

NEW HAMPSHIRE RETIREMENT SYSTEM

BOARD MEETING

Tuesday, January 10, 2023

Agenda

10:00 am	1. Ascertain Quorum and Call to Order		T. Lesko
10:05 am	2. Approval of Minutes	(Tab 1)	T. Lesko
	December 13, 2022		
	(Action Expected)		
10:10 am	3. Standing Committee Reports		
	• Audit	(Tab 2)	M. Mezzapelle
	• Governance	(Tab 3)	D. Roy
	○ Governance Manual		D. Roy
	(Action Expected)		
	○ Fiduciary Insurance		D. Roy
	(Action Expected)		
	• Investments	(Tab 4)	M. Kelliher
	○ IIC Monthly Report		R. Leveque
	○ IIC Quarterly Report		R. Leveque
	○ Callan Monthly Review		R. Leveque
	○ Callan Quarterly Report		R. Leveque
	○ Private Equity / Private Debt Update		R. Leveque
	○ Real Estate Update		R. Leveque
	• Legislative	(Tab 5)	K. Merrifield
	• Benefits	(Tab 6)	C. Coates
	• PPCC	(Tab 7)	S. Hannan
10:40 am	4. Operating Reports		
	• Executive	(Tab 8)	J. Goodwin
	○ Contract		
	• Legal	(Tab 9)	T. Crutchfield
	• PIO	(Tab 10)	M. Karlon
	• Investments	(Tab 11)	R. Leveque

		<ul style="list-style-type: none"> • Member Services (Tab 12) N. Miller • Finance (Tab 13) M. Mullen <ul style="list-style-type: none"> ◦ Employer Audit Reconciliation Certifications (Action Expected) • Human Resources (Tab 14) R. Cain • IT (Tab 15) F. Clough 	
11:15 am	5.	Consent Agenda (Action Expected)	(Tab 16) T. Lesko
11:20 am	6.	Trustee Travel	(Tab 17) T. Lesko
11:25 am	7.	Action Items – December 13, 2022	(Tab 18) J. Goodwin
11:30 am	8.	Board Checkpoint Discussion	(Tab 19) T. Lesko
11:35 am	9.	Adjournment	T. Lesko
	10.	Informational Materials	(Tab 20)
		Executive Board Action Summary Quarterly Report to the General Court 2022 2023 Board Action Calendar Committee Membership Trustee Confidential Contact Information Trustee Appointments and Terms NHRS Conference Resource List NHRS Acronyms	

Remote access information will be provided in advance of the meeting at:
<https://www.nhrs.org/meetings-events/event/2023/01/10/default-calendar/board-of-trustees-meeting>

The following email will be monitored throughout the meeting by someone who can assist with and alert the Board to any technical issues:
publicrelations@nhrs.org (or call 603-410-3594)

Note: These **draft** minutes from the December 13, 2022, Public Session are subject for approval at a subsequent Board of Trustees meeting.

Board of Trustees

December 13, 2022

DRAFT Public Minutes

**New Hampshire Retirement System
54 Regional Drive
Concord, New Hampshire 03301**

Participating: *Trustees Tim Lesko, Chair; Jon Frederick, Sue Hannan, Maureen Kelliher*, Robert Maloney, Germano Martins, Ken Merrifield, Monica Mezzapelle, Paul Provost, Joshua Quigley, and Don Roy.*

Absent: *Trustees Christopher Coates, and Andrew Martineau.*

**This Trustee participated remotely as permitted under RSA 91-A:2. As a result, all votes were by roll call.*

Staff: *Jan Goodwin, Executive Director; Timothy Crutchfield, Deputy Director and Chief Legal Counsel; Frank Clough, Director of Information Technology; Raynald Leveque, Chief Investment Officer; Marie Mullen, Director of Finance; Nancy Miller, Director of Member Services; Rosamond Cain, Director of Human Resources, Marty Karlon, Director of Communications and Legislative Affairs; Mark F. Cavanaugh, Associate Counsel and Compliance Officer; Diana Crichton, Hearings Examiner; Heather Hoffacker, Internal Auditor; Nina Calkins, Administrative and Contact Center Manager; Deanna Higgins, Contact Center Supervisor; Tracy Knight, Project Manager; Ann Stetson, Senior Business Analyst; Matthew Dahl, IT Help Desk Technician, and Christine (Rice) McKenney, Administrative Assistant.*

Guests: *David Levine, Groom Law Group*

Chair Lesko called the December 13, 2022, regular meeting of the NHRS Board of Trustees to order at 10:03 a.m.

A quorum was established and Chair Lesko called for a vote to approve the minutes of the November 8, 2022, Board meeting. On a motion by Trustee Mezzapelle, seconded by Trustee Roy, the Board voted unanimously to approve the November 8, 2022, meeting minutes.

Trustee Mezzapelle provided the Audit Committee report, noting the Committee met this morning prior to the Board meeting, during which the Committee heard a presentation from the System's external auditor, Plante Moran, on the results of the FY 2022 Audit. She noted there were no significant issues and that Plante Moran would provide an unmodified opinion letter. She reported that the Committee approved and accepted the Annual Comprehensive Financial Report (ACFR). Trustee Mezzapelle turned the floor to

Director of Finance Marie Mullen, who gave the Board a high-level overview of the ACFR. Ms. Mullen first commended her department and all NHRS staff who helped complete this report. She described the structure of the report and the relationship of the Comprehensive Annual Investment Report (CAIR) to the ACFR. On a motion by Trustee Hannan, seconded by Trustee Roy, the Board voted unanimously to accept the recommendation of the Audit Committee to approve and accept the Annual Comprehensive Financial Report, including the unmodified opinion letter from Plante Moran for FY 22.

Trustee Mezzapelle closed the Audit Committee report with an update on the Investment Portfolio Reconciliation Audit, noting its completion with no significant issues. Lastly, she gave a status report on internal audit activities and noted the progress of Audit Tracker items.

Trustee Kelliher gave her report on the November 8, 2022, Independent Investment Committee (IIC, Committee) meeting. The Committee heard from Chief Investment Officer Raynald Leveque, who provided an update on investment returns through recent time-periods, referring to Callan's monthly reviews for June 30, 2022, and September 30, 2022. He proceeded to report on cash flows, liquidity, and the status of Russian Assets. Mr. Leveque noted changes to the current Work Plan for the third quarter, and that the IIC voted unanimously to accept the revised FY 23 Work Plan. Mr. Leveque reported that the Committee voted unanimously to approve the 2023 IIC meeting schedule. The Committee then discussed the BlackRock presentation from the October meeting and voted unanimously to extend its contract through December 2024. Mr. Leveque presented a plan to rebalance the non-U.S. equity holdings and the Committee voted unanimously to approve the staff's recommendation to Blackrock's ex-U.S. equity passive vehicle to rebalance the non-U.S. equity holdings in NHRS's portfolio. The Committee also heard from Lazard Asset Management, who manages a non-U.S. equity strategy. Lastly, the IIC reviewed the FY 22 CAIR, which it conditionally voted to approve, subject to the addition of the ACFR.

Trustee Kelliher then turned the floor over to Mr. Leveque who reported on the NHRS performance as of October 31, 2022, noting the total Plan is at \$10.6 billion. He mentioned that the total fund Plan trailed the policy benchmark by 0.87% for the month of October, noting the flat returns from Alternatives due to the quarterly lag. Domestic equity as of October's end was at 8.79%, exceeding the benchmark of 8.20%. Non-U.S. equity posted an excess return of 1.57%, which is attributed to strong stock selection. Fixed income had a -0.82% return, which exceeded the benchmark return of -1.10%. Mr. Leveque commented on the long-term performance of the Total Fund for 3, 5, and 10 years in relation to the policy benchmarks, noting positive returns for all time-periods.

Chair Lesko called for a motion to approve the CAIR, and on a motion by Trustee Roy, seconded by Trustee Hannan, the Board voted unanimously to approve and accept the Comprehensive Annual Investment Report for Fiscal Year 2022 as prepared and approved by the Independent Investment Committee.

On a motion by Trustee Hannan, seconded by Trustee Roy, the Board voted unanimously to approve the 2023 IIC meeting schedule as approved by the IIC.

Trustee Roy provided the report of the Governance Committee, which had not met since its November meeting, but would meet prior to the January 2023 Board meeting to

conduct its annual review of updates to the Governance Manual and the renewal of NHRS's fiduciary insurance coverage, both of which will be brought before the Board in January.

Trustee Merrifield began the Legislative Committee report, stating it had not met since its November meeting, then referred to the Legislative Services Requests (LSRs), noting there are 16 LSRs relative to the System. He noted that the Senate filing period ends December 19 and that Director of Communication and Legislative Affairs Marty Karlon and Ms. Mullen met with the Governor's Office last month to discuss funding for the call firefighter benefit. Trustee Merrifield turned the floor to Mr. Karlon, who updated the Board on leadership positions in the Legislature following the November elections. A brief conversation occurred afterward regarding proposed legislation to dedicate some state surplus funds toward NHRS funding and the call firefighter benefit.

On behalf of Trustee Coates, Tim Crutchfield, Deputy Director, and Chief Legal Counsel, presented the report of the Benefits Committee, stating that it had not met since the November 8, 2022, Board meeting.

Trustee Hannan gave the PPCC report, which met on December 7, 2022, during which Director of Human Resources Rosamond Cain provided a staffing update. Ms. Cain noted the recruitment of two positions is underway: the Controller and the Director of IT. Trustee Hannan also reported that Member Services is building a hybrid job description that could span multiple positions in Member Services, and the Investment Department is creating an administrative assistant position. Lastly, NHRS will conduct an employee engagement survey later this week.

Following her report, Trustee Hannan requested a non-public session. On a motion by Trustee Maloney, seconded by Trustee Frederick, the Board voted unanimously by roll call to enter non-public session under RSA 91-A:3, II(c) to discuss matters which, if discussed in public, would likely adversely affect the reputation of a person other than a member of the public body. On a motion by Trustee Hannan, seconded by Trustee Mezzapelle, the Board voted unanimously to conclude the non-public session. No action was taken in the non-public session.

Back in public session, Chair Lesko opened with the operating reports and turned to Executive Director Jan Goodwin to begin. Ms. Goodwin commenced with her gratitude for Finance and other staff who worked on the ACFR, then turned the Board's attention to the monthly Key Performance Measures (KPMs), which came in at 100%. She acknowledged management and staff for helping to achieve this goal, noting the importance of everyone's position at NHRS. Ms. Goodwin proceeded to provide an update on the PGV3 project, and commended Member Services and IT for working on a data conversion item that required extensive work. She mentioned parallel processing, which will begin in less than a year, during which staff will have to do data entry simultaneously into PGV2 and PGV3. Ms. Goodwin praised the Contact Center, noting the Center's timeliness with answering calls and knowledge for helping members. She then provided an update on her monthly calls to members, employers, and retirees, commenting on the continued positive feedback she receives.

She apprised Trustees of two contracts, the first of which she approved under the Board's Procurement Policy, to renew services with Akamai for Content Network Delivery in a Web Application Firewall. The second contract renewal required Board approval and is with SecureWorks, which provides services to detect and respond to malicious online

activity. On a motion by Trustee Roy, seconded by Trustee Mezzapelle, the Board voted unanimously to accept the recommendation of the Executive Director that the Board approve the procurement of services as presented in the Board materials, subject to contract and legal review.

Director of Information Technology (IT) Frank Clough provided his operating report, with an update on cybersecurity awareness, noting IT conducted its monthly phishing test, adding that IT gave additional training to staff who failed. He then updated the Board on completed projects, including the Office 365 migration to the cloud, and the Dell Storage upgrade. He gave an overview of existing and upcoming projects and closed his report with his department's achievement of 99% customer satisfaction, and that IT met all its KPMs. Lastly, Mr. Clough noted his action plan is in progress.

Mr. Crutchfield opened his Legal operating report commenting on the value of the Supreme Court's recent opinion on the Lafasciano appeal. He stated that the Court upheld the Board's determination that the retiree could not terminate his ex-spouse's survivorship benefit. He also noted the Court's decision supported NHRS's ability to correct mistakes as far as practicable. Mr. Crutchfield then reported on the status of the Private Letter Ruling request with the IRS concerning the medical subsidy payment process as mandated in HB2 last summer. He stated that attorneys from Groom Law Group had a positive call with IRS representatives on December 9. In closing, Mr. Crutchfield reminded the Board that he will be sending out the annual request for the Trustees to complete an updated Statement of Financial Interests as required by statute.

Mr. Karlson provided his report on Legislative Affairs and PIO, commenting on the call firefighter benefit and the appropriation of the proposed funding from the state. He informed the Board that the proposed legislation also allows NHRS to be compensated for administering the benefit. He noted that, with the Board's passing of the ACFR and CAIR, his department would be working to update the NHRS website, presentations, and informational materials with FY 22 data. He gave an overview of upcoming projects, and lastly noted that PIO met all KPMs, or they were not applicable this month.

Mr. Leveque gave a brief update on Investments and proceeded to give an overview of the agenda for the IIC meeting, which immediately follows today's Board meeting. A short discussion on tax reclamations and class action lawsuits ensued. Mr. Leveque reported that the System reaped \$16.7 million in securities litigation this year and he noted that if any monies for class action lawsuits are owed to NHRS, the System's outside service provider, ISS, and the custodian bank, would submit the claims for NHRS.

Next, Director of Member Services Nancy Miller gave her report, noting the department continues to largely focus on PGV3. She reported on the success of implementing the new W-4P requirements into PGV2, with numbers adjusting correctly. She provided an update on staffing, noting she and HR are working on the recently approved hybrid position in Member Services. Ms. Miller concluded her report, reporting that Member Services met its KPMs for the month and then gave a preview of upcoming projects.

Ms. Mullen provided her Finance report, noting the ongoing work on PGV3, including staff's efforts on the general ledger and the 1099-Rs, and in obtaining test files from various participating employers, software companies, and school districts. She reported the results of the teacher contract survey for LRS to create an alternative for school districts that cannot report contract information in XML files. She provided an update on the GASB 68/75 Audits on the employer proportionate share reports, and the FY 22 Plante Moran opportunities

letter. She noted that Finance met its KPMs this month and that she expects the remaining 59 Employer Audit reconciliations to be completed and presented for certification at the January Board meeting. Staff continues to work on the FY 23 financial statements, which she plans to present the first quarter of FY 23 at next month's Board meeting. She reported that cash flows are in the expected range, and that FY 23 spending for the first four months of the fiscal year is below budget overall.

Ms. Cain gave a brief update on her Human Resources report, noting that there are two openings: the Director of IT, and Controller, both of which the System is actively recruiting. She informed the Board that this coming year NHRS would not provide the benefit allowed under the New Hampshire Paid Family Leave Act but noted that individual staff can opt-in via a payroll deduction. She gave an overview of year-end HR processes, and closed with the KPMs, which HR met all for the month.

Next, the System's longtime, external counsel David Levine, principal of Groom Law Group, provided the Board with a presentation on the importance of exercising their fiduciary duties as Trustees, and elaborating on the core requirements of prudence and loyalty.

Chair Lesko next presented the Consent Agenda, and on a motion by Trustee Maloney, seconded by Trustee Hannan, the Board voted unanimously to approve the Consent Agenda, as presented.

There were no travel reports or requests.

Ms. Goodwin provided an update on Action Items from the November 8, 2022, Board meeting, commenting that all items except for one would be completed by the end of today's meeting. The one incomplete item is relative to seeking funding for the call firefighter benefits, which is in progress.

With no further business to discuss, on a motion by Trustee Maloney, seconded by Trustee Roy, the Board voted unanimously to adjourn the meeting at 11:53 a.m.

Respectfully submitted,

Christine McKenney,
Administrative Assistant

NHRS Board of Trustees

DRAFT minutes – December 13, 2022

Note: These **draft** minutes from the December 13, 2022, Non-Public Session are subject to approval at a subsequent meeting of the Board of Trustees.

**Board of Trustees
December 13, 2022
Draft Non-Public Minutes**

**New Hampshire Retirement System
54 Regional Drive
Concord, New Hampshire 03301**

Participating: Trustees Tim Lesko, Chair; Jon Frederick, Sue Hannan, Maureen Kelliher*, Robert Maloney, Germano Martins, Ken Merrifield, Monica Mezzapelle, Paul Provost, Joshua Quigley, and Don Roy.

Absent: Trustees Christopher Coates, and Andrew Martineau.

Staff: Rosamond Cain, Director of HR.

**This Trustee participated remotely as permitted under RSA 91-A:2. As a result, all votes, in which that Trustee participated, were by roll call.*

At 10:36 a.m., Chair Lesko asked for a motion that the Board enter non-public session, under RSA 91-A:3 II(c) to discuss matters that would likely adversely affect the reputation of a person other than a member of this public body.

On a motion by Trustee Maloney, seconded by Trustee Frederick, the Board voted unanimously by roll call to go into non-public session.

On a motion by Trustee Roy, seconded by Trustee Hannan, at 10:44 a.m., the Board voted unanimously to return to its regular public session. No action was taken in the non-public session.

Respectfully submitted,

Christine McKenney
Administrative Assistant

AUDIT COMMITTEE REPORT

GOVERNANCE COMMITTEE



To: NHRS Board of Trustees

From: Mark F. Cavanaugh, Associate Counsel and Compliance Officer

Date: December 30, 2022

Re: Annual Governance Manual Revisions

Item: Action: ☒ Discussion: ☐ Informational: ☐

Introduction

At its December 30, 2022 meeting, the NHRS Governance Committee voted unanimously to recommend to the full Board that it approve the annual revisions to the Governance Manual.

Background

Each year, at its January meeting, the Board is asked to approve and adopt a revised Governance Manual for the calendar year.

The only revisions recommended by staff this year consist of updates to the information in the Appendices and Exhibits.

An electronic version of the proposed revisions for 2023 will be made available upon request.

Recommendation

Legal staff respectfully requests that the Board accept the recommendation of the Governance Committee to approve the annual revisions to the Governance Manual.



To: NHRS Board of Trustees

From: Tim Crutchfield, Deputy Director & Chief Legal Counsel

Date: December 30, 2022

Re: Fiduciary Insurance Renewal

Item: Action: ☒ Discussion: ☐ Informational: ☐

Introduction

At its December 30, 2022 meeting, the NHRS Governance Committee voted unanimously to recommend to the full Board that it renew its fiduciary insurance coverage with the Hudson Insurance Company based on the information provided below.

Background

Fiduciary liability coverage has been provided on an annual basis since at least 1999. In January 2016, the System renewed its annual policy through Hudson Insurance for \$20 million in coverage with a \$100,000.00 deductible at an annual premium of \$123,000.00. This premium represented a significant savings for the same level of coverage from the 2014 premium of more than \$172,000.00 and from 2015 of nearly \$148,000.00. Over the next six years, premiums continued to decrease while maintaining the same coverage. Our 2021 premium was \$123,000.00. However, given the significant national rise in fiduciary claims over the past few years, even though NHRS has not filed a claim for over at least 10 years, last year our premium increased 17% from \$123,000.00 to \$144,162.00 with our incumbent carrier, Hudson insurance. Ten other carriers were contacted in an attempt to obtain quotes and nine declined. The tenth carrier offered coverage at a lower limit of \$15 million at a higher premium of \$194,000.00

Earlier this month our broker at Cross Insurance informed us that she was able to secure the same coverage with Hudson with a 3% premium increase from \$144,162.00 to \$148,487.00. Cross indicated that most carriers are no longer offering coverage limits as high as \$20 million and that we were able to secure the same coverage with a modest increase in the premium because *“[t]he incumbent carrier has valued the business partnership and really worked with us on this renewal.”*

For comparison, the broker received only three other quotes as indicated in the accompanying proposal, all which offered less coverage at a greater premium cost: Ullico indicated \$15M limit at \$144,000.00; Ironshore indicated \$5M limit at \$140,000.00; and AIG indicated a \$5M limit at \$145,000.00.

Our Mission: To provide secure retirement benefits and superior service.

Recommendation

Based on this information, staff respectfully requests that the Board accept the recommendation of the Governance Committee to renew the fiduciary insurance coverage as presented in this memo.

Our Mission: To provide secure retirement benefits and superior service.



**RENEWAL INSURANCE PROPOSAL
PREPARED FOR:**

New Hampshire Retirement System

54 Regional Drive

Concord, NH 03301

PRESENTED BY:

FIAI, Inc. d/b/a Cross Insurance Agency

1100 Elm Street

Manchester, NH 03101

www.crossagency.com

ACCOUNT EXECUTIVE: Robin Kittle, LPCS, CLCS

TELEPHONE NUMBER: 800-969-3218 603-669-3218

FAX NUMBER: 603-645-4331

EMAIL ADDRESS: robin.kittle@crossagency.com

DATE OF PROPOSAL: December 8, 2022

This is a coverage summary, not a legal contract. This proposal is provided to facilitate your understanding of your insurance program. Please refer to the actual policies for specific terms, conditions, limitations, and exclusions that will govern in the event of a loss. Specimen copies of all policies are available for review prior to the binding of coverage. In suggesting policy limits, terms and conditions, we are depending on complete and accurate data provided by you and this proposal may not contain all insurance coverage that you may need. If there are areas that need to be evaluated prior to binding coverage, please bring these areas to our attention. Should any of your exposures change after coverage is bound, please inform us so proper coverage can be secured. We assume no response means no changes.

Please note this quotation as offered by the insurance company must be accepted by the effective date of coverage, otherwise it will be subject to renegotiation and may result in higher cost.

Higher limits may be available upon request.

Refer to policy forms for additional terms, conditions and endorsements.

Policy Information

Policy #	Term	Writing Co
SFD31210461	01/15/2023- 01/15/2024	Hudson Ins Co

FIDUCIARY LIABILITY

Limits of Liability:

(a) Aggregate Limit of Liability: the maximum aggregate limit of liability for all Loss under this policy, including Claim Expenses	\$20,000,000
(b) Trustee Claim Expenses (Non-Fiduciary Defense) Sublimit: the aggregate limit of liability for all Claim Expenses in connection with Claims solely alleging Wrongful Acts as defined in Section II. Definitions R.(3.) of the policy (included within and not in addition to the maximum aggregate limit of liability)	\$2,000,000
(c) Voluntary Compliance Program Expenditures Sublimit: the aggregate limit of liability for all Voluntary Compliance Program Expenditures (included within and not in addition to the maximum aggregate limit of liability)	\$250,000
(d) ERISA 502(c) Civil Penalties Sublimit: the aggregate limit of liability for all Loss in the form of civil fines or any excise tax imposed pursuant to Section 502(c) of ERISA or the Pension Protection Act of 2006 (included within and not in addition to the maximum aggregate limit of liability)	Not Applicable
(e) HIPAA and HITECH Fines and Penalties Sublimit: the aggregate limit of liability for all Loss in the form of civil fines and penalties imposed pursuant to HIPAA and HITECH (included within and not in addition to the maximum aggregate limit of liability)	\$1,500,000
(f) PPACA Fines and Penalties Sublimit: the aggregate limit of liability for all Loss in the form of civil fines and penalties imposed pursuant to PPACA (included within and not in addition to the maximum aggregate limit of liability)	\$250,000
(g) Section 4975 Penalties Sublimit: the aggregate limit of liability for all Loss in the form of excise taxes imposed pursuant to Section 4975 of the Internal Revenue Code (included within and not in addition to the maximum aggregate limit of liability)	\$250,000
(h) ERISA Section 502(a)(3) Relief Sublimit: the aggregate limit of liability for all Loss in the form of equitable relief imposed pursuant to Section 502(a)(3) of ERISA (included within and not in addition to the maximum aggregate limit of liability)	Not Applicable
(i) Benefit Overpayment Sublimit: the aggregate limit of liability for all benefit overpayments as defined in Section II. Definitions H.(5.) of the policy (included within and not in addition to the maximum	Not Applicable

Higher limits may be available upon request.

Refer to policy forms for additional terms, conditions and endorsements.

aggregate limit of liability)	
(j) Cyber Essentials Sublimit: the aggregate limit of liability Content Restoration Expenditures and Crisis Notification Expenditures as defined in Section II. Definitions E. and G. of the policy (included within and not in addition to the maximum aggregate limit of liability)	Not Applicable

Retention: \$100,000 each Claim

Pending or Prior Proceeding Date: 01/15/2004

Extended Reporting Period: Twelve (12) month extended reporting period is available for 100% of the total annual premium, subject to Section IV.(B.) Extended Reporting Period of the Policy

ENDORSEMENTS:

- | | |
|------------------|--|
| 1. ESF-31230024 | New Hampshire Amendatory Endorsement |
| 2. ESF-31220060B | Public Entity Fiduciary Liability Endorsement |
| 3. ESF-31220088 | Pre-Approved Counsel Endorsement [same as expiring |

POLICY FORM:

Policy Form No. ESF-31210001 (09/2012)

SPECIAL CONDITIONS / OTHER COVERAGES:

NO FLAT CANCELLATIONS

ALL FEES ARE FULLY EARNED AT INCEPTION

Higher limits may be available upon request.

Refer to policy forms for additional terms, conditions and endorsements.

PREMIUM COMPARISON

DESCRIPTION OF COVERAGE	EXPIRING PREMIUM	RENEWAL PREMIUM
Fiduciary Liability	\$144,162	\$148,487
Total Estimated Premium	\$144,162	\$148,487

Marketing information

- Ullico indicated \$15MM limit at \$144,000
- Ironshore indicated \$140,000 for \$5MM limit
- AIG--\$5M limit \$145,000

Higher limits may be available upon request.

Refer to policy forms for additional terms, conditions and endorsements.

Independent Investment Committee's Monthly Report to the Board

NHRS Investment Team
Board of Trustees Meeting
January 10, 2023

Total Plan Performance as of November 30, 2022



The table below details the rates of return for the fund's asset classes over various time periods ended November 30, 2022. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Returns for Periods Ended November 30, 2022								
Composite	Total Fund Weighting As of 11/30/2022	Last Month	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Net of Fees								
Total Domestic Equity	31.06%	5.05%	9.65%	-13.00%	-9.15%	9.50%	9.18%	12.17%
Domestic Equity Benchmark(1)		5.22%	8.77%	-14.18%	-10.80%	9.61%	10.20%	13.04%
Excess Return		-0.17%	0.89%	1.18%	1.65%	-0.12%	-1.02%	-0.86%
Total Non US Equity	16.76%	10.62%	5.92%	-17.09%	-13.02%	0.82%	1.17%	4.17%
Non US Equity Benchmark(2)		11.80%	3.74%	-15.37%	-11.87%	1.75%	1.48%	4.23%
Excess Return		-1.18%	2.18%	-1.72%	-1.14%	-0.93%	-0.32%	-0.06%
Total Fixed Income	18.45%	3.59%	-1.23%	-11.92%	-11.69%	-0.92%	0.86%	1.79%
Bloomberg Capital Universe Bond Index		3.73%	-1.98%	-12.70%	-12.75%	-2.38%	0.34%	1.37%
Excess Return		-0.14%	0.75%	0.78%	1.06%	1.46%	0.52%	0.42%
Total Cash	1.48%	0.31%	1.07%	1.23%	1.23%	0.68%	1.27%	0.80%
3-Month Treasury Bill		0.32%	0.94%	1.09%	1.10%	0.65%	1.21%	0.73%
Excess Return		-0.01%	0.13%	0.14%	0.13%	0.04%	0.06%	0.07%
Total Real Estate (Q2)*	12.79%	0.05%	-0.33%	19.12%	29.21%	15.61%	12.78%	12.58%
Real Estate Benchmark(3)		0.10%	4.76%	20.83%	23.36%	11.47%	9.36%	10.05%
Excess Return		-0.05%	-5.08%	-1.71%	5.85%	4.14%	3.42%	2.52%
Total Private Equity (Q2)*	14.55%	0.05%	-0.02%	3.56%	9.06%	19.43%	16.67%	13.02%
Private Equity Benchmark(4)		-3.48%	-11.01%	-4.32%	-8.37%	15.83%	15.26%	17.04%
Excess Return		3.53%	10.99%	7.88%	17.44%	3.59%	1.41%	-4.02%
Total Private Debt (Q2)*	4.92%	0.02%	-0.01%	5.55%	8.54%	5.72%	5.62%	7.02%
Private Debt Benchmark(5)		-0.52%	-3.58%	-3.41%	-2.80%	1.80%	2.68%	8.04%
Excess Return		0.54%	3.57%	8.97%	11.34%	3.92%	2.94%	-1.02%
Total Fund Composite	100.00%	3.90%	3.53%	-7.00%	-3.26%	7.36%	6.84%	8.25%
Total Fund Benchmark(6)		4.50%	2.29%	-8.92%	-7.27%	5.96%	6.35%	8.22%
Excess Return		-0.60%	1.24%	1.92%	4.01%	1.40%	0.49%	0.03%

(1) The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021.

(2) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(3) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(4) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(5) The Private Debt Benchmark is (50% S&P LSTA Leveraged Loan 100 Index + 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

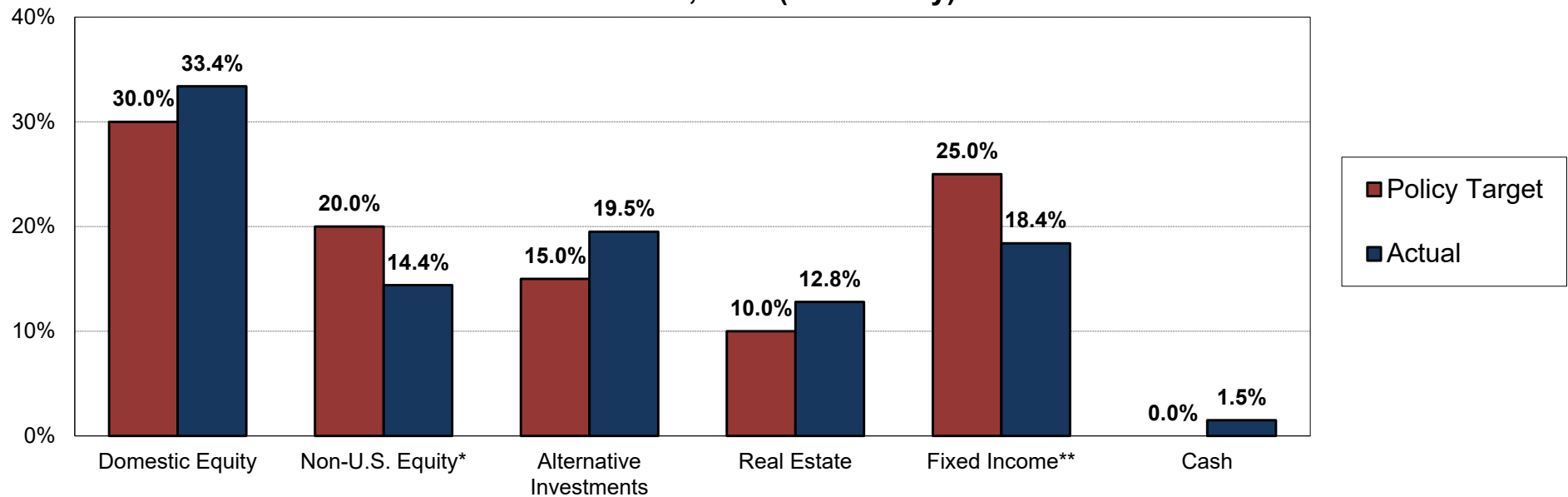
(6) Current Month Target = 30.0% Russell 3000 Index, 25.0% Bloomberg Universal, 20.0% MSCI ACWI ex-US, 10.0% NCREIF NFI-ODCE Value Weight Net lagged 3 months, 10.0% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg High Yield Corp lagged 3 months+1.0% and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months +1.0%.

