



STATE OF VERMONT
OFFICE OF THE STATE TREASURER

TO: Senator Jane Kitchel, Chair, Senate Committee on Appropriations
Representative Diane Lanpher, Chair, House Committee on Appropriations

FROM: Mike Pieciak, State Treasurer

RE: Actuarial Cost Update: Retired Teacher Cost-of-Living Adjustment Methodology

DATE: January 3, 2024

Summary

This report is provided pursuant to section E.514.2 of Act 78 of 2023. Specifically:

- It reports on the one-time supplemental post-retirement adjustment payment to retired members in Group C of the Vermont State Teachers' Retirement System (VSTRS).
- It provides updated actuarial analysis on the cost associated with revising the capping methodology in 16 V.S.A. § 1949 to reflect the one in place before a 2016 revision.
- It suggests technical corrections to section 1949 to clarify certain sections and ensure that the intent of Act 114/173 of 2022 is implemented.

Background

Teachers in Vermont's public school system are members of a defined benefit retirement plan known as the Vermont State Teachers' Retirement System (VSTRS). There are two Groups of Teachers in VSTRS – Group A and Group C – each with different terms and conditions for vesting, benefit levels, etc. Group A was closed many years ago, and the vast majority (more than 95%) of teachers and retired teachers are now Group C members.

VSTRS provides a retirement allowance, or pension, for teachers who retire after meeting certain vesting criteria. Retiree pensions are adjusted each year by reference to the CPI-U Northeast – a metric that generally accounts for inflation in the Northeast and which we will refer to here as simply "CPI." These postretirement adjustments are commonly referred to as cost-of-living adjustments, or "COLAs." Retirees' COLA eligibility, amount, and other terms are set forth in 16 V.S.A. § 1949.

While the COLA provisions in section 1949 have changed throughout the years, they have generally provided a different COLA structure for Group A members as compared to Group C members. Broadly speaking, Group A retirees have received 100% of the change in CPI (within

certain limits), whereas Group C members have received 50% of the change in CPI (within certain limits).

The COLA provisions were amended in Act 114 of 2022 (as further modified in Act 173 of 2022), and prior to that by Act 114 of 2016. Because the two Acts coincidentally have the same Act number, we will refer to Act 114 of 2016 as the “2016 Act” and Acts 114 and 173 of 2022, collectively as the “2022 Act.”

The 2016 Act changed the COLA provisions to prevent member pensions from being adjusted downward when CPI is negative. In changing the statute to prevent this outcome, the 2016 Act also changed the way the 5% upper cap was applied, in a way that appears unintentional.

Prior to 2016, Group C retirees would receive a COLA of 50% of the CPI, so long as the COLA was no higher than 5%. Accordingly, retirees could receive a COLA as high as 5% under the old law. The 2016 Act changed this methodology to first cap the CPI at 5% (when applicable), and then take 50% of that capped CPI. Accordingly, after 2016, Group C retirees would never receive a COLA higher than 2.5% (equal to 50% of a capped 5% CPI). The 2016 Act Fiscal Note does not mention the 5% cap, and so this aspect of the law appears to have been an unintended change.

The 2022 Act made changes to section 1949; however, because the capping methodology was not one of the items that was designated to change, it carried forward the 2016 Act’s methodology. The thrust of the 2022 Act was to change the cap and floor for those non-legacy Group C members who were retired or eligible for normal retirement as of June 30, 2022, while holding the legacy Group C members harmless. Accordingly, the non-legacy Group C members would be capped between 0 – 4 %, whereas legacy Group C members would maintain the 1 – 5% range. These changes are explained in the 2022 Act Fiscal Note.

While the change to the capping methodology was made in 2016, its impact was not fully appreciated until 2022, the first year since the 2016 Act with inflation above 5%. In 2022, CPI was measured at 7.6%. Under both the 2016 Act and the 2022 Act, this resulted in a 2.5% COLA for Group C members, effective January 1, 2023. Under the pre-2016 methodology, this 7.6% CPI would have resulted in a 3.8% COLA.

During the 2023 legislative session, this issue was addressed, and the General Assembly provided a one-time payment to Group C retirees who received the 2.5% COLA to reflect the difference in 2023 between the 2.5% COLA they received and the 3.8% COLA they would have received under the pre-2016 Act capping methodology. *See* Act 78 of 2023, sec. E.514.2(b). The Legislature appropriated \$3 million for this one-time payment and associated costs. *See* Act 78 of 2023, sec. B.1104.

The Legislature also reserved funds estimated to pre-fund the present value of benefits necessary to revert to the pre-2016-Act capping methodology (\$9.1 million) and directed the Treasurer’s Office to update this number in January 2024, specifically to include changes in assumptions following the 2023 System Experience Study, which is available [here](#).

