

# 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, 2022**



This report has been prepared at the request of the Committee on Actuarial Valuation of Retired Employees' Health Benefits (OPEB) to assist in administering the Plan. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Committee on Actuarial Valuation of Retired Employees' Health Benefits (OPEB) and may only be provided to other parties in its entirety. The measurements shown in this actuarial valuation may not be applicable for other purposes.

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August 31, 2022

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, 2022 under Governmental Accounting Standards Board Statement No. 74. The report summarizes the actuarial data used in the valuation, discloses the Net OPEB Liability (NOL), 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 Daniel J. Rhodes, FSA, MAAA, Senior 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 II 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 III.

Sincerely,  
Segal

A handwritten signature in black ink that reads "Daniel J. Rhodes". The signature is written in a cursive style and is positioned above a horizontal line.

Daniel J. Rhodes, FSA, MAAA  
Senior Vice President and Consulting Actuary

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# Actuarial Valuation Summary

## Purpose and basis

This report presents the results of our actuarial valuation of North Carolina State OPEB plan as of June 30, 2022, required by Governmental Accounting Standards Board (GASB) Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*. The actuarial computations made are for purposes of fulfilling plan accounting 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, 2022 is \$23.75 billion, a decrease of \$7.17 billion, from the prior valuation NOL of \$30.92 billion. Net unfunded plan obligations had been expected to increase to \$32.44 billion, due to normal plan operations. The difference between actual and prior unfunded actuarial accrued liabilities was the net effect of several factors:
  - Actuarial experience losses increased the NOL by \$0.39 billion. This was the net result of (1) a liability loss (\$0.11 billion), the result of demographic changes and actual 2021 benefit payments that were different from expected, and (2) an asset loss (\$0.28 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 decreased the NOL by \$8.80 billion. This was a net result of (1) a decrease in obligations due to lowering the valuation-year per capita health costs (\$0.36 billion), (2) a decrease due to updating the migration assumption (\$0.12 billion), (3) an increase due to updating future trends (\$0.36 billion), (4) a decrease in obligations due to the new PBM contract effective January 1, 2023 (\$2.57 billion), and (5) a decrease due to increasing the discount rate (\$6.11 billion).
  - Plan changes decreased the Net OPEB Liability by \$0.10 billion. Recent legislation has altered the employer contribution structure, and we have estimated the impact of this legislation on 2023 rates (which have not yet been adopted by the Board of Trustees). The current plan of benefits is summarized in Exhibit III of Section 3.
  - At several points during the year ended June 2022, a total of \$0.18 billion was transferred from the Public Employee Health Benefit Fund (PEHBF) and the Unfunded Liability Solvency Reserve to the Retiree Health Benefit Trust Fund (RHBTf), which reduced the NOL.
- As of June 30, 2022, the ratio of assets to the Total OPEB Liability (the funded ratio) is 10.58%. This is based on the market value of assets at this point in time.

## Section 1: Actuarial Valuation Summary

The Coronavirus (COVID-19) pandemic is rapidly evolving and is having a significant impact on the US economy in 2022 and beyond, including most retiree health plans, and will likely continue to have an impact in the future. Our results do not include the impact of the following:

- Direct or indirect effects of COVID-19 on short-term health plan costs
- Short-term or long-term impacts on mortality of the covered population
- The potential for federal or state fiscal relief
- Economic or demographic impact associated with any resurgence of the virus.

In developing valuation year per capita health costs, 2020 claims experience was adjusted to account for the impact of COVID, as described on p.36.

Each of the above factors could significantly impact these results. Given the high level of uncertainty and fluidity of the current events, you may wish to consider updated estimates to monitor the plan's financial status. We will keep you updated on emerging developments.

## Section 1: Actuarial Valuation Summary

### Summary of key valuation results (in thousands)

Measurement Date		June 30, 2022	June 30, 2021
<b>Disclosure elements for fiscal year ending June 30:</b>	• Total OPEB Liability	\$26,557,121	\$33,500,219
	• Plan Fiduciary Net Position (Assets)	2,810,269	2,584,626
	• Net OPEB Liability	23,746,852	30,915,593
	• Plan Fiduciary Net Position as a percentage of Total OPEB Liability	10.58%	7.72%
	• Service Cost at Beginning of Year	2,131,391	1,974,212
	• Covered Payroll	19,034,634	18,184,883
<b>Schedule of contributions for fiscal year ending June 30:</b>	• Actuarially determined contributions	\$2,084,130	\$3,049,625
	• Actual contributions	1,197,278	1,214,750
	• Contribution deficiency / (excess)	886,852	1,834,875
	• Benefit Payments	1,044,121	1,100,633

## Section 1: Actuarial Valuation Summary

### Important information about actuarial valuations

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

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

<b>Plan of benefits</b>	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.
<b>Participant data</b>	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.
<b>Assets</b>	The valuation is based on the market value of assets as of the valuation date, as provided by the State.
<b>Actuarial assumptions</b>	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement, and then develops short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets or, if there are no assets, a rate of return based on a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

## Section 1: Actuarial Valuation Summary

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

The actuarial valuation is prepared for use by the State 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. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The 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.

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

# Section 1: Actuarial Valuation Summary

## **Actuarial Certification**

**August 31, 2022**

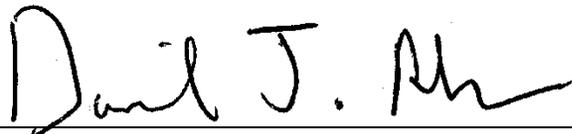
This is to certify that Segal has conducted an actuarial valuation of certain benefit obligations of State Health Plan of North Carolina other postemployment benefit programs as of June 30, 2022, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented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

The actuarial valuation is based on the plan of benefits 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 (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. The scope of the assignment did not include performing an analysis of the potential change of such future measurements except where noted.

To the best of 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.



Daniel J. Rhodes, FSA, MAAA  
Senior Vice President and Consulting Actuary



Peter Wang, PhD, ASA, FCA, MAAA  
Associate Actuary

# GASB 74 Information

## General information about the OPEB plan

### Plan Description

*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:

	As of December 31, 2021	As of December 31, 2020
<b>Number of retirees</b>	215,811	212,915
<b>Number of spouses</b>	23,405	21,241
<b>Number of surviving spouses</b>	2,970	2,877
<b>Number of inactive vested</b>	48,413	47,306
<b>Number of actives</b>	318,849	344,085
<b>Total number of participants and spouses</b>	609,448	628,424

*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.

## Section 2: GASB 74 Information

*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 6.68% for fiscal 2021 and 6.29% for fiscal 2022. Per SL 2021-180 Section 39.22(c), the employer contribution rate for fiscal 2023 is 6.89%. 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 \$187.0 million and \$180.5 million were made in FY 2021 and FY 2022 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. As of June 30, 2022, there has been an \$8.5 million increase in the Plan Fiduciary Net Position sourced from the Unfunded Liability Solvency Reserve.

## Section 2: GASB 74 Information

### Net OPEB liability (in thousands)

Measurement Date	June 30, 2022	June 30, 2021
<b>Components of the Net OPEB Liability</b>		
Total OPEB Liability	\$26,557,121	\$33,500,219
Plan Fiduciary Net Position	2,810,269	2,584,626
Net OPEB Liability	23,746,852	30,915,593
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	10.58%	7.72%

The Net OPEB Liability was measured as of June 30, 2022 and 2021. Plan Fiduciary Net Position (plan assets) was valued as of the measurement dates and the Total OPEB Liability was determined from actuarial valuations using data as of December 31, 2021 and 2020, respectively.

*Actuarial assumptions.* The Total OPEB Liability was measured by an actuarial valuation as of December 31, 2021, and rolled forward to June 30, 2022, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

<b>Inflation</b>	2.50%
<b>Salary increases</b>	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%
<b>Discount rate</b>	3.54% for fiscal 2022, 2.16% for fiscal 2021
<b>Healthcare cost trend rates</b>	
<b>Medical (Non-MA)</b>	6.00% grading down to 5.00% by 2027
<b>Prescription drug (Non-MA)</b>	9.50% grading down to 5.00% by 2031
<b>Medicare Advantage</b>	Rates are guaranteed for 2021-2025; 5.00% for years after 2026
<b>Administrative costs</b>	3.00%
<b>Mortality rates</b>	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

## Section 2: GASB 74 Information

The actuarial assumptions used in the June 30, 2022 valuation were 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 II.

