Segal

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***Via Email* beth.pearce@vermont.gov**

Ms. Beth Pearce
State Treasurer
Office of the State Treasurer
109 State Street, 4th Floor
Montpelier, VT 05609-6901

Re: Effect of Proposed Funding Schedule on VSTRS Unfunded Liability

Dear Beth:

As requested, we have calculated the effect the newly proposed funding schedule would have on the projected Unfunded Liability under GASB 74 for the Vermont State Teachers' Retirement System (VSTRS). The funding schedule, confirmed via e-mail on January 19, 2021, reflects an employer contribution for the fiscal year ending June 30, 2022 of $41,818,509, 10% increases in the employer contribution for fiscal years' ending 2023, 2024, and 2025, and then 3% annual increases thereafter. These analyses were performed using the Projected Unit Credit actuarial method and assuming long-term rate of returns of 7.00%, and 6.25%. Note that the blended rate of return used may be slightly lower than the long-term rate of return during the early stages of funding the plan. Assuming the proposed funding schedule is enacted this Spring and GASB OPEB valuation assumptions are met, the June 30, 2021 GASB OPEB Valuations would be calculated using this blended rate of return.

Benefit payments and liabilities for teachers hired after June 30, 2019 are not included in these analyses. It was assumed that the "New Teacher Assessment" would be sufficient to fund teachers hired after June 30, 2019. If the "New Teacher Assessment" falls short of funding these teachers or if the "New Teacher Assessment" ends, then additional contributions may be necessary to continue utilizing the long-term rate of return in future GASB OPEB valuations.

The measurements shown in these analyses may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

Exhibit 1 presents the Projected Unfunded Liability Schedule assuming a long-term rate of return of 7.00%. Note that beginning in 2046 VSTRS is fully-funded and that at the beginning of the Fiscal Year Ending June 30, 2049 the Fund has a projected surplus of $278.6 million.

Exhibit 2 presents the Projected Unfunded Liability Schedule assuming a long-term rate of return of 6.25%. Note that beginning in 2048 VSTRS is fully-funded and that at the beginning of the Fiscal Year Ending June 30, 2049 the Fund has a projected surplus of $29.9 million.

Please refer to our Actuarial Valuation and Review of Other Postretirement Benefits Measured at June 30, 2020 for the assumptions and plan of benefits underlying these calculations.

The Coronavirus (COVID-19) pandemic is rapidly evolving and is having a significant impact on the US economy in 2021, including most retiree health plans, and will likely continue to have an impact in the future. Our results do not include the impact of the following:

- Direct or indirect effects of COVID-19 on short-term health plan costs
- Changes in the market value of plan assets since June 30, 2020
- Changes in interest rates since June 30, 2020
- Short-term or long-term impacts on mortality of the covered population
- The potential for federal or state fiscal relief

Each of the above factors could significantly impact these results.

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.

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.

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in these exhibits are complete and accurate. In my opinion, each assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

Please let me know if you have any questions or need any additional information.

Sincerely,

Yori Rubinson, FSA MAAA
Vice President and Retiree Health Actuary

yr/baa

cc: Mr. Daniel A. Levin
Mr. William Kriewald

Attachments

6015743v3/14794.013

Vermont State Teachers' Retirement System
Exhibit 1: 7.00% Rate of Return
(All Numbers in Millions)