Report

One-time Supplemental Payment

The Treasurer's Office has carried out the tasks directed by the Legislature. First, in October 2023, retirees received a one-time payment reflecting the difference between the 2.5% COLA actually received by retirees and a 3.8% COLA that would have been received were the pre-2016 Act methodology still in place. That payment was included in the monthly pension payments made at the end of October. Those members receiving this payment were advised in advance by direct mailing, and Treasurer's Office staff was available to respond to retiree questions.

The total cost of these one-time payments was \$2,765,544.49. Expenses associated with the one-time payment and analysis related to the teacher COLA issue generally were approximately \$75,000 (primarily actuarial work, but also including programming and mailing costs).

Updated Actuarial Analysis

In February 2023, VSTRS' actuaries, Segal Consulting, prepared an analysis that set forth costs associated with different methods of reverting to the capping methodology in effect prior to 2016. Segal indicated the estimated costs associated with the following possible approaches:

- One-time 2023 payment (\$2.8 million),
- Prospective change to the COLA methodology beginning in 2024 (\$9.1 million),
- Revising the 2023 COLA from 2.5% to 3.8% and building that revision into base pay for future COLAs (\$32.3 million), and
- Combinations of the above.

Cost estimates were made on present value of benefits (PVB) basis and were based on the June 30, 2022, valuation.

The Treasurer's Office has engaged Segal to refresh this analysis to reflect assumption changes required by this year's Experience Study and the June 30, 2023 Valuation. That analysis is set forth in an appendix to this Report and can be generally summarized as follows:

- One-time 2023 payment equal to difference between 2.5% and 3.8% COLA (no change to original \$2.8 million),
- Prospective change (not including 2023) to the COLA methodology (\$9.1 million increases to \$9.5 million), and
- Retroactive change from 2.5% to 3.8% in 2023 COLA and building that revision into base pay for future COLAs (\$32.3 million decreases to \$30.9 million).¹

¹ As explained in the Segal memo, the one-time 2023 payment of \$2.8 million is part of this total \$30.9 million cost. With this \$2.8 million already funded, the new appropriation needed to fund a retroactive change would be \$28.1 million.

To place these amounts in context of the overall System, the 2023 Valuation establishes the following total liabilities and funding levels:

- | | |
|---|-----------------|
| • Total Actuarial Accrued Liability (AAL) | \$4.4 billion |
| • Total Actuarial Value of Assets (AVA) | \$2.6 billion |
| • Unfunded AAL based on AVA | \$1.8 billion |
| • FY2025 Actuarial Determined Employer Contribution | \$201.2 million |

Additional Clarifications

In addition to the work directed by the Legislature, and in recognition of the complicated structure of section 1949 and substantial revisions to the language in the 2022 Act, Retirement Division staff undertook a thorough review of the section to ensure that the COLA changes in the 2022 Act effectuated only those changes clearly articulated in the Act 114 Fiscal Note and carried forward all other aspects of the former law unchanged, as we believe the Legislature and interested parties intended. Two potential issues were uncovered that Staff believe merit clarification to ensure that the pre-2022 Act terms continue to apply.

First, while considerable focus was placed on the upside-capping methodology over the past year, Retirement Division staff are concerned that language regarding the relevant “floor” in the current law is ambiguous and needs clarification. Prior to the 2022 Act, section 1949 set different floors for Group A and Group C.

- For Group A, members would receive a COLA only if CPI was 1% or above. If CPI was between 0 – 1%, Group A members received no COLA.
- For Group C, if CPI was positive, the minimum COLA would be 1%, even where CPI was less than 1%.

This was illustrated in 2021. The prior year’s CPI was 0.7%. Per section 1949, Group A members received no COLA that year and Group C members received a 1% COLA.

Retirement Division staff believe that this language was intended to carry through in the 2022 Act for Group A and legacy Group C members. Indeed, the language in the 2022 Act references maximum and minimum amounts, but then did not include the minimum amounts. The Fiscal Note confirms that floors were meant to remain the same for legacy Group C members and that no changes were being made to Group A. Only non-legacy Group C members were intended to have a new floor under the 2022 Act.

Second, and perhaps a more minor point, section 1949 has always required that members who retire early do not receive a COLA until they reach their normal retirement age (either 62 or 65, depending on their group or subgroup). Language was included in the State Employees’ COLA provision to preserve this feature, but it appears to have been inadvertently excluded from the VSTRS COLA provision. Because the Fiscal Note does not mention a change to the provision related to early retirees, and there was no testimony or analysis of the issue, staff believe that the law should be clarified to ensure that the longstanding practice is maintained.

