Vermont State Teachers' Retirement System

Governmental Accounting Standards Board (GASB) Statements 74 Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) Measured at June 30, 2022

Segal

101 North Wacker Drive, Suite 500
Chicago, IL 60606-1724
segalco.com
T 312.984.8500

December 5, 2022

Office of the Vermont State Treasurer
109 State Street
Montpelier, Vermont 05609

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2022 under Governmental Accounting Standards Board Statement No. 74. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB Liability (NOL) as of June 30, 2022, and analyzes the preceding year's experience. In addition, we have calculated the Actuarially Determined Contribution for the fiscal year ending June 30, 2024. This report was based on the census data and financial information provided by the Vermont State Teachers' Retirement System, and the terms of the Plan. The actuarial calculations were completed under the supervision of Yori Rubinson, FSA MAAA, Vice President and Retiree Health Actuary.

If you have any questions, please feel free to call me. We look forward to discussing this material with you at your convenience.

Sincerely,

Segal

Daniel A. Levin, FSA MAAA FCA CEBS
Senior Vice President

Table of Contents

Actuarial Valuation Summary

Purpose and Basis

This report presents the results of our actuarial valuation of the Vermont State Teachers' Retirement System (VSTRS) OPEB plan as of June 30, 2022, required by Governmental Accounting Standards Board (GASB) Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans.* The actuarial computations made are for purposes of fulfilling plan accounting and funding requirements. Determinations for purposes other than meeting financial accounting and funding requirements may be significantly different from the results reported here. This valuation is based on:

- The benefit provisions of VSTRS, as administered by the Board;
- The characteristics of covered active members, terminated vested members, and retired members and beneficiaries as of June 30, 2021, provided by the Office of the State Treasurer;
- The assets of the Plan as of June 30, 2022, provided by the Office of the State Treasurer;
- Economic assumptions regarding future salary increases and investment earnings and other demographic assumptions, regarding employee terminations, retirement, death, etc. as shown in the Actuarial Experience Study (as prepared by Segal) dated and adopted by VSTRS on September 24, 2020 for the June 30, 2020 valuation and in effect as of the June 30, 2022 measurement date.

Highlights of the Valuation

Accounting and Financial Reporting

➢ The Net OPEB Liability (NOL) as of June 30, 2022 is $717,851,240, a decrease of $557,735,802 from the prior vauation NOL of $1,275,587,042. The difference between the unfunded actuarial accrued liabilities was the net effect of several factors:
  - Combined actuarial experience losses increased the NOL by $20,872,359. These were comprised of $18,750,319 of losses due to differences between expected and actual experience on liabilities resulting from demographic changes and actual 2022 benefit payments that were different from expected and $2,122,040 in losses due to differences between expected and actual earnings on investments.
  - Valuation assumption changes decreased the NOL by $605,231,768. This was primarily the result of increasing the discount rate from 2.20% to 7.00%. Other changes include updating the per capita valuation-year claims and retiree contribution rates, modifying the assumed health trend rates, and increasing the percentage of future retirees at retirement assumed to have an eligible spouse who also opts for health coverage.

➢ As of June 30, 2022, the ratio of assets to the Total OPEB Liability (the funded ratio) is 5.34%. This is based on the market value of assets at this point in time.

Section 1: Actuarial Valuation Summary

Funding

- Segal strongly recommends an actuarial funding policy that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. The funding policy set in the Vermont State Pension Code meets this standard. Section 1944b, subsection (h), of Title 16, Chapter 55, Subchapter 1, Vermont Statutes Annotated calls for annual payments on the unfunded actuarial accrued liability to be made over a closed period ending on June 30, 2048. The amount of each annual payment is calculated assuming that the amortization period will remain closed and that the amortization amount will increase annually at the rate of 3.0% over the preceding year.
- For the fiscal year ending June 30, 2023, the ADC is $54,813,628. The Normal Cost and Actuarially Accrued Liability were determined using the Projected Unit Credit actuarial method and a 7.00% rate of return. Assets were projected forward from June 30, 2021 assuming the System contributes the amount of expected benefit payments for the year ending June 30, 2022. The Unfunded Actuarially Accrued Liability was amortized using a closed 26 year amortization period calculated as a level percent of projected payroll, with an assumed annual payroll growth of 3.00%.
- For the fiscal year ending June 30, 2024, the ADC is $61,290,528. The Normal Cost and Actuarially Accrued Liability were determined using the Projected Unit Credit actuarial method and a 7.00% rate of return. Assets were projected forward from June 30, 2022 assuming the System contributes the Actuarial Determined Contribution for the year ending June 30, 2023. The Unfunded Actuarially Accrued Liability was amortized using a closed 25 year amortization period calculated as a level percent of projected payroll, with an assumed annual payroll growth of 3.00%.