Fiscal Year Ending June 30	Actuarial Accrued Liability at Beginning of Period	Health Care Fund Assets at Beginning of Period	Net OPEB Liability at Beginning of Period	Contributions During Fiscal Year	Benefit Payments During Fiscal Year*	Investment Earnings During Fiscal Year	Health Care Fund Assets at End of Period	Actuarial Accrued Liability at End of Period	Funded Ratio	Annual Change in Contributions
2021	$640.9	$8.7	$632.2	$31.8	$31.1	$1.7	$11.2	$668.2	1.67%	-
2022	668.2	11.2	657.0	41.8	32.5	2.6	23.1	696.1	3.31%	31.51%
2023	696.1	23.1	673.1	46.0	34.2	3.6	38.5	724.6	5.32%	10.00%
2024	724.6	38.5	686.0	50.6	36.0	5.0	58.1	753.3	7.71%	10.00%
2025	753.3	58.1	695.2	55.7	38.1	6.6	82.2	781.9	10.52%	10.00%
2026	781.9	82.2	699.7	57.3	40.2	8.4	107.7	810.4	13.29%	3.00%
2027	810.4	107.7	702.6	59.1	42.3	10.2	134.6	838.6	16.05%	3.00%
2028	838.6	134.6	704.0	60.8	44.7	12.1	162.8	866.5	18.79%	3.00%
2029	866.5	162.8	703.6	62.6	47.1	14.1	192.5	893.8	21.54%	3.00%
2030	893.8	192.5	701.3	64.5	49.8	16.3	223.5	920.0	24.30%	3.00%
2031	920.0	223.5	696.5	66.5	52.6	18.5	255.9	944.9	27.08%	3.00%
2032	944.9	255.9	689.0	68.5	55.5	20.8	289.6	968.3	29.91%	3.00%
2033	968.3	289.6	678.7	70.5	58.2	23.2	325.1	990.1	32.84%	3.00%
2034	990.1	325.1	665.0	72.6	61.1	25.7	362.3	1,009.8	35.88%	3.00%
2035	1,009.8	362.3	647.5	74.8	63.8	28.4	401.7	1,027.6	39.09%	3.00%
2036	1,027.6	401.7	625.9	77.0	65.7	31.2	444.2	1,044.0	42.55%	3.00%
2037	1,044.0	444.2	599.8	79.4	67.6	34.3	490.3	1,058.9	46.30%	3.00%
2038	1,058.9	490.3	568.6	81.7	70.2	37.6	539.4	1,071.4	50.35%	3.00%
2039	1,071.4	539.4	532.0	84.2	72.5	41.1	592.2	1,081.3	54.77%	3.00%
2040	1,081.3	592.2	489.1	86.7	74.0	44.9	649.9	1,089.5	59.65%	3.00%
2041	1,089.5	649.9	439.6	89.3	76.3	49.1	712.0	1,094.8	65.04%	3.00%
2042	1,094.8	712.0	382.8	92.0	78.3	53.5	779.3	1,097.1	71.03%	3.00%
2043	1,097.1	779.3	317.9	94.8	79.8	58.4	852.6	1,096.6	77.75%	3.00%
2044	1,096.6	852.6	244.0	97.6	81.6	63.7	932.2	1,092.8	85.31%	3.00%
2045	1,092.8	932.2	160.6	100.5	82.9	69.4	1,019.2	1,086.3	93.82%	3.00%
2046	1,086.3	1,019.2	67.1	103.5	84.1	75.6	1,114.3	1,077.5	103.41%	3.00%
2047	1,077.5	1,114.3	-36.8	106.7	85.1	82.5	1,218.4	1,066.7	114.22%	3.00%
2048	1,066.7	1,218.4	-151.7	109.9	86.5	89.9	1,331.7	1,053.0	126.46%	3.00%
2049	1,053.0	1,331.7	-278.6	113.1	87.5	98.1	1,455.4	1,037.0	140.35%	3.00%

* Benefit payments net of retiree self-pay contributions and EGWP reimbursements

Notes: Contributions are assumed to be made at the beginning of the fiscal year.

This exhibit only reflects teachers hired on or before June 30, 2019. No provision was made for future members.