*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

Source: Callan

Asset Class Policy Targets vs. Actual Allocation

**Asset Class Targets vs. Actual Allocation
as of November 30, 2022 (Preliminary)**



Asset Class	Policy Target	Actual	Range
Domestic Equity	30.0%	33.4%	20 - 40%
Non-U.S. Equity*	20.0%	14.4%	15 - 25%
Alternative Investments	15.0%	19.5%	5 - 25%
Real Estate	10.0%	12.8%	5 - 20%
Fixed Income**	25.0%	18.4%	20 - 30%
Cash	0.0%	1.5%	NA
	100.0%	100.0%	

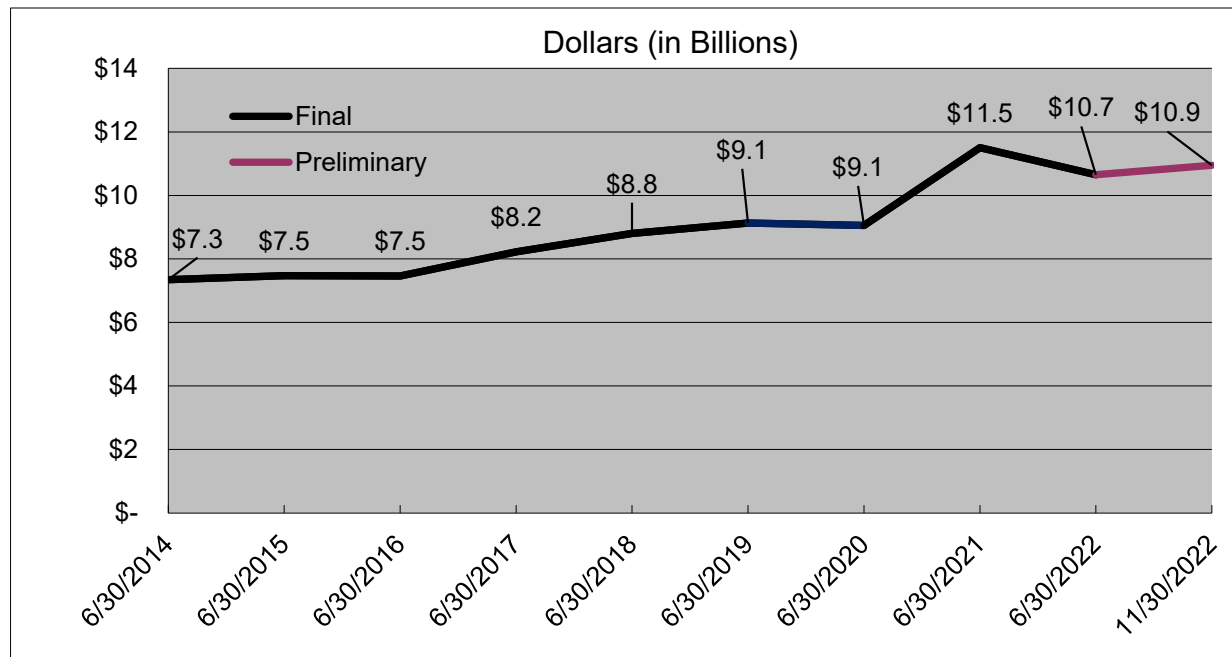
Source: NHRS

**Staff is monitoring Non-U.S. Equity and will rebalance from Domestic Equity as needed to meet minimum target range*

***Fixed Income is close to range when Cash is included; Staff will present a Fixed Income rebalancing plan at the January Committee meeting*

Total Fund Market Value

<u>Fiscal Year</u>	<u>Dollars (in Billions)</u>
June 30,2014	\$7.3
June 30,2015	\$7.5
June 30,2016	\$7.5
June 30,2017	\$8.2
June 30,2018	\$8.8
June 30,2019	\$9.1
June 30,2020	\$9.1
June 30,2021	\$11.5
June 30,2022	\$10.7
November 30,2022	\$10.9



Source: NHRS



NHRS

New Hampshire Retirement System

Independent Investment Committee's Quarterly Report to the Board January 10, 2023



NHRS

New Hampshire Retirement System

Discussion Topics

- Asset Allocation and Portfolio Structure
- Investment Performance
- Universe Comparisons
- Investment Expenses by Asset Class

Key Observations

NHRS Pension Plan

Asset Allocation and Portfolio Structure

- Overall, the Fund's asset allocation was close to the permissible Policy ranges at quarter-end. The Fund's allocation to defensive positions, including fixed income and cash, represented 21.0% of total assets. The fixed income allocation was below the policy range by 0.8%, balanced by a 1.8% allocation to cash equivalent instruments. Opportunities to rebalance the fixed income allocation back within the Investment Policy parameters should continue to be explored. The international equity component of the Fund is in the process of being rebalanced, per NHRS Staff's recommendations and the IIC's approval in November. The Fund had an overweight to domestic equity, real estate and alternatives, and underweight positions within non-U.S. equity and fixed income

Investment Performance

- The Fund had a gross return of -3.19% over the first quarter of Fiscal Year 2023, outperforming the market benchmark by 2.66% and ranking in the 22nd percentile of its peers. On a net-of-fees basis, the Fund returned -3.35%
 - The Alternative Assets, Non-U.S. Equity, U.S. Equity and Fixed Income portfolios had positive impacts on relative performance
 - By contrast, the Real Estate portfolio detracted from performance
- Overall, performance is competitive relative to both benchmarks over longer periods measured. The Fund outperformed the peer group median over the long term, ranking in the top 17% of peers in the trailing 10-year period, and in the top 37% of peers over the last 25 years
- The Fund exhibits attractive risk-adjusted performance, as measured by the Sharpe Ratio over the last five years. In addition, relative risk-adjusted scores, as measured by the Excess Return Ratio, are also strong. Both of these ratios ranked within the top 30% of peers

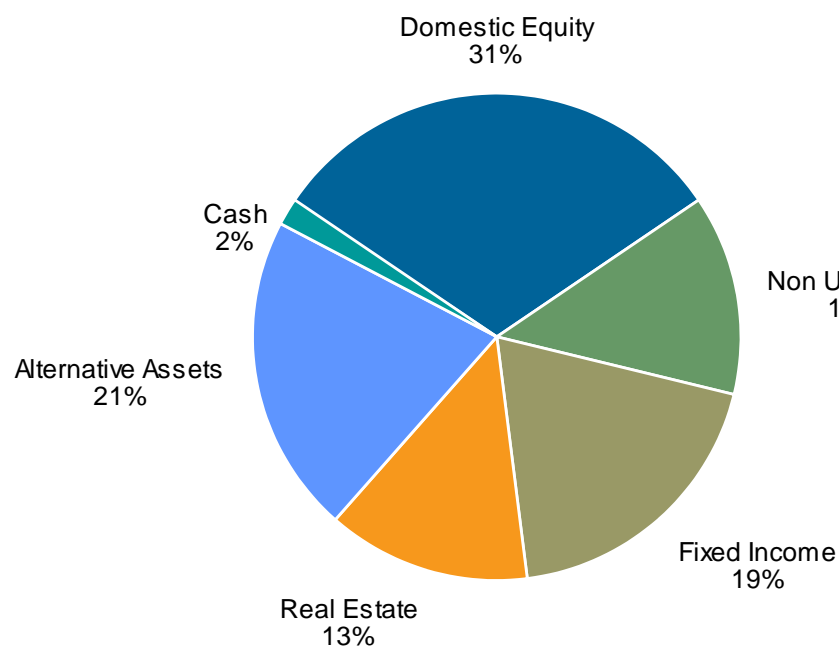
Other Developments

- NHRS Staff and Callan will work closely together to evaluate the Fund's strategic asset allocation and overall portfolio structure in 2023

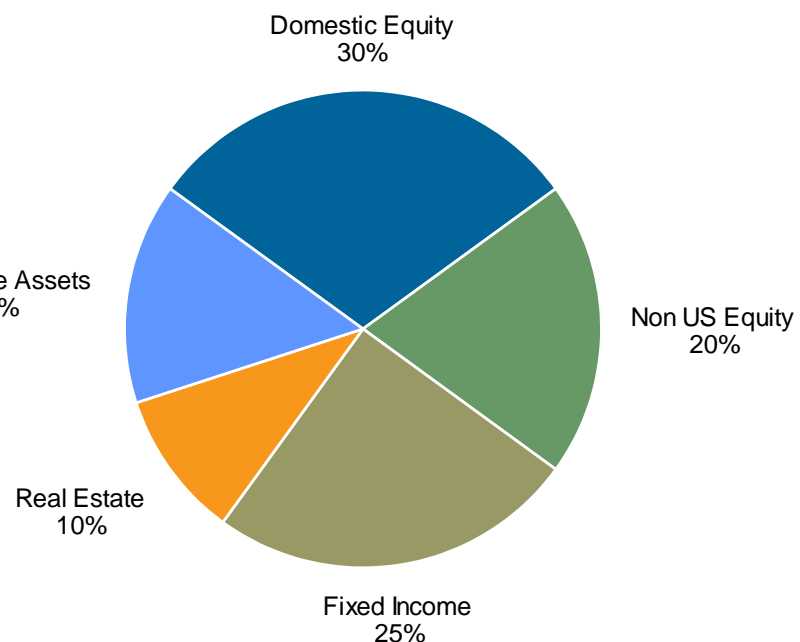
Total Fund

Actual Asset Allocation vs. Target, as of September 30, 2022

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$Millions Actual	Weight Actual	Target	Percent Difference	\$Millions Difference
Domestic Equity	3,194	31.1%	30.0%	1.1%	117
Non US Equity	1,364	13.3%	20.0%	(6.7%)	(687)
Fixed Income	1,965	19.2%	25.0%	(5.8%)	(599)
Real Estate	1,381	13.5%	10.0%	3.5%	355
Alternative Assets	2,172	21.2%	15.0%	6.2%	633
Cash	180	1.8%	0.0%	1.8%	180
Total	10,256	100.0%	100.0%		

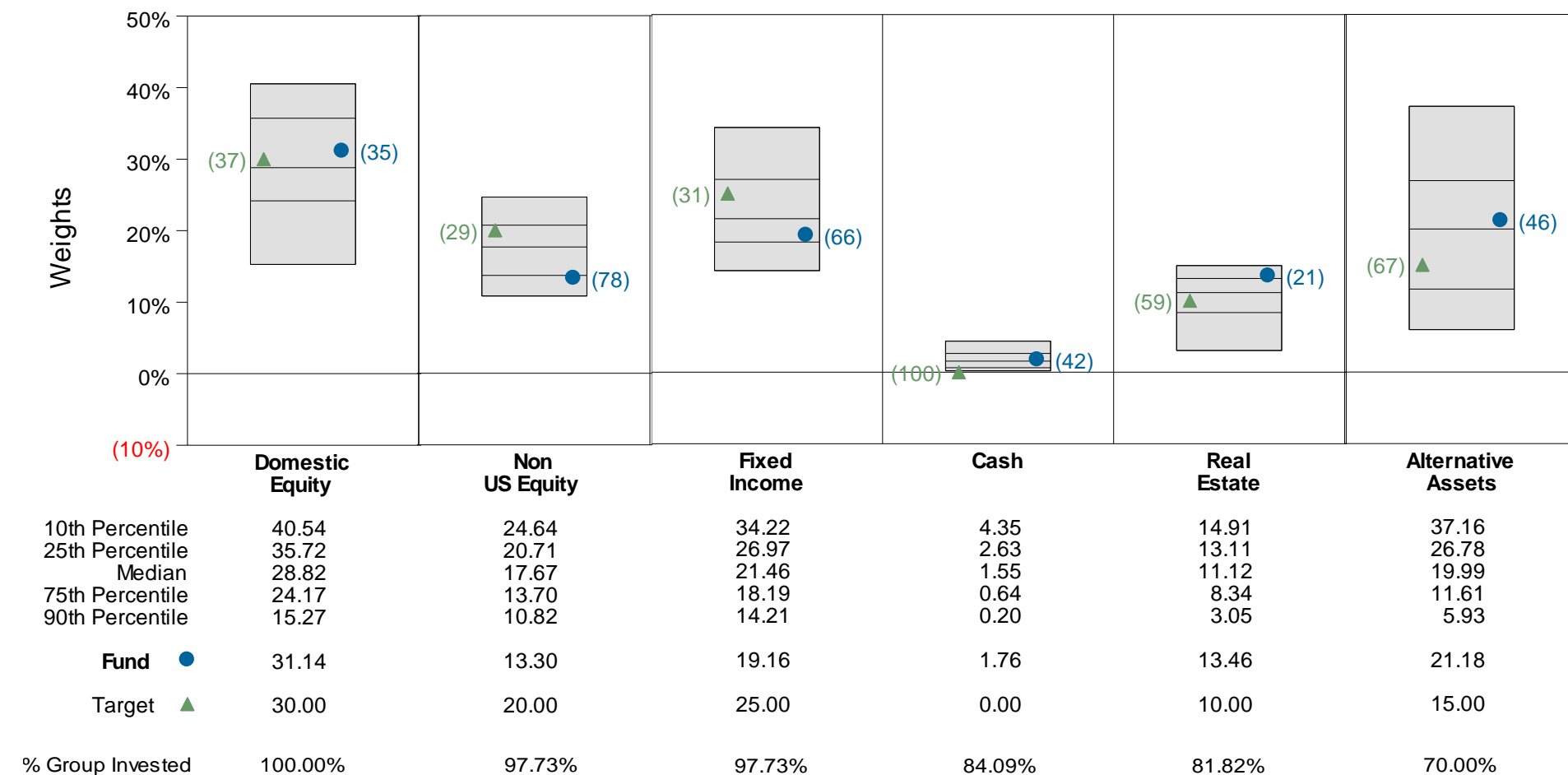
*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

**The United States equity portion of the Walter Scott Global Equity fund is allocated to the Domestic Equity composite.

Total Fund

Actual Asset Allocation vs. Large Public DB Plan (>\$1B) Peer Group, as of September 30, 2022

Asset Class Weights vs Callan

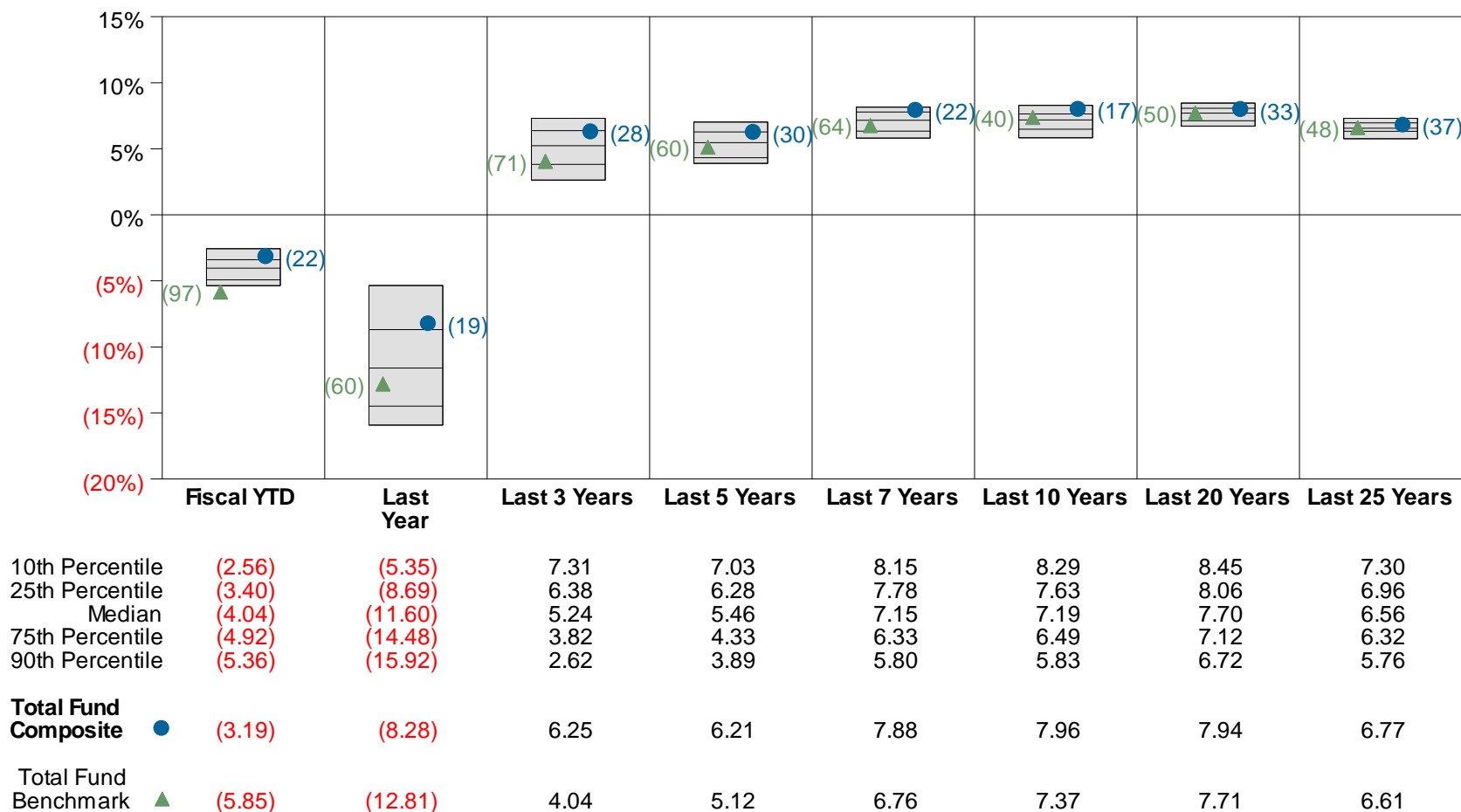


*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund Performance – Gross of Investment Management Fees

Performance vs. Large Public DB Plan (>\$1B) Peers, as of September 30, 2022

Performance vs Callan Public Fund Large DB (Gross)



Note: Investment results are shown gross of investment management fees versus corresponding peer group.

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

INVESTMENT EXPENSES BY ASSET CLASS

Investment activity fees and other related expenses:

For the Quarter and Fiscal Year to Date through 09/30/22 (in thousands)

	Assets Under Management	Fees (Quarter)	Fees (FYTD)
Equity Investments			
Domestic (U.S.)	\$ 3,193,831	\$ 2,455	\$ 2,455
Non-U.S.	\$ 1,364,485	\$ 2,507	\$ 2,507
Fixed Income Investments	\$ 1,965,043	\$ 1,455	\$ 1,455
Alternative Investments	\$ 2,171,902	-	-
Gross	-	\$ 3,886	\$ 3,886
Real Estate Investments	\$ 1,389,846	-	-
Gross	-	\$ 3,335	\$ 3,335
Cash	\$ 180,076	-	-
Subtotal Gross Investment Mgt Fees	-	\$ 13,638	\$ 13,638
Custodial Fees	-	\$ 149	\$ 149
Brokerage Fees	-	\$ 282	\$ 282
Investment Advisor Fees	-	\$ 163	\$ 163
Investment Professional Fees	-	\$ 91	\$ 91
Investment Staff Administrative Expense	-	\$ 241	\$ 241
Subtotal Investment Servicing Fees	-	\$ 926	\$ 926
TOTAL GROSS INVESTMENT EXPENSES	\$ 10,265,183	\$ 14,564	\$ 14,564

Notes:

1. Fees for both the Quarter and the Fiscal Year to Date shown here are reported on a cash basis. For most fees, there is a lag between the service provided and payment of the fee.
2. Gross fees are those paid in the quarter for partnership operating costs.
3. Annual audited GAAP accrual fee amounts are included in the Annual Comprehensive Financial Report (ACFR), audited by the external auditor Plante Moran, as well as in the Comprehensive Annual Investment Report (CAIR). Both reports are available at <https://www.nhrs.org/funding-and-investments/reports-valuations>.
4. NHRS requires a "most favored nation" clause in investment contracts that states that if another comparable public plan invests in a fund at a lower fee structure, NHRS' fees will also be adjusted downward.

DEFINITION OF ASSET CLASSES

Domestic Equity: The allocation to domestic equity serves to expose the fund to the largest economy of the world. An allocation to domestic equity should allow for return enhancement and principal appreciation.

Non-U.S. Equity: The allocation to non-U.S. equity, both developed and emerging markets, will serve as potential for return enhancement and principal appreciation. A secondary consideration is the diversification it provides from the U.S. market. While the U.S. and non-U.S. markets are considerably correlated, they are not perfectly correlated. Assets that are not perfectly correlated serve to reduce volatility over the long term.

Fixed Income: The investment in fixed income will serve to reduce volatility experienced in the equity markets, as well as offer an opportunity for return enhancement by investment in selected securities (for example, investment grade corporates and high yield).

A portion of the fixed income allocation is expected to be invested in Treasury or other government-related issues, which will serve to reduce risk within the portfolio.

Alternative Investments: Alternative investments are nontraditional investments, not covered by another investment class. In general, alternative investments are incorporated into the NHRS asset allocation to enhance the portfolio's risk-adjusted return (private equity/private debt) or to diversify volatility (opportunistic strategies). While the risk associated with these types of investments is higher than that of other asset classes, the expected return is also higher.

Real Estate: The investment in real estate will serve as an inflation hedge, return enhancement opportunity, income generator, and diversification source and will include investments within core, value-added, and opportunistic opportunities.

November 30, 2022



New Hampshire Retirement System

**Investment Measurement Service
Monthly Review**

The table below details the rates of return for the fund's asset classes over various time periods ended November 30, 2022. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Returns for Periods Ended November 30, 2022								
Composite	Total Fund Weighting As of 11/30/2022	Last Month	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Net of Fees								
Total Domestic Equity	31.06%	5.05%	9.65%	-13.00%	-9.15%	9.50%	9.18%	12.17%
Domestic Equity Benchmark(1)		5.22%	8.77%	-14.18%	-10.80%	9.61%	10.20%	13.04%
Excess Return		-0.17%	0.89%	1.18%	1.65%	-0.12%	-1.02%	-0.86%
Total Non US Equity	16.76%	10.62%	5.92%	-17.09%	-13.02%	0.82%	1.17%	4.17%
Non US Equity Benchmark(2)		11.80%	3.74%	-15.37%	-11.87%	1.75%	1.48%	4.23%
Excess Return		-1.18%	2.18%	-1.72%	-1.14%	-0.93%	-0.32%	-0.06%
Total Fixed Income	18.45%	3.59%	-1.23%	-11.92%	-11.69%	-0.92%	0.86%	1.79%
Bloomberg Capital Universe Bond Index		3.73%	-1.98%	-12.70%	-12.75%	-2.38%	0.34%	1.37%
Excess Return		-0.14%	0.75%	0.78%	1.06%	1.46%	0.52%	0.42%
Total Cash	1.48%	0.31%	1.07%	1.23%	1.23%	0.68%	1.27%	0.80%
3-Month Treasury Bill		0.32%	0.94%	1.09%	1.10%	0.65%	1.21%	0.73%
Excess Return		-0.01%	0.13%	0.14%	0.13%	0.04%	0.06%	0.07%
Total Real Estate (Q2)*	12.79%	0.05%	-0.33%	19.12%	29.21%	15.61%	12.78%	12.58%
Real Estate Benchmark(3)		0.10%	4.76%	20.83%	23.36%	11.47%	9.36%	10.05%
Excess Return		-0.05%	-5.08%	-1.71%	5.85%	4.14%	3.42%	2.52%
Total Private Equity (Q2)*	14.55%	0.05%	-0.02%	3.56%	9.06%	19.43%	16.67%	13.02%
Private Equity Benchmark(4)		-3.48%	-11.01%	-4.32%	-8.37%	15.83%	15.26%	17.04%
Excess Return		3.53%	10.99%	7.88%	17.44%	3.59%	1.41%	-4.02%
Total Private Debt (Q2)*	4.92%	0.02%	-0.01%	5.55%	8.54%	5.72%	5.62%	7.02%
Private Debt Benchmark(5)		-0.52%	-3.58%	-3.41%	-2.80%	1.80%	2.68%	8.04%
Excess Return		0.54%	3.57%	8.97%	11.34%	3.92%	2.94%	-1.02%
Total Fund Composite	100.00%	3.90%	3.53%	-7.00%	-3.26%	7.36%	6.84%	8.25%
Total Fund Benchmark(6)		4.50%	2.29%	-8.92%	-7.27%	5.96%	6.35%	8.22%
Excess Return		-0.60%	1.24%	1.92%	4.01%	1.40%	0.49%	0.03%

(1) The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021.

(2) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(3) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(4) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(5) The Private Debt Benchmark is (50% S&P LSTA Leveraged Loan 100 ldx + 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

(6) Current Month Target = 30.0% Russell 3000 Index, 25.0% Bloomberg Universal, 20.0% MSCI ACWI ex-US, 10.0% NCREIF NFI-ODCE Value Weight Net lagged 3 months, 10.0% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg High Yield Corp lagged 3 months+1.0% and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months +1.0%.

*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

The table below details the rates of return for the fund's investment managers over various time periods ended November 30, 2022. Negative manager excess returns are shown in **red**, positive excess returns in **green**. Returns for one year or greater are annualized.

Returns for Periods Ended November 30, 2022								
Composite	Total Fund Weighting As of 11/30/2022	Last Month	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Net of Fees								
Total Domestic Equity	31.06%	5.05%	9.65%	-13.00%	-9.15%	9.50%	9.18%	12.17%
Domestic Equity Benchmark(1)		5.22%	8.77%	-14.18%	-10.80%	9.61%	10.20%	13.04%
Excess Return		-0.17%	0.89%	1.18%	1.65%	-0.12%	-1.02%	-0.86%
Large Cap Domestic Equity	18.13%	5.58%	8.55%	-13.10%	-9.21%	9.64%	9.67%	12.54%
S&P 500 Index		5.59%	8.56%	-13.10%	-9.21%	10.91%	10.98%	13.34%
Excess Return		-0.01%	-0.01%	0.00%	0.00%	-1.27%	-1.30%	-0.79%
BlackRock S&P 500	18.13%	5.58%	8.55%	-13.10%	-9.21%	10.87%	10.95%	13.31%
S&P 500 Index		5.59%	8.56%	-13.10%	-9.21%	10.91%	10.98%	13.34%
Excess Return		-0.01%	-0.01%	0.00%	0.00%	-0.04%	-0.03%	-0.02%
Smid Cap Domestic Equity	5.62%	4.20%	9.53%	-14.27%	-10.47%	8.52%	7.17%	10.95%
Russell 2500 Index		4.22%	11.00%	-13.21%	-10.36%	7.92%	7.27%	10.99%
Excess Return		-0.02%	-1.48%	-1.07%	-0.11%	0.60%	-0.09%	-0.04%
AllianceBernstein	3.45%	3.95%	9.99%	-20.43%	-17.62%	8.49%	7.69%	11.42%
Russell 2500 Index		4.22%	11.00%	-13.21%	-10.36%	7.92%	7.27%	10.99%
Excess Return		-0.27%	-1.02%	-7.23%	-7.26%	0.57%	0.43%	0.43%
TSW	2.17%	4.61%	8.80%	-2.26%	3.83%	8.57%	6.35%	10.17%
TSW Blended Benchmark (2)		5.02%	10.88%	-7.59%	-2.78%	8.46%	7.41%	11.06%
Excess Return		-0.41%	-2.08%	5.34%	6.61%	0.11%	-1.06%	-0.89%
Small Cap Domestic Equity	7.31%	4.38%	12.60%	-11.75%	-7.96%	10.15%	9.45%	12.28%
Russell 2000 Index		2.34%	11.12%	-14.91%	-13.01%	6.44%	5.45%	10.13%
Excess Return		2.05%	1.48%	3.16%	5.05%	3.72%	4.00%	2.15%
Boston Trust	2.00%	3.64%	12.59%	-4.08%	1.32%	11.54%	10.79%	11.94%
Russell 2000 Index		2.34%	11.12%	-14.91%	-13.01%	6.44%	5.45%	10.13%
Excess Return		1.30%	1.47%	10.83%	14.33%	5.10%	5.34%	1.81%
Segall Bryant & Hamill	2.02%	6.04%	14.86%	-9.47%	-4.99%	11.55%	10.55%	11.88%
Russell 2000 Index		2.34%	11.12%	-14.91%	-13.01%	6.44%	5.45%	10.13%
Excess Return		3.70%	3.74%	5.44%	8.03%	5.12%	5.10%	1.75%
Wellington	3.28%	3.84%	11.25%	-17.10%	-14.41%	8.54%	8.12%	12.70%
Russell 2000 Index		2.34%	11.12%	-14.91%	-13.01%	6.44%	5.45%	10.13%
Excess Return		1.50%	0.13%	-2.18%	-1.40%	2.10%	2.67%	2.57%

(1) The Domestic Equity Benchmark is the Russell 3000 Index as of 7/1/2021.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

The table below details the rates of return for the fund's investment managers over various time periods ended November 30, 2022. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Returns for Periods Ended November 30, 2022								
Composite	Total Fund Weighting As of 11/30/2022	Last Month	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Net of Fees								
Total Non US Equity	16.76%	10.62%	5.92%	-17.09%	-13.02%	0.82%	1.17%	4.17%
Non US Equity Benchmark (1)		11.80%	3.74%	-15.37%	-11.87%	1.75%	1.48%	4.23%
Excess Return		-1.18%	2.18%	-1.72%	-1.14%	-0.93%	-0.32%	-0.06%
Core Non US Equity	8.62%	10.02%	7.09%	-14.65%	-9.43%	0.66%	0.86%	3.63%
Core Non US Benchmark (2)		11.80%	3.74%	-15.37%	-11.87%	1.75%	1.48%	4.23%
Excess Return		-1.79%	3.35%	0.72%	2.44%	-1.09%	-0.62%	-0.61%
Aristotle	1.34%	10.14%	6.39%	-19.52%	-15.08%	-	-	-
MSCI EAFE		11.26%	6.28%	-14.52%	-10.14%	-	-	-
Excess Return		-1.12%	0.11%	-4.99%	-4.93%	-	-	-
Artisan Partners	2.97%	9.10%	8.61%	-17.68%	-12.88%	-0.25%	2.39%	-
MSCI EAFE		11.26%	6.28%	-14.52%	-10.14%	1.92%	1.85%	-
Excess Return		-2.16%	2.34%	-3.16%	-2.74%	-2.17%	0.55%	-
Causeway Capital	3.02%	11.67%	7.08%	-8.37%	-1.51%	3.63%	1.45%	-
MSCI EAFE		11.26%	6.28%	-14.52%	-10.14%	1.92%	1.85%	-
Excess Return		0.41%	0.80%	6.15%	8.64%	1.71%	-0.40%	-
Lazard	1.28%	8.25%	4.52%	-15.72%	-11.92%	-	-	-
MSCI EAFE		11.26%	6.28%	-14.52%	-10.14%	-	-	-
Excess Return		-3.02%	-1.76%	-1.20%	-1.77%	-	-	-
Emerging Markets	2.93%	14.92%	0.75%	-20.61%	-19.48%	-3.18%	-2.97%	1.09%
MSCI EM		14.83%	-1.61%	-18.95%	-17.43%	0.14%	-0.41%	2.07%
Excess Return		0.09%	2.36%	-1.66%	-2.05%	-3.32%	-2.56%	-0.98%
Neuberger Berman	1.51%	15.64%	0.00%	-21.47%	-20.16%	-3.60%	-3.36%	-
MSCI EM		14.83%	-1.61%	-18.95%	-17.43%	0.14%	-0.41%	-
Excess Return		0.81%	1.61%	-2.52%	-2.72%	-3.74%	-2.94%	-
Wellington Emerging Markets	1.43%	14.18%	1.56%	-19.69%	-18.76%	-2.72%	-2.69%	2.63%
MSCI EM		14.83%	-1.61%	-18.95%	-17.43%	0.14%	-0.41%	2.07%
Excess Return		-0.65%	3.17%	-0.73%	-1.33%	-2.86%	-2.27%	0.56%
Non US Small Cap	1.05%	9.67%	6.45%	-23.94%	-21.72%	-5.81%	-6.19%	1.24%
MSCI EAFE Small Cap		9.91%	3.30%	-22.22%	-18.83%	0.13%	0.27%	6.53%
Excess Return		-0.25%	3.15%	-1.72%	-2.89%	-5.95%	-6.46%	-5.28%
Wellington Int'l Small Cap Research	1.05%	9.67%	6.45%	-23.94%	-21.72%	-	-	-
MSCI EAFE Small Cap		9.91%	3.30%	-22.22%	-18.83%	-	-	-
Excess Return		-0.25%	3.15%	-1.72%	-2.89%	-	-	-
Global Equity	4.15%	9.22%	7.24%	-17.51%	-12.96%	6.54%	8.81%	10.48%
MSCI ACWI net		7.76%	6.47%	-15.02%	-11.62%	6.63%	6.42%	8.66%
Excess Return		1.46%	0.78%	-2.49%	-1.34%	-0.09%	2.40%	1.82%
Walter Scott Global Equity	4.15%	9.22%	7.24%	-17.51%	-12.96%	6.54%	8.81%	10.48%
Walter Scott Blended Benchmark (3)		7.76%	6.47%	-15.02%	-11.62%	6.63%	6.42%	8.66%
Excess Return		1.46%	0.78%	-2.49%	-1.34%	-0.09%	2.40%	1.82%

(1) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(2) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(3) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index.