Recommended Statutory Revisions

Appended to this report is a revised and annotated section 1949. This draft seeks to accomplish three things:

- Revert the capping methodology for all Group C members to the one in place prior to the 2016 Act.
- Clarify that the pre-2022 Act floors for Group A and legacy Group C members remain in place, and that only non-legacy Group C members have a 0% floor.
- Clarify that the 2022 Act made no change to the manner in which COLAs are applied to early retirees.

The draft statutory revisions are annotated to indicate the intent of the specific proposed changes.

Appendix 1: Legislative Directive

Act 78 of 2023

Sec. E.514.2 VERMONT STATE TEACHERS' RETIREMENT SYSTEM; CALENDAR YEAR 2023–2024 SUPPLEMENTAL COST OF LIVING PAYMENTS; INTENT; ACTUARIAL COST ANALYSIS

(a) Intent. It is the intent of the General Assembly that:

(1) The maximum percentage value methodology set forth in 16 V.S.A. § 1949 that applies to the postretirement adjustment allowances for the Vermont State Teachers' Retirement System (VSTRS) shall be actuarially evaluated to determine the cost required to revert to the methodology used prior to the enactment of 2016 Acts and Resolves No. 114.

(2) The General Assembly further intends to make such a reversion by future legislative action amending 16 V.S.A. § 1949, provided that the present value of changes to the postretirement adjustment allowance methodology be fully funded at the time the change is made and not increase the unfunded liability in VSTRS.

(3) The General Assembly further intends that if the June 30, 2023, change in the Consumer Price Index exceeds the statutory maximum percentage values set forth in 16 V.S.A. § 1949 (b)(1), the General Assembly will provide a sufficient appropriation in the 2024 Budget Adjustment Act to make a one-time supplemental payment, similar in form to that described in subsection (b) of this section, to qualifying VSTRS retired members and beneficiaries in calendar year 2024.

(b) Calendar year 2023 supplemental payment. A one-time supplemental payment during calendar year 2023 shall be made to VSTRS retired members and beneficiaries who received a 2.5 percent postretirement adjustment allowance in an amount equal to the net difference between what members actually received in calendar year 2023 and what they would have received under a 3.8 percent postretirement adjustment allowance.

(c) Actuarial cost analysis. Following the completion of the next experience study, expected in fall 2023, the State Treasurer shall conduct an actuarial analysis to evaluate the cost of changing the current methodology for calculating the postretirement adjustment allowance for the Vermont State Teachers' Retirement System to a methodology calculated by applying the maximum percentage values set forth in 16 V.S.A. § 1949(b)(1) to the postretirement adjustment allowance rather than applying the statutory maximum percentage values to the net percentage change in the Consumer Price Index. The actuarial analysis shall take into account any changes to actuarial assumptions that may occur following the experience study to be performed at the end of fiscal year 2023, as required by 16 V.S.A. § 1942.

(d) Report. Based on the actuarial cost analysis described in subsection (c) of this section, on or before January 15, 2024, the State Treasurer shall submit a report to the House and Senate

Committees on Appropriations with an actuarial cost estimate for changing the VSTRS postretirement adjustment allowance methodology as set forth in subsection (c) of this section.

Appendix 2: Proposed Statutory Revisions to Address Issues Identified in Report

Enclosed via email.

Appendix 3: February 2023 Initial Actuarial Analysis

Enclosed at end of this packet.

Appendix 4: December 2023 Updated Actuarial Analysis

Enclosed at end of this packet.



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February 16, 2023

Via Email

Mr. Tim Duggan
Vermont Retirement Systems
Office of the State Treasurer
109 State Street
Montpelier, Vermont 05609

Re: VSTRS – Alternative COLA Analysis – Additional Scenarios

Dear Tim:

As a follow-up to our letters dated November 7, 2022, and February 7, 2023, we are providing supplemental information regarding the impact of modifying the cost-of-living-adjustment (COLA) structure for certain members of the Vermont State Teachers' Retirement System (VSTRS) to reflect the "Alternative COLA" interpretation of certain COLA provisions. Specifically, the Office of the State Treasurer requested that we provide the total one-time cost associated with the changes outlined in each of the following additional scenarios, as of June 30, 2023:

- (1) Total costs associated with a one-time payment for applicable members¹, equal in value to the additional dollars needed to reflect twelve monthly benefit payments if a 3.8% COLA was applied on January 1, 2023, instead of the 2.5% COLA that was actually applied. This one-time payment will not impact benefit amounts.
- (2) Total costs associated with a prospective COLA adjustment to reflect the "Alternative COLA" interpretation from January 1, 2024, onward, assuming that future COLAs align with the current assumption related to inflation in all future years.
- (3) Combination of Scenarios (1) and (2) above, i.e., the total costs associated with a one-time payment for applicable members¹, equal in value to the additional dollars needed to reflect twelve monthly benefit payments if a 3.8% COLA was applied on January 1, 2023, instead of the 2.5% COLA that was actually applied; plus the total costs associated with a prospective COLA adjustment to reflect the "Alternative COLA" interpretation from January 1, 2024, onward, assuming that future COLAs align with the current assumption related to inflation in all future years.
- (4) Total costs associated with a one-time COLA adjustment where solely the January 1, 2023, COLA is retroactively adjusted to reflect the "Alternative COLA" interpretation. This one-time COLA adjustment will impact benefit amounts from January 1, 2023, onward.

¹ For purposes of this analysis, "applicable members" are defined as all members who would receive a January 1, 2023, COLA of 3.80% as outlined in the "Alternative COLA" section of this letter.

- (5) Combination of Scenarios (4) and (2) above, i.e., the total costs associated with a one-time COLA adjustment where solely the January 1, 2023, COLA is retroactively adjusted to reflect the “Alternative COLA” interpretation; plus the total costs associated with a prospective COLA adjustment to reflect the “Alternative COLA” interpretation from January 1, 2024, onward, assuming that future COLAs align with the current assumption related to inflation in all future years.

Total One-Time Cost Associated with Change(s) – As of June 30, 2023

Total One-Time Cost Associated with Change(s) (\$ in millions)			
Scenario	Per One-Time Adjustment	Per Future Adjustments	Total Cost
(1)	\$2.8	N/A	\$2.8
(2)	N/A	\$9.1	\$9.1
(3)	\$2.8	\$9.1	\$11.9
(4)	\$32.3	N/A	\$32.3
(5)	\$32.3	\$9.1	\$41.4

Specific details regarding both the “Current COLA” interpretation and the “Alternative COLA” interpretation are outlined in the “Plan Provisions and Actuarial Assumptions” section on the following pages. The results of the June 30, 2022, actuarial valuation are used as a baseline. The detailed results of our analysis are shown in the attached exhibits and discussed on the pages that follow.

Plan Provisions and Actuarial Assumptions

The "Current COLA" section below outlines various COLA-related plan provisions and actuarial assumptions as used in the June 30, 2022, actuarial valuation. The "Alternative COLA" section on the following page outlines the same plan provisions and actuarial assumptions, including modifications to reflect an alternative interpretation of certain COLA provisions. The specific provisions and assumptions that were modified to reflect the alternative interpretation are underlined in each section.

Current COLA

- Group B:
 - Allowances in payment for at least one year increased on each January 1 by half of the net percentage increase in CPI. The maximum net percentage increase in CPI is capped at 5%.
 - The January 1, 2023, COLA is expected to be 2.50%.
 - The COLA assumption for all other years is 1.35%.
- Group C:
 - For active members who are first eligible for normal retirement on or after July 1, 2022:
 - Allowances in payment for at least two years increased on each January 1 by half of the net percentage increase in CPI. The maximum net percentage increase in CPI is capped at 4%.
 - The January 1, 2023, COLA is expected to be 2.00%².
 - The COLA assumption for all other years is 1.20%.
 - For all other members:
 - Allowances in payment for at least one year increased on each January 1 by half of the net percentage increase in CPI. The maximum net percentage increase in CPI is capped at 5%.
 - The January 1, 2023, COLA is expected to be 2.50%.
 - The COLA assumption for all other years is 1.35%.

² This amount was required to be calculated for 2023 as a result of Act 114 and Act 173; however, it will not be applied to any members in 2023.

Alternative COLA

- Group B:
 - Allowances in payment for at least one year increased on each January 1 by half of the net percentage increase in CPI. The maximum increase is capped at 5%.
 - The January 1, 2023, COLA is expected to be 3.80%.
 - The COLA assumption for all other years is 1.35%³.
- Group C:
 - For active members who are first eligible for normal retirement on or after July 1, 2022:
 - Allowances in payment for at least two years increased on each January 1 by half of the net percentage increase in CPI. The maximum increase is capped at 4%.
 - The January 1, 2023, COLA is expected to be 3.80%⁴.
 - The COLA assumption for all other years is 1.25%⁵.
 - For all other members:
 - Allowances in payment for at least one year increased on each January 1 by half of the net percentage increase in CPI. The maximum increase is capped at 5%.
 - The January 1, 2023, COLA is expected to be 3.80%.
 - The COLA assumption for all other years is 1.35%³.

³ The stochastic analysis of inflation combined with the current minimum and maximum thresholds used in connection with the 2020 Experience Study Review was rerun with the updated thresholds outlined in this section. The outcome was not materially different; therefore, this assumption was not updated for purposes of this analysis.