## Section 2: GASB 74 Information

### 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 (2.54%) or 1-percentage-point higher (4.54%) than the current rate. Also, shown is the NOL as if it were calculated using healthcare cost trend rates that were 1-percentage-point lower or 1-percentage-point higher than the current healthcare trend rates.

	<b>1% Decrease (2.54%)</b>	<b>Current Discount Rate (3.54%)</b>	<b>1% Increase (4.54%)</b>
Net OPEB Liability (in thousands)	\$27,971,055	\$23,746,852	\$20,296,824
	<b>1% Decrease in Health Care Cost Trend Rates</b>	<b>Current Health Care Cost Trend Rates</b>	<b>1% Increase in Health Care Cost Trend Rates</b>
Net OPEB Liability (in thousands)	\$19,547,458	\$23,746,852	\$29,175,169

## Section 2: GASB 74 Information

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

The following presents a breakdown of Total OPEB Liability as of June 30, 2022 by participant status (active, retired, etc.) and payment age (pre-65 and post-65).

<b>Total OPEB Liability</b>	<b><u>Pre-65</u></b>	<b><u>Post-65</u></b>	<b><u>Total</u></b>
<b>Active</b>	\$10,745,077	\$5,514,465	\$16,259,542
<b>Vested</b>	1,436,371	1,434,191	2,870,562
<b>Retired</b>	2,282,256	4,730,766	7,013,022
<b>Beneficiary</b>	6,925	4,750	11,675
<b>Disabled</b>	156,691	245,629	402,320
<b>Total</b>	\$14,627,320	\$11,929,801	\$26,557,121

## Section 2: GASB 74 Information

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

Measurement Date	June 30, 2022	June 30, 2021
<b>Total OPEB Liability</b>		
Service cost	\$2,131,391	\$1,974,212
Interest	758,427	690,162
Change of benefit terms	(96,837)	--
Differences between expected and actual experience	106,923	194,899
Changes of assumptions	(8,798,881)	1,939,421
Benefit payments, including refunds of member contributions	<u>(1,044,121)</u>	<u>(1,100,633)</u>
Net change in Total OPEB Liability	(\$6,943,098)	\$3,698,061
Total OPEB Liability – beginning	<u>33,500,219</u>	<u>29,802,158</u>
Total OPEB Liability – ending	<u>\$26,557,121</u>	<u>\$33,500,219</u>
<b>Plan Fiduciary Net Position</b>		
Contributions – employer	\$1,197,278	\$1,214,750
Contributions – employee	--	--
Net investment income	(107,846)	222,377
Benefit payments, including refunds of member contributions	(1,044,121)	(1,100,633)
Administrative expense	(174)	(175)
Other	<u>180,506</u>	<u>187,000</u>
Net change in Plan Fiduciary Net Position	\$225,643	\$523,319
Plan Fiduciary Net Position – beginning	<u>2,584,626</u>	<u>2,061,307</u>
Plan Fiduciary Net Position – ending	\$2,810,269	\$2,584,626
Net OPEB Liability – ending	<u>\$23,746,852</u>	<u>\$30,915,593</u>
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	10.58%	7.72%
Covered payroll <sup>1</sup>	\$19,034,634	\$18,184,883
Plan Net OPEB Liability as percentage of covered payroll	124.76%	170.01%

<sup>1</sup> Covered payroll is estimated for both 2021 and 2022

## Section 2: GASB 74 Information

### Notes to Schedule:

#### Benefit Changes reflected in the June 30, 2022 Net OPEB Liability:

- Recent legislation has altered the employer contribution structure. Previously, active employees and non-Medicare retirees had the same employer contribution rate. Under the new legislation, non-Medicare and Medicare retirees will have the same employer contribution rate starting 2022.

#### Changes in assumptions reflected in the June 30, 2022 Net OPEB Liability:

- The discount rate was updated, changing from 2.16% to 3.54%, 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 were changed based on most recent experience.
- The new PBM contract effective January 1, 2023 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.

#### Benefit Changes reflected in the June 30, 2021 Net OPEB Liability:

- No material changes reflected. (A change in copays for diagnostic colonoscopies had no material impact on liabilities.)

#### Changes in assumptions reflected in the June 30, 2021 Net OPEB Liability:

- The discount rate was updated, changing from 2.21% to 2.16%, 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 were changed based on 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 five years.
- The following demographic and economic assumptions were updated based on the results of an actuarial experience study for the period ending December 31, 2019.
  - Mortality and mortality improvement scale
  - Turnover
  - Disability
  - Retirement
  - Inflation
  - Salary scale

## Section 2: GASB 74 Information

### Expected Net Benefit Payments (in thousands)

Year Ending December 31	Projected Net Claims	Year Ending December 31	Projected Net Claims	Year Ending December 31	Projected Net Claims	Year Ending December 31	Projected Net Claims
2022	\$718,145	2047	\$2,425,607	2072	\$1,063,954	2097	\$72,190
2023	734,775	2048	2,433,251	2073	1,030,343	2098	56,425
2024	779,484	2049	2,441,878	2074	993,703	2099	43,277
2025	823,497	2050	2,442,198	2075	954,213	2100	32,526
2026	1,006,833	2051	2,424,958	2076	912,119	2101	23,921
2027	1,067,226	2052	2,381,411	2077	867,723	2102	17,190
2028	1,141,964	2053	2,320,662	2078	821,372	2103	12,052
2029	1,221,852	2054	2,236,770	2079	773,474	2104	8,230
2030	1,308,853	2055	2,132,371	2080	724,543	2105	5,466
2031	1,400,542	2056	2,016,645	2081	675,016	2106	3,524
2032	1,486,745	2057	1,903,990	2082	625,294	2107	2,204
2033	1,573,704	2058	1,797,898	2083	575,765	2108	1,335
2034	1,652,542	2059	1,689,653	2084	526,810	2109	782
2035	1,715,303	2060	1,583,967	2085	478,791	2110	444
2036	1,763,281	2061	1,485,106	2086	432,053	2111	244
2037	1,826,106	2062	1,384,973	2087	386,916	2112	130
2038	1,903,335	2063	1,295,968	2088	343,676	2113	68
2039	1,971,249	2064	1,249,834	2089	302,600	2114	34
2040	2,034,071	2065	1,223,123	2090	263,923	2115	17
2041	2,110,349	2066	1,203,323	2091	227,850	2116	8
2042	2,174,530	2067	1,185,101	2092	194,543	2117	3
2043	2,244,524	2068	1,166,621	2093	164,124	2118	1
2044	2,310,584	2069	1,145,581	2094	136,672	2119	0
2045	2,364,063	2070	1,121,557	2095	112,218	2120	0
2046	2,405,031	2071	1,094,388	2096	90,747	2121	0

## Section 2: GASB 74 Information

### 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
2013	\$2,072,951	\$813,223	\$1,259,728	\$15,343,830	5.30%
2014	2,226,586	815,157	1,411,429	15,095,500	5.40%
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%

See accompanying notes to this schedule on next page.