The table below details the rates of return for the fund's investment managers over various time periods ended November 30, 2022. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Returns for Periods Ended November 30, 2022								
Composite	Total Fund Weighting As of 11/30/2022	Last Month	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Net of Fees								
Total Fixed Income	18.45%	3.59%	-1.23%	-11.92%	-11.69%	-0.92%	0.86%	1.79%
<i>Fixed Income Benchmark (1)</i>		3.73%	-1.98%	-12.70%	-12.75%	-2.38%	0.34%	1.37%
<i>Excess Return</i>		-0.14%	0.75%	0.78%	1.06%	1.46%	0.52%	0.42%
BlackRock SIO Bond Fund	2.25%	1.70%	-0.20%	-6.36%	-5.96%	0.85%	-	-
<i>BlackRock Custom Benchmark (2)</i>		0.31%	1.12%	1.31%	1.32%	0.79%	-	-
<i>Excess Return</i>		1.39%	-1.33%	-7.67%	-7.28%	0.06%	-	-
Brandywine Asset Mgmt	1.99%	7.46%	-3.97%	-17.31%	-16.69%	-3.06%	-1.61%	0.41%
<i>Brandywine Custom Benchmark (3)</i>		4.65%	-3.87%	-18.19%	-18.71%	-5.64%	-2.50%	-1.31%
<i>Excess Return</i>		2.81%	-0.09%	0.88%	2.01%	2.57%	0.88%	1.72%
FIAM (Fidelity) Tactical Bond	3.21%	3.60%	0.44%	-10.46%	-10.13%	-0.01%	-	-
<i>Bloomberg Aggregate</i>		3.68%	-2.53%	-12.62%	-12.84%	-2.59%	-	-
<i>Excess Return</i>		-0.08%	2.97%	2.16%	2.70%	2.58%	-	-
Income Research & Management	6.78%	3.50%	-2.51%	-13.40%	-13.80%	-2.05%	0.72%	1.55%
<i>Bloomberg Gov/Credit</i>		3.57%	-2.38%	-13.16%	-13.44%	-2.48%	0.41%	1.18%
<i>Excess Return</i>		-0.06%	-0.13%	-0.24%	-0.36%	0.43%	0.31%	0.37%
Loomis Sayles	2.40%	3.03%	0.06%	-11.44%	-10.63%	0.96%	2.33%	3.27%
<i>Loomis Sayles Custom Benchmark (4)</i>		3.15%	-0.21%	-11.87%	-11.43%	-1.27%	1.08%	2.24%
<i>Excess Return</i>		-0.12%	0.27%	0.43%	0.80%	2.24%	1.25%	1.03%
Manulife Strategic Fixed Income	1.82%	2.96%	0.91%	-9.58%	-8.47%	-0.53%	1.07%	-
<i>Bloomberg Multiverse</i>		4.72%	-2.91%	-16.48%	-16.51%	-4.33%	-1.61%	-
<i>Excess Return</i>		-1.75%	3.82%	6.89%	8.04%	3.80%	2.67%	-
Total Cash	1.48%	0.31%	1.07%	1.23%	1.23%	0.68%	1.27%	0.80%
<i>3-month Treasury Bill</i>		0.32%	0.94%	1.09%	1.10%	0.65%	1.21%	0.73%
<i>Excess Return</i>		-0.01%	0.13%	0.14%	0.13%	0.04%	0.06%	0.07%
Total Marketable Assets	67.74%	5.84%	5.39%	-13.50%	-10.65%	4.12%	4.56%	7.05%
<i>Total Marketable Index (5)</i>		6.48%	3.95%	-13.72%	-11.43%	3.78%	4.84%	7.23%
<i>Excess Return</i>		-0.64%	1.43%	0.23%	0.78%	0.34%	-0.28%	-0.18%

(1) The Fixed Income Benchmark is the Bloomberg Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

The table below details the rates of return for the fund's investment managers over various time periods ended November 30, 2022. Negative manager excess returns are shown in red, positive excess returns in green. Returns for one year or greater are annualized.

Returns for Periods Ended November 30, 2022								
Composite	Total Fund Weighting As of 11/30/2022	Last Month	FYTD	CYTD	LTM	3-YR	5-YR	10-YR
Net of Fees								
Total Real Estate (Q2)* (5)	12.79%	0.05%	-0.33%	19.12%	29.21%	15.61%	12.78%	12.58%
Real Estate Benchmark (1)		0.10%	4.76%	20.83%	23.36%	11.47%	9.36%	10.05%
Excess Return		-0.05%	-5.08%	-1.71%	5.85%	4.14%	3.42%	2.52%
Strategic Core Real Estate (Q2)*	8.62%	-0.06%	-0.12%	23.66%	32.91%	14.45%	12.19%	11.68%
Real Estate Benchmark (1)		0.10%	4.76%	20.83%	23.36%	11.47%	9.36%	10.05%
Excess Return		-0.16%	-4.88%	2.83%	9.56%	2.97%	2.83%	1.62%
Tactical Non-Core Real Estate (Q2)*	4.17%	0.28%	-0.73%	11.11%	22.54%	17.57%	13.81%	14.08%
Real Estate Benchmark (1)		0.10%	4.76%	20.83%	23.36%	11.47%	9.36%	10.05%
Excess Return		0.17%	-5.49%	-9.72%	-0.82%	6.10%	4.45%	4.03%
Total Alternative Assets (Q2)*	19.47%	0.04%	-0.02%	4.05%	8.93%	15.16%	12.49%	10.02%
Alternative Assets Benchmark (2)		-2.50%	-8.55%	-3.88%	-6.44%	11.00%	10.26%	12.70%
Excess Return		2.54%	8.53%	7.93%	15.36%	4.15%	2.23%	-2.67%
Total Private Equity (Q2)*	14.55%	0.05%	-0.02%	3.56%	9.06%	19.43%	16.67%	13.02%
Private Equity Benchmark (3)		-3.48%	-11.01%	-4.32%	-8.37%	15.83%	15.26%	17.04%
Excess Return		3.53%	10.99%	7.88%	17.44%	3.59%	1.41%	-4.02%
Total Private Debt (Q2)*	4.92%	0.02%	-0.01%	5.55%	8.54%	5.72%	5.62%	7.02%
Private Debt Benchmark (4)		-0.52%	-3.58%	-3.41%	-2.80%	1.80%	2.68%	8.04%
Excess Return		0.54%	3.57%	8.97%	11.34%	3.92%	2.94%	-1.02%

(1) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(2) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 2% lagged 1 quarter and 33.3% ((50% S&P LSTA Leveraged Loan 100 Index + 50% Bloomberg High Yield Index) + 1%) lagged 1 quarter as of 7/1/2022.

(3) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(4) The Private Debt Benchmark is (50% S&P LSTA Leveraged Loan 100 Index / 50% Bloomberg High Yield Index) + 1% lagged 1 quarter as of 7/1/2022.

(5) Total Real Estate returns includes Townsend discretionary fee as of 7/1/2022.

*Real Estate and Alternatives market values reflect current custodian valuations, which are typically lagged approximately 1 quarter.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of November 30, 2022, with the distribution as of October 31, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	November 30, 2022				October 31, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Domestic Equity	\$3,400,050,759	31.06%	\$0	\$164,040,212	\$3,236,010,546	30.64%
Large Cap Domestic Equity	\$1,984,943,834	18.13%	\$0	\$104,955,527	\$1,879,988,307	17.80%
Blackrock S&P 500	1,984,943,834	18.13%	0	104,955,527	1,879,988,307	17.80%
SMid Cap Domestic Equity	\$615,350,150	5.62%	\$0	\$25,087,016	\$590,263,135	5.59%
AllianceBernstein	377,597,228	3.45%	0	14,501,864	363,095,364	3.44%
TSW	237,752,922	2.17%	0	10,585,151	227,167,771	2.15%
Small Cap Domestic Equity	\$799,756,774	7.31%	\$0	\$33,997,670	\$765,759,104	7.25%
Boston Trust	219,130,265	2.00%	0	7,772,535	211,357,730	2.00%
Segall Bryant & Hamill	221,521,622	2.02%	0	12,750,181	208,771,441	1.98%
Wellington	359,104,887	3.28%	0	13,474,954	345,629,933	3.27%
Total Non US Equity	\$1,834,390,198	16.76%	\$0	\$176,919,470	\$1,657,470,728	15.69%
Core Non US Equity	\$943,754,942	8.62%	\$0	\$86,291,098	\$857,463,845	8.12%
Aristotle	147,218,965	1.34%	0	13,600,325	133,618,640	1.27%
Artisan Partners	325,400,366	2.97%	0	27,289,461	298,110,905	2.82%
Causeway Capital	330,346,888	3.02%	0	34,650,222	295,696,667	2.80%
Legacy Assets (1)	680,645	0.01%	0	27,352	653,294	0.01%
Lazard	140,108,078	1.28%	0	10,723,738	129,384,340	1.22%
Emerging Markets	\$321,185,588	2.93%	\$0	\$41,907,059	\$279,278,529	2.64%
Neuberger Berman	164,855,710	1.51%	0	22,386,007	142,469,703	1.35%
Wellington Emerging Markets	156,329,878	1.43%	0	19,521,052	136,808,826	1.30%
Non US Small Cap	\$115,256,024	1.05%	\$0	\$10,222,424	\$105,033,600	0.99%
Wellington Int'l Small Cap Research	115,256,024	1.05%	0	10,222,424	105,033,600	0.99%
Global Equity	\$454,193,644	4.15%	\$0	\$38,498,890	\$415,694,754	3.94%
Walter Scott Global Equity	454,193,644	4.15%	0	38,498,890	415,694,754	3.94%
Total Fixed Income	\$2,019,886,587	18.45%	\$0	\$70,438,963	\$1,949,447,624	18.46%
BlackRock SIO Bond Fund	246,229,982	2.25%	0	4,212,326	242,017,656	2.29%
Brandywine Asset Mgmt	217,326,967	1.99%	0	15,139,825	202,187,143	1.91%
FIAM (Fidelity) Tactical Bond	351,098,848	3.21%	0	12,279,688	338,819,160	3.21%
Income Research & Management	742,670,554	6.78%	0	25,225,076	717,445,478	6.79%
Loomis Sayles	262,802,664	2.40%	0	7,791,973	255,010,691	2.41%
Manulife Strategic Fixed Income	199,757,571	1.82%	0	5,790,075	193,967,497	1.84%
Total Cash	\$161,512,212	1.48%	\$(25,288,669)	\$544,740	\$186,256,140	1.76%
Total Marketable Assets	\$7,415,839,755	67.74%	\$(25,288,669)	\$411,943,385	\$7,029,185,039	66.55%
Total Real Estate	\$1,400,481,890	12.79%	\$(89,518)	\$1,268,465	\$1,399,302,943	13.25%
Strategic Core Real Estate	943,463,020	8.62%	(558,758)	1,477	944,020,301	8.94%
Tactical Non-Core Real Estate	457,018,870	4.17%	469,240	1,266,989	455,282,642	4.31%
Total Alternative Assets	\$2,131,333,527	19.47%	\$(3,503,366)	\$853,526	\$2,133,983,366	20.20%
Private Equity	1,592,906,092	14.55%	(4,989,639)	722,647	1,597,173,085	15.12%
Private Debt	538,427,435	4.92%	1,486,273	130,880	536,810,282	5.08%
Total Fund Composite	\$10,947,655,172	100.0%	\$(28,880,092)	\$414,063,916	\$10,562,471,348	100.0%

-Alternatives market values reflect current custodian valuations, which may not be up to date.

(1) Fisher Investments was terminated and the legacy assets are not actively managed and in liquidation.

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December 13, 2022

**New Hampshire Retirement
System – Defined Benefit Plan**

Third Quarter 2022

Executive Summary

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Equity and Fixed Income Markets Both Fell Again in 3Q22

Global equity markets down sharply in each quarter, starting with Russian invasion

- Similar impact year-to-date across all equity market segments

Fixed income down with sharply higher inflation and interest rates

- Bloomberg Aggregate: -14.6% year-to-date, worst 9 months on record for the index
- CPI-U: +8.2% for the year ended 3Q22; however, inflationary pressures have come down after 3Q22 – CPI-U +7.7% yoy through October 2022

Number of times stocks and bonds have been down together

- 38 quarters in almost 100 years, about 10% of the quarters
- But just twice on annual basis

Economic data show mixed signals and potential challenges ahead

- GDP rose 2.6% in 3Q22 after falling in both 2Q22 and 1Q22; expect another loss in 4Q
- Forecasters have cut growth estimates for 2022 to below 0%, and to 1.5% for 2023.

Returns for Periods ended 9/30/22

	1 Quarter	Year to Date	1 Year	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	-4.46	-24.62	-17.63	8.62	11.39	7.48
S&P 500	-4.88	-23.87	-15.47	9.24	11.70	7.45
Russell 2000	-2.19	-25.10	-23.50	3.55	8.55	6.73
Global ex-U.S. Equity						
MSCI World ex USA	-9.20	-26.23	-23.91	-0.39	3.62	3.69
MSCI Emerging Markets	-11.57	-27.16	-28.11	-1.80	1.05	--
MSCI ACWI ex USA Small Cap	-8.37	-29.37	-28.93	-0.56	4.44	5.64
Fixed Income						
Bloomberg Aggregate	-4.75	-14.61	-14.60	-0.27	0.89	4.02
90-day T-Bill	0.46	0.61	0.62	1.15	0.68	1.92
Bloomberg Long Gov/Credit	-9.03	-28.94	-27.41	-1.17	1.35	5.51
Bloomberg Global Agg ex-US	-8.85	-23.88	-24.77	-4.03	-2.39	2.42
Real Estate						
NCREIF Property	0.57	9.35	16.08	8.62	9.48	9.40
FTSE Nareit Equity	-9.94	-28.13	-16.41	2.93	6.26	7.73
Alternatives						
CS Hedge Fund Index	0.35	0.14	1.08	4.53	4.35	5.87
Cambridge Private Equity*	-5.82	-2.11	3.48	19.28	16.55	15.00
Bloomberg Commodity	-4.11	13.57	11.80	6.96	-2.14	1.47
Gold Spot Price	-7.49	-8.56	-4.84	5.41	-0.59	6.62
Inflation - CPI-U	0.17	6.46	8.20	3.76	2.52	2.47

*Cambridge PE data through 06/30/22.

Sources: Bloomberg, Callan, Cambridge, Credit Suisse, FTSE Russell, MSCI, NCREIF, S&P Dow Jones Indices

Key Observations

NHRS Pension Plan

Asset Allocation and Portfolio Structure

- Overall, the Fund's asset allocation was close to the permissible Policy ranges at quarter-end. The Fund's allocation to defensive positions, including fixed income and cash, represented 21.0% of total assets. The fixed income allocation was below the policy range by 0.8%, balanced by a 1.8% allocation to cash equivalent instruments. Opportunities to rebalance the fixed income allocation back within the Investment Policy parameters should continue to be explored. The international equity component of the Fund is in the process of being rebalanced, per NHRS Staff's recommendations and the IIC's approval in November. The Fund had an overweight to domestic equity, real estate and alternatives, and underweight positions within non-U.S. equity and fixed income

Investment Performance

- The Fund had a gross return of -3.19% over the first quarter of Fiscal Year 2023, outperforming the market benchmark by 2.66% and ranking in the 22nd percentile of its peers. On a net-of-fees basis, the Fund returned -3.35%
 - The Alternative Assets, Non-U.S. Equity, U.S. Equity and Fixed Income portfolios had positive impacts on relative performance
 - By contrast, the Real Estate portfolio detracted from performance
- Overall, performance is competitive relative to both benchmarks over longer periods measured. The Fund outperformed the peer group median over the long term, ranking in the top 17% of peers in the trailing 10-year period, and in the top 37% of peers over the last 25 years
- The Fund exhibits attractive risk-adjusted performance, as measured by the Sharpe Ratio over the last five years. In addition, relative risk-adjusted scores, as measured by the Excess Return Ratio, are also strong. Both of these ratios ranked within the top 30% of peers

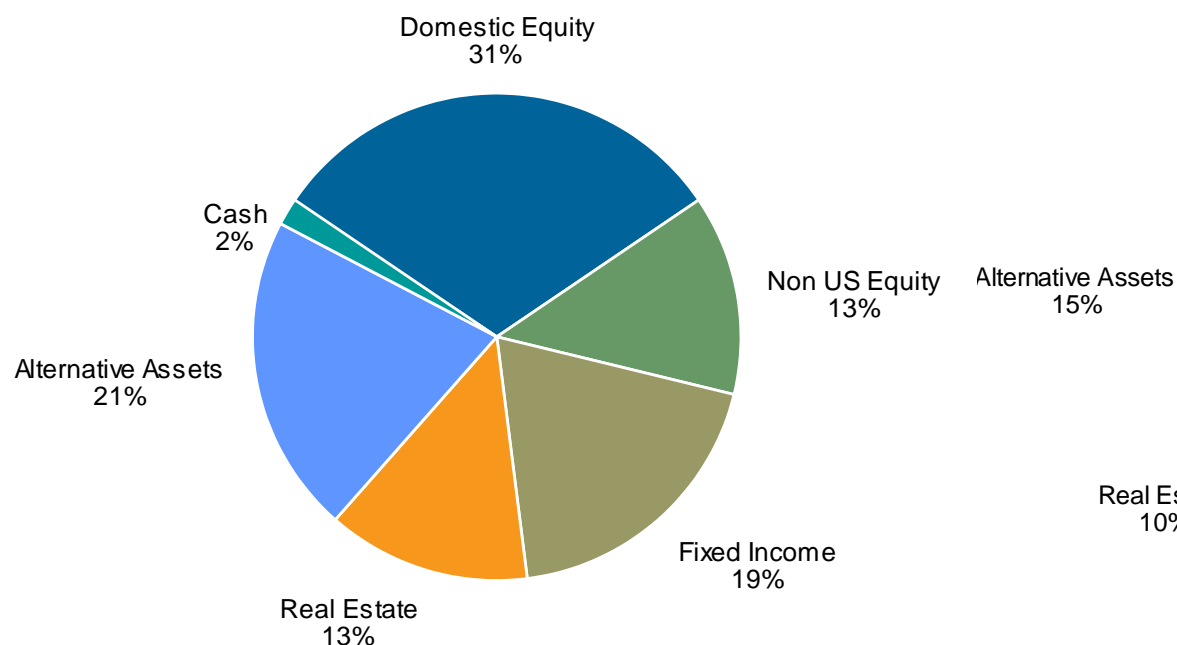
Other Developments

- NHRS Staff and Callan will work closely together to evaluate the Fund's strategic asset allocation and overall portfolio structure in 2023

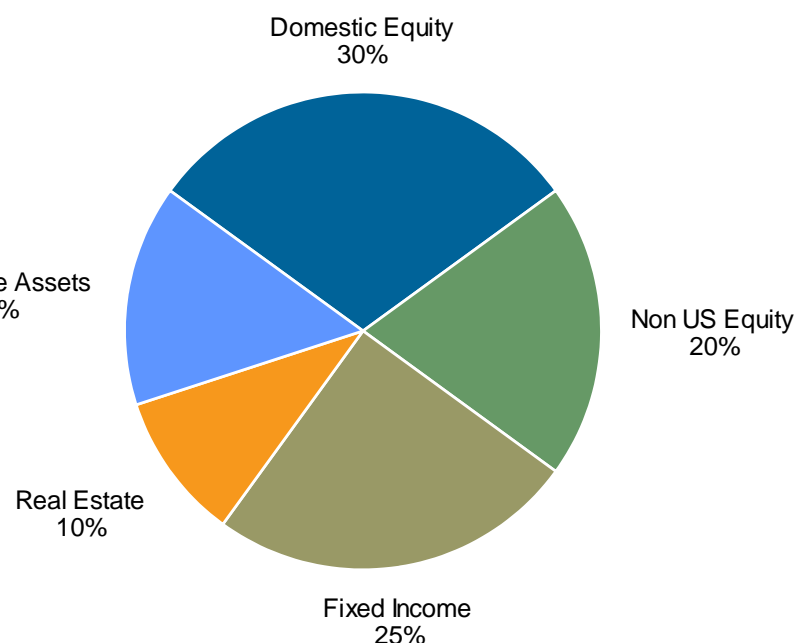
Total Fund

Actual Asset Allocation vs. Target, as of September 30, 2022

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$Millions Actual	Weight Actual	Target	Percent Difference	\$Millions Difference
Domestic Equity	3,194	31.1%	30.0%	1.1%	117
Non US Equity	1,364	13.3%	20.0%	(6.7%)	(687)
Fixed Income	1,965	19.2%	25.0%	(5.8%)	(599)
Real Estate	1,381	13.5%	10.0%	3.5%	355
Alternative Assets	2,172	21.2%	15.0%	6.2%	633
Cash	180	1.8%	0.0%	1.8%	180
Total	10,256	100.0%	100.0%		

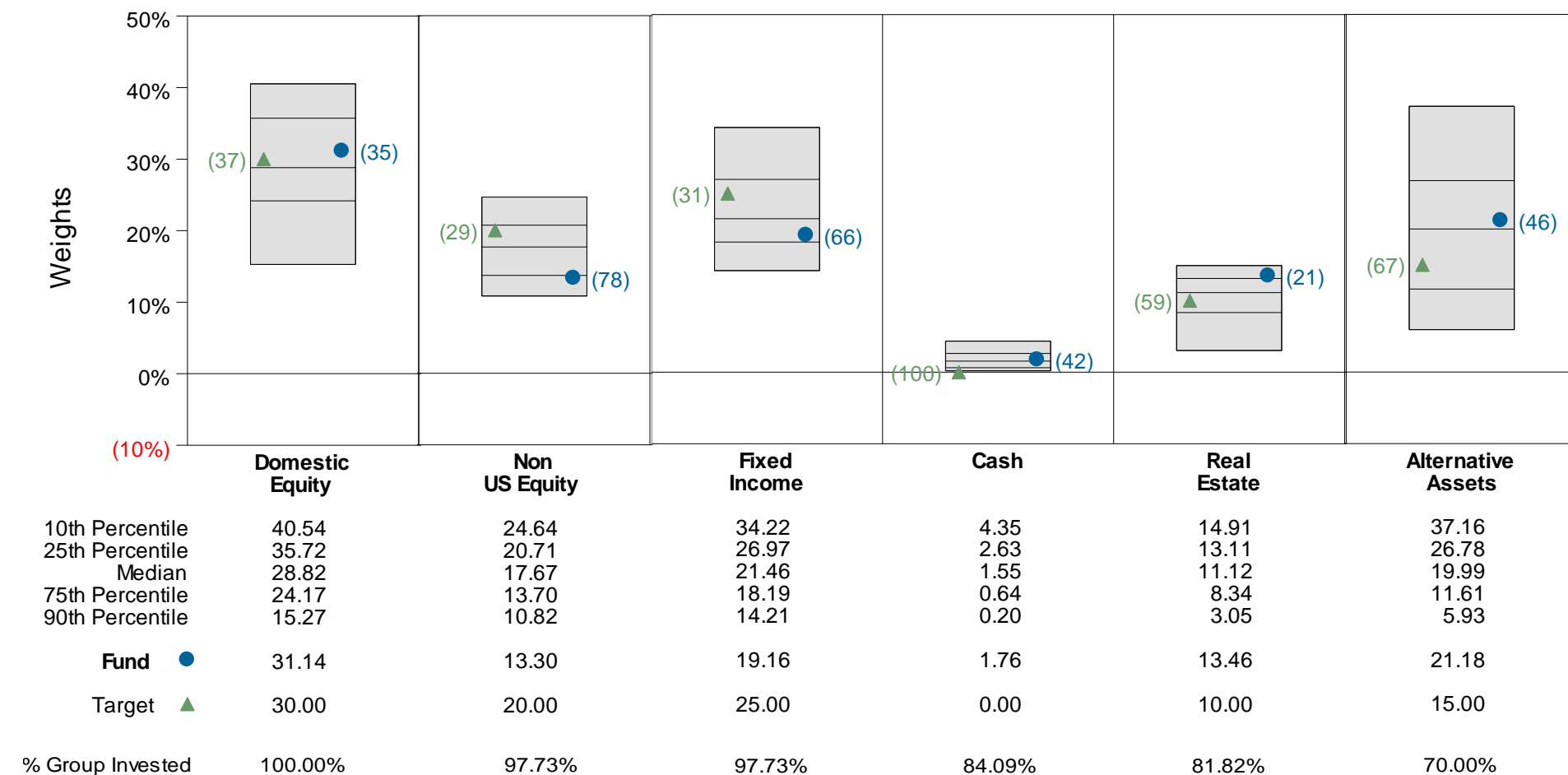
*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

**The United States equity portion of the Walter Scott Global Equity fund is allocated to the Domestic Equity composite.

Total Fund

Actual Asset Allocation vs. Large Public DB Plan (>\$1B) Peer Group, as of September 30, 2022

Asset Class Weights vs Callan



*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund

Market Values

	September 30, 2022				June 30, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Domestic Equity	\$2,973,904,477	29.00%	\$0	\$(123,382,790)	\$3,097,287,267	29.08%
Large Cap Domestic Equity	\$1,739,246,722	16.96%	\$0	\$(89,196,881)	\$1,828,443,602	17.17%
Blackrock S&P 500	1,739,246,722	16.96%	0	(89,196,881)	1,828,443,602	17.17%
SMid Cap Domestic Equity	\$539,696,085	5.26%	\$0	\$(20,857,671)	\$560,553,757	5.26%
AllianceBernstein	334,316,679	3.26%	0	(8,229,248)	342,545,927	3.22%
TSW	205,379,406	2.00%	0	(12,628,423)	218,007,829	2.05%
Small Cap Domestic Equity	\$694,961,670	6.78%	\$0	\$(13,328,238)	\$708,289,908	6.65%
Boston Trust	187,408,409	1.83%	0	(6,831,984)	194,240,393	1.82%
Segall Bryant & Hamill	190,562,685	1.86%	0	(1,665,444)	192,228,128	1.80%
Wellington	316,990,576	3.09%	0	(4,830,810)	321,821,387	3.02%
Total Non US Equity	\$1,584,412,266	15.45%	\$(57,324)	\$(142,903,613)	\$1,727,373,203	16.22%
Core Non US Equity	\$801,476,046	7.81%	\$(57,324)	\$(77,748,487)	\$879,281,857	8.26%
Artisan Partners	275,670,083	2.69%	0	(23,141,680)	298,811,763	2.81%
Causeway Capital	276,364,605	2.69%	0	(31,468,009)	307,832,614	2.89%
Lazard	121,245,335	1.18%	0	(12,526,163)	133,771,498	1.26%
Aristotle	127,548,929	1.24%	0	(10,568,660)	138,117,589	1.30%
Fisher Investments	647,094	0.01%	(57,324)	(43,975)	748,393	0.01%
Emerging Markets	\$290,475,865	2.83%	\$0	\$(27,088,703)	\$317,564,568	2.98%
Neuberger Berman	147,655,060	1.44%	0	(16,617,523)	164,272,583	1.54%
Wellington Emerging Markets	142,820,804	1.39%	0	(10,471,181)	153,291,985	1.44%
Non US Small Cap	\$99,592,548	0.97%	\$0	\$(8,348,717)	\$107,941,265	1.01%
Wellington Int'l Small Cap Research	99,592,548	0.97%	0	(8,348,717)	107,941,265	1.01%
Global Equity	\$392,867,807	3.83%	\$0	\$(29,717,705)	\$422,585,513	3.97%
Walter Scott Global Equity	392,867,807	3.83%	0	(29,717,705)	422,585,513	3.97%

Total Fund

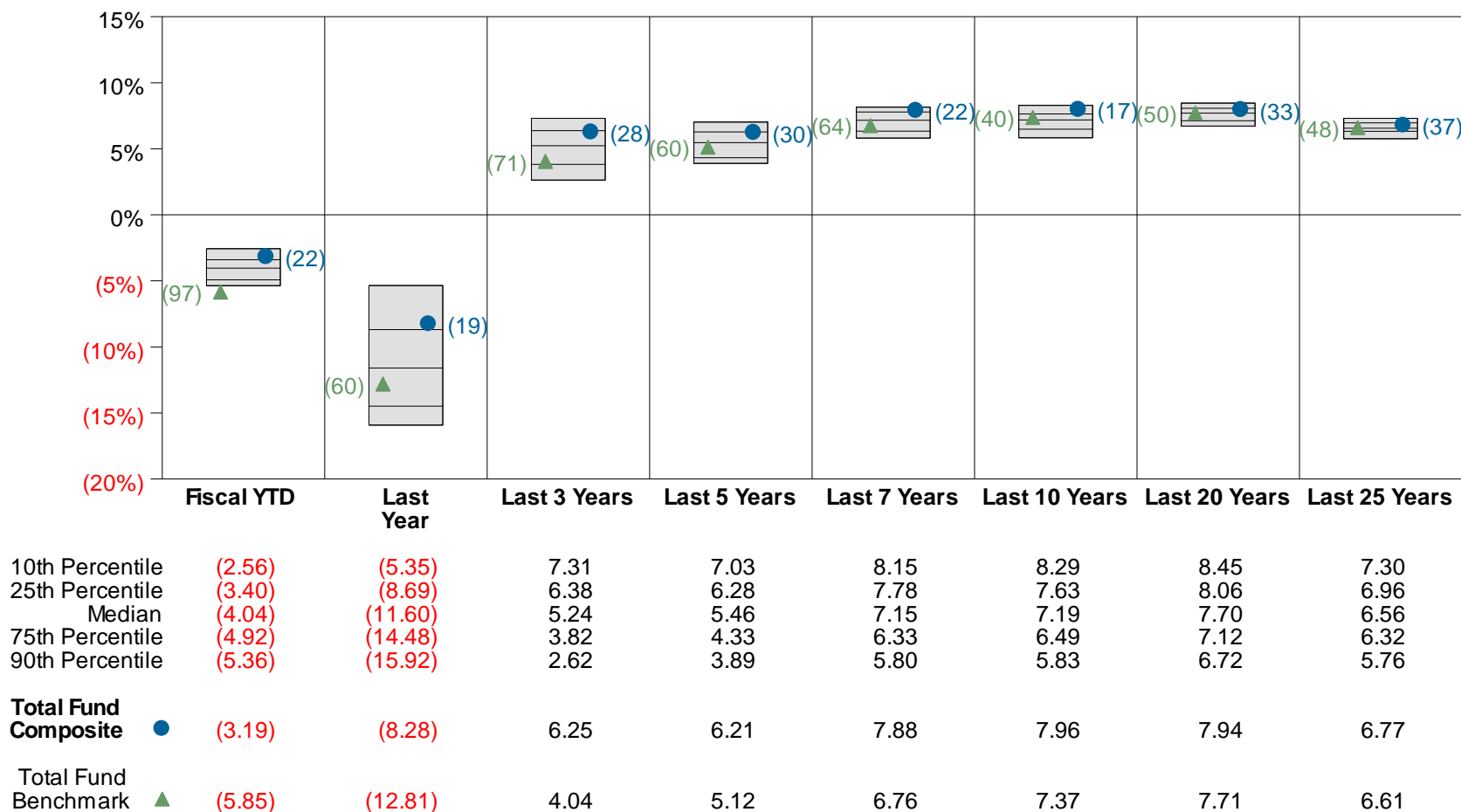
Market Values

	September 30, 2022				June 30, 2022	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Fixed Income	\$1,965,043,428	19.16%	\$0	\$(77,572,267)	\$2,042,615,695	19.18%
BlackRock SIO Bond Fund	242,386,210	2.36%	0	(3,847,689)	246,233,899	2.31%
Brandywine Asset Mgmt	206,718,317	2.02%	0	(19,276,423)	225,994,740	2.12%
FIAM (Fidelity) Tactical Bond	340,072,189	3.32%	0	(9,021,812)	349,094,001	3.28%
Income Research & Management	727,400,587	7.09%	0	(33,883,461)	761,284,048	7.15%
Loomis Sayles	255,520,406	2.49%	0	(6,774,585)	262,294,991	2.46%
Manulife Strategic Fixed Income	192,945,719	1.88%	0	(4,768,297)	197,714,016	1.86%
Total Cash	\$180,076,405	1.76%	\$39,930,256	\$819,600	\$139,326,549	1.31%
Total Marketable Assets	\$6,703,436,576	65.36%	\$39,872,933	\$(343,039,070)	\$7,006,602,713	65.78%
Total Real Estate	\$1,380,952,780	13.46%	\$(52,085,388)	\$1,261,924	\$1,431,776,244	13.44%
Strategic Core Real Estate	946,257,222	9.23%	3,646,430	3,356,136	939,254,656	8.82%
Tactical Non-Core Real Estate	434,695,557	4.24%	(54,836,958)	(2,989,073)	492,521,588	4.62%
Total Alternative Assets	\$2,171,901,946	21.18%	\$(44,644,697)	\$3,824,279	\$2,212,722,364	20.77%
Private Equity	1,618,749,928	15.78%	(46,707,043)	5,365,254	1,660,091,717	15.59%
Private Debt	553,152,018	5.39%	2,062,346	(1,540,975)	552,630,648	5.19%
Total Fund Composite	\$10,256,291,302	100.0%	\$(56,857,153)	\$(337,952,867)	\$10,651,101,322	100.0%

