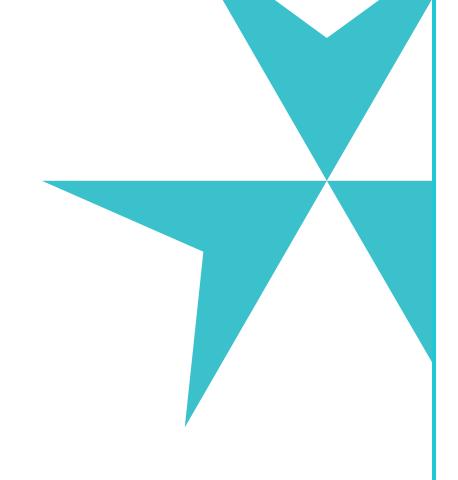
North Carolina State Health Plan

Governmental Accounting Standards Board (GASB) Statement 74 Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2024



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Segal





August 28, 2024

Committee on Actuarial Valuation of Retired Employees' Health Benefits (OPEB) State Health Plan of North Carolina 430 N. Salisbury St. Raleigh, North Carolina 27603

Dear Committee Members:

We are pleased to submit this Actuarial Valuation and Review of Other Postemployment Benefits (OPEB) as of June 30, 2024, under Governmental Accounting Standards Board Statement No. 74. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB Liability (NOL), and analyzes the preceding year's experience. This report was based on the census data provided by the Department of the State Treasurer, the financial information prepared by the Department of the State Treasurer, and the terms of the Plan. The actuarial calculations were completed under the supervision of Robert Burrell, ASA, FCA, MAAA, EA, Vice President and Consulting Actuary and Peter Wang, PhD, ASA, MAAA, Associate Actuary.

The measurements shown in this actuarial valuation 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; and changes in plan provisions or applicable law.

The actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The demographic assumptions were prescribed by the OPEB Valuation Committee to be consistent with the TSERS pension valuation where assumptions overlap. Further, in our opinion, the assumptions used in this valuation and described in Section 3, Exhibit B are reasonably related to the experience of and the expectations for the Plan. The actuarial projections are based on these assumptions and the plan of benefits as summarized in Section 3, Exhibit C.

Committee on Actuarial Valuation of Retired Employees' Health Benefits (OPEB) August 28, 2024

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The OPEB Valuation Committee is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

Sincerely,

Segal

Robert Burrell, ASA, FCA, MAAA, EA Vice President and Consulting Actuary

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Purpose and basis

This report presents the results of our actuarial valuation of the North Carolina State OPEB plan as of June 30, 2024, 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 requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here.

Highlights of the valuation

Accounting and financial reporting

- The Net OPEB Liability (NOL) as of June 30, 2024, is \$34.01 billion, an increase of \$7.36 billion, from the prior valuation NOL of \$26.65 billion. Net unfunded plan obligations had been expected to increase to \$27.38 billion due to normal plan operations. The difference between actual and prior actuarial accrued liabilities was the net effect of several factors:
 - An actuarial experience loss increased the NOL by \$0.09 billion. This was the net result of (1) a liability loss (\$0.09 billion), the result of demographic changes and actual 2023 benefit payments that were different from expected, and (2) an asset loss (less than \$0.01 billion), the result of fund investment performance. We have taken these actuarial gains and losses into account in reviewing our assumptions for the current valuation.
 - Valuation assumption changes increased the NOL by \$7.92 billion. This was a net result of (1) a decrease in obligations due to updating the valuation-year per capita health costs (\$0.97 billion), (2) an increase in obligations due to updating future trends (\$0.72 billion), (3) an increase in obligations due to updating the migration assumption (\$0.94 billion), (4) an increase in obligations due to updating the assumed percentage of participants who complete a Tobacco Attestation (less than \$0.01 billion), (5) an increase in obligations due to updating the Medicare Advantage/Prescription Drug rates (\$8.77 billion), (6) a decrease in obligations due to increasing the discount rate (\$1.66 billion), and (7) an increase in obligations due to updating the Employer contribution rates through 2029 based on rates adopted by the Board of Trustees (\$0.11 billion).
 - A Plan change decreased the NOL by \$1.37 billion. Effective January 1, 2024, new prescriptions of GLP-1 AOM were no longer covered and effective April 1, 2024, all coverage of GLP-1 AOM ceased. The current plan of benefits is summarized in Exhibit C of Section 3.
 - During the year ended June 2024, a total of \$0.01 billion was transferred to the Retiree Health Benefit Trust Fund (RHBTF), which
 reduced the NOL.
- As of June 30, 2024, the ratio of assets to the Total OPEB Liability (the funded ratio) is 9.79%. This is based on the market value of assets at this point in time.



Summary of key valuation results

Valuation Result	Current	Prior
Measurement date	June 30, 2024	June 30, 2023
Disclosure elements for fiscal year ending June 30:		
Total OPEB Liability	\$37,702,714	\$29,850,087
Plan Fiduciary Net Position (Assets)	3,690,125	3,202,661
Net OPEB Liability	34,012,589	26,647,426
Plan Fiduciary Net Position as a percentage of Total OPEB Liability	9.79%	10.73%
Service cost at beginning of year	1,318,987	1,279,519
Total payroll	20,784,240	19,839,303
Schedule of contributions for fiscal year ending June 30:		
Actuarially Determined Contributions	\$2,652,649	\$2,240,057
Actual contributions	1,483,995	1,366,928
Contribution deficiency / (excess)	1,168,654	873,129
Benefit payments	1,222,657	1,120,623

Input Item

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.

Description

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 for the State 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 plan. 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 State.
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.

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 State's financial officers. 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 State 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.
- 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 and is not acting as a fiduciary to the Plan. This valuation is based
 on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative
 interpretations. The State 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 State upon delivery and review. The State should notify Segal immediately of any questions or concerns about the final content.

Actuarial Certification

This is to certify that Segal has conducted an actuarial valuation of certain benefit obligations of State Health Plan of North Carolina other postemployment benefit programs as of June 30, 2024, 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 verified by the State Health Plan and reliance on participant, premium, claims and expense data provided by the Plan or from vendors employed by the Plan. 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; 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 our knowledge, this report is complete and accurate and, in our opinion, presents the information necessary to comply with GASB Statement 74 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meet the "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.

Robert Burrell, ASA, FCA, MAAA, EA

Vice President and Consulting Actuary

Certifying Liability Calculations

Peter Wang, PhD, ASA, FCA, MAAA

Associate Actuary

Certifying Claims and Medical Trend Calculations



General information about the OPEB plan

Plan administration. The State administers the OPEB plan-a multiple employer cost-sharing OPEB plan that is used to provide postemployment benefits other than pensions for permanent full-time general employees. Management of the OPEB plan is governed by North Carolina General Statutes.

Plan membership. Plan membership consisted of the following:

Category of membership	Number as of December 31, 2023	Number as of December 31, 2022
Retirees	224,000	220,848
Spouses	26,595	25,185
Surviving spouses	3,092	2,993
Inactive vested	55,907	51,616
Actives	260,967	287,783
Total	570,561	588,425

Benefits provided. The Plan benefits employees and former employees of the State, the University of North Carolina System, community colleges, and certain other component units. In addition, Local Education Agencies (LEAs), charter schools, and some select local governments that are not part of the financial reporting entity also participate.

Health benefit programs and premium rates are determined by the State Treasurer upon approval of the Board of Trustees. Plan benefits received by retired employees and disabled employees are other postemployment benefits (OPEB). The healthcare benefits for retired and disabled employees who are not eligible for Medicare are the same as for active employees, a choice between the self-funded 80/20 and 70/30 Preferred Provider Organization (PPO) Plans. The plan options change when former employees become eligible for Medicare. Medicare retirees have the option of selecting one of two fully insured Medicare Advantage/Prescription Drug Plan (MA-PDP) options or the self-funded 70/30 PPO plan option that is also offered to non-Medicare members. If the 70/30 Plan is selected by a Medicare retiree, the self-funded State Health Plan coverage is secondary to Medicare.

State Contributions. The Plan is funded by both employer contributions and premiums charged to retirees and their spouses and dependents. A percent of pay is charged to each participating employer; the rate was 6.89% for fiscal 2023 and 7.14% for fiscal 2024. Premiums are charged to retirees and vary based on the coverage selected. The premiums for spouses are much higher than the premiums for retirees. Additional contributions of \$35.0 million and \$10.3 million were made in FY 2023 and FY 2024 and are not assumed to recur in the future. The RHBTF may also be funded through the Unfunded Liability Solvency Reserve as stated in G.S 143C-4-10.

Net OPEB Liability (in thousands)

Components of the Net OPEB Liability	Current	Prior
Measurement date	June 30, 2024	June 30, 2023
Total OPEB Liability	\$37,702,714	\$29,850,087
Plan Fiduciary Net Position	3,690,125	3,202,661
Net OPEB Liability	34,012,589	26,647,426
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	9.79%	10.73%

The Net OPEB Liability was measured as of June 30, 2024, and 2023. 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 December 31, 2023, and 2022, respectively.