## Section 2: GASB 74 Information

### Notes to Schedule:

#### Methods and assumptions used to establish “actuarially determined contribution” rates:

<b>Valuation Date:</b>	December 31 prior to the fiscal year end
<b>Actuarial Cost Method:</b>	Projected Unit Credit (for years ended June 30, 2017 and earlier) Entry Age Normal (for years ended June 30, 2018 and after)
<b>Amortization Method:</b>	Open 30-year level pay
<b>Remaining Amortization Period:</b>	30 years
<b>Asset Valuation Method:</b>	Market value
<b>Discount Rate:</b>	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)
<b>Timing and Payroll Adjustment:</b>	This includes interest, rounding, and an adjustment for the difference between valuation payroll and covered payroll (not applicable for 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
<b>Payroll Increase Assumption:</b>	3.50% (for years ending June 30, 2020 and earlier) 3.25% (for years ending June 30, 2021 and later)

## Section 2: GASB 74 Information

### Actuarially Determined Contribution (in thousands)

	July 1, 2021 - June 30, 2022	% of Payroll	July 1, 2020 - June 30, 2021	% of Payroll
Normal Cost as of preceding December 31	\$1,279,519	6.72%	\$2,131,391	11.72%
Actuarial Accrued Liability as of preceding December 31	25,815,387	135.62%	32,426,167	178.31%
Assets as of preceding December 31	2,716,224	14.27%	2,173,763	11.95%
Unfunded Actuarial Accrued Liability as of preceding December 31	23,099,163	121.35%	30,252,404	166.36%
Amortization of Unfunded Actuarial Accrued Liability	\$801,696	4.21%	\$860,944	4.73%
Total Actuarially Determined Contribution	2,084,130	10.95%	3,049,625	16.77%
Covered Payroll	19,034,634		18,184,883	

## Section 2: GASB 74 Information

### Statement of Fiduciary Net Position (in thousands)

	June 30, 2022	June 30, 2021
<b>Assets</b>		
Cash and deposits	\$1,307,380	\$1,163,493
<b>Receivables</b>		
• Contributions	\$51,838	\$65,827
• Accounts	734	262
• Investment income	629	184
Total receivables	\$53,201	\$66,273
Investments	\$1,449,688	\$1,355,036
<b>Total Assets</b>	<b>\$2,810,269</b>	<b>\$2,584,802</b>
<b>Liabilities</b>		
• Unearned revenue	--	\$176
<b>Total Liabilities</b>	<b>--</b>	<b>\$176</b>
<b>Net position restricted for OPEB</b>	<b>\$2,810,269</b>	<b>\$2,584,626</b>

# Supporting Information

## Exhibit I: Summary of Participant Data

	As of December 31, 2021	As of December 31, 2020
Number of retirees	215,811	212,915
Average age of retirees	71.4	71.2
Number of spouses	23,405	21,241
Average age of spouses	69.8	69.5
Number of surviving spouses	2,970	2,877
Average age	79.5	79.7
Number inactive vested	48,413	47,306
Average age	49.2	48.9
Number of actives	318,849	344,085
Average age	46.0	45.3
Average service	11.4	10.6

## Section 3: Supporting Information

### Exhibit I: Summary of Participant Data (continued)

#### Active Employees Valued as of December 31, 2021 - Count and Average Pay by Age and Service

Age on 12/31/2021	Service										Total
	0	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	
Under 20	4	14	0	0	0	0	0	0	0	0	18
	\$7,418	\$26,690	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,407
20 - 24	158	5,243	54	0	0	0	0	0	0	0	5,455
	\$12,065	\$34,546	\$36,358	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$33,913
25 - 29	302	19,114	7,196	31	0	0	0	0	0	0	26,643
	\$13,286	\$37,432	44,916	\$47,664	\$0	\$0	\$0	\$0	\$0	\$0	\$39,192
30 - 34	348	13,087	15,901	5,430	52	0	0	0	0	0	34,818
	\$17,417	\$42,255	47,820	\$54,377	\$48,930	\$0	\$0	\$0	\$0	\$0	\$46,449
35 - 39	279	10,560	11,824	9,320	5,017	49	0	0	0	0	37,049
	\$22,333	\$47,459	54,459	\$58,511	\$61,921	\$53,127	\$0	\$0	\$0	\$0	\$54,250
40 - 44	334	8,802	9,754	7,450	11,094	4,301	45	0	0	0	41,780
	\$32,152	\$46,354	56,331	\$62,165	\$64,510	\$65,175	\$61,735	\$0	\$0	\$0	\$58,164
45 - 49	327	7,394	8,763	7,201	8,191	9,331	3,613	13	0	0	44,833
	\$32,216	\$45,408	54,167	\$62,599	\$64,477	\$67,013	\$69,966	\$60,165	\$0	\$0	\$59,749
50 - 54	319	7,168	8,390	7,446	9,262	7,705	7,575	1,345	10	0	49,220
	\$35,658	\$45,726	51,519	\$57,841	\$62,288	\$65,607	\$70,661	\$74,141	\$56,904	\$0	\$59,326
55 - 59	237	5,775	6,818	6,021	7,552	6,559	4,616	1,734	289	3	39,604
	\$35,462	\$44,629	49,658	\$54,831	\$57,002	\$63,305	\$67,377	\$77,041	\$73,928	\$67,818	\$56,729
60 - 64	186	3,459	4,676	4,444	5,377	4,637	2,493	1,181	571	113	27,137
	\$47,124	\$45,049	50,463	\$54,557	\$56,375	\$61,178	\$70,816	\$86,416	\$85,565	\$70,275	\$57,678
65 - 69	96	1,266	1,702	1,462	1,592	1,072	673	508	290	202	8,863
	\$76,207	\$43,548	53,654	\$60,895	\$61,243	\$68,731	\$79,610	\$103,534	\$107,201	\$94,310	\$64,344
70 & over	70	478	550	555	577	378	252	187	158	224	3,429
	\$22,764	\$35,688	46,734	\$53,041	\$63,580	\$74,714	\$88,193	\$110,975	\$138,747	\$124,996	\$67,547
Total	2,660	82,360	75,628	49,360	48,714	34,032	19,267	4,968	1,318	542	318,849
	\$28,935	\$42,598	\$51,269	\$58,300	\$61,619	\$65,072	\$70,285	\$82,427	\$93,932	\$101,834	\$54,883

## Section 3: Supporting Information

### Exhibit II: Actuarial Assumptions and Actuarial Cost Method

<b>Data:</b>	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
<b>Actuarial Cost Method:</b>	Entry Age, Level Percentage of Pay. Decrements are assumed to occur mid-year.
<b>Asset Valuation Method:</b>	Market Value
<b>Basis for Demographic Assumptions:</b>	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.
<b>Census Valuation Date:</b>	December 31, 2021. 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.
<b>Measurement Date:</b>	Liabilities were rolled forward to June 30, 2022. 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
<b>Allocations to Employers:</b>	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.
<b>Discount Rate:</b>	3.54%. The discount rate is based on the Bond Buyer 20-year GO index as of June 30, 2022. 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 \$180.5 million in FY 2022 was not assumed to recur. As such, a blended discount rate is not applicable.
<b>Salary increases based on service:</b>	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%
<b>Payroll Increases:</b>	3.25%.
<b>Investment Return:</b>	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.

## Section 3: Supporting Information

<b>Pre- Retirement Mortality:</b>	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.		
<b>Post-Disablement Mortality:</b>	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.		
<b>Post-Retirement Mortality:</b>	<b>Retirees</b>	<b>Mortality Table and adjustments</b>	
	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	
<b>Mortality Projection Scale:</b>	MP-2019		
<b>Disability Rates:</b>		<b>Rate</b>	
	<b>Age</b>	<b>Male</b>	<b>Female</b>
	20-24	0.00045	0.00014
	25-29	0.00018	0.00014
	30-34	0.00029	0.00064
	35-39	0.00059	0.00072
	40-44	0.00084	0.00120
	45-49	0.00123	0.00176
	50-54	0.00230	0.00256
	55-59	0.00346	0.00336
	60-62	0.00302	0.00336
	63-64	0.00302	0.00240
			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.

