's accumulated contributions pursuant to either such Article, as applicable.

(d) A member of this System shall be entitled to have a prior membership in a public retirement system reinstated, notwithstanding transfer of such membership to another public retirement system of the State, provided such membership shall have ceased following transfer by reason of insufficient service, withdrawal of accumulated contributions, or withdrawal of membership.

(e) No member of the System entitled to reinstatement of a prior membership in a public retirement system shall be entitled to credit for service rendered prior to the date the member last joined the System where the member is receiving a benefit or entitled to receive in the future a benefit from any public retirement system of the State or any other state for such service.

(f) A member who was retired from this System for service or with a deferred vested benefit shall be deemed a member, and not a retiree, of a public retirement system for the purposes of this Part only if the member shall have elected the provisions of paragraph b of subdivision 11 of Section 503 of the Education Law. Upon

reinstatement, however, any such member with an original date of membership prior to June 30, 1973, shall be entitled to all the rights, benefits and privileges to which such member would have been entitled, had the member entered into membership in the System on June 30, 1973.

(g) A member may apply for reinstatement of a prior membership date at retirement. In such event, the following procedure shall apply:

(1) the member shall be retired under their existing membership date unless or until they file a confirmation of their intention to be reinstated to a prior membership as provided in this Part;

(2) if the System determines based upon the information provided to it by the member or a review of the member's file with the System that the member iseligible for reinstatement, it shall so notify the member and they shall thereafter have 30 days within which to file a confirmation of their intention to be reinstated to a prior membership date;

(3) the member's confirmation of their intention to be reinstated to a prior membership date shall be on a form provided to them by the System duly signed by ~~them~~ the member and acknowledged by a notary public; such confirmation upon filing with the System shall be irrevocable;

(4) the member's right to confirm their intention to be reinstated to a prior membership date shall be extinguished on the occurrence of the earliest of

(i) their death,

(ii) the expiration of the 30 day period from the notification of their eligibility for reinstatement; or,

(iii) the date on which their retirement benefit is finally determined (i.e., "final close-out");

(5) Section 5025.3(g) shall have no application to a member who has already been reinstated to a prior membership date or to a member who last joined on or after July 27, 1976, and whose loan pursuant to Section 517(b) or 613(a) has not been repaid in full no later than 30 days following the member's effective date of retirement.

Section 5025.4 EFFECT OF REINSTATEMENT.

(a) A reinstatement of a prior membership shall be irrevocable.

(b) Where a member subject to the provisions of Article 14 or 15 of the Retirement and Social Security Law has a prior membership not subject to either such Article reinstated pursuant to this Part, the member's obligation to make contributions pursuant to either such Article, as applicable, shall be deemed to have ceased as follows:

(1) where the member makes application prior to June 30, 1999, such obligation shall cease as of January 1, 1999;

(2) where the member makes application on or after July 1, 1999, such obligation shall cease as of the first day of the plan year in which such application is made.

(c) When a member subject to the provisions of Article 14 or 15 of the Retirement and Social Security Law has a prior membership subject to either such Article dated prior to January 1, 2010, reinstated pursuant to this Part and such member's obligation to make contributions had not previously ceased by reason of Section 902(b) of the Retirement and Social Security Law, the member's obligation to

make contributions pursuant to either such Article, as applicable, shall cease by reason of having attained 10 or more years of membership as of the later of:

(1) the first day of the plan year in which the member is reinstated; or,

(2) the first day of the month next following the day on which the member attains 10 or more years of membership after giving effect to the reinstatement of the prior membership date.

The right of a reinstated member to cease contributions by reason of having accumulated 10 or more years of credited service shall be determined pursuant to the rules in Section 5001.8 of these Rules and Regulations.

(d) When a member subject to the provisions of Article 15 of the Retirement and Social Security Law with a membership date on or after January 1, 2010, and prior to April 1, 2012, has a prior membership subject to Article 14 or 15 of the Retirement and Social Security Law dated prior to January 1, 2010, reinstated pursuant to this Part, such member's obligation to make contributions at the rate of 3.5 percent rather than at the rate of 3 percent shall cease as of the first day of the plan year in which the member is reinstated. No refund shall be made in respect of contributions made at the rate of 3.5 percent prior to such date.

(e) When a member subject to the provisions of Article 15 of the Retirement and Social Security Law with a membership date on or after April 1, 2012, has a prior membership subject to Article 14 or 15 of the Retirement and Social Security Law dated prior to January 1, 2010, reinstated pursuant to this Part, such member's obligation to make contributions at the rate prescribed by Section 613 of the Retirement and Social Security Law, as amended by Chapter 18 of the Laws of 2012, rather than at the rate of 3

percent shall cease as of the first day of the plan year in which the member is reinstated. No refund shall be made in respect of contributions made prior to such date.

(f) When a member subject to the provisions of Article 15 of the Retirement and Social Security Law with a membership date on or after April 1, 2012, has a prior membership subject to Article 15 of the Retirement and Social Security Law dated on or after January 1, 2010, and prior to April 1, 2012, reinstated pursuant to this Part, such member's obligation to make contributions at the rate prescribed by Section 613 of the Retirement and Social Security Law, as amended by Chapter 18 of the Laws of 2012, rather than at the rate of 3.5 percent shall cease as of the first day of the plan year in which the member is reinstated. No refund shall be made in respect of contributions made prior to such date.

(g) Where a member's earliest prior membership in a public retirement system was in the New York City Teachers' Retirement System and subject to Chapter 522 or 523 of the Laws of 1988, such member, upon reinstatement, shall only be entitled to the rights, benefits and privileges had the member entered into membership in the System on June 30, 1976, or June 30, 1973, as applicable.

(h) Where a member's prior membership was subject to the provisions of Article 11, 14 or 15 of the Retirement and Social Security Law, the death benefit election pursuant to Sections 448(a), 508(a) or 606(a) of the Retirement and Social Security Law, as applicable, made by the member when the member last joined the System shall control over any election made during the prior membership.

(i) When a Tier 6 member is reinstated to a membership dated on or after April 1, 2012, such member's rate of contribution and employer projection period shall be determined by the date the member last entered the Retirement System.

PART 5026

CHARTER SCHOOLS

(Statutory authority: Education Law §501(4), 504(1))

Section
5026.1 Admission of charter schools as participating employers
5026.2 Effect of admission as a participating employer
5026.3 Expulsion from participation
5026.4 Effect of expiration, termination or revocation of charter

Section 5026.1 ADMISSION OF CHARTER SCHOOLS AS PARTICIPATING EMPLOYERS. The System shall admit charter schools located within the boundaries of school districts of New York State outside New York City, subject to the following:

(a) the System shall not admit any applying charter school until it has received a favorable ruling from the Internal Revenue Service indicating that the admission of charter schools will not affect the System's status as a governmental plan; should the ruling not be received until after an applying charter school has commenced operation, admission will be retroactive to the date such charter school commenced operation;

(b) application for the charter school to become a participating employer shall be made on a form prescribed by the System duly executed by a person duly authorized to act upon behalf of the charter school; the System may require such additional information or certifications as it may deem necessary or appropriate;

(c) the charter school must agree in writing to undertake and perform all the obligations of a participating employer in the System including, but not limited to, those obligations with respect to record keeping and reporting and collection and remittance of employer and employee contributions. The failure of the charter school to so agree

shall be grounds for refusing admission of such charter school as a participating employer.

Section 5026.2 EFFECT OF ADMISSION AS A PARTICIPATING EMPLOYER. Following the admission of a charter school to the System as a participating employer,

(a) the charter school shall be subject to all the obligations and responsibilities of a participating employer in the System;

(b) the charter school may not withdraw as a participating employer;

(c) members of the teaching and supervisory staff (as that phrase is used in Section 35(g) of the Civil Service Law) of the charter school shall be deemed teachers within the meaning of subdivision 4 of Section 501 of the Education Law.

Section 5026.3 EXPULSION FROM PARTICIPATION. Should a charter school admitted to participation in the System fail to comply with its obligations as a participating employer in the System, the System may, in addition to any other remedies it may have under law, expel such charter school as a participating employer; notwithstanding such expulsion, the System may credit teachers for actual service rendered at such charter school through the date of the expulsion.

Section 5026.4 EFFECT OF EXPIRATION, TERMINATION OR REVOCATION OF CHARTER.

(a) No credit shall be granted for teaching service rendered in a charter school after the expiration, termination or revocation of its charter.

(b) The obligations of a charter school as a participating employer to maintain records and collect and remit employer and employee contributions for teaching service rendered prior to the expiration, termination or revocation of a charter shall survive such expiration, termination or revocation.

PART 5027

ADVISORY COMMITTEES

(Statutory authority: Education Law §§504, 507; Public Officers Law §18)

Section
5027.1 Investment Advisory Committee
5027.2 Real Estate Advisory Committee
5027.3 Indemnification

Section 5027.1 INVESTMENT ADVISORY COMMITTEE.

(a) Function. The Investment Advisory Committee shall advise the Retirement Board on System investment policies, specific investments presented to the Committee for recommendation to the Retirement Board, and such other matters relating to fixed income, equity security and alternative investments as may be presented to the Committee by the System.

(b) Membership.

(1) The Committee shall be comprised of not less than six members. A Committee member's term of office shall be three years and terms shall be staggered to provide stability and continuity. Appointments shall be made by the Retirement Board. Should a member of the Committee resign or otherwise be unable to serve, the vacancy shall be filled by the Retirement Board for the remainder of the member's term. The Committee Chair shall be designated by the System's Executive Director.

(2) Members of the Committee shall be individuals with extensive experience in banking, investment, finance or related fields.

(c) Meetings.

(1) The System's Executive Director, or their designee, shall prepare the agenda of each meeting of the Committee. The Committee shall act only upon the affirmative vote of a majority of the Committee members in attendance or four members, whichever is greater.

(2) A minimum of four meetings shall be held each calendar year. Minutes shall be prepared and distributed to the participants.

(3) Members of the Committee shall be paid a fee established by the Retirement Board, together with actual necessary expenses incurred for attending Committee meetings.

(4) In addition to any other procedure for the conduct of meetings of the Committee as may be adopted by the Retirement Board by resolution, the Committee may act by means of conference telephone or other communications equipment allowing all persons participating in the meeting to hear one another at the same time.

(d) Conflicts of Interest. A Committee member shall not participate in any decision or recommendation involving the performance of any action where the performance or non-performance of such action would provide the member or a related person a pecuniary or material benefit which is different from that which would be provided to a broad class of persons, or in circumstances where the exercise of independent judgment by the member would be restricted or compromised or the member otherwise had a material conflict of interest.

Section 5027.2 REAL ESTATE ADVISORY COMMITTEE.

(a) Function. The Real Estate Advisory Committee shall advise the Retirement Board on such real estate investment matters as may be presented to the Committee by the System.

(b) Membership.

(1) The Committee shall be comprised of not less than six members. A Committee member's term of office shall be three years and terms shall be staggered to provide stability and continuity. Appointments shall be made by the Retirement Board. Should a member of the Committee resign or otherwise be unable to serve, the vacancy shall be filled by the Retirement Board for the remainder of the member's term. The Committee Chair shall be designated by the System's Executive Director.

(2) Members of the Committee shall be individuals with extensive experience in real estate investment.

(c) Duties. In addition to any duties prescribed by the Retirement Board by resolution, the Committee shall provide recommendation to the Retirement Board on traditional conventional mortgages and property specific equity investments as to whether the System should proceed with the investment. On non-property specific real estate investments, where the System's Executive Director determines in their discretion a reference to the Committee is appropriate, the Committee shall provide a recommendation on a conceptual basis.

(d) Meetings.

(1) The System's Executive Director, or their designee, shall prepare the agenda of each meeting of the Committee. The Committee shall act only upon the affirmative vote of a majority of the Committee members in attendance

or who have provided their telephone vote confirmed by mail, facsimile, or other electronic means acceptable to the System, or four members, whichever is greater.

(2) Meetings shall be held at such times as may be determined by the System's Executive Director, or their designee. Minutes shall be prepared and distributed to the participants.

(3) Members of the Committee shall be paid a fee established by the Retirement Board, together with actual necessary expenses incurred for attending Committee meetings.

(4) In addition to any other procedure for the conduct of meetings of the Committee as may be adopted by the Retirement Board by resolution, the Committee may act by means of conference telephone or other communications equipment allowing all persons participating in the meeting to hear one another at the same time.

(5) Anything in the foregoing notwithstanding, the Committee may act by unanimous vote of its members made by mail, facsimile or other electronic means acceptable to the System in such matters as the Executive Director, or their designee, in their sole discretion may determine.

(e) Conflicts of Interest. A Committee member shall not participate in any decision or recommendation involving the performance of any action where the performance or non-performance of such action would provide the member or a related person a pecuniary or material benefit which is different from that which would be provided to a broad class of persons, or in circumstances where the exercise of

independent judgment by the member would be restricted or compromised or the member otherwise had a material conflict of interest.

Section 5027.3 INDEMNIFICATION.

(a) Solely for the purposes of Section 18 of the Public Officers Law, members of the Investment Advisory Committee and Real Estate Advisory Committee are determined to be employees of the System within the meaning of subdivision (1)(b) of Section 18 of the Public Officers Law.

(b) The members of the Investment Advisory Committee and Real Estate Advisory Committee shall be entitled to the benefits of Section 18 of the Public Officers Law and the System shall be liable for the costs incurred as provided in such Section.

(c) The benefits provided to Committee members under Section 18 of the Public Officers Law shall supplement and be available in addition to defense or indemnification protection conferred by any other law.

PART 5028

MANDATED DISTRIBUTIONS

(Statutory authority: Education Law §531(5))

Section
5028.1 Purpose
5028.2 Procedure

Section 5028.1 PURPOSE. This Part is intended to implement Section 531(5) of the Education Law added by Chapter 220 of the Laws of 2009 authorizing the mandated distribution of unclaimed amounts not to exceed one thousand dollars ($1,000.00) in each case to former members or contributors, or other persons entitled to receive benefits from the System, in cases where

(a) at least seven years have elapsed since the member or contributor withdrew from service or ceased to be a teacher for any cause other than death or retirement; or,

(b) at least seven years have elapsed from the date any other person became entitled to a benefit from the System pursuant to any provision of the Education Law or the Retirement and Social Security Law.

Section 5028.2 PROCEDURE.

(a) System staff shall periodically review its records of unclaimed contributions and other benefits to ascertain those amounts whose distribution may be mandated under Section 531(5) of the Education Law.

(b) In the case of each amount determined to be eligible for mandatory distribution, System staff shall ascertain whether the System has a valid address for the recipient of such distribution and, where such address is validated to the satisfaction of System staff, shall notify such recipient in writing that the distribution of such amount

shall be mandated, unless the recipient files an application for the payment of such amount in the manner prescribed by the System.

(c) No payment of any such amount shall be made within 60 days of such notification unless the recipient files a demand in the manner prescribed by the System that payment of such amount may be made on an earlier date.

(d) Payment shall be made to the recipient unless, where and to the extent applicable, the System receives prior to the date of payment, written notification that recipient elects to have all or any portion of any amount which is eligible distribution as defined in Section 5022.3(a) of these Rules and Regulations rolled over to an eligible retirement plan as defined in Section 5022.3(b) of these Rules and Regulations.

PART 5029

ELECTRONIC SIGNATURES AND FILING OF DOCUMENTS

(Statutory authority: Retirement and Social Security Law §807)

Section
5029.1 Purpose and definitions
5029.2 Authorization
5029.3 Use of electronic signatures
5029.4 General

Section 5029.1 PURPOSE AND DEFINITIONS.

(a) Purpose. This part is intended to support and encourage the use of electronic signatures and electronic records in lieu of handwritten signatures and paper documents for the purposes of filing a System generated form, as required by the System, and received through the System interface.

(b) Definitions. As used in this Part:

(1) The term “electronic” shall mean of or relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities.

(2) An “electronic record” shall mean information, evidencing any act, transaction, occurrence, event, or other activity, produced or stored by electronic means and capable of being accurately reproduced in forms perceptible by human sensory capabilities.

(3) The “system interface” shall mean System supported web applications (MyNYSTRS, the Employer Secure Area, and the NYSTRS Board Portal) or other such electronic means approved by the System.

(4) An "electronic signature" or "digital signature" means the creation of an electronic identifier (i.e., an electronic sound, symbol, or process, attached to an

electronic record or logically associated with an electronic record and executed or adopted by a person with the intent to sign and submit the record) which the System determines is:

(i) unique to the signer;

(ii) capable of verification;

(iii) under the signer's control; and

(iv) linked to the record in such a manner that if the record is altered, the signature may be invalidated.

Section 5029.2 AUTHORIZATION

(a) The Retirement System may provide for the electronic filing of forms and documents through its internet website.

(b) Administration of the internet website shall be coordinated by NYSTRS.

(c) NYSTRS shall conform to the internet security and privacy act, the electronic signatures and records act, and other applicable law.

Section 5029.3 USE OF ELECTRONIC SIGNATURES.

(a) The signature of those persons executing, and/or authenticating, any decision or determination or other document by or on behalf of NYSTRS, may do so digitally for documents prepared in an electronic format.

(b) Unless specifically provided otherwise by law, an electronic signature may be used in lieu of a signature affixed by hand. The use of an electronic signature shall have the same validity and effect as the use of a signature affixed by hand. A verified electronic signature shall also be deemed to be acknowledged, when required by law.

Section 5029.4 GENERAL.

(a) An electronic record shall have the same force and effect as those records not produced by electronic means.

(b) Electronic records shall be considered and treated as any other records for the purposes of the Freedom of Information Law as set forth in Article 6 of the Public Officers Law.

(c) Electronic records shall be considered and treated as any other records for the purposes of disclosure of those records as set forth in Article 6-A of the Public Officers Law.

(d) Electronic records, electronically stored and reproduced copies of records, and electronic signatures, shall be admissible into evidence under the same rules as those records and signatures not produced or stored and reproduced, by electronic means.

(e) Nothing in this Part shall require any entity or person to use an electronic record or an electronic signature unless otherwise provided by law or as required by the System.

Executive Committee Meeting October 29, 2025

RESOLUTION AMENDING THE SYSTEM'S RULES AND REGULATIONS TO BE GENDER NEUTRAL

WHEREAS, The System's Rules and Regulations currently references gender specific language such as "he", "she", "his" and "her" ;

WHEREAS, Staff recommends amending the System's Rules and Regulations to reflect gender neutral terminology such as "the member" or "them";

RESOLVED, That, effective October 30, 2025, the following amendments to the Rules and Regulations of the New York State Teachers' Retirement System be adopted and implemented, a copy of which is annexed hereto and made a part thereof of Appendix ___, page ___.

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

TO: Retirement Board

FROM: C. O'Grady

CC: T. Lee, M. Andriola, S. Bonesteel, D. Ampansiri

SUBJECT: Board Member Salary Reimbursement Report: 2024-25 Fiscal Year

DATE: October 29, 2025

In accordance with statute and the Board Member Salary Reimbursement Policy, reimbursement was made to Syracuse City School District for teacher Board Member Donald A. Little, 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	D. Little (days)	E. Iberger (days)	J. Benaquisto (days)
Regular and Special Meetings of the Retirement Board and the Retirement Board Retreat	1.5	5	1.5
Meetings of Committees of the Retirement Board	1.5	0	1.5
Meetings of the Investment Advisory Committee and the Real Estate Advisory Committee	2	4	2
Annual Delegates Convention pursuant to Education Law S505	0.5	1	0.5
Meetings of the Medical Board pursuant to Education Law S507(6)	5	10	5
CII spring/fall meeting, NCTR annual conference, NIRS and/or Audit Committee member attendance at one Audit Trustee workshop	0	0	0
Total days of reimbursed service	**10.5**	**20**	**10.5**
Total amounts reimbursed:	**$ 5,688.10**	**$ 18,495.60**	**$ 7,651.56**

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM

MEMORANDUM

TO: T. Lee

FROM: Office of the CFO / Finance Department

DATE: October 29, 2025

SUBJECT: Retirement Board Package

Attached are the System's quarterly financial statements and related schedules for the quarters ended September 30, 2025 and 2024.

