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GASB STATEMENT NO. 74 REPORT

FOR THE GEORGIA SCHOOL EMPLOYEES POST-EMPLOYMENT

HEALTH BENEFIT FUND

PREPARED AS OF JUNE 30, 2019

WITH CLARIFYING COMMENTS JANUARY 2020





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

January 29, 2020

Georgia Department of Community Health
2 Peachtree Street, N.W., 34th Floor
Atlanta, GA 30303-3159

Dear Members of the Board:

Presented in this report is information to assist the Georgia School Employees Post-employment Health Benefit Fund in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 74. The information is presented for the one-year period ending June 30, 2019. These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

The annual actuarial valuation performed as of June 30, 2018 was used as the basis for much of the information presented as of June 30, 2019 in this report. The valuation was based upon data furnished by the State pension retirement systems and the Georgia Department of Community Health staff, concerning active, inactive, and retired members along with pertinent claims data and financial information. This information was reviewed for completeness and internal consistency, but was not audited. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete our results may be different and our calculations may need to be revised. In the June 30, 2018 valuation, 254 active members out of over 177,000 total active members were missing information regarding entry age, so entry age was assumed to be equal to current age for valuation purposes.

To the best of our knowledge, the information contained in this report is complete and accurate. These calculations were performed by, and under the supervision of, independent consulting actuaries with experience in performing valuations for public retirement systems. In addition, the valuation was prepared in accordance with generally accepted actuarial principles and practices as well as with Actuarial Standards of Practice prescribed by the Actuarial Standards Board.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of providing reporting and disclosure information that satisfies the requirements of GASB Statement No. 74. The calculation of the plan's liability for this report may not be applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB No. 74 may produce significantly different results.



Georgia Department of Community Health

January 29, 2020

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We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. We are available to answer any questions on the material contained in this report or to provide explanations or further details as may be appropriate. The valuations were prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the medical plans and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of each plan and are expected to reasonably estimate future experience of the plan.

Respectfully submitted,

A handwritten signature in blue ink that reads 'Alisa Bennett'.

Alisa Bennett, FSA, EA, FCA, MAAA
President

A handwritten signature in blue ink that reads 'Ben Mobley'.

Ben Mobley, ASA, FCA, MAAA
Senior Actuary



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Section I – Summary of Principal Results

**REPORT OF THE ANNUAL GASB STATEMENT NO. 74
REQUIRED INFORMATION FOR THE
GEORGIA SCHOOL EMPLOYEES POST-EMPLOYMENT HEALTH BENEFIT FUND
PREPARED AS OF JUNE 30, 2019**

Valuation Date (VD):	June 30, 2018
Prior Measurement Date:	June 30, 2018
Measurement Date (MD):	June 30, 2019
Membership Data as of June 30, 2017:	
Inactive Members or Beneficiaries Currently Receiving Benefits	83,709
Active Members*	<u>177,183</u>
Total Membership	260,892
Discount Rate:	
Long-Term Expected Rate of Return	7.30%
Municipal Bond Index Rate at Measurement Date	3.50%
Municipal Bond Index Rate at Prior Measurement Date	3.87%
Year in which Fiduciary Net Position is Projected to be Depleted	2026
Single Equivalent Interest Rate at Measurement Date	3.58%
Single Equivalent Interest Rate at Prior Measurement Date	3.87%
Net OPEB Liability:	
Total OPEB Liability (TOL)	\$12,867,274,202
Fiduciary Net Position (FNP)	<u>595,127,108</u>
Net OPEB Liability (NOL = TOL – FNP)	\$12,272,147,094
FNP as a percentage of TOL	4.63%

*In addition to the membership shown above, 52,420 active members are currently waiving health coverage. 20% of current waivers are assumed to eventually elect health coverage and potentially be eligible for OPEB benefits.