## Section 3: Supporting Information

### Turnover Rates:

Teachers - Male							Teachers - Female						
Service							Service						
Age	0	1	2	3	4	>= 5	Age	0	1	2	3	4	>= 5
25	5.00%	17.50%	15.50%	14.50%	11.50%	30.00%	25	3.50%	16.50%	15.50%	13.75%	11.50%	35.00%
30	5.00%	17.50%	15.50%	14.50%	11.50%	9.00%	30	3.50%	16.50%	15.50%	13.75%	11.50%	10.00%
35	5.00%	17.50%	15.50%	14.50%	11.50%	6.00%	35	3.50%	16.50%	15.50%	13.75%	11.50%	5.75%
40	5.00%	17.50%	15.50%	14.50%	11.50%	4.75%	40	3.50%	16.50%	15.50%	13.75%	11.50%	4.00%
45	5.00%	17.50%	15.50%	14.50%	11.50%	3.75%	45	3.50%	16.50%	15.50%	13.75%	11.50%	3.50%
50	5.00%	17.50%	15.50%	14.50%	11.50%	4.25%	50	3.50%	16.50%	15.50%	13.75%	11.50%	4.00%
55	5.00%	17.50%	15.50%	14.50%	11.50%	4.25%	55	3.50%	16.50%	15.50%	13.75%	11.50%	4.00%
60	5.00%	17.50%	15.50%	14.50%	11.50%	4.25%	60	3.50%	16.50%	15.50%	13.75%	11.50%	4.00%

General - Male							General - Female						
Service							Service						
Age	0	1	2	3	4	>= 5	Age	0	1	2	3	4	>= 5
25	9.00%	17.00%	15.00%	12.50%	11.00%	25.00%	25	9.00%	17.50%	15.75%	14.00%	11.50%	25.00%
30	9.00%	17.00%	15.00%	12.50%	11.00%	12.50%	30	9.00%	17.50%	15.75%	14.00%	11.50%	12.00%
35	9.00%	17.00%	15.00%	12.50%	11.00%	7.50%	35	9.00%	17.50%	15.75%	14.00%	11.50%	10.00%
40	9.00%	17.00%	15.00%	12.50%	11.00%	5.00%	40	9.00%	17.50%	15.75%	14.00%	11.50%	5.75%
45	9.00%	17.00%	15.00%	12.50%	11.00%	4.00%	45	9.00%	17.50%	15.75%	14.00%	11.50%	4.00%
50	9.00%	17.00%	15.00%	12.50%	11.00%	4.00%	50	9.00%	17.50%	15.75%	14.00%	11.50%	4.00%
55	9.00%	17.00%	15.00%	12.50%	11.00%	4.00%	55	9.00%	17.50%	15.75%	14.00%	11.50%	4.00%
60	9.00%	17.00%	15.00%	12.50%	11.00%	4.00%	60	9.00%	17.50%	15.75%	14.00%	11.50%	4.00%

Other - Male							Other - Female						
Service							Service						
Age	0	1	2	3	4	>= 5	Age	0	1	2	3	4	>= 5
25	9.00%	19.00%	17.00%	13.00%	11.00%	25.00%	25	7.00%	17.50%	15.50%	12.50%	10.75%	25.00%
30	9.00%	19.00%	17.00%	13.00%	11.00%	10.00%	30	7.00%	17.50%	15.50%	12.50%	10.75%	15.00%
35	9.00%	19.00%	17.00%	13.00%	11.00%	5.50%	35	7.00%	17.50%	15.50%	12.50%	10.75%	7.50%
40	9.00%	19.00%	17.00%	13.00%	11.00%	5.00%	40	7.00%	17.50%	15.50%	12.50%	10.75%	6.50%
45	9.00%	19.00%	17.00%	13.00%	11.00%	5.00%	45	7.00%	17.50%	15.50%	12.50%	10.75%	4.75%
50	9.00%	19.00%	17.00%	13.00%	11.00%	5.00%	50	7.00%	17.50%	15.50%	12.50%	10.75%	4.50%
55	9.00%	19.00%	17.00%	13.00%	11.00%	4.00%	55	7.00%	17.50%	15.50%	12.50%	10.75%	3.50%
60	9.00%	19.00%	17.00%	13.00%	11.00%	4.00%	60	7.00%	17.50%	15.50%	12.50%	10.75%	3.50%

## Section 3: Supporting Information

### Turnover Rates (continued):

#### Law Enforcement Officers - Male and Female

##### Service

<u>Age</u>	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%

## Section 3: Supporting Information

### Active Retirement Rates:

		Teachers - Male								
		Service								
Age	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.700	0.700
50	0.000	0.000	0.000	0.000	0.030	0.030	0.030	0.0425	0.700	0.700
51	0.000	0.000	0.000	0.000	0.030	0.030	0.030	0.0425	0.700	0.700
52	0.000	0.000	0.000	0.000	0.030	0.030	0.030	0.0425	0.700	0.700
53	0.000	0.000	0.000	0.000	0.030	0.030	0.030	0.0550	0.400	0.700
54	0.000	0.000	0.000	0.000	0.030	0.030	0.030	0.0550	0.400	0.450
55	0.000	0.000	0.000	0.000	0.045	0.045	0.030	0.0550	0.400	0.450
56	0.000	0.000	0.000	0.000	0.045	0.045	0.030	0.0550	0.400	0.300
57	0.000	0.000	0.000	0.000	0.045	0.045	0.030	0.0550	0.400	0.300
58	0.000	0.000	0.000	0.000	0.045	0.045	0.030	0.1100	0.400	0.300
59	0.000	0.000	0.000	0.000	0.045	0.045	0.030	0.1100	0.400	0.300
60	0.000	0.085	0.080	0.100	0.100	0.300	0.300	0.3000	0.400	0.300
61	0.000	0.085	0.080	0.100	0.100	0.400	0.400	0.3000	0.350	0.300
62	0.000	0.125	0.135	0.200	0.250	0.400	0.400	0.3000	0.350	0.350
63	0.000	0.125	0.135	0.200	0.200	0.400	0.400	0.3000	0.300	0.350
64	0.000	0.125	0.135	0.200	0.200	0.400	0.400	0.3000	0.300	0.250
65	0.000	0.175	0.225	0.250	0.325	0.325	0.400	0.3000	0.300	0.250
66	0.000	0.175	0.225	0.250	0.325	0.325	0.400	0.3500	0.300	0.300
67	0.000	0.175	0.225	0.250	0.250	0.250	0.250	0.3500	0.150	0.300
68	0.000	0.175	0.225	0.250	0.250	0.250	0.250	0.2500	0.150	0.300
69	0.000	0.175	0.225	0.250	0.250	0.250	0.250	0.2500	0.150	0.300
70	0.000	0.175	0.225	0.250	0.250	0.250	0.250	0.2500	0.150	0.300
71	0.000	0.175	0.225	0.250	0.250	0.250	0.250	0.2500	0.250	0.300
72	0.000	0.175	0.225	0.250	0.250	0.250	0.250	0.2500	0.250	0.300
73	0.000	0.175	0.225	0.250	0.250	0.250	0.250	0.2500	0.250	0.100
74	0.000	0.175	0.225	0.250	0.250	0.250	0.250	0.2500	0.250	0.100
>=75	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.0000	1.000	1.000

## Section 3: Supporting Information

### Active Retirement Rates (continued):

		Teachers - Female								
		Service								
Age	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.650	0.750
50	0.000	0.000	0.000	0.000	0.050	0.050	0.045	0.050	0.650	0.750
51	0.000	0.000	0.000	0.000	0.050	0.050	0.045	0.050	0.650	0.750
52	0.000	0.000	0.000	0.000	0.050	0.050	0.045	0.050	0.500	0.750
53	0.000	0.000	0.000	0.000	0.050	0.050	0.045	0.050	0.400	0.550
54	0.000	0.000	0.000	0.000	0.050	0.050	0.045	0.050	0.400	0.400
55	0.000	0.000	0.000	0.000	0.050	0.050	0.045	0.070	0.400	0.375
56	0.000	0.000	0.000	0.000	0.050	0.050	0.045	0.070	0.400	0.375
57	0.000	0.000	0.000	0.000	0.050	0.050	0.045	0.070	0.450	0.375
58	0.000	0.000	0.000	0.000	0.075	0.075	0.045	0.070	0.450	0.375
59	0.000	0.000	0.000	0.000	0.075	0.075	0.045	0.070	0.450	0.375
60	0.000	0.080	0.100	0.100	0.130	0.250	0.250	0.400	0.500	0.375
61	0.000	0.080	0.100	0.100	0.130	0.475	0.475	0.400	0.450	0.400
62	0.000	0.135	0.200	0.200	0.225	0.475	0.475	0.400	0.450	0.400
63	0.000	0.135	0.200	0.200	0.225	0.475	0.475	0.400	0.375	0.400
64	0.000	0.135	0.200	0.200	0.225	0.475	0.475	0.400	0.375	0.400
65	0.000	0.250	0.300	0.250	0.350	0.350	0.475	0.400	0.450	0.400
66	0.000	0.250	0.300	0.350	0.350	0.350	0.475	0.400	0.450	0.400
67	0.000	0.250	0.300	0.350	0.350	0.350	0.475	0.400	0.400	0.400
68	0.000	0.225	0.300	0.250	0.350	0.350	0.300	0.400	0.400	0.325
69	0.000	0.225	0.250	0.250	0.350	0.350	0.300	0.300	0.400	0.325
70	0.000	0.225	0.250	0.300	0.300	0.300	0.300	0.300	0.400	0.325
71	0.000	0.225	0.250	0.300	0.300	0.300	0.400	0.300	0.400	0.325
72	0.000	0.225	0.250	0.300	0.300	0.300	0.400	0.300	0.400	0.325
73	0.000	0.225	0.250	0.300	0.300	0.300	0.400	0.300	0.400	0.325
74	0.000	0.225	0.250	0.300	0.300	0.300	0.400	0.300	0.400	0.325
>=75	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Section 3: Supporting Information