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, 2025 and 2024

Assets	2025	2024
Investments at fair value:		
Domestic equity	$ 53,361,149,142	$ 50,363,133,049
International equity	24,598,663,788	22,266,689,648
Global equity	6,894,939,295	6,228,097,359
Real estate equity	15,940,434,718	16,161,087,163
Private equity	14,466,301,591	14,267,749,018
Domestic fixed income	23,166,723,119	22,584,397,525
High-yield bonds	1,344,423,483	1,577,534,972
Global bonds	3,105,569,175	2,696,832,844
Real estate debt	8,778,401,517	8,040,020,032
Private debt	2,977,346,744	2,388,018,226
Cash equivalents	2,210,699,341	2,009,810,103
Total investments	156,844,651,913	148,583,369,939
Receivables:		
Employer	1,976,276,048	1,886,201,450
Member	67,941,631	59,253,812
Investment income	434,317,624	402,720,501
Investment sales	135,255,486	255,245,124
Total receivables	2,613,790,789	2,603,420,887
Other assets:		
Securities lending collateral, invested	220,793,691	294,779,751
Member loans	303,731,034	292,541,488
Net investment in capital assets	31,247,254	23,354,246
Miscellaneous assets	6,646,917	6,055,154
Total other assets	562,418,896	616,730,639
Total assets	160,020,861,598	151,803,521,465
Deferred outflows of resources:		
Changes in net OPEB liability	14,785,531	15,718,775
Changes in net pension liability	7,990,733	12,201,645
Total deferred outflows of resources	22,776,264	27,920,420
Liabilities		
Securities lending collateral, due to borrowers	219,434,136	293,409,573
Investment purchases payable	233,132,226	430,876,076
Mortgage escrows and deposits, net of investments	35,000	3,651,500
Net OPEB liability	48,195,049	50,667,926
Other liabilities	230,446,665	213,634,052
Total liabilities	731,243,076	992,239,127
Deferred inflows of resources:		
Changes in net OPEB liability	4,037,200	1,280,285
Changes in net pension liability	543,817	9,080,289
Total deferred inflows of resources	4,581,017	10,360,574
Net position restricted for pensions	**$159,307,813,769**	**$150,828,842,184**

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

For the three months ending September 30, 2025 and 2024

Additions:	**2025**	**2024**
Investment income:		
Net increase in fair value of investments	$ 6,096,609,526	$ 5,978,884,356
Interest	335,841,331	312,773,313
Dividends	316,531,254	329,136,865
Real estate, net operating income	154,692,047	137,484,755
Securities lending, gross earnings	2,753,325	4,777,516
Other (net)	(2,054,496)	(2,780,646)
	6,904,372,987	6,760,276,159
Less: Investment expenses	109,422,896	101,538,343
Securities lending:		
Broker rebates	2,112,908	3,952,283
Management fees	90,402	119,406
(Appreciation) depreciation on collateral	(51,783)	149,430
Net investment income	6,792,798,564	6,654,516,697
Contributions:		
Employer	473,743,494	485,258,789
Member	73,275,426	64,023,479
Transfers (to)/from other systems	40,612,268	3,683,363
Total contributions	587,631,188	552,965,631
Net additions	7,380,429,752	7,207,482,328
Deductions:		
Retirement benefit payments, periodic	2,218,737,893	2,152,044,229
Beneficiary payments	14,732,238	19,588,647
Return of contributions	6,565,558	6,553,721
Administrative expenses	25,705,535	21,888,327
Total deductions	2,265,741,224	2,200,074,924
Net increase in net position	5,114,688,528	5,007,407,404
Net position restricted for pensions, beginning of year	154,193,125,241	145,821,434,780
Net position restricted for pensions, end of period	**$159,307,813,769**	**$150,828,842,184**

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

Compared to Budget Appropriations for 2025-2026

	Budget Appropriations 2025-2026	Expenses and Encumbrances YTD 09/30/2025	Remaining Balance 9/30/2025	Actual Expenses YTD 09/30/2025
Salaries:				
Salaries	$ 56,390,605	$ 12,897,250	$ 43,493,355	$ 12,897,250
Overtime salaries	65,000	5,830	59,170	5,830
Social Security	3,989,494	887,371	3,102,123	887,371
Subtotal Salaries	60,445,099	13,790,451	46,654,648	13,790,451
Benefits				
Employees retirement	8,346,652	2,308,604	6,038,048	2,308,604
Dental insurance	448,139	96,854	351,285	96,854
Health insurance	9,967,701	2,102,942	7,864,759	2,097,393
OPEB contribution	6,236,000	1,559,000	4,677,000	1,559,000
Civil service	95,000	27,790	67,210	27,790
Subtotal Benefits	25,093,492	6,095,190	18,998,302	6,089,641
Total salaries and benefits	85,538,591	19,885,641	65,652,950	19,880,092
Building occupancy:				
Building security and vending	496,000	212,822	283,178	70,925
Building supplies and expenses	150,000	28,929	121,071	28,768
Heat, light and power	455,000	119,723	335,277	119,723
Insurance	481,386	—	481,386	—
Municipal assessments	199,000	60,175	138,825	60,175
Office supplies and expenses	161,500	65,637	95,863	63,023
Storage	43,000	37,398	5,602	18,826
Telephone	535,000	138,932	396,068	94,980
Total building occupancy	2,520,886	663,616	1,857,270	456,420
Computer:				
IT Hardware Purchases	1,436,000	211,081	1,224,919	23,863
IT Software Purchases	449,000	67,938	381,062	59,573
Software and support services	7,812,386	3,721,567	4,090,819	2,966,202
Project Costs - Hardware and Software	173,000	7,230	165,770	1,328
Total computer	9,870,386	4,007,816	5,862,570	3,050,966
Personnel and meeting:				
Board - meetings, travel and education	150,000	19,389	130,611	19,389
Delegates meeting	500,000	21,855	478,145	21,855
Dues	397,058	26,621	370,437	26,621
Employee Engagement	57,196	2,853	54,343	2,853

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

Compared to Budget Appropriations for 2025-2026

	Budget Appropriations 2025-2026	Expenses and Encumbrances YTD 09/30/2025	Remaining Balance 9/30/2025	Actual Expenses YTD 09/30/2025
Personnel and meeting (continued):				
Library	$ 51,160	$ 2,404	$ 48,756	$ 2,404
Overtime meals	2,500	245	2,255	245
Personnel expenses	389,385	99,426	289,959	53,761
Pre-retirement seminars	118,000	38,506	79,494	35,112
Staff schooling	1,028,274	57,805	970,469	51,430
Travel and automobile expense	565,435	92,805	472,630	92,805
Tuition assistance	50,000	14,582	35,418	14,582
Wellness fund	9,500	2,103	7,397	303
Meeting Expense	20,400	2,733	17,667	2,733
Total personnel and meeting	3,338,908	381,327	2,957,581	324,093
Professional and governmental services:				
Auditors - financial	422,600	422,600	—	210,140
Disability medical examinations	100,000	18,306	81,694	18,306
Postage and cartage	1,102,107	110,645	991,462	110,645
Professional fees and services	1,942,381	714,644	1,227,737	323,386
Publications	292,000	4,015	287,985	4,015
Project Costs - Professional Fees	2,353,750	1,366,928	986,822	542,694
Statutory custodian charges	155,000	42,500	112,500	42,500
Total professional and governmental services	6,367,838	2,679,638	3,688,200	1,251,686
Capital improvement program:				
Depreciation - building and improvements	1,815,816	412,858	1,402,958	412,858
Depreciation - equipment	310,905	6,492	304,413	6,492
Amort./depreciation - computer micro	1,328,517	280,881	1,047,636	280,881
Building improvement expense	281,000	18,933	262,067	6,792
Building maintenance contracts	986,180	712,397	273,783	(54,022)
Equipment	63,000	4,956	58,044	93
Equipment maintenance	67,000	33,259	33,741	25,065
Fleet maintenance	40,000	2,519	37,481	2,519
Capital contingency	2,060,022	—	2,060,022	—
SBITA Interest Expense	—	4,717	(4,717)	4,717
SBITA Asset Amortization Expense	1,547,558	56,883	1,490,675	56,883
Total capital improvement program	8,499,998	1,533,895	6,966,103	742,278
Total Administration Expenses	$ 116,136,607	$ 29,151,933	$ 86,984,674	$ 25,705,535

Quarterly Signatory Additions & Deletions

For Quarter Ended September 30, 2025

Division	Name	Position	Warrant Signatory	Document Signatory
Administration	Rebecca Kannan	Deputy Executive	Deleted	Deleted
Executive	Han Yik	Executive	Not Applicable	Added
Internal Audit	Lei Zhang	Assistant Manager/Assistant Director	Not Applicable	Deleted
Member Relations	Beth Dellea	Executive	Not Applicable	Deleted
Office of the Actuary	Richard Young	Executive	Deleted	Deleted
Public Equities	Magdalena Schmitz	Assistant Manager/Assistant Director	Added	Added
Public Equities	David Tessitore	Manager/Director	Deleted	Deleted

New York State Teachers' Retirement System

Agenda

Meeting on Retired Employee Health Benefits Trust October 29, 2025

AGENDA p. 718

Call to Order by Chair

A. Approve minutes of the April 23, 2025 Trust Meeting pp. 719-720
B. GASB 74/75 Report pp. 721-761
C. Trust Financial Statements-Quarter Ended September 30, 2025 pp. 762-766
D. Trust Financial Statements with Independent Auditor's (Plante Moran) Report-Year Ended June 30, 2025 pp. 767-807
E. Resolution Accepting Independent Auditor's Report-Trust p. 808

NEW YORK STATE TEACHERS' RETIREMENT SYSTEM
10 Corporate Woods Drive Albany, New York

A meeting of the Trustees of the New York State Teachers' Retirement System Retired Employee Health Benefits Trust was held at the System on April 23, 2025.

Board Members: Juliet Benaquisto, Paul Farfaglia, Eric Iberger, David Keefe, Donald A. Little III, Oliver Robinson, Nicholas Smirensky

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

Visitor via WebEx: Donna Martin, Albany NY

The meeting was called to order by D. Keefe at 3:27 p.m.

1. Approval of Minutes of October 30, 2024

Upon motion of E. Iberger, seconded by J. Benaquisto and unanimously adopted by the Trustees, the minutes of the October 30, 2024 meeting were approved.

2. Review of OPEB Trust Actuarial Valuation Report (attached Appendix A pp. 3-36)

3. Resolution Authorizing the Contribution to the Retired Employees Health Benefits Trust for the 2025-2026 Fiscal Year

E. Iberger offered the following resolution, seconded by J. Benaquisto and unanimously carried by the Trustees:

WHEREAS, Governmental Accounting Standards Board ("GASB") Statements 74 and 75 have established certain standards for the reporting of the System's liabilities to provide health care benefits to its current and future retired employees and their eligible dependents;

WHEREAS, Said GASB Statements afford certain advantages to the reporting of such liabilities when such liabilities are pre-funded through

a trust which satisfies the requirements for a trust under the GASB Statements; and

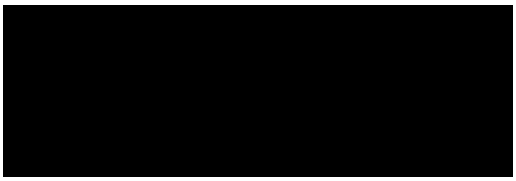
WHEREAS, The System established a Trust Agreement for the New York State Teachers' Retirement System Retired Employee Health Benefits Trust in November 2007, be it

RESOLVED, That the System's Executive Director and Chief Investment Officer or his designee, is authorized to deposit, or cause to be deposited, into such trust, a total of $6,236,000 in contributions for the 2025-2026 fiscal year.

4. Review of Trust Financial Statements (Appendix B pp. 37-41).

There being no further business, the meeting adjourned at 3:30 p.m.

Respectfully submitted,



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Thomas K. Lee

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

GASB 74 Actuarial Information
for the Fiscal Year Ending June 30, 2025
and
GASB 75 Actuarial Information
for the Fiscal Year Ending June 30, 2026

Bolton

Submitted by:

Rebecca Trauger, FSA, FCA, MAAA
Senior Consulting Actuary
(845) 239-2496
rtrauger@boltonusa.com

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

Bolton

September 3, 2025

Ms. Melody Prangley, FSA, EA, FCA, MAAA
Chief Actuary
Office of the Actuary
New York State Teachers' Retirement System
10 Corporate Woods Drive
Albany, NY 12211-2395

Dear Melody:

The following report provides the Government Accounting Standards Board Statement 74 (GASB 74) and the Government Accounting Standards Board Statement 75 (GASB 75) actuarial information for the New York State Teachers' Retirement System (NYSTRS) Employees' other post-employment benefits (OPEB) Plan to be included with their financial statements. GASB 74 is for plan accounting and will be disclosed in the Required Supplementary Information (RSI) in the FY2025 ACFR notes to NYSTRS's financial statements. GASB 75 is for employer accounting and will be disclosed in the FY2026 ACFR notes to NYSTRS's financial statements. The information has been provided as of a June 30, 2025 measurement date for plan reporting under GASB 74 for the fiscal year ending June 30, 2025 and employer financial reporting under GASB 75 for the fiscal year ending June 30, 2026.

Methodology, Reliance, and Certification

This report has been prepared for NYSTRS; it contains the actuarial information to be included with their financial statements for the fiscal years ending June 30, 2025 and June 30, 2026 as required by GASB 74 and GASB 75. It is not intended for, nor should it be used for, any additional purposes. Bolton is not responsible for the consequences of any other use.

The report is based on June 30, 2024 census data provided by NYSTRS. The plan provisions, participant data, valuation methods, and actuarial assumptions are as detailed in Sections III through V of this report.

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. The demographic assumptions were recently reviewed in the experience study performed by Bolton dated January 28, 2025. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are detailed in Section V of this report. 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 used in this valuation 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. The sensitivity of results to a one percent change in trend is shown in the exhibits along with the sensitivity to a one percent change in the discount rate.

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.

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 assumptions, changes in 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, applicable law, or accounting rules.

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 the 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

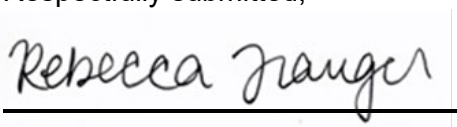
The Inflation Reduction Act (IRA), which was signed into law in August 2022, is expected to make numerous changes to prescription drug costs for Medicare enrollees and plan sponsors, including capping member out of pocket spending and other plan design changes beginning in 2025 and requiring the federal government to negotiate drug prices for certain high-cost drugs starting in 2026. The expected impact of these changes has been reflected in the trend assumption used for Rx costs for Medicare-eligible participants. Further detail on how this was done can be found in Section V.

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.

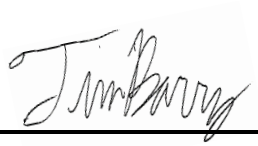
Bolton Partners is completely independent of the New York State Teachers' Retirement System, their programs, activities, and any of their key personnel. Bolton Partners does not have any relationship with the New York State Teachers' Retirement System which would impair or appear to impair the objectivity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

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

Respectfully submitted,



Rebecca Trauger, FSA, FCA, MAAA
Senior Consulting Actuary



Timothy Barry, ASA, MAAA
Actuary

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Section I. Executive Summary

Background

Bolton Partners, Inc. has prepared the following report that sets forth the actuarial disclosure information as required by GASB 74 and 75. GASB 74 is for plan accounting and will be disclosed in the FY2025 ACFR Required Supplementary Information (RSI). GASB 75 is for employer accounting and will be disclosed in the FY2026 ACFR notes to NYSTRS' financial statements. Under GASB 75, the measurement date can be any date between the last day of the prior fiscal year (June 30, 2025) and the last day of the current fiscal year (June 30, 2026). NYSTRS has selected a June 30, 2025 measurement date for FY2026 reporting. Therefore, the information has been provided as of a June 30, 2025 measurement date for plan reporting for the fiscal year ending June 30, 2025 and employer reporting for the fiscal year ending June 30, 2026. There are some exhibits that are disclosed under both GASB 74 and GASB 75, and some exhibits are only disclosed under GASB 75. We have labeled the exhibits that are to be used for both accounting statements and those that are only disclosed under GASB 75.

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, 2025 is $87,634,825. 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 from 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. Retirees and spouses are eligible for a subsidy from NYSTRS which varies by benefit.

Please see Section III for more details regarding the Plan.

Census Data

Census data as of July 1, 2024 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.

Section I. Executive Summary

Comparison with Previous Disclosure

The prior valuation was based on July 1, 2023 data, and those results were used in the FY2024 GASB 74 and FY2025 GASB 75 disclosure report dated September 16, 2024.

There was a decrease in the Net OPEB Liability from June 30, 2024 to June 30, 2025, which was mainly due to the updated per capita costs based on the 2025 premium rates, favorable investment experience, and updating the healthcare cost trend assumption to reflect the expected impact of the Inflation Reduction Act (IRA). These decreases were partially offset by updating the spousal coverage election assumption based on an experience study performed by Bolton dated January 28, 2025 and higher than expected benefit payments during FY2025.

The following table compares the census data used in the current and prior valuations and 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, 2023**	**July 1, 2024**
Census Data		
Active Employees[1]	384	402
Deferred Vested Participants[2]	2	2
Retirees[3,4]	313	313
Dependents	140	144
Total	**839**	**861**
Reconciliation of Net OPEB Liability		
Previous Valuation for FY2025 as of June 30, 2024		$48.2M
Expected Increase/(Decrease) due to the Passage of Time during FY2025		(0.5)
Increase/(Decrease) due to Higher than Expected Benefit Payments during FY2025		0.6
Increase/(Decrease) due to Favorable Investment Experience during FY2025		(5.7)
Increase/(Decrease) due to Demographic Experience		0.9
Increase/(Decrease) due to Updating the Per Capita Cost Assumption		(7.7)
Increase/(Decrease) due to Updating the Healthcare Cost Trend Assumption to Reflect the Expected Impact of the Inflation Reduction Act (IRA)		(4.0)
Increase/(Decrease) due to Updating the Spousal Coverage Election Assumption		2.2
Current Valuation for FY2026 as of June 30, 2025		**$34.0M**

[1] Counts include 26 active employees who waived medical/Rx coverage as of July 1, 2023 and 31 who waived medical/Rx coverage as of July 1, 2024 who were not included in the respective valuations because they were assumed to continue waiving medical/Rx coverage at retirement. Of the 31 who waived medical/Rx coverage as of July 1, 2024, 16 were waiving all coverage and 15 were enrolled in vision coverage but waived medical/Rx.

[2] These participants were not shown in the above comparison in the prior report. However, since we are assuming deferred vested participants will elect coverage upon turning 65, they have been added for this year's report.

[3] Includes 15 surviving spouses as of July 1, 2023 and 14 surviving spouses as of July 1, 2024.

[4] Excludes 2 retirees and 2 surviving spouses who are enrolled in vision coverage but waiving medical/Rx coverage as of July 1, 2024, as well as 1 retiree who is waiving all coverage as of July 1, 2024.

Section I. Executive Summary

Cost Information

Bolton received 2025 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 FY2024 GASB 74 and FY2025 GASB 75 disclosure report dated September 16, 2024. They were reviewed as part of an experience study performed by Bolton dated January 28, 2025 and determined to still be reasonable and appropriate. 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. There has not been a new mortality improvement scale published by the SOA since MP-2021; therefore, we have continued to use this scale for the FY2025 GASB 74 and FY2026 GASB 75 disclosure. 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 55% of female participants expected to enroll in coverage at retirement are assumed to cover a spouse. This assumption was updated since the prior valuation based on the experience study performed by Bolton dated January 28, 2025.

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. This assumption was reviewed based on the 2024 Horizon Survey of Capital Market Assumptions and the OPEB Trust Target Asset Allocation and determined to be reasonable and appropriate.

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 fully solvent in the future, and therefore the discount rate is the expected rate of return of 6.50%. Please refer to Appendix 2 for a summary of this projection and the derivation of the discount rate.

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 initial trend rates reflect actual premium increase for 2024 (3.2% for pre-Medicare and 2.7% for Medicare-eligible participants) and 7.0% expected for 2025. The 2025 trend reflects recent inflation, which we estimate will result in higher medical costs as providers renew their contracts. The baseline trend rates were then adjusted to account for the potential impact of the Inflation Reduction Act when projecting the Rx costs for Medicare-eligible participants. The trend for pre-Medicare costs is expected to be 7.00% in 2025 and 6.20% in 2026, decreasing to 5.29% by 2030 and 4.54% by 2050, ultimately leveling off at 4.04% in 2075. The blended medical and Rx trend for Medicare costs is expected to be 5.98% in 2025 and 5.40% in 2026, decreasing to 4.90% by 2030 and 4.41% by 2050, ultimately leveling off at 3.92% 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 10-15 years.

The salary scale assumption is the same as that used in the FY2024 GASB 74 and FY2025 GASB 75 disclosure report dated September 16, 2024.

Section II. Assets

FY2025 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, 2024	$76,485,077
(3)	Employer Contributions	6,804,000
(4)	Investment gains/(losses)	10,726,353
(5)	Benefit Payments paid from Trust	(6,366,205)
(6)	Administrative Expenses	(14,400)
(7)	Market value of assets as of June 30, 2025 *(2) + (3) + (4) + (5) + (6)*	$87,634,825
(8)	Expected investment return	4,985,073
(9)	Asset (gain)/loss *(8) – (4)*	$(5,741,280)

Section III. Summary of Principal Plan Provisions

The following summary describes the 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. Eligible to commence receipt of a pension from the New York State and Local Employees' Retirement System (ERS). If enrolled in the Optional Retirement Program administered by TIAA/CREF, the employee must meet the retirement age requirement of the ERS tier in effect on the date the employee last entered New York State service.

Employees who become disabled must have 10 years of service in order to be eligible for benefits. However, NYSTRS 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 retirees must 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 (Rx), and vision benefits, as well as Medicare Part B reimbursement. Eligible retirees can elect coverage for themselves, their spouses and dependent children.

Medical and Rx Benefits

Each of the plans offered includes medical coverage (inpatient facility, outpatient facility, physician and surgeon services, and other related care) and prescription drug (Rx) 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 15% of the Empire plan premium paid, subject to a maximum retiree contribution related to pay at retirement. Retirees pay 10% of the vision plan premium.
- 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 the event of the death of a retiree, surviving spouses are eligible to continue to enroll in the Plan by paying 25% of the cost of coverage. Surviving spouses of eligible active employees also pay 25% of the premium cost after a three-month extended coverage period.

Annual Maximums

Retiree contributions vary by tier, which are determined based on salary at retirement.

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

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.

Section III. Summary of Principal Plan Provisions

Participant Contributions (continued)

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:

Effective Period	Sick Leave Maximum	
	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

None.

Section IV. Valuation Data

Summary of Participants

The following table summarizes the census data used in the current and prior valuations. Retiree and dependent counts only include those who are enrolled in medical/Rx coverage.