Actuarial assumptions. The Total OPEB Liability was measured by an actuarial valuation as of December 31, 2023, and rolled forward to June 30, 2024, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Assumption	Description
Inflation	2.50%
Salary increases	Teachers: 7.30% grading down to 3.25% Law Enforcement Officers: 8.05% grading down to 3.25% General Employees: 6.25% grading down to 3.25% Other Education Employees: 7.50% grading down to 3.25%
Discount rate	3.93% for fiscal 2024, 3.65% for fiscal 2023
Health care cost trend rates	
Medical (Non-MA)	6.50% grading down to 5.00% by 2030
 Prescription drug (Non-MA) 	10.00% grading down to 5.00% by 2033
 Prescription drug (Non-MA) rebates 	7.00% for seven years, grading down to 5.00% by 2033
Medicare Advantage	Rates are guaranteed for 2021-2025; Rates for 2026 and 2027 reflect MA premium rates that were provided by the State. Rates beyond 2027 reflect anticipated increases in MA rates trending down to an ultimate rate of 5.00%.

Assumption	Description
 Administrative costs 	3.00%
Mortality rates	Pub-2010 Healthy Annuitant Mortality Table for males and females, adjusted for classification for some Participants, further adjusted with scaling factors varying by participant group, and projected for mortality improvement using Scale MP-2019

The actuarial assumptions used in the June 30, 2024, valuation was based on the results of an actuarial experience study performed by Cavanaugh Macdonald for the period January 1, 2015 to December 31, 2019.

The Plan does not have a funding policy that covers both the Normal Cost and a payment toward the unfunded liability. The plan is funded based on contributions set each year to target the projected benefit payments for the year and investment returns and current plan assets do not fund a material portion of long-term projected benefits. As such, we have not calculated a blended discount rate.

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

Sensitivity (in thousands)

The following presents the NOL of the State as well as what the State's NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (2.93%) or 1-percentage-point higher (4.93%) than the current rate. Also, shown is the NOL as if it were calculated using health care cost trend rates that were 1-percentage-point lower or 1-percentage-point higher than the current healthcare trend rates.

Item	1% Decrease (2.93%)	Current Discount Rate (3.93%)	1% Increase (4.93%)
Net OPEB Liability (Asset)	\$40,466,179	\$34,012,589	\$28,830,921
Item	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)	\$28,074,951	\$34,012,589	\$41,700,675

Total OPEB Liability by Status and Payment Age (in thousands)

The following presents a breakdown of Total OPEB Liability as of June 30, 2024, by participant status (active, retired, etc.) and payment age (pre-65 and post-65).

Total OPEB Liability (in thousands)

Status	Pre-65	Post-65	Total
Active	\$11,640,350	\$9,310,856	\$20,951,206
Vested	1,879,783	2,639,573	4,519,356
Retired	2,804,391	8,835,607	11,639,998
Beneficiary	9,473	12,242	21,715
Disabled	154,366	416,073	570,439
Total	\$16,488,363	\$21,214,351	\$37,702,714

Schedule of changes in Net OPEB Liability – Last two fiscal years (in thousands)

Components of the Net OPEB Liability	Current	Prior
Measurement dates		
Measurement Date	June 30, 2024	June 30, 2023
Total OPEB Liability		
Service cost	\$1,318,987	\$1,279,519
Interest	1,115,558	965,755
Change of benefit terms	-1,370,032	
Differences between expected and actual experience	91,403	152,230
Changes of assumptions	7,919,368	2,016,085
Benefit payments, including refunds of member contributions	-1,222,657	-1,120,623
Net change in Total OPEB Liability	\$7,852,627	\$3,292,966
Total OPEB Liability – beginning	29,850,087	26,557,121
Total OPEB Liability – ending	\$37,702,714	\$29,850,087
Plan Fiduciary Net Position		
Contributions – employer	\$1,483,995	\$1,366,928
Contributions – employee		
Net investment income	215,939	111,228
Benefit payments, including refunds of member contributions	-1,222,657	-1,120,623
Administrative expense	-161	-147
Other	10,348	35,006
Net change in Plan Fiduciary Net Position	\$487,464	\$392,392
Plan Fiduciary Net Position – beginning	3,202,661	2,810,269
Plan Fiduciary Net Position – ending	\$3,690,125	\$3,202,661

Components of the Net OPEB Liability	Current	Prior
Net OPEB Liability		
Net OPEB Liability – ending	\$34,012,589	\$26,647,426
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	9.79%	10.73%
Covered payroll ¹	\$20,784,240	\$19,839,303
Plan Net OPEB Liability as percentage of covered payroll	163.65%	134.32%

Notes to Schedule:

- · Benefit changes:
 - Reflected in the June 30, 2024, Net OPEB Liability
 - Effective January 1, 2024, new prescriptions of GLP-1 AOM were no longer covered and effective April 1, 2024, all coverage of GLP-1 AOM ceased.
 - Reflected in the June 30, 2023, Net OPEB Liability
 - None.
- Changes of assumptions:
 - Reflected in the June 30, 2024, Net OPEB Liability
 - The discount rate was updated, changing from 3.65% to 3.93%, based on changes in the Bond Buyer 20-year GO index rate, as selected by the State's OPEB Valuation Committee.
 - The medical, prescription drug and administrative starting claims cost were updated based on the most recent experience.
 - Medical, prescription drug and administrative trend rates were updated to current schedule.
 - Enrollment assumptions were updated to model expected migrations among plan options over the next four years.
 - The percentage of new smokers was updated to reflect current experience.
 - The Medicare Advantage Prescription Drug (MA-PD) rates were updated.
 - Employer contribution rates through 2029 were updated based on rates projected by the State.

¹ Covered payroll represents total compensation basis for OPEB contributions. This amount is estimated for 2023 and 2024, based on the reported employer contributions divided by the employer contribution rate in effect for the measurement year.

- Reflected in the June 30, 2023, Net OPEB Liability

- The discount rate was updated, changing from 3.54% to 3.65%, based on changes in the Bond Buyer 20-year GO index rate, as selected by the State's OPEB Valuation Committee.
- The medical and prescription drug claims cost was changed based on the most recent experience.
- The actuarial factors used to estimate individual retiree and spouse costs by age and by gender were updated. The new
 factors are based on a review of historical claims experience by age, gender, and status (active vs retired) from Segal's claims
 data warehouse.
- The new Aetna contract effective January 1, 2025, was reflected.
- Medical and prescription drug trend rates were changed to current schedule.
- Enrollment assumptions were updated to model expected migrations among plan options over the next five years.
- Employer contribution rates through 2027 were updated based on draft budget legislation, as reflected in Q2 financial projections.
- The impact of the Inflation Reduction Act (IRA) on future assumed Medicare Advantage/Prescription Drug (MAPD) rates was reflected.

Expected Net Benefit Payments (in thousands)

Year Ended December 31	Projected Net Claims						
2024	\$788,864	2049	\$3,254,241	2074	\$1,817,190	2099	\$90,048
2025	886,908	2050	3,266,687	2075	1,751,963	2100	68,318
2026	1,123,098	2051	3,261,122	2076	1,681,945	2101	50,755
2027	1,299,369	2052	3,233,645	2077	1,607,481	2102	36,874
2028	1,404,809	2053	3,192,084	2078	1,529,014	2103	26,158
2029	1,514,789	2054	3,122,774	2079	1,447,074	2104	18,092
2030	1,631,413	2055	3,028,633	2080	1,362,192	2105	12,181
2031	1,752,275	2056	2,925,416	2081	1,275,036	2106	7,973
2032	1,869,427	2057	2,822,028	2082	1,186,338	2107	5,067
2033	1,988,296	2058	2,726,832	2083	1,096,859	2108	3,123
2034	2,091,614	2059	2,625,261	2084	1,007,450	2109	1,866
2035	2,178,968	2060	2,530,768	2085	919,082	2110	1,081
2036	2,252,609	2061	2,443,732	2086	832,550	2111	608
2037	2,341,740	2062	2,349,568	2087	748,536	2112	333
2038	2,445,316	2063	2,260,594	2088	667,644	2113	177
2039	2,540,089	2064	2,211,450	2089	590,417	2114	92
2040	2,632,052	2065	2,179,445	2090	517,339	2115	46
2041	2,737,214	2066	2,152,991	2091	448,831	2116	23
2042	2,825,883	2067	2,127,522	2092	385,239	2117	11
2043	2,919,212	2068	2,098,648	2093	326,838	2118	5
2044	3,009,778	2069	2,065,149	2094	273,818	2119	2
2045	3,091,174	2070	2,026,298	2095	226,291	2120	1
2046	3,156,607	2071	1,982,069	2096	184,278	2121	0
2047	3,198,390	2072	1,932,383	2097	147,703	2122	0
2048	3,228,357	2073	1,877,392	2098	116,387	2123	0

Schedule of contributions – last ten fiscal years (in thousands)

Year Ended June 30	Actuarially Determined Contributions	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2015	\$2,211,436	\$854,383	\$1,357,053	\$15,562,532	5.49%
2016	2,516,706	880,847	1,635,859	15,729,411	5.60%
2017	2,728,064	950,813	1,777,251	16,365,112	5.81%
2018	2,613,258	1,018,693	1,594,565	16,837,901	6.05%
2019	2,971,069	1,104,902	1,866,167	17,622,035	6.27%
2020	2,823,873	1,162,967	1,660,906	17,974,758	6.47%
2021	3,049,625	1,214,750	1,834,875	18,184,883	6.68%
2022	2,084,130	1,197,278	886,869	19,034,634	6.29%
2023	2,240,057	1,366,928	873,129	19,839,303	6.89%
2024	2,652,649	1,483,995	1,168,654	20,784,240	7.14%

See accompanying notes to this schedule on next page.