⁴ This amount was required to be calculated for 2023 as a result of Act 114 and Act 173; however, it will not be applied to any members in 2023.

⁵ The stochastic analysis of inflation combined with the current minimum and maximum thresholds used in connection with the 2020 Experience Study Review was rerun with the updated thresholds outlined in this section. The outcome was an increase of approximately 0.05% in the 50th percentile long-term average COLA; therefore, this assumption was updated to 1.25% for purposes of this analysis.

Methodology and Analysis

For purposes of this analysis, all COLA modifications outlined in each scenario were reflected as of June 30, 2022 (FY22), including updating the actual January 1, 2023, COLA for certain members to reflect the "Alternative COLA" interpretation.

From a funding perspective, the increase in the total present value of benefits (PVB) can be used to estimate the total one-time cost associated with applying the COLA modifications outlined in each scenario. For illustrative purposes of this analysis, the impact on the PVB was calculated as of June 30, 2022, then the resulting amount was accumulated with one year of interest at the valuation investment return assumption of 7.00% to calculate the one-time cost associated with the changes outlined in each scenario, as of June 30, 2023⁶. For example, for Scenario (2), the impact on the PVB as of June 30, 2022, was an \$8.5 million increase. The total one-time cost associated with the changes outlined in Scenario (2) as of June 30, 2023, is equal to the \$8.5 million accumulated with 7.00% interest for one year to June 30, 2023, or \$9.1 million.

From a timing perspective, if the changes outlined in any of the scenarios are applied and the respective total one-time payment is not made on June 30, 2023, the actual cost may be different than illustrated in this analysis. For example, if the changes outlined in Scenario (2) are applied, but the one-time payment is not made until June 30, 2024, the total one-time cost associated with the changes may be greater than illustrated in this analysis.

From a CPI perspective, if actual CPI changes in future years do not align with expected CPI changes, the total one-time cost associated with applying the COLA modifications outlined in each scenario may be different than that illustrated in this analysis. Additional information regarding the impact of various hypothetical CPI changes over the next 5 years can be located in the February 7, 2023, letter.

We did not assume that any of the additional scenarios would materially affect participant behavior and therefore did not revise any demographic assumptions as a result of these changes. If any change affected participant behavior, the actual impact may be different than that illustrated in this analysis.

⁶ Since Scenario 1 (and part of Scenario 3) solely reflects a one-time payment that will be made to the applicable members (and will not impact benefit amounts), the total one-time cost associated with this change is valued as the dollar amount of the one-time payment as of June 30, 2023.

Disclosure

This analysis was prepared in accordance with generally accepted actuarial principles and practices at the request of the Office of the State Treasurer. Please refer to our June 30, 2022, Actuarial Valuation and Review report for VSTRS for the data, assumptions, and plan of benefits underlying these calculations.

The measurements shown in these actuarial calculations may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this letter 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.

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative, and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of 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.

Segal is not a law firm and we cannot offer legal advice. If legal advice is needed, please consult with appropriate legal counsel.

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and I meet the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this letter is 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,



Matthew A. Strom, FSA, MAAA, EA
Senior Vice President and Actuary

cc: Kathleen Riley, Segal

VSTRS Results

Scenario Descriptions

Scenario	Description
Baseline	Actuarial Valuation Results as of June 30, 2022, for VSTRS.
(1)	Total costs associated with a <u>one-time payment</u> for applicable members ⁷ , equal in value to the additional dollars needed to reflect twelve monthly benefit payments if a 3.8% COLA was applied on January 1, 2023, instead of the 2.5% COLA that was actually applied. This <u>one-time payment</u> will not impact benefit amounts.
(2)	Total costs associated with a <u>prospective COLA adjustment</u> to reflect the "Alternative COLA" interpretation from January 1, 2024, onward, assuming that future COLAs <u>align with the current assumption related to inflation</u> in all future years.
(3)	Combination of Scenarios (1) and (2) above, i.e., the total costs associated with a <u>one-time payment</u> for applicable members ⁷ , equal in value to the additional dollars needed to reflect twelve monthly benefit payments if a 3.8% COLA was applied on January 1, 2023, instead of the 2.5% COLA that was actually applied; plus the total costs associated with a <u>prospective COLA adjustment</u> to reflect the "Alternative COLA" interpretation from January 1, 2024, onward, assuming that future COLAs <u>align with the current assumption related to inflation</u> in all future years.
(4)	Total costs associated with a <u>one-time COLA adjustment</u> where solely the January 1, 2023, COLA is retroactively adjusted to reflect the "Alternative COLA" interpretation. This <u>one-time COLA adjustment</u> will impact benefit amounts from January 1, 2023, onward.
(5)	Combination of Scenarios (4) and (2) above, i.e., the total costs associated with a <u>one-time COLA adjustment</u> where solely the January 1, 2023, COLA is retroactively adjusted to reflect the "Alternative COLA" interpretation; plus the total costs associated with a <u>prospective COLA adjustment</u> to reflect the "Alternative COLA" interpretation from January 1, 2024, onward, assuming that future COLAs <u>align with the current assumption related to inflation</u> in all future years.