Data as of:	July 1, 2023	July 1, 2024
Number of Participants		
Active Employees[1]	384	402
Deferred Vested Participants[2]	2	2
Pre-Medicare Retirees[3]	84	75
Medicare-eligible Retirees[4,5]	229	238
Dependents[6]	140	144
Total	839	861
Active Statistics		
Average Age	46.6	45.3
Average Service	10.5	9.6
Inactive Statistics		
Deferred Vested Participant Average Age	61.1	62.1
Pre-Medicare Retiree Average Age	61.1	61.2
Medicare Retiree Average Age	74.0	73.9
Dependent Average Age	69.5	69.5

[1] Counts include 26 active employees who waived medical/Rx coverage as of July 1, 2023 and 31 who waived medical/Rx coverage as of July 1, 2024 who were not included in the respective valuations because they were assumed to continue waiving medical/Rx coverage at retirement. Of the 31 who waived medical/Rx coverage as of July 1, 2024, 16 were waiving all coverage and 15 were enrolled in vision coverage but waived medical/Rx.
[2] These participants were footnoted as 2 of the 5 retirees who waived medical/Rx coverage as of July 1, 2023 in the prior report. However, since we are assuming they will elect coverage upon turning 65, they have been added to the summary above.
[3] Excludes 1 retiree who is waiving medical/Rx and vision coverage as of July 1, 2024.
[4] Includes 15 surviving spouses as of July 1, 2023 and 14 surviving spouses as of July 1, 2024.
[5] Excludes 2 retirees and 2 surviving spouses who are enrolled in vision coverage but waiving medical/Rx coverage as of July 1, 2024.
[6] Includes 2 dependent children as of July 1, 2023 and 3 dependent children as of July 1, 2024.

Section IV. Valuation Data

Active Age - Service Distribution

Shown below is a distribution by age and service for all active employees as of July 1, 2024. This exhibit includes 31 active employees who are not included in the valuation because they are currently waiving medical/Rx coverage and therefore assumed to waive medical/Rx coverage at retirement.

	Years of Service								
Age	**<1**	**1-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**Total**
<25	7	3	0	0	0	0	0	0	10
25 – 29	9	14	1	0	0	0	0	0	24
30 – 34	12	15	16	0	0	0	0	0	43
35 – 39	10	15	13	6	0	0	0	0	44
40 – 44	8	18	25	5	8	1	0	0	65
45 – 49	3	17	15	10	13	6	1	0	65
50 – 54	1	10	12	11	13	8	5	2	62
55 – 59	3	7	7	5	9	9	4	8	52
60 – 64	0	4	7	1	8	7	2	1	30
65+	0	0	2	1	2	2	0	0	7
Total	**53**	**103**	**98**	**39**	**53**	**33**	**12**	**11**	**402**

Retiree and Dependent Age Distribution

The following table shows the distribution by age of retirees and dependents who are currently enrolled in medical/Rx coverage as of July 1, 2024.

Age	Retirees[1]	Dependents	Total
<55	1	4	5
55 – 59	16	11	27
60 – 64	59	29	88
65 – 69	73	30	103
70 – 74	62	23	85
75 – 79	55	26	81
80 – 84	35	13	48
85+	14	8	22
Total	**315**	**144**	**459**

[1] Includes 2 deferred vested participants and 14 surviving spouses.

Section IV. Valuation Data

Status Reconciliation

The following table shows the status reconciliation of actives, deferred vested participants, retirees and surviving spouses from July 1, 2023 to July 1, 2024. Details are included in the footnotes.

	Active	Deferred Vested	Retired	Surviving Spouses	Total
Members as of July 1, 2023	**384**[1]	**2**	**299**[2]	**14**[3]	**699**
New Hires	53				53
Active Pickup	1				1
Terminations	(21)				(21)
Retired and Elected Coverage	(9)		9		0
Retired but Waived Coverage	(1)				(1)
Retiree Pickup					
New Surviving Spouse					
Deceased / Dropped Coverage	(5)		(9)		(14)
Members as of July 1, 2024	**402**[4]	**2**	**299**[5]	**14**[6]	**717**

[1] Includes 26 actives who waived medical/Rx coverage as of July 1, 2023.
[2] Excludes 3 retirees who waived medical/Rx coverage as of July 1, 2023.
[3] Excludes 1 surviving spouse who waived medical/Rx coverage as of July 1, 2023.
[4] Includes 31 actives who waived medical/Rx coverage as of July 1, 2024. Of these, 16 were waiving all coverage and 15 were enrolled in vision coverage but waived medical/Rx.
[5] Excludes 2 retirees who are enrolled in vision coverage but waived medical/Rx and 1 retiree who waived all coverage as of July 1, 2024.
[6] Excludes 2 surviving spouses who are enrolled in vision coverage but waived medical/Rx coverage as of July 1, 2024.

Section V. Valuation Methods and Assumptions

Actuarial Valuation Date
July 1, 2024

Measurement Date
June 30, 2025

Cost Method
This valuation uses the Entry Age Normal Funding Method calculated on an individual basis with level percentage of payroll. This is the required funding method under GASB 74 and 75.

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

Roll Forward Method
Liabilities are rolled forward from the actuarial valuation date to the measurement date through the 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.

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 2024 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.

Discount Rate Assumption
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 fully solvent in the future, and therefore the discount rate is the expected rate of return of 6.50%. Please refer to Appendix 2 for a summary of this projection and the derivation of the discount rate.

Payroll Growth
3.00%

Election Assumption
For current retirees, actual medical coverage elections provided by NYSTRS were used. Current deferred vested participants are assumed to elect coverage upon turning 65.

For future retirees, 100% of employees enrolled in medical/Rx 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.

Section V. Valuation Methods and Assumptions

Spousal Coverage and Age

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

For future retirees, 70% of males and 55% 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 FY2024 GASB 74 and FY2025 GASB 75 disclosure report dated September 16, 2024, which were reviewed as part of the experience study dated January 28, 2025 and are, in our opinion, reasonable and appropriate 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

There has not been a new mortality improvement scale published by the SOA since MP-2021; therefore, we have continued to use this scale for the July 1, 2024 valuation.

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

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

Per Capita Cost Assumption

Medical and Rx Benefits

We received 2024 and 2025 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 rates for 2024 and 2025 are shown below:

	2024		2025	
	Individual	Family	Individual	Family
Empire	$ 13,086	$ 33,599	$ 13,086	$ 33,599
CDPHP	11,241	25,878	12,628	29,126
MVP	10,996	25,284	11,931	27,489
Highmark BlueShield	11,198	27,611	12,023	29,715
Emblem Health (HIP)	16,301	39,318	18,767	45,345

Section V. Valuation Methods and Assumptions

Per Capita Cost Assumption (continued)

The average premium was calculated by blending the 2025 premiums for each plan based on retiree enrollment as of the valuation date and trending to the midpoint of the projection period using 3.20% trend for pre-Medicare and 2.70% trend for Medicare (the weighted-average increase in premium rates from 2024 to 2025). 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 Costs	Average Premiums
Pre-Medicare Participants		
Retiree	$ 24,601	$ 12,735
Spouse	31,982	18,877
Medicare-eligible Participants in Medicare Advantage Plans		
Retiree	$9,613	$9,613
Spouse	13,190	13,190
Medicare-eligible Participants in non-Medicare Advantage Plans		
Retiree	$6,510	$10,672
Spouse	10,535	17,269

Medicare Part B Premiums

Participants eligible for Medicare Part B premium reimbursement were assumed to receive $179.85 per month in FY2025, based on the average of the calendar year 2024 and 2025 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

Healthcare Cost Trend Assumption

Medical and Rx Benefits

The baseline 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 initial trend rate reflects the actual premium increase for 2024 (3.2% for pre-Medicare and 2.7% for Medicare-eligible participants) and for 2025 was set to 7.0%. This 2025 trend reflects recent inflation, which we estimate will result in higher medical costs as providers renew their contracts.

Section V. Valuation Methods and Assumptions

Healthcare Cost Trend Assumption (continued)

Medical and Rx Benefits

The baseline trend rates developed from the model and inputs described above were adjusted to account for the potential impact of the Inflation Reduction Act as follows:

- The changes to the cost sharing structure for Medicare Part D plans effective in 2025 are assumed to have already been reflected in the 2025 premiums that were used to set the per capita costs and initial trend assumption. Therefore, we have not adjusted the expected trend for 2025 to reflect any increase due to this change in cost sharing.
- The federal government being able to negotiate pricing for certain high-cost drugs starting in 2026 was assumed to result in a 10% savings for the drugs that are selected for negotiations. These drugs were assumed to make up 15% of the market share in 2026, and we expect that the market share for newly selected drugs will decline over time, decreasing to 10% by 2028, 5% by 2032, and ultimately leveling off at 2% in 2041.

These adjustments will only be reflected in the trend assumption for Rx costs for Medicare-eligible participants as the Inflation Reduction Act is not expected to impact medical costs or Rx costs for non-Medicare enrollees.

The trend rates for selected years are shown below:

Year	Pre-Medicare	Medicare
2024	3.20%	2.70%
2025	7.00%	5.98%
2026	6.20%	5.40%
2030	5.29%	4.90%
2040	4.60%	4.47%
2050	4.54%	4.41%
2060	4.48%	4.35%
2070	4.24%	4.12%
2075+	4.04%	3.92%

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 10-15 years.

Changes in methods and assumptions since prior valuation

- The per capita cost assumption was updated based on the 2025 premium rates provided by NYSTRS.
- The healthcare cost trend assumption was updated to reflect the known increase in premiums from 2024 to 2025 as well as the expected impact of the Inflation Reduction Act (IRA).
- The assumption for spousal coverage election for future female retirees was updated from 40% to 55% reflecting recent experience and detailed in the Bolton experience study dated January 28, 2025.

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, 2024 for FY2025	$124,680,126	$76,485,077	$48,195,049
Changes for the Year			
Service Cost	3,595,353		3,595,353
Interest	7,962,831		7,962,831
Changes of Benefit Terms	0		0
Experience Losses/(Gains)	1,293,198		1,293,198
Trust Contribution - Employer		6,804,000	(6,804,000)
Net Investment Income		10,726,353	(10,726,353)
Changes in Assumptions	(9,494,256)		(9,494,256)
Benefit Payments (net of retiree contributions)	(6,366,205)	(6,366,205)	0
Administrative Expense		(14,400)	14,400
Net Changes	(3,009,079)	11,149,748	(14,158,827)
Balance as of June 30, 2025 for FY2026	**$121,671,047**	**$87,634,825**	**$34,036,222**
Funded status		72.03%	

Appendix 1. GASB 74/GASB 75 Disclosure

OPEB Expense - Required by GASB 75

1. Service Cost	$	3,595,353
2. Interest		7,962,831
3. Projected Earnings on OPEB Trust		(4,985,073)
4. OPEB Administrative Expense		14,400
5. Changes in Benefit Terms		0
6. Differences Between Expected and Actual Earnings		
In Current Fiscal Year Recognized in Current Year		(1,148,256)
From Past Years Recognized in Current Year		(1,264,309)
Total		(2,412,565)
7. Differences Between Expected and Actual Experience		
In Current Fiscal Year Recognized in Current Year		215,533
From Past Years Recognized in Current Year		1,062,912
Total		1,278,445
8. Changes in Assumptions		
In Current Fiscal Year Recognized in Current Year		(1,582,376)
From Past Years Recognized in Current Year		1,040,521
Total		(541,855)
9. Total OPEB Expense	**$**	**4,911,536**

Appendix 1. GASB 74/GASB 75 Disclosure

Sensitivity of Total and Net OPEB Liability - Required by GASB 74/GASB 75

The following table presents New York State Teachers' Retirement System Employees' OPEB Plan'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, 2025 Discount Rate	1% Decrease 5.50%	Baseline 6.50%	1% Increase 7.50%
Total OPEB Liability	$137,956,633	$121,671,047	$108,263,877
Net OPEB Liability/(Asset)	$50,321,808	$34,036,222	$20,629,052

The following table presents New York State Teachers' Retirement System Employees' OPEB Plan'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, 2025 Ultimate Trend	1% Decrease 2.95%	Baseline 3.95%[1]	1% Increase 4.95%
Total OPEB Liability	$104,772,645	$121,671,047	$143,177,091
Net OPEB Liability/(Asset)	$17,137,820	$34,036,222	$55,542,266

[1] 3.95% is a blend of the 4.04% ultimate trend for pre-Medicare benefits and 3.92% ultimate trend for Medicare benefits, based on a weighted average of the pre-Medicare vs Medicare portions of the Total OPEB Liability.

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, 2026, New York State Teachers' Retirement System Employees' OPEB Plan recognized an OPEB expense
At June 30, 2026, New York State Teachers' Retirement System Employees' OPEB Plan reported deferred outflows of resources and deferred
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	$ 4,204,290	$ -
Changes of assumptions	2,339,129	8,336,453
Net difference between projected and actual earnings on OPEB plan investments	-	6,528,997
Employer contribution subsequent to measurement date	6,240,000	
Total	**$ 12,783,419**	**$ 14,865,450**

$6,240,000 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, 2027.

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
2027	6/30/2026	$ (111,654)
2028	6/30/2027	(2,694,442)
2029	6/30/2028	(2,172,164)
2030	6/30/2029	(1,976,928)
2031	6/30/2030	(1,366,843)
Thereafter	6/30/2031 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.

Year	Differences between Projected and Actual Earnings on OPEB Plan Investments	Recognition Period (Years)	Increase (Decrease) in OPEB Expense Arising from the Recognition of Differences between Projected and Actual Earnings on OPEB Plan Investments				
			2026	2027	2028	2029	2030
2022	$ (11,253,404)	5	$ (2,250,680)				
2023	13,905,782	5	2,781,156	$ 2,781,158			
2024	(3,336,118)	5	(667,224)	(667,224)	$ (667,222)		
2025	(5,637,807)	5	(1,127,561)	(1,127,561)	(1,127,561)	$ (1,127,563)	
2026	(5,741,280)	5	(1,148,256)	(1,148,256)	(1,148,256)	(1,148,256)	$ (1,148,256)
Net increase (decrease) in OPEB expense			**$ (2,412,565)**	**$ (161,883)**	**$ (2,943,039)**	**$ (2,275,819)**	**$ (1,148,256)**

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

Year	Investment Earnings Less than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in OPEB Expense Through June 30, 2025 (c)	Balances at June 30, 2025	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2022	$ -	$ 11,253,404	$ 11,253,404	$ -	$ -
2023	13,905,782	-	11,124,624	2,781,158	-
2024	-	3,336,118	2,001,672	-	1,334,446
2025	-	5,637,807	2,255,122	-	3,382,685
2026	-	5,741,280	1,148,256	-	4,593,024
				$ 2,781,158	**$ 9,310,155**

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.

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Increase (Decrease) in OPEB Expense Arising from the Recognition of Differences between Expected and Actual Experience						
			2026	2027	2028	2029	2030	2031	Thereafter
2021	$ 79,202	6	$ 13,202						
2022	1,259,391	6	209,899	209,896					
2023	869,679	6	144,947	144,947	144,944				
2024	915,720	6	152,620	152,620	152,620	152,620			
2025	3,253,466	6	542,244	542,244	542,244	542,244	542,246		
2026	1,293,198	6	215,533	215,533	215,533	215,533	215,533	215,533	
Net increase (decrease) in OPEB expense			**$ 1,278,445**	**$ 1,265,240**	**$ 1,055,341**	**$ 910,397**	**$ 757,779**	**$ 215,533**	**$ -**

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

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in OPEB Expense Through June 30, 2025 (c)	Balances at June 30, 2025	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2021	$ 79,202	$ -	$ 79,202	$ -	$ -
2022	1,259,391	-	1,049,495	209,896	-
2023	869,679	-	579,788	289,891	-
2024	915,720	-	457,860	457,860	-
2025	3,253,466	-	1,084,488	2,168,978	-
2026	1,293,198	-	215,533	1,077,665	-
				$ 4,204,290	**$ -**

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)	2026	2027	2028	2029	2030	2031	Thereafter
2021	$ 4,038,931	6	$ 673,156						
2022	(2,449,602)	6	(408,267)	(408,267)					
2023	-	6	-	-	-				
2024	4,678,256	6	779,709	779,709	779,709	779,711			
2025	(24,460)	6	(4,077)	(4,077)	(4,077)	(4,077)	(4,075)		
2026	(9,494,256)	6	(1,582,376)	(1,582,376)	(1,582,376)	(1,582,376)	(1,582,376)	(1,582,376)	
Net increase (decrease) in OPEB expense			**$ (541,855)**	**$ (1,215,011)**	**$ (806,744)**	**$ (806,742)**	**$ (1,586,451)**	**$ (1,582,376)**	**$ -**

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

Year	Assumption Losses (a)	Assumption Gains (b)	Amounts Recognized in OPEB Expense Through June 30, 2025 (c)	Balances at June 30, 2025 Deferred Outflows of Resources (a) - (c)	Balances at June 30, 2025 Deferred Inflows of Resources (b) - (c)
2021	$ 4,038,931	$ -	$ 4,038,931	$ -	$ -
2022	-	2,449,602	2,041,335	-	408,267
2023	-	-	-	-	-
2024	4,678,256	-	2,339,127	2,339,129	-
2025	-	24,460	8,154	-	16,306
2026	-	9,494,256	1,582,376	-	7,911,880
				$ 2,339,129	**$ 8,336,453**

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 Plan Sponsor FY2016 and earlier is not available

Disclosure for Fiscal Year Ending:	2026	2025	2024	2023	2022	2021	2020	2019	2018	2017
Measurement Date:	6/30/2025	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
Total OPEB liability										
Service Cost	$ 3,595,353	$ 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	7,962,831	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	1,293,198	3,253,466	915,720	869,679	1,259,391	79,202	714,079	(841,844)	(2,165,915)	399,912
Changes of Assumptions	(9,494,256)	(24,460)	4,678,256	-	(2,449,602)	4,038,931	1,102,479	(878,222)	(5,848,836)	-
Benefit Payments	(6,366,205)	(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	(3,009,079)	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	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	78,732,257
Total OPEB Liability - End of Year	121,671,047	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 Plan Sponsor FY2016 and earlier is not available

Disclosure for Fiscal Year Ending:	2026	2025	2024	2023	2022	2021	2020	2019	2018	2017
Measurement Date:	6/30/2025	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
Contributions - Employer	$ 6,804,000	$ 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	10,726,353	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)	(6,366,205)	(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	(14,400)	(14,000)	(14,000)	56,365	(19,915)	(65,585)	(18,575)	(53,435)	(15,000)	(12,700)
Net Change in Fiduciary Net Position	11,149,748	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	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	26,675,306
Fiduciary Net Position - End of Year	87,634,825	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	34,036,222	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	72.03%	61.35%	56.40%	54.07%	65.44%	51.26%	46.66%	45.07%	44.07%	35.06%
Covered-Employee Payroll[1]	$ 41,902,830	$ 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
Net OPEB Liability as a Percentage of Covered Employee Payroll[1]	81.23%	133.91%	142.41%	137.90%	104.98%	146.89%	166.51%	161.91%	152.91%	188.25%
Expected Average Remaining Service Years of All Participants	6	6	6	6	6	6	6	6	6.20	N/A

Notes to Schedule:

The discount rate was changed as follows:	6.50%	6.50%	6.50%	6.50%	6.50%	6.75%	6.75%	6.75%	7.00%	8.00%

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 Plan Sponsor FY2015 and earlier is not available

Plan FY for GASB 74	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Actuarially Determined Contribution	$ 6,764,602	$ 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
Contributions in Relation to the Actuarially Determined Contribution	6,804,000	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
Contribution Deficiency (Excess)	$ (39,398)	$ 26	$ -	$ (660,144)	$ (438,944)	$ (46,132)	$ (150,625)	$ (221,253)	$ (125,780)	$ (718,000)
Covered-Employee Payroll[1]	$ 41,902,830	$ 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
Contributions as a Percentage of Covered Employee Payroll[1]	16.24%	19.20%	17.97%	16.94%	18.89%	18.69%	17.63%	17.93%	18.49%	18.91%

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)
2026	$ 6,235,931	$ 279,260	$ 5,956,671
2027	$ 6,455,340	$ 559,949	$ 5,895,391
2028	$ 6,675,441	$ 839,926	$ 5,835,515
2029	$ 6,906,267	$ 1,116,457	$ 5,789,810
2030	$ 7,156,480	$ 1,395,981	$ 5,760,499
2031	$ 7,409,800	$ 1,684,004	$ 5,725,796
2032	$ 7,695,996	$ 1,962,710	$ 5,733,286
2033	$ 7,969,553	$ 2,253,895	$ 5,715,658
2034	$ 8,276,380	$ 2,564,973	$ 5,711,407
2035	$ 8,578,134	$ 2,873,516	$ 5,704,618
2036	$ 8,901,955	$ 3,182,900	$ 5,719,055
2037	$ 9,246,385	$ 3,493,954	$ 5,752,431
2038	$ 9,596,442	$ 3,815,069	$ 5,781,373
2039	$ 9,955,608	$ 4,143,450	$ 5,812,158
2040	$ 10,338,493	$ 4,494,495	$ 5,843,998
2041	$ 10,735,783	$ 4,861,393	$ 5,874,390
2042	$ 11,142,925	$ 5,241,975	$ 5,900,950
2043	$ 11,585,013	$ 5,617,528	$ 5,967,485