Summary of Key Valuation Results

	June 30, 2022	June 30, 2021
• Total OPEB Liability[1]	$758,359,091	$1,290,220,534
• Plan Fiduciary Net Position (Assets)	40,507,851	14,633,492
• Net OPEB Liability	717,851,240	$1,275,587,042
• Plan Fiduciary Net Position as a percentage of Total OPEB Liability	5.34%	1.13%

	For Year Ending June 30, 2022	For Year Ending June 30, 2021
• Rate of Return	2.21%	3.50%
• Actuarially Determined Contributions	$102,153,408	$67,912,204
• Actual Contributions	54,202,861	36,638,994
• Benefit Payments	28,140,745	30,775,384

[1] The discount rate was 7.00% for June 30, 2022 and 2.20% for June 30, 2021.

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to defining future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinates with Medicare. If so, changes in the Medicare law or administration may change the plan's costs without any change in the terms of the plan itself. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the Office of the State Treasurer. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a "perfect" result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the market value of assets as of the valuation date, as provided by the Office of the State Treasurer.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets or, if there are no assets, a rate of return based on a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The actuarial valuation is prepared for use by the Office of the State Treasurer. It includes information for compliance with accounting standards and for the plan's auditor. Segal is not responsible for the use or misuse of its report, particularly by any other party.
If the System is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
Sections of this report include actuarial results that are unrounded, but that does not imply precision.
Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience, health care trend, and investment losses, not just the current valuation results.
Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The System should look to their other advisors for expertise in these areas.
While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
Segal's report shall be deemed to be final and accepted by the System upon delivery and review. The Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 1: Actuarial Valuation Summary

Actuarial Certification **_December 5, 2022_**

This is to certify that Segal has conducted an actuarial valuation of certain benefit obligations of Vermont State Teachers' Retirement System's other postemployment benefit programs as of June 30, 2022, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statement 74 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits and reliance on participant, premium, claims and expense data provided by Office of the State Treasurer or from vendors employed by Office of the State Treasurer. Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency.

The actuarial computations made are for purposes of fulfilling plan accounting and funding requirements. Determinations for purposes other than meeting financial accounting and funding requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination of the plan, or determining short-term cash flow requirements.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience or rates of return on assets differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. The scope of the assignment did not include performing an analysis of the potential change of such future measurements except where noted.

To the best of my knowledge, this report is complete and accurate and in my opinion presents the information necessary to comply with GASB Statements 74 with respect to the benefit obligations addressed. The signing actuary is a member of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and meets the "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.

Yori Rubinson

Yori Rubinson, FSA MAAA
Vice President and Retiree Health Actuary

Valuation Results

General Information about the OPEB Plan

Plan Description

Pursuant to contractual agreement and policy, VSTRS provides postemployment healthcare benefits to eligible VSTRS employees who retire from the System. Vermont Statute Title 16, Chapter 55 assigns the authority to VSTRS to establish and amend the benefit provisions of the plan and to establish maximum obligations of plan members to contribute to the plan. The VSTRS Board of Trustees is authorized to establish contribution rates of System employees and retirees, and they are set as part of the collective bargaining process.

At June 30, 2021, the Vermont State Teachers' Retirement System plan membership consisted of the following:

	June 30, 2021
Retired members or beneficiaries currently receiving benefits	7,280
Retired members or beneficiaries not receiving benefits	2,656
Vested terminated members entitled to but not yet receiving benefits	2,001
Active members	9,955
Total	21,892

Net OPEB Liability

Components of the Net OPEB Liability	June 30, 2022	June 30, 2021
Total OPEB Liability	$758,359,091	$1,290,220,534
Plan Fiduciary Net Position	40,507,851	14,633,492
Net OPEB Liability	$717,851,240	$1,275,587,042
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	5.34%	1.13%

The Net OPEB Liability was measured as of June 30, 2022 and 2021. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total OPEB Liability was determined from actuarial valuations using data as of June 30, 2021 and 2020.

The Total OPEB Liability was measured by an actuarial valuation using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

	June 30, 2022	June 30, 2021
Salary increases	Varies by age	Varies by age
Discount rate	7.00%	2.20%
Healthcare cost trend rates		
Non-Medicare	7.120% graded to 4.50% over 12 years	6.700% graded to 4.50% over 10 years
Medicare $300 Comprehensive and JY Plan	6.500% graded to 4.50% over 12 years	6.000% graded to 4.50% over 11 years
Medicare VSTRS 65	4.50%	6.000% graded to 4.50% over 11 years
Increase to retiree contributions	Equal to health trend	Equal to health trend
Mortality rates		
Pre-retirement mortality	PubT-2010 Teacher Employee Headcount-Weighted Table with generational projection using scale MP-2019	(same as current year)
Post-retirement mortality	Retirees: PubT-2010 Teacher Healthy Retiree Headcount-Weighted Table with generational projection using scale MP-2019 Spouses: 109% of the Pub-2010 Contingent Survivor Headcount-Weighted Table with generational projection using scale MP-2019	(same as current year)
Disabled mortality	PubNS-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Table with generational projection using scale MP-2019	(same as current year)

Detailed information regarding all actuarial assumptions can be found in Section 3, Exhibit II.