Notes to Schedule:

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

Method or Assumption	Description
Valuation Date	December 31 prior to the fiscal year end
Actuarial Cost Method	Projected Unit Credit (for years ended June 30, 2017, and earlier) Entry Age Normal (for years ended June 30, 2018, and after)
Amortization Method	Open 30-year level pay
Remaining Amortization Period	30 years
Asset Valuation Method	Market value
Discount Rate	4.25% (for years ended June 30, 2016, and earlier) Bond Buyer 20-Year GO Index Rate as of fiscal year end (for years ended June 30, 2017 and after)
Timing and Payroll Adjustment	This includes interest, rounding, and an adjustment for the difference between valuation payroll and covered payroll (not applicable for years ended June 30, 2017, and earlier) Beginning with June 30, 2022, calculation, the payroll adjustment no longer applies, as valuation payroll excludes hires after January 1, 2021
Payroll Increase Assumption	3.50% (for years ending June 30, 2020, and earlier) 3.25% (for years ending June 30, 2021, and later)

Actuarially Determined Contribution (in thousands)

Item	July 1, 2023 - June 30, 2024	% of Payroll	July 1, 2022 - June 30, 2023	% of Payroll
Normal Cost as of preceding December 31	\$1,430,998	6.89%	\$1,318,987	6.65%
Actuarial Accrued Liability as of preceding December 31	36,658,152	176.37%	29,016,334	146.26%
Assets as of preceding December 31	3,394,238	16.33%	2,967,694	14.96%
Unfunded Actuarial Accrued Liability as of preceding December 31	33,263,914	160.04%	26,048,640	131.30%
Amortization of Unfunded Actuarial Accrued Liability	\$1,217,556	5.86%	\$917,846	4.63%
Timing Adjustment	4,095	0.02%	3,224	0.02%
Total Actuarially Determined Contribution	\$2,652,649	12.76%	\$2,240,057	11.29%
Covered Payroll	\$20,784,240		\$19,839,303	

Statement of Fiduciary Net Position (in thousands)

Item	Amounts as of June 30, 2024	Amounts as of June 30, 2023	
Assets			
Cash and deposits	\$1,279,906	\$1,270,848	
Receivables			
Accounts receivable	636	633	
Interest receivable	4,592	3,410	
Contributions receivable	72,237	66,009	
Total receivables	\$77,465	\$70,052	
Investments	\$2,332,754	\$1,861,761	
Total assets	\$3,690,125	\$3,202,661	
Net position restricted for OPEB	\$3,690,125	\$3,202,661	

Exhibit A: Summary of participant data

Statistic	Amount as of December 31, 2023	Amount as of December 31, 2022
Number of retirees	224,000	220,848
Average age of retirees	71.9	71.6
Number of spouses	26,595	25,185
Average age of spouses	70.5	70.1
Number of surviving spouses	3,092	2,993
Average age	79.5	79.6
Number inactive vested	55,907	51,616
Average age	49.3	49.3
Number of actives	260,967	287,783
Average age	47.8	47.0
Average service	13.7	12.3

Exhibit A: Summary of participant data (continued)

Active Employees Valued as of December 31, 2023 - Count and Average Pay by Age and Service

Age on 12/31/2023	0	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over	Total
Under 25	13	530	125	-	-	-	-	-	-	-	668
	\$15,362	\$37,323	\$42,585	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,880
25 - 29	76	6,624	6,157	8	-	-	-	-	-	-	12,865
	\$24,567	\$42,529	\$50,066	\$53,366	\$0	\$0	\$0	\$0	\$0	\$0	\$46,037
30 - 34	128	5,195	13,940	4,937	15	-	-	-	-	-	24,215
	\$33,208	\$45,469	\$53,494	\$59,749	\$59,471	\$0	\$0	\$0	\$0	\$0	\$52,944
35 - 39	172	4,485	10,928	10,217	4,459	25	-	-	-	-	30,286
	\$32,217	\$51,983	\$61,076	\$63,986	\$67,658	\$60,351	\$0	\$0	\$0	\$0	\$61,516
40 - 44	223	3,940	10,025	7,468	10,159	4,716	95	-	-	-	36,626
	\$46,226	\$49,837	\$64,292	\$69,695	\$70,259	\$71,825	\$66,466	\$0	\$0	\$0	\$66,359
45 - 49	213	3,464	8,453	6,407	8,237	8,659	3,839	26	-	-	39,298
	\$49,451	\$49,087	\$60,737	\$70,343	\$74,183	\$74,023	\$75,624	\$62,429	\$0	\$0	\$68,416
50 - 54	175	3,193	8,472	6,998	8,308	7,317	7,841	1,391	16	-	43,711
	\$64,116	\$48,573	\$57,875	\$65,966	\$70,904	\$74,429	\$77,685	\$82,090	\$72,226	\$0	\$68,093
55 - 59	168	2,755	6,641	5,752	7,605	6,644	4,919	1,757	287	5	36,533
	\$52,400	\$49,272	\$57,066	\$61,811	\$65,750	\$71,570	\$75,742	\$85,862	\$83,155	\$100,674	\$65,760
60 - 64	136	1,891	4,886	3,835	5,341	4,295	2,555	1,097	570	104	24,710
	\$62,975	\$47,990	\$55,841	\$61,135	\$64,439	\$69,305	\$75,858	\$95,961	\$86,764	\$91,055	\$65,012
65 - 69	70	675	1,754	1,501	1,572	1,102	783	546	290	184	8,477
	\$92,096	\$44,161	\$61,296	\$64,797	\$69,842	\$74,214	\$83,307	\$108,915	\$121,491	\$97,015	\$72,005
70 & over	56	389	629	556	594	416	274	210	189	265	3,578
	\$36,102	\$35,627	\$54,028	\$58,771	\$65,729	\$73,963	\$85,801	\$113,279	\$129,196	\$141,027	\$73,069
Total	1,430	33,141	72,010	47,679	46,290	33,174	20,306	5,027	1,352	558	260,967
	\$48,781	\$47,147	\$57,885	\$65,057	\$69,334	\$72,693	\$76,868	\$90,550	\$99,206	\$116,839	\$64,142

Exhibit B: Actuarial assumptions and actuarial cost method

Data

Detailed census data, premium rates, claim experience, and summary plan descriptions for OPEB were provided by the State. Active participants hired after January 1, 2021, were excluded based on "Membership Begin Date" provided in the data file.

Actuarial cost method

Entry Age, Level Percentage of Pay. Decrements are assumed to occur mid-year.

Asset valuation method

Market Value

Basis for demographic assumptions

The demographic assumptions are based on a study performed by Cavanaugh Macdonald for the period ending December 31, 2019. The study was presented to the Board of Trustees for the Teachers' and State Employees' Retirement System (TSERS) of North Carolina in December 2020 and was approved for use. Participants in the Consolidated Judicial Retirement System, the Legislative Retirement System, the University Employees' Optional Retirement Program, and eligible local governments are valued using the General Employees' assumptions. All demographic assumptions were prescribed by the OPEB Valuation Committee to be consistent with the TSERS pension valuation.

Census valuation date

December 31, 2023. Employees that become participants after the valuation date are excluded. Participating employers for sake of the valuation are determined at the beginning of the fiscal year (i.e., included in the total OPEB liability). Allocations to employers are determined based on whether the employer has made contributions during the fiscal year and prior to the valuation date.

Measurement date

Liabilities were rolled forward to June 30, 2024. The Entry Age Actuarial Accrued Liability was adjusted from the Valuation Date to the Measurement Date using compound interest adjustments to half the service cost, half the interest cost, and half the expected benefit payments. Financial data was collected as of the Measurement Date

Allocations to employers

Pro rata allocation of the NOL based on the Present Value of Future Salaries for employers that made contributions to the Trust during the fiscal year.

Discount rate

3.93%. The discount rate is based on the Bond Buyer 20-year GO index as of June 30, 2024.

The Plan is funded essentially on a "pay-as-you-go" basis, and any prefunding that results from employer and retiree contributions in excess of benefit payments is not material. The additional contribution of \$10.3 million in FY 2024 was not assumed to recur. As such, a blended discount rate is not applicable.

Salary increases based on service

Teachers: 7.30% grading down to 3.25%

Law Enforcement Officers: 8.05% grading down to 3.25%

General Employees: 6.25% grading down to 3.25%

Other Education Employees: 7.50% grading down to 3.25%

Payroll increases

3.25%.