### Active Retirement Rates (continued):

Age	General - Male									
	Service									
	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.600	0.600
50	0.000	0.000	0.000	0.000	0.030	0.030	0.040	0.070	0.600	0.600
51	0.000	0.000	0.000	0.000	0.030	0.030	0.040	0.070	0.500	0.500
52	0.000	0.000	0.000	0.000	0.030	0.030	0.040	0.070	0.500	0.500
53	0.000	0.000	0.000	0.000	0.030	0.030	0.040	0.070	0.400	0.500
54	0.000	0.000	0.000	0.000	0.030	0.030	0.040	0.070	0.400	0.350
55	0.000	0.000	0.000	0.000	0.030	0.030	0.040	0.070	0.400	0.350
56	0.000	0.000	0.000	0.000	0.030	0.030	0.040	0.070	0.400	0.350
57	0.000	0.000	0.000	0.000	0.060	0.060	0.040	0.070	0.400	0.350
58	0.000	0.000	0.000	0.000	0.060	0.060	0.040	0.070	0.400	0.270
59	0.000	0.000	0.000	0.000	0.060	0.060	0.040	0.070	0.400	0.270
60	0.000	0.090	0.070	0.070	0.100	0.225	0.225	0.300	0.400	0.270
61	0.000	0.090	0.070	0.070	0.100	0.300	0.300	0.300	0.400	0.270
62	0.000	0.090	0.200	0.175	0.225	0.400	0.400	0.300	0.400	0.300
63	0.000	0.090	0.150	0.175	0.200	0.400	0.400	0.250	0.400	0.300
64	0.000	0.090	0.150	0.150	0.200	0.400	0.400	0.250	0.275	0.300
65	0.000	0.180	0.250	0.250	0.300	0.300	0.400	0.350	0.275	0.300
66	0.000	0.180	0.250	0.325	0.300	0.300	0.400	0.350	0.400	0.300
67	0.000	0.180	0.250	0.225	0.250	0.250	0.400	0.300	0.400	0.300
68	0.000	0.180	0.250	0.225	0.225	0.225	0.250	0.300	0.300	0.300
69	0.000	0.180	0.250	0.225	0.225	0.225	0.250	0.300	0.300	0.300
70	0.000	0.180	0.250	0.225	0.225	0.225	0.250	0.300	0.300	0.300
71	0.000	0.180	0.250	0.225	0.225	0.225	0.200	0.300	0.300	0.250
72	0.000	0.200	0.250	0.225	0.225	0.225	0.250	0.300	0.300	0.250
73	0.000	0.200	0.250	0.225	0.150	0.150	0.150	0.300	0.300	0.250
74	0.000	0.200	0.250	0.225	0.150	0.150	0.150	0.300	0.300	0.250
>=75	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Section 3: Supporting Information

### Active Retirement Rates (continued):

Age	General - Female									
	Service									
	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.400	0.400
50	0.000	0.000	0.000	0.000	0.035	0.035	0.040	0.060	0.400	0.400
51	0.000	0.000	0.000	0.000	0.035	0.035	0.040	0.060	0.400	0.400
52	0.000	0.000	0.000	0.000	0.035	0.035	0.040	0.060	0.400	0.400
53	0.000	0.000	0.000	0.000	0.035	0.035	0.040	0.060	0.400	0.400
54	0.000	0.000	0.000	0.000	0.035	0.035	0.040	0.060	0.400	0.300
55	0.000	0.000	0.000	0.000	0.040	0.040	0.040	0.060	0.400	0.250
56	0.000	0.000	0.000	0.000	0.040	0.040	0.040	0.060	0.400	0.250
57	0.000	0.000	0.000	0.000	0.050	0.050	0.040	0.060	0.400	0.250
58	0.000	0.000	0.000	0.000	0.050	0.050	0.040	0.060	0.400	0.250
59	0.000	0.000	0.000	0.000	0.050	0.050	0.040	0.060	0.400	0.250
60	0.000	0.070	0.080	0.090	0.095	0.200	0.200	0.300	0.400	0.250
61	0.000	0.070	0.080	0.090	0.095	0.350	0.350	0.300	0.350	0.250
62	0.000	0.100	0.160	0.170	0.200	0.350	0.350	0.300	0.350	0.300
63	0.000	0.100	0.160	0.170	0.200	0.350	0.350	0.300	0.350	0.300
64	0.000	0.100	0.160	0.170	0.200	0.350	0.350	0.300	0.350	0.300
65	0.000	0.200	0.250	0.300	0.300	0.300	0.350	0.300	0.350	0.300
66	0.000	0.200	0.250	0.300	0.300	0.300	0.350	0.350	0.350	0.300
67	0.000	0.150	0.250	0.300	0.300	0.300	0.350	0.350	0.350	0.300
68	0.000	0.150	0.200	0.225	0.300	0.300	0.350	0.250	0.350	0.250
69	0.000	0.150	0.200	0.225	0.250	0.250	0.350	0.250	0.350	0.250
70	0.000	0.150	0.200	0.225	0.250	0.250	0.350	0.250	0.300	0.300
71	0.000	0.175	0.200	0.225	0.250	0.250	0.200	0.250	0.300	0.300
72	0.000	0.175	0.200	0.225	0.250	0.250	0.200	0.250	0.300	0.300
73	0.000	0.125	0.200	0.175	0.200	0.200	0.200	0.250	0.300	0.300
74	0.000	0.125	0.200	0.175	0.200	0.200	0.200	0.250	0.300	0.300
>=75	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Section 3: Supporting Information

### Active Retirement Rates (continued):

Age	Other - Male									
	Service									
	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.500
50	0.000	0.000	0.000	0.000	0.035	0.035	0.045	0.045	0.500	0.500
51	0.000	0.000	0.000	0.000	0.035	0.035	0.045	0.045	0.500	0.500
52	0.000	0.000	0.000	0.000	0.035	0.035	0.045	0.045	0.500	0.500
53	0.000	0.000	0.000	0.000	0.035	0.035	0.045	0.045	0.300	0.500
54	0.000	0.000	0.000	0.000	0.035	0.035	0.045	0.045	0.300	0.500
55	0.000	0.000	0.000	0.000	0.040	0.040	0.050	0.050	0.300	0.300
56	0.000	0.000	0.000	0.000	0.040	0.040	0.050	0.050	0.300	0.275
57	0.000	0.000	0.000	0.000	0.040	0.040	0.050	0.050	0.300	0.275
58	0.000	0.000	0.000	0.000	0.040	0.040	0.050	0.050	0.300	0.275
59	0.000	0.000	0.000	0.000	0.040	0.040	0.050	0.050	0.300	0.275
60	0.000	0.080	0.070	0.100	0.090	0.200	0.200	0.200	0.300	0.275
61	0.000	0.080	0.070	0.100	0.125	0.200	0.200	0.200	0.300	0.275
62	0.000	0.125	0.200	0.250	0.280	0.350	0.350	0.350	0.300	0.275
63	0.000	0.125	0.150	0.175	0.220	0.275	0.275	0.275	0.300	0.275
64	0.000	0.125	0.150	0.175	0.190	0.275	0.275	0.275	0.300	0.275
65	0.000	0.100	0.250	0.250	0.300	0.300	0.275	0.275	0.250	0.275
66	0.000	0.225	0.250	0.275	0.250	0.250	0.300	0.300	0.250	0.350
67	0.000	0.100	0.250	0.275	0.175	0.175	0.300	0.300	0.250	0.350
68	0.000	0.100	0.250	0.300	0.200	0.200	0.300	0.300	0.250	0.350
69	0.000	0.100	0.250	0.250	0.225	0.225	0.300	0.300	0.250	0.350
70	0.000	0.100	0.250	0.250	0.225	0.225	0.300	0.300	0.250	0.350
71	0.000	0.100	0.250	0.250	0.225	0.225	0.250	0.250	0.250	0.350
72	0.000	0.100	0.250	0.250	0.225	0.225	0.175	0.175	0.250	0.350
73	0.000	0.250	0.250	0.250	0.225	0.225	0.175	0.175	0.250	0.350
74	0.000	0.250	0.250	0.250	0.225	0.225	0.175	0.175	0.250	0.350
>=75	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Section 3: Supporting Information