Determination of Discount Rate and Investment Rates of Return

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the OPEB plan's target asset allocation as of June 30, 2022, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Passive Global Equities	24.00%	4.30%
Active Global Equities	5.00%	4.30%
Large Cap US Equities	4.00%	3.25%
Small/Mid Cap US Equities	3.00%	3.75%
Non-US Developed Market Equities	7.00%	5.00%
Private Equity	10.00%	6.50%
Emerging Market Debt	4.00%	3.50%
Private and alternative Credit	10.00%	4.75%
Non-Core Real Estate	4.00%	6.00%
Core Fixed Income	19.00%	0.00%
Core Real Estate	3.00%	3.50%
US TIPS	3.00%	-0.50%
Infrastructure/Farmland	4.00%	4.25%
	100.00%	

** Calculated as the Arithmetic Rates of Return minus the Rate of Inflation, as provided by the Vermont State Treasurers' Office*

The target allocation above is based on the asset allocation used by the Vermont State Teachers' Retirement System Pension Fund.

The System's Board established the Vermont Retired Teachers' Health and Medical Benefits Fund (Benefits Fund) in 2013. The Benefits Fund was created for the sole purpose of accepting contributions from the System in order to provide postemployment health insurance benefits to current and future eligible retirees of the System in accordance with the terms of the healthcare plan.

Section 2: Valuation Results

Discount Rate

The discount rate used to measure the Total OPEB Liability was 7.00%. In accordance with paragraph 51 of GASB 74, professional judgement was applied to determine that the System's projected Fiduciary Net Position exceeds projected benefit payments for current active and inactive members for all years. Our analysis was based on the expectation that the employer will continue to contribute an amount at least equal to the actuarially determined contribution, which is comprised of an employer normal cost payment and a payment to reduce the unfunded liability to zero by June 30, 2048, in accordance with Vermont statute. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the Total OPEB Liability.

Sensitivity

The following presents the NOL of Vermont State Teachers' Retirement System as well as what the Vermont State Teacher's Retirement System's NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate. Also, shown is the NOL as if it were calculated using healthcare cost trend rates that were 1-percentage-point lower or 1-percentage-point higher than the current healthcare trend rates.

	1% Decrease in Discount Rate (6.00%)	Current Discount Rate (7.00%)	1% Increase in Discount Rate (8.00%)
Net OPEB Liability (Asset)	$818,278,276	$717,851,240	$634,325,822

	1% Decrease in Health Care Cost Trend Rates	Current Health Care Cost Trend Rates	1% Increase in Health Care Cost Trend Rates
Net OPEB Liability (Asset)	$624,265,750	$717,851,240	$833,974,068

Schedule of Changes in Net OPEB Liability[1]

	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017
Total OPEB Liability						
Service cost	$53,506,618	$50,729,395	$30,590,445	$20,785,548	$26,272,945	$32,511,242
Interest	29,254,133	28,808,340	37,029,937	36,139,037	32,837,241	26,424,854
Change of benefit terms	- -	-75,247,620	- -	-21,209,483	- -	- -
Differences between expected and actual experience	18,750,319	33,179,296	31,060,605	24,665,266	42,620,822	- -
Changes of assumptions	-605,231,768	15,407,499	155,924,383	82,448,286	-50,191,881	-33,191,654
Benefit payments, including refunds of member contributions	-28,140,745	-30,775,384	-27,551,293	-29,606,865	-29,328,814	-29,576,455
Net change in Total OPEB Liability	-$531,861,443	$22,101,526	$227,054,077	$113,221,789	$22,210,313	-$3,832,013
Total OPEB Liability – beginning	1,290,220,534	1,268,119,008	1,041,064,931	927,843,142	905,632,829	909,464,842
Total OPEB Liability – ending	$758,359,091	$1,290,220,534	$1,268,119,008	$1,041,064,931	$927,843,142	$905,632,829
Plan Fiduciary Net Position						
Contributions – employer	$54,202,861	$36,638,994	$35,176,080	$56,594,299	$29,802,725	$23,838,958
Contributions – employee	- -	- -	- -	- -	- -	- -
Net investment income	-185,597	53,350	282,650	30,963	19,935	40,923
Benefit payments, including refunds of member contributions	-28,140,745	-30,775,384	-27,551,293	-29,606,865	-29,328,814	-29,347,561
Administrative expense	-2,160	-2,167	-2,104	-263,060	-279,447	-228,894
Other	- -	- -	501,276	- -	- -	- -
Net change in Plan Fiduciary Net Position	$25,874,359	$5,914,793	$8,406,609	$26,755,337	$214,399	-$5,696,574
Plan Fiduciary Net Position – beginning	14,633,492	8,718,699	312,090	-26,443,247	-26,657,646	-20,961,072
Plan Fiduciary Net Position – ending	$40,507,851	$14,633,492	$8,718,699	$312,090	-$26,443,247	-$26,657,646
Net OPEB Liability – ending	$717,851,240	$1,275,587,042	$1,259,400,309	$1,040,752,841	$954,286,389	$932,290,475
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	5.34%	1.13%	0.69%	0.03%	-2.85%	-2.94%
Covered payroll	$657,934,953	$645,902,984	$624,908,253	$612,899,069	$607,354,756	$586,397,072
Plan Net OPEB Liability as percentage of covered payroll	109.11%	197.49%	201.53%	169.81%	157.12%	158.99%

[1]The above information is required beginning in 2017. A full 10-year trend will be compiled in future years.