Total Fund Performance – Gross of Investment Management Fees

Performance vs. Large Public DB Plan (>\$1B) Peers, as of September 30, 2022

Performance vs Callan Public Fund Large DB (Gross)



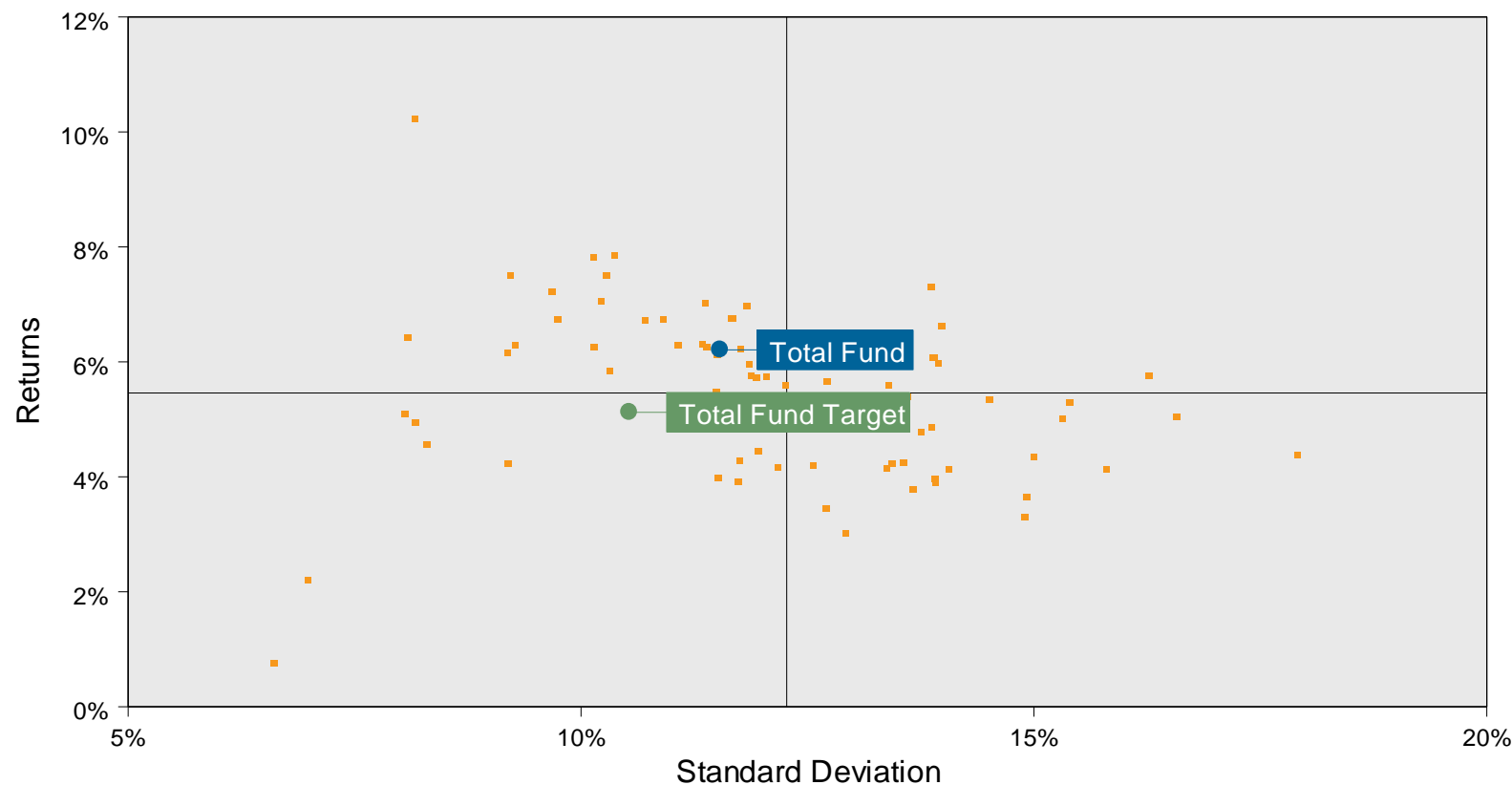
Note: Investment results are shown gross of investment management fees versus corresponding peer group.

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund Performance – Gross of Investment Management Fees

Five-Year Risk/Return Analysis as of September 30, 2022

Five Year Annualized Risk vs Return



Squares represent membership of the Callan Public Fund Spons - Large (>1B)

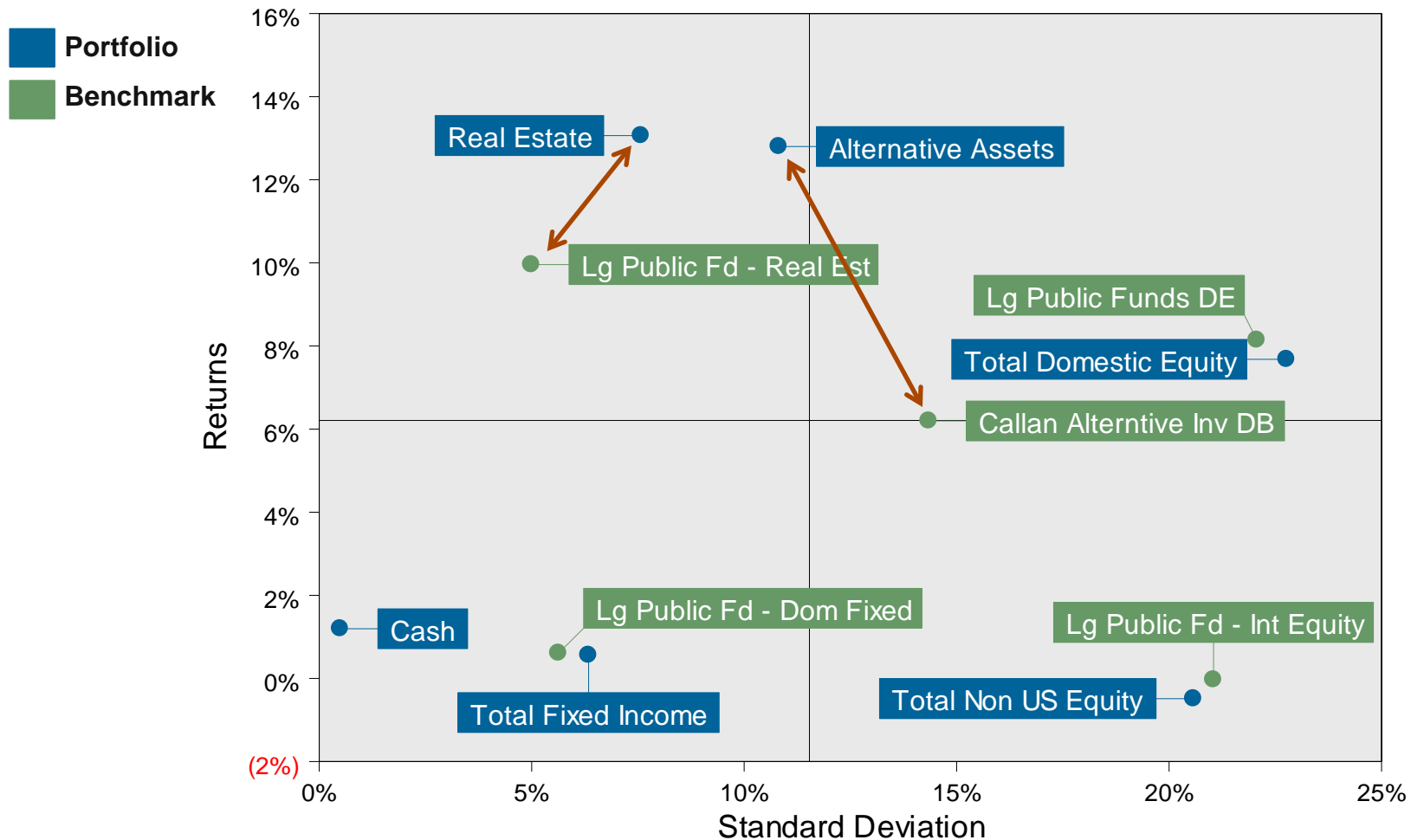
Note: Investment results are shown gross of investment management fees versus corresponding peer group.

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund Performance – Gross of Investment Management Fees

Asset Class Composites – Five-Year Risk/Return Analysis as of September 30, 2022

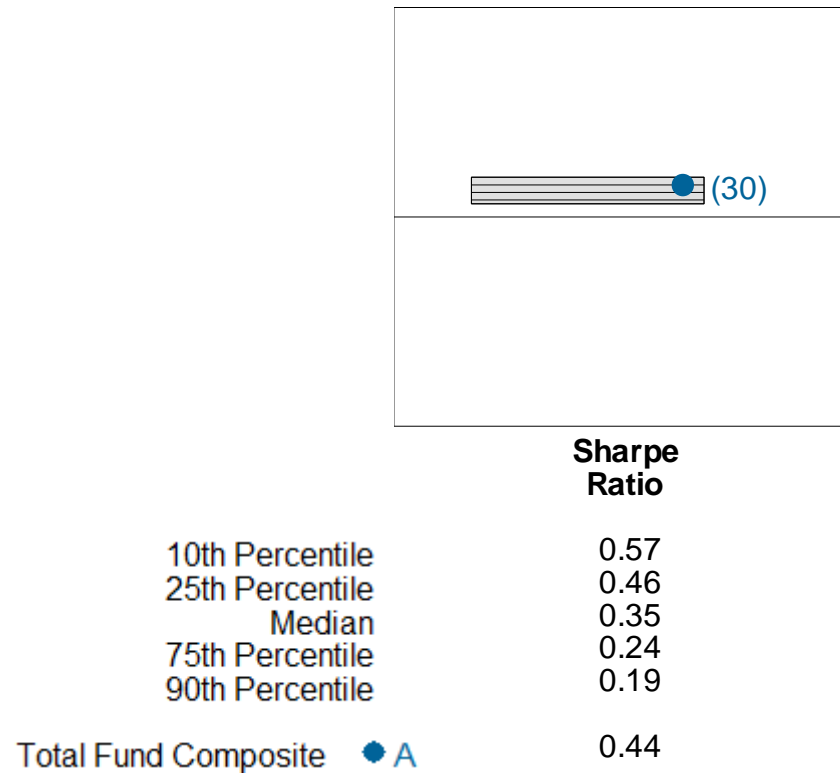
Five Year Annualized Risk vs Return Asset Classes vs Asset Class Median



Note: Investment results are shown gross of investment management fees.

Total Fund Performance – Gross of Investment Management Fees

Five-Year Sharpe Ratio, as of September 30, 2022



- Measures absolute risk-adjusted performance, taking into account the risk-free rate and portfolio volatility
- Ranks near the top quartile of the peer group

Note: Investment results are shown gross of investment management fees versus corresponding peer group.

Total Fund Performance – Net of Investment Management Fees

One-Year Attribution Analysis vs. Policy Benchmark, as of September 30, 2022

One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	31%	30%	(16.97%)	(17.63%)	0.20%	(0.15%)	0.05%
Non US Equity	17%	20%	(26.58%)	(25.17%)	(0.33%)	0.37%	0.04%
Fixed Income	19%	25%	(14.24%)	(14.92%)	0.13%	0.08%	0.21%
Real Estate	11%	10%	29.03%	28.31%	0.05%	0.46%	0.51%
Alternative Assets	20%	15%	8.85%	(7.40%)	2.80%	0.19%	2.99%
Cash	2%	0%	0.66%	0.66%	0.00%	0.17%	0.17%
Total			(8.84%) = (12.81%) + 2.84% + 1.12%				3.97%

What helped relative performance?

- Strong absolute performance from the alternative and real estate portfolios
- An overweight to real estate, alternatives, and cash relative to target
- An underweight to non-U.S. equities and fixed income relative to target
- Strong relative performance from domestic equity portfolio, particularly small capitalization exposures

What hurt relative performance?

- Negative attribution within international equity versus the MSCI ACWI Ex-US Index
- A slight overweight to domestic equity

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

Total Fund Performance – Net of Investment Management Fees

Five-Year Attribution Analysis vs. Policy Benchmark, as of September 30, 2022

Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Domestic Equity	30%	30%	7.37%	8.53%	(0.28%)	(0.13%)	(0.41%)
Non US Equity	19%	20%	(1.11%)	(0.81%)	(0.06%)	0.07%	0.01%
Fixed Income	22%	25%	0.28%	(0.18%)	0.08%	0.11%	0.19%
Real Estate	10%	10%	12.78%	9.55%	0.30%	0.06%	0.36%
Alternative Assets	18%	15%	12.52%	9.49%	0.50%	0.08%	0.58%
Cash	1%	0%	1.20%	1.20%	0.00%	(0.00%)	(0.00%)
Total			5.84%	= 5.12%	+ 0.53%	+ 0.18%	0.72%

What helped relative performance?

- Strong relative performance from alternatives, real estate and fixed income portfolios
- An underweight to fixed income and non-U.S. equities relative to targets
- An overweight to alternatives relative to target

What hurt relative performance?

- Weak relative performance within domestic equity and international equity
- A slight overweight to domestic equity

*Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

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Appendix

Investment Manager Returns – Net of Investment Management Fees

As of September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Net of Fees				
Total Domestic Equity	(4.05%)	(16.97%)	6.75%	7.37%
Domestic Equity Benchmark (1)	(4.46%)	(17.63%)	6.99%	8.53%
Secondary Domestic Equity Bmk (6)	(3.93%)	(18.21%)	6.97%	7.44%
Large Cap Domestic Equity	(4.88%)	(15.47%)	6.97%	7.97%
S&P 500 Index	(4.88%)	(15.47%)	8.16%	9.24%
Blackrock S&P 500	(4.88%)	(15.47%)	8.13%	9.21%
SMid Cap Domestic Equity	(3.85%)	(20.53%)	5.70%	5.23%
Russell 2500 Index	(2.82%)	(21.11%)	5.36%	5.45%
AllianceBernstein	(2.54%)	(25.52%)	6.50%	6.37%
TSW	(5.93%)	(10.78%)	4.45%	3.51%
TSW Blended Benchmark (2)	(4.50%)	(15.35%)	4.52%	5.25%
Small Cap Domestic Equity	(2.05%)	(17.80%)	7.25%	7.51%
Russell 2000 Index	(2.19%)	(23.50%)	4.29%	3.55%
Boston Trust	(3.63%)	(11.51%)	7.49%	8.74%
Segall Bryant & Hamill	(1.07%)	(15.32%)	8.20%	8.58%
Wellington	(1.68%)	(22.43%)	6.56%	6.30%
Total Non US Equity	(8.42%)	(26.58%)	(2.45%)	(1.11%)
Non US Equity Benchmark (3)	(9.91%)	(25.17%)	(1.52%)	(0.81%)
Core Non US Equity	(8.97%)	(26.02%)	(3.09%)	(1.83%)
Core Non US Benchmark (4)	(9.91%)	(25.17%)	(1.52%)	(0.81%)
Aristotle	(7.76%)	(26.40%)	-	-
Artisan Partners	(7.89%)	(28.41%)	(4.11%)	(0.22%)
Causeway Capital	(10.34%)	(22.48%)	(0.15%)	(1.47%)
Lazard	(9.48%)	(27.72%)	-	-
Emerging Markets	(8.75%)	(29.32%)	(5.25%)	(4.24%)
MSCI EM	(11.57%)	(28.11%)	(2.07%)	(1.80%)
Neuberger Berman	(10.31%)	(30.13%)	(6.23%)	(4.62%)
Wellington Emerging Markets	(7.07%)	(28.46%)	(4.18%)	(3.28%)
Non US Small Cap	(7.91%)	(36.29%)	(8.28%)	(8.75%)
Wellington Int'l Small Cap Research	(7.91%)	-	-	-
MSCI EAFE Small Cap	(9.83%)	(32.06%)	(2.16%)	(1.79%)
Global Equity	(7.16%)	(23.05%)	3.06%	6.87%
MSCI ACWI net	(6.82%)	(20.66%)	3.75%	4.44%
Walter Scott Global Equity	(7.16%)	(23.05%)	3.06%	6.87%
Walter Scott Blended Benchmark (5)	(6.82%)	(20.66%)	3.75%	4.44%

(1) The Domestic Equity Benchmark is the Russell 3000 index as of 7/1/2021. From 7/1/2015 to 6/30/2021 the benchmark was the S&P 500 Index. From 7/1/2003 to 6/30/2015 the benchmark was the Russell 3000 Index. Prior to 7/1/2003 the benchmark was the S&P 500.

(2) TSW Blended Benchmark is the Russell 2500 Value Index as of 7/1/2019. Prior to 7/1/2019 it was the Russell 2500.

(3) The Non US Equity Index is the MSCI ACWI ex US Index as of 7/1/2003. Prior to 7/1/2003 it was the MSCI EAFE Index.

(4) The Core Non US Equity Index is the MSCI ACWI ex US as of 7/1/2007. Prior to 7/1/2007 it was the MSCI EAFE Index.

(5) The Walter Scott Blended Benchmark is the MSCI ACWI Index as 5/1/2008. Prior to 5/1/2008 it was the MSCI EAFE Index. (6) Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

(6) The Secondary Domestic Equity Bmk consists of 60% S&P 500, 20% Russell 2500, and 20% Russell 2000.

Investment Manager Returns – Net of Investment Management Fees

As of September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
Net of Fees				
Total Fixed Income	(3.87%)	(14.24%)	(1.66%)	0.28%
Fixed Income Benchmark (1)	(4.45%)	(14.92%)	(3.11%)	(0.18%)
Bloomberg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)
BlackRock SIO Bond Fund	(1.68%)	(7.55%)	0.50%	-
BlackRock Custom Benchmark (2)	0.42%	0.55%	0.64%	-
Brandywine Asset Mgmt	(8.61%)	(21.75%)	(4.46%)	(2.80%)
Brandywine Custom Benchmark (3)	(7.70%)	(22.32%)	(7.10%)	(3.12%)
FIAM (Fidelity) Tactical Bond	(2.66%)	(12.68%)	(0.83%)	-
Bloomberg Aggregate	(4.75%)	(14.60%)	(3.26%)	(0.27%)
Income Research & Management	(4.49%)	(15.21%)	(2.68%)	0.32%
Bloomberg Gov/Credit	(4.56%)	(14.95%)	(3.15%)	(0.05%)
Loomis Sayles	(2.66%)	(14.01%)	0.33%	1.83%
Loomis Sayles Custom Benchmark (4)	(3.32%)	(14.39%)	(2.19%)	0.44%
Manulife Strategic Fixed Income	(2.48%)	(12.55%)	(1.48%)	0.44%
Bloomberg Multiverse	(6.76%)	(20.35%)	(5.63%)	(2.26%)
Total Cash	0.51%	0.66%	0.67%	1.20%
3-month Treasury Bill	0.46%	0.62%	0.59%	1.15%
Total Marketable Assets	(4.93%)	(18.31%)	1.83%	3.01%
Total Marketable Index (5)	(5.87%)	(18.61%)	1.60%	3.36%
Total Real Estate (10)	(0.36%)	29.03%	15.68%	12.78%
Real Estate Benchmark (6)	4.54%	28.31%	11.66%	9.55%
Strategic Core Real Estate	(0.00%)	33.07%	14.49%	12.22%
Tactical Non-Core Real Estate	(1.10%)	21.75%	17.66%	13.76%
Total Alternative Assets	(0.05%)	8.85%	15.14%	12.52%
Alternative Assets Benchmark (7)	(13.00%)	(7.40%)	9.33%	9.49%
Total Private Equity	(0.06%)	8.98%	19.39%	16.67%
Private Equity Benchmark (8)	(15.75%)	(8.17%)	13.86%	14.64%
Cambridge Global PE Idx 1 Qtr Lag	(5.60%)	3.34%	20.50%	18.22%
Total Private Debt	(0.04%)	8.46%	5.73%	5.63%
Private Debt Benchmark (9)	(7.29%)	(6.22%)	0.70%	1.99%
Cambridge Private Credit Idx 1 Qtr Lag	(1.56%)	4.93%	7.97%	8.01%
Total Fund Composite	(3.35%)	(8.84%)	5.84%	5.84%
Total Fund Benchmark *	(5.85%)	(12.81%)	4.04%	5.12%

* Current Quarter Target = 30% Russell 3000 Index, 25% Bloomberg Universal, 20% MSCI ACWI ex US, 10% NCREIF NFI-ODCE Val Wt Net lagged 3 months, 10% Russell 3000 Index lagged 3 months+2.0%, 2.5% Bloomberg HY Corp lagged 3 months+1.0%, and 2.5% S&P/LSTA Lev Loan 100 lagged 3 months+1.0%.

(1) The Fixed Income Benchmark is the Bloomberg Capital Universal Bond Index as of 7/1/2007.

(2) The BlackRock Custom Benchmark is 3 Month SOFR compounded in arrears as of 1/1/2022.

(3) The Brandywine Blended Benchmark is the FTSE WGBI Ex-China Index as of 11/1/2021.

(4) The Loomis Sayles Custom Benchmark is 65% Bloomberg Aggregate and 35% Bloomberg High Yield.

(5) Marketable Assets Index is 40% Russell 3000, 26.7% MSCI ACWI ex US, and 33.3% Bloomberg Universal as of 7/1/2021.

(6) The Real Estate Benchmark is the NCREIF NFI-ODCE Value Weight Net Index lagged 1 quarter as of 7/1/2015.

(7) The Alternative Assets Benchmark is (5) The Alternative Assets Benchmark is 66.7% Russell 3000 Index + 2% lagged 1 quarter and 33.3% ((50% S&P LSTA Leveraged Loan 100 Index + 50% Bloomberg High Yield Index) + 1%) lagged 1 quarter as of 7/1/2022.

(8) The Private Equity Benchmark is the Russell 3000 Index + 2% lagged 1 quarter as of 7/1/2022.

(9) The Private Debt Benchmark is (50% S&P LSTA Leveraged Loan 100 Index & 50% Bloomberg HY Index) + 1% lagged 1 quarter as of 7/1/2022..

(10) Total Real Estate returns includes Townsend discretionary fee as of 7/1/2022.

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December 13, 2022



New Hampshire Retirement System (NHRS)

Annual Alternatives Portfolio Review

Board of Trustees Executive Summary

Pete Keliuotis

Alternatives Consulting

Catherine Beard

Alternatives Consulting

David Smith

Alternatives Consulting

Aidan Davison

Alternatives Consulting

Jared Ungar

Alternatives Consulting

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Executive Summary

Executive Summary

Overview of NHRS Alternatives Portfolio

- NHRS has a target of 15% to Alternatives, including 10% to Private Equity and 5% to Private Credit.
- As of September 30, 2022, the exposure to Alternatives was 21.1%, which was within the allocation range between 5-25%.*
- Private Equity exposure was 15.8% and Private Credit was 5.4%.*
- In 2021, the Alternatives portfolio made \$416 million in contributions and received \$660 million in distributions. The portfolio was still cash flow positive YTD with distributions outpacing contributions by \$80 million.
- The pace of distributions has slowed relative to 2021, but still remains strong with \$256 million distributed as of Q2 end, and an additional \$132 million distributed in Q3.
- The Alternatives portfolio depreciated 1.9% during the first half of 2022, which is in-line with the performance of the broader private markets.

Total Alternatives

	12/31/2020	12/31/2021	6/30/2022	YTD Change
Committed	\$ 2,856,659	\$ 3,323,765	\$3,564,716	\$ 240,950
Paid-In	\$ 2,432,880	\$ 2,848,497	\$3,024,876	\$ 176,379
Uncalled	\$ 773,858	\$ 944,975	\$1,039,338	\$94,363
Distributed	\$ 1,221,286	\$ 1,881,104	\$2,137,031	\$ 255,926
NAV	\$ 1,978,876	\$ 2,329,862	\$2,206,678	\$(123,184)
DPI	0.50x	0.66x	0.71x	0.05x
RVPI	0.81x	0.82x	0.73x	(0.09x)
TVPI	1.32x	1.48x	1.44x	(0.04x)
IRR	9.81%	12.71%	11.61%	(1.10%)
		2021	2022 YTD	
Total Appreciation		34.3%	(1.9%)	
Distribution Yield		28.3%	11.6%	
Net Cash Flow Yield		10.5%	3.6%	

Executive Summary

Summary of 2022 Commitments

- In 2022, \$150 million was approved for commitments to private equity strategies with existing GPs and a \$50 million commitment was approved for a new GP relationship.
 - *The 2022 vintage commitments are diversified across buyouts, global growth equity, and secondaries.*
 - *An anticipated \$50 million commitment in 2022 was not made, pending the on-boarding process of the Fund's new Chief Investment Officer.*
- In 2022, \$100 million was approved for commitments to private credit strategies, including one existing GP and one new GP, further diversifying the portfolio.
 - *The 2022 vintage includes a direct lending and a niche asset-backed credit strategy.*
 - *Two anticipated \$50 million commitments in 2022 were not made, pending the on-boarding process of the Fund's new Chief Investment Officer.*

2022 Vintage Private Equity Commitments

2022 Commitment Total:	\$200 million
Thoma Bravo XV	\$50 million
Warburg Pincus Global Growth 14	\$50 million
Dover Street XI (1)	\$50 million
Clearlake Partners VII (2)	\$50 million

2022 Vintage Private Credit Commitments

2022 Commitment Total:	\$100 million
Atalaya SOF VIII (3)	\$50 million
Comvest Credit Partners VI	\$50 million

(1) First capital call expected in 2023

(2) New GP relationship for NHRS

(3) Commitment approved in 2021

NHRS Private Equity Program Overview

12 Months Ended June 30, 2022

Portfolio Overweight

- NHRS' private equity portfolio is currently overweight at 15.8%.
- As a result of the “denominator effect”, most mature private equity portfolios are currently overweight their targets.

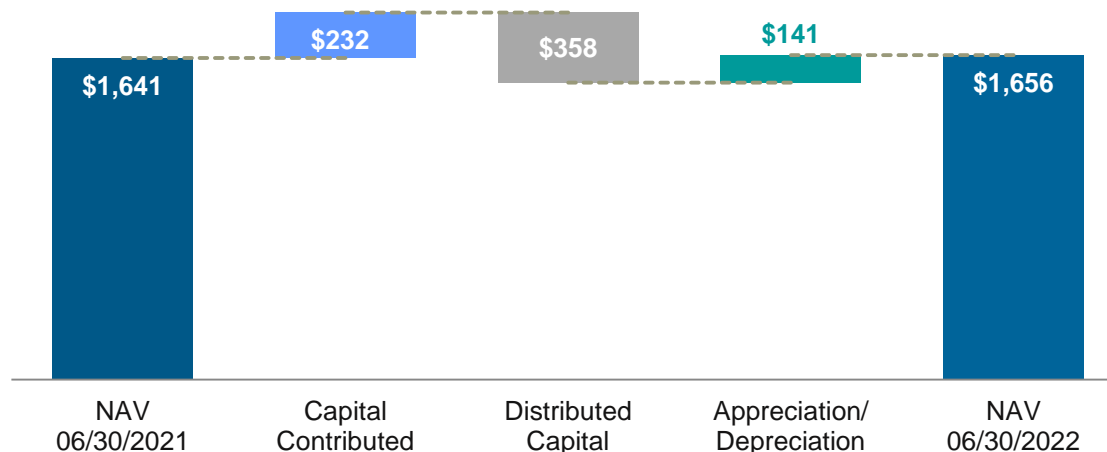
Strong Distributions

- The NHRS portfolio received significant distributions over the last year, totaling \$358 million, or 22% of beginning NAV.
- 2021 was an exceptional year for LP distributions, due to robust exit activity across the private equity industry.

Slight Drop in NAV

- Strong distributions, combined with a marginal unrealized gain, resulted in a slight increase in NAV.

	06/30/2021 (\$m)	% Change	06/30/2022 (\$m)
Commitments	\$2,099	8%	\$2,267
Paid-In Capital	\$1,510	15%	\$1,742
% Paid-In	72%	5%	77%
Uncalled Capital	\$720	(8%)	\$659
Distributed Capital	\$834	43%	\$1,192
NAV	\$1,641	0.1%	\$1,656
Total Value (NAV + Distributed)	\$2,475	15%	\$2,849

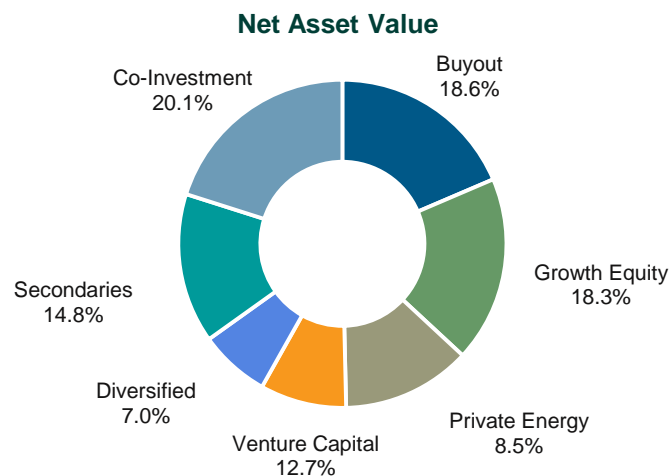


NHRS Private Equity Portfolio Structure

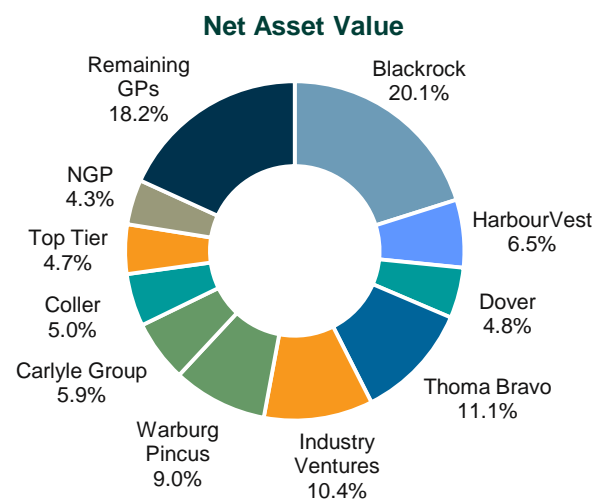
Current Structure

- **Direct Primaries:** Consists of eleven GPs, including eight buyouts/ growth equity firms and three private energy firms. Thoma Bravo, Carlyle and Warburg represent the largest positions, totaling 24.4% of the current NAV.
- **Fund of Funds:** Targeted exposure to international and venture capital strategies.
- **Secondaries:** Diversified exposure across four GPs, including specialist venture secondary funds.
- **Co-Investments:** Core exposure to Blackrock Co-Investment strategy, representing approximately 20% of the exposure to private equity.