Investment return

6.50%. This rate is provided by the State and the Building Blocks table used for GASB disclosures is provided by the Investment Management Division of the Department of the State Treasurer.

Pre-Retirement mortality

Teachers use the Pub-2010 Teachers table. General and other education employees use the Pub-2010 General table. Law enforcement officers use the Pub-2010 Safety table.

Post-Disability mortality

Non-safety participants use the Pub-2010 General Disabled Retirees Amount-Weighted table, set back 1 year for females, and set forward 3 years for males.

Safety participants use the Pub-2010 General Disabled Retirees Amount-Weighted table, set back 3 years.

Post-Retirement mortality

Retirees	Mortality Table and adjustments
Male General and Other Education	Pub-2010 General Table adjusted by a factor of 105.5%
Female General and Other Education	Pub-2010 General Table, adjusted by a factor grading from 95% for 76 and below to 110% for 90 and above
Male Teachers	Pub-2010 Teachers Below Median Table, adjusted by a factor grading from 96% for 83 and below to 106% for 87 and above
Female Teachers	Pub-2010 Teacher Below Median Table, adjusted by a factor grading from 100% for 81 and below to 105% for 85 and above
Law Enforcement	Pub-2010 Safety, set forward 1 year, adjusted by a factor of 97% for both males and females
Spouses	Pub-2010 Teachers Contingent Annuitant Below Median Table, set forward 3 years for males and 1 year for females

Mortality projection scale

MP-2019

Disability rates

Age	Male	Female
20-24	0.045%	0.014%
25-29	0.018%	0.014%
30-34	0.029%	0.064%
35-39	0.059%	0.072%
40-44	0.084%	0.120%
45-49	0.123%	0.176%
50-54	0.230%	0.256%
55-59	0.346%	0.336%
60-62	0.302%	0.336%
63-64	0.302%	0.240%

These rates are the non-grandfathered rates used in the DIPNC valuation. The number of members eligible for transitional disability coverage provisions under G.S. 135-112 ("grandfathered") is a relatively small group of individuals.

Turnover rates

Teachers - Male:

Years of Service

Age	0	1	2	3	4	>=5
25	5.00%	17.50%	15.50%	14.50%	11.50%	30.00%
30	5.00%	17.50%	15.50%	14.50%	11.50%	9.00%
35	5.00%	17.50%	15.50%	14.50%	11.50%	6.00%
40	5.00%	17.50%	15.50%	14.50%	11.50%	4.75%
45	5.00%	17.50%	15.50%	14.50%	11.50%	3.75%
50	5.00%	17.50%	15.50%	14.50%	11.50%	4.25%
55	5.00%	17.50%	15.50%	14.50%	11.50%	4.25%
60	5.00%	17.50%	15.50%	14.50%	11.50%	4.25%

Teachers – Female:

Age	0	1	2	3	4	>=5
25	3.50%	16.50%	15.50%	13.75%	11.50%	35.00%
30	3.50%	16.50%	15.50%	13.75%	11.50%	10.00%
35	3.50%	16.50%	15.50%	13.75%	11.50%	5.75%
40	3.50%	16.50%	15.50%	13.75%	11.50%	4.00%
45	3.50%	16.50%	15.50%	13.75%	11.50%	3.50%
50	3.50%	16.50%	15.50%	13.75%	11.50%	4.00%
55	3.50%	16.50%	15.50%	13.75%	11.50%	4.00%
60	3.50%	16.50%	15.50%	13.75%	11.50%	4.00%

Turnover rates (continued)

General - Male:

Years of Service

Age	0	1	2	3	4	>=5
25	9.00%	17.00%	15.00%	12.50%	11.00%	25.00%
30	9.00%	17.00%	15.00%	12.50%	11.00%	12.50%
35	9.00%	17.00%	15.00%	12.50%	11.00%	7.50%
40	9.00%	17.00%	15.00%	12.50%	11.00%	5.00%
45	9.00%	17.00%	15.00%	12.50%	11.00%	4.00%
50	9.00%	17.00%	15.00%	12.50%	11.00%	4.00%
55	9.00%	17.00%	15.00%	12.50%	11.00%	4.00%
60	9.00%	17.00%	15.00%	12.50%	11.00%	4.00%

General – Female:

Age	0	1	2	3	4	>=5
25	9.00%	17.50%	15.75%	14.00%	11.50%	25.00%
30	9.00%	17.50%	15.75%	14.00%	11.50%	12.00%
35	9.00%	17.50%	15.75%	14.00%	11.50%	10.00%
40	9.00%	17.50%	15.75%	14.00%	11.50%	5.75%
45	9.00%	17.50%	15.75%	14.00%	11.50%	4.00%
50	9.00%	17.50%	15.75%	14.00%	11.50%	4.00%
55	9.00%	17.50%	15.75%	14.00%	11.50%	4.00%
60	9.00%	17.50%	15.75%	14.00%	11.50%	4.00%

Turnover rates (continued)

Other - Male:

Years of Service

Age	0	1	2	3	4	>=5
25	9.00%	19.00%	17.00%	13.00%	11.00%	25.00%
30	9.00%	19.00%	17.00%	13.00%	11.00%	10.00%
35	9.00%	19.00%	17.00%	13.00%	11.00%	5.50%
40	9.00%	19.00%	17.00%	13.00%	11.00%	5.00%
45	9.00%	19.00%	17.00%	13.00%	11.00%	5.00%
50	9.00%	19.00%	17.00%	13.00%	11.00%	5.00%
55	9.00%	19.00%	17.00%	13.00%	11.00%	4.00%
60	9.00%	19.00%	17.00%	13.00%	11.00%	4.00%

Other - Female:

Age	0	1	2	3	4	>=5
25	7.00%	17.50%	15.50%	12.50%	10.75%	25.00%
30	7.00%	17.50%	15.50%	12.50%	10.75%	15.00%
35	7.00%	17.50%	15.50%	12.50%	10.75%	7.50%
40	7.00%	17.50%	15.50%	12.50%	10.75%	6.50%
45	7.00%	17.50%	15.50%	12.50%	10.75%	4.75%
50	7.00%	17.50%	15.50%	12.50%	10.75%	4.50%
55	7.00%	17.50%	15.50%	12.50%	10.75%	3.50%
60	7.00%	17.50%	15.50%	12.50%	10.75%	3.50%

Turnover rates (continued)

Law Enforcement – Male and Female:

Age	0	1	2	3	4	>=5
25	3.50%	9.25%	9.25%	9.50%	8.00%	7.50%
30	3.50%	9.25%	9.25%	9.50%	8.00%	7.50%
35	3.50%	9.25%	9.25%	9.50%	8.00%	3.50%
40	3.50%	9.25%	9.25%	9.50%	8.00%	2.50%
45	3.50%	9.25%	9.25%	9.50%	8.00%	2.00%
50	3.50%	9.25%	9.25%	9.50%	8.00%	2.00%
55	3.50%	9.25%	9.25%	9.50%	8.00%	5.00%
60	3.50%	9.25%	9.25%	9.50%	8.00%	5.00%

Active retirement rates

Teachers – Male:

Age	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	70.00%	70.00%
50	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	4.25%	70.00%	70.00%
51	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	4.25%	70.00%	70.00%
52	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	4.25%	70.00%	70.00%
53	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	5.50%	40.00%	70.00%
54	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	3.00%	5.50%	40.00%	45.00%
55	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	3.00%	5.50%	40.00%	45.00%
56	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	3.00%	5.50%	40.00%	30.00%
57	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	3.00%	5.50%	40.00%	30.00%
58	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	3.00%	11.00%	40.00%	30.00%
59	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	3.00%	11.00%	40.00%	30.00%
60	0.00%	8.50%	8.00%	10.00%	10.00%	30.00%	30.00%	30.00%	40.00%	30.00%
61	0.00%	8.50%	8.00%	10.00%	10.00%	40.00%	40.00%	30.00%	35.00%	30.00%
62	0.00%	12.50%	13.50%	20.00%	25.00%	40.00%	40.00%	30.00%	35.00%	35.00%
63	0.00%	12.50%	13.50%	20.00%	20.00%	40.00%	40.00%	30.00%	30.00%	35.00%
64	0.00%	12.50%	13.50%	20.00%	20.00%	40.00%	40.00%	30.00%	30.00%	25.00%
65	0.00%	17.50%	22.50%	25.00%	32.50%	32.50%	40.00%	30.00%	30.00%	25.00%
66	0.00%	17.50%	22.50%	25.00%	32.50%	32.50%	40.00%	35.00%	30.00%	30.00%
67	0.00%	17.50%	22.50%	25.00%	25.00%	25.00%	25.00%	35.00%	15.00%	30.00%
68	0.00%	17.50%	22.50%	25.00%	25.00%	25.00%	25.00%	25.00%	15.00%	30.00%
69	0.00%	17.50%	22.50%	25.00%	25.00%	25.00%	25.00%	25.00%	15.00%	30.00%
70	0.00%	17.50%	22.50%	25.00%	25.00%	25.00%	25.00%	25.00%	15.00%	30.00%
71	0.00%	17.50%	22.50%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	30.00%
72	0.00%	17.50%	22.50%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	30.00%
73	0.00%	17.50%	22.50%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	10.00%
74	0.00%	17.50%	22.50%	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%	10.00%
>=75	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Active retirement rates (continued)