Notes to Schedule:

Benefit changes:	None.
Changes of assumptions:	The discount rate was increased from 2.20% to 7.00%.
	The per capita valuation-year claims and retiree contribution rates were updated.
	The assumed health trend rates were modified.
	The percentage of future retirees at retirement assumed to have an eligible spouse who also opts for health coverage was increased from 40% to 60% for males and 25% to 40% for females.

Schedule of Contributions[1]

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions[3]	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2017	$35,918,126[2]	$23,838,958	$12,079,168	$586,397,072	4.07%
2018	37,316,779[2]	29,802,725	7,514,054	607,354,756	4.91%
2019	54,658,645	56,594,299	-1,935,654	612,899,069	9.23%
2020	58,252,623	35,677,356	22,575,267	624,908,253	5.71%
2021	67,912,204	36,638,994	31,273,210	645,902,984	5.67%
2022	102,153,408	54,202,861	47,950,547	657,934,953	8.24%

[1]The above information is required beginning in 2017. A full 10-year trend will be compiled in future years.

[2]The Actuarially Determined Contributions were calculated by the prior actuary, Buck Consultants.

[3]Includes the contribution amount denoted as "Other" on page 15.

Notes to Schedule:

Methods and assumptions used to establish "actuarially determined contribution" rates:

Valuation date	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported
Measurement date	June 30, 2022
Actuarial cost method	Projected Unit Credit
Amortization method	30 Years, Closed, Level Percent of Payroll
Remaining amortization period	26 Years as of July 1, 2022
Asset valuation method	The market value of assets as of the measurement date
Actuarial assumptions	The actuarial assumptions used to calculate the actuarially determined contribution rates can be found in Exhibit II.

Actuarially Determined Contribution

	Year Ending June 30, 2024	% of Payroll	Year Ending June 30, 2023	% of Payroll
Rate of Return	**7.00%**		**7.00%**	
Actuarial Accrued Liability	$781,793,187	112.00%	$683,414,665	99.73%
Health Care Fund Assets	63,757,339	9.13%	15,657,836	2.29%
Unfunded Actuarial Accrued Liability	$718,035,848	102.87%	$667,756,829	97.45%
Normal Cost	$17,589,046	2.52%	$15,104,597	2.20%
Amortization of Unfunded Actuarial Accrued Liability	43,701,482	6.26%	39,709,031	5.79%
Total Actuarially Determined Contribution	$61,290,528	8.78%	$54,813,628	8.00%
Total Payroll	$698,003,192		$685,238,476	

For the year ending June 30, 2023, the Normal Cost and Actuarially Accrued Liability were determined using the Projected Unit Credit actuarial method and a 7.00% rate of return. Assets were projected forward from June 30, 2021 assuming the System contributes the amount of expected benefit payments for the year ending June 30, 2022. The Unfunded Actuarially Accrued Liability was amortized using a closed 26 year amortization period calculated as a level percent of projected payroll, with an assumed annual payroll growth of 3.00%.

For the year ending June 30, 2024, the Normal Cost and Actuarially Accrued Liability were determined using the Projected Unit Credit actuarial method and a 7.00% rate of return. Assets were projected forward from June 30, 2022 assuming the System contributes the Actuarial Determined Contribution for the year ending June 30, 2023. The Unfunded Actuarially Accrued Liability was amortized using a closed 25 year amortization period calculated as a level percent of projected payroll, with an assumed annual payroll growth of 3.00%.

Statement of Fiduciary Net Position

	June 30, 2022
Total Assets	$40,747,517
Total Liabilities	239,666
Net position restricted for OPEB	$40,507,851

Schedule of Investment Returns

Year	Annual Money Weighted Rate of Return, Net of Investment Expense
2017	N/A
2018	N/A
2019	N/A
2020	6.2%
2021	0.3%
2022	-3.3%

Supporting Information

Exhibit I: Summary of Participant Data

	As of June 30, 2021	As of June 30, 2020
Retirees Enrolled in Health Care:		
Number of retirees	7,176	6,995
Average age of retirees	72.9	72.6
Number of spouses and dependents (excluding children)	1,324	1,310
Average age of spouses	70.8	70.6
Surviving Spouses Enrolled in Health Care:		
Number	104	99
Average age	80.4	79.8
Retirees and Surviving Spouses Not Enrolled in Health Care:		
Number	2,656	2,591
Average age	72.9	72.4
Terminated Members Entitled but Not Yet Eligible:		
Number of terminated members	2,001	1,919
Average age of terminated members	50.5	50.6
Active Participants:		
Number	9,955	9,996
Average age	45.3	45.4
Average years of service	12.3	12.4
Average expected retirement age	61.9	61.9