Total One-Time Cost Associated with Change(s) – As of June 30, 2023

Scenario	Total One-Time Cost Associated with Change(s) (\$ in millions)		
	Per One-Time Adjustment	Per Future Adjustments	Total Cost
(1)	\$2.8	N/A	\$2.8
(2)	N/A	\$9.1	\$9.1
(3)	\$2.8	\$9.1	\$11.9
(4)	\$32.3	N/A	\$32.3
(5)	\$32.3	\$9.1	\$41.4

⁷ For purposes of this analysis, "applicable members" are defined as all members who would receive a January 1, 2023, COLA of 3.80% as outlined in the "Alternative COLA" section of this letter.



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December 6, 2023

Via Email

Tim Duggan
Vermont Retirement Systems
Office of the State Treasurer
109 State Street
Montpelier, Vermont 05609

Re: VSTRS – Actuarial Cost Analysis – Alternative COLA

Dear Tim:

As requested, we have calculated the impact of modifying the cost-of-living-adjustment (COLA) structure for certain members of the Vermont State Teachers' Retirement System (VSTRS) to reflect the "Alternative COLA" interpretation¹ of certain COLA provisions. Specifically, the Office of the State Treasurer requested that we provide the total one-time cost, as of June 30, 2023, associated with the changes outlined in each of the following scenarios:

- (1) Total costs associated with a prospective COLA adjustment to reflect the "Alternative COLA" interpretation from January 1, 2025, onward, assuming that future COLAs align with the assumption related to inflation in all future years.
- (2) Total costs associated with a one-time COLA adjustment where solely the January 1, 2023, COLA² is retroactively adjusted to reflect the "Alternative COLA" interpretation. This one-time COLA adjustment will impact benefit amounts from January 1, 2023, onward.
- (3) Combination of Scenarios (1) and (2) above; i.e., the total costs associated with a one-time COLA adjustment where solely the January 1, 2023, COLA² is retroactively adjusted to reflect the "Alternative COLA" interpretation; plus the total costs associated with a prospective COLA adjustment to reflect the "Alternative COLA" interpretation from January 1, 2025, onward, assuming that future COLAs align with the assumption related to inflation in all future years.

¹ The "Alternative COLA" interpretation is defined as a methodology that is calculated by applying the maximum percentage values set forth in 16 V.S.A. § 1949(b)(1) to the postretirement adjustment allowance rather than applying the statutory maximum percentage values to the net percentage change in the Consumer Price Index.

² Reflecting the "Alternative COLA" interpretation would have no impact on the actual January 1, 2024, COLA; therefore, no adjustments to the January 1, 2024, COLA were necessary in order to reflect the "Alternative COLA" interpretation.

To illustrate how the total one-time cost has evolved since the initial calculation¹ was performed, we prepared each of the scenarios above by using the June 30, 2022, actuarial valuation results (excluding all actuarial assumption updates per the Actuarial Experience Review dated September 28, 2023), which was the basis of our first analysis, as well as by using the recently-finalized June 30, 2023, actuarial valuation results (including all actuarial assumption updates per the Actuarial Experience Review dated September 28, 2023).

Projected Total One-Time Cost Associated with Change(s)
 As of June 30, 2023
 Using June 30, 2022, Actuarial Valuation Results

Scenario	Total One-Time Cost Associated with Change(s) (\$ in millions)		Total Cost
	Per One-Time Adjustment	Per Future Adjustments	
(1)	N/A	\$9.1	\$9.1
(2) ²	\$32.3	N/A	\$32.3
(3) ²	\$32.3	\$9.1	\$41.4

Note: numbers may not add due to rounding

Actual Total One-Time Cost Associated with Change(s)
 As of June 30, 2023
 Using June 30, 2023, Actuarial Valuation Results

Scenario	Total One-Time Cost Associated with Change(s) (\$ in millions)		Total Cost
	Per One-Time Adjustment	Per Future Adjustments	
(1)	N/A	\$9.5	\$9.5
(2) ²	\$30.9	N/A	\$30.9
(3) ²	\$30.9	\$9.5	\$40.3

Note: numbers may not add due to rounding

The detailed results of our analysis are shown in the attached exhibits and discussed on the pages that follow.