Teachers – Female:

Age	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	65.00%	75.00%
50	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.50%	5.00%	65.00%	75.00%
51	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.50%	5.00%	65.00%	75.00%
52	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.50%	5.00%	50.00%	75.00%
53	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.50%	5.00%	40.00%	55.00%
54	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.50%	5.00%	40.00%	40.00%
55	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.50%	7.00%	40.00%	37.50%
56	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.50%	7.00%	40.00%	37.50%
57	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.50%	7.00%	45.00%	37.50%
58	0.00%	0.00%	0.00%	0.00%	7.50%	7.50%	4.50%	7.00%	45.00%	37.50%
59	0.00%	0.00%	0.00%	0.00%	7.50%	7.50%	4.50%	7.00%	45.00%	37.50%
60	0.00%	8.00%	10.00%	10.00%	13.00%	25.00%	25.00%	40.00%	50.00%	37.50%
61	0.00%	8.00%	10.00%	10.00%	13.00%	47.50%	47.50%	40.00%	45.00%	40.00%
62	0.00%	13.50%	20.00%	20.00%	22.50%	47.50%	47.50%	40.00%	45.00%	40.00%
63	0.00%	13.50%	20.00%	20.00%	22.50%	47.50%	47.50%	40.00%	37.50%	40.00%
64	0.00%	13.50%	20.00%	20.00%	22.50%	47.50%	47.50%	40.00%	37.50%	40.00%
65	0.00%	25.00%	30.00%	25.00%	35.00%	35.00%	47.50%	40.00%	45.00%	40.00%
66	0.00%	25.00%	30.00%	35.00%	35.00%	35.00%	47.50%	40.00%	45.00%	40.00%
67	0.00%	25.00%	30.00%	35.00%	35.00%	35.00%	47.50%	40.00%	40.00%	40.00%
68	0.00%	22.50%	30.00%	25.00%	35.00%	35.00%	30.00%	40.00%	40.00%	32.50%
69	0.00%	22.50%	25.00%	25.00%	35.00%	35.00%	30.00%	30.00%	40.00%	32.50%
70	0.00%	22.50%	25.00%	30.00%	30.00%	30.00%	30.00%	30.00%	40.00%	32.50%
71	0.00%	22.50%	25.00%	30.00%	30.00%	30.00%	40.00%	30.00%	40.00%	32.50%
72	0.00%	22.50%	25.00%	30.00%	30.00%	30.00%	40.00%	30.00%	40.00%	32.50%
73	0.00%	22.50%	25.00%	30.00%	30.00%	30.00%	40.00%	30.00%	40.00%	32.50%
74	0.00%	22.50%	25.00%	30.00%	30.00%	30.00%	40.00%	30.00%	40.00%	32.50%
>=75	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Active retirement rates (continued)

General - Male:

Age	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	60.00%	60.00%
50	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	4.00%	7.00%	60.00%	60.00%
51	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	4.00%	7.00%	50.00%	50.00%
52	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	4.00%	7.00%	50.00%	50.00%
53	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	4.00%	7.00%	40.00%	50.00%
54	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	4.00%	7.00%	40.00%	35.00%
55	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	4.00%	7.00%	40.00%	35.00%
56	0.00%	0.00%	0.00%	0.00%	3.00%	3.00%	4.00%	7.00%	40.00%	35.00%
57	0.00%	0.00%	0.00%	0.00%	6.00%	6.00%	4.00%	7.00%	40.00%	35.00%
58	0.00%	0.00%	0.00%	0.00%	6.00%	6.00%	4.00%	7.00%	40.00%	27.00%
59	0.00%	0.00%	0.00%	0.00%	6.00%	6.00%	4.00%	7.00%	40.00%	27.00%
60	0.00%	9.00%	7.00%	7.00%	10.00%	22.50%	22.50%	30.00%	40.00%	27.00%
61	0.00%	9.00%	7.00%	7.00%	10.00%	30.00%	30.00%	30.00%	40.00%	27.00%
62	0.00%	9.00%	20.00%	17.50%	22.50%	40.00%	40.00%	30.00%	40.00%	30.00%
63	0.00%	9.00%	15.00%	17.50%	20.00%	40.00%	40.00%	25.00%	40.00%	30.00%
64	0.00%	9.00%	15.00%	15.00%	20.00%	40.00%	40.00%	25.00%	27.50%	30.00%
65	0.00%	18.00%	25.00%	25.00%	30.00%	30.00%	40.00%	35.00%	27.50%	30.00%
66	0.00%	18.00%	25.00%	32.50%	30.00%	30.00%	40.00%	35.00%	40.00%	30.00%
67	0.00%	18.00%	25.00%	22.50%	25.00%	25.00%	40.00%	30.00%	40.00%	30.00%
68	0.00%	18.00%	25.00%	22.50%	22.50%	22.50%	25.00%	30.00%	30.00%	30.00%
69	0.00%	18.00%	25.00%	22.50%	22.50%	22.50%	25.00%	30.00%	30.00%	30.00%
70	0.00%	18.00%	25.00%	22.50%	22.50%	22.50%	25.00%	30.00%	30.00%	30.00%
71	0.00%	18.00%	25.00%	22.50%	22.50%	22.50%	20.00%	30.00%	30.00%	25.00%
72	0.00%	20.00%	25.00%	22.50%	22.50%	22.50%	25.00%	30.00%	30.00%	25.00%
73	0.00%	20.00%	25.00%	22.50%	15.00%	15.00%	15.00%	30.00%	30.00%	25.00%
74	0.00%	20.00%	25.00%	22.50%	15.00%	15.00%	15.00%	30.00%	30.00%	25.00%
>=75	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Active retirement rates (continued)

General – Female:

Years of Service

Age	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	40.00%
50	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.00%	6.00%	40.00%	40.00%
51	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.00%	6.00%	40.00%	40.00%
52	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.00%	6.00%	40.00%	40.00%
53	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.00%	6.00%	40.00%	40.00%
54	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.00%	6.00%	40.00%	30.00%
55	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	4.00%	6.00%	40.00%	25.00%
56	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	4.00%	6.00%	40.00%	25.00%
57	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.00%	6.00%	40.00%	25.00%
58	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.00%	6.00%	40.00%	25.00%
59	0.00%	0.00%	0.00%	0.00%	5.00%	5.00%	4.00%	6.00%	40.00%	25.00%
60	0.00%	7.00%	8.00%	9.00%	9.50%	20.00%	20.00%	30.00%	40.00%	25.00%
61	0.00%	7.00%	8.00%	9.00%	9.50%	35.00%	35.00%	30.00%	35.00%	25.00%
62	0.00%	10.00%	16.00%	17.00%	20.00%	35.00%	35.00%	30.00%	35.00%	30.00%
63	0.00%	10.00%	16.00%	17.00%	20.00%	35.00%	35.00%	30.00%	35.00%	30.00%
64	0.00%	10.00%	16.00%	17.00%	20.00%	35.00%	35.00%	30.00%	35.00%	30.00%
65	0.00%	20.00%	25.00%	30.00%	30.00%	30.00%	35.00%	30.00%	35.00%	30.00%
66	0.00%	20.00%	25.00%	30.00%	30.00%	30.00%	35.00%	35.00%	35.00%	30.00%
67	0.00%	15.00%	25.00%	30.00%	30.00%	30.00%	35.00%	35.00%	35.00%	30.00%
68	0.00%	15.00%	20.00%	22.50%	30.00%	30.00%	35.00%	25.00%	35.00%	25.00%
69	0.00%	15.00%	20.00%	22.50%	25.00%	25.00%	35.00%	25.00%	35.00%	25.00%
70	0.00%	15.00%	20.00%	22.50%	25.00%	25.00%	35.00%	25.00%	30.00%	30.00%
71	0.00%	17.50%	20.00%	22.50%	25.00%	25.00%	20.00%	25.00%	30.00%	30.00%
72	0.00%	17.50%	20.00%	22.50%	25.00%	25.00%	20.00%	25.00%	30.00%	30.00%
73	0.00%	12.50%	20.00%	17.50%	20.00%	20.00%	20.00%	25.00%	30.00%	30.00%
74	0.00%	12.50%	20.00%	17.50%	20.00%	20.00%	20.00%	25.00%	30.00%	30.00%
>=75	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Active retirement rates (continued)

Other - Male:

Years of Service

Age	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%
50	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.50%	4.50%	50.00%	50.00%
51	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.50%	4.50%	50.00%	50.00%
52	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.50%	4.50%	50.00%	50.00%
53	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.50%	4.50%	30.00%	50.00%
54	0.00%	0.00%	0.00%	0.00%	3.50%	3.50%	4.50%	4.50%	30.00%	50.00%
55	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	5.00%	5.00%	30.00%	30.00%
56	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	5.00%	5.00%	30.00%	27.50%
57	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	5.00%	5.00%	30.00%	27.50%
58	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	5.00%	5.00%	30.00%	27.50%
59	0.00%	0.00%	0.00%	0.00%	4.00%	4.00%	5.00%	5.00%	30.00%	27.50%
60	0.00%	8.00%	7.00%	10.00%	9.00%	20.00%	20.00%	20.00%	30.00%	27.50%
61	0.00%	8.00%	7.00%	10.00%	12.50%	20.00%	20.00%	20.00%	30.00%	27.50%
62	0.00%	12.50%	20.00%	25.00%	28.00%	35.00%	35.00%	35.00%	30.00%	27.50%
63	0.00%	12.50%	15.00%	17.50%	22.00%	27.50%	27.50%	27.50%	30.00%	27.50%
64	0.00%	12.50%	15.00%	17.50%	19.00%	27.50%	27.50%	27.50%	30.00%	27.50%
65	0.00%	10.00%	25.00%	25.00%	30.00%	30.00%	27.50%	27.50%	25.00%	27.50%
66	0.00%	22.50%	25.00%	27.50%	25.00%	25.00%	30.00%	30.00%	25.00%	35.00%
67	0.00%	10.00%	25.00%	27.50%	17.50%	17.50%	30.00%	30.00%	25.00%	35.00%
68	0.00%	10.00%	25.00%	30.00%	20.00%	20.00%	30.00%	30.00%	25.00%	35.00%
69	0.00%	10.00%	25.00%	25.00%	22.50%	22.50%	30.00%	30.00%	25.00%	35.00%
70	0.00%	10.00%	25.00%	25.00%	22.50%	22.50%	30.00%	30.00%	25.00%	35.00%
71	0.00%	10.00%	25.00%	25.00%	22.50%	22.50%	25.00%	25.00%	25.00%	35.00%
72	0.00%	10.00%	25.00%	25.00%	22.50%	22.50%	17.50%	17.50%	25.00%	35.00%
73	0.00%	25.00%	25.00%	25.00%	22.50%	22.50%	17.50%	17.50%	25.00%	35.00%
74	0.00%	25.00%	25.00%	25.00%	22.50%	22.50%	17.50%	17.50%	25.00%	35.00%
>=75	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Active retirement rates (continued)

Other - Female:

Years of Service

Age	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	50.00%
50	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	4.50%	4.50%	40.00%	50.00%
51	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	4.50%	4.50%	40.00%	50.00%
52	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	4.50%	4.50%	40.00%	50.00%
53	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	4.50%	4.50%	30.00%	35.00%
54	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	4.50%	4.50%	30.00%	30.00%
55	0.00%	0.00%	0.00%	0.00%	4.50%	4.50%	6.00%	6.00%	30.00%	30.00%
56	0.00%	0.00%	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	30.00%	30.00%
57	0.00%	0.00%	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	30.00%	30.00%
58	0.00%	0.00%	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	30.00%	30.00%
59	0.00%	0.00%	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	30.00%	30.00%
60	0.00%	7.00%	9.00%	10.00%	10.00%	30.00%	30.00%	30.00%	37.50%	30.00%
61	0.00%	7.00%	9.00%	10.00%	10.00%	30.00%	30.00%	30.00%	37.50%	30.00%
62	0.00%	12.50%	20.00%	22.50%	22.50%	30.00%	30.00%	30.00%	37.50%	35.00%
63	0.00%	12.50%	20.00%	20.00%	20.00%	30.00%	30.00%	30.00%	37.50%	35.00%
64	0.00%	12.50%	20.00%	20.00%	20.00%	30.00%	30.00%	30.00%	30.00%	35.00%
65	0.00%	17.50%	25.00%	25.00%	30.00%	30.00%	35.00%	35.00%	30.00%	35.00%
66	0.00%	17.50%	25.00%	25.00%	30.00%	30.00%	35.00%	35.00%	30.00%	35.00%
67	0.00%	15.00%	25.00%	25.00%	30.00%	30.00%	35.00%	35.00%	20.00%	35.00%
68	0.00%	15.00%	20.00%	22.50%	30.00%	30.00%	27.50%	27.50%	20.00%	35.00%
69	0.00%	15.00%	20.00%	22.50%	30.00%	30.00%	27.50%	27.50%	20.00%	35.00%
70	0.00%	15.00%	20.00%	22.50%	20.00%	20.00%	27.50%	27.50%	20.00%	35.00%
71	0.00%	15.00%	17.50%	22.50%	20.00%	20.00%	27.50%	27.50%	20.00%	35.00%
72	0.00%	15.00%	17.50%	22.50%	20.00%	20.00%	25.00%	25.00%	20.00%	35.00%
73	0.00%	15.00%	17.50%	20.00%	20.00%	20.00%	25.00%	25.00%	20.00%	35.00%
74	0.00%	15.00%	17.50%	20.00%	20.00%	20.00%	25.00%	25.00%	20.00%	35.00%
>=75	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Active retirement rates (continued)

Law Enforcement – Male and Female:

Years of Service

Age	<=4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 28	29	>=30
<=48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	90.00%	80.00%
50-54	0.00%	0.00%	0.00%	4.00%	5.00%	5.00%	90.00%	80.00%
55	0.00%	20.00%	20.00%	35.00%	35.00%	50.00%	90.00%	65.00%
56	0.00%	20.00%	20.00%	17.50%	30.00%	25.00%	90.00%	65.00%
57	0.00%	10.00%	20.00%	17.50%	30.00%	25.00%	90.00%	65.00%
58	0.00%	15.00%	20.00%	17.50%	30.00%	25.00%	90.00%	65.00%
59	0.00%	10.00%	20.00%	17.50%	30.00%	25.00%	90.00%	50.00%
60	0.00%	10.00%	20.00%	12.50%	25.00%	25.00%	50.00%	50.00%
61	0.00%	10.00%	20.00%	12.50%	25.00%	25.00%	50.00%	50.00%
62	0.00%	15.00%	45.00%	12.50%	25.00%	25.00%	50.00%	50.00%
63	0.00%	15.00%	45.00%	12.50%	25.00%	25.00%	50.00%	50.00%
64	0.00%	15.00%	45.00%	12.50%	25.00%	25.00%	50.00%	50.00%
65	0.00%	15.00%	45.00%	25.00%	25.00%	25.00%	50.00%	50.00%
66	0.00%	20.00%	45.00%	25.00%	25.00%	25.00%	50.00%	50.00%
67-74	0.00%	25.00%	15.00%	25.00%	25.00%	25.00%	25.00%	50.00%
>=75	0.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

The eligibility for retirement is determined as of the timing of the assumed decrement (middle of year), rather than as of the anniversary of the Valuation Date (the beginning of year). This creates assumed retirements for participants with 4.5, 24.5, and 29.5 years of service as of the anniversary of the Valuation Date.

Inactive vested retirement expected enrollment age

Age 55 with 20 or more years of service; age 63 with 5 or more years of service, but less than 20 years of service

Missing participant data

Actives and terminated vested who do not have plan codes are assumed to be enrolled in plans based on enrollment assumptions.

Missing, invalid, or unreasonable dates of birth are assumed an average value of the group. Invalid gender codes are replaced with the default of male.

Any other 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.

Participation and coverage election

100% of employees eligible to retire and receive subsidized postretirement health coverage were assumed to elect medical and prescription drug coverage. All participants are assumed to be enrolled in plans based on enrollment assumptions.

Dependents

Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be four years older than their wives. 10% of future retirees who elect to continue their health coverage at retirement were assumed to have an eligible spouse who also opts for health coverage at that time.

Data adjustments

Since child records under split contract were reported as subscribers, we assumed retirees under age 27 were children.

For participants with both an active and terminated vested records, the active record was maintained. For participants with multiple active records from different employers, service was merged, earliest provided membership date was used to determine pre-2006 vs post-2006 status, and (if applicable), the teacher record was used to determine assumptions and plan provisions.

Matching spouses of retirees to retirees when they were covered under split contracts (one Medicare eligible and the other not) was problematic. Additionally, surviving spouses who are not receiving survivor benefits under the retirement plan were not readily distinguishable from retirees. We believe that there are spouses of retirees that we have valued as retirees without paying the spouse premium. No adjustment has been made to the valuation liabilities.

Per capita cost development

Medical and Prescription Drug: Per capita claims costs were based on actual incurred claim experience for the periods January 1, 2021, through December 31, 2023. 2021 claims were adjusted for COVID-19 impact by a factor of -0.78% for medical. Medical claims for 2023 were further adjusted by a factor of 1.89% to account for claims incurred in 2023 but not yet processed through March 2024. Drug claims for 2021/2022/2023 were also adjusted by -1.50%/-1.48%/-0.99% for the performance guarantees received in March 2022, 2023, and 2024. Claims were separated by Medicare and Non-Medicare participants, then adjusted as follows:

- Total claims were divided by the number of adult members to yield a per capita claim
- The per capita claim was trended to the midpoint of the valuation year at assumed trend rates
- The per capita claim was adjusted for the effect of any plan changes
- Prescription drug claims were adjusted to reflect initial PBM contract savings
- Actuarial factors were then applied to the per capita claims to estimate individual retiree and spouse costs by age and by gender.