Exhibit II: Actuarial Assumptions and Actuarial Cost Method

Data:	Detailed census data, premium data and/or claim experience, and summary plan descriptions for postretirement were provided and/or affirmed by the Office of the State Treasurer.
Actuarial Cost Method:	Entry Age Normal, Level Percentage of Pay
Asset Valuation Method:	Market Value
Roll-forward Technique:	The results as of June 30, 2022 were based on participant data as of June 30, 2021 projected forward to June 30, 2022 using standard actuarial techniques.
Measurement Date:	June 30, 2022
Actuarial Valuation Date:	June 30, 2021
Discount Rate:	7.00%
Demographic Assumptions:	Some of the demographic assumptions used in this valuation (including mortality, disability, turnover, and retirement), in addition to the assumed salary scale are the same as used in the Vermont State Teachers' Retirement System Actuarial Valuation and Review as of June 30, 2022 completed by Segal. These assumptions were reviewed as part of the pension valuation process, and we have no reason to doubt their reasonableness for use in this valuation. The remaining demographic assumptions, such as enrollment elections, percent married, and relative ages of spouses were based on the experience of the Plan.
Salary Increases:	

Age	Annual Rate of Salary Increase (%)
20	10.50%
25	9.50%
30	6.50%
35	5.95%
40	5.30%
45	4.50%
50	4.20%
55	3.80%
60	3.55%
65	3.40%
70	3.30%

Mortality Rates:

Pre-Retirement:

- All Groups — PubT-2010 Teacher Employee Headcount-Weighted Table with generational projection using scale MP-2019.

Healthy Post-Retirement - Retirees:

- All Groups — PubT-2010 Teacher Healthy Retiree Headcount-Weighted Table with generational projection using scale MP-2019.

Healthy Post-Retirement - Spouses:

- All Groups — 109% of the Pub-2010 Contingent Survivor Headcount-Weighted Table with generational projection using scale MP-2019.

Disabled Post-Retirement:

- All Groups — PubNS-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Table with generational projection using scale MP-2019.

The tables with the generational projection to the ages of members as of the measurement date reasonably reflect the mortality experience of the System as of the measurement date. The mortality tables were then adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Separation from Service before Retirement (Due to Withdrawal and Disability):

Representative values of the assumed annual rates of withdrawal and disability are as follows:

Rate (%)

	Withdrawal		Disability	
Age	**Male**	**Female**	**Male**	**Female**
25	7.80%	8.30%	0.005%	0.008%
30	5.20	5.40	0.007	0.008
35	3.10	3.25	0.009	0.008
40	2.20	2.15	0.014	0.011
45	1.85	1.66	0.023	0.024
50	1.75	1.54	0.060	0.074
55	1.60	1.50	0.040	0.050
60	1.50	1.50	0.132	0.088

Actives' Retirement Rates:

	Group A		Group C Grandfathered	
Age	<30 Years of Service	30+ Years of Service	<30 Years of Service	30+ Years of Service
50	0.00%	40.00%	0.000%	40.00%
51	0.00%	20.00%	0.000%	20.00%
52	0.00%	20.00%	0.000%	20.00%
53	0.00%	20.00%	0.000%	20.00%
54	0.00%	20.00%	0.000%	20.00%
55	7.50%	20.00%	6.125%	10.00%
56	7.50%	10.00%	6.250%	10.00%
57	7.50%	10.00%	6.250%	10.00%
58	7.50%	10.00%	6.250%	10.00%
59	12.50%	10.00%	9.375%	15.00%
60	30.00%	100.00%	18.750%	25.00%
61	25.00%	100.00%	18.750%	17.00%
62	30.00%	100.00%	20.000%	100.00%
63	30.00%	100.00%	22.000%	100.00%
64	30.00%	100.00%	22.000%	100.00%
65	40.00%	100.00%	33.000%	100.00%
66	40.00%	100.00%	33.000%	100.00%
67	40.00%	100.00%	33.000%	100.00%
68	50.00%	100.00%	22.000%	100.00%
69	50.00%	100.00%	33.000%	100.00%
70+	100.00%	100.00%	100.000%	100.00%