### Active Retirement Rates (continued):

Age	Other - Female									
	Service									
	<=4	5 to 9	10 to 14	15 to 19	20 to 23	24	25	26 to 28	29	>=30
<=48	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.400	0.500
50	0.000	0.000	0.000	0.000	0.045	0.045	0.045	0.045	0.400	0.500
51	0.000	0.000	0.000	0.000	0.045	0.045	0.045	0.045	0.400	0.500
52	0.000	0.000	0.000	0.000	0.045	0.045	0.045	0.045	0.400	0.500
53	0.000	0.000	0.000	0.000	0.045	0.045	0.045	0.045	0.300	0.350
54	0.000	0.000	0.000	0.000	0.045	0.045	0.045	0.045	0.300	0.300
55	0.000	0.000	0.000	0.000	0.045	0.045	0.060	0.060	0.300	0.300
56	0.000	0.000	0.000	0.000	0.060	0.060	0.060	0.060	0.300	0.300
57	0.000	0.000	0.000	0.000	0.060	0.060	0.060	0.060	0.300	0.300
58	0.000	0.000	0.000	0.000	0.060	0.060	0.060	0.060	0.300	0.300
59	0.000	0.000	0.000	0.000	0.060	0.060	0.060	0.060	0.300	0.300
60	0.000	0.070	0.090	0.100	0.100	0.300	0.300	0.300	0.375	0.300
61	0.000	0.070	0.090	0.100	0.100	0.300	0.300	0.300	0.375	0.300
62	0.000	0.125	0.200	0.225	0.225	0.300	0.300	0.300	0.375	0.350
63	0.000	0.125	0.200	0.200	0.200	0.300	0.300	0.300	0.375	0.350
64	0.000	0.125	0.200	0.200	0.200	0.300	0.300	0.300	0.300	0.350
65	0.000	0.175	0.250	0.250	0.300	0.300	0.350	0.350	0.300	0.350
66	0.000	0.175	0.250	0.250	0.300	0.300	0.350	0.350	0.300	0.350
67	0.000	0.150	0.250	0.250	0.300	0.300	0.350	0.350	0.200	0.350
68	0.000	0.150	0.200	0.225	0.300	0.300	0.275	0.275	0.200	0.350
69	0.000	0.150	0.200	0.225	0.300	0.300	0.275	0.275	0.200	0.350
70	0.000	0.150	0.200	0.225	0.200	0.200	0.275	0.275	0.200	0.350
71	0.000	0.150	0.175	0.225	0.200	0.200	0.275	0.275	0.200	0.350
72	0.000	0.150	0.175	0.225	0.200	0.200	0.250	0.250	0.200	0.350
73	0.000	0.150	0.175	0.200	0.200	0.200	0.250	0.250	0.200	0.350
74	0.000	0.150	0.175	0.200	0.200	0.200	0.250	0.250	0.200	0.350
>=75	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

## Section 3: Supporting Information

### Active Retirement Rates (continued):

**Law Enforcement - Male and Female**

Age	Service							
	≤4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 28	29	≥30
≤48	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49	0.000	0.000	0.000	0.000	0.000	0.000	0.900	0.800
50-54	0.000	0.000	0.000	0.040	0.050	0.050	0.900	0.800
55	0.000	0.200	0.200	0.350	0.350	0.500	0.900	0.650
56	0.000	0.200	0.200	0.175	0.300	0.250	0.900	0.650
57	0.000	0.100	0.200	0.175	0.300	0.250	0.900	0.650
58	0.000	0.150	0.200	0.175	0.300	0.250	0.900	0.650
59	0.000	0.100	0.200	0.175	0.300	0.250	0.900	0.500
60	0.000	0.100	0.200	0.125	0.250	0.250	0.500	0.500
61	0.000	0.100	0.200	0.125	0.250	0.250	0.500	0.500
62	0.000	0.150	0.450	0.125	0.250	0.250	0.500	0.500
63	0.000	0.150	0.450	0.125	0.250	0.250	0.500	0.500
64	0.000	0.150	0.450	0.125	0.250	0.250	0.500	0.500
65	0.000	0.150	0.450	0.250	0.250	0.250	0.500	0.500
66	0.000	0.200	0.450	0.250	0.250	0.250	0.500	0.500
67-74	0.000	0.250	0.150	0.250	0.250	0.250	0.250	0.500
≥75	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

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 welfare 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.

## Section 3: Supporting Information

### 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, 2019 through December 31, 2021. 2020/2021 claims were adjusted for COVID-19 impact by factors of +6.06%/-0.78% for medical and -1.17%/0% for prescription drug. Medical claims for 2021 were further adjusted by a factor of 1.8% to account for claims incurred in 2021 but not yet processed through March 2022. 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
- 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.

As noted in the first quarter 2022 financial projections provided by Segal, the Plan has implemented a custom network, effective January 1, 2020 (the Clear Pricing Project, or “CPP”). The estimated cost associated with the CPP did not have a material impact on the liabilities of the Plan. No explicit adjustment was made to valuation claims costs or trends related to the impact of the CPP.

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

## Section 3: Supporting Information

Per Capita Health Costs (2022): Non-Medicare	70/30 Plan	Medical				Prescription Drug			
		Retiree		Spouse		Retiree		Spouse	
	Age	Male	Female	Male	Female	Male	Female	Male	Female
	40	\$4,107	\$5,282	\$2,553	\$4,243	\$1,291	\$1,660	\$802	\$1,333
45	4,884	6,126	3,029	4,573	1,535	1,925	952	1,437	
50	5,796	6,602	4,049	5,301	1,821	2,075	1,272	1,666	
55	6,884	7,107	5,418	6,136	2,163	2,233	1,702	1,928	
60	8,175	7,660	7,253	7,117	2,569	2,407	2,279	2,236	
65	9,709	8,253	9,709	8,253	3,051	2,593	3,051	2,593	
70	11,253	8,893	11,253	8,893	3,536	2,795	3,536	2,795	
75	12,126	9,573	12,126	9,573	3,811	3,008	3,811	3,008	
80	13,058	10,321	13,058	10,321	4,103	3,243	4,103	3,243	
80/20 Plan	Medical				Prescription Drug				
	Retiree		Spouse		Retiree		Spouse		
Age	Male	Female	Male	Female	Male	Female	Male	Female	
40	\$5,991	\$7,705	\$3,725	\$6,190	\$2,006	\$2,579	\$1,247	\$2,072	
45	7,124	8,937	4,419	6,671	2,385	2,992	1,479	2,233	
50	8,456	9,631	5,906	7,733	2,831	3,224	1,977	2,589	
55	10,042	10,368	7,903	8,951	3,362	3,471	2,646	2,997	
60	11,926	11,175	10,580	10,382	3,993	3,741	3,542	3,476	
65	14,164	12,039	14,164	12,039	4,742	4,030	4,742	4,030	
70	16,416	12,974	16,416	12,974	5,496	4,343	5,496	4,343	
75	17,690	13,965	17,690	13,965	5,922	4,675	5,922	4,675	
80	19,050	15,056	19,050	15,056	6,378	5,040	6,378	5,040	