Note: Years subsequent to 2043 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)
2026	$ 87,634,825	$ 5,956,671	$ 5,976,049	$ 5,695,634	$ 93,311,081
2027	$ 93,311,081	$ 5,895,391	$ 6,456,201	$ 6,046,994	$ 98,797,265
2028	$ 98,797,265	$ 5,835,515	$ 6,870,376	$ 6,388,189	$ 104,150,594
2029	$ 104,150,594	$ 5,789,810	$ 7,098,939	$ 6,727,242	$ 109,568,706
2030	$ 109,568,706	$ 5,760,499	$ 7,536,777	$ 7,064,237	$ 114,856,665
2031	$ 114,856,665	$ 5,725,796	$ 7,722,613	$ 7,400,787	$ 120,260,635
2032	$ 120,260,635	$ 5,733,286	$ 8,129,466	$ 7,739,065	$ 125,603,521
2033	$ 125,603,521	$ 5,715,658	$ 8,445,573	$ 8,075,507	$ 130,949,112
2034	$ 130,949,112	$ 5,711,407	$ 8,777,824	$ 8,412,034	$ 136,294,729
2035	$ 136,294,729	$ 5,704,618	$ 9,216,338	$ 8,745,026	$ 141,528,035
2036	$ 141,528,035	$ 5,719,055	$ 9,330,374	$ 9,081,954	$ 146,998,671
2037	$ 146,998,671	$ 5,752,431	$ 9,756,855	$ 9,424,770	$ 152,419,017
2038	$ 152,419,017	$ 5,781,373	$ 10,153,138	$ 9,765,154	$ 157,812,405
2039	$ 157,812,405	$ 5,812,158	$ 10,580,925	$ 10,102,821	$ 163,146,460
2040	$ 163,146,460	$ 5,843,998	$ 11,038,067	$ 10,435,713	$ 168,388,103
2041	$ 168,388,103	$ 5,874,390	$ 11,186,633	$ 10,772,579	$ 173,848,439
2042	$ 173,848,439	$ 5,900,950	$ 11,513,421	$ 11,117,743	$ 179,353,711
2043	$ 179,353,711	$ 5,967,485	$ 11,589,581	$ 11,475,273	$ 185,206,889
2044	$ 185,206,889	$ 6,042,111	$ 12,019,579	$ 11,844,180	$ 191,073,600
2045	$ 191,073,600	$ 6,111,041	$ 12,236,024	$ 12,220,722	$ 197,169,340
2046	$ 197,169,340	$ 6,189,533	$ 12,682,677	$ 12,604,980	$ 203,281,175
2047	$ 203,281,175	$ 6,256,315	$ 12,932,762	$ 12,996,292	$ 209,601,020
2048	$ 209,601,020	$ 1,215,919	$ 13,112,034	$ 13,237,443	$ 210,942,348

Note: Years subsequent to 2048 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-2025-0.5)	Present Value of "Unfunded" Benefit Payments (f) = (d) / (1 + 4.81%)^(year-2025-0.5)	Present Value of Benefit Payments Using the Single Discount Rate (g) = (b) / (1 + 6.5%)^(year-2025-0.5)
2026	$ 87,634,825	$ 5,976,049	$ 5,976,049	$ -	$ 5,790,810	$ -	$ 5,790,810
2027	$ 93,311,081	$ 6,456,201	$ 6,456,201	$ -	$ 5,874,253	$ -	$ 5,874,253
2028	$ 98,797,265	$ 6,870,376	$ 6,870,376	$ -	$ 5,869,573	$ -	$ 5,869,573
2029	$ 104,150,594	$ 7,098,939	$ 7,098,939	$ -	$ 5,694,686	$ -	$ 5,694,686
2030	$ 109,568,706	$ 7,536,777	$ 7,536,777	$ -	$ 5,676,916	$ -	$ 5,676,916
2031	$ 114,856,665	$ 7,722,613	$ 7,722,613	$ -	$ 5,461,871	$ -	$ 5,461,871
2032	$ 120,260,635	$ 8,129,466	$ 8,129,466	$ -	$ 5,398,705	$ -	$ 5,398,705
2033	$ 125,603,521	$ 8,445,573	$ 8,445,573	$ -	$ 5,266,318	$ -	$ 5,266,318
2034	$ 130,949,112	$ 8,777,824	$ 8,777,824	$ -	$ 5,139,433	$ -	$ 5,139,433
2035	$ 136,294,729	$ 9,216,338	$ 9,216,338	$ -	$ 5,066,839	$ -	$ 5,066,839
2036	$ 141,528,035	$ 9,330,374	$ 9,330,374	$ -	$ 4,816,462	$ -	$ 4,816,462
2037	$ 146,998,671	$ 9,756,855	$ 9,756,855	$ -	$ 4,729,218	$ -	$ 4,729,218
2038	$ 152,419,017	$ 10,153,138	$ 10,153,138	$ -	$ 4,620,939	$ -	$ 4,620,939
2039	$ 157,812,405	$ 10,580,925	$ 10,580,925	$ -	$ 4,521,723	$ -	$ 4,521,723
2040	$ 163,146,460	$ 11,038,067	$ 11,038,067	$ -	$ 4,429,184	$ -	$ 4,429,184
2041	$ 168,388,103	$ 11,186,633	$ 11,186,633	$ -	$ 4,214,834	$ -	$ 4,214,834
2042	$ 173,848,439	$ 11,513,421	$ 11,513,421	$ -	$ 4,073,201	$ -	$ 4,073,201
2043	$ 179,353,711	$ 11,589,581	$ 11,589,581	$ -	$ 3,849,901	$ -	$ 3,849,901
2044	$ 185,206,889	$ 12,019,579	$ 12,019,579	$ -	$ 3,749,052	$ -	$ 3,749,052
2045	$ 191,073,600	$ 12,236,024	$ 12,236,024	$ -	$ 3,583,628	$ -	$ 3,583,628
2046	$ 197,169,340	$ 12,682,677	$ 12,682,677	$ -	$ 3,487,739	$ -	$ 3,487,739
2047	$ 203,281,175	$ 12,932,762	$ 12,932,762	$ -	$ 3,339,448	$ -	$ 3,339,448
2048	$ 209,601,020	$ 13,112,034	$ 13,112,034	$ -	$ 3,179,098	$ -	$ 3,179,098
2049	$ 210,942,348	$ 13,186,288	$ 13,186,288	$ -	$ 3,001,973	$ -	$ 3,001,973
2050	$ 212,214,616	$ 13,214,188	$ 13,214,188	$ -	$ 2,824,718	$ -	$ 2,824,718
2051	$ 213,503,833	$ 13,205,399	$ 13,205,399	$ -	$ 2,650,553	$ -	$ 2,650,553
2052	$ 214,846,833	$ 13,343,322	$ 13,343,322	$ -	$ 2,514,776	$ -	$ 2,514,776
2053	$ 216,084,795	$ 13,423,974	$ 13,423,974	$ -	$ 2,375,565	$ -	$ 2,375,565
2054	$ 217,281,912	$ 13,366,132	$ 13,366,132	$ -	$ 2,220,966	$ -	$ 2,220,966
2055	$ 218,592,490	$ 13,480,352	$ 13,480,352	$ -	$ 2,103,235	$ -	$ 2,103,235
2056	$ 219,832,965	$ 13,103,378	$ 13,103,378	$ -	$ 1,919,642	$ -	$ 1,919,642
2057	$ 221,529,223	$ 13,125,530	$ 13,125,530	$ -	$ 1,805,528	$ -	$ 1,805,528
2058	$ 223,310,125	$ 12,780,063	$ 12,780,063	$ -	$ 1,650,710	$ -	$ 1,650,710
2059	$ 225,570,352	$ 12,645,880	$ 12,645,880	$ -	$ 1,533,689	$ -	$ 1,533,689
2060	$ 228,122,925	$ 12,408,445	$ 12,408,445	$ -	$ 1,413,045	$ -	$ 1,413,045
2061	$ 231,093,176	$ 12,090,627	$ 12,090,627	$ -	$ 1,292,819	$ -	$ 1,292,819
2062	$ 234,609,269	$ 11,865,401	$ 11,865,401	$ -	$ 1,191,302	$ -	$ 1,191,302
2063	$ 238,598,322	$ 11,601,630	$ 11,601,630	$ -	$ 1,093,726	$ -	$ 1,093,726
2064	$ 243,160,837	$ 11,344,417	$ 11,344,417	$ -	$ 1,004,205	$ -	$ 1,004,205
2065	$ 248,315,981	$ 11,039,516	$ 11,039,516	$ -	$ 917,573	$ -	$ 917,573
2066	$ 254,167,435	$ 10,738,713	$ 10,738,713	$ -	$ 838,095	$ -	$ 838,095
2067	$ 260,757,835	$ 10,485,181	$ 10,485,181	$ -	$ 768,364	$ -	$ 768,364
2068	$ 268,080,257	$ 10,281,774	$ 10,281,774	$ -	$ 707,473	$ -	$ 707,473
2069	$ 276,147,171	$ 10,038,941	$ 10,038,941	$ -	$ 648,605	$ -	$ 648,605
2070	$ 285,047,393	$ 9,778,646	$ 9,778,646	$ -	$ 593,227	$ -	$ 593,227
2071	$ 294,854,368	$ 9,488,579	$ 9,488,579	$ -	$ 540,498	$ -	$ 540,498
2072	$ 305,660,558	$ 9,178,097	$ 9,178,097	$ -	$ 490,903	$ -	$ 490,903
2073	$ 317,557,179	$ 8,884,265	$ 8,884,265	$ -	$ 446,185	$ -	$ 446,185
2074	$ 330,603,116	$ 8,570,371	$ 8,570,371	$ -	$ 404,151	$ -	$ 404,151

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 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-2025-0.5)	Present Value of "Unfunded" Benefit Payments (f) = (d) / (1 + 4.81%)^(year-2025-0.5)	Present Value of Benefit Payments Using the Single Discount Rate (g) = (b) / (1 + 6.5%)^(year-2025-0.5)
2075	$ 344,890,332	$ 8,237,928	$ 8,237,928	$ -	$ 364,764	$ -	$ 364,764
2076	$ 360,524,254	$ 7,886,346	$ 7,886,346	$ -	$ 327,884	$ -	$ 327,884
2077	$ 377,615,396	$ 7,519,254	$ 7,519,254	$ -	$ 293,542	$ -	$ 293,542
2078	$ 396,278,665	$ 7,138,620	$ 7,138,620	$ -	$ 261,674	$ -	$ 261,674
2079	$ 416,631,838	$ 6,745,565	$ 6,745,565	$ -	$ 232,174	$ -	$ 232,174
2080	$ 438,801,372	$ 6,341,479	$ 6,341,479	$ -	$ 204,945	$ -	$ 204,945
2081	$ 462,920,313	$ 5,929,910	$ 5,929,910	$ -	$ 179,947	$ -	$ 179,947
2082	$ 489,125,579	$ 5,513,589	$ 5,513,589	$ -	$ 157,102	$ -	$ 157,102
2083	$ 517,561,807	$ 5,096,219	$ 5,096,219	$ -	$ 136,347	$ -	$ 136,347
2084	$ 548,378,308	$ 4,682,846	$ 4,682,846	$ -	$ 117,641	$ -	$ 117,641
2085	$ 581,730,276	$ 4,274,908	$ 4,274,908	$ -	$ 100,838	$ -	$ 100,838
2086	$ 617,780,721	$ 3,874,430	$ 3,874,430	$ -	$ 85,814	$ -	$ 85,814
2087	$ 656,701,830	$ 3,485,952	$ 3,485,952	$ -	$ 72,497	$ -	$ 72,497
2088	$ 698,673,393	$ 3,111,846	$ 3,111,846	$ -	$ 60,767	$ -	$ 60,767
2089	$ 743,882,532	$ 2,755,069	$ 2,755,069	$ -	$ 50,516	$ -	$ 50,516
2090	$ 792,527,398	$ 2,420,485	$ 2,420,485	$ -	$ 41,673	$ -	$ 41,673
2091	$ 844,813,745	$ 2,105,872	$ 2,105,872	$ -	$ 34,043	$ -	$ 34,043
2092	$ 900,963,510	$ 1,816,360	$ 1,816,360	$ -	$ 27,571	$ -	$ 27,571
2093	$ 961,208,177	$ 1,551,252	$ 1,551,252	$ -	$ 22,110	$ -	$ 22,110
2094	$ 1,025,794,344	$ 1,310,961	$ 1,310,961	$ -	$ 17,545	$ -	$ 17,545
2095	$ 1,094,986,282	$ 1,096,544	$ 1,096,544	$ -	$ 13,779	$ -	$ 13,779
2096	$ 1,169,062,632	$ 906,601	$ 906,601	$ -	$ 10,697	$ -	$ 10,697
2097	$ 1,248,322,651	$ 741,351	$ 741,351	$ -	$ 8,213	$ -	$ 8,213
2098	$ 1,333,085,678	$ 598,430	$ 598,430	$ -	$ 6,225	$ -	$ 6,225
2099	$ 1,423,693,891	$ 476,510	$ 476,510	$ -	$ 4,655	$ -	$ 4,655
2100	$ 1,520,513,972	$ 375,221	$ 375,221	$ -	$ 3,441	$ -	$ 3,441
2101	$ 1,623,936,271	$ 291,890	$ 291,890	$ -	$ 2,514	$ -	$ 2,514
2102	$ 1,734,380,378	$ 223,971	$ 223,971	$ -	$ 1,811	$ -	$ 1,811
2103	$ 1,852,295,991	$ 169,155	$ 169,155	$ -	$ 1,284	$ -	$ 1,284
2104	$ 1,978,163,825	$ 125,627	$ 125,627	$ -	$ 896	$ -	$ 896
2105	$ 2,112,499,244	$ 91,933	$ 91,933	$ -	$ 615	$ -	$ 615
2106	$ 2,255,852,293	$ 66,357	$ 66,357	$ -	$ 417	$ -	$ 417
2107	$ 2,408,811,327	$ 47,081	$ 47,081	$ -	$ 278	$ -	$ 278
2108	$ 2,572,004,783	$ 32,811	$ 32,811	$ -	$ 182	$ -	$ 182
2109	$ 2,746,103,746	$ 22,443	$ 22,443	$ -	$ 117	$ -	$ 117
2110	$ 2,931,824,924	$ 15,059	$ 15,059	$ -	$ 74	$ -	$ 74
2111	$ 3,129,932,285	$ 9,904	$ 9,904	$ -	$ 45	$ -	$ 45
2112	$ 3,341,241,281	$ 6,376	$ 6,376	$ -	$ 27	$ -	$ 27
2113	$ 3,566,621,211	$ 4,015	$ 4,015	$ -	$ 16	$ -	$ 16
2114	$ 3,806,999,114	$ 2,471	$ 2,471	$ -	$ 9	$ -	$ 9
2115	$ 4,063,362,960	$ 1,487	$ 1,487	$ -	$ 5	$ -	$ 5
2116	$ 4,336,765,755	$ 874	$ 874	$ -	$ 3	$ -	$ 3
2117	$ 4,628,330,010	$ 500	$ 500	$ -	$ 2	$ -	$ 2
2118	$ 4,939,251,722	$ 279	$ 279	$ -	$ 1	$ -	$ 1
2119	$ 5,270,805,461	$ 152	$ 152	$ -	$ 0	$ -	$ 0
2120	$ 5,624,349,382	$ 82	$ 82	$ -	$ 0	$ -	$ 0
2121	$ 6,001,330,798	$ 42	$ 42	$ -	$ 0	$ -	$ 0
2122	$ 6,403,291,793	$ 21	$ 21	$ -	$ 0	$ -	$ 0
2123	$ 6,831,875,410	$ 11	$ 11	$ -	$ 0	$ -	$ 0
2124	$ 7,288,832,462	$ 5	$ 5	$ -	$ 0	$ -	$ 0
Total					**$ 147,630,059**	**+ $ -**	**= $ 147,630,059**

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

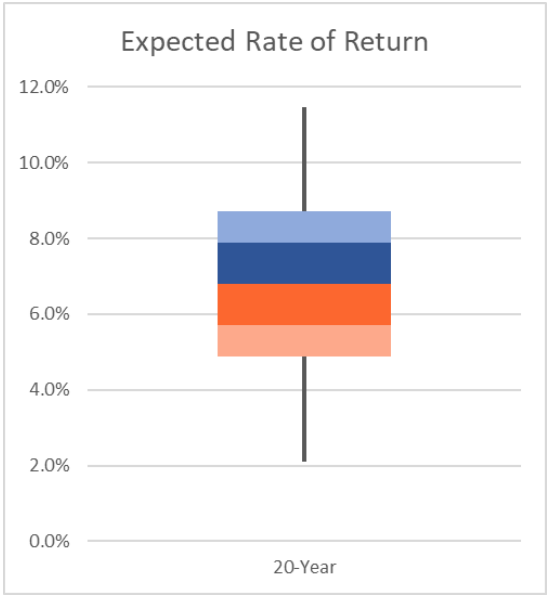
Our reasonable range is within the 35th and 65th percentiles of the 20-year geometric expected rate of return based on the 2024 Horizon Survey of Capital Market Assumptions and the OPEB Trust Target Asset Allocation. 6.50% falls within the 35th and 50th percentiles and therefore is an acceptable assumption.

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	11.47%
75th	8.71%
65th	7.89%
50th	6.79%
35th	5.70%
25th	4.87%
5th	2.11%



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	15.0%
2025	14.0%

NEW YORK STATE
TEACHERS' RETIREMENT SYSTEM

MEMORANDUM

TO: T. Lee

FROM: Office of the CFO / Finance Department

DATE: October 29, 2025

SUBJECT: Retirement Board Package - OPEB Trust

Attached are the quarterly OPEB Trust financial statements and related supplemental schedule for the quarters ended September 30, 2025 and 2024.

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, 2025 and 2024

	2025	2024
Assets:		
Investments at fair value:		
Cash equivalents	$ 4,903	$ 164,563
Mutual funds	92,559,744	81,343,651
Total investments	92,564,647	81,508,214
Receivables:		
Employer contributions	4,677,000	5,103,000
Other Assets:	576,937	—
Total assets	**97,818,584**	**86,611,214**
Liabilities:		
Accounts payable	20,200	19,650
Total liabilities	20,200	19,650
Net position restricted for other postemployment health benefits	**$ 97,798,384**	**$ 86,591,564**

Office of the CFO/ Finance Department
October 29, 2025

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, 2025 and 2024

	2025	2024
Additions:		
Investment income:		
Net increase in fair value of investments	$ 5,089,778	$ 4,472,364
Dividends	464,112	402,139
Net investment income	5,553,890	4,874,503
Contributions:		
Employer	6,236,000	6,804,000
Total contributions	6,236,000	6,804,000
Total additions	11,789,890	11,678,503
Deductions:		
Other postemployment benefit payments	1,606,131	1,552,366
Professional fees and services	20,200	19,650
Total deductions	1,626,331	1,572,016
Net increase	10,163,559	10,106,487
Net position restricted for other postemployment health benefits		
Beginning of year	87,634,825	76,485,077
End of period	**$ 97,798,384**	**$ 86,591,564**

Office of the CFO/ Finance Department
October 29, 2025

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

September 30, 2025 and 2024

Investment Type*	2025	Percent	2024	Percent	Increase (Decrease)	Target Percent
Short-term:						
Federal Money Market Fund	$ 4,903	0.01	$ 164,563	0.20	$ (159,660)	1.00
Domestic fixed income securities:						
Total Bond Market Index Institutional Fund	22,188,878	23.97	20,083,536	24.64	2,105,342	24.00
Domestic equities:						
Total Stock Market Index Institutional Fund	47,100,228	50.88	40,612,354	49.83	6,487,874	50.00
International equities:						
International Stock Index Institutional Fund	23,270,638	25.14	20,647,761	25.33	2,622,877	25.00
Total investments	$ **92,564,647**	**100.00**	$ **81,508,214**	**100.00**	$ **11,056,433**	**100.00**

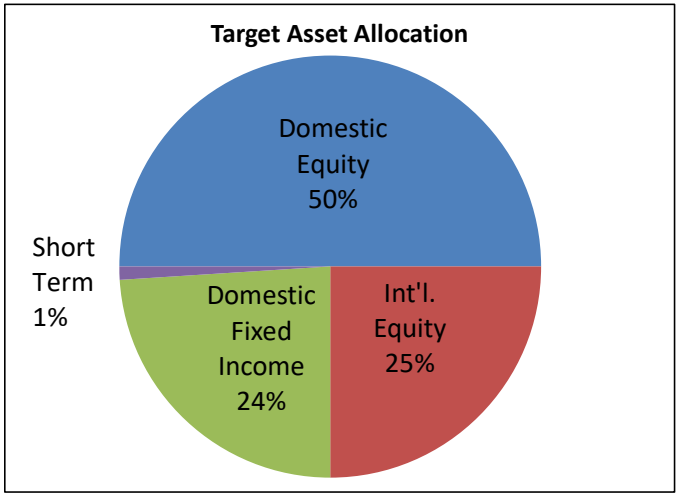
*All investments are held with Vanguard

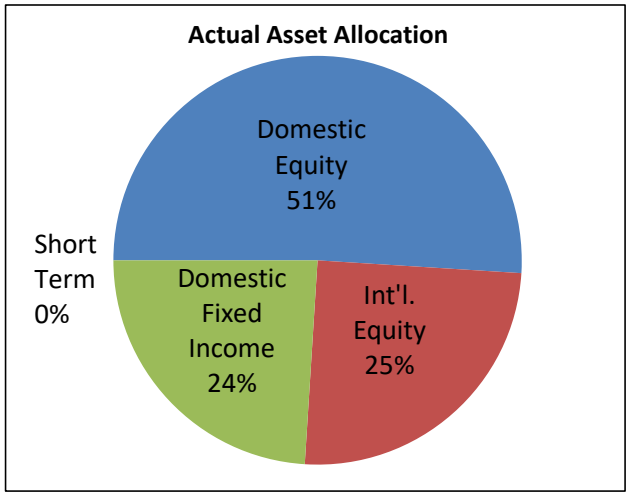
Office of the CFO/ Finance Department
October 29, 2025

New York State Teachers' Retirement System
Retired Employee Health Benefits Trust
as of September 30, 2025

Fund Performance[1]

	Market Value	Quarter	FYTD	1 Year	3 Years	5 Years	10 Years	Inception Return	Inception Date
Domestic Equity[2]	$ 47,100,228	8.24%	8.24%	17.35%	24.09%	15.18%	14.65%	11.25%	4/30/2008
CRSP US Total Market[3]		8.24%	8.24%	17.37%	24.08%	15.19%	14.67%	11.25%	
International Equity[4]	$ 23,270,638	6.96%	6.96%	17.16%	20.82%	10.41%	8.35%	4.02%	4/30/2008
FTSE Global All Cap ex US[5]		7.07%	7.07%	16.43%	20.63%	10.34%	8.26%	3.81%	
Domestic Fixed Income	$ 22,188,878	1.93%	1.93%	2.89%	4.92%	-0.47%	1.84%	2.88%	4/30/2008
Bloomberg Cap. US Agg. Float Adj.		1.99%	1.99%	2.90%	4.95%	-0.44%	1.88%	2.94%	
Short Term	$ 4,903	1.03%	1.03%	4.40%	4.85%	3.02%	2.06%	1.57%	4/30/2008
iMoney Net Money Fund Avg/Taxable		0.99%	0.99%	4.15%	4.54%	2.81%	1.83%	1.13%	
Total Portfolio	$ 92,564,647	6.34%	6.34%	13.73%	18.29%	10.07%	9.86%	8.24%	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.