Section II – Introduction

The Governmental Accounting Standards Board (GASB) issued Statement No. 74 (GASB 74), “*Financial Reporting for Postemployment Benefit Plans other than Pension Plans*,” in June 2015. The effective date for reporting under GASB 74 is plan years beginning after June 15, 2016, but early implementation is encouraged. This report has been prepared as of June 30, 2019 (the Measurement Date) to assist the Georgia School Employees Postemployment Benefit Fund (Fund) in better understanding the requirements of GASB 74 and to identify the information to be provided by the Plan’s actuary, Cavanaugh Macdonald Consulting (CMC). Much of the material provided in this report is based on the data, assumptions, and results of the annual actuarial valuation of the Plan as of June 30, 2018.

GASB 74 replaces GASB 43, and represents a significant departure from the requirements of the prior statement. GASB 43 was issued as a “funding friendly” statement that required postemployment benefit plans other than pension plans (OPEB) to report items consistent with the results of the plan’s actuarial valuations, as long as those valuations met certain parameters. GASB 74 basically separates accounting from funding by creating disclosure and reporting requirements that may or may not be consistent with the basis used for funding the Plan.

A major change in GASB 74 is the requirement to determine the Total OPEB Liability (TOL) utilizing the Entry Age Normal actuarial cost method. The Net OPEB Liability (NOL) is then set equal to the TOL minus the Plan’s Fiduciary Net Position (FNP) (basically the market value of assets). The benefit provisions recognized in the calculation of the TOL are summarized in Schedule B.

Among the assumptions needed for the liability calculation is a Single Equivalent Interest Rate (SEIR), as described by GASB 74. To determine the SEIR, the FNP must be projected into the future for as long as there are anticipated benefits payable under the plan’s provisions applicable to the members and beneficiaries of the Plan on the Measurement Date. If the FNP is not projected to be depleted at any point in the future, the long term expected rate of return on plan investments expected to be used to finance the benefit payments may be used as the SEIR.



Section II – Introduction (continued)

If, however, the FNP is projected to be depleted, the SEIR is determined as the single rate that will generate a present value of benefit payments equal to the sum of the present value determined by discounting all projected benefit payments through the date of depletion by the long term expected rate of return, and the present value determined by discounting those benefits after the date of depletion by a 20-year tax-exempt municipal bond (rating AA/Aa or higher) rate (Municipal Bond Index Rate). The Municipal Bond Index Rate used, if necessary, for this purpose is the Bond Buyers General Obligation 20-year Municipal Bond Index Rate (formerly published monthly by the Board of Governors of the Federal Reserve System). The Municipal Bond Index Rate as of June 30, 2019 was 3.50%. For the purpose of this report, we have determined that a discount rate of 3.58% meets the requirements of GASB 74 since the benefit payments are projected to exceed the assets in 2026.

The sections that follow provide the results of all the necessary calculations, presented in the order laid out in GASB 74 for note disclosure and Required Supplementary Information (RSI).



Section III – Financial Statement Notes

The actuarial related information presented herein will follow the order presented in GASB 74. Paragraph numbers are provided for ease of reference.

Paragraphs 34.a. (1)-(3): This information will be supplied by the Fund.

Paragraph 34.a. (4): The data required regarding the membership of the Fund were furnished by the Georgia Department of Community Health. The following table summarizes the membership of the Fund as of June 30, 2018, the date of the valuation used to determine the June 30, 2019 Total OPEB Liability.

Membership

	Number
Inactive Members Or Their Beneficiaries Currently Receiving Benefits	83,709
Inactive Members Entitled To But Not Yet Receiving Benefits	0
Active Members*	177,183
Total	260,892

*In addition to the membership shown above, 52,420 active members are currently waiving health coverage. 20% of current waivers are assumed to eventually elect health coverage and potentially be eligible for OPEB benefits.

Paragraphs 34.a. (5)-(6) and Paragraphs 34.b.-e.: This information will be supplied by the Fund.