Actives' Retirement Rates: *(continued)*	See table below
Inactive Members' Retirement Rates:	Group A and Group C-NGF: 10% of members are assumed to retire from Early Retirement Age for each year until Normal Retirement Age, then 100% of members are assumed to retire at their Normal Retirement Age. Group C-GF: 50% of members are assumed to retire from age 62-69, then 100% at age 70.
Unknown Data for Participants:	A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known. Nonactives currently not receiving coverage were assumed to receive an 80% subsidy for the employee and a subsidy based on service for the spouse. Terminated members not yet eligible were assumed to receive a subsidy based on service.
Participation and Coverage Election:	75% of active employees eligible for a subsidy at retirement and 15% of those not eligible for a subsidy at retirement were assumed to elect coverage. 50% of current and future terminated vested participants who are eligible for a subsidy and 0% of those not eligible for a subsidy were assumed to elect coverage. The proportion of retirees enrolling in each plan option was assumed to remain the same in future years. Current retirees who have not elected coverage can choose to do so each year at open enrollment. Of current retirees who have not elected coverage and are eligible for a subsidy, 60% who retired within the past year and 5% of others were assumed to elect medical coverage. Current retirees who have not elected coverage and are not eligible for a subsidy, are assumed to not elect coverage.

Group C Non-Grandfathered

Age	Before Rule of 90	1st Year after Rule of 90	1+ Years after Rule of 90
<56	5.00%	30.00%	20.00%
56	5.00%	30.00%	10.00%
57	5.00%	30.00%	10.00%
58	5.00%	30.00%	10.00%
59	7.50%	30.00%	15.00%
60	10.00%	30.00%	15.00%
61	15.00%	30.00%	20.00%
62	12.50%	30.00%	22.50%
63	20.00%	30.00%	22.50%
64	20.00%	30.00%	25.00%
65	40.00%	30.00%	40.00%
66	30.00%	30.00%	30.00%
67	30.00%	30.00%	30.00%
68	30.00%	30.00%	30.00%
69	30.00%	30.00%	30.00%
70+	100.00%	100.00%	100.00%

Section 3: Supporting Information

Dependents:	Demographic data was used for spouses of current retirees when available. For current retirees, spouse coverage was determined based on plan coverage. For future retirees and current spouses for which information is not available, male employees are assumed to be two years older than wives and female employees are assumed to be one year younger than their husbands. Of those future retirees who elect to continue their health coverage at retirement and who are eligible for subsidized spousal coverage, 60% of males and 40% of females were assumed to have an eligible spouse who also opts for health coverage at that time. Spouses of future retirees who are not eligible for subsidized spouse coverage were assumed not to elect coverage. Spouses of current retirees who are not eligible for subsidized spouse coverage were assumed to pay the full premium. It is assumed that 5% of future retirees covering spouses will elect the Premium Reduction Option. Current and future terminated vested participants as well as current retirees without health coverage are not assumed to elect the Premium Reduction Option. The Premium Reduction Option is valued using a reduction factor of 0.85 of the single-life subsidy for which the retiree and spouse are eligible. Surviving spouses with a date of retirement before January 1, 2007 are assumed to pay the full medical premium.
Per Capita Cost Development:	***Non-Medicare Medical and Prescription Drug:*** Per capita claims costs were based on a weighted average of the margin-free pro forma premium rates effective January 1, 2023. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender. ***Medicare Medical and Prescription Drug $300 Comprehensive and JY Plan:*** Per capita claims costs were based on a weighted average of the premium rates effective January 1, 2023. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender. ***Medicare Medical VSTRS 65:*** Per capita claims costs were based on a weighted average of the premium rates effective January 1, 2023. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender. ***Administrative Expenses:*** Per capita expenses were based on expenses effective for calendar year 2023.

Section 3: Supporting Information

Per Capita Health Costs:

Medical and prescription drug claims costs for the year beginning July 1, 2022 are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

	Non-Medicare			
	Retiree		Spouse	
Age	Male	Female	Male	Female
50	$12,150	$13,839	$8,487	$11,112
55	14,430	14,898	11,356	12,862
60	17,136	16,058	15,203	14,918
64	19,660	17,035	19,192	16,790

	Medicare $300 Comprehensive and JY Plan				Medicare VSTRS 65			
	Retiree		Spouse		Retiree		Spouse	
Age	Male	Female	Male	Female	Male	Female	Male	Female
65	$4,092	$3,478	$4,092	$3,478	$1,658	$1,409	$1,658	$1,409
70	4,743	3,748	4,743	3,748	1,922	1,519	1,922	1,519
75	5,111	4,035	5,111	4,035	2,071	1,635	2,071	1,635

Administrative Expenses:

For participants over age 65 with health and welfare coverage, an annual administrative expense of $93 for the year beginning July 1, 2022 was added to projected incurred claim costs in developing the benefit obligations. These annual administrative expenses are projected to increase at 3.0% per year thereafter.

Section 3: Supporting Information

Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are "net" and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that year's cost to yield the next year's projected cost.