Medicare Advantage plans were valued by actuarially adjusting the insured premium rates by age and gender.

Administrative Expenses: Administrative expenses were based on a recent quarterly projection prepared by Segal, using detailed administrative expense data provided by the State.

Per capita health costs (2024)

Non-Medicare Retiree and Spouse

Age	70/30 Medical Male	70/30 Medical Female	80/20 Medical Male	80/20 Medical Female	70/30 Rx Male	70/30 Rx Female	80/20 Rx Male	80/20 Rx Female
50	\$6,962	\$7,352	\$10,168	\$10,736	\$1,766	\$1,865	\$2,119	\$2,828
55	7,857	7,981	11,473	11,655	1,993	2,025	2,700	3,184
60	9,046	8,651	13,210	12,634	2,295	2,195	3,523	3,671
65	11,543	9,587	16,857	14,001	2,928	2,432	4,779	4,414
70	12,964	10,725	18,932	15,663	3,289	2,721	5,367	4,938
75	14,321	11,275	20,914	16,466	3,633	2,860	5,929	5,191
80	14,995	12,035	21,899	17,576	3,804	3,053	6,208	5,541

Medicare Retiree and Spouse

Age	MA Base Male	MA Base Female	MA Enhanced Male	MA Enhanced Female	70/30 Medical Male	70/30 Medical Female	70/30 Rx Male	70/30 Rx Female
50	\$0	\$0	\$479	\$505	\$654	\$691	\$1,834	\$1,936
55	0	0	540	549	738	750	2,069	2,102
60	0	0	622	595	850	813	2,382	2,278
65	0	0	793	659	1,085	901	3,040	2,525
70	0	0	891	737	1,218	1,008	3,414	2,824
75	0	0	984	775	1,346	1,060	3,771	2,969
80	0	0	1,031	827	1,409	1,131	3,949	3,169

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.

Year Ending Dec 31	Medical Self-Funded	Prescription Drug	Prescription Drug Rebates	Medicare Advantage	Admin
2024	6.50%	10.00%	7.00%	N/A	3.00%
2025	6.25%	9.50%	7.00%	32.22%	3.00%
2026	6.00%	9.00%	7.00%	83.30%	3.00%
2027	5.75%	8.50%	7.00%	26.65%	3.00%
2028	5.50%	8.00%	7.00%	6.17%	3.00%
2029	5.25%	7.50%	7.00%	5.97%	3.00%
2030	5.00%	7.00%	7.00%	5.75%	3.00%
2031	5.00%	6.50%	6.50%	5.52%	3.00%
2032	5.00%	6.00%	6.00%	5.40%	3.00%
2033	5.00%	5.00%	5.00%	5.27%	3.00%
2034 & later	5.00%	5.00%	5.00%	5.00%	3.00%

The trend rate assumptions were based on the trends consistent with the Quarterly Financial Projections and were developed using Segal's internal guidelines. The guidelines are established each year using data sources such as the 2024 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.

Adjustments to the base trends above were made as follows:

- Medical trend for 2025 was adjusted by -0.5% to reflect the estimated savings from Aetna starting in 2025.
- MA Base/Enhanced premiums are assumed to be \$33/\$96 for year 2025, under the Inflation Reduction Act. Rates are assumed to increase to \$114/\$187 in year 2026, and \$159/\$233 in year 2027.
- Net prescription drug trend rates for 2024 through 2028, including claims, rebates, and PBM contract savings, are 4.00%, 11.30%, 10.80%, 9.60%, and 8.70%.
- Administrative trends for 2024-2026 were adjusted for assumed additional administrative costs for new PBM contract in 2023 and for new Aetna TPA contract starting in 2025.

Medicare Part D subsidy assumptions

GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsides. Therefore, these calculations do not include an estimate for retiree prescription drug plan federal subsidies that the North Carolina State Health Plan may be eligible to receive.

Retiree contribution increase rate

2024 trend on contributions was adjusted to projected 2024 contribution rates, including anticipated wellness credits and enrollment migration. A monthly contribution of \$4 was assumed for spouses and contributory retirees in the MA Base plan for years in which the premium is \$0. Retiree/spouse contributions for the 80/20 and 70/30 plans were assumed to remain flat for five years. Employer contributions are assumed to change over the next five years in accordance with contribution expectations projected by the State. Beyond that point, retiree contributions for medical and prescription drugs were assumed to increase at the same blended trend rate as medical and prescription drug cost. After 10 years, all contributions are assumed to increase at ultimate trend of 5.0%.

Assumption for Tabacco Attestation

The percentage of participants in the 80/20 Plan that complete a Tobacco Attestation is assumed to be 99.7% in all years.

Administrative expenses

Administrative expense loads of \$263 per participant (retiree and spouse) for non-Medicare retiree and of \$77 for Medicare retirees (blended MA & non-MA), increasing at 3.0% per year thereafter were added to projected incurred claims cost in developing the benefit obligations. The additional prescription drug administrative expenses to account for the new PBM contract are included.

Plan design

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

Maximum benefits

There are no annual or lifetime maximum benefits assumed.



Plan enrollment assumptions

Based on most recent financial report: Plan Enrollment Assumptions are valued by adjusting the trend for 2024-2027 for enrollment migration.

Non-Medicare Retiree

Plan	2024	2025	2026	2027
80/20 Plan	42.8%	42.3%	41.8%	41.3%
70/30 Plan	57.2%	57.7%	58.2%	58.7%

Medicare Retiree

Plan	2024	2025	2026	2027
MA Base	74.0%	75.0%	75.0%	75.0%
MA Enhanced	8.5%	10.0%	10.0%	10.0%
70/30 Plan	17.5%	15.0%	15.0%	15.0%

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 actuaries.

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.

Assumption changes since prior valuation

- The discount rate was updated, changing from 3.65% to 3.93%, based on changes in the Bond Buyer 20-year GO index rate, as selected by the State's OPEB Valuation Committee.
- The medical and prescription drug claims cost was changed based on the most recent experience.
- Medical and prescription drug trend rates were changed to current schedule.
- Enrollment assumptions were updated to model expected migrations among plan options over the next four years.
- The percentage of new smokers was updated to reflect current experience.
- The Medicare Advantage Prescription Drug (MA-PD) rates were updated.
- Employer contribution rates through 2029 were updated based on rates projected by the State.

Exhibit C: 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

Participants in the North Carolina State Health Plan for Teachers and State Employees who retire from the State, the University of North Carolina System, community colleges, local school systems, and certain other component units are eligible to continue to participate in the State Health Plan in retirement if they meet certain criteria. Employees hired on or after January 1, 2021, are not eligible for OPEB benefits.

Former employees who are eligible to receive medical benefits are long-term disability beneficiaries of the Disability Income Plan of North Carolina (DIPNC) and retirees of the Teachers' and State Employees' Retirement System (TSERS), the Consolidated Judicial Retirement system (CJRS), the Legislative Retirement System (LRS), the University Employees' Optional Retirement Program (UEORP), and a small number of local governments. General retirement requirements are as follows:

Law Enforcement Officer:

- age 50 and 15 years of service;
- age 55 and 5 years of service; or
- any age with 25 or more years of service.

All Others:

- age 50 and 20 years of service;
- age 60 and 5 years of service; or
- any age with 30 or more years of service.
- Members achieve vesting at any age with 5 years of service. Members who separate from service after becoming vested and do
 not withdraw their contributions from the Retirement System may later retire (and enroll in the plan) once they have attained the
 retirement eligibility age.

Benefit types:

70/30 and 80/20 Plans are offered to non-Medicare participants, and the 70/30 Plan, Medicare Advantage Base (MA Base) and Medicare Advantage Enhanced (MA Enchanced) plans are offered to Medicare eligible participants. Coverage under 70/30 Plan becomes secondary when former employees become eligible for Medicare.

Duration of coverage:

Lifetime for retirees and dependents

Dependent benefits:

Same as retirees

Retiree contributions:

Monthly contributions, effective January 1, 2024, are shown below.