¹ For additional information regarding the initial calculation, please refer to Scenarios (2), (4), and (5) in the "VSTRS – Alternative COLA Analysis – Additional Scenarios" letter dated February 16, 2023.

² The total one-time cost associated with the changes outlined in this scenario includes the value of the one-time payment "of additional dollars to reflect twelve monthly benefit payments if a 3.80% COLA was applied on January 1, 2023, instead of 2.50%" that was previously paid outside of the plan directly to applicable members.

Plan Provisions and Actuarial Assumptions

COLA assumptions by group for relevant scenarios are based on one of the two assumption sets below:

	Based on current plan provisions (without reflecting anticipated change in law)	Based on anticipated law change ("Alternative COLA" interpretation) as adopted by the Board
• Group C-NEW¹:	1.15%	1.20%
• All other members:		
○ Group A:	2.30%	2.30%
○ Groups B/C-OLD²:	1.20%	1.20%

If the proposed COLA assumptions contained in the Actuarial Experience Review dated September 28, 2023, were derived based on the current plan provisions, without reflecting the anticipated change in law, the proposed COLA assumptions would have been 1.15% for Group C-NEW, 2.30% for Group A (all other members), and 1.20% for Groups B/C-OLD (all other members).

Due to the anticipated change in law that will apply the "Alternative COLA" interpretation, the proposed COLA assumptions, adopted by the Board and effective for the June 30, 2023, actuarial valuation, were derived by applying a methodology³ that immediately reflects the anticipated change in law. Reflecting the anticipated change in law resulted in an assumption of 1.20% for Group C-NEW; the assumptions for Group A (all other members) and Groups B/C-OLD (all other members) remained unchanged at 2.30% and 1.20%, respectively.

In order to derive these proposed COLA assumptions to immediately reflect the anticipated change in law, the stochastic analysis of inflation combined with the current minimum and maximum thresholds used in connection with the Actuarial Experience Review dated September 28, 2023, was rerun to reflect the "Alternative COLA" interpretation. The outcome was an increase of approximately 0.05% in the 50th percentile long-term average COLA for Group C-NEW members; therefore, the proposed Group C-NEW assumption was updated from 1.15% to 1.20% (as illustrated above).

¹ "C-NEW" is used as an abbreviation for "Active Group C members first eligible for normal retirement on or after July 1, 2022".

² "C-OLD" is used as an abbreviation for "All other members: Group C".

³ Effectively, this methodology anticipates that the intent of the General Assembly to apply the "Alternative COLA" interpretation will become applicable law as of July 1, 2024.

The actual January 1, 2023, COLAs by group for relevant scenarios are illustrated in the table below:

	Based on current plan provisions	Based on "Alternative COLA" interpretation
• Group C-NEW:	2.00% ¹	3.80% ¹
• All other members:		
○ Group A:	5.00%	5.00%
○ Groups B/C-OLD:	2.50%	3.80%

As illustrated in the table above, reflecting the "Alternative COLA" interpretation would have increased the actual January 1, 2023, COLA for Groups B/C-OLD members from 2.50% to 3.80%.

The actual January 1, 2024, COLAs by group for relevant scenarios are illustrated in the table below:

	Based on current plan provisions	Based on "Alternative COLA" interpretation
• Group C-NEW:	1.10% ²	1.10% ²
• All other members:		
○ Group A:	2.20%	2.20%
○ Groups B/C-OLD:	1.10%	1.10%

As illustrated in the table above, reflecting the "Alternative COLA" interpretation would have no impact on the actual January 1, 2024, COLA for any members.

¹ This amount was required to be calculated for 2023 as a result of Act 114 and Act 173; however, it will not be applied to any members in 2023.

² This amount was required to be calculated for 2024 as a result of Act 114 and Act 173; however, it will not be applied to any members in 2024.

Methodology and Analysis

From a funding perspective, the increase in the total present value of benefits (PVB) can be used to estimate the total one-time cost associated with applying the COLA modifications outlined in each scenario.

For illustrative purposes of this analysis, when using the June 30, 2022, actuarial valuation results, the impact on the PVB was calculated as of June 30, 2022, and then the resulting amount was accumulated with one year of interest at the valuation investment return assumption of 7.00% to calculate the projected total one-time cost associated with the changes outlined in each scenario, as of June 30, 2023. For example, for Scenario (1), the impact on the PVB as of June 30, 2022, was an \$8.5 million increase. The projected total one-time cost associated with the changes outlined in Scenario (1) as of June 30, 2023, is equal to the \$8.5 million accumulated with 7.00% interest for one year to June 30, 2023, or \$9.1 million.