	Rate (%)		
Year Ending June 30	Non-Medicare	Medicare $300 Comprehensive and JY Plan	Medicare VSTRS 65
2023	7.12	6.50	4.50
2024	6.90	6.33	4.50
2025	6.68	6.16	4.50
2026	6.46	5.99	4.50
2027	6.24	5.82	4.50
2028	6.02	5.65	4.50
2029	5.80	5.48	4.50
2030	5.58	5.31	4.50
2031	5.36	5.14	4.50
2032	5.14	4.97	4.50
2033	4.92	4.80	4.50
2034	4.70	4.63	4.50
2035 & Later	4.50	4.50	4.50

The trend rate assumptions were developed using Segal's internal guidelines, which are established each year using data sources such as the Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

Retiree Contribution Increase Rate:

Retiree contributions were assumed to increase with health trend. Retiree contribution rates were based on premiums effective January 1, 2023, trended back to the valuation date.

Health Care Reform Assumption:

The valuation does not reflect the potential impact of any future changes due to prior or pending legislation.

Plan Design:

Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.

Section 3: Supporting Information

Models:	Segal accounting results are based on proprietary actuarial modeling software. The accounting valuation models generate a comprehensive set of liability and cost calculations that are presented to meet accounting standards and client requirements. Our Actuarial Technology and Systems unit, comprising both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary. The results are also based on models for cost projections developed by Segal actuaries and programmers. The client team customizes and validates the models, and reviews the results, under the supervision of the responsible actuary. The blended discount rate used for calculating Total OPEB Liability is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model. Our claims costs assumptions are based on proprietary modeling software as well as models that were developed by others. These models generate per capita claims cost calculations that are used in our valuation software. Our Health Technical Services Unit, comprised of actuaries and programmers, is responsible for the initial development and maintenance of our health models. They are also responsible for testing models that we purchase from other vendors for reasonableness. The client team inputs the paid claims, enrollments, plan provisions and assumptions into these models and reviews the results for reasonableness, under the supervision of the responsible actuary.
Assumption Changes since Prior Valuation:	The discount rate was increased from 2.20% to 7.00%. The per capita valuation-year claims and retiree contribution rates were updated. The assumed health trend rates were modified. The percentage of future retirees who elect to continue their health coverage at retirement and are assumed to have an eligible spouse who also opts for health coverage was increased from 40% to 60% for males and 25% to 40% for females.

Exhibit III: Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Eligibility:	Retirees and their spouses are eligible for health coverage if the retiree is eligible for pension benefits. Pension eligibility requirements are below. **Group A:** Public school teachers employed within the State of Vermont prior to July 1, 1981 and elected to remain a Group A member. • Retirement: Attainment of 30 years of creditable service, or age 55. **Group C:** Public school teachers employed within the State of Vermont on or after July 1, 1990. Teachers hired before July 1, 1990 and were Group B members in service on July 1, 1990 are now Group C members. Grandfathered participants are Group C members who were within five years of normal retirement eligibility as defined prior to July 1, 2010. • Retirement Group C Grandfathered: Attainment of age 62, or 30 years of creditable service, or age 55 with 5 years of creditable service. • Retirement Group C Non-grandfathered: Attainment of age 65, or age plus creditable service equal to 90, or age 55 with 5 years of creditable service. Vesting and Disability: 5 years of creditable service. Participants who terminate with 5 years of service under the age of 55 may elect coverage upon receiving pension benefits.
Benefit Types:	Medical and prescription drug. Retirees pay the full cost for dental benefits.
Duration of Coverage:	Lifetime.
Spousal Benefits:	Same benefits as for retirees.
Spousal Coverage:	Lifetime.

Retiree Premiums:

The VEHI insurance premiums effective January 1, 2023 are shown below.

$300 Comprehensive Plan	Total Premium
Retiree Under 65	
Single Coverage	$1,447.40
Two Person Coverage	2,894.81
Family Coverage	3,909.11

JY Plan	Total Premium
Retiree Under 65	
Single Coverage	$1,480.43
Two Person Coverage	2,960.87
Family Coverage	3,979.72

Vermont Health Partnership	Total Premium
Retiree Under 65	
Single Coverage	$1,464.06
Two Person Coverage	2,928.12
Family Coverage	3,943.33

The VBA insurance premiums effective January 1, 2023 are shown below.

$300 Comprehensive Plan	Total Premium
Retiree Over 65 or Medicare Eligible	
Single Coverage	$365.97
Two Person Coverage – Both Medicare	731.94
Family Coverage - All Medicare eligible	1,097.91

JY Plan	Total Premium
Retiree Over 65 or Medicare Eligible	
Single Coverage	$374.90
Two Person Coverage – Both Medicare	749.80
Family Coverage - All Medicare eligible	1,124.70

Section 3: Supporting Information

VSTRS 65 (VBA)	Total Premium
Retiree Over 65 or Medicare Eligible	
Single Coverage	$82.38
Two Person Coverage – Both Medicare	164.76
Family Coverage - All Medicare eligible	247.14

VSTRS 65 (VEHI)	Total Premium
Retiree Over 65 or Medicare Eligible	
Single Coverage	$169.50
Two Person Coverage – Both Medicare	339.00
Family Coverage - All Medicare eligible	508.50

Retiree Contributions:

Retired before June 30, 2010:

Retirees with at least 10 years of service pay premium costs in excess of an 80% VSTRS subsidy.