For Retirees hired prior to October 1, 2006 (February 1, 2007, for legislators):

Non-Medicare

Category	70/30 Plan	80/20 Plan Tobacco Attest. Not Complete	80/20 Plan Tobacco Attest. Complete
Retiree	\$0.00	\$110.00	\$50.00
Spouse	\$590.00	\$650.00	\$650.00

Medicare

Category	70/30 Plan	MA Base	MA Enhanced
Retiree	\$0.00	\$0.00	\$73.00
Spouse	\$425.00	\$4.00	\$73.00

For Retirees hired on or after October 1, 2006 (February 1, 2007, for legislators), contributions are defined as a percentage of the total premium costs based on the following service-based schedule:

Years of Service at Retirement	Retiree Contribution Percentage	Spouse Contribution Percentage
5 – 9.99	100%	100%
10 – 19.99	50%	100%
20 or more	0%	100%

100% and 50% of the total premium costs are shown below:

Non-Medicare

Category	70/30 Plan	80/20 Plan Tobacco Attest. Not Complete	80/20 Plan Tobacco Attest. Complete
Retiree (100% of Premium)	\$448.74	\$558.74	\$498.74
Retiree (50% of Premium)	\$224.37	\$334.37	\$274.37
Spouse	\$590.00	\$650.00	\$650.00

Medicare

Category	70/30 Plan	MA Base	MA Enhanced
Retiree (100% of Premium)	\$448.74	\$4.00	\$73.00
Retiree (50% of Premium)	\$224.37	\$4.00	\$73.00
Spouse	\$425.00	\$4.00	\$73.00

Benefit descriptions PPO 70/30 Plan (as of January 1, 2024):

PPO 70/30 Plan	In-Network	Out-Of-Network	
Medical			
Annual Deductible	\$1,500/\$4,500	\$3,000/\$9,000	
Member Coinsurance	30%	50%	
Out-of-Pocket Maximum	\$5,900/\$16,300	\$11,800/\$32,600	
Primary Care Office Visit Co-pay	\$45 (\$30/\$0 when using PCP/CCP PCP on ID card)	Deductible & Coinsurance	
Specialist Office Visit Co-pay	\$94 (\$47 when using CPP Specialist)	Deductible & Coinsurance	
Preventive Care	\$0	N/A	
Urgent Care Co-pay	\$100	\$100	
Inpatient Hospitalization Co-pay	\$337 + Deductible & Coinsurance	\$337 + Deductible & Coinsurance	
Outpatient Hospitalization Co-pay	Deductible & Coinsurance	Deductible & Coinsurance	
Emergency Room	\$337 + Deductible & Coinsurance	same as In-Network	
Physical, Occupational, Speech, or Chiropractic Therapy	\$72 (\$36 when using CPP Provider)	Deductible & Coinsurance	
Mental Health and Substance Abuse Office Visit Co-pay	\$45	Coinsurance	
Prescription Drugs ¹			
Tier 1 - Generic	\$16	\$16	
Tier 2 - Preferred Brand	\$47	\$47	
Tier 3 - Non-Preferred Brand	Deductible & Coinsurance	Deductible & Coinsurance	
Tier 4 - Generic Specialty	\$200	\$200	
Tier 5 - Preferred Specialty	\$350	\$350	
Tier 6 - Non-Preferred Specialty	Deductible & Coinsurance	Deductible & Coinsurance	
Preferred diabetic testing supplies	\$10	\$10	
Non-Preferred diabetic testing supplies	Deductible & Coinsurance	Deductible & Coinsurance	
Out-of-Pocket Maximum	Combined with Medical	Combined with Medical	

¹ Up to 30-day supply – copays are 2x for 31–60 day supply and 3x for 61-90 day supply

Benefit descriptions PPO 80/20 Plan (as of January 1, 2024):

PPO 80/20 Plan	In-Network	Out-Of-Network	
Medical			
Annual Deductible	\$1,250/\$3,750	\$2,500/\$7,500	
Member Coinsurance	20%	40%	
Out-of-Pocket Maximum	\$4,890/\$14,670	\$9,780/\$29,340	
Primary Care Office Visit Co-pay	\$25 (\$10/\$0 when using PCP/CCP PCP on ID card)	Deductible & Coinsurance	
Specialist Office Visit Co-pay	\$80 (\$40 when using CPP Specialist)	Deductible & Coinsurance	
Preventive Care	\$0	N/A	
Urgent Care Co-pay	\$70	\$70	
Inpatient Hospitalization Co-pay	\$300 + Deductible & Coinsurance	\$300 + Deductible & Coinsurance	
Outpatient Hospitalization Co-pay	Deductible & Coinsurance	Deductible & Coinsurance	
Emergency Room	\$300 + Deductible & Coinsurance	same as In-Network	
Physical, Occupational, Speech, or Chiropractic Therapy	\$52 (\$26 when using CPP Provider)	Deductible & Coinsurance	
Mental Health and Substance Abuse Office Visit Co-pay	\$25	Coinsurance	
Prescription Drugs ¹			
Tier 1 - Generic	\$5	\$5	
Tier 2 - Preferred Brand	\$30	\$30	
Tier 3 - Non-Preferred Brand	Deductible & Coinsurance	Deductible & Coinsurance	
Tier 4 - Generic Specialty	\$100	\$100	
Tier 5 - Preferred Specialty	\$250	\$250	
Tier 6 - Non-Preferred Specialty	Deductible & Coinsurance	Deductible & Coinsurance	
Preferred diabetic testing supplies	\$5	\$5	
Non-Preferred diabetic testing supplies	Deductible & Coinsurance	Deductible & Coinsurance	
Out-of-Pocket Maximum	Combined with Medical	Combined with Medical	

 $^{^{\}rm 1}$ Up to 30-day supply – copays are 2x for 31-60 day supply and 3x for 61-90 day supply

Benefit descriptions Medicare Advantage Plans (as of January 1, 2024):

Medicare Advantage	MA-PDP Base	MA-PDP Enhanced		
Medical				
Annual Deductible	\$0	\$0		
Member Coinsurance	20%	20%		
Out-of-Pocket Maximum	\$4,000	\$3,300		
Primary Care Office Visit Co-pay	\$20	\$10		
Specialist Office Visit Co-pay	\$40	\$35		
Preventive Care	\$0	\$0		
Urgent Care Co-pay	\$50	\$40		
Inpatient Hospitalization Co-pay	Days 1-10: \$160/day; Days 11+: \$0	Days 1-10: \$125/day; Days 11+: \$0		
Outpatient Hospitalization Co-pay	\$125	\$100		
Emergency Room Co-pay	\$65	\$65		
Physical, Occupational, Speech, or Chiropractic Therapy	\$20	\$20		
Mental Health and Substance Abuse Office Visit Co-pay	\$20	\$10		
Prescription Drugs				
Retail (up to 31-day supply)				
Tier 1 - Preferred Generic	\$10	\$10		
 Tier 2 - Preferred Brand 	\$40	\$40		
Tier 3 - Non-Preferred	\$64	\$50		
Tier 4 - Specialty	25% coinsurance, \$100 max.	25% coinsurance, \$100 max.		
 Out-of-Pocket Maximum 	\$2,500	\$2,500		
Mail Order (up to 90-day supply)				
- Tier 1 - Preferred Generic	\$24	\$24		
- Tier 2 - Preferred Brand	\$80	\$80		
- Tier 3 - Non-Preferred	\$128	\$100		
- Tier 4 - Specialty	25% coinsurance, \$300 max.	25% coinsurance, \$200 max.		
 Out-of-Pocket Maximum 	\$2,500	\$2,500		

Plan Changes since Prior Valuation:

Effective January 1, 2024, new prescriptions of GLP-1 AOM were no longer covered and effective April 1, 2024, all coverage of GLP-1 AOM ceased.

Exhibit D: Definition of terms

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

Term	Definition		
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:		
	 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 retirees; 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:		
	 a. the actuarial present value of projected benefit payments projected to be funded by plan assets using a long-term rate of return, and 		
	 the actuarial present value of projected benefit payments that are not included in (a) 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		
Health care cost trend rates:	The rate of change in per capita health costs over time		
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.		

Term	Definition
Total OPEB Liability:	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement No. 74.
Valuation date:	The date at which the actuarial valuation is performed

Exhibit E: Accounting requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 74 – Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. Under this statement, 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 C 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 translates 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 B 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. Exhibit D of Section 3 contains a definition of terms as well as more information about GASB 74 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.

Appendix: Sensitivity of Valuation Results as of December 31, 2023 (in thousands)

Item	4.03% Discount Rate	5.27% Discount Rate	6.50% Discount Rate	7.73% Discount Rate	8.97% Discount Rate
Normal Cost	\$1,389,437	\$974,490	\$698,098	\$508,449	\$375,074
Actuarial Accrued Liability	36,102,283	30,111,269	25,502,345	21,873,478	18,956,575
Market Value of Assets	3,394,238	3,394,238	3,394,238	3,394,238	3,394,238
Unfunded Actuarial Accrued Liability	32,708,045	26,717,031	22,108,107	18,479,240	15,562,337
Amortization of Unfunded Actuarial Accrued Liability	\$1,213,406	\$1,163,023	\$1,114,499	\$1,066,785	\$1,019,047
Timing Adjustment	4,120	4,345	4,464	4,532	4,572
Total Actuarially Determined Contribution	2,606,963	2,141,858	1,817,061	1,579,766	1,398,693
Total Actuarially Determined Contribution as a percentage of pay	12.54%	10.31%	8.74%	7.60%	6.73%

Actuarially determined contributions shown here are calculated using the same methodology as described in Section 2 of the valuation report, except for use of the various discount rates shown above. Covered payroll is \$20,784,240,000.