Office of the CFO/Investment Operations Department
October 29, 2025

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

Health Benefits Trust Audit Presentation

October 29, 2025

Introductions

Jean Young, CPA

Engagement Partner

Jake Talarek, CPA

Manager

Agenda

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

Audit timeline and deliverables

Audit timeline:

- January/May 2025 – Initiated planning procedures and risk assessment phase
- May/July 2025 – Performed interim procedures
- July/October 2025 – Performed year end audit procedures, including review of financial statements
- October 30, 2025 – Issuance of audit opinion

Deliverables:

- NYSTRS' Health Benefits Trust Audited Financial Statement Opinion as of and for the year ended June 30, 2025
- 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, 2025
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 premium 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, 2025
	  ○ 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, 2025 • No consultations with other accountants

Questions?

Thank you!

For more information contact:

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

Basic Financial Statements and Required Supplementary Information

June 30, 2025 and 2024

(With Independent Auditors' Report Thereon)

DRAFT

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

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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 New York State Teachers' Retirement System Retired Employee Health Benefits Trust (the "Trust") as of and for the years ended June 30, 2025 and 2024 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, 2025 and 2024 and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audits of the Financial Statements* section of our report. We are required to be independent of the 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 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 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 audits, significant audit findings, and certain internal control-related matters that we identified during the audits.

Required Supplementary Information

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

October 30, 2025

Draft

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

Management's Discussion and Analysis

June 30, 2025 and 2024

(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, 2025, 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

- In 2025, the Trust received a contribution in the amount of $6.8 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 101% of the Actuarially Determined Contribution (ADC) for fiscal year 2025. Contributions to the Trust in 2024 and 2023 were $6.9 million and $6.4 million, respectively, and represent 100% of the ADC in 2024 and 100% of the ADC in 2023.
- Total Other Postemployment Benefits (OPEB) liability as of June 30, 2025 is $121.7 million, a decrease of $3.0 million from total OPEB liability of $124.7 million as of June 30, 2024. Net OPEB liability at June 30, 2025 and 2024 was $34.0 million and $48.2 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.

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Financial Analysis

Tables 1 and 2 summarize the Trust's financial position and results for the years 2025, 2024, and 2023. 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) 2024 to 2025	Percentage change of total, 2024 to 2025
	2025	2024	2023		
Investments at fair value:					
Cash equivalents	$ 54,977	$ 105,610	$ 77,795	$ (50,633)	(0.07)%
Mutual funds	87,011,685	76,379,467	65,475,687	10,632,218	13.90 %
Total investments	87,066,662	76,485,077	65,553,482	10,581,585	13.83 %
Other assets	568,163	—	—	568,163	0.74 %
Total assets	87,634,825	76,485,077	65,553,482	11,149,748	14.58 %
Liabilities:					
Accounts payable	—	—	—	—	— %
Total liabilities	—	—	—	—	— %
Net position restricted for other postemployment health benefits	$ 87,634,825	$ 76,485,077	$ 65,553,482	$ 11,149,748	14.58 %

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As shown in Table 2, the Trust's 2025 net position increased from 2024 by $11.1 million, and 2024 net position increased from 2023 by $10.9 million. The increase in 2025 is primarily a result of investment income of $10.7 million and employer contributions of $6.8 million, offset by benefit payments of $6.4 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.

Table 2 - Summary of Changes in Fiduciary Net Position

	Years ended June 30			Amount increase (decrease) 2024 to 2025	Percentage change of total, 2024 to 2025
	2025	2024	2023		
Net investment income	$ 10,726,353	$ 9,931,293	$ 7,104,701	$ 795,060	1.04%
Total contributions	6,804,000	6,910,000	6,394,396	(106,000)	(0.14)
Total additions	17,530,353	16,841,293	13,499,097	689,060	0.90%
Retired employee health benefit payments	6,366,205	5,895,698	5,439,240	470,507	0.62
Professional fees and services	14,400	14,000	14,000	400	—
Total deductions	6,380,605	5,909,698	5,453,240	470,907	0.62
Net increase	11,149,748	10,931,595	8,045,857	218,153	0.29%
Net Position restricted for postemployment health benefits					
Beginning of year	76,485,077	65,553,482	57,507,625	10,931,595	14.29
End of year	$ 87,634,825	$ 76,485,077	$ 65,553,482	$ 11,149,748	14.58%

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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 72.03% as of June 30, 2025, 61.35% as of June 30, 2024 and 56.40% as of June 30, 2023.

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.

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

Statement of Fiduciary Net Position

June 30, 2025 and 2024

	2025	2024
Assets:		
Investments - at fair value (note 3, 4 and 5):		
Cash equivalents	$ 54,977	$ 105,610
Mutual funds	87,011,685	76,379,467
Total investments	87,066,662	76,485,077
Other assets	568,163	—
Total assets	87,634,825	76,485,077
Liabilities:		
Accounts payable	—	—
Total liabilities	—	—
Net position restricted for other postemployment health benefits	$ 87,634,825	$ 76,485,077

See accompanying notes to financial statements.

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

Statement of Changes in Fiduciary Net Position

Years ended June 30, 2025 and 2024

	2025	2024
Additions:		
Investment income:		
Net increase in fair value of investments	$ 8,774,840	$ 8,191,191
Dividend income	1,951,513	1,740,102
Net investment income	10,726,353	9,931,293
Contributions:		
Employer	6,804,000	6,910,000
Total contributions	6,804,000	6,910,000
Total additions - net	17,530,353	16,841,293
Deductions:		
Retired employee health benefit payments	6,366,205	5,895,698
Professional fees and services	14,400	14,000
Total deductions	6,380,605	5,909,698
Net increase in net position	11,149,748	10,931,595
Net Position restricted for postemployment health benefits		
Beginning of year	76,485,077	65,553,482
End of year	$ 87,634,825	$ 76,485,077

See accompanying notes to financial statements.

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(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:

	2025	2024
Retired participants and their survivors currently receiving benefits	320	319
Active participants	439	386
Total	759	705

(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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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 increased 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 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).

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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 2025 were $6.8 million, which approximated 16.24% of covered payroll. Contributions in 2024 were $6.9 million, which approximated 19.20% 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.

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(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, 2025 and 2024 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, 2025 and 2024, the annual money-weighted rate of return on Trust investments, net of OPEB plan investment expense, was 14.0% and 15.0%, 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, 2025 and 2024, 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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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, 2025 and 2024:

	2025		2024	
Asset class	Fair value	Percentage of total	Fair value	Percentage of total
Domestic equity	$ 44,427,763	51 %	$ 38,685,705	50 %
International equity	22,229,354	26	18,894,100	25
Domestic fixed income	20,354,568	23	18,799,662	25
Total	$ 87,011,685	100 %	$ 76,379,467	100 %

At June 30, 2025 and 2024, the Trust's domestic fixed income mutual fund had an average duration of 5.9 and 6.0 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, 2025 and 2024 had an average maturity of 27.7 and 18.8 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, 2025 and 2024, the Trust had the following Level 1 investments:

Mutual funds:	**2025**	**2024**
Domestic equity	$ 44,427,763	$ 38,685,705
International equity	22,229,354	18,894,100
Domestic fixed income	20,354,568	18,799,662
	$ 87,011,685	$ 76,379,467

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(6) Net OPEB Liability

The components of the net OPEB liability at June 30, 2025 and 2024 were as follows:

	2025	2024
Total OPEB liability	$ 121,671,047	$ 124,680,126
OPEB Plan fiduciary net position	87,634,825	76,485,077
Net OPEB liability	$ 34,036,222	$ 48,195,049
The OPEB plan's fiduciary net position as a percentage of total OPEB liability	72.03 %	61.35 %

(a) Actuarial Assumptions

The total OPEB liability at June 30, 2025 was determined using an actuarial valuation as of July 1, 2024, with update procedures used to roll forward the total OPEB liability to June 30, 2025. 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 measurement of total OPEB liability at June 30, 2025 and 2024, respectively, used the following actuarial assumptions:

	2025			2024		
Valuation date	July 1, 2024			July 1, 2023		
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		Single Coverage	Family Coverage
	Tier 1	$100	$200	Tier 1	$100	$200
	Tier 2	$200	$550	Tier 2	$200	$550
	Tier 3	$250	$600	Tier 3	$250	$600
Healthcare cost and premium trend rates:						
Non-Medicare	7.00% in 2025 graded to 4.04% over 50 years			7.50% in 2024 graded to 4.04% over 51 years		
Medicare	5.98% in 2025 graded to 3.92% over 50 years			7.50% in 2024 graded to 4.04% over 51 years		
Medicare Part B	4.00%			4.00%		
Blended Medicare						

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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, 2025 and June 30, 2024 are summarized in the following table:

Long-Term Expected Real Rate of Return*

Asset class	2025	2024
Domestic equity	4.50%	4.87%
International equity	5.03	5.30
Domestic fixed income	1.27	1.09
Cash equivalents	0.83	0.63

* Real rates of return are net of the long-term inflation assumption of 2.60% and 2.60% for 2025 and 2024, respectively.

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(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, 2025	$ 17,137,820	$ 34,036,222	$ 55,542,266
June 30, 2024	$ 31,010,288	$ 48,195,049	$ 69,880,650

(c) Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2025 and 2024 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, 2025	$ 50,321,808	$ 34,036,222	$ 20,629,052
June 30, 2024	$ 65,085,959	$ 48,195,049	$ 34,297,559

(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.

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REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

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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 10 Fiscal Years

	2025	2024	2023	2022	2021
Total OPEB liability:					
Service cost	$ 3,595,353	$ 3,325,153	$ 3,375,953	$ 3,069,185	$ 2,984,622
Interest	7,962,831	7,374,034	6,958,495	6,587,914	6,585,821
Changes of benefit terms	—	426,223	(622,395)	—	—
Differences between expected and actual experience	1,293,198	3,253,466	915,720	869,679	1,259,391
Changes of assumptions	(9,494,256)	(24,460)	4,678,256	—	(2,449,602)
Benefit payments	(6,366,205)	(5,895,698)	(5,439,240)	(4,834,885)	(4,527,278)
Net change in total OPEB liability	(3,009,079)	8,458,718	9,866,789	5,691,893	3,852,954
Total OPEB liability - beginning	124,680,126	116,221,408	106,354,619	100,662,726	96,809,772
Total OPEB liability - ending (a)	$ 121,671,047	$ 124,680,126	$ 116,221,408	$ 106,354,619	$ 100,662,726
Plan fiduciary net position:					
Contributions - employer	$ 6,804,000	$ 6,910,000	$ 6,394,396	$ 6,000,000	$ 6,261,000
Net investment income	10,726,353	9,931,293	7,104,701	(9,584,492)	14,534,551
Benefit payments	(6,366,205)	(5,895,698)	(5,439,240)	(4,834,885)	(4,527,278)
Professional fees and services	(14,400)	(14,000)	(14,000)	56,365	(19,915)
Net change in plan fiduciary net position	11,149,748	10,931,595	8,045,857	(8,363,012)	16,248,358
Plan fiduciary net position - beginning	76,485,077	65,553,482	57,507,625	65,870,637	49,622,279
Plan fiduciary net position - ending (b)	$ 87,634,825	$ 76,485,077	$ 65,553,482	$ 57,507,625	$ 65,870,637
System's net OPEB liability - ending (a) - (b)	$ 34,036,222	$ 48,195,049	$ 50,667,926	$ 48,846,994	$ 34,792,089
Plan fiduciary net position as a percentage of the total OPEB liability	72.03 %	61.35 %	56.40 %	54.07 %	65.44 %
Covered payroll	$ 41,902,830	$ 35,991,668	$ 35,579,229	$ 35,423,191	$ 33,142,258
System's net OPEB liability as a percentage of covered payroll	81.23 %	133.91 %	142.41 %	137.90 %	104.98 %

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(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 10 Fiscal Years

	2020	2019	2018	2017	2016
Total OPEB liability:					
Service cost	$ 2,914,852	$ 2,907,107	$ 2,604,313	$ 2,490,519	$ 2,579,474
Interest	6,621,826	6,168,584	5,747,125	5,959,407	5,589,288
Changes of benefit terms	(9,789,000)	—	6,211,000	—	—
Differences between expected and actual experience	79,202	714,079	(841,844)	(2,165,915)	399,912
Changes of assumptions	4,038,931	1,102,479	(878,222)	(5,848,836)	—
Benefit payments	(4,412,579)	(3,965,315)	(3,756,945)	(3,412,013)	(2,979,914)
Net change in total OPEB liability	(546,768)	6,926,934	9,085,427	(2,976,838)	5,588,760
Total OPEB liability - beginning	97,356,540	90,429,606	81,344,179	84,321,017	78,732,257
Total OPEB liability - ending (a)	$ 96,809,772	$ 97,356,540	$ 90,429,606	$ 81,344,179	$ 84,321,017
Plan fiduciary net position:					
Contributions - employer	$ 6,004,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000
Net investment income	2,672,787	3,155,344	3,212,503	4,212,256	382,144
Benefit payments	(4,412,579)	(3,965,315)	(3,756,945)	(3,412,013)	(2,979,914)
Professional fees and services	(65,585)	(18,575)	(53,435)	(15,000)	(12,700)
Net change in plan fiduciary net position	4,198,623	4,671,454	4,902,123	6,285,243	2,889,530
Plan fiduciary net position - beginning	45,423,656	40,752,202	35,850,079	29,564,836	26,675,306
Plan fiduciary net position - ending (b)	$ 49,622,279	$ 45,423,656	$ 40,752,202	$ 35,850,079	$ 29,564,836
System's net OPEB liability - ending (a) - (b)	$ 47,187,493	$ 51,932,884	$ 49,677,404	$ 45,494,100	$ 54,756,181
Plan fiduciary net position as a percentage of the total OPEB liability	51.26 %	46.66 %	45.07 %	44.07 %	35.06 %
Covered payroll	$ 32,124,845	$ 31,189,170	$ 30,682,745	$ 29,752,583	$ 29,087,397
System's net OPEB liability as a percentage of covered payroll	146.89 %	166.51 %	161.91 %	152.91 %	188.25 %

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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

	2025	2024	2023	2022	2021
Actuarially determined contribution	$ 6,764,602	$ 6,910,026	$ 6,394,396	$ 5,339,856	$ 5,822,056
Contributions in relation to the actuarially determined contribution:					
System	6,804,000	6,910,000	6,394,396	6,000,000	6,261,000
Other contributing entity	—	—	—	—	—
Total contributions	6,804,000	6,910,000	6,394,396	6,000,000	6,261,000
Contribution deficiency (excess)	$ (39,398)	$ 26	$ —	$ (660,144)	$ (438,944)
Covered payroll	$ 41,902,830	$ 35,991,668	$ 35,579,229	$ 35,423,191	$ 33,142,258
Contributions as a percentage of covered payroll	16.24 %	19.20 %	17.97 %	16.94 %	18.89 %

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(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

	2020	2019	2018	2017	2016
Actuarially determined contribution	$ 5,957,868	$ 5,349,375	$ 5,278,747	$ 5,374,220	$ 4,782,000
Contributions in relation to the actuarially determined contribution:					
System	6,004,000	5,500,000	5,500,000	5,500,000	5,500,000
Other contributing entity	—	—	—	—	—
Total contributions	6,004,000	5,500,000	5,500,000	5,500,000	5,500,000
Contribution deficiency (excess)	$ (46,132)	$ (150,625)	$ (221,253)	$ (125,780)	$ (718,000)
Covered payroll	$ 32,124,845	$ 31,189,170	$ 30,682,745	$ 29,752,583	$ 29,087,397
Contributions as a percentage of covered payroll	18.69 %	17.63 %	17.93 %	18.49 %	18.91 %

See accompanying independent auditors' report.

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

Required Supplementary Information

Schedule of Investment Returns (Unaudited)

Last 10 Fiscal Years

	2025	2024	2023	2022	2021
Annual money-weighted rate of return, net of investment expense	14.0%	15.0%	12.3%	(14.4)%	28.8%

See accompanying independent auditors' report.

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

Required Supplementary Information

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

Last 10 Fiscal Years

	2020	2019	2018	2017	2016
Annual money-weighted rate of return, net of investment expense	5.8%	7.6%	8.8%	13.1%	1.3%

See accompanying independent auditors' report.

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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 10 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%
2025	6.50%

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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

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For the 2025 measurement date there was a decrease in the liability of $9.5 million from the following assumption changes:

- The updated per capita cost assumptions decreased the liability by $7.7 million.
- The healthcare cost trend assumption was updated to reflect the expected impact of the Inflation Reduction Act (IRA). This decreased the liability by $4.0 million.
- The assumption for spousal coverage election for future female retirees was updated to reflect recent experience. This increased the liability by $2.2 million.

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	7.50% graded to 4.04% over 52 years
Medicare	7.50% graded to 3.92% over 52 years
Medicare Part B	4.00% annually
Active Employees Mortality	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

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October 30, 2025

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

We have audited the financial statements of New York State Teachers' Retirement System Retired Employee Health Benefits Trust (the "Trust") as of and for the year ended June 30, 2025 and have issued our report thereon dated October 30, 2025. 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 25, 2025 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 the Trust. 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 April 23, 2025.

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 the Trust 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 the year.

We noted no transactions entered into by the Trust 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

Draft

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 estimate affecting the financial statements was management's estimate of the net OPEB liability as of June 30, 2025. Management's estimate of the net OPEB liability is based on an actuarial valuation. The significant assumptions used in the calculation include future rate of return on investments, life expectancies, and health care cost trend rates. We evaluated the key factors and assumptions used to develop the net OPEB liability in determining that it is 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.

None of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to the financial statements taken as a whole.

Significant Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, business conditions affecting the Trust, and business plans and strategies that may affect the risks of material misstatement, with management each year prior to our retention as the Trust's 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, 2025.

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 the Trust's 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.

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

October 30, 2025

This information is intended solely for the use of the board of trustees and management of New York State Teachers' Retirement System Retired Employee Health Benefits Trust 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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RESOLUTION ACCEPTING ANNUAL AUDIT REPORT

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, 2025 and for the trust year then ended, as presented to the Trustees, is accepted.

New York State Teachers' Retirement System

Agenda

Audit Committee Meeting October 29, 2025

COMMITTEE MEMBERS
Jennifer Longtin, Chair
Phyllis Harrington, Eric Iberger, David Keefe, Donald A. Little III

AGENDA p. 809

Call to Order by Chair

A. Approve Minutes of the July 30, 2025 Meeting pp. 810-811

B. Annual Audit Report – Year Ended June 30, 2025 (Plante Moran) pp. 812-883
   1. Resolution on Plante Moran Annual Audit p. 884

C. Report on Audits of NYSTRS Wholly Owned Real Estate Investment Accounts – CohnReznick pp. 885-905
   - June 30, 2025 and December 31, 2024 Audit Results
   - December 31, 2025 Audit Plan

D. Internal Audit Update pp. 906-922

E. Executive Session (motion for **Executive Session** pursuant to Section 105(1) (f) of the Open Meetings Law to discuss personnel matters)

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 July 30, 2025.

Committee Members: Phyllis Harrington, Eric Iberger, David Keefe, Donald A. Little III

Board Members: Scott Levy, Mark Stratton, Nicholas Smirensky

NYSTRS Staff: Thomas K. Lee, Don Ampansiri, Kathy Ebert, Bruce Woolley, Lei Zhang, Teddi Kaczmarek, Darlene Dempsey, Matthew Horton, Heather Marks

Audit Committee Advisor: Sue Landauer

Visitors (via WebEx): Sun Yu, Financial Times; Ben Sheng, FundFire
Visitor: Anin-Kofi Addo, Omni Research Associates

P. Harrington, acting Chair, called the meeting to order at 1:30 p.m.

1. Approval of Minutes from April 23, 2025

Upon motion of D. Keefe seconded by E. Iberger and unanimously carried, the Committee approved the minutes of the April 23, 2025 meeting.