Current Private Equity Portfolio Composition



Current General Partner Exposure



Portfolio Composition represents Net Asset Value plus Unfunded Commitments estimated as of June 30, 2021

NHRS Private Credit Program Overview

12 Months Ended June 30, 2022

Portfolio Overweight

- NHRS' private credit portfolio is currently slightly overweight at 5.4% compared to their 5% target.
- As a result of the “denominator effect”, most mature private credit portfolios are currently overweight their targets.

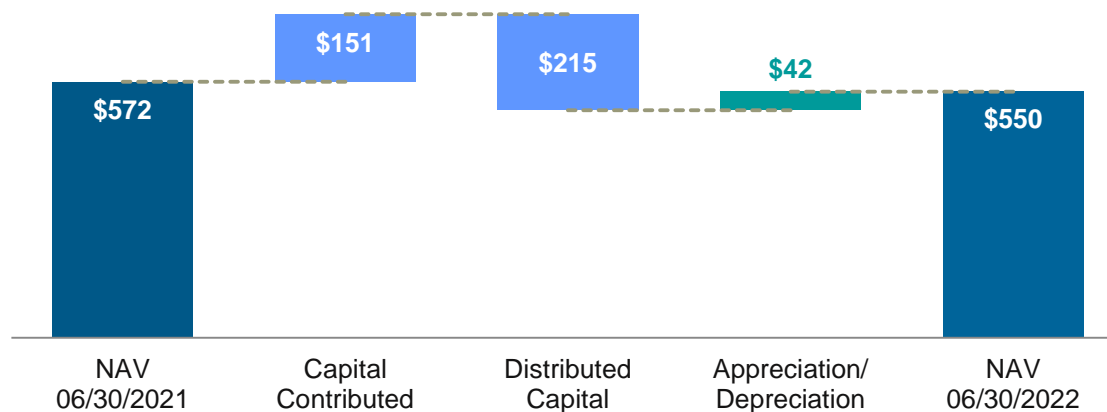
Strong Distributions

- The NHRS portfolio received significant distributions over the last year, totaling \$215 million, or 38% of beginning NAV.

Slight Drop in NAV

- Strong distributions, combined with a nearly flat unrealized gain/loss, resulted in a drop in NAV by 4%.

	06/30/2021 (\$m)	% Change	06/30/2022 (\$m)
Commitments	\$1,203	8%	\$1,297
Paid-In Capital	\$1,132	13%	\$1,283
% Paid-In	94%	-	99%
Uncalled Capital	\$348	9%	\$380
Distributed Capital	\$730	29%	\$945
NAV	\$572	-4%	\$550
Total Value (NAV + Distributed)	\$1,302	15%	\$1,495

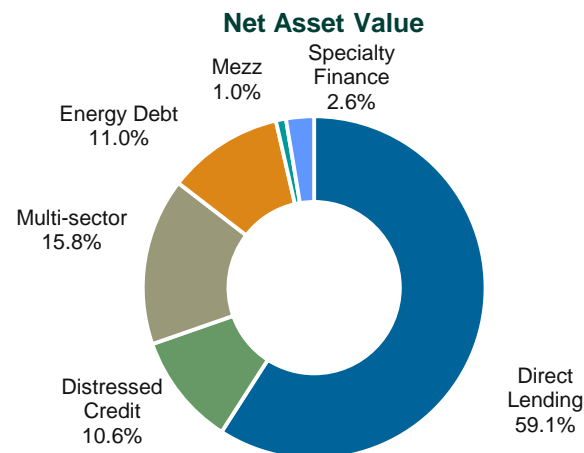


NHRS Private Credit Portfolio Structure

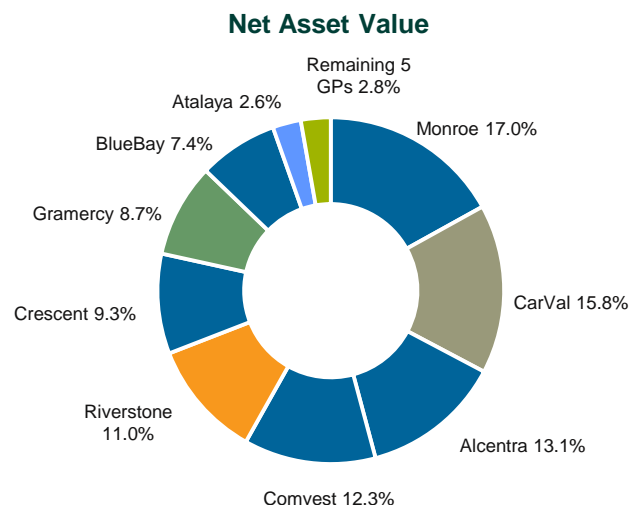
Current Structure

- **Direct Primaries:** Consists of eleven GPs, including five direct lending firms, three distressed firms, one multi-sector firm, one mezzanine firm, and one energy lending firm. In November, the Investment Committee approved the addition of Atalaya to diversify the exposure to specialty finance.
- The top four GP's represent approximately 60% of the exposure, including Monroe, Arcmont-Bluebay, CarVal, and Comvest.
- **Fund of Funds:** One fund early in the program's development (Siguler Guff Distressed in 2011).
- **Secondaries:** No dedicated private credit secondaries strategies.
- **Co-Investments:** No dedicated private credit co-investment strategies.

Current Private Credit Portfolio Composition



Current General Partner Exposure



Portfolio Composition represents Net Asset Value plus Unfunded Commitments estimated as of June 30, 2021

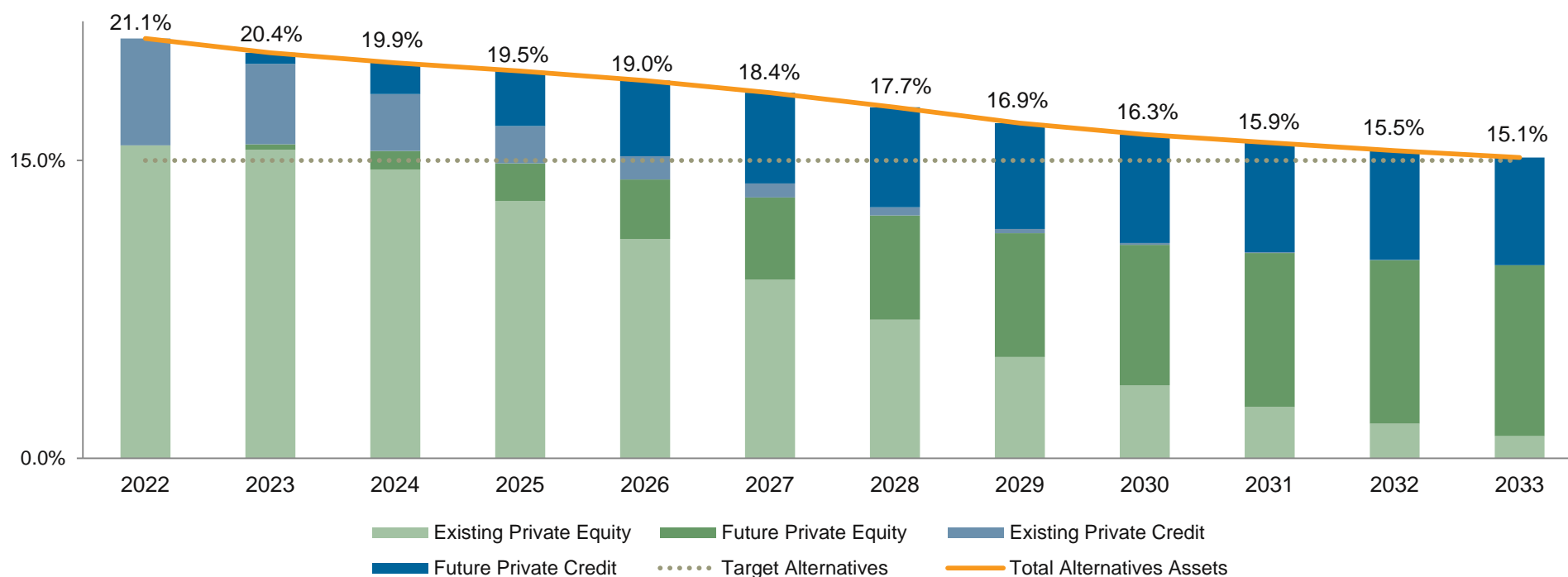
Callan

2023 Pacing Plan

NHRS Alternatives Commitment Pacing Summary

Consistent Pacing; Gradual Reduction to Target over Ten Years

- The exhibit below reflects the projected development of the private equity portfolio relative to the 15% allocation target over the next 10 years.
- The current overweight to Alternatives is driven by the Private Equity exposure, which is over 600 basis points above target. Private Credit exposure remains in line with the target allocation of 5%. Despite the overweight position, the portfolio remains well within the allocation range for Alternatives of 5% - 25%.
- **Callan recommends making \$400 million in commitments to Alternatives in 2023, with \$200 million to private equity and \$200 million to private credit.**

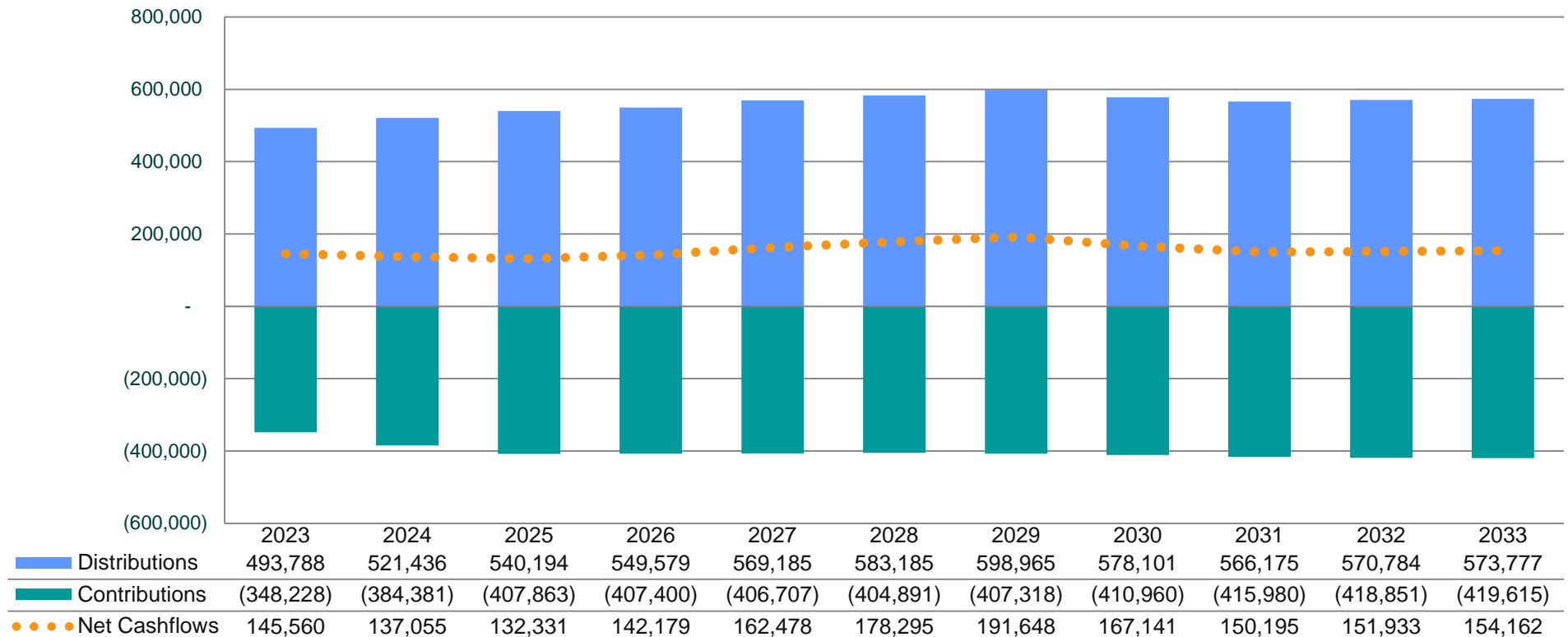


NHRS Alternatives Commitment Pacing Summary

Projected Future Cash Flows

- The exhibit below reflects the projected contributions and distributions of the alternatives portfolio over the next 10 years.
- The pacing model projects the program will remain net cash positive, with an expected annual net cash flow ranging from \$125 – 200 million.

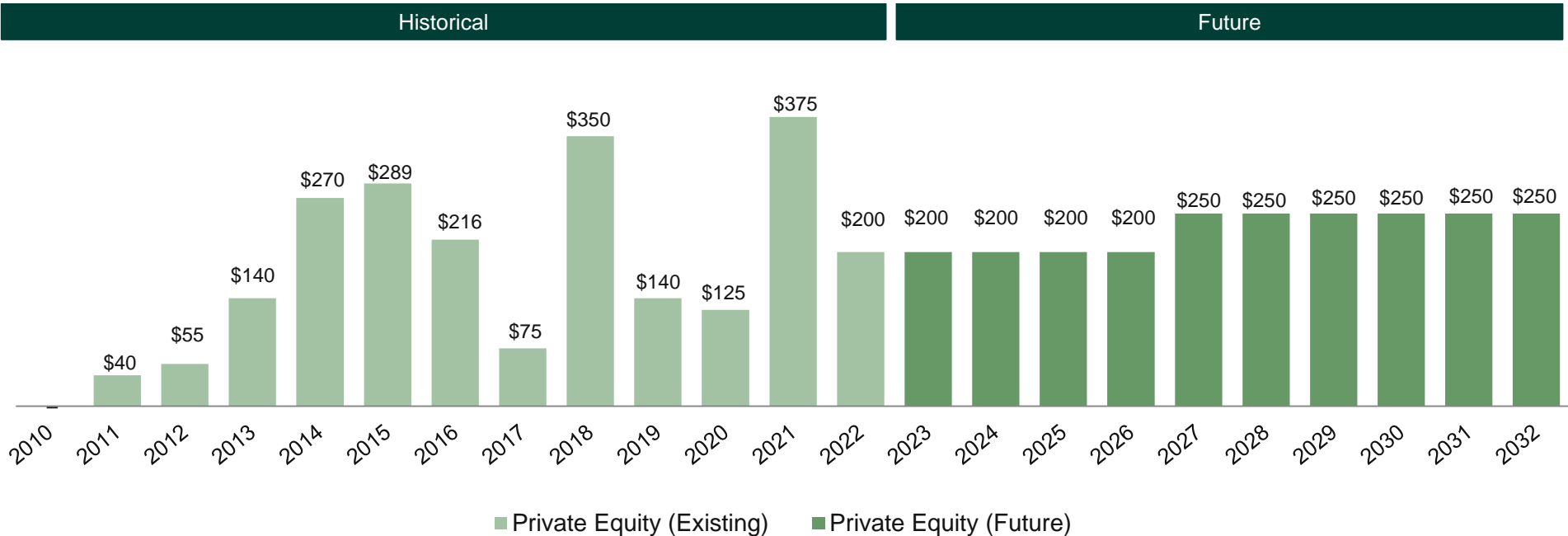
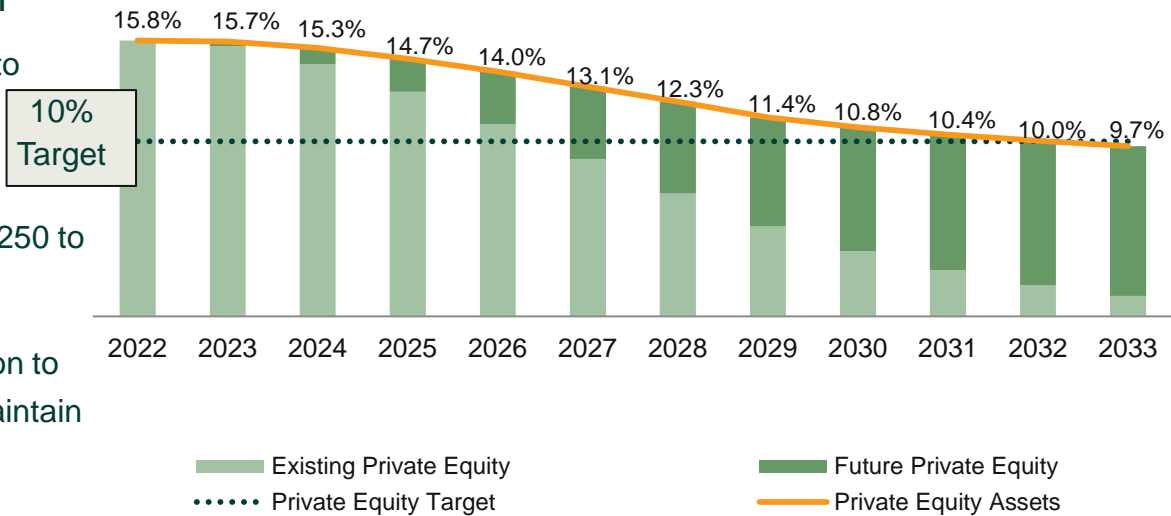
Projected Annual Cash Flows (\$thousands)



NHRS Private Equity Commitment Pacing

Gradually Move Towards Target Allocation

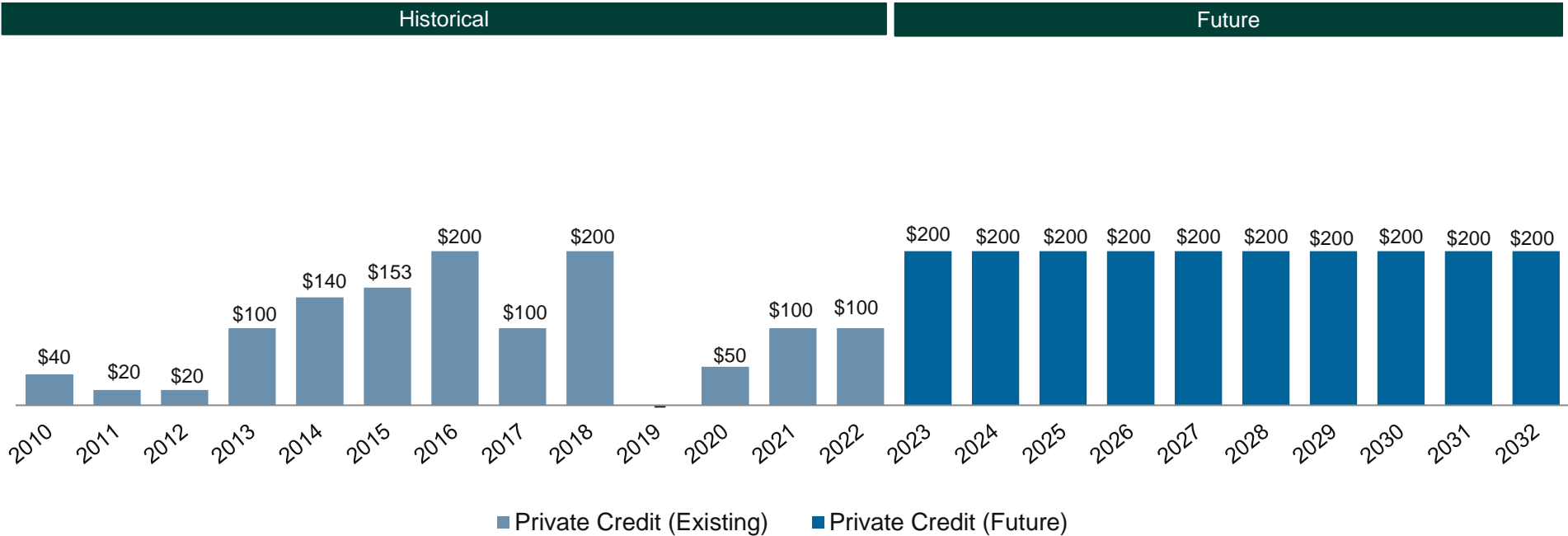
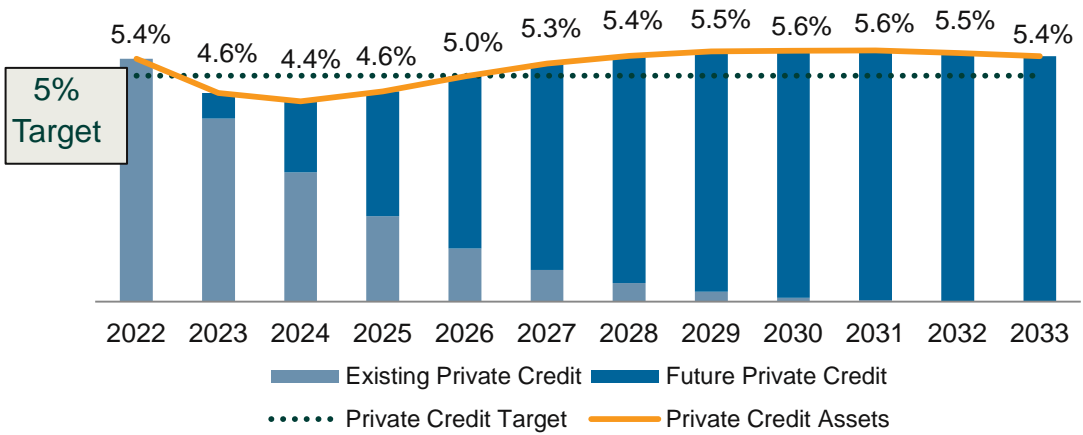
- The existing private equity portfolio NAV is expected to decline steadily, reaching target range by 2029.
- In order to balance the decline, Callan recommends decreasing the commitment amount next year from \$250 to \$200 million.
- Annual private equity commitments of \$200-250 million to 4-5 partnerships annually will provide the ability to maintain the private equity allocation over the long term, with prudent diversification by vintage and partnership.



NHRS Private Credit Commitment Pacing

Maintain Pacing

- The existing private credit portfolio is currently at the target allocation. The portfolio is relatively seasoned and the existing asset NAV is expected to rapidly decline below target over the next couple of years.
- In order to balance the decline, Callan recommends targeting \$200 million in commitments from 2023 through 2032 to direct private credit managers or four to five managers per year.



LEGISLATIVE COMMITTEE

Oral Presentation Only

LSR list – 2023

NHRS-related titles as of 12/28/22

2023-0064-HB: Prohibiting the investment of state funds in any company participating in a boycott of Israel.

Sponsors: James Spillane (Prime)

House Bill 30 - 2023-0051-HB: Allowing a county to exempt its chief administrative officer from compulsory participation in the retirement system.

Sponsors: Judy Aron (Prime), John Cloutier, Carol McGuire, Steven Smith, Margaret Drye

House Bill 50 - 2023-0080-HB: Relative to payment by the state of a portion of retirement system contributions of political subdivision employers.

Sponsors: Michael Edgar (Prime), David Cote, John Cloutier, Jeffrey Goley, Steve Shurtleff, Michael O'Brien, Timothy Soucy, Karen Ebel, Rosemarie Rung, Jim Maggiore, Cindy Rosenwald, Rebecca Perkins Kwoka

2023-0217-HB: Relative to special duty hours worked by retired police members in the retirement system.

Sponsors: Tracy Emerick (Prime)

2023-0272-HB: Relative to administration of the New Hampshire retirement system.

Sponsors: Tony Lekas (Prime)

2023-0337-HB: Relative to the accidental death benefit payable to a group II member.

Sponsors: Benjamin Baroody (Prime)

2023-0338-HB: Relative to the cost-of-living adjustments in the New Hampshire retirement system.

Sponsors: Benjamin Baroody (Prime), Jeffrey Goley, Michael O'Brien, Linda DiSilvestro, Mark Proulx

2023-0390-HB: Relative to employment of retired firefighters at the fire academy.

Sponsors: Dan Wolf (Prime), Mike Bordes, Joe Alexander, Suzanne Prentiss, Bill Boyd

2023-0398-HB: Relative to the calculation of group II retirement benefits in the retirement system.

Sponsors: Jeffrey Goley (Prime), Michael O'Brien, Mark Proulx, Mike Bordes

2023-0407-HB: Relative to group II retirement eligibility under the retirement system.

Sponsors: Douglas Trottier (Prime), Mike Bordes

2023-0444-HB: relative to state treasury pension and insurance fund management.

Sponsors: (Prime) JD Bernardy, Kenneth Weyler, Alan Turcotte, James Spillane, Michael Vose, Gregory Hill, Bill Gannon, Deborah Hobson, Jeffrey Greeson, Jim Kofalt, Susan Porcelli

2023-0473-HB: Relative to pension debt owed for municipal employees.

Sponsors: (Prime) Stephen Pearson

2023-0508-HB: Relative to group II service retirement in the retirement system.

Sponsors: Kevin Pratt (Prime)

2023-0697-HB: Appropriating state general fund surplus toward the retirement system unfunded accrued liability.

Sponsors: Tony Lekas(Prime), Jeffrey Goley, Stephen Pearson

2023-0704-HB: Establishing a state retirement plan group for new state employee members of the retirement system.

Sponsors: Dan McGuire (Prime)

2023-0713-HB: Relative to group II retirement under the retirement system.

Sponsors: Kevin Pratt (Prime)

2023-0801-SB: Relative to payment by the state of a portion of retirement system contributions of political subdivision employers.

Sponsors: Cindy Rosenwald (Prime)

2023-0901-SB: Relative to the reduction in the calculation of state retirement annuities at age 65.

Sponsors: Lou D'Allesandro (Prime)

2023-0902-SB: Relative to a cost-of-living adjustment in the state retirement system.

Sponsors: Lou D'Allesandro (Prime)

2023-0908-SB: Relative to disability pensions for public safety employees who are victims of violence.

Sponsors: Regina Birdsell (Prime)

WITHDRAWN

2023-0148-HB: Relative to the eligibility for service retirement benefits under the state retirement system.

Sponsors: Carol McGuire (Prime)

BENEFITS COMMITTEE

Oral Presentation Only

PERSONNEL PERFORMANCE & COMPENSATION COMMITTEE

Oral Presentation Only



To: Board of Trustees
From: Jan Goodwin, Executive Director
Date: December 30, 2022
Re: Executive Director Operating Report
Item: Action: ☐ Discussion: ☐ Informational: ☒

Significant Developments and Priority Issues

- COVID-19 Update: Maintaining status quo. Monitoring case numbers to determine when staff can be present in the Granite State room for Board meetings.
- We are actively recruiting Frank Clough's replacement as Director of IT to ensure that there will be minimal disruption and full continuity of all necessary services, ensuring continued excellent service to our staff, members, and beneficiaries.

Current Month Highlights

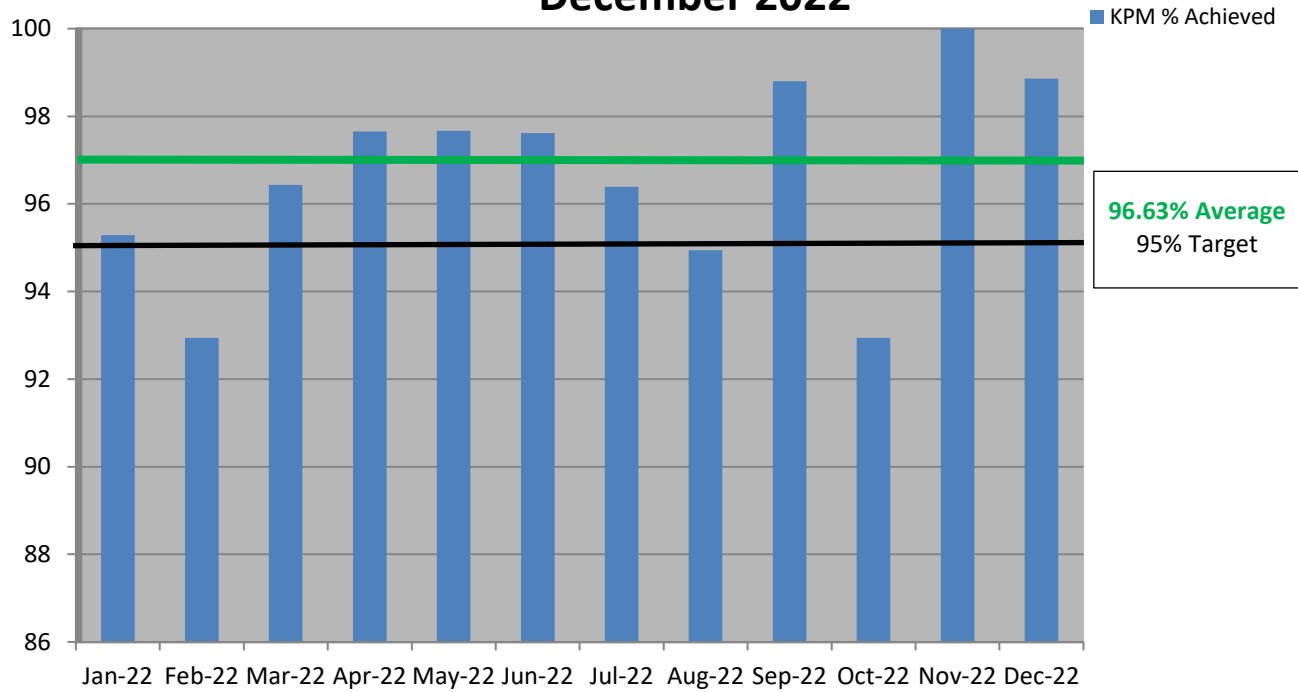
- This month's KPM score was 98.86%. See 12-month rolling average chart, attached.
- PGV3 is 69% completed, D5 Benefit Payroll is at 99%, and D6 (Year End Processes, Auditing, and Security) is at 51%. Staff continue to work on creating workflows for PGV3. In January, test cases for D6 UAT will be reviewed, and testers assigned. Hardware and software to support the PGV3 production and test environments has been ordered.
- All three of the Executive Director's KPMs were met this month.
- On December 20, Marty and I met with the Governor's staff on proposed legislation.

Upcoming Plans & Projects

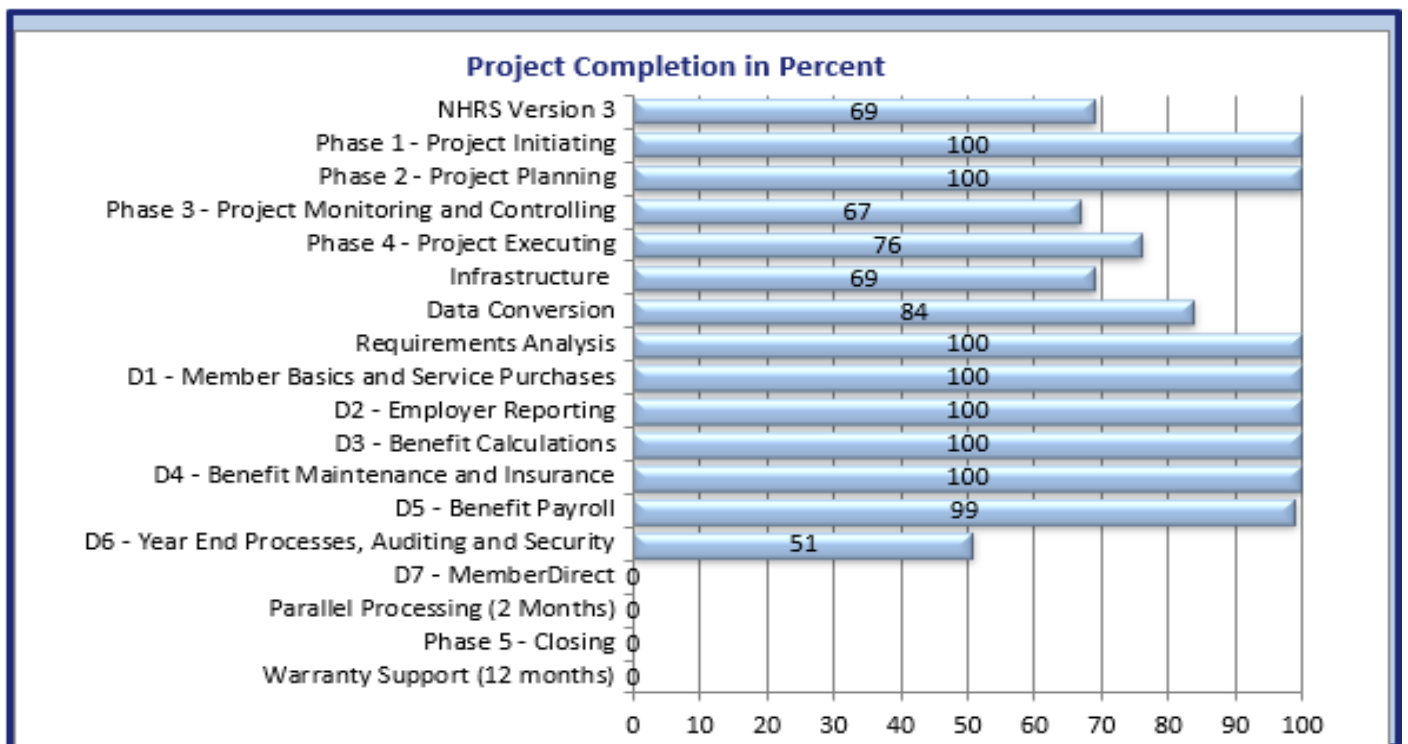
- The NHRS legislative team continues to evaluate legislative proposals for the 2023 legislative session.
- Staff has begun preparing for parallel processing for PGV3, which is slated to begin in October 2023. We anticipate working with LRS to develop an orientation program for all affected staff members. We will meet with LRS in February when they are at NHRS. In addition, NHRS staff is developing materials to acquaint staff with the new screens and processes.
- A staff committee will be reviewing the external audit RFP responses, which are due January 5, to make a recommendation to the Audit Committee.