Paragraphs 35.a. (1)-(4): As stated earlier, the NOL is equal to the TOL minus the FNP. That result, as of June 30, 2019, is presented in the following table.

	Fiscal Year Ending June 30
	2019
Total OPEB Liability	\$ 12,867,274,202
Fiduciary Net Position	<u>595,127,108</u>
Net OPEB Liability	\$ 12,272,147,094
Ratio of Fiduciary Net Position to Total OPEB Liability	4.63%



Section III – Financial Statement Notes (continued)

Paragraph 35.b.: This paragraph requires information regarding the actuarial assumptions used to measure the TOL. The actuarial assumptions utilized in developing the TOL are outlined in Schedule C. The Total OPEB Liability as of June 30, 2019 was determined based on an actuarial valuation prepared as of June 30, 2018, using the following actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2019:

Inflation	2.50 percent
Salary increases	
TRS	3.00 – 8.75 percent, including inflation
PSERS	N/A
Long-term investment rate of return	7.30 percent compounded annually, net of investment expense, and including inflation
Municipal Bond Index Rate	3.50 percent
Year FNP is projected to be depleted	2026
Single Equivalent Interest Rate	3.58 percent
Healthcare cost trend rate	
Pre-Medicare Eligible	7.25%
Medicare Eligible	5.375%
Ultimate trend rate	
Pre-Medicare Eligible	4.75%
Medicare Eligible	4.75%
Year of Ultimate trend rate	
Pre-Medicare Eligible	2028
Medicare Eligible	2022
Mortality	For TRS members: The RP-2000 White Collar Mortality Table projected to 2025 with projection scale BB (set forward 1 year for males) is used for death after service retirement and beneficiaries. The RP-2000 Disabled Mortality Table projected to 2025 with projection scale BB (set forward two years for males and four years for females) is used for death after disability retirement.



Section III – Financial Statement Notes (continued)

For PSERS members: The RP-2000 Blue-Collar Mortality Table projected to 2025 with projection scale BB (set forward 3 years for males and 2 years for females) is used for the period after service retirement and for beneficiaries of deceased members. The RP-2000 Disabled Mortality projected to 2025 with projection scale BB (set forward 5 years for both males and females) is used for the period after disability retirement.

The actuarial assumptions used in the June 30, 2018 valuation are based on the results of the most recent actuarial experience studies for the pension systems, which covered the five year period ending June 30, 2014 and adopted by the pension Board on November 18, 2015. The next experience study for TRS will be for the period ending June 30, 2018.

As noted in our experience study report, inflation's short-term volatility is illustrated by comparing its average rate over the last 10, 30 and 50 years. Although the 10-year average of 2.31% is lower than the assumed rate, the longer 30, 40 and 50-year averages of 2.79%, 3.94% and 4.25% respectively, are higher than the current rate. The validity of the assumption is, therefore, dependent upon the emphasis one assigns to the short and long-terms. Current economic forecasts suggest lower inflation but are generally looking at a shorter time period than appropriate for our purposes. In the 2014 OASDI Trustees Report, the Chief Actuary for Social Security bases the 75 year cost projections on an intermediate inflation assumption of 2.7% with a range of 1.7% to 3.7%. We consider that range reasonable and use a current price inflation assumption of 2.75%.

Also noted in our experience study report for TRS members, for service retirements and beneficiaries we recommended use of the RP-2000 White Collar Mortality Table with future mortality improvement projected to 2025 with the Society of Actuaries' projection scale BB set forward one year for males. For disability retirements, we recommended the use of the RP-2000 Disabled Mortality Table with future mortality improvement projected to 2025 with Society of Actuaries' projection scale BB set forward two years for males and four years for females for TRS members. The use of the recommended post-retirement mortality assumption would result in an overall 9.75% margin in the current experience to recognize future mortality improvement, which we believe provides sufficient margin.