2. Actuary Training: Preparing for the Replication Audit

H. Marks from Actuary and D. Dempsey from Internal Audit discussed the responsibilities and timeline involved in preparing for the replication audit (Appendix A, pp. 3-13).

3. Quality Assurance and Improvement Program & 2025 External Quality Assessment

L. Zhang reviewed plans for the Internal Audit Department's external and internal quality assessments (Appendix B pp. 14-24).

4. Internal Audit Update

K. Ebert and staff provided updates on recently completed internal audits performed (Appendix C, pp. 25-45)

5. Executive Session

Upon motion of D. Keefe, seconded by E. Iberger and unanimously carried, the Committee went into Executive Session at 2:20 p.m. to discuss personnel matters. With unanimous consent, the Committee came out of Executive Session at 2:44 p.m.

There being no further business, and with unanimous consent, the meeting adjourned at 2:44 p.m.

Respectfully submitted,

[redacted]

_____
Thomas K. Lee

plante moran

New York State Teachers' Retirement System

Retirement System Audit Presentation – Audit Committee

October 29, 2025

Introductions

Jean Young, CPA

Engagement Partner

Jake Talarek, CPA

Manager

Agenda

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

Audit timeline and deliverables

Audit timeline:

- January/May 2025 – Initiated planning procedures and risk assessment phase
- January/May 2025 – Employer payroll census audits
- May/July 2025 – Performed interim procedures
- July/October 2025 – Performed year end audit procedures, including review of financial statements
- October 30, 2025 – Issuance of audit opinion and actuarial letter

Deliverables:

- NYSTRS' audited financial statement opinion as of and for the year ended June 30, 2025
- Required Communications with the Board
- Actuarial letter – Review of the methods, procedures, and actuarial assumptions used by the System

Upcoming audit timeline and deliverables

Upcoming audit timeline:

- October/November 2025 – Complete testing of schedules of Collective Pension Amounts and Employer Allocations in accordance with GASB 68
- December 2025 – Issuance of report in accordance with GASB 68
- November 2025 – Issuance of opinion on NYSTRS ACFR
- December 2025 – Procedures on NYSTRS PAFR

Upcoming deliverables:

- NYSTRS' Annual Comprehensive Financial Report (ACFR) opinion as of and for the year ended June 30, 2025
- Audit, in accordance with GASB 68, the Schedules of Collective Pension Amounts and Employer Allocations for the measurement year ended June 30, 2025

Audit scope

Scope of work	• Audit of the financial statements for NYSTRS as of and for the year ended June 30, 2025
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, 2025
	  ○ 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, 2025 • 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

Questions?

Thank you!

For more information contact:

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NEW YORK STATE TEACHERS' RETIREMENT SYSTEM

Basic Financial Statements and Supplemental Schedules

June 30, 2025 and 2024

(With Independent Auditors' Report Thereon)

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Financial

3 Independent Auditors' Report

Management's Discussion and Analysis

5 Financial Highlights

Overview of Financial Highlights

6 Financial Analysis

Basic Financial Statements

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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, 2025 and 2024 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, 2025 and 2024 and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audits of the Financial Statements* section of our report. We are required to be independent of the System and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the 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 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.

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- Obtain an understanding of internal control relevant to the audits in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

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

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and other required supplementary information, as identified in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide 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, are presented for the purpose of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary schedules are fairly stated in all material respects in relation to the basic financial statements as a whole.

October 30, 2025

MANAGEMENT'S DISCUSSION AND ANALYSIS

June 30, 2025 and 2024

(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, 2025 and 2024. 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 $154.2 billion as of the fiscal year ended 2025, and $145.8 billion and $137.2 billion as of the fiscal years ended 2024 and 2023, respectively. The change for the fiscal year ended 2025 was positive $8.4 billion, or positive 5.7%, and the change for the fiscal year ended 2024 was positive $8.6 billion, or positive 6.3%.
- The System's investments experienced appreciation of $12.1 billion in 2025 and appreciation of $12.5 billion and appreciation of $9.0 billion in 2024 and 2023, respectively.
- Contributions from employers were $2.0 billion in 2025, $1.9 billion in 2024, and $1.9 billion in 2023, 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 2025, 2024, and 2023 were $8.7 billion, $8.4 billion, and $8.2 billion, respectively.
- The System's funded ratio, a comparison of the actuarial value of assets to the accrued pension benefit liability, was 99.1% as of the 2024 valuation. Valuations in 2023 and 2022 resulted in the System's funded ratio of 98.6% and 99.3%, respectively.

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 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 and investment expenses.

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Financial Analysis

Tables 1 and 2 summarize and compare the System's financial results for the years 2025 and 2024. 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
	2025	2024	2023	2024 to 2025	2024 to 2025	2024 to 2025
Investments at fair value	$151,536,570	$143,356,932	$134,826,045	$ 8,179,638	5.7 %	5.6 %
Receivables	3,114,674	2,757,498	2,519,018	357,176	13.0	0.2
Securities lending collateral — invested	217,164	324,026	352,050	(106,862)	(33.0)	(0.1)
Member Loans	288,665	275,963	251,103	12,702	4.6	0.0
Other Assets	51,308	38,519	25,602	12,789	33.2	0.0
Total Assets	155,208,381	146,752,938	137,973,818	8,455,443	5.8	5.8
Total Deferred Outflows of Resources	22,777	27,921	30,470	(5,144)	(18.4)	0.0
Securities lending collateral — due to borrowers	215,856	322,507	350,249	(106,651)	(33.1)	(0.1)
Investment Purchases Payable	537,863	364,702	188,765	173,161	47.5	0.1
Other Liabilities	279,733	261,855	240,183	17,878	6.8	0.0
Total Liabilities	1,033,452	949,064	779,197	84,388	8.9	0.1
Total Deferred Inflows of Resources	4,581	10,360	3,554	(5,779)	(55.8)	0.0
Net position restricted for pensions	**$154,193,125**	**$145,821,435**	**$137,221,537**	**$ 8,371,690**	**5.7 %**	**5.7 %**

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The increase in the investment value as of June 30, 2025 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 10.61%, compared to an assumed rate of return of 6.95%.

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%.

MANAGEMENT'S DISCUSSION AND ANALYSIS *(continued)*

June 30, 2025 and 2024

(Unaudited)

TABLE 2 - SUMMARY OF CHANGES IN FIDUCIARY NET POSITION

(dollars in thousands)

	Years ended June 30			Amount increase (decrease) 2024 to 2025	Percentage change 2024 to 2025	Percentage change of total 2024 to 2025
	2025	2024	2023			
Net appreciation in fair value of investments	$ 12,125,166	$12,517,143	$ 9,004,904	$ (391,977)	(3.1)%	(0.3)%
Other investment income	2,768,329	2,467,680	2,434,382	300,649	12.2	0.2
Contributions — Employer and Member	2,285,437	2,149,274	2,131,878	136,163	6.3	0.1
Total additions	17,178,932	17,134,097	13,571,164	44,835	0.3	0.0
Retirement benefits	(8,690,300)	(8,425,713)	(8,214,698)	(264,587)	3.1	(0.2)
Other deductions	(116,942)	(108,486)	(99,511)	(8,456)	7.8	0.0
Total Deductions	(8,807,242)	(8,534,199)	(8,314,209)	(273,043)	3.2	(0.2)
Net increase in net position	8,371,690	8,599,898	5,256,955	(228,208)	(2.7)	(0.2)
Net position, beginning of year	145,821,435	137,221,537	131,964,582	8,599,898	6.3	5.9
Net position, end of year	**$154,193,125**	**$145,821,435**	**$137,221,537**	**$ 8,371,690**	**5.7 %**	**5.7 %**

Net Investment Income

For the year ended June 30, 2025, NYSTRS reported net investment income of $14.9 billion compared to net investment income of $15.0 billion in 2024 and net investment income of $11.4 billion in 2023. The strong appreciation in 2025 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 to 2025
	2025	2024	2023	
Domestic equity	$ 5,992,924	$ 9,320,392	$ 7,017,781	$ (3,327,468)
International equity	3,380,257	1,981,364	2,066,564	1,398,893
Global equity	773,622	860,853	579,639	(87,231)
Real estate equity	(544,061)	(910,336)	(971,887)	366,275
Private equity	1,303,605	812,437	982,626	491,168
Domestic fixed income	609,980	22,725	(514,068)	587,255
High-yield bonds	44,785	50,991	35,697	(6,206)
Global bonds	78,624	19,386	(63,756)	59,238
Real estate debt	142,581	(16,268)	(400,521)	158,849
Private debt	234,081	251,478	183,883	(17,397)
Cash equivalents	98,256	125,827	85,456	(27,571)
Other	10,512	(1,706)	3,490	12,218
Totals	**$ 12,125,166**	**$ 12,517,143**	**$ 9,004,904**	**$ (391,977)**

**Net of purchases, sales and maturities.*

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MANAGEMENT'S DISCUSSION AND ANALYSIS *(continued)*

June 30, 2025 and 2024

(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 and method 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. 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 an increase in the employer contribution rate, from 9.76% on 2023-24 member salaries to 10.11% on 2024-25 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.

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STATEMENTS OF FIDUCIARY NET POSITION

June 30, 2025 and 2024
(dollars in thousands)

Assets:	2025	2024
Investments — at fair value (notes 4, 5 and 6):		
Domestic equity	$ 49,754,579	$ 49,233,792
International equity	23,609,432	20,560,970
Global equity	6,805,717	5,905,054
Real estate equity	15,813,618	15,647,293
Private equity	14,797,202	14,199,543
Domestic fixed income	22,378,090	21,263,250
High-yield bonds	1,310,561	1,500,238
Global bonds	3,025,855	2,819,075
Real estate debt	8,959,009	7,781,926
Private debt	2,921,279	2,380,787
Cash equivalents	2,161,228	2,065,004
Total investments	151,536,570	143,356,932
Receivables:		
Employer	1,988,542	1,866,574
Member contributions	266,903	232,086
Investment income	435,977	396,308
Investment sales	423,252	262,530
Total receivables	3,114,674	2,757,498
Other assets:		
Securities lending collateral — invested (note 5)	217,164	324,026
Member loans	288,665	275,963
Capital assets, net of depreciation	27,102	23,976
Miscellaneous assets	24,206	14,543
Total other assets	557,137	638,508
Total assets	155,208,381	146,752,938
Deferred outflows of resources:		
Changes in net OPEB liability (note 10)	14,786	15,719
Changes in net pension liability (note 9)	7,991	12,202
Total deferred outflows of resources	22,777	27,921
Liabilities:		
Securities lending collateral — due to borrowers (note 5)	215,856	322,507
Investment purchases payable	537,863	364,702
Mortgage escrows and deposits — net of investments	35	2
Net OPEB liability (note 10)	48,195	50,668
Other liabilities (notes 5 and 9)	231,503	211,185
Total liabilities	1,033,452	949,064
Deferred inflows of resources:		
Changes in net OPEB liability (note 10)	4,037	1,280
Changes in net pension liability (note 9)	544	9,080
Total deferred inflows of resources	4,581	10,360
Net position restricted for pensions (note 3)	$ 154,193,125	$ 145,821,435

See accompanying notes to financial statements.

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STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

Fiscal Years Ended June 30, 2025 and 2024
(dollars in thousands)

Additions:	2025	2024
Investment income:		
Net increase in fair value of investments	$ 12,125,166	$ 12,517,143
Interest income	1,292,651	1,085,700
Dividend income	1,363,987	1,336,478
Real estate — net operating income	552,888	504,559
Securities lending — gross earnings	14,999	22,692
Other — net	593	9,078
	15,350,284	15,475,650
Less:		
Investment expenses	444,056	472,046
Securities lending:		
Broker rebates	12,105	17,790
Management fees	416	709
Depreciation on collateral	212	282
Net investment income	14,893,495	14,984,823
Contributions:		
Employer (note 1)	1,997,404	1,874,459
Member contributions	291,785	258,472
Transfers (to)/from other systems	(3,752)	16,343
Total contributions	2,285,437	2,149,274
Net additions	17,178,932	17,134,097
Deductions:		
Retirement benefit payments — periodic	8,603,413	8,352,452
Beneficiary payments	86,887	73,261
Return of contributions	19,793	20,444
Administrative expenses	97,149	88,042
Total deductions	8,807,242	8,534,199
Net increase in net position	8,371,690	8,599,898
Net position restricted for pensions, beginning of year	145,821,435	137,221,537
Net position restricted for pensions, end of year	$ 154,193,125	$ 145,821,435

See accompanying notes to financial statements.

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NOTES TO FINANCIAL STATEMENTS

June 30, 2025 and 2024
(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:

	2025	2024
Public school districts	679	679
Boards of Cooperative Educational Services (BOCES)	37	37
SUNY	31	31
Community colleges	30	30
Charter schools	33	33
Special act districts	9	9
Other	9	9
Total	828	828

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

	2025	2024
Retired members and beneficiaries currently receiving benefits	184,921	182,441
Members:		
Active members	264,086	261,536
Terminated members entitled to but not yet receiving benefits	10,967	10,827
Subtotal	275,053	272,363
Total	459,974	454,804

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

(c) Vested Benefits

Retirement benefits for Tiers 1-6 are vested after five years of credited service. Benefits are payable at age 55 or greater with the limitations noted for service retirements above.

(d) Disability Retirement

Members are generally 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 2024-25 and 2023-24 member salaries is 10.11% and 9.76%, 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 2025 and 2024 is as follows:

	June 30	
	2025	2024
Total required employer contributions	1,985,099	1,863,529
Miscellaneous billing adjustments	12,305	10,930
Additions from employer contributions	1,997,404	1,874,459

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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 2025 and 2024 is 1.2% and 1.8%, 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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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 2023 and 2024 management's discussion and analysis and basic financial statements have been reclassified to conform to 2025 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, 2025 and 2024 were $33,066 and $26,713, 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 $239,731 and $207,849 for the years ended June 30, 2025 and 2024, respectively. For reporting purposes below, this fund is combined with the Pension Accumulation Fund.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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, 2025 and 2024 consist of the following:

	2025	2024
Administrative fund	$ 79,578	$ 63,364
Annuity savings and reserve funds	39,650	46,982
Pension accumulation, group life insurance and CO-ESC funds	73,466,447	66,373,982
Pension reserve fund	80,607,450	79,337,107
Total	$ 154,193,125	$ 145,821,435

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

(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.

(b) Asset Allocation

The System's asset allocation policy as of June 30, 2025 and 2024, as adopted by the Retirement Board is as follows:

Asset Class	Target June 30, 2025	Target June 30, 2024	Range June 30, 2025	Range June 30, 2024
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	0-4	0-4
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 11.08% for the year ended June 30, 2024, and was 10.38% for the year ended June 30, 2025. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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, 2025 and 2024 are as follows:

Quality rating	2025 Fair value	2025 Percentage of portfolio	2024 Fair value	2024 Percentage of portfolio
Short-term:				
P-1	$ 1,801,168	5.6 %	$ 1,652,790	5.4 %
Long-term:				
Aaa	2,457,885	7.6	2,795,803	9.2
Aa	5,976,349	18.5	5,439,406	17.8
A	4,331,161	13.4	4,137,543	13.6
Baa	3,479,831	10.8	3,293,480	10.8
Ba	864,368	2.7	1,001,069	3.3
B	528,089	1.6	676,327	2.2
Caa	116,223	0.4	148,954	0.5
Other	730,145	2.3	118,370	0.4
Total credit risk debt securities	20,285,219	62.9	19,263,742	63.2
U.S. government fixed income securities*	11,961,791	37.1	11,226,000	36.8
Total fixed income securities**	$ 32,247,010	100.0 %	$ 30,489,742	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, 2025 and 2024 include $220,170 and $168,725, respectively, in cash and commingled commercial mortgage backed securities.*

Additionally, as of June 30, 2025 and 2024, the System held mortgages, secured by a lien of the properties, valued at $2.5 billion and $2.1 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, 2025 and 2024, the System's bank balance was a negative $22,615 and a negative $4,402, 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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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, 2025 and 2024, 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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

- 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.
- 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 the assets of each fund 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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

(d) 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, 2025 and 2024 as follows:

	2025		2024	
Investment type	Fair value	Duration (in years)	Fair value	Duration (in years)
Mortgages	$ 2,473,549	2.430	$ 2,057,535	1.610
Cash equivalents*	2,161,228	0.107	2,065,004	0.068
Domestic fixed income	22,378,090	4.721	21,263,250	4.859
CMBS	3,591,446	0.500	3,010,900	0.442
High-yield bonds	1,310,561	0.130	1,500,238	0.178
Global bonds	3,025,855	6.840	2,819,075	6.350
Total fair value	$ 32,467,180		$ 30,658,467	
Cash equivalents and fixed income portfolio modified duration		5.140		5.190

**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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

(e) 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, 2025 and 2024 as follows:

	2025		2024	
	Equity Securities and REITs	Alternatives, Cash, and Global Bonds	Equity Securities and REITs	Alternatives, Cash, and Global Bonds
Currency:				
Euro Currency	$ 6,016,802	$ 1,236,237	$ 5,074,382	$ 1,125,879
Japanese Yen	3,493,954	99,682	3,336,712	135,230
Pound Sterling	2,330,413	751,826	2,187,663	642,588
Canadian Dollar	1,900,141	43,814	1,373,499	64,619
New Taiwan Dollar	1,431,861	26	999,217	24
Indian Rupee	1,395,484	57	1,213,941	(15)
Swiss Franc	1,315,919	(35)	1,249,575	2
China Renminbi	1,308,948	22	1,023,786	20
Australian Dollar	1,258,651	4,150	1,114,780	4,675
Hong Kong Dollar	927,042	133,405	888,627	132,103
South Korean Won	862,005	31,672	804,827	42,309
Danish Krone	564,733	6,350	555,757	7,018
Swedish Krona	406,225	1,403	560,072	13,293
Brazilian Real	361,429	22,619	290,409	17,365
South African Rand	276,153	19,825	149,795	23,684
Other	1,569,477	71,704	1,382,069	65,681
Totals	$ 25,419,237	$ 2,422,757	$ 22,205,111	$ 2,274,475

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(f) 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 $1.3 million as of June 30, 2025 and $1.5 million as of June 30, 2024. Non-cash collateral is not reported on the Statement of Fiduciary Net Position as the System does not have the ability to pledge or sell collateral securities without a borrower default. For each year end, the System had limited credit risk exposure to borrowers because the amounts the System owes the borrowers (the collateral) exceeds the amounts the borrowers owe the System (the loaned securities).

NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

As of June 30, 2025 and 2024, 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, 2025 and 2024, 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	2025	2024
Fair value of securities on loan — cash collateral	$ 179,330	$ 299,918
Fair value of securities on loan — non-cash collateral	783,751	991,242
Total fair value of securities on loan	$ 963,081	$ 1,291,160
Fair value of liabilities to borrowers — cash collateral	$ 215,856	$ 322,507
Fair value of liabilities to borrowers — non-cash collateral	805,117	1,014,559
Total collateral due to borrowers	$ 1,020,973	$ 1,337,066
Fair value of cash collateral invested by System	$ 217,164	$ 324,026
Fair value of non-cash collateral held by System	805,117	1,014,559
Total collateral invested and held by the System	$ 1,022,281	$ 1,338,585

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(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, 2025 and 2024
(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, 2025 and 2024, respectively:

		Fair Value Measurements Using		
Investments by Fair Value Level*	June 30, 2025	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Domestic equity	$ 49,754,691	$ 49,744,942	$ 9,693	$ 56
International equity	22,494,962	22,302,348	191,304	1,310
Global equity	6,767,027	6,696,238	70,755	34
Real estate equity:				
Direct equity real estate and joint venture investments	4,399,270	499,420	—	3,899,850
Real estate alternative investments	242,008	—	—	242,008
Domestic REIT	1,903,357	1,830,691	72,666	—
Global REIT	542,876	540,014	2,490	372
Total real estate equity	$ 7,087,511	$ 2,870,125	$ 75,156	$ 4,142,230
Domestic fixed income	22,378,152	—	22,378,152	—
High-yield bonds	1,308,403	2,377	1,305,531	495
Global bonds	2,973,566	(18,734)	2,992,156	144
Real estate debt:				
Domestic commercial mortgage- backed securities	3,591,445	20,031	3,564,320	7,094
Real estate alternative investments	915,921	—	—	915,921
Mortgages	2,473,549	—	—	2,473,549
Total real estate debt	$ 6,980,915	$ 20,031	$ 3,564,320	$ 3,396,564
Cash Equivalents**	2,156,066	—	2,156,066	—
Securities Lending Collateral, Invested	217,164	—	216,047	1,117
Total investments by fair value level	$ 122,118,457	$ 81,617,327	$ 32,959,180	$ 7,541,950

**May include the unrealized gain/loss on derivative instruments held in respective asset classes*

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

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

Investments Measured at the NAV	June 30, 2025	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Commingled international equity funds (1)	1,035,496	—	Daily or Monthly	5-30 days
Privately held real estate investment trusts (2)	1,745,034	85,000	NA	NA
Real estate equity funds (3)				
Closed-end funds	6,059,673	2,987,161	NA	NA
Open-end funds	919,300	—	Quarterly	30-120 days
Private equity closed-end funds (4)	14,797,202	6,372,957		
Real estate debt funds (5)				
Closed-end funds	1,898,867	1,511,795	NA	NA
Open-end funds	79,226	—	Quarterly	90 days
Private debt closed-end funds (6)	2,921,279	2,115,125	NA	NA
Total investments measured at the NAV	$ 29,456,077	$ 13,072,038		
Investment-related cash, receivables and payables not included in above	179,199			
Total investments and securities lending collateral reinvested	$ 151,753,734			

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

Investments by Fair Value Level*	June 30, 2024	Fair Value Measurements Using: Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Domestic equity	$ 49,233,777	$ 49,227,655	$ 6,066	$ 56
International equity	19,352,364	19,210,370	141,581	413
Global equity	5,882,303	5,799,904	82,385	14
Real estate equity:				
Direct equity real estate and joint venture investments	4,818,189	—	—	4,818,189
Real estate alternative investments	240,604	—	—	240,604
Domestic REIT	2,025,674	1,916,020	109,654	—
Global REIT	709,810	702,483	7,293	34
Total real estate equity	$ 7,794,277	$ 2,618,503	$ 116,947	$ 5,058,827
Domestic fixed income	21,263,250	73,274	21,189,976	—
High-yield bonds	1,498,118	294	1,497,256	568
Global bonds	2,787,120	15,605	2,771,515	—
Real estate debt:				
Domestic commercial mortgage- backed securities	3,005,571	—	2,996,685	8,886
Real estate alternative investments	735,172	—	—	735,172
Mortgages	2,057,535	—	—	2,057,535
Total real estate debt	$ 5,798,278	$ —	$ 2,996,685	$ 2,801,593
Cash Equivalents**	2,049,485	—	2,049,485	—
Securities Lending Collateral, Invested	324,026	—	322,909	1,117
Total investments by fair value level	$ 115,982,998	$ 76,945,605	$ 31,174,805	$ 7,862,588

**May include the unrealized gain/loss on derivative instruments held in respective asset classes*

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

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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	1,882,588	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	$ 27,495,840	$ 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			

(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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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 co-investment, 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, 2025 and 2024 were as follows:

	2025	2024
Total pension liability	$ 148,272,069	$ 142,837,827
Plan fiduciary net position	154,193,125	145,821,435
School districts' net pension liability (asset)	$ (5,921,056)	$ (2,983,608)
Plan fiduciary net position as a percentage of total pension liability	104.0%	102.1%

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

(a) Actuarial Methods and Assumptions

The total pension liability at June 30, 2025 was determined using an actuarial valuation as of June 30, 2024, with update procedures used to roll forward the total pension liability to June 30, 2025. 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. These actuarial valuations applied the following actuarial methods and assumptions:

Actuarial cost method	Entry age normal
Inflation	2.50% for June 30, 2025 and 2.40% for June 30, 2024
Projected salary increases	Rates of increase differ based on service They have been calculated based upon recent NYSTRS member experience.