Our Mission: To provide secure retirement benefits and superior service.

KPM Rolling 12-Month Average December 2022



PGV3 Status as of December 25, 2022



Our Mission: To provide secure retirement benefits and superior service.

KPM MONTHLY REPORTING

December 2022

“No” answers must include a comment, whereas “Yes” answers can include a comment but a comment is not required. N/A should be used only in cases where reporting is not required, i.e., task is quarterly (comment must so indicate).

	ACHIEVED			COMMENTS
	YES	NO	N/A	
Overall Score	X			We achieved a 98.86% success ratio. We failed on one (1) KPM.
Executive				
1. Distribute weekly email updates to all Trustees on or before the end of business on Friday of every week.	X			
2. Distribute weekly email updates to all staff on or before the end of business on Monday of every week.	X			
3. Maintain expenditures at or less than Trust Fund Budget.	X			
IT				
1. All vital servers maintain an uptime of 99% or higher.	X			
2. All PensionGold requests are prioritized within thirty-one (31) calendar days.	X			
3. All TrackIT (help desk) requests are followed up with a conversation (phone/email) within four (4) business days.	X			
4. Maintain help desk survey scores above satisfactory marks of 95% or higher.	X			
5. All US-CERT email security advisories are placed into the help desk system to be addressed within two (2) business days.	X			
6. Respond to all phone calls within one (1) business day.	X			
7. Answer 95% of My Account hunt group (X3508) calls within sixty (60) seconds.	X			
8. Maintain expenditures at or less than IT budget as reported by Finance in the most recent manager's report (1-month lag).	X			
Finance				
1. Prepare the NHRS Annual Comprehensive Financial Report (ACFR): unaudited by October 31, and the audited CAFR by December 31, in accordance with generally accepted accounting principles.	X			Complete.
2. Reconcile operating bank account within two (2) business days of receipt of bank statements.	X			
3. Produce and distribute monthly actual-to plan-budget reports within ten (10) business days from the end of the prior month.	X			
4. Produce the monthly financial statements (FS) for the Board of	X			

KPM MONTHLY REPORTING

December 2022

	ACHIEVED			COMMENTS
	YES	NO	N/A	
Trustees meeting at least three (3) business days prior to the scheduled Board mailing.				
5. Post all cash receipts for a month, for which we have received the associated voucher, into the pension benefit system (PensionGold) within ten (10) business days after the close of the month.	X			November 2022 Cash receipts were keyed for all payments we had back-up for within the 10 business days on 12/14/2022.
6. Issue all NHRS annuitant pension payments timely and accurately.	X			
7. File annual payroll tax return (form 945) for the annuity payroll by January 31.			X	No return due this month.
8. Provide fiscal impact statements on retirement-related legislative bills within deadlines set by the Legislative Budget Assistant (LBA).	X			
9. Reconcile all employer accounts sufficiently to allow for interest posting for the reporting month within ninety (90) days of the end of the reporting month.	X			Nov 2022 contributions due 12/15/2022 counting back 90 days would be Aug 2022 Contributions due 9/15/2022- therefore, interest email to post Aug 2022 was emailed to Member services on 12/28/2022.
10. Generate first notice of employer penalty assessments within five (5) business days of the monthly cash receipt posting.	X			Will always hit this KPM since this is automatically generated via notification to Employer as soon as a report or payment posts late.
11. Process all confirmed post-retirement electronic direct deposit change requests received by the date that the pre-note wizard is run in PensionGold and direct funds accordingly in the same month.	X			
12. Deposit all payments received at NHRS offices, with appropriate supporting documents, into local custodial bank within three (3) business days of receipt, with any payments secured on any intervening days.	X			
13. Annually for the preceding tax year, post electronic 1099-R forms to MyAccount by January 24 and mail hard copy 1099-R forms by January 31 of the subsequent year.			X	No forms due this month.
14. Answer 95% of Employer Exceptions hunt group (X3532) calls within sixty (60) seconds.	X			
15. Maintain expenditures at or less than Finance Budget as reported in the most recent manager's report (1-month lag).	X			

KPM MONTHLY REPORTING

December 2022

	ACHIEVED			COMMENTS
	YES	NO	N/A	
Investment				
1. Generate investment returns for three (3) and five (5) Year Total Fund Performance greater than the applicable Total Fund Benchmark measured quarterly .	X			
2. Generate investment returns for the long-term (25 years) Total Fund Performance greater than the applicable Actuarial Assumed Rate of Return (6.75%) measured each June 30 .	X			
3. Generate investment returns for three (3) and five (5) Year Total Fund Performance greater than the applicable peer universe median measured quarterly .	X			
4. Complete the IIC's Private Debt & Private Equity Strategic Plan for the calendar year.	X			
5. Manage cash flow and make funds available for the payment of monthly retirement benefits, expenses and capital calls on or before the last business day of the month.	X			
6. Manage continuously the asset allocation within approved ranges and rebalance as appropriate.	X			
7. Maintain trading cost at or below median of applicable peer universe.	X			
8. Ensure all proxies are voted consistent with the Board approved Proxy Policy.	X			
9. Distribute complete and accurate Investment Committee materials to all members of the Investment Committee on the Friday before the regularly scheduled monthly Investment Committee meeting.	X			
10. Maintain internal expenditures at or less than Investment Budget as reported by Finance in the most recent manager's report (1-month lag).	X			
Legal				
1. Assure no instances of statutory or regulatory non-compliance.	X			
2. Provide disability recommendations to the Board within sixty (60) calendar days of receipt in the Legal Dept.	X			
3. Commence an adjudicative proceeding within sixty (60) calendar days of receipt of administrative appeal.	X			
4. Present a recommended decision to the Board within seventy-five (75) calendar days after the close of the record in an appeal.	X			

KPM MONTHLY REPORTING

December 2022

	ACHIEVED			COMMENTS
	YES	NO	N/A	
5. Perform employer compliance field audits; a rolling average of 2 audits per experienced auditor per month over the prior 12-month period.	X			
6. Present one (1) employer education session per quarter.	X			
7. Answer 95% of Employer Audit/Compliance hunt group (X3681) calls within sixty (60) seconds.	X			
8. Maintain expenditures at or less than Legal Budget as reported by Finance in the most recent manager's report (1-month lag).	X			
Member Services				
1. Calculate all preliminary retirement benefits within thirty (30) calendar days of member-requested date of retirement.	X			
2. Calculate 100% of final retirement benefits (EXCLUDING JULY applications) within seven (7) months of member requested date of retirement provided that all statutorily required documentation has been received and all wages have been reported.	X			
3. Calculate 100% of July final retirements within eight (8) months of member requested date of retirement provided that all statutorily required documentation has been received and all wages have been reported.	X			
4. Schedule member meetings with Benefit Specialists within ten (10) business days of request.	X			
5. Issue all member retirement benefit estimates within thirty (30) business days of receipt of request.	X			
6. Enter member enrollment form data into Pension Gold (PG) within fifteen (15) business days of receipt.	X			
7. Process member refund requests within ninety (90) calendar days of receipt of written request.	X			
8. Process service purchases within fifteen (15) business days of request receipt.	X			
9. Process additional contribution calculations within ninety (90) calendar days of receipt.	X			
10. Process all non-employer audit correction related employer contribution refunds within sixty (60) business days of receipt.	X			
11. Post all interest to member accounts within the month that Finance authorized the activity.	X			
12. Adhere to payroll "close" schedule for benefit setup balancing purposes.	X			

KPM MONTHLY REPORTING

December 2022

	ACHIEVED			COMMENTS
	YES	NO	N/A	
13. Process all pension changes within thirty (30) calendar days of receipt/notification.	X			
14. Process retiree death benefit refund payments within sixty (60) calendar days following receipt of all required paperwork.	X			
15. Establish survivorship benefit setup for payment within sixty (60) calendar days following receipt of all required death documentation and pension recoveries.	X			
16. Submit new recoupment cases to Recoupment Committee by next committee meeting following discovery.	X			
17. Initiate Recoupment/Benefits Committee recoupment decisions within seven (7) business days of decision.	X			
18. Review and balance updates submitted by employers and TPAs to PG for insurance rate changes received by the first business day of each month within four (4) business days.	X			
19. Complete monthly insurance non-rate changes by processing all authorizations received by the date the annuity payroll is posted with zero carryovers.	X			
20. Render QDRO qualification determinations within federal time limit guidelines.	X			
21. Maintain expenditures at or less than Member Services Budget as reported by Finance in the most recent manager's report (1-month lag).	X			
Human Resources				
1. Ensure compliance with all Federal, State and CBA rules and regulations as measured by no notices of violation.	X			
2. Respond to all payroll errors within one (1) business day and correct all payroll errors within one pay cycle.	X			
3. Reduce recruitment time for open staff positions to no more than forty-five (45) business days and open management/executive positions to no more than ninety (90) business days.	X			
4. Maintain expenditures at or less than HR Budget as reported by Finance in the most recent manager's report (1-month lag).	X			
PIO				
1. Schedule a minimum of thirty (30) member/constituent education sessions in Concord and statewide each year.	X			

KPM MONTHLY REPORTING

December 2022

	ACHIEVED			COMMENTS
	YES	NO	N/A	
2. Achieve ninety-five percent (95%) rating of members attending a live education session that the session was “completely/moderately” easy to understand.	X			
3. Meet all deadlines in editorial calendar.	X			
4. Monitor media coverage of NHRS and provide articles to Board, IIC and Staff within two (2) business days.	X			
5. Post updated legislative summaries on www.nhrs.org by the end of business every Friday throughout the legislative session.			X	Legislature not in session.
6. Prepare and deliver Quarterly Report to the General Court by January 1, April 1, July 1 and October 1.	X			
7. Maintain expenditures at or less than PIO Budget as reported by Finance in the most recent manager’s report (1-month lag).	X			
Internal Audit				
1. Prepare a Risk Assessment and Fiscal Year Audit Plan for the approval of the Audit Committee annually.			X	This process started during the 3 rd quarter
2. Execute and present an assurance audit to the Audit Committee every quarter.	X			
3. On behalf of the external auditors, administer the GASB census data audits and provide the completed audits to the external auditors by the established due date.			X	This process takes place during the 4 th and 1 st quarters.
4. Prepare the updated NHRS Audit Issues Tracking Report for the Audit Committee and Board of Trustees at least three (3) business days prior to the scheduled Board/Committee mailing.	X			
5. Distribute complete and accurate Audit Committee materials to all members of the Audit Committee by the Thursday before the monthly meeting.	X			
6. Prepare draft Audit Committee Meeting minutes for review within three (3) business day of the meeting.	X			
7. Maintain expenditures at or less than Internal Audit Budget as reported by Finance in the most recent manager’s report (1-month lag).	X			
Contact Center				
1. Respond to all incoming emails within 24 business hours.	X			
2. Maintain an average speed of answer within two (2) minutes.	X			We maintained an average of 0:15:20.
3. Transfer less than ten percent (10%) of calls to Subject Matter Experts (SMEs).		X		We transferred 10.23% of calls to SMEs due, in part, to large numbers of EDD changes and

KPM MONTHLY REPORTING

December 2022

	ACHIEVED			COMMENTS
	YES	NO	N/A	
				death cases.
4. Maintain a 95% call satisfaction rating for callers' experience with the Contact Center Representative (CCR).	X			We maintained a 98.48% satisfaction rating.
Administrative				
1. Prepare and distribute monthly Board materials electronically by the Thursday before the Tuesday meeting.	X			
2. Post Board and committee meeting notices according to 91-A:2.	X			
3. Prepare minutes of Board and Board Committee meetings according to the timeliness guidelines in 91-A:2 and 91-A:3, with draft minutes for internal review ready by close-of-business on the Friday following the Board meeting.	X			
4. Prepare draft MTeam minutes and forward to Executive Director for review within 3 business days of meeting; to managers for review within 5 business days of meeting; and post final minutes to the common drive by the Friday following the meeting.	X			
5. Assure that formal complaints are responded to within ten (10) calendar days.			X	No complaints were received this month.
6. Maintain expenditures at or less than Administration Budget as reported by Finance in the most recent manager's report (1-month lag).	X			
7. Maintain expenditures at or less than Board of Trustees Budget as reported by Finance in the most recent manager's report (1-month lag).	X			

**Contact Center
Dec-22**

Phone Calls

	Total	Percentage
Calls addressed by CCRs	2088	89.77%
Calls forwarded to SMEs	238	10.23%
Total	2,326	100.00%

Post Call Surveys

	Total
Total Calls Handled	2,326
Surveys Completed	68
% of Total Calls Completion Rate	2.92%

Emails

	Total	Percentage
Emails addressed by CCRs	375	47.77%
Emails forwarded to SMEs	410	52.23%
Total	785	100.00%

Goal: Answer calls within 2 minutes with 5% abandon rate.

Queue Name	Calls Presented	Calls Handled	Percentage	Calls Abandoned	Percentage	Average Queue Time	Average Speed of Answer	Average Time to Abandon	Average Handle Time
Member	782	775	99.10%	7	0.90%	0:16:00	0:15:00	0:27:00	5:19:00
Reception	671	640	95.38%	31	4.62%	0:18:00	0:16:00	1:06:00	3:59:00
Retiree	914	911	99.67%	3	0.33%	0:16:00	0:15:00	1:05:00	3:42:00
1099	0	0	0.00%	0	0.00%	0:00:00	0:00:00	0:00:00	0:00:00
Totals	2367	2326	98.27%	41	1.73%	0:16:40	0:15:20	0:52:40	4:20:00

Average

Contact Center Metrics

Year 2: December 7, 2021 – December 6, 2022

Year 1 **Year 2**

▶ Total Calls:	32,862	33,736
Total Calls handled by CCRs:	30,797	31,272
Total Calls transferred to SMEs:	2,065	2,464
▶ Total Emails:	12,623	16,589
▶ Total Emails handled by CCRs:	5,153	7,001
Total Emails transferred to SMEs:	7,470	9,588

Process Enhancements

▶ Monthly Lunch and Learn

- 384 Attendees with 33 attending multiple sessions
- Requested appointment after attending – 3
- Requested refund instead of filing – 1

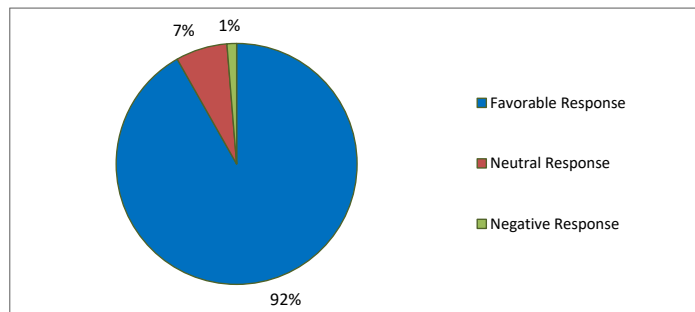
▶ Now You Know

- Assisted with Revisions to How to Read Your Estimate & How to Complete an Estimate Card
- Created – Refund Process & Top Q&A for new Retirees

NHRS Board Monthly Reporting Package
Process Improvement
December 2022

Executive Director Telephone Survey Results

	Number of Names on Call List	Number of Connections Made	Favorable Response (1)	Neutral Response (2)	Negative Response (3)	Left VM No Call Back (4)	Bad Phone Number/Not in Service/No VM (5)
2022							
December	30	14	11	2	1	12	4
November	50	36	30	4	2	9	5
October	40	25	23	2	0	9	6
September	40	20	18	2	0	15	5
August	50	27	24	3	0	18	5
July	40	22	20	2	0	13	5
June	40	17	17	0	0	18	5
May	40	20	18	2	0	16	4
April	40	20	20	0	0	15	5
March	50	23	22	0	1	24	3
February	40	26	24	2	0	10	4
January	40	28	27	1	0	11	1
2021							
December	50	30	28	2	0	16	4
November	40	24	21	3	0	11	5
October	40	19	15	3	1	15	6
January - September	0	0	0	0	0	0	0
2020							
January - December	100	50	47	2	1	37	13
2019							
January - December	500	228	216	7	5	150	122
2018							
January - December	490	227	217	8	2	183	80
2017							
January - December	460	214	204	8	2	168	78
2016							
January - December	520	258	230	25	3	189	73
2015							
January - December	510	273	242	28	3	152	85
2014							
October - December	87	36	28	8	0	30	21
	3297	1637	1502	114	21	1121	539





NHRS

New Hampshire Retirement System

To: NHRS Board of Trustees

From: Jan Goodwin, Executive Director

Date: December 29, 2022

Re: K logix penetration testing

Item: Action: ☐ Discussion: ☐ Informational: ☒

In accordance with the Board's Procurement Policy regarding the Executive Director's authority to approve contracts under \$25,000, I am notifying the Board that I have approved the attached recommendation from Director of IT Frank Clough, to again engage with K logix for penetration testing for the second year in a row. The cost quote for this testing is \$19,934.

Our Mission: To provide secure retirement benefits and superior service.



NHRS

New Hampshire Retirement System

To: Jan Goodwin, Executive Director; Tim Crutchfield, Deputy Director and Chief Legal Counsel

From: Frank Clough, Director of IT & Justin Blondin, Information Security Administrator

Date: December 29, 2022

Re: K logix Penetration Test

Item: Action: ☒ Discussion: ☐ Informational: ☐

NHRS is seeking to engage with K logix again to perform an internal network penetration test. The purpose of a penetration test is to identify unknown security gaps, remediate, and test existing security controls, both technical and non-technical.

If approved, we will purchase penetration testing services for \$19,934 and testing will begin on or after January 23, 2023. Testing will be conducted during business hours and will conclude after 8 days. Upon completion, NHRS will have a small window to remediate critical findings and perform 1 day of retesting with K logix.

The scope of this project will be limited to the internal NHRS network, as well as the disaster recovery site. This includes all laptops, desktops, servers, switches, phones, printers, and miscellaneous devices. We will not be testing our external infrastructure as this was recently completed by a separate third-party vendor.

Based on internal changes and the high quality of prior testing from K logix, IT staff recommends engaging with this vendor for the second year in a row in lieu of other vendors. This will provide us with a multitude of benefits: a strong baseline report to make comparisons with the knowledge that the testing methodology is the same, identify our secure changes over the last year, and the benefit of K logix having prior knowledge of our design to provide an even higher level of quality while testing. For the reasons stated above, we recommend moving forward with the penetration testing services offered by K logix.

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Division: Executive

Date: December 27, 2022

Approved: July 1, 2022

FY 2023 Action Plan Summary

ACTION	PM	DATE	STATUS/COMMENTS
1. Complete implementation of data security assessment recommendations and continue to enhance IT security.	JG/FC	6/30/23	Note: While most of the recommendations have been implemented, there are a few that are ongoing as part of the PGV3 implementation project.
2. Complete project plan milestones for LRS Pension Gold (PGV3) project.	JG/TK	6/30/23	This is a four-year project scheduled for completion in 2024. Project modifications have added 6 months to the original completion date.
3. Identify areas for improved efficiencies across the organization, including assessing and improving employee engagement.	JG/All	6/30/23	In process.
4. Enhance member, beneficiary, and employer education: identify/review industry best practices for education and engagement; adjust existing education programming, as needed.	JG/MK	3/31/23	In process.
5. Implement agreed-upon elements of Vision for NHRS.	JG/All	6/30/23	In process.

To: Board of Trustees

From: Tim Crutchfield

Date: December 29, 2022

Re: Legal Team Operating Report

Item: Action: ☐ Discussion: ☐ Informational: ☒

Significant Developments and Priority Issues

- Legal staff has drafted the CY 2023 Board calendar and internal regulatory compliance calendar.

Current Month Highlights

- The Governance Committee has recommended Board approval for the annual revisions to the Governance Manual and the renewal of the fiduciary insurance coverage for 2023.
- Over the past 12 months, the Employer Audit Team has completed 62 standard and 22 GASB audits. There are 9 standard audits in process, covering approximately 764 members.
- Legal staff is working with Groom Law to collect additional information regarding the medical subsidy process for state retirees to provide to the IRS as part of the Private Letter Ruling (PLR) request stemming from the legislative requirement in HB2 of 2021. That legislation calls for the IRS to opine on the proposed medical subsidy legislation that could result in NHRS paying more than the actual premium amounts for certain state retirees.
- The eight Legal KPMs this month were achieved.

Upcoming Plans & Projects

- The Statement of Financial Interests forms are due to the Secretary of State's Office by January 20.

Administrative Appeals

Prior 12 months	Total Cases on Appeal at start of the month	New Appeals	Closed Appeals	Total Cases on Appeal end of the month
Dec. '22	8	2	2	8
Nov. '22	9	0	1	8
Oct. '22	8	2	1	9
Sept. '22	8	0	0	8
Aug. '22	7	1	0	8
July '22	7	0	0	7
June '22	7	1	1	7
May '22	7	1	1	7
April '22	7	0	0	7
Mar. '22	9	1	3	7
Feb. '22	10	0	1	9
Jan. '22	11	1	2	10
Totals		9	12	

Disability Appeals

Prior 12 months	Total Cases on Appeal at start of the month	New Appeals	Closed Appeals	Total Cases on Appeal end of the month
Dec. '22	1	0	0	1
Nov. '22	1	0	0	1
Oct. '22	1	0	0	1
Sept. '22	1	0	0	1
Aug. '22	1	0	0	1
July '22	1	0	0	1
June '22	1	0	0	1
May '22	0	1	0	1
April '22	0	0	0	0
Mar. '22	0	0	0	0
Feb. '22	0	0	0	0
Jan. '22	0	0	0	0
Totals		1	0	

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FY 2023 Action Plan Summary

ACTION	PM	DATE	STATUS/COMMENTS
1. Review 100-A and propose recommended technical changes.	TC/MK	9/30/22	In process. Board approved recommended technical changes at its 8/9/22 meeting. LSR introduced last month.
2. Conduct and document annual review of NHRS legal and governance policies, procedures, and manuals to assure best practices.	TC	12/31/22	In process. Annual Governance Manual revisions are on the January Board agenda.
3. Update the annual compliance calendar to ensure statutory compliance in all organizational areas.	TC	12/31/22	CY '23 calendar completed.
4. Ensure annual compliance with the Voluntary Correction Program Policy.	TC	3/31/23	To be completed by 3/31/23.
5. Assure legal compliance with all legislative proposals adopted and effective in 2022.	TC	6/30/23	Completed. Staff has implemented enacted legislation.
6. Review NHRS website for legal compliance with updates as needed.	TC/MK	6/30/23	Ongoing.
7. Identify, enroll, and complete a professional development program.	TC	6/30/23	To be completed by 6/30/23.



NHRS

New Hampshire Retirement System

To: Board of Trustees

From: Marty Karlon

Date: December 29, 2022

Re: Communications/Legislative Affairs Operating Report

Item: Action: ☐ Discussion: ☐ Informational: ☒

Significant Developments and Priority Issues

- At least 20 LSRs introduced for 2023 Legislative session, many of which would make significant changes to benefits.

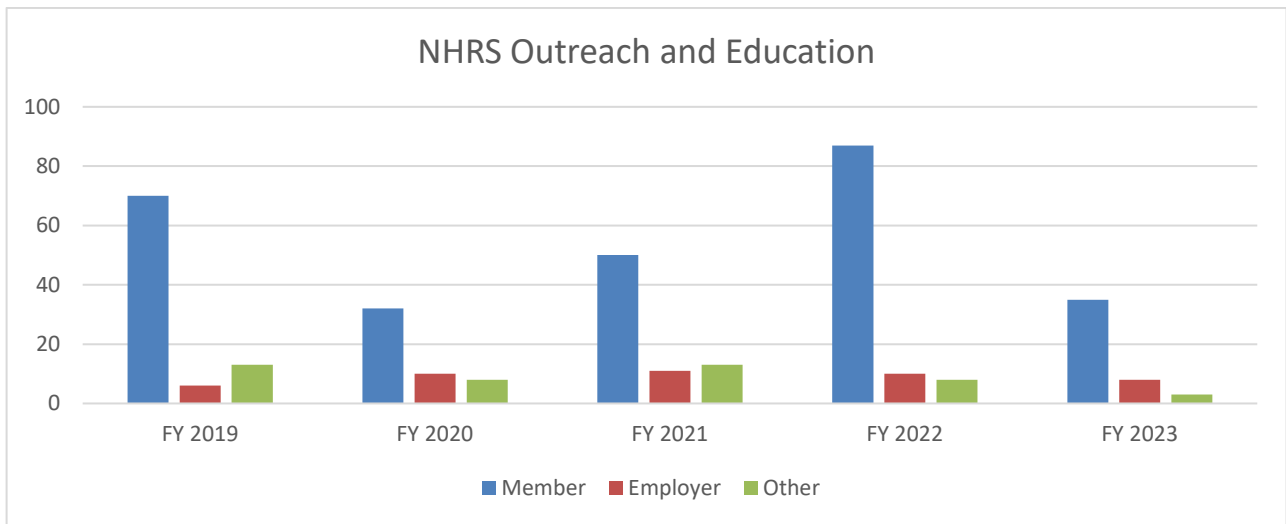
Current Month Highlights

- Hosted or participated in five member-education events and one employer education event.
- Updating website and other materials with FY 2022 data.
- All seven of PIO KPMs were met or not applicable this month.

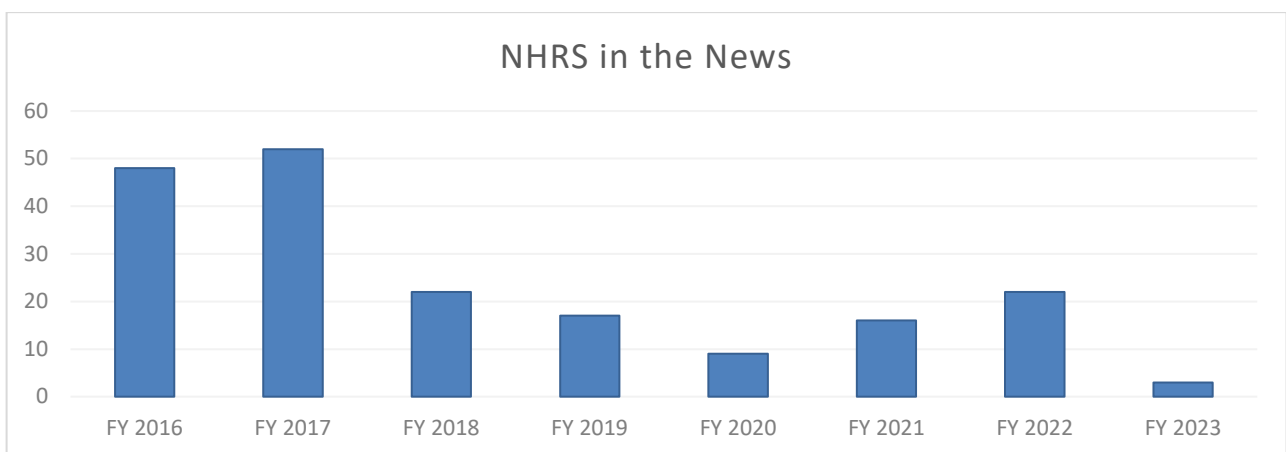
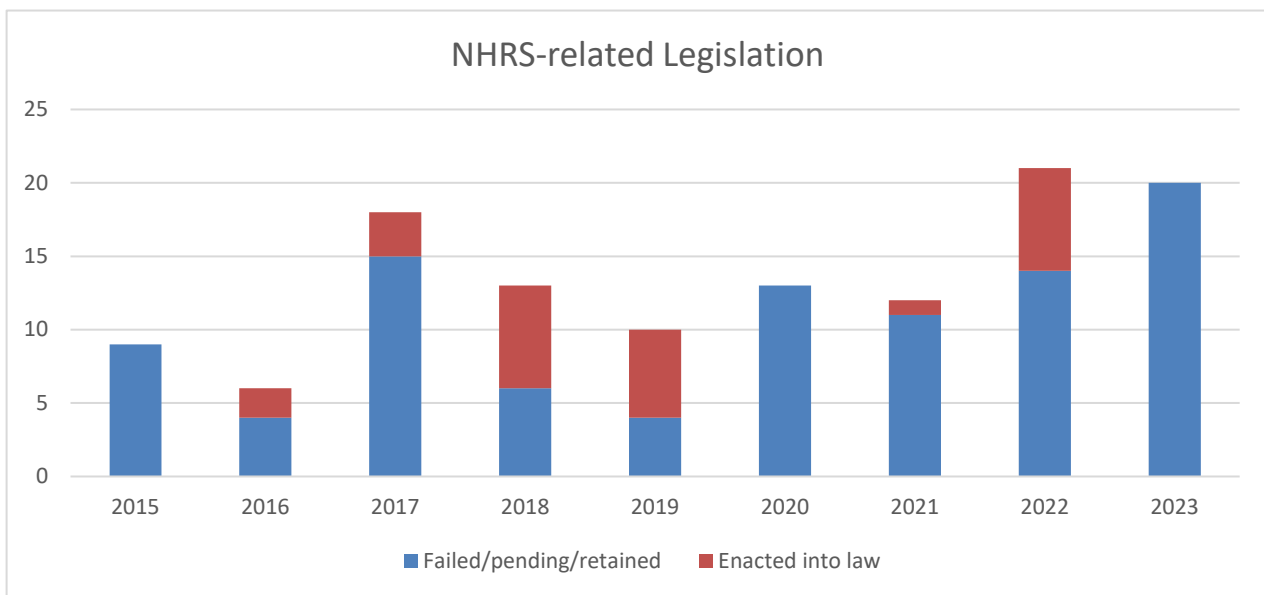
Upcoming Plans & Projects

- 2023 legislative session begins Jan. 4.
- Scheduled to present NHRS overview to House ED&A Committee on Jan. 9.
- Scheduled to host or participate in six member-education events in January.
- Attending NCPERS Communication Roundtable event Jan. 23-24.

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“Other” events include presentations to member, employer, and retiree organizations.



News articles and commentary in NH and national media outlets in which NHRS is the primary subject.