Since the actual total one-time cost associated with the changes outlined in each scenario was determined by using the June 30, 2023, actuarial valuation results, the impact on the PVB was calculated as of June 30, 2023; therefore, an interest accumulation adjustment is unnecessary to calculate the actual total one-time cost as of June 30, 2023. For example, for Scenario (1), the impact on the PVB as of June 30, 2023, was a \$9.5 million increase; therefore, the actual total one-time cost associated with the changes outlined in Scenario (1) as of June 30, 2023, is \$9.5 million.

From a timing perspective, if the changes outlined in any of the scenarios are applied and the respective total one-time payment is not made on June 30, 2023, the actual cost may be different than illustrated in this analysis. For example, if the changes outlined in Scenario (1) are applied, but the one-time payment is not made until June 30, 2024, the total one-time cost associated with the changes may be greater than illustrated in this analysis.

From a CPI perspective, if actual CPI changes in future years do not align with expected CPI changes, the System may experience additional gains and/or losses, and the actual impact may be different than that illustrated in this analysis.

We did not assume that any of the scenarios would materially affect participant behavior and therefore did not revise any demographic assumptions as a result of these changes. If any change affected participant behavior, the actual impact may be different than that illustrated in this analysis.

Disclosure

This analysis was prepared in accordance with generally accepted actuarial principles and practices at the request of the Office of the State Treasurer. Please refer to our June 30, 2022, and June 30, 2023, Actuarial Valuation and Review reports for VSTRS for the data, assumptions, and plan of benefits underlying these calculations.

The measurements shown in these actuarial calculations may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this letter 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.

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative, and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of 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.

Segal is not a law firm and we cannot offer legal advice. If legal advice is needed, please consult with appropriate legal counsel.

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and I meet the *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this letter is 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,

Matthew A. Strom, FSA, MAAA, EA
Senior Vice President and Actuary

cc: Kathleen Riley, Segal

Results

Scenario Descriptions

Scenario	Description
(1)	Total costs associated with a <u>prospective COLA adjustment</u> to reflect the "Alternative COLA" interpretation from January 1, 2025, onward, assuming that future COLAs <u>align with the assumption related to inflation</u> in all future years.
(2)	Total costs associated with a <u>one-time COLA adjustment</u> where solely the January 1, 2023, COLA ¹ is retroactively adjusted to reflect the "Alternative COLA" interpretation. This <u>one-time COLA adjustment</u> will impact benefit amounts from January 1, 2023, onward.
(3)	Combination of Scenarios (1) and (2) above, i.e., the total costs associated with a <u>one-time COLA adjustment</u> where solely the January 1, 2023, COLA ¹ is retroactively adjusted to reflect the "Alternative COLA" interpretation; plus the total costs associated with a <u>prospective COLA adjustment</u> to reflect the "Alternative COLA" interpretation from January 1, 2025, onward, assuming that future COLAs <u>align with the assumption related to inflation</u> in all future years.

Projected Total One-Time Cost Associated with Change(s)
 As of June 30, 2023
 Using June 30, 2022, Actuarial Valuation Results

Scenario	Total One-Time Cost Associated with Change(s) (\$ in millions)		Total Cost
	Per One-Time Adjustment	Per Future Adjustments	
(1)	N/A	\$9.1	\$9.1
(2) ²	\$32.3	N/A	\$32.3
(3) ²	\$32.3	\$9.1	\$41.4

Note: numbers may not add due to rounding

¹ Reflecting the "Alternative COLA" interpretation would have no impact on the actual January 1, 2024, COLA; therefore, no adjustments to the January 1, 2024, COLA were necessary in order to reflect the "Alternative COLA" interpretation.

² The total one-time cost associated with the changes outlined in this scenario includes the value of the one-time payment "of additional dollars to reflect twelve monthly benefit payments if a 3.80% COLA was applied on January 1, 2023, instead of 2.50%" that was previously paid outside of the plan directly to applicable members.

Actual Total One-Time Cost Associated with Change(s)
As of June 30, 2023
Using June 30, 2023, Actuarial Valuation Results

Scenario	Total One-Time Cost Associated with Change(s) (\$ in millions)		
	Per One-Time Adjustment	Per Future Adjustments	Total Cost
(1)	N/A	\$9.5	\$9.5
(2) ¹	\$30.9	N/A	\$30.9
(3) ¹	\$30.9	\$9.5	\$40.3

Note: numbers may not add due to rounding

DRAFT

¹ The total one-time cost associated with the changes outlined in this scenario includes the value of the one-time payment "of additional dollars to reflect twelve monthly benefit payments if a 3.80% COLA was applied on January 1, 2023, instead of 2.50%" that was previously paid outside of the plan directly to applicable members.