Service	June 30, 2025 Rate	June 30, 2024 Rate
5	5.80%	5.18%
15	3.66	3.64
25	2.68	2.50
35	2.04	1.95

The June 30, 2025 rates are increased by 0.30% for the 2025-26, 2026-27, and 2027-28 school years to account for recent inflation trends.

Projected COLAs	1.40% for June 30, 2025 and 1.30% for June 30, 2024
Investment rate of return	6.95% for June 30, 2025 and June 30, 2024 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, applied on a generational basis.
Experience period	Assumptions were computed by the Office of the Actuary. June 30, 2024 assumptions were adopted by the Retirement Board in October 2021 and June 30, 2025 assumptions were adopted by the Retirement Board in October 2025. Assumptions are based on NYSTRS member experience. Detailed assumption information may be found in NYSTRS' annual Actuarial Valuation Report.

The economic and demographic assumptions were developed in accordance with Actuarial Standard of Practice (ASOP) No. 27, Selection of Assumptions for Measuring Pension Obligations. The recommended assumptions have been developed with generally accepted accounting principles and procedures. They are internally consistent, reasonably related to actual and anticipated future experience of the Retirement System, and expected to have no significant bias.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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, 2025 and June 30, 2024 (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	2025	2024
Domestic equity	6.7%	6.6%
International equity	7.4	7.4
Global equity	7.0	6.9
Real estate equity	6.5	6.3
Private equity	9.8	10.0
Domestic fixed income	2.6	2.6
Global bonds	2.4	2.5
Private debt	6.1	5.9
Real estate debt	3.8	3.9
High-yield bonds	4.7	4.8
Cash equivalents	0.6	0.5

**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, 2025 and June 30, 2024. 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, 2025 and 6.95% for June 30, 2024, 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, 2025	$	$11,377,387	$	$(5,921,056)	$	$(20,476,798)
June 30, 2024	$	$13,781,459	$	$(2,983,608)	$	$(17,083,480)

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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, 2025 and 2024, respectively, were: real estate and real estate alternative investments of $3.1 billion and $3.9 billion; mortgages and real estate debt funds of $1.5 billion and $1.8 billion; CMBS $0 million and $286.6 million; private equity investments of $6.4 billion and $5.9 billion; and private debt investments of $2.1 billion and $1.7 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 16.5% and 15.3% was applicable to the annual covered payroll for the years ended March 31, 2025 and March 31, 2024, respectively. The contributions to ERS during the System's years ended June 30, 2025 and 2024 were $6.3 million and $5.4 million, respectively, and were 100% of the contributions required.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

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

At June 30, 2025 and 2024, the System reported a liability of $20.2 million and $16.8 million, respectively, for its proportionate share of the ERS net pension liability measured as of March 31, 2025 and 2024, 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, 2025, the System's proportion was 0.1177618% and was 0.1142988% at March 31, 2024.

For the years ended June 30, 2025 and 2024, the System recognized pension expense of $4.5 million and $7.3 million, respectively.

Deferred outflows of resources were $8.0 million and $12.2 million at June 30, 2025 and 2024, respectively. Deferred inflows of resources were $0.5 million and $9.1 million at June 30, 2025 and 2024, respectively.

The following presents a summary of deferred outflows of resources and deferred inflows of resources at June 30, 2025 and 2024:

	2025	2024
Deferred outflows of resources:		
Difference between expected and actual experience	$ 5,012	$ 5,421
Changes of assumptions	847	6,363
Net differences between projected and actual investment earnings on pension plan investments	1,584	—
Changes in proportion and differences between employer contributions and proportionate share of contributions	548	418
	$ 7,991	$ 12,202
Deferred inflows of resources:		
Difference between expected and actual experience	$ 236	$ 459
Net differences between projected and actual investment earnings on pension plan investments	—	8,221
Changes of assumptions	—	—
Changes in proportion and differences between employer contributions and proportionate share of contributions	308	400
	$ 544	$ 9,080

Amounts reported as deferred outflows of resources and deferred inflows of resources at June 30, 2025 related to pensions will be recognized in pension expense as follows:

Year Ended June 30:	
2026	$ 3,638
2027	5,183
2028	(1,642)
2029	268

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

(e) Actuarial Assumptions

The total pension liability for the March 31, 2025 measurement date was determined by using an actuarial valuation as of April 1, 2024, with update procedures used to roll forward the total pension liability to March 31, 2025. 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. These actuarial valuations applied the following actuarial assumptions:

	2025	2024
Inflation	2.9%	2.9%
Salary scale	4.3%, 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, 2025 and 2024 are summarized in the following table:

	2025		2024	
Asset class	Target allocation	Long-term expected real rate of return	Target allocation	Long-term expected real rate of return
Domestic equity	25 %	3.54 %	32 %	4.00 %
International equity	14	6.57	15	6.65
Private equity	15	7.25	10	7.25
Real estate	12	4.95	9	4.60
Opportunistic/ARS portfolio	3	5.25	3	5.25
Credit	4	5.40	4	5.40
Real assets	4	5.55	3	5.79
Fixed income	22	2.00	23	1.50
Cash	1	0.25	1	0.25
	100 %		100 %	

(f) Discount Rate

The discount rate used to calculate the total pension liability was 5.9% for years ending March 31, 2025 and 2024. The projection of cash flows used to determine the discount rate assumes that contributions from plan members will be made

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

at the current contribution rates and that required contributions from employers will be made at actuarially determined rates. Based upon those assumptions, the ERS' 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.

(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, 2025 and 2024, 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, 2025	$ 58,436	$ 20,191	$ (11,743)
June 30, 2024	$ 52,913	$ 16,829	$ (13,308)

(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 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.

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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

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

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

As of June 30, 2025, 759 participants including 439 current employees and 320 retired and/or spouses of retired employees participated in the healthcare plan. 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.

(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, 2025 and 2024, the Trust recognized contributions of $6.8 million and $6.9 million, respectively, which were approximately 100.6% and 100.0% of the ADC or 16.2% and 19.2% of covered payroll, respectively.

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

At June 30, 2025 and 2024, the System reported a net OPEB liability of $48.2 million and $50.7 million, respectively. The June 30, 2025 OPEB liability was determined using an actuarial valuation as of July 1, 2023, with update procedures used to roll forward the total OPEB liability to the measurement date of June 30, 2024. The total OPEB liability at June 30, 2024 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.

For the years ended June 30, 2025 and 2024, the System recognized OPEB expense of $8.0 million and $7.1 million, respectively.

Deferred outflows of resources were $14.8 million for June 30, 2025 and $15.7 million for June 30, 2024. Deferred inflows of resources were $4.0 million at June 30, 2025 and $1.3 million at June 30, 2024.

The following presents a summary of deferred outflows of resources and deferred inflows of resources at June 30, 2025 and 2024:

Reporting Date	**2025**	**2024**
Measurement Date	**2024**	**2023**
Deferred outflows of resources:		
Difference between expected and actual experience	$ 4,190	$ 2,118
Changes in assumptions	3,792	5,429
Net difference between projected and actual earnings	—	1,262
Contributions subsequent to the measurement date	6,804	6,910
	$ 14,786	$ 15,719
Deferred inflows of resources:		
Difference between expected and actual experience	$ —	$ 27
Changes in assumptions	837	1,253
Net difference between projected and actual earnings	3,200	—
	$ 4,037	$ 1,280

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

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

Year ended June 30:

2026	$	839
2027	$	2,403
2028	$	(179)
2029	$	343
2030	$	539
Thereafter	$	—

(e) Actuarial Assumptions

	2025	2024
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	7.50% in 2024 graded to 4.04% over 51 years	6.90% in 2023, 8.82% in 2024 graded to 4.31% over 19 years
Medicare Part B	4.00%	5.00% graded to 3.50% over 20 years
Blended Medicare	NA	6.50% graded to 4.14% over 20 years
Pre-retirement mortality	NA	The Pub-2010 General Employee Headcount-Weighted Mortality table [PubG.H-2010 Employee] as published by the Society of Actuaries (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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(dollars in thousands)

Post-retirement mortality	• **Active Employees Mortality :** The 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.	• **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.

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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, 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.*

(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, 2025	$ 31,010	$ 48,195	$ 69,881
June 30, 2024	35,140	50,668	69,772

(g) Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2025 and 2024 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, 2025	$ 65,086	$ 48,195	$ 34,298
June 30, 2024	66,907	50,668	37,291

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NOTES TO FINANCIAL STATEMENTS *(continued)*

June 30, 2025 and 2024
(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.

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

(Last Ten Fiscal Years)
(dollars in thousands)

	2025	2024	2023	2022	2021
Total pension liability					
Service cost[1]	$ 2,002,702	$ 1,871,743	$ 1,809,524	$ 1,751,453	$ 1,755,405
Interest	9,826,069	9,556,552	9,259,036	8,959,475	8,752,345
Changes of benefit terms	—	54,880	12,101	10,091	—
Differences between expected and actual experience	896,801	1,435,687	1,635,898	251,733	558,905
Changes of assumptions	1,418,762	—	—	69,931	4,241,884
Benefit payments, incl. refunds of member contributions	(8,710,093)	(8,446,157)	(8,234,911)	(7,978,624)	(7,731,900)
Net change in total pension liability	5,434,242	4,472,705	4,481,648	3,064,059	7,576,639
Total pension liability — beginning	142,837,827	138,365,122	133,883,474	130,819,415	123,242,776
Total pension liability — ending (a)	$ 148,272,069	$ 142,837,827	$ 138,365,122	$ 133,883,474	$ 130,819,415
Plan fiduciary net position					
Contributions — employer	$ 1,997,404	$ 1,874,459	$ 1,899,885	$ 1,735,255	$ 1,618,437
Contributions — member	291,785	258,472	221,152	190,853	159,874
Net investment income	14,893,495	14,984,823	11,439,286	(10,078,814)	33,668,008
Benefit payments, incl. refunds of member contributions	(8,710,093)	(8,446,157)	(8,234,911)	(7,978,624)	(7,731,900)
Administrative expenses	(97,149)	(88,042)	(79,298)	(61,230)	(55,492)
Other	(3,752)	16,343	10,841	8,685	10,025
Net change in plan fiduciary net position	8,371,690	8,599,898	5,256,955	(16,183,875)	27,668,952
Plan fiduciary net position — beginning	145,821,435	137,221,537	131,964,582	148,148,457	120,479,505
Cumulative effect of change in accounting principle	—	—	—	—	—
Beginning balance as restated	145,821,435	137,221,537	131,964,582	148,148,457	120,479,505
Plan fiduciary net position — ending (b)	$ 154,193,125	$ 145,821,435	$ 137,221,537	$ 131,964,582	$ 148,148,457
School districts' net pension liability (asset) — ending (a) — (b)	$ (5,921,056)	$ (2,983,608)	$ 1,143,585	$ 1,918,892	$ (17,329,042)

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See accompanying independent auditors' report.
[1]Service cost includes the normal cost attributable to employee contributions.
Due to rounding, numbers may not sum to 100%

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

(Last Ten Fiscal Years)
(dollars in thousands)

	2020	2019	2018	2017	2016
Total pension liability					
Service cost[1]	$ 1,563,222	$ 1,528,402	$ 1,319,513	$ 1,292,143	$ 1,181,609
Interest	8,418,885	8,189,405	8,224,221	7,988,167	7,809,566
Changes of benefit terms	678	815	—	—	—
Differences between expected and actual	1,169,842	753,802	964,258	727,895	(111,652)
Changes of assumptions	(285,424)	(1,392,886)	—	3,045,909	7,085,423
Benefit payments, incl. refunds of member contributions	(7,503,901)	(7,307,318)	(7,108,999)	(6,923,037)	(6,719,866)
Net change in total pension liability	3,363,302	1,772,220	3,398,993	6,131,077	9,245,080
Total pension liability — beginning	119,879,474	118,107,254	114,708,261	108,577,184	99,332,104
Total pension liability — ending (a)	$ 123,242,776	$ 119,879,474	$ 118,107,254	$ 114,708,261	$ 108,577,184
Plan fiduciary net position					
Contributions — employer	$ 1,504,688	$ 1,774,646	$ 1,597,139	$ 1,857,359	$ 2,046,562
Contributions — member	145,034	136,610	131,595	129,770	124,587
Net investment income	3,923,633	8,023,180	9,928,011	12,951,892	2,392,354
Benefit payments, incl. refunds of member contributions	(7,503,901)	(7,307,318)	(7,108,999)	(6,923,037)	(6,719,866)
Administrative expenses	(71,385)	(74,242)	(60,610)	(61,611)	(60,426)
Other	3,955	9,087	9,278	7,845	4,014
Net change in plan fiduciary net position	(1,997,976)	2,561,963	4,496,414	7,962,218	(2,212,775)
Plan fiduciary net position — beginning	122,477,481	119,915,518	115,468,360	107,506,142	109,718,917
Cumulative effect of change in accounting principle	—	—	(49,256)	—	—
Beginning balance as restated	122,477,481	119,915,518	115,419,104	107,506,142	109,718,917
Plan fiduciary net position — ending (b)	$ 120,479,505	$ 122,477,481	$ 119,915,518	$ 115,468,360	$ 107,506,142
School districts' net pension liability (asset) — ending (a) — (b)	$ 2,763,271	$ (2,598,007)	$ (1,808,264)	$ (760,099)	$ 1,071,042

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See accompanying independent auditors' report.
[1]Service cost includes the normal cost attributable to employee contributions.
Due to rounding, numbers may not sum to 100%

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

(Last Ten Fiscal Years)
(dollars in thousands)

	2025	2024	2023	2022	2021
Total pension liability	$ 148,272,069	$ 142,837,827	$ 138,365,122	$ 133,883,474	$ 130,819,415
Plan fiduciary net position	154,193,125	145,821,435	137,221,537	131,964,582	148,148,457
School districts' net pension liability (asset)	$ (5,921,056)	$ (2,983,608)	$ 1,143,585	$ 1,918,892	$ (17,329,042)
Plan fiduciary net position as a percentage of the total pension liability	104.0%	102.1%	99.2%	98.6%	113.2%
Covered payroll	$19,635,001	$19,093,538	$18,469,130	$17,715,273	$16,973,207
School districts' net pension liability (asset) as a percentage of covered payroll	(30.2)%	(15.6)%	6.2%	10.8%	(102.1)%

SCHEDULE OF THE SCHOOL DISTRICTS' CONTRIBUTIONS (UNAUDITED)

(Last Ten Fiscal Years)
(dollars in thousands)

	2025	2024	2023	2022	2021
Actuarially determined contribution	$ 1,985,099	$ 1,863,529	$ 1,900,474	$ 1,736,097	$ 1,617,547
Contributions in relation to the actuarially determined contribution	1,985,099	1,863,529	1,900,474	1,736,097	1,617,547
Contribution deficiency	$ —	$ —	$ —	$ —	$ —
Covered payroll	$ 19,635,001	$ 19,093,538	$ 18,469,130	$ 17,715,273	$ 16,973,207
Contributions as a percentage of covered payroll	10.11%	9.76%	10.29%	9.80%	9.53%

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See accompanying independent auditors' report.

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

(Last Ten Fiscal Years)
(dollars in thousands)

	2020	2019	2018	2017	2016
Total pension liability	$ 123,242,776	$ 119,879,474	$ 118,107,254	$ 114,708,261	$108,577,184
Plan fiduciary net position	120,479,505	122,477,481	119,915,518	115,468,360	107,506,142
School districts' net pension liability (asset)	$ 2,763,271	$ (2,598,007)	$ (1,808,264)	$ (760,099)	$ 1,071,042
Plan fiduciary net position as a percentage of the total pension liability	97.8%	102.2%	101.5%	100.7%	99.0%
Covered payroll	$16,973,171	$16,691,626	$16,288,884	$15,846,705	$15,431,009
School districts' net pension liability (asset) as a percentage of covered payroll	16.3%	(15.6)%	(11.1)%	(4.8)%	6.9%

SCHEDULE OF THE SCHOOL DISTRICTS' CONTRIBUTIONS (UNAUDITED)

(Last Ten Fiscal Years)
(dollars in thousands)

	2020	2019	2018	2017	2016
Actuarially determined contribution	$ 1,503,823	$ 1,772,651	$ 1,596,311	$ 1,857,234	$ 2,046,152
Contributions in relation to the actuarially determined contribution	1,503,823	1,772,651	1,596,311	1,857,234	2,046,152
Contribution deficiency	$ –	$ –	$ –	$ –	$ –
Covered payroll	$ 16,973,171	$ 16,691,626	$ 16,288,884	$ 15,846,705	$ 15,431,009
Contributions as a percentage of covered payroll	8.86%	10.62%	9.8%	11.72%	13.26%

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SCHEDULE OF INVESTMENT RETURNS (UNAUDITED)

(Last Ten Fiscal Years)

	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Annual money-weighted rate of return, net of investment expense	10.38%	11.08%	9.16%	(7.12)%	28.97%	3.32%	6.93%	8.95%	13.05%	2.28%

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See accompanying independent auditors' report.

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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)

	2025	2024	2023	2022	2021
System's proportion of the net pension liability	0.1177618 %	0.1142988 %	0.1158665 %	0.1207750 %	0.1108277 %
System's proportionate share of the net pension (asset) liability	$ 20,191	$ 16,829	$ 24,846	$ (9,873)	$ 110
System's covered payroll	44,213	36,267	33,958	33,723	33,483
System's proportionate share of the net pension liability as a percentage of covered payroll	45.7 %	46.4 %	73.2 %	(29.3)%	0.3 %
ERS fiduciary net position as a percentage of the total pension liability	93.08 %	93.88 %	90.78 %	103.65 %	99.95 %

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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)

	2020	2019	2018	2017	2016
System's proportion of the net pension liability	0.1120455 %	0.1095732 %	0.1115115 %	0.1098533 %	0.1095719 %
System's proportionate share of the net pension (asset) liability	$ 29,670	$ 7,764	$ 3,599	$ 10,322	$ 17,587
System's covered payroll	31,107	30,235	29,464	28,749	28,074
System's proportionate share of the net pension liability as a percentage of covered payroll	95.4 %	25.7 %	12.2 %	35.9 %	62.6 %
ERS fiduciary net position as a percentage of the total pension liability	86.39 %	96.27 %	98.24 %	94.70 %	90.70 %

See accompanying independent auditors' report.

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

(Last Ten Fiscal Years)
(dollars in thousands)

	2025	2024	2023	2022	2021
Actuarially determined contribution	$ 5,513	$ 4,416	$ 3,860	$ 5,377	$ 4,499
Contributions in relation to the actuarially determined contribution	5,513	4,416	3,860	5,377	4,499
Contribution deficiency	$ —	$ —	$ —	$ —	$ —
Covered payroll	$ 44,213	$ 36,267	$ 34,551	$ 34,055	$ 33,718
Contributions as a percentage of covered payroll	12.47 %	12.18 %	11.17 %	15.79 %	13.34 %

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

(Last Ten Fiscal Years)
(dollars in thousands)

	2020	2019	2018	2017	2016
Actuarially determined contribution	$ 4,360	$ 4,308	$ 4,310	$ 4,318	$ 5,289
Contributions in relation to the actuarially determined contribution	4,360	4,308	4,310	4,318	5,289
Contribution deficiency	$ —	$ —	$ —	$ —	$ —
Covered payroll	$ 31,466	$ 30,546	$ 29,728	$ 28,994	$ 28,251
Contributions as a percentage of covered payroll	13.86 %	14.10 %	14.50 %	14.89 %	18.72 %

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See accompanying independent auditors' report.