Retirees with less than 10 years of service do not receive any premium subsidy.

Spouses do not receive any premium subsidy, regardless of the retiree's service.

Retired after June 30, 2010:

Retirees pay premium costs in excess of the following VSTRS subsidy, based on service:

Retiree Subsidy Level	Subsidy
Years of Service at June 30, 2010	
10 years or more	80%
Less than 10 years	
Less than 15 years at retirement	0%
15-19.99 years at retirement	60%
20-24.99 years at retirement	70%
25 or more years at retirement	80%

Spouses of retirees can receive an 80% subsidy, if they meet the following requirements:

Spouse Coverage with 80% Subsidy

Years of Service at June 30, 2010	Required Years of Service at Retirement
Less than 10 years	25 years of service at retirement
Between 10 and 14.99 years	25 years of service at retirement
Between 15 and 24.99 years	10 additional years from June 30, 2010
Between 25 and 29.99 years	35 years of service at retirement
30 or more years	5 additional years from June 30, 2010

Spouses of retirees who do not meet the above requirements for an 80% subsidy will not receive any premium subsidy.

Premium Reduction Option:

Participants retiring on or after January 1, 2007 with a VSTRS premium subsidy have a one-time option to reduce the VSTRS subsidy percentage during the retiree's life so that a surviving spouse may continue to receive the same VSTRS subsidy for the spouse's lifetime. If the retirees elects the joint and survivor pension option but not the Premium Reduction Option, spouses are covered for the spouse's lifetime but pay 100% of the plan premium after the retiree's death.

Section 3: Supporting Information

Benefit Descriptions:	Benefits in effect on June 30, 2022 are as described below:

Medical[1]	**JY Plan**	**$300 Comprehensive Plan**	**Vermont Health Partnership**
Annual deductible	N/A	$300 per person, $600 per family	N/A
Co-pay	$20	N/A	$15 for PCP, $25 for Specialist
Coinsurance (plan pays)	100% of Allowed	80%	100% of Allowed
Annual maximum out-of-pocket	N/A	$600 per person, $1,200 per family	N/A
Prescription Drugs			
Generic		$5	
Preferred Brand		$20	
Non-Preferred Brand		$45	
Annual maximum out-of-pocket		$600 per person, $1,200 per family	

[1]Eligible participants may also elect the VSTRS 65 Medigap plan. The Medigap plan excludes prescription drug coverage.

Plan Change since Prior Valuation:	None.

Appendix A: Definition of Terms

Definitions of certain terms as they are used in Statement 74. The terms may have different meanings in other contexts.

Actuarially Determined Contribution:	A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.
Assumptions or Actuarial Assumptions:	The estimates on which the cost of the Plan is calculated including: a) Investment return — the rate of investment yield that the Plan will earn over the long-term future; b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates; c) Retirement rates — the rate or probability of retirement at a given age; d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.
Covered Payroll:	The payroll of the employees that are provided OPEB benefits
Discount Rate:	The single rate of return, that when applied to all projected benefit payments results in an actuarial present value that is the sum of the following: 1) the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, and 2) the actuarial present value of projected benefit payments that are not included in (1) using a yield or index rate for 20 year tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher
Entry Age Actuarial Cost Method:	An actuarial cost method where the present value of the projected benefits for an individual is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age
Healthcare Cost Trend Rates:	The rate of change in per capita health costs over time
Measurement Date:	The date at which the Net OPEB Liability is measured
Net OPEB Liability:	The Total OPEB Liability less the Plan Fiduciary Net Position
Plan Fiduciary Net Position:	Market Value of Assets
Real Rate of Return:	The rate of return on an investment after removing inflation
Service Cost:	The amount of contributions required to fund the benefit allocated to the current year of service.

Section 3: Supporting Information

Total OPEB Liability:	Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.
Valuation Date:	The date at which the actuarial valuation is performed

Appendix B: Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 74 – Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, and Statement Number 75 – Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions. Under these statements, all state and local government entities that provide other post-employment benefits are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (i.e., a pay-as-you-go basis).

The statements cover postemployment benefits of medical, prescription drugs, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit III of Section 3, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits is not limited by legal or contractual limits on funding the plan unless those limits clearly translate into benefit limits on the substantive plan being valued.

The new standards prescribe an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee's career. The standards also prescribe a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit II of Section 3. This amount is then discounted to determine the Total OPEB Liability. The Net OPEB Liability (NOL) is the difference between the Total OPEB Liability and market value of assets in the Plan, called the Plan Fiduciary Net Position.

Once the NOL is determined, the Annual OPEB Expense is determined as the change in NOL from the prior year with deferred recognition of certain elements. In addition, Required Supplementary Information (RSI) must be reported, including historical information about the Net OPEB Liability and the contributions made to the Plan. Appendix A of Section 3 contains a definition of terms as well as more information about GASB 74/75 concepts.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short-term volatility in accrued liabilities and the actuarial value of assets, if any.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future