Vermont State Teachers' Retirement System
Exhibit 2: 6.25% Rate of Return
(All Numbers in Millions)

Fiscal Year Ending June 30	Actuarial Accrued Liability at Beginning of Period	Health Care Fund Assets at Beginning of Period	Net OPEB Liability at Beginning of Period	Contributions During Fiscal Year	Benefit Payments During Fiscal Year*	Investment Earnings During Fiscal Year	Health Care Fund Assets at End of Period	Actuarial Accrued Liability at End of Period	Funded Ratio	Annual Change in Contributions
2021	$710.6	$8.7	$701.9	$31.8	$31.1	$1.6	$11.0	$740.3	1.49%	-
2022	740.3	11.0	729.3	41.8	32.5	2.3	22.6	770.7	2.93%	31.51%
2023	770.7	22.6	748.1	46.0	34.2	3.2	37.6	801.5	4.70%	10.00%
2024	801.5	37.6	763.8	50.6	36.0	4.4	56.6	832.5	6.80%	10.00%
2025	832.5	56.6	775.9	55.7	38.1	5.8	79.9	863.3	9.26%	10.00%
2026	863.3	79.9	783.3	57.3	40.2	7.3	104.4	893.8	11.68%	3.00%
2027	893.8	104.4	789.4	59.1	42.3	8.9	130.0	924.0	14.07%	3.00%
2028	924.0	130.0	794.0	60.8	44.7	10.5	156.6	953.7	16.42%	3.00%
2029	953.7	156.6	797.1	62.6	47.1	12.2	184.4	982.7	18.77%	3.00%
2030	982.7	184.4	798.3	64.5	49.8	14.0	213.2	1,010.4	21.10%	3.00%
2031	1,010.4	213.2	797.2	66.5	52.6	15.8	242.9	1,036.6	23.43%	3.00%
2032	1,036.6	242.9	793.7	68.5	55.5	17.7	273.6	1,061.2	25.78%	3.00%
2033	1,061.2	273.6	787.5	70.5	58.2	19.7	305.6	1,083.9	28.20%	3.00%
2034	1,083.9	305.6	778.2	72.6	61.1	21.7	338.8	1,104.3	30.68%	3.00%
2035	1,104.3	338.8	765.5	74.8	63.8	23.9	373.7	1,122.6	33.29%	3.00%
2036	1,122.6	373.7	748.9	77.0	65.7	26.1	411.2	1,139.3	36.09%	3.00%
2037	1,139.3	411.2	728.2	79.4	67.6	28.5	451.4	1,154.2	39.11%	3.00%
2038	1,154.2	451.4	702.8	81.7	70.2	31.1	494.1	1,166.6	42.36%	3.00%
2039	1,166.6	494.1	672.5	84.2	72.5	33.9	539.7	1,176.1	45.89%	3.00%
2040	1,176.1	539.7	636.4	86.7	74.0	36.8	589.3	1,183.6	49.79%	3.00%
2041	1,183.6	589.3	594.3	89.3	76.3	40.0	642.3	1,187.9	54.07%	3.00%
2042	1,187.9	642.3	545.5	92.0	78.3	43.5	699.5	1,189.0	58.83%	3.00%
2043	1,189.0	699.5	489.5	94.8	79.8	47.1	761.6	1,187.0	64.16%	3.00%
2044	1,187.0	761.6	425.4	97.6	81.6	51.1	828.7	1,181.4	70.15%	3.00%
2045	1,181.4	828.7	352.7	100.5	82.9	55.5	901.8	1,172.9	76.89%	3.00%
2046	1,172.9	901.8	271.1	103.5	84.1	60.2	981.4	1,162.0	84.46%	3.00%
2047	1,162.0	981.4	180.5	106.7	85.1	65.3	1,068.4	1,148.8	93.00%	3.00%
2048	1,148.8	1,068.4	80.5	109.9	86.5	70.9	1,162.7	1,132.8	102.64%	3.00%
2049	1,132.8	1,162.7	-29.9	113.1	87.5	77.0	1,265.3	1,114.2	113.56%	3.00%

* Benefit payments net of retiree self-pay contributions and EGWP reimbursements

Notes: Contributions are assumed to be made at the beginning of the fiscal year.

This exhibit only reflects teachers hired on or before June 30, 2019. No provision was made for future members.