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

(Last Nine Fiscal Years)
(dollars in thousands)

Reporting Date	2025	2024	2023	2022	2021
Measurement Date	2024	2023	2022	2021	2020
Total OPEB liability:					
Service cost	$ 3,325	3,376	3,069	2,985	$ 2,915
Interest	7,374	6,958	6,588	6,586	6,622
Changes of benefit terms	426	(622)	—	—	(9,789)
Differences between expected and actual experience	3,253	916	870	1,259	79
Changes of assumptions	(24)	4,678	—	(2,450)	4,039
Benefit payments	(5,896)	(5,439)	(4,835)	(4,527)	(4,413)
Net change in total OPEB liability	8,459	9,867	5,692	3,853	(547)
Total OPEB liability - beginning	116,221	106,355	100,663	96,810	97,357
Total OPEB liability - ending (a)	$ 124,680	116,221	106,355	100,663	$ 96,810
Plan fiduciary net position:					
Contributions - employer	$ 6,910	6,394	6,000	6,261	$ 6,004
Net investment income	9,931	7,105	(9,584)	14,535	2,673
Benefit payments	(5,896)	(5,439)	(4,835)	(4,527)	(4,413)
Professional fees and services	(14)	(14)	56	(20)	(66)
Net change in plan fiduciary net position	10,932	8,046	(8,363)	16,248	4,199
Plan fiduciary net position - beginning	65,553	57,508	65,871	49,622	45,424
Plan fiduciary net position - ending (b)	$ 76,485	65,553	57,508	65,871	$ 49,622
System's net OPEB liability - ending (a) - (b)	$ 48,195	50,668	48,847	34,792	$ 47,187
Plan fiduciary net position as a percentage of the total OPEB liability	61.35 %	56.40 %	54.07 %	65.44 %	51.26 %
Covered payroll	$ 35,992	35,579	35,423	33,142	$ 32,125
System's net OPEB liability as a percentage of covered payroll	133.91 %	142.41 %	137.90 %	104.98 %	146.89 %

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See accompanying independent auditors' report.

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

(Last Nine Fiscal Years)
(dollars in thousands)

Reporting Date	2020	2019	2018	2017
Measurement Date	2019	2018	2017	2016
Total OPEB liability:				
Service cost	$ 2,907	$ 2,604	$ 2,491	$ 2,579
Interest	6,169	5,747	5,959	5,589
Changes of benefit terms	—	6,211	—	—
Differences between expected and actual experience	714	(842)	(2,166)	400
Changes of assumptions	1,102	(878)	(5,849)	—
Benefit payments	(3,965)	(3,757)	(3,412)	(2,980)
Net change in total OPEB liability	6,927	9,085	(2,977)	5,589
Total OPEB liability - beginning	90,430	81,344	84,321	78,732
Total OPEB liability - ending (a)	$ 97,357	$ 90,430	$ 81,344	$ 84,321
Plan fiduciary net position:				
Contributions - employer	$ 5,500	$ 5,500	$ 5,500	$ 5,500
Net investment income	3,155	3,213	4,212	382
Benefit payments	(3,965)	(3,757)	(3,412)	(2,980)
Professional fees and services	(19)	(53)	(15)	(13)
Net change in plan fiduciary net position	4,671	4,902	6,285	2,890
Plan fiduciary net position - beginning	40,752	35,850	29,565	26,675
Plan fiduciary net position - ending (b)	$ 45,424	$ 40,752	$ 35,850	$ 29,565
System's net OPEB liability - ending (a) - (b)	$ 51,933	$ 49,677	$ 45,494	$ 54,756
Plan fiduciary net position as a percentage of the total OPEB liability	46.66 %	45.07 %	44.07 %	35.06 %
Covered payroll	$ 31,189	$ 30,683	$ 29,753	$ 29,087
System's net OPEB liability as a percentage of covered payroll	166.51 %	161.90 %	152.91 %	188.25 %

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

See accompanying independent auditors' report.

SCHEDULE OF SYSTEM AND OTHER CONTRIBUTING ENTITY CONTRIBUTIONS (UNAUDITED)

(Last Ten Fiscal Years)
(dollars in thousands)

	2025	2024	2023	2022	2021
Actuarially determined contribution	$ 6,765	$ 6,910	$ 6,394	$ 5,340	$ 5,822
Contributions in relation to the actuarially determined contribution:					
System	6,804	6,910	6,394	6,000	6,261
Other contributing entity	—	—	—	—	—
Total contributions	6,804	6,910	6,394	6,000	6,261
Contribution deficiency (excess)	$ (39)	$ —	$ —	$ (660)	$ (439)
Covered payroll	$ 41,903	$ 35,992	$ 35,579	$ 35,423	$ 33,142
Contributions as a percentage of covered payroll	16.24 %	19.20 %	17.97 %	16.94 %	18.89 %

SCHEDULE OF SYSTEM AND OTHER CONTRIBUTING ENTITY CONTRIBUTIONS (UNAUDITED) *(continued)*

(Last Ten Fiscal Years)
(dollars in thousands)

	2020	2019	2018	2017	2016
Actuarially determined contribution	$ 5,958	$ 5,349	$ 5,279	$ 5,374	$ 4,782
Contributions in relation to the actuarially determined contribution:					
System	6,004	5,500	5,500	5,500	5,500
Other contributing entity	—	—	—	—	—
Total contributions	6,004	5,500	5,500	5,500	5,500
Contribution deficiency (excess)	$ (46)	$ (151)	$ (221)	$ (126)	$ (718)
Covered payroll	$ 32,125	$ 31,189	$ 30,683	$ 29,753	$ 29,087
Contributions as a percentage of covered payroll	18.69 %	17.63 %	17.93 %	18.49 %	18.91 %

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See accompanying independent auditors' report.

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 current actuarial assumptions were revised and adopted by the Retirement Board on October 30, 2025 and first used in the 2025 determination of the Total Pension Liability. The prior 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 2.50%. For the 2021 - 2024 actuarial valuations, the System's annual inflation assumption was 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 2025 actuarial valuation, the COLAs are projected to increase at a rate of 1.40% annually. Effective with the 2019 actuarial valuation, the COLAs were 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.

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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 2025. For assumptions and plan provisions used in contributions reported for years prior to 2025, 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, 2023
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 present value of future salaries. The average future working lifetime at the Valuation Date for the NYSTRS active population is 12.44 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

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NOTES TO REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED) *(continued)*

(Last Ten Fiscal Years)

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	7.50% in 2024 graded to 4.04% over 51 years
Medicare	7.50% in 2024 graded to 4.04% over 51 years
Medicare Part B	4.00%
Pre-Retirement Mortality:	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 Mortality:	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
Beneficiaries:	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

See accompanying independent auditors' report.

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SCHEDULES OF ADMINISTRATIVE EXPENSES

Years ended June 30, 2025 and 2024
(dollars in thousands)

	2025	2024
Salaries and benefits:		
Salaries	$ 50,540	$ 42,492
Civil service	117	59
Employees retirement	7,735	6,116
Health and dental insurance	15,359	15,056
Overtime salaries	143	85
Social Security	3,477	3,004
Total salaries and benefits	77,371	66,812
Building occupancy expenses:		
Building, grounds and equipment	$ 2,008	$ 1,683
Depreciation - building and improvements	1,729	1,991
Depreciation - equipment	309	109
Office supplies and expenses	198	176
Utilities and municipal assessments	1,109	983
Total building occupancy expenses	5,353	4,942
Computer expenses:		
Amortization/depreciation - computer equipment	$ 985	$ 1,052
Computer hardware and software	5,975	6,292
Computer maintenance and supplies	—	—
Total computer expenses	6,960	7,344
Personnel and meeting expenses:		
Board - meetings, travel and education	$ 62	$ 71
Delegates meeting	122	101
Pre-retirement seminars	88	58
Professional development	1,266	1,119
Travel and automobile expense	385	304
Other personnel expenses	250	198
Total personnel and meeting expenses	2,173	1,851
Professional and governmental services:		
Auditors - financial*	$ 398	$ 259
Auditors - Department of Financial Services	—	—
Disability medical examinations	85	80
Postage and cartage	1,023	1,035
Professional fees and outside services	1,480	1,219
Publications	281	215
Statutory custodian charges	151	146
Project Costs - Professional Fees	1,622	978
Total professional and governmental services	5,040	3,932
Total administrative fund expenses	96,895	84,881
Reconciliation of contribution expense to pension and OPEB expense	254	3,161
Total Administrative Expenses	$ 97,149	$ 88,042

**Presented on an accrual basis for 2024. Expenses incurred in fiscal year 2025 when services performed.*
See accompanying independent auditors' report.

DRAFT

SCHEDULES OF INVESTMENT EXPENSES

Years ended June 30, 2025 and 2024
(dollars in thousands)

Investment Category	2025 Fair Value of Assets Serviced or Under Management	2025 Expenses	2024 Fair Value of Assets Serviced or Under Management	2024 Expenses
Externally managed/serviced assets:				
International equity	$ 23,347,001	$ 33,440	$ 20,493,824	$ 30,073
Real estate equity	15,808,668	128,959	15,642,343	152,193
Private equity	14,797,202	157,037	14,199,543	172,236
Real estate debt	6,947,180	27,716	6,398,587	28,752
Global equity	6,805,717	24,588	5,905,054	21,155
Private debt	2,921,279	42,495	2,380,787	38,234
Global bonds	2,537,728	4,795	2,819,075	5,375
Domestic equity	1,949,474	3,995	1,795,269	3,375
High-yield bonds	1,310,561	5,044	1,500,237	4,348
Sub-total	76,424,810	428.069	71,134,719	455,741
General expenses	—	15,987	—	16,305
Totals	**$ 76,424,810**	**$ 444.056**	**$ 71,134,719**	**$ 472,046**

DRAFT

See accompanying independent auditors' report.

October 30, 2025

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, 2025 and have issued our report thereon dated October, 30, 2025. 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 25, 2025, 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 April 1, 2025.

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 other than GASB 101 Compensated Absences and GASB 102 Certain Risk Disclosures which did not have a significant impact, and the application of existing policies was not changed during 2025.

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.

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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 estimates of the fair value 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 30 (capital statements, investment manager analysis, etc.). In instances when information is not available to value an investment as of June 30, management utilizes the information available as of March 31 to determine value and rolls it forward to June 30 based on cash flows during the quarter (as of June 30, 2025, such investments made up less than 1 percent of the total portfolio). 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.

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 NYSTRS' 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, 2025.

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

Draft

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

Draft

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3000 Town Center, Suite 100
Southfield, MI 48075
Tel: 248.352.2500
Fax: 248.352.0018
plantemoran.com

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, 2025, 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, 2025 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, 2023, used to derive the resultant employer contribution rate of 10.11% applied to employer payroll for the fiscal year ended June 30, 2025.

- The System's Experience Studies incorporated in the System's Actuarial Report as of June 30, 2023, 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 2025 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, 2025

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Audit Committee October 29, 2025

RESOLUTION ACCEPTING ANNUAL AUDIT REPORT

RESOLVED, That the report of Plante Moran on the financial statements of the Retirement System as of June 30, 2025 and for the plan year then ended, as presented to the Retirement Board, is accepted.

New York State Teachers' Retirement System (NYSTRS)

December 31, 2024 and June 30, 2025, Audit Results and December 31, 2025, Audit Plan

Presented to: The Audit Committee of NYSTRS

Date: October 29, 2025

"CohnReznick" is the brand name under which CohnReznick LLP and CohnReznick Advisory LLC and their respective subsidiaries provide professional services. CohnReznick LLP and CohnReznick Advisory LLC (and their respective subsidiaries) practice in an alternative practice structure in accordance with the AICPA Code of Professional Conduct and applicable law, regulations and professional standards. CohnReznick LLP is a licensed CPA firm that provides attest services to its clients. CohnReznick Advisory LLC provides tax and business consulting services to its clients. CohnReznick Advisory LLC and its subsidiaries are not licensed CPA firms.

October 29, 2025

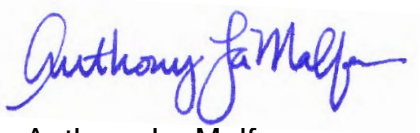
Dear Members of the Audit Committee:

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 29, 2025, to discuss the results of our audits of the financial statements as of and for the years ended December 31, 2024, and June 30, 2025, and to discuss our plan to perform the audits of the financial statements as of and for the year ending December 31, 2025. 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 2024/2025 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

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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
- 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

Audit Results – December 2024 and June 2025

- We have completed (substantially completed for certain entities) our audits of the financial statements as of and for the years ended December 31, 2024, and June 30, 2025. 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, 2024, and June 30, 2025.

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 December 31, 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 June 30, 2025.

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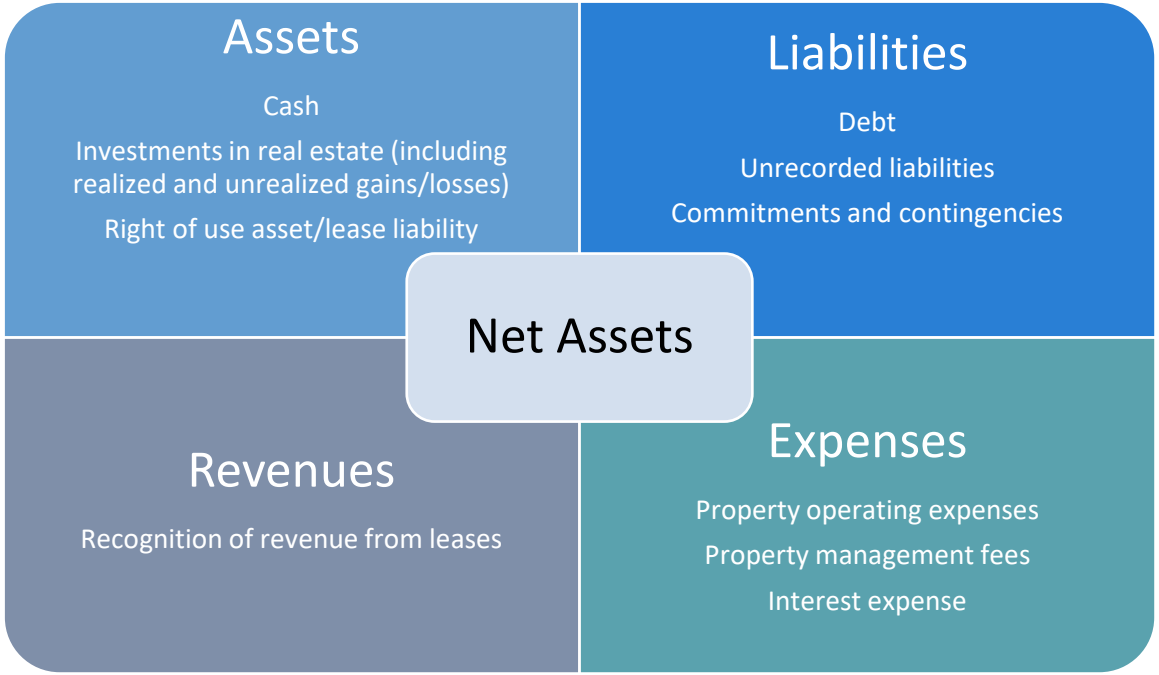
Audit Results – December 2024 and June 2025

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:



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Required Communications – December 2024 and June 2025

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, 2024, and June 30, 2025, 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.

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Required Communications – December 2024 and June 2025

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, 2024 and June 30, 2025, 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

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Required Communications – December 2024 and June 2025

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.

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Required Communications – December 2024 and June 2025

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. There were no uncorrected financial statement misstatements noted. 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.

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Required Communications – December 2024 and June 2025

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 November 15, 2025.
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.

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Looking forward: Audit Plan – December 2025

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Entities/Reports with Dec 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
- 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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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, 2025. • 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, 2025, and assist management with e-filing the returns.

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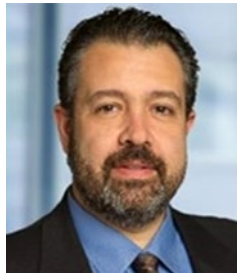
KEY MEMBERS OF THE ENGAGEMENT TEAM

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

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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 – DECEMBER 2025

	OCT - DEC	JAN	FEB	MAR	APR	MAY	APR - JUNE
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							■
Issue financial statements and if applicable, management letter							■

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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.*

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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

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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
Auditing		
Effective Beginning Date for the Organization	Auditing Standards Number	Description
January 1, 2026	Auditing Standard 149	Special Considerations - Audits of Group Financial Statements (Including the Work of Component Auditors)

New York State Teachers' Retirement System

Internal Audit Update

Audit Committee October 29, 2025

Kathy Ebert, CPA, CIA
Managing Director of Internal Audit

REPORT HIGHLIGHTS

Billing to Participating Employers

Engagement Objectives

The objective of this engagement was to provide reasonable assurance that controls to create bills from postings to a member's account are properly designed and operating effectively.

Risk

There is a risk that adjustments to salary might not be billed to participating employers accurately impacting the System's ability to properly fund future benefits. This risk is assessed as low.

Background

Responsible Department & Unit

Member & Employer Services (MES)

- Employer Reporting / Terminating Employees (ER/TE)
- Subsequent Service

Quality Assurance & Support (QAS)

Finance

- General Accounting

ER/TE is responsible for reviewing, editing, and posting member salary, service credit, and contributions used to generate monthly and annual bills to participating employers.

Subsequent Service is responsible for updating specific records not edited by ER/TE and reviewing the monthly bill.

QAS is responsible for reviewing a sample of adjustments made to member records by ER/TE and Subsequent Service to ensure adjustments are correct and billed accordingly.

General Accounting is responsible for posting the monthly and annual bills.

Project Facts

Audit Period

May 1, 2024, through April 30, 2025

Numbers at a Glance

Earnings Used Adjustments		8,655
Annual Bills		825
	Employer Contribution	Employee Contribution
Annual Bills	$1.86B	$230.44MM
Monthly Bill	$2.55MM	$332K

REPORT HIGHLIGHTS

Loan Receipts

Engagement Objectives

The objective of this engagement was to provide reasonable assurance that controls are in place and operating effectively to ensure the receipt and recording of payments to a member's outstanding loan balance are processed accurately and timely.

Risk

There is a risk that payments received are not applied to a member's account accurately or timely. This risk is assessed as medium.

Background

Responsible Department & Unit

Finance Department

- Cash Control Unit
- General Accounting Team

Member & Employer Services Department (MES)

- Loan Unit

Cash Control is responsible for recording daily loan checks received at the System and depositing them with our financial institution.

The General Accounting Team is responsible for reconciling loan accounts to bank activity and system records.

The Loan Unit is responsible for applying district and SUNY payments to member accounts, monitoring billing activity, and resolving discrepancies or other payment-related issues. Individual member payments are applied through an automated overnight process.

Project Facts

Audit Period

April 1, 2024 to March 31, 2025

Numbers at a Glance

Loan payments received during the 12-month audit period.

Population	Count	Amount ($)
Individual	5,527	$8.9 MM
District	6,535	$93.9 MM
SUNY	257	$0.7 MM
Sample		
Individual	37	$65.9 K
District	37	$15.3 K
SUNY	13	$5.0 K

REPORT HIGHLIGHTS

Refunds of Member Contributions

Engagement Objectives

The objective of this engagement was to provide reasonable assurance that controls to create a refund of member contributions due to withdrawal of membership are properly designed and operating effectively.

Risk

There is a risk that refunds processed for individuals may not comply with relevant laws, rules and regulations, or policies and procedures, or were calculated incorrectly. This risk is assessed as medium.

Background

Responsible Department & Unit

Member Benefits Department

- Estimates, Refunds, and Retiree Services (ERRS) Unit

Finance Department

- Payroll Unit

The ERRS Unit is responsible for determining eligibility, applying refunds to member accounts, and resolving discrepancies or other payment-related issues.

The Payroll Unit is responsible for reviewing the overnight process for errors, providing reports to the ERRS Unit, and ensuring refunds are recorded on the general ledger.

Project Facts

Audit Period

June 1, 2024 to May 31, 2025

Numbers at a Glance

Refund payments made during the 12-month audit period.

	Count	Amount
Population	2,735	$7.4 MM
Sample	74	$395.5 K

REPORT HIGHLIGHTS

Active Member Death Benefit

Engagement Objectives

The objective of this engagement was to provide reasonable assurance that controls to create active member death benefits are properly designed and operating effectively.

Risk

There is a risk of improperly processed or miscalculated death benefit payments. This risk is assessed as medium.

Background

Responsible Department & Unit

Member Benefits Department

- Death and Disability Unit (Unit)

The Unit is responsible for calculating and paying accurate and timely active member death benefits to eligible beneficiaries.

Historically, the Unit had calculated a final salary using different methods for various reasons. In response to an internal audit completed in 2021, a memo was issued on April 25, 2023 by the Department to apply a singular and consistent approach for calculating the salary to be used in a death benefit for both full and part time members that was in accordance with law. Fiduciary counsel also opined that the interpretation of the law and the updated method was reasonable and appropriate.

Project Facts

Audit Period

June 1, 2024, through May 31, 2025

Numbers at a Glance

	Members	Amount
Population	195	$30.2 MM
Sample	49	$9.6 MM

Executive Session