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FY 2023 Action Plan Summary

ACTION	PM	DATE	STATUS/COMMENTS
1. In collaboration with the Finance team and PGV3 Project Manager, create PGV3 employer training and communication plans and hit all FY 23 deliverable dates on time. *	MK / C. Minervini	6/30/23	Ongoing. Developed 2023 employer training schedule. <i>Note: The project runs into FY 24 and will roll over into next year's action plan.</i>
2. Maintain ongoing internal and external communications for overall PGV3 project. *	MK	6/30/23	<i>Note: The project runs into FY 24 and will roll over into next year's action plan.</i>
3. Maintain positive and constructive working relationship with the NH Legislature. *	MK	6/30/23	Ongoing. NHRS technical correction legislation introduced.
4. Develop and release member surveys assessing knowledge and comfort level with NHRS benefits and preferences for additional education efforts. *	MK / PIO staff	1/31/23	Ongoing.
5. Continue to enhance member interface to include younger employees/members in the NHRS system. *	MK / PIO staff	5/31/23	Ongoing.
6. Develop 3-5 recorded member/retiree/employer presentations on specific topics.	MK / PIO staff	6/30/23	Ongoing.
7. Grow calendar year-over-year audience for social media channels by 10-15%.	MK / PIO staff	6/30/23	Ongoing.
8. Identify, enroll, and complete a	MK	6/30/23	Completed. Attended two-day course in

professional development opportunity.			July titled “Benefit Communication and Technology Institute,” and NASRA annual convention in August.
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* - *Aligns with initiatives listed on NHRS Three-Year Strategic Plan.*



To: Board of Trustees
From: Raynald Leveque, Chief Investment Officer
Date: January 10, 2023
Re: Investments Operating Report
Item: Action: ☐ Discussion: ☐ Informational: ☒

Significant Developments and Priority Issues

- December Investment Committee (Committee) Meeting Recap:
 - Staff presented an update on the monthly performance of the public market asset classes of the NHRS, rebalancing, holdings, and the Work Plan.
 - The Committee unanimously voted to terminate the System's investment in the Neuberger Berman Emerging Markets Equity Fund and transition the assets to the BlackRock ACWI ex-U.S. CTF.
 - Callan presented their public markets equity structure review.
 - The Committee unanimously voted to renew the contracts with Alliance Bernstein, TS&W, Aristotle, and Lazard for two-year periods.
 - The Townsend Group presented an update on the status of the Real Estate Investment Plan for the fiscal year and the Committee unanimously voted to approve Townsend's Calendar Year 2023 Investment Plan.
 - Callan presented a detailed review of the private equity and private debt assets of the NHRS portfolio, and the Committee unanimously voted to approve the private equity and private debt strategic plan for CY 23.

Current Month Highlights

- Preliminary Performance:

As of 11/30/22	1-MO	FYTD	1-YR	3-YR	5-YR	10-YR
NHRS Total Fund <u>Net</u> Return	+3.90%	+3.53%	-3.26%	+7.36%	+6.84%	+8.25%
Policy Benchmark Return	+4.50%	+2.29%	-7.27%	+5.96%	+6.35%	+8.22%
Excess Returns (basis points)	-60	+124	+401	+140	+49	+3

Source: Callan

- KPM Performance for December 2022:
 - All 10 KPMs for Investments were met.

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Upcoming Plans & Projects

- January Committee Meeting:
 - Staff will present an update on the monthly performance of the public market asset classes of the NHRS, rebalancing, holdings, and the Work Plan.
 - The Committee will hear a presentation from Fixed Income manager Fidelity in conjunction with the two-year contract extension process.
 - Staff will present a rebalancing plan for the System's Fixed Income holdings.
 - The CIO will lead a discussion on the investment recommendation process and contract renewal process.

Securities Litigation Summary

Staff regularly monitors and participates in class action securities litigation to recover NHRS funds lost through investments in public securities. NHRS engages with our custodian bank to participate in standard US class action litigation (the current custodian is BNY Mellon). NHRS also hired ISS in 2018 to provide a litigation research and claims filing solution for non-standard US class action and international securities litigation. The table below reports the annual historical recoveries for the NHRS.

Calendar Year	Amount
2005	\$ 624,261
2006	\$ 1,373,631
2007	\$ 2,410,390
2008	\$ 1,980,702
2009	\$ 1,972,216
2010	\$ 1,374,754
2011	\$ 550,324
2012	\$ 835,766
2013	\$ 310,321
2014	\$ 803,621
2015	\$ 627,131
2016	\$ 670,404
2017	\$ 1,280,969
2018	\$ 279,783
2019	\$ 675,406
2020	\$ 289,418
2021	\$ 483,889
2022 through November 30th	\$ 182,277
Total:	\$ 16,725,262

Source: BNY Mellon, ISS, NHRS, Northern Trust

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FY 2023 Action Plan Summary

ACTION	PM	DATE	STATUS/COMMENTS
1. Assure compliance with all relevant statutory and regulatory requirements.	CIO/IIC/BOT	6/30/23	No exceptions have been identified.
2. Complete Private Debt/Equity Work Plan for Calendar Year 2023.	CIO/IIC	12/31/23	(UPDATED) IIC approved the CY 23 Private Equity & Private Debt Work Plan on December 10, 2022. Implementation will occur in 2023.
3. Complete Real Estate Work Plan for CY 23.	CIO/IIC	12/31/23	(UPDATED) IC approved FY 23 Real Estate Work Plan on December 10, 2022. Implementation will occur in 2023.
4. Maintain investment expenses within budget.	CIO/IIC	6/30/23	Investment expenses are within budget.
5. Implement rebalancing as necessary to address deviations from policy targets.	CIO/IIC/BOT	02/30/23	Non-US Equity & Fixed Income portfolios are outside the lower bound; NHRS investment staff will perform portfolio rebalancing to bring allocation within the policy range.
6. Recommend an optimized investment process for the IIC.	CIO	01/31/23	Recommend an optimized staff-driven process to assist the IIC with investment decision-making for manager selection and termination.
7. Identify, enroll, and complete a professional development program.	CIO	6/30/23	In progress.



NHRS

New Hampshire Retirement System

To: Board of Trustees

From: Nancy J. Miller

Date: January 1, 2023

Re: Member Services Operating Report

Item: Action: ☐ Discussion: ☐ Informational: ☒

Significant Developments and Priority Issues

- Member Services continues work in PGV3 D6, along with workflows across other designs.
- Conversations continue with LRS relative to the calculation of Teachers Final Average Salary in PGV3.

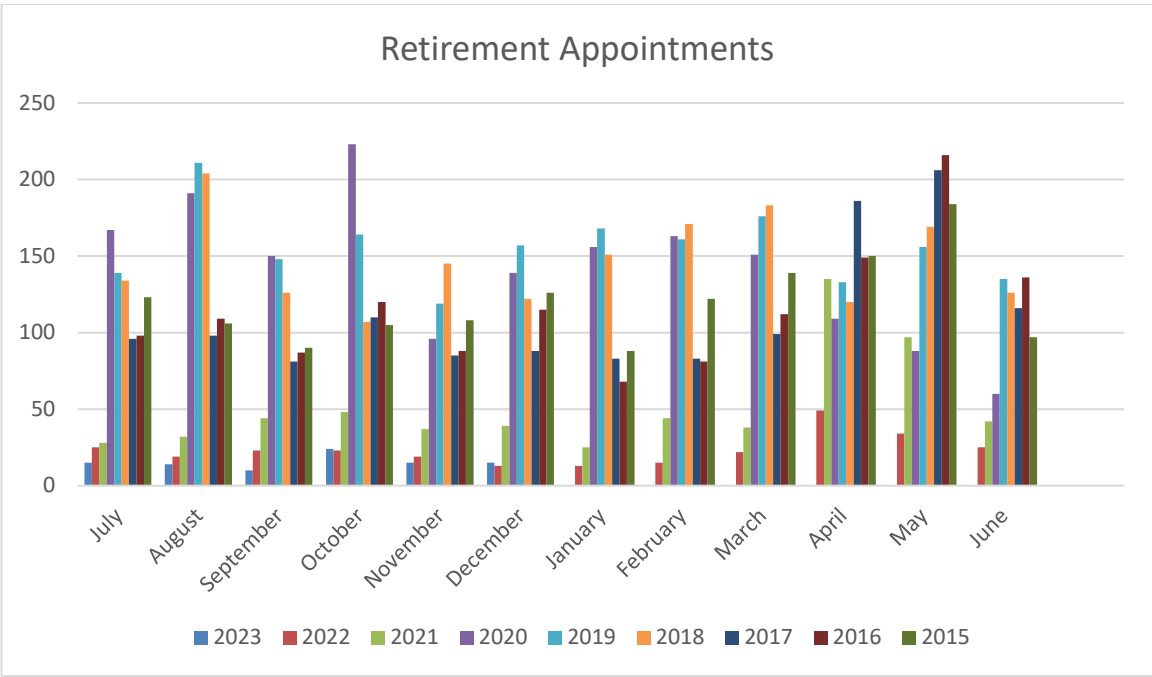
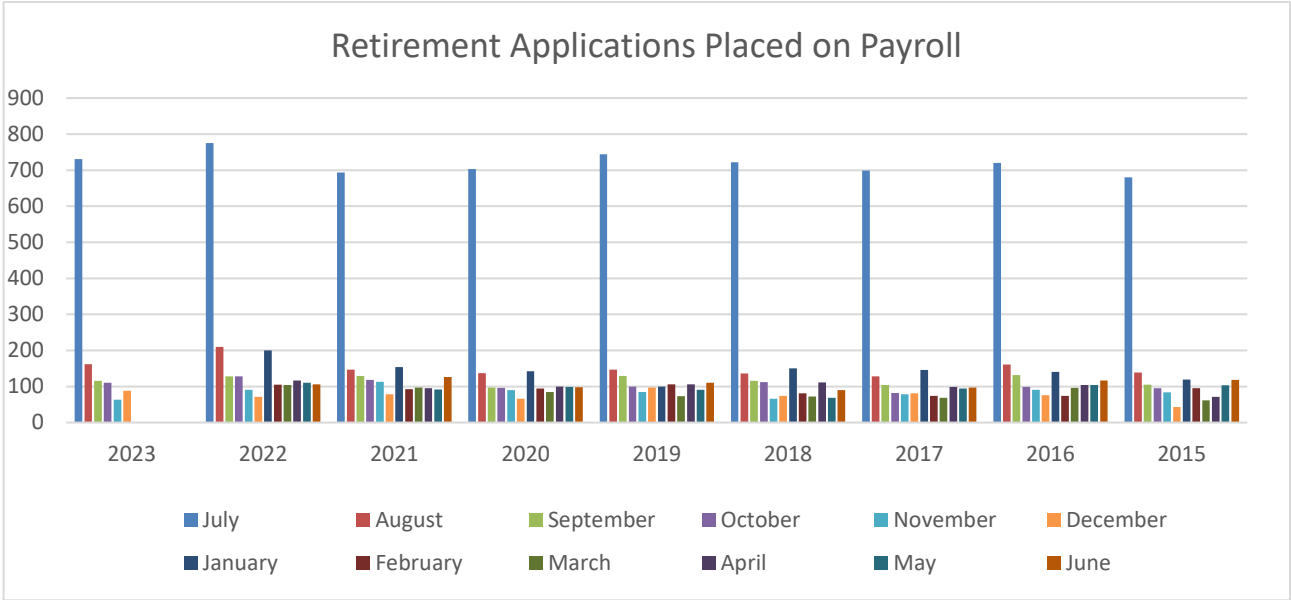
Current Month Highlights

- Staff completed testing the adjusted PGV2 fields created to accommodate the new W4P form required for January 2023.
- Member Services participated in new LSR review and response, along with the other members of the Legislative Team.
- Staff is currently testing the GRS service purchase calculators that were adjusted for the new interest rate.
- Member Services achieved all 21 of its KPMs this month.

Upcoming Plans & Projects

- Preparation for the annual Medical Subsidy Recipient Questionnaire mailing is occurring.
- PGV3 D6 UAT testers will be identified in January as test cases are received and reviewed.
- PG parallel-preparation conversations with NHRS project management will continue in the upcoming month.

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Our Mission: To provide secure retirement benefits and superior service.

FY 2023 Action Plan Summary

ACTION	PM	DATE	STATUS/COMMENTS
1. Adhere to and complete PGV3 project plan milestones relative to all Member Services functions.	NM/MS/IT/LRS	6/30/23	In process.
2. Develop and implement an Employer Term Form tracking, and penalty issuance process, with monthly reporting capabilities.	Member Benefits/Legal/PIO	8/30/22	Completed.
3. Create new member correspondences, internal workflows, accountabilities, and documented procedures relative to all 2022 legislative	MS/PIO/Legal/Contact Center/LRS	Dates to be added as legislation passed/implementation plans completed HB1497 HB1587 HB 363 HB1535	Completed.

changes with impact to Member Services and benefit calculation functions.			
4. Implement new and adjusted procedures for Retiree Death Case processing to reduce open (outstanding recoupment matters and non-responder) cases by 50%.	MS Retirement Benefits/LexisNexis/Recoupment Committee	8/1/22- New procedures 9/30/22 -Monthly tracking reports 6/30/23 - Reduction of open cases by 50%	In process.
5. Identify and coordinate attendance of a training in which all of Member Services management team attend together as part of continuing education.	MS Managers/HR/Vendor	6/30/23	In process – sent HR seminar materials.



To: Board of Trustees
From: Marie A. Mullen, Director of Finance
Date: December 30, 2022
Re: Finance Operating Report
Item: Action: ☐ Discussion: ☐ Informational: ☒

Significant Developments and Priority Issues

- Status Update on PGV3 Finance deliverables:
 - Deliverable 6 (D6) General Ledger/Reporting/1099-R/Employer Reporting- we continue to review design documents and are preparing for training and testing to begin the first week of February.
 - Meetings occurred with ADP on 12/22/22 & 12/29/22 to discuss the PGV3 XML file format.
 - A schedule to remind Employers to submit test files has been drafted and will be finalized after the next Employer Reporting Rollout Meeting (1/4/2022).
 - Test file from Nashua/SAU42 is anticipated mid-January.
 - Received 96 responses out of 107 from school districts on the teacher contract survey for LRS to create a back-up plan for those unable to report contract information in XML files.
- The audit of the GASB 68/75 employer proportionate share reports and the final FY22 Plante Moran opportunities letter are in process and will be presented to the Audit Committee and the full Board at their respective February meetings.

Current Month Highlights

- Finance completed 13 of the 15 KPMs for the month. Two KPMs did not have deliverables for the month.
- We have resumed FY23 monthly statements, however, due to resource constraints, we will resume reporting in the February Board package for the first quarter of 2023.
- Cash flows for November and fiscal year to date were within the expected range.
- FY23 spending through the first five months of the fiscal year is below budget.
- PGV3 project spending inception to date is below budget and FY23 is below the overall annual budget.

Upcoming Plans & Projects

- Request for Proposals (RFPs) for a five-year contract for external audit services are due on January 5, 2023.
- Interviews continue for the Controller position, and we anticipate an offer by mid-January.

[illegible]

		New Hampshire Retirement System						As of November 30, 2022	
		Pension Gold Version 3 Upgrade							
		Total Project Lifecycle							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		INTERNAL COSTS							TOTAL PROJECT
		Additional Staffing Costs with benefits	Overtime	Current Expenses	Desktop PC's	Desks/Office Furniture	Travel	Subtotal Internal Costs	
1	2019 Budget	\$ 177,145	\$ -	\$ 40,858	\$ 2,644	\$ 2,363	\$ -	\$ 223,010	\$ 1,193,185
2	2019 Actual	\$ 155,718	\$ 3,115	\$ 1,442	\$ 2,644	\$ 2,363	\$ -	\$ 165,282	\$ 1,084,933
3	2019 Variance	\$ 21,427	\$ (3,115)	\$ 39,416	\$ -	\$ -	\$ -	\$ 57,728	\$ 108,252
4	2019 Comments								
5									
6									
7	2020 Budget	\$ 525,220	\$ 20,000	\$ 9,000	\$ 11,100	\$ 20,000	\$ 2,250	\$ 587,570	\$ 2,946,761
8	2020 BUD Update							\$ -	\$ (543,726)
9	2020 Adj Budget	\$ 525,220	\$ 20,000	\$ 9,000	\$ 11,100	\$ 20,000	\$ 2,250	\$ 587,570	\$ 2,403,035
10	2020 Actual	\$ 368,213	\$ 883	\$ 2,334	\$ -	\$ -	\$ -	\$ 371,430	\$ 2,114,074
11	2020 Variance	\$ 157,007	\$ 19,117	\$ 6,666	\$ 11,100	\$ 20,000	\$ 2,250	\$ 216,140	\$ 288,962
12	2020 Comments								
13									
14									
15	2021 Budget	\$ 624,041	\$ 20,000	\$ 9,000			\$ 2,250	\$ 655,291	\$ 2,952,202
16	2021 BUD Update							\$ -	\$ (782,531)
17	2021 Adj Budget	\$ 624,041	\$ 20,000	\$ 9,000	\$ -	\$ -	\$ 2,250	\$ 655,291	\$ 2,169,671
18	2021 Actual	\$ 374,098	\$ 12,842	\$ 1,009	\$ -	\$ -	\$ -	\$ 387,949	\$ 2,152,323
19	2021 Variance	\$ 249,943	\$ 7,158	\$ 7,991	\$ -	\$ -	\$ 2,250	\$ 267,342	\$ 17,348
20	2021 Comments								
21									
22									
23	2022 Budget	\$ 655,243	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ -	\$ 685,243	\$ 2,195,102
24	2022 BUD Update	\$ (55,316)					\$ 2,250	\$ (53,066)	\$ 609,066
25	2022 Adj Budget	\$ 599,927	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ 2,250	\$ 632,177	\$ 2,804,167
26	2022 Actual	\$ 413,963	\$ 1,760	\$ 672	\$ -	\$ -	\$ -	\$ 416,395	\$ 1,547,068
27	2022 Variance	\$ 185,964	\$ 18,240	\$ 9,328	\$ -	\$ -	\$ 2,250	\$ 215,782	\$ 1,257,099
28	2022 Comments								
29									
30									
31	2023 Budget	\$ 688,005	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ -	\$ 718,005	\$ 2,007,239
32	2023 BUD Update	\$ (65,909)					\$ 2,250	\$ (63,659)	\$ 70,863
33	2023 Adj Budget	\$ 622,096	\$ 20,000	\$ 10,000	\$ -	\$ -	\$ 2,250	\$ 654,346	\$ 2,078,101
34	2023 Actual	\$ 219,775	\$ 247	\$ 241	\$ -	\$ -	\$ -	\$ 220,263	\$ 974,728
35	2023 Variance	\$ 402,321	\$ 19,753	\$ 9,759	\$ -	\$ -	\$ 2,250	\$ 434,083	\$ 1,103,373
36	2023 Comments								
37									
38									
39	2024 Budget	\$ 722,405	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ 727,405	\$ 2,205,526
40	2024 BUD Update	\$ (69,204)						\$ (69,204)	\$ 460,400
41	2024 Adj Budget	\$ 653,201	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ 658,201	\$ 2,665,926
42	2024 Actual	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	2024 Variance	\$ 653,201	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ 658,201	\$ 2,665,926
44	2024 Comments								
45									
46									
47	TOTAL Budget	\$ 3,392,059	\$ 80,000	\$ 83,858	\$ 13,744	\$ 22,363	\$ 4,500	\$ 3,596,524	\$ 13,500,014
48	TOTAL BUD Update	\$ (190,429)	\$ -	\$ -	\$ -	\$ -	\$ 4,500	\$ (185,929)	\$ (185,929)
49	TOTAL Adj Budget	\$ 3,201,630	\$ 80,000	\$ 83,858	\$ 13,744	\$ 22,363	\$ 9,000	\$ 3,410,595	\$ 13,314,085
50	TOTAL Actual	\$ 1,531,767	\$ 18,847	\$ 5,698	\$ 2,644	\$ 2,363	\$ -	\$ 1,561,319	\$ 7,873,126
51	TOTAL Variance	\$ 1,669,863	\$ 61,153	\$ 78,160	\$ 11,100	\$ 20,000	\$ 9,000	\$ 1,849,276	\$ 5,440,960
52	TOTAL Comments								
53									
54	Assumptions:								
55		No costs associated with PGV2 are included in this analysis							
56		PGV3 Support Costs are at the Standard rate (as opposed to premium)							
57		Implementation Costs detailed in each year's Adjusted Budget match the payment schedule in the LRS contract, and total the not-to-exceed amount							
58		The Adjusted Budget for Internal Costs reflects the amounts included in the FY22/23 statutory administrative budget.							
59		There are no costs for hardware that may be necessary at COLO included above							
60		Consulting costs in total are set at the not-to-exceed amount set in the contract with LRWL							
61		In FY24, additional staffing costs are increased 5% over FY23							

House Bill (HB) 1221 Certification Placeholder

(Materials will be available at the Board meeting)

Division: Finance

Date: 12/31/2022

Approved: September 19, 2022

FY 2023 Action Plan Summary

ACTION	PM	DATE	STATUS/COMMENTS
1. Perform tasks associated with PGV3 implementation, as per contractual implementation schedule.	JT/MM/Finance Team/PGV3 Steering Committee	6/30/23	Finance Team has been participating in various system design reviews, testing, employer file conversion and outreach.
2. Receive unmodified audit opinion for FY 22 audit.	MM/Finance Team	12/31/22	Completed.
3. Assure all statutory and other financial reporting deadlines and requirements are met, including the ACFR, benefit payroll, 1099s, FY 24 NHRS Trust Fund budget.	MM/Finance Team	6/30/23	Ongoing.
4. Deploy “New Staff Member” packet to address turnover of staff from participating employers responsible for NHRS reporting.	MM/JT/PIO	12/31/22	Due to staff constraints and PGV3 prioritization, item is behind schedule. Packet is being finalized, including a newly created Employer Reporting monthly deadline calendar.
5. Work to convert any employers still paying by paper check after the elimination of lockbox services, whether it be through NHRS <i>QuickPay</i> or ACH payment through their own banking partner.	MM/JT/MK	09/30/2023	Lockbox has been discontinued. We continue outreach to any employers still having trouble making electronic payments. We have updated forms not to send checks to lockbox. We hope to revisit the ACH topic with the employers still sending checks before “go-live” for PGV3.

6. Issue RFP and select next vendor for the processing of NHRS 1099 forms.	MM	6/30/23	Annual 1099-R process checklist has been created. RFP process delayed due to vacancies. Will use current vendor for 2022.
7. Meet the deadlines in FY 23 associated with the PGV3 employer reporting rollout, as specified in the rollout plan dated 6/30/21.	JT/MM/PIO	9/30/23	Work is ongoing to validate the test files we have already received, and we expect more files now that we have requested test files from all Employers on 9/9/22 and 11/7/22. We have had additional correspondence with some vendors that had not been part of our top vendor working group regarding the PGV3 file format.
8. Manage & monitor expenditures to stay within the NHRS Trust Fund and statutory administrative budgets.	MM/ E-Team	6/30/23	On track through November.
9. Inventory and evaluate all Finance records stored at state archives to determine if they can be destroyed, or if they need to be kept and/or imaged and destroyed.	MM/Finance Team/IT	6/30/23	Project delayed due to staff vacancies. Effort will be subject to space limitations and capacity for imaging of required files.
10. Enroll in and attend the P2F2 Program offered in October of 2022.	MM	10/31/22	Completed.
11. Issue RFP and select vendor for Annual Financial Audit.	MM	2/28/2023	RFP released December 5, 2022, and anticipate submission of selected vendor to the Audit Committee at the February 2023 meeting.

NHRS DASHBOARD: FY 2022 Fourth Quarter

For the period April 1, 2022, to June 30, 2022

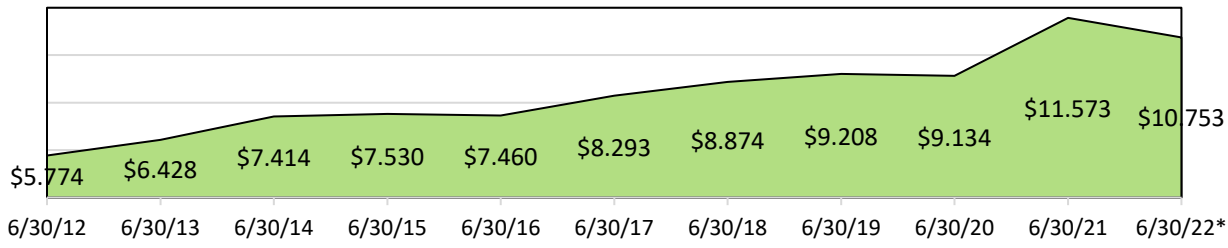
Updated: November 2022

TRUST FUND

4th Quarter FY 2021: \$11.573 billion

4th Quarter FY 2022: \$10.753 billion*

Assets in Billions: June 30, 2012 to present



* Unaudited

INVESTMENT PERFORMANCE

Net-of-fees returns	FYTD – 6/30/22*	1 yr. at 6/30/22	3 yr. at 6/30/22	5 yr. at 6/30/22	10 yr. at 6/30/22
Total Fund Composite	-6.1%	-6.1%	7.1%	7.2%	8.5%
Peer comparison (percentile)	34th	34th	35th	36th	18th

Assumed Rate of Return: 6.75%

KEY PERFORMANCE MEASURES

April 2022: 97.65%

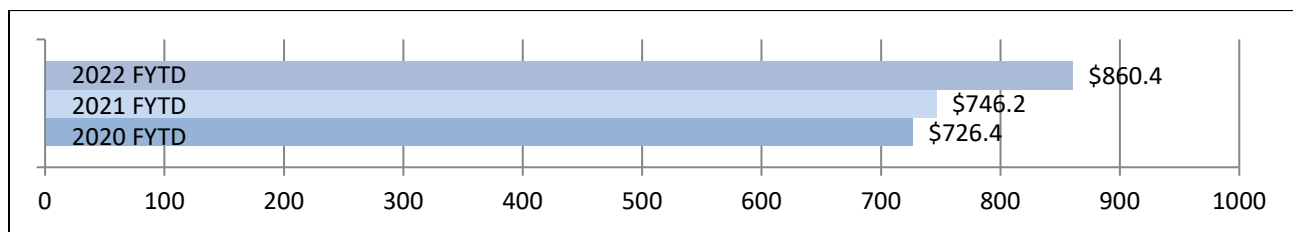
May 2022: 97.67%

June 2022: 97.62%

12-month rolling average: 95.19%

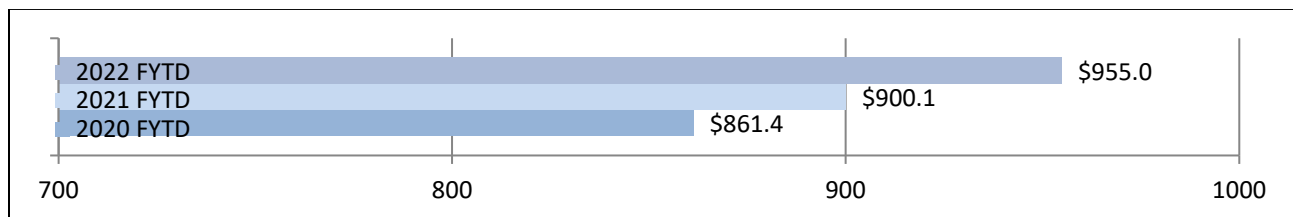
Target: 95%

CONTRIBUTIONS (in millions through 6/30*)



* 6/30/22 data is unaudited

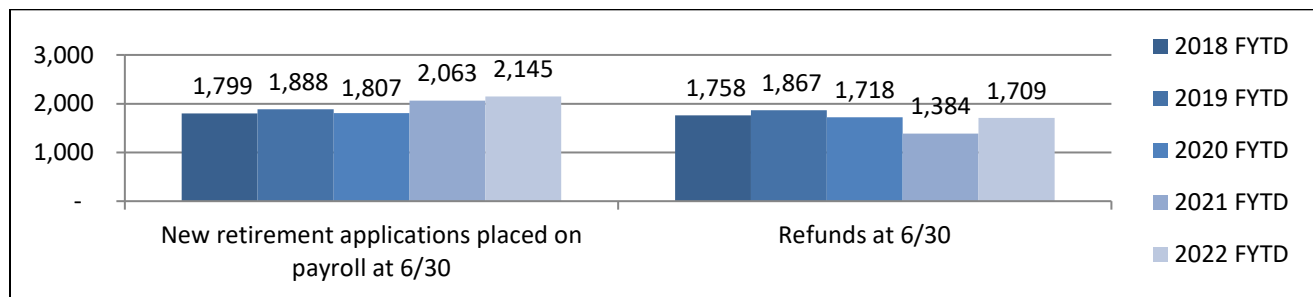
BENEFITS PAID (in millions through 6/30*)



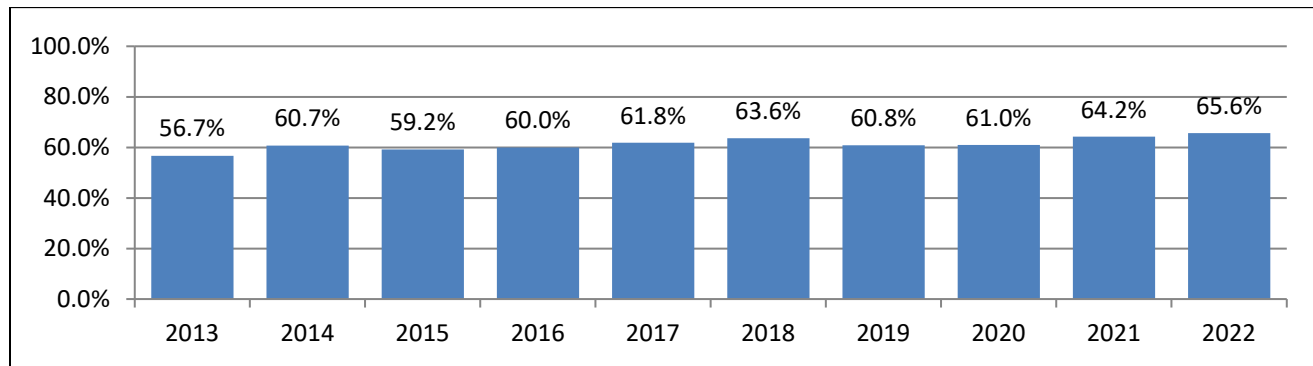
* 6/30/22 data is unaudited

Note: Benefits are paid from member and employer contributions and investment income. Historically, investment income has accounted for the majority of trust fund assets. There is a one-month lag in the reporting of member and employer contributions to NHRS, which accounts for the majority of the quarterly difference between contributions and benefits.

RETIREMENTS AND REFUNDS

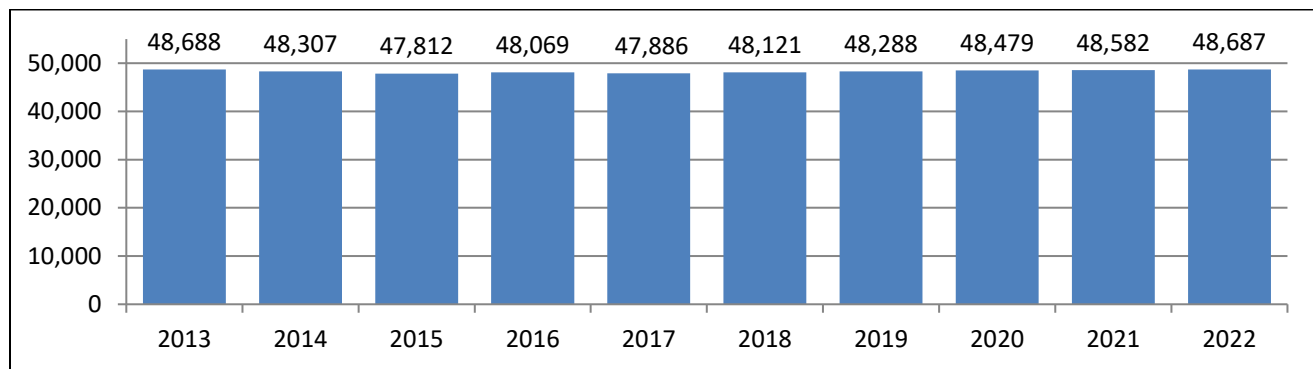


ACTUARIAL FUNDED RATIO

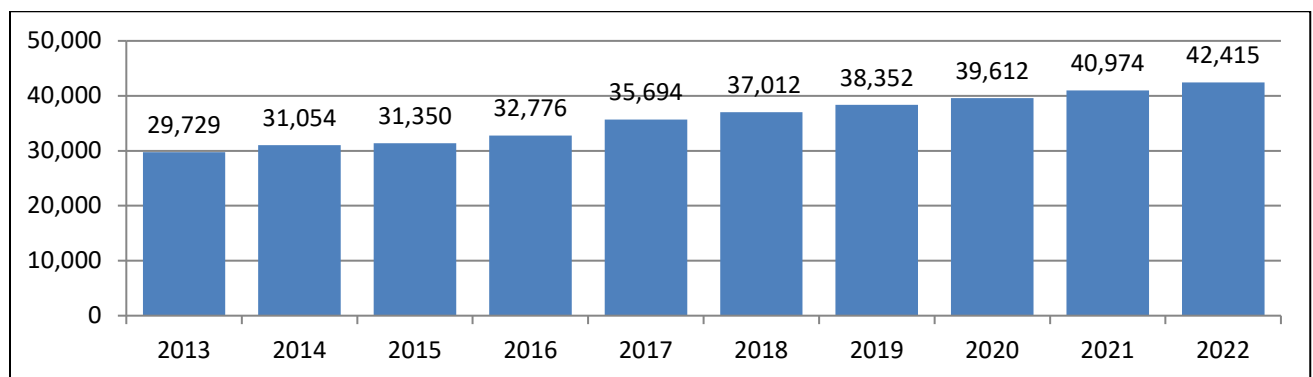


Funded ratio impacted by reductions to assumed rate of return and revised actuarial assumptions effective in 2015 and 2019

ACTIVE MEMBERS



RETIRES & BENEFICIARIES





NHRS

New Hampshire Retirement System

To: Board of Trustees

From: Rosamond Cain, Director of Human Resources

Date: January 10, 2023

Re: HR Operating Report

Item: Action: ☐ Discussion: ☐ Informational: ☒

Significant Developments and Priority Issues

- NHRS currently has two staff openings, the Controller position, and the Director of IT.
- NHRS is researching options for staff payroll software; the vendor we are currently with has been unable to automate the NHRS Employer Report.
- The NHRS staff engagement survey went out January 3rd. We are tabulating the results this week.