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Per Capita Health Costs (2022): Medicare – Non Medicare Advantage	70/30 Plan	Medical				Prescription Drug			
		Retiree		Spouse		Retiree		Spouse	
	Age	Male	Female	Male	Female	Male	Female	Male	Female
	40	\$533	\$685	\$331	\$550	\$1,291	\$1,660	\$802	\$1,333
	45	633	794	393	593	1,535	1,925	952	1,437
	50	752	856	525	687	1,821	2,075	1,272	1,666
	55	893	922	703	796	2,163	2,233	1,702	1,928
	60	1,060	993	941	923	2,569	2,407	2,279	2,236
	65	1,259	1,070	1,259	1,070	3,051	2,593	3,051	2,593
	70	1,459	1,153	1,459	1,153	3,536	2,795	3,536	2,795
	75	1,573	1,241	1,573	1,241	3,811	3,008	3,811	3,008
	80	1,693	1,338	1,693	1,338	4,103	3,243	4,103	3,243
Per Capita Health Costs (2022): Medicare – Medicare Advantage	<b>Medicare Advantage (Base)</b>								
	\$0								
	<b>Medicare Advantage (Enhanced)</b>								
		Retiree		Spouse					
	Age	Male	Female	Male	Female				
	40	\$337	\$433	\$210	\$348				
	45	401	503	249	375				
	50	476	542	332	435				
	55	555	583	445	504				
	60	671	629	595	584				
65	797	677	797	677					
70	923	730	923	730					
75	995	786	995	786					
80	1,072	847	1,072	847					

## Section 3: Supporting Information

### Health Care Cost Trend Rates:

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

Year Ending Dec 31	Rate (%)			
	Medical Non-Medicare	Prescription Drug	Medicare Advantage	Admin.
2022	6.00%	9.50%	N/A	3.00%
2023	5.80%	9.00%	N/A	3.00%
2024	5.60%	8.50%	N/A	3.00%
2025	5.40%	8.00%	N/A	3.00%
2026	5.20%	7.50%	5.00%	3.00%
2027	5.00%	7.00%	5.00%	3.00%
2028	5.00%	6.50%	5.00%	3.00%
2029	5.00%	6.00%	5.00%	3.00%
2030	5.00%	5.50%	5.00%	3.00%
2031 & later <sup>1</sup>	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 2022 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:

- MA Base/Enhanced premiums are assumed to be \$0/\$69 for year 2022-2025, per 5-year contract guarantee. Rates are assumed to increase to \$54/\$123 in year 2026.
- Drug trends for 2022-2024 were adjusted by -5.9%/-7.4%/-5.7% to reflect new PBM RFP savings effective January 1, 2023

### Medicare Part D Subsidy Assumption:

GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsidies. 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.

<sup>1</sup> The ultimate trend rate was used to roll claims backward from the valuation date for purposes of the Entry Age Normal Cost Method

## Section 3: Supporting Information

<b>Retiree Contribution Increase Rate:</b>	2022 trend on contributions was adjusted to projected 2023 contribution rates, including anticipated wellness credits and enrollment migration. Employer contribution rates for 2023 were adopted in accordance with recent legislative changes. 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 the assumptions in Segal's most recent quarterly financial projections. 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%.																																			
<b>Assumption for Tobacco Attestation</b>	The percentage of participants in the 80/20 Plan that complete a Tobacco Attestation is assumed to be 98.9% in all years.																																			
<b>Administrative Expenses:</b>	Administrative expense loads of \$246 per participant (retiree and spouse) for Non-Medicare retiree and of \$78 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. An adjustment is applied to 2022 prescription drug administrative expense trend to account for from the new PBM contract effective January 1, 2023. (Adjustment is reduced for Medicare expense trend as savings only applies to non-MA participants.)																																			
<b>Plan Design:</b>	Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.																																			
<b>Maximum Benefits:</b>	There are no annual or lifetime maximum benefits assumed.																																			
<b>Plan Enrollment Assumptions</b>	Based on most recent financial report: Plan Enrollment Assumptions are valued by adjusting the trend for 2022-2025 for enrollment migration.																																			
	<table border="1"> <thead> <tr> <th><b>Non-Medicare Retiree</b></th> <th><b>2022</b></th> <th><b>2023</b></th> <th><b>2024</b></th> <th><b>2025</b></th> </tr> </thead> <tbody> <tr> <td>80/20 Plan</td> <td>43.8%</td> <td>43.3%</td> <td>42.8%</td> <td>42.3%</td> </tr> <tr> <td>70/30 Plan</td> <td>56.2%</td> <td>56.7%</td> <td>57.2%</td> <td>57.7%</td> </tr> <tr> <th><b>Medicare Retiree</b></th> <th><b>2022</b></th> <th><b>2023</b></th> <th><b>2024</b></th> <th><b>2025</b></th> </tr> <tr> <td>MA Base</td> <td>72.0%</td> <td>75.0%</td> <td>75.0%</td> <td>75.0%</td> </tr> <tr> <td>MA Enhanced</td> <td>8.5%</td> <td>10.0%</td> <td>10.0%</td> <td>10.0%</td> </tr> <tr> <td>70/30 Plan</td> <td>19.5%</td> <td>15.0%</td> <td>15.0%</td> <td>15.0%</td> </tr> </tbody> </table>	<b>Non-Medicare Retiree</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	80/20 Plan	43.8%	43.3%	42.8%	42.3%	70/30 Plan	56.2%	56.7%	57.2%	57.7%	<b>Medicare Retiree</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	MA Base	72.0%	75.0%	75.0%	75.0%	MA Enhanced	8.5%	10.0%	10.0%	10.0%	70/30 Plan	19.5%	15.0%	15.0%	15.0%
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## Section 3: Supporting Information

### Models

Segal accounting results are based on proprietary actuarial modeling software. The accounting valuation models generate a comprehensive set of liability and cost calculations that are presented to meet accounting standards and client requirements. Our Actuarial Technology and Systems unit, comprising both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible 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 2.16% to 3.54%, 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 were changed based on most recent experience.
- The new PBM contract effective January 1, 2023 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 four years.

## Section 3: Supporting Information

### Exhibit III: Summary of Plan

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

<b>Eligibility:</b>	<p>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.</p> <p>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:</p> <p><b>Law Enforcement Officer:</b></p> <ul style="list-style-type: none"><li>• age 50 and 15 years of service;</li><li>• age 55 and 5 years of service; or</li><li>• any age with 25 or more years of service.</li></ul> <p><b>All Others:</b></p> <ul style="list-style-type: none"><li>• age 50 and 20 years of service;</li><li>• age 60 and 5 years of service; or</li><li>• any age with 30 or more years of service.</li><li>• 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.</li></ul>
<b>Benefit Types:</b>	<p>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 Enhanced) plans are offered to Medicare eligible participants. Coverage under 70/30 Plan becomes secondary when former employees become eligible for Medicare.</p>
<b>Duration of Coverage:</b>	<p>Lifetime for retirees and dependents</p>
<b>Dependent Benefits:</b>	<p>Same as retirees</p>

## Section 3: Supporting Information

### Retiree Contributions:

Monthly contributions, effective January 1, 2022, are shown below.