Current Month Highlights

- HR met all four HR KPMs last month.
- The NHRS staff holiday lunch and spirit week were a success. We had 83% of staff on site for the luncheon.
- We are working on producing the 2022 W2s and 1095s for our staff

Upcoming Plans & Projects

- We are continuing to evaluate our new staff training process.
- We are planning to look at staff engagement and how to increase it.
- We will be looking into using the payroll software to manage employee notices, trainings, recruitment, and performance.

Our Mission: To provide secure retirement benefits and superior service.

FY 2023 Action Plan Summary

ACTION	PM	DATE	STATUS/COMMENTS
1. Plan, schedule, and present two trainings for our staff annual training plan.	RC/ED/ET/MT	6/30/23	All staff training will be on hold until PGV3 deliverables have been completed.
2. Maintain a management development program for middle managers and staff identified as possible managers.	RC/ED/ET/MT	6/30/23	Program has been documented and guidelines for identifying staff have been documented. As of 12/30/2022, five staff members and three managers are currently participating.
3. Complete data remediation in accordance with DRAPP	RC/FC	6/30/23	Ongoing.
4. Assist in monitoring and maintaining PGV3 Staffing levels to keep the project on time and budget.	RC/ET/MT	6/30/23	Ongoing.
5. Monitor and maintain staffing levels for the NHRS Contact Center.	RC/ED/NC/DH	6/30/23	Ongoing.
6. Continue to assess pandemic threat levels and adapt office protocol appropriately	RC/ED/ET/MT	6/30/23	Ongoing.
7. Ensure compliance with all Federal, State and CBA rules and regulations.	RC/JG/Legal	6/30/23	Ongoing.
8. HR Tech. to identify and enroll in a professional development program.	JG/RFC	9/30/22	Program identified and enrolled in.
9. HR Mgr. to identify, enroll in, and complete a professional development program.	RFC/ED	9/30/22	Program identified and enrolled in.



To: Board of Trustees
From: Frank Clough, Director of Information Technology
Date: December 29, 2022
Re: Information Technology Operating Report
Item: Action: ☐ Discussion: ☐ Informational: ☒

Significant Developments and Priority Issues

- Cybersecurity Awareness Updates – There were 18 (23.4%) failures on the December's phishing test. Additional monthly training was provided to all staff.
- Generator replacement – Generator failed during the last power outage. Unit needs to be replaced.
- The Dell Storage Upgrade – Had a third-party vendor come on site and complete the configuration. The storage device is now operational.
- Migration to a Managed Detection and Response (MDR) service – Working with SecureWorks on install date – estimated in January.
- Fax Migration – We now have faxing in the cloud, and it is operational. We started the rollout; the main fax line is migrated.
- Microsoft Teams migration – We have started the rollout of MS Teams and expected to phase-out Zoom and WebEx in the upcoming year.
- Annual Vulnerability and Penetration Assessment – Waiting on approval.
- PensionGold V3 Technology kick-off – Expedited the project. Hardware and software are on order.

Current Month Highlights

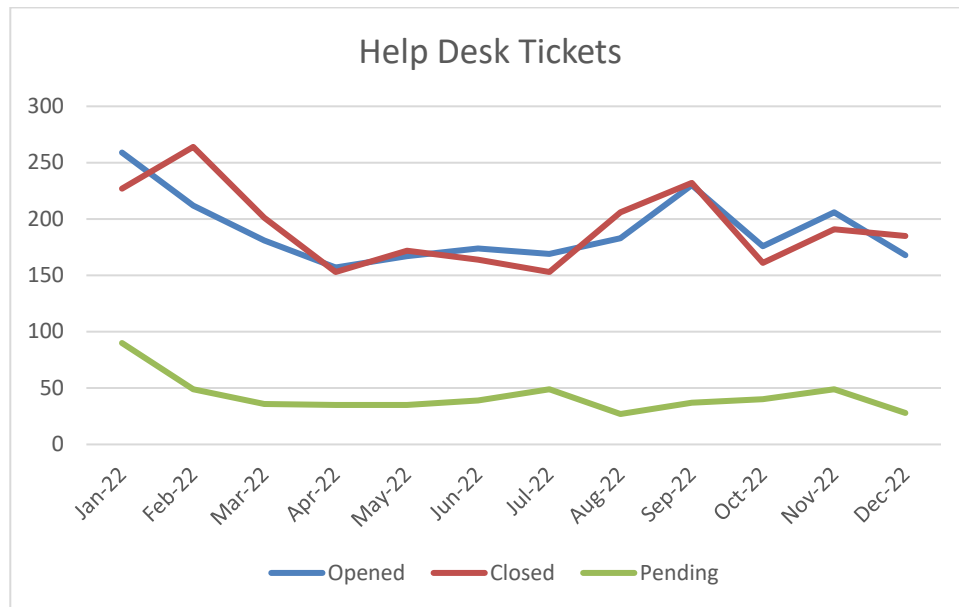
- IT Customer Satisfaction Score – 100%
- KPMs – 8 out of 8 of IT's KPMs were met.

Upcoming Plans & Projects

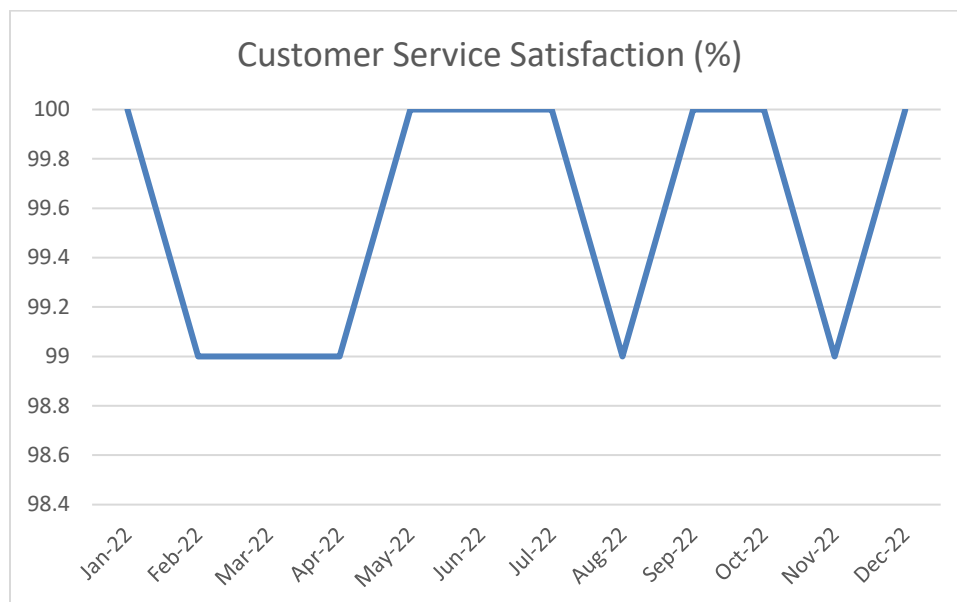
- SharePoint and OneDrive rollout.

Our Mission: To provide secure retirement benefits and superior service.

NHRS Helpdesk Ticket Information by Month



NHRS Customer Satisfaction Scores by Month



Our Mission: To provide secure retirement benefits and superior service.

FY 2023 Action Plan Summary

ACTION	PM	DATE	STATUS/COMMENTS
1. Migrate the existing SecureWorks solution over to a MDR (Managed Detection and Response).	FC	04/30/2023	Scheduled install for January.
2. Upgrade and install the new SAN (Storage Area Network).	FC, JO	10/31/2022	Completed 12/29/2022.
3. Perform and complete yearly staff permissions review.	FC	09/30/2022	Completed 8/31/2022.
4. Execute third-party vulnerability and penetration test.	FC	06/30/2023	Waiting on approval.
5. Upgrade the Zix encryption to latest version.	FC, JO	06/30/2023	Not started.
6. Perform tasks associated with PensionGold V3 implementation, as per contractual implementation schedule.	FC, TK, AS	06/30/2023	PGV3 IT hardware and software has been ordered.
7. Deploy Office 365 hybrid environment. Moving email to the Cloud.	FC, JO	06/30/2023	Completed 12/01/2022.

8. Upgrade network switches for server infrastructure.	FC, JO	06/30/2023	Not started.
9. Upgrade the existing network bandwidth from 500MB to 1000MB.	FC	08/31/2022	Completed 7/1/2022.
10. Identify, enroll, and complete a professional development program.	FC	06/30/2023	SecureWorks Security Trends webinar.

**New Hampshire Retirement System
Board Meeting**

**Consent Agenda
Tuesday, January 10, 2023**

Disability Application Recommendations

1. R.B. Grant accidental disability retirement (ADR) to this group II member who worked for a political subdivision and has 19 years and 7 months of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties due to a medical condition.
2. B.C. Grant accidental disability retirement (ADR) to this group II member who worked for a political subdivision and has 5 years and 2 months of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties due to a medical condition.
3. P.Q. Grant ordinary disability retirement (ODR) to this group I member who worked for the State of New Hampshire and has 20 years of creditable service, based on medical evidence that supports his claim for permanent incapacity from his work duties due to a medical condition.

Administrative Recommendations

4. Villers, J. Recommend that the Board of Trustees not uphold the NHRS Staff's administrative decision of January 12, 2022, and grant the Petitioner's request to restore the creditable service that was removed from his service record.
5. Zetlin, R. Recommend that the Board of Trustees uphold the NHRS Staff's determination regarding the Petitioner's retirement start date.

Trustee Travel

No Travel Requests Submitted



To: NHRS Board of Trustees
From: Jan Goodwin, Executive Director
Date: December 28, 2022
Re: December 13, 2022 - Action Items
Item: Action: ☐ Discussion: ☐ Informational: ☒

1. Distribute CAFR and CAIR as per statute. MK
Action: Complete.
2. Provide the fiduciary insurance renewal and Governance Manual revisions to the Board in January. TC
Action: On the January agenda.
3. Finalize the SecureWorks contract. FC
Action: Complete.
4. Provide the remaining employer audit reconciliations to the Board in January. MM
Action: On the January agenda.
5. Implement Board decisions on the Consent Agenda. DC
Action: Complete.
6. Seek legislative appropriation for funding call firefighter benefits. MK/MM
Action: In progress.

BOARD CHECKPOINT DISCUSSION

**Executive Summary of
New Hampshire Retirement System (NHRS)
Board of Trustees Meetings**

October 11, 2022, to December 13, 2022

At the October 11, 2022, regular monthly meeting of the Board of Trustees, the Board heard a report from Trustee Ken Merrifield, chair of the Legislative Committee, regarding the funding for a legacy call firefighter benefit program that is administered by NHRS outside the pension trust.

Trustee Merrifield explained that NHRS administers, from a separate account, survivorship benefits for two persons who qualified under former RSA 100-A:19, which provided death and disability benefits to call firefighters or their beneficiaries. The Legislative Committee met October 5 and voted unanimously to recommend to the full Board that it authorize staff to seek legislative appropriation of \$40,000 to fund the expected future benefits beyond the life expectancies of the two elderly beneficiaries, and that any remaining funds upon death of the beneficiaries would lapse to the State's general fund. Following a brief discussion, the Board voted unanimously to accept the recommendation of the Legislative Committee to authorize staff to seek a legislative appropriation to fund the expected future Call Firefighter Benefits.

The Board voted unanimously to approve the Calendar Year 2021 Gainful Occupation Compliance Report, as presented.

The Board welcomed newly appointed Chief Investment Officer, Raynald Leveque and Director of Finance, Marie Mullen.

At the November 8, 2022, regular monthly meeting, the Board received a presentation from representatives of GRS, the retirement system's consulting actuary, who gave an overview of actuarial practice to familiarize Trustees, particularly the newer Board members, with its importance in calculating and reporting the Plan funding progress for NHRS. GRS staff also discussed the actuarial information it provides for the Annual Comprehensive Financial Report (ACFR), which includes GASB 67 and other pension disclosures, and GASB 74 and other medical subsidy disclosures.

At the December 13, 2022, regular monthly meeting, the Board voted unanimously to accept the recommendation of the Audit Committee to approve and accept the Annual Comprehensive Financial Report, including the unmodified opinion letter from independent auditor Plante Moran for FY 22.

The Board also voted unanimously to approve and accept the Comprehensive Annual Investment Report for Fiscal Year 2022 as prepared and approved by the Independent Investment Committee.

Attorney David Levine, a principal of Groom Law Group and the retirement system's longtime external counsel for fiduciary and tax issues, provided the Board with a presentation on the importance of exercising their fiduciary duties as Trustees, and elaborating on the core requirements of prudence and loyalty.

Throughout the quarter, the Board received regular monthly updates on the status of the retirement system's multi-year pension administration system upgrade project (PGV3), which will replace the current 22-year-old system (PGV2) NHRS is currently using. The project is 70% completed.

Additional details regarding actions and discussions of the NHRS Board of Trustees may be found in the archive of meeting minutes posted on www.nhrs.org. The direct link to this page is:
<https://www.nhrs.org/about-nhrs/board-of-trustees/meeting-minutes>



New Hampshire Retirement System
54 Regional Drive, Concord, NH 03301
Phone: (603) 410-3500 - Fax: (603) 410-3501
Website: www.nhrs.org - Email: info@nhrs.org

TO: Senator Howard Pearl, Chair, Senate Executive Departments & Administration Committee
Representative Carol McGuire, Chair, House Executive Departments & Administration Committee

FROM: New Hampshire Retirement System Board of Trustees
(Prepared by Jan Goodwin, Executive Director)

RE: Quarterly Report to the General Court – January 1, 2023

Dear Senator Pearl and Representative McGuire:

Pursuant to RSA 100-A:14, VII-a, the Board of Trustees of the New Hampshire Retirement System (NHRS, the retirement system) is submitting this quarterly report to the General Court.

Here is a summary of NHRS activities during the quarter ending December 31, 2022:

- For the Fiscal Year (FY) that ended June 30, 2022, NHRS realized a negative 6.1% net of fees return on investments, due to the ongoing volatility of the global financial markets related to higher inflation, rising interest rates due to central bank activity, and increasing geopolitical risk due to the war between Russia and Ukraine. On a longer-term basis, the three-year, five-year, and ten-year net of fees return of the NHRS for the periods ended June 30, 2022, were 7.1%, 7.2%, and 8.5%, respectively. The 25-year net of fee return as of June 30, 2022, is 6.9%, beating the retirement system's assumed rate of return target of 6.75%.
- The FY 2022 NHRS funded ratio – the actuarial value of assets divided by the projected value of future benefits – is 65.6%, up from 64.2% in FY 2021. The trust fund stood at approximately \$10.75 billion as of June 30, 2022.
- Twenty LSRs related to the retirement system have been introduced, 16 in the House and four in the Senate.
- NHRS was recognized by the Government Finance Officers Association for excellence in financial reporting for its 2021 Annual Comprehensive Financial Report (ACFR).
- Trustees in December voted to accept the Annual Comprehensive Financial Report (ACFR) and Comprehensive Annual Investment Report (CAIR) for the fiscal year ended June 30, 2022.
- Two new members joined the Board of Trustees this quarter: Joshua Quigley joined the Board in October as the police member and Paul Provost joined in November as a public member.
- The multi-year upgrade of the NHRS pension database ("PGV3"), which began in January 2019, is now 69% percent complete.

In addition to this cover letter, the report contains:

- An executive summary of NHRS Board and staff activity from October through December.
- The minutes of the following Board meetings: October 11, 2022; November 8, 2022; December 13, 2022 (draft).
- Final FY 2022 investment performance information.

- Monthly investment information through November 30, 2022, which is the most recent data available.
- An “NHRS ... Now You Know” issue brief titled “The difference is what’s defined,” which was released in November.
- A list of 2022 LSRs as of December 29, 2022, related to the retirement system.

If you have any questions or would like additional information, please do not hesitate to contact me.

Respectfully,

A handwritten signature in blue ink, appearing to read "J. Goodwin".

Jan Goodwin
Executive Director

cc: Office of Governor Christopher Sununu

CY 2023 BOARD ACTION CALENDAR

JANUARY

Date		Requirement	Responsible Party
1/10/23	Annual IIC Private Equity/Debt update to the Board	Best Practice	IIC
1/10/23	Report on Status of Statement of Financial Interests due to Secretary of State (Due Annually – 3 rd Friday in January)	RSA 15-A	Trustees & IIC Members
1/10/23	Annual Governance Manual revisions	Best Practice	Board of Trustees
1/10/23	Fiduciary Insurance Renewal	Best Practice	Board of Trustees

FEBRUARY

Date	Board Action Item	Requirement	Responsible Party
2/14 /23	Board and Audit Committee approval of FY21 GASB 68/75 Reports	Best Practice	Board of Trustees
2/14 /23	Trustee Education	Best Practice	

MARCH

Date	Board Action Item	Requirement	Responsible Party
3/14/23	Quarterly IIC report to the Board	RSA 100-A:15,II-a(c)	IIC
3/14/23	Quarterly report to chairpersons of House & Senate ED&A Committees describing recent Board actions including any changes to actuarial assumptions and investment returns. Due 4/1/23.	RSA 100-A:14, VII-a	Board of Trustees

APRIL

Date	Board Action Item	Requirement	Responsible Party
4/11/23	No compliance items this month.		
4/11/23	Trustee education	Best Practice	

MAY

Date	Board Action Item	Requirement	Responsible Party
5/9/23	Review annual Trust Fund Budget (non-statutory portion).	Best Practice	Board of Trustees

JUNE

Date	Board Action Item	Requirement	Responsible Party
6/13/23	Approve annual Trust Fund Budget (non-statutory portion).	Best Practice	Board of Trustees
6/13/23	Quarterly IIC report to the Board	RSA 100-A:15, II-a(c)	IIC
6/13/23	Quarterly report to chairpersons of House & Senate ED&A Committees, describing recent Board actions including any changes to actuarial assumptions and investment returns. Due 7/1/23.	RSA 100-A:14, VII-a	Board of Trustees

JULY

Date	Board Action Items	Requirement	Responsible Party
7/11/23	Annual IIC Real Estate update to the Board	Best Practice	IIC

AUGUST

Date	Board Action Items	Requirement	Responsible Party
8/8/23	No compliance items this month.	RSA 100-A:14, XIII	Board of Trustees

SEPTEMBER

Date	Board Action Items	Requirement	Responsible Party
9/12/23	Review charters for Board Committees.	Governance Manual	Appropriate Board Committee
9/12/23	Annual Independent Medical Examiner (IME) Review	IME Policy	Board of Trustees
9/12/23	Set Board of Trustees meeting schedule for next calendar year.	Governance Manual	Board of Trustees
9/12/23	Annual Board Fiduciary Education	Best Practice	Board of Trustees
9/12/23	Quarterly report to chairpersons of House & Senate ED&A Committees, describing recent Board actions including any changes to actuarial assumptions and investment returns. Due 10/1/23.	RSA 100-A:14, VII-a	Board of Trustees

OCTOBER

Date	Board Action Items	Requirement	Responsible Party
10/10/23	Gainful Occupation Report	RSA 100-A:6, III(b)	Board of Trustees
10/10/23	Office of Foreign Asset Control (OFAC) Compliance Report	Best Practice	Board of Trustees
10/10/23	Annual Comprehensive Financial Report (ACFR) deadline (within 120 days from 6/30/23).	RSA 100-A:15, VI	Board of Trustees
10/10/23	Quarterly IIC report to the Board	RSA 100-A:15, II-a(c)	IIC
10/10/23	Call Firefighter Report	Best Practice	Board of Trustees

NOVEMBER

Date	Board Action Items	Requirement	Responsible Party
11/14/23	IIC prepares Comprehensive Annual Investment Report (CAIR).	RSA 100-A:15, VII	IIC

DECEMBER

Date	Board Action Items	Requirement	Responsible Party
12/12/23	Audited ACFR to Audit Committee	RSA 100-A:15, VI(a)	External Auditor

12/12/23	Audit Committee recommends that the Board approve and accept the audited ACFR.	RSA 100-A:15, VI(a)	Board of Trustees
12/12/23	The IIC recommends that the Board approve and accept the CAIR.	RSA 100-A:15, VII	Board of Trustees
12/12/23	The IIC recommends that the Board approve and accept the IIC meeting schedule for the next calendar year.	Best Practice	Board of Trustees
12/12/23	Quarterly report to chairpersons of House & Senate ED&A Committees describing recent Board actions including any changes to actuarial assumptions and investment returns. Due 1/2/23.	RSA 100-A:14, VII-a	Board of Trustees
12/12/23	Quarterly IIC report to the Board.	RSA 100-A:15,II-a(c)	IIC
12/31/23	Deadline for issuing member statements for fiscal year ending 6/30/23.	RSA 100-A:14, XI	Board of Trustees
12/31/23	ACFR and CAIR delivered per statute.	RSA 100-A:15, VI(c)	PIO

New Hampshire Retirement System Board of Trustees
As of November 14, 2022

Christopher Coates, Keene
September 5, 2018, to July 13, 2019
Association of Counties

Jon Frederick, Jaffrey
September 21, 2022, to September 5, 2025
NH Municipal Association

Sue Ellen Hannan, Derry
July 27, 2018, to July 1, 2021
NH Education Association

Maureen Kelliher, Dover
June 18, 2014, to July 13, 2022
Non-member Trustee

Tim Lesko, Concord
January 24, 2018, to November 30, 2022
Non-member Trustee

Robert Maloney, Holderness
July 27, 2018, to July 13, 2021
Non-member Trustee

Andrew Martineau, Bow
December 18, 2020, to July 1, 2024
NH State Permanent Firemen's Association

Germano Martins, Hooksett
August 18, 2021, to July 1, 2024
State Employees' Association

Kenneth Merrifield, Franklin
March 24, 2021, to July 13, 2025
NH State Employer

Monica Mezzapelle, Concord
January 6, 2021, to January 3, 2023
State Treasurer

Paul Provost, Concord
November 2, 2022, to November 2, 2025
Non-member Trustee

Joshua Quigley, Bedford
October 19, 2022, to July 1, 2024
NH Police Association

Donald M. Roy, Jr., North Hampton
July 13, 2011, to July 13, 2022
NH School Boards Association

**NHRS Board of Trustees
Committee Membership List
as of December 2022**

Committee	Audit	Benefits	Governance	Legislative	PPCC	Investment
Staff Liaison	Heather Hoffacker	Timothy Crutchfield/ Nancy Miller	Timothy Crutchfield	Marty Karlon	Rosamond Cain	Raynald Leveque
Coates, Christopher	X	X-Ch				
Frederick, Jon			X	X		
Hannan, Sue				X	X-Ch	
Kelliher, Maureen	X					X-Ch
Lesko, Tim	X				X	
Maloney, Robert			X		X	
Martineau, Andrew		X		X		
Martins, Germano	X	X				
Merrifield, Ken				X-Ch	X	
Mezzapelle, Monica	X-Ch		X			
Provost, Paul			X			X
Quigley, Joshua				X	X	
Roy, Donald		X	X-Ch			
TOTAL MEMBERS	5/5	4/5	5/5	5/5	5/5	2/6*

*Per RSA 100-A:14-b, I, the Independent Investment Committee shall consist of not more than 6 members, and up to 2 of whom shall be Trustees.

**Educational Seminars for Board Members,
as of December 16, 2022**

Sponsor	Program	Description
<p>(NCPERS) National Conference on Public Employee Retirement Systems www.ncpers.org</p>	<p>Legislative Conference/Pension Communications Summit*</p> <p>Legislative Conference January 22-23, 2023/Pension Communications Summit January 23-24, 2023 Washington, DC</p> <p><i>*(Discounted rate on registering for both events.)</i></p> <p>2023 Annual Conference & Exhibits (ACE) May 20-21, 2023 New Orleans, LA</p> <p>NCPERS Accredited Fiduciary (NAF) (Runs concurrently with ACE) Modules 1 & 2, 3 & 4</p>	<ul style="list-style-type: none"> ▪ For all level Trustees. ▪ Gain insight on the NCPERS 2023 Policy Agenda, pressing issues affecting public pensions, and an analysis of state-by-state public pensions. ▪ Sharpen skills to advocate for public pension members to policymakers. ▪ Hear from lawmakers, House Ways & Means Committee, Senate Finance Committee and Treasury Department. ▪ Good for all Trustees, administrators, state and local officials, staff, financial and union officers, and public pension plan members. ▪ New Trustees session occurs immediately before conference. ▪ For Trustees with at least five-years of experience. Trustee Education Seminar (TEDS) is a pre-requisite. ▪ Earn continuing education credits. ▪ Strengthen knowledge of pensions and governance.
<p>(NASRA) National Assn. of State Retirement Administrators www.nasra.org</p>	<p>2023 Winter Meeting February 25-27, 2023 Washington, DC</p>	<ul style="list-style-type: none"> ▪ Primarily for Executive Directors, but some Trustees attend ▪ Discussions and presentations in the round; and a current overview of federal legislative and regulatory affairs

	2023 Annual Conference August 5-9, 2023 Broomfield, CO	<ul style="list-style-type: none"> ▪ Agenda TBD
(CII) Council of Institutional Investors www.cii.org	2023 Spring Conference March 6-8, 2023 Washington, DC Monday, March 6, 2023 Trustee Dinner & Roundtable 6:45 p.m.-8:30 p.m. 2023 Fall Conference September 11-13, 2023 Long Beach, CA	<ul style="list-style-type: none"> ▪ Interact and share best practices with Corporate Governance Professionals, other investors, legislators, and regulators – make global contacts. ▪ Held in conjunction with Spring Conference, a private dinner and discussion for pension fund trustees. ▪ Agenda TBD
Callan www.callan.com	2023 Callan National Conference April 2-4, 2023 Scottsdale, AZ	<ul style="list-style-type: none"> ▪ Agenda TBD
(IFEBC) Int'l Foundation of Employee Benefit Plans www.ifebp.org	Trustees Institute Level II Concepts in Practice February 11-12, 2023 Orlando, FL (Held immediately prior to Trustees and Administrators institutes) Advanced Trustees and Administrators Institute February 13-15, 2023 Orlando, FL	<ul style="list-style-type: none"> ▪ Ideal for Plan professionals, and for Trustees who've served 3 to 5 years and completed Level I: Core Concepts; ▪ Learn from industry experts on current events and reform initiatives. ▪ Network with peers facing similar challenges – share best practices, ideas, and solutions. ▪ Gain insight and garner resource materials to share with colleagues. ▪ Ideal for all-level, multiemployer Trustees and plan administrators. ▪ Pension-related topics include economics, legislative and regulatory updates, good governance, succession planning, asset allocation in today's

	<p>Certificate of Achievement in Public Plan Policy (CAPPP) Pensions Part I & II* July 24-27, 2023 Chicago, IL</p> <p>Pensions Part I* September 30-October 1, 2023 Boston, MA</p> <p><i>*(Completion of Part I <u>and</u> Part II, along with a take-home exam, are required to earn a CAPP in pensions.)</i></p>	<p>climate, onboarding and educating Trustees, retirement plan issues and trends.</p> <ul style="list-style-type: none"> ▪ For all-level Trustees ▪ Pension-related topics include actuarial principles, fiduciary responsibility, governance, legal, legislative, & regulatory developments. ▪ Gain comprehensive knowledge of public employee plan management and learn targeted information to aid in policy-making decisions.
<p>(NCTR) National Council on Teacher Retirement www.nctr.org</p>	<p>NCTR's 101st Annual Conference October 7-11, 2023 La Jolla, CA</p>	<ul style="list-style-type: none"> ▪ Ideal for all pension system staff, members, and key stakeholders. ▪ Agenda TBD.

NHRS Abbreviations and Acronyms

BENEFITS

ADR	= Accidental Disability Retirement (job-related)
AFC	= Average Final Compensation
COB	= Compensation over base pay
COLAs	= Cost of Living Adjustments
EDD	= Electronic Direct Deposit
ESDP	= Extra or Special Duty Pay
GI/GII	= Group I (Employee, Teacher) / Group II (Police, Fire)
GO	= Gainful Occupation
IME	= Independent Medical Examiner/Examination
ODR	= Ordinary Disability Retirement (non-job-related)
QDRO	= Qualified Domestic Relations Order
Tier A	= Members vested prior to 1/1/12
Tier B	= Members in service prior to 7/1/11 but not vested prior to 1/1/12
Tier C	= Members hired on or after 7/1/11
TPS	= Treating Physician's Statement
TSA	= Temporary Supplemental Allowance (a one-time retiree payment)

BUSINESS OPERATIONS/VENDORS

APs	= Action Plans
DRAPP	= Data Risk Assessment Project Plan
GRS	= Gabriel, Roeder, Smith & Co (NHRS actuary)
KPMs	= Key Performance Measures
LRS	= Levi, Ray and Shoup, Inc. (PensionGold vendor)

PM	= Plante Moran (NHRS external auditor)
PPM	= Policy and Procedure Manager (database software system for NHRS policies/procedures)
PIP	= Process Improvement Program

GENERAL

ACFR	= Annual Comprehensive Financial Report
AU	= Audit
BOT	= Board of Trustees
CAIR	= Comprehensive Annual Investment Report
EE	= Employee
ER	= Employer
FA	= Facilities
HB 2	= House Bill 2 (2011 version, which made major changes to NHRS benefits)
IIC	= Independent Investment Committee
JLMC	= Joint Loss Management Committee (a.k.a. Safety Committee)
MS	= Member Services
NHRS	= New Hampshire Retirement System
OPEB	= Other Post-Employment Benefits (i.e. Medical Subsidy)
PIO	= Public Information Office(r)
PPCC	= Personnel, Performance and Compensation Committee
P. Sub (or “subs”)	= Political Subdivision (i.e. any NHRS employer other than the state)
RTK	= Right to Know request
SAU	= School Administrative Unit
SD	= School District
UAAL	= Unfunded Actuarial Accrued Liability

IT

CO-LO	= Co-location site for backup servers
DRS	= NHRS Data Reporting System (employer portal)
PG	= Pension Gold (current pension application from LRS)
PGV3	= Pension Gold Version 3 project

LEGISLATIVE

ED&A	= House (or Senate) Executive Departments and Administration Committee
HB	= House Bill
ITL	= Inexpedient to Legislate
JLCAR	= Joint Legislative Committee on Administrative Rules
LOB	= Legislative Office Building
LSR	= Legislative Services Request (a request to draft a bill)
OTP	= Ought to Pass
SB	= Senate Bill
SH	= State House
VV	= Voice Vote

OTHER

BCCRR	= Boston College Center for Retirement Research
COB	= Close of Business
EOB	= End of Business
GASB	= Governmental Accounting Standards Board
G&C	= Governor & Executive Council
JRP	= Judicial Retirement Plan (not affiliated with NHRS)

NASRA	= National Association of State Retirement Administrators
NCPERS	= National Council on Public Employee Retirement Systems
NCTR	= National Council on Teachers Retirement
NIRS	= National Institute for Retirement Security