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

	Non-Medicare			Medicare		
	70/30 Plan	80/20 Plan		70/30 Plan	MA Base	MA Enhanced
		Tobacco Attest. Not Complete	Tobacco Attest. Complete			
Retiree	\$0.00	\$110.00	\$50.00	\$0.00	\$0.00	\$73.00
Spouse	\$590.00	\$650.00		\$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			Medicare		
	70/30 Plan	80/20 Plan		70/30 Plan	MA Base	MA Enhanced
		Tobacco Attest. Not Complete	Tobacco Attest. Complete			
Retiree 100% of Premium	\$532.36	\$642.36	\$582.36	\$413.60	\$4.00	\$73.00
Retiree 50% of Premium	\$266.18	\$376.18	\$316.18	\$190.46	\$4.00	\$73.00
Spouse	\$590.00	\$650.00		\$425.00	\$4.00	\$73.00

## Section 3: Supporting Information

Benefit Descriptions (as of January 1, 2022): PPO 70/30 Plan	PPO 70/30 Plan	In-Network	Out-Of-Network
	<b>Medical</b>		
<i>Annual Deductible</i>		\$1,500/\$4,500	\$3,000/\$9,000
<i>Member Coinsurance</i>		30%	50%
<i>Out-of-Pocket Maximum</i>		\$5,900/\$16,300	\$11,800/\$32,600
<i>Primary Care Office Visit Copay</i>		\$45 (\$30/\$0 when using PCP/CCP PCP on ID card)	Ded. & Coins.
<i>Specialist Office Visit Copay</i>		\$94 (\$47 when using CPP Specialist)	Ded. & Coins.
<i>Preventive Care</i>		\$0	N/A
<i>Urgent Care Copay</i>		\$100	\$100
<i>Inpatient Hospitalization Copay</i>		\$337 + Ded. & Coins	\$337 + Ded. & Coins.
<i>Outpatient Hospitalization Copay</i>		Ded. & coins	Ded. & Coins
<i>Emergency Room</i>		\$337 + Ded. & Coins.	same as In-Network
<i>Physical, Occupational, Speech, or Chiropractic Therapy</i>		\$72 (\$36 when using CPP Provider)	Ded. & Coins.
<i>Mental Health and Substance Abuse Office Visit Copay</i>		\$45	Coinsurance
<b>Prescription Drugs</b> (up to 30 day supply – copays are 2x for 31-60 day supply and 3x for 61-90 day supply)			
<i>Tier 1 - Generic</i>		\$16	
<i>Tier 2 - Preferred Brand</i>		\$47	
<i>Tier 3 - Non-Preferred Brand</i>		Ded. & Coins.	
<i>Tier 4 - Generic Specialty</i>		\$200	
<i>Tier 5 - Preferred Specialty</i>		\$350	
<i>Tier 6 - Non-Preferred Specialty</i>		Ded. & Coins.	
<i>Preferred diabetic testing supplies</i>		\$10	
<i>Non-Preferred diabetic testing supplies</i>		Ded. & Coins.	
<i>Out-of-Pocket Maximum</i>		Combined with Medical	

## Section 3: Supporting Information

Benefit Descriptions (as of January 1, 2022): PPO 80/20 Plan	PPO 80/20 Plan	In-Network	Out-Of-Network
	<b>Medical</b>		
<i>Annual Deductible</i>		\$1,250/\$3,750	\$2,500/\$7,500
<i>Member Coinsurance</i>		20%	40%
<i>Out-of-Pocket Maximum</i>		\$4,890/\$14,670	\$9,780/\$29,340
<i>Primary Care Office Visit Copay</i>		\$25 (\$10/\$0 when using PCP/CCP PCP on ID card)	Ded. & Coins.
<i>Specialist Office Visit Copay</i>		\$80 (\$40 when using CPP Specialist)	Ded. & Coins.
<i>Preventive Care</i>		\$0	N/A
<i>Urgent Care Copay</i>		\$70	\$70
<i>Inpatient Hospitalization Copay</i>		\$300 + Ded. & Coins.	\$300 + Ded. & Coins.
<i>Outpatient Hospitalization Copay</i>		Ded. & coins	Ded. & Coins
<i>Emergency Room</i>		\$300 + Ded. & Coins.	same as In-Network
<i>Physical, Occupational, Speech, or Chiropractic Therapy</i>		\$52 (\$26 when using CPP Provider)	Ded. & Coins.
<i>Mental Health and Substance Abuse Office Visit Copay</i>		\$25	Coinsurance
<b>Prescription Drugs</b> (up to 30-day supply – copays are 2x for 31-60 day supply and 3x for 61-90 day supply)			
<i>Tier 1 - Generic</i>			\$5
<i>Tier 2 - Preferred Brand</i>			\$30
<i>Tier 3 - Non-Preferred Brand</i>			Ded. & Coins.
<i>Tier 4 - Generic Specialty</i>			\$100
<i>Tier 5 - Preferred Specialty</i>			\$250
<i>Tier 6 - Non-Preferred Specialty</i>			Ded. & Coins.
<i>Preferred diabetic testing supplies</i>			\$5
<i>Non-Preferred diabetic testing supplies</i>			Ded. & Coins.
<i>Out-of-Pocket Maximum</i>		Combined with Medical	

## Section 3: Supporting Information

Benefit Descriptions (as of January 1, 2022): Medicare Advantage Plans	Medicare Advantage	MA-PDP Base	MA-PDP Enhanced
	<b>Medical</b>		
<i>Annual Deductible</i>		\$0	\$0
<i>Member Coinsurance</i>		20%	20%
<i>Out-of-Pocket Maximum</i>		\$4,000	\$3,300
<i>Primary Care Office Visit Copay</i>		\$20	\$10
<i>Specialist Office Visit Copay</i>		\$40	\$35
<i>Preventive Care</i>		\$0	\$0
<i>Urgent Care Copay</i>		\$50	\$40
<i>Inpatient Hospitalization Copay</i>		Days 1-10: \$160/day; Days 11+: \$0	Days 1-10: \$125/day; Days 11+: \$0
<i>Outpatient Hospitalization Copay</i>		\$125	\$100
<i>Emergency Room Copay</i>		\$65	\$65
<i>Physical, Occupational, Speech, or Chiropractic Therapy</i>		\$20	\$20
<i>Mental Health and Substance Abuse Office Visit Copay</i>		\$20	\$10
	<b>Prescription Drugs</b>		
<i>Retail (up to 31 day supply)</i>			
<i>Tier 1 - Preferred Generic</i>		\$10	\$10
<i>Tier 2 - Preferred Brand</i>		\$40	\$40
<i>Tier 3 - Non-Preferred</i>		\$64	\$50
<i>Tier 4 - Specialty</i>		25% coins., \$100 max.	25% coins., \$100 max.
<i>Out-of-Pocket Maximum</i>		\$2,500	\$2,500
<i>Mail Order (up to 90 day supply)</i>			
<i>Tier 1 - Preferred Generic</i>		\$24	\$24
<i>Tier 2 - Preferred Brand</i>		\$80	\$80
<i>Tier 3 - Non-Preferred</i>		\$128	\$100
<i>Tier 4 - Specialty</i>		25% coins., \$300 max.	25% coins., \$200 max.
<i>Out-of-Pocket Maximum</i>		\$2,500	\$2,500

## Section 3: Supporting Information

### **Plan Changes since Prior Valuation**

Recent legislation has altered the employer contribution structure. Previously, active employees and non-Medicare retirees had the same employer contribution rate. Under the new legislation, non-Medicare and Medicare retirees will have the same employer contribution rate starting 2022.

## Section 3: Supporting Information

### Exhibit IV: Definition of Terms

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

<b>Actuarially Determined Contribution:</b>	A target or recommended contribution to an OPEB plan for the reporting period based on the most recent measurement available.
<b>Assumptions or Actuarial Assumptions:</b>	The estimates on which the cost of the Plan is calculated including: <ol style="list-style-type: none"><li>Investment return — the rate of investment yield that the Plan will earn over the long-term future;</li><li>Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;</li><li>Retirement rates — the rate or probability of retirement at a given age;</li><li>Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.</li></ol>
<b>Covered Payroll:</b>	The payroll of the employees that are provided OPEB benefits
<b>Discount Rate:</b>	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: <ol style="list-style-type: none"><li>the actuarial present value of projected benefit payments projected to be funded by plan assets using a long term rate of return, and</li><li>the actuarial present value of projected benefit payments that are not included in (1) using a yield or index rate for 20 year tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher</li></ol>
<b>Entry Age Actuarial Cost Method:</b>	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
<b>Healthcare Cost Trend Rates:</b>	The rate of change in per capita health costs over time
<b>Net OPEB Liability:</b>	The Total OPEB Liability less the Plan Fiduciary Net Position
<b>Plan Fiduciary Net Position:</b>	Market Value of Assets
<b>Real Rate of Return:</b>	The rate of return on an investment after removing inflation
<b>Service Cost:</b>	The amount of contributions required to fund the benefit allocated to the current year of service.
<b>Total OPEB Liability:</b>	Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.
<b>Valuation Date:</b>	The date at which the actuarial valuation is performed

## Section 3: Supporting Information

### Exhibit V: Accounting Requirements

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

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

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

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

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

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 plan 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.