As noted in our experience study report for PSERS members, overall, the number of actual deaths among all retirements and beneficiaries was greater than the number of deaths expected during the period under investigation. We recommended the RP-2000 Blue-Collar Mortality Table for service retirements and beneficiaries but in order to provide an additional margin for anticipated mortality improvement, we recommended projecting the table to 2025 with projection scale BB and setting the table forward 3 years for males and 2 years for females. For the period after disability retirement, we recommended the RP-2000 Disabled Mortality Table projected to 2025 with scale BB set forward 5 years for both males and females for PSERS members.



Section III – Financial Statement Notes (continued)

We are aware that the Society of Actuaries has released a new public sector mortality table, and although we will look at the fit of this table to actual rates of retired member mortality under TRS during the next experience study, we believe that the current assumed rates of mortality remain appropriate for use at this time. The next experience study for TRS will be for the period ending June 30, 2018.

The remaining actuarial assumptions (e.g., initial per capita costs, health care cost trends, rate of plan participation, rates of plan election, etc.) used in the June 30, 2018 valuation were based on a review of recent plan experience done concurrently with the June 30, 2018 valuation. The full set of actuarial assumptions used can be found in Schedule C.

Assets are invested in the same manner as are assets of the Georgia Employees’ Retirement System (ERS). The most recent target asset allocation and best estimates of arithmetic real rates of return for each major asset class provided to us by ERS are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Fixed Income	30.00%	-0.10%
US Large Stocks	46.20%	8.90%
US Small Stocks	1.30%	13.20%
Int’l Developed Mkt Stocks	12.40%	8.90%
Int’l Emerging Mkt Stocks	5.10%	10.90%
Alternatives	5.00%	12.00%
Total	100.00%	

**Net of inflation*

Discount rate (SEIR). For the purpose of this report, we have determined that a discount rate of 3.58% meets the requirements of GASB 74, since current assets are less than the expected benefit payments starting with fiscal year 2026.

Paragraph 35.b.(1)

Sensitivity analysis: disclosure of the sensitivity of the Net OPEB Liability to changes in the healthcare cost trend rate. The following presents the Net OPEB Liability of the Fund, calculated using the current healthcare trend rates, as well as the Net OPEB Liability calculated using healthcare trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current rates:



Section III – Financial Statement Notes (continued)

	1% Decrease	Current Healthcare Trend Rate	1% Increase
Net OPEB Liability	10,337,983,959	12,272,147,094	14,728,681,048

Paragraph 35.b.(2)

- (a) **Discount rate.** The discount rate used to measure the Total OPEB Liability was 3.58% percent.
- (b) **Projected cash flows:** The projection of cash flows used to determine the discount rate assumed that plan contributions from members and the State of Georgia will be made at the level projected in the budget projections to the extent budget projections were provided. After that, the plan contribution is assumed to be equal to the average of the plan contributions over the prior five years.
- (c) **Long term rate of return:** The long-term expected rate of return on OPEB plan investments will be determined based on the allocation of assets by asset class and by the mean and variance of real returns as determined by the investment advisor.
- (d) **Municipal bond rate:** the discount rate determination will use a municipal bond rate to the extent the Fund is projected to run out of money before all benefits are paid.
- (e) **Periods of projected benefit payments:** Projected future benefit payments for all current plan members were projected through 2119.
- (f) **Assumed asset allocation:** The target asset allocation, as provided by the investment consultant, are summarized in the following table.

Assets are invested in the same manner as are assets of the Georgia Employees’ Retirement System (ERS). The most recent target asset allocation and best estimates of arithmetic real rates of return for each major asset class provided to us by ERS are summarized in the table on the following page.



Section III – Financial Statement Notes (continued)

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return*
Fixed Income	30.00%	-0.10%
US Large Stocks	46.20%	8.90%
US Small Stocks	1.30%	13.20%
Int'l Developed Mkt Stocks	12.40%	8.90%
Int'l Emerging Mkt Stocks	5.10%	10.90%
Alternatives	5.00%	12.00%
Total	100.00%	

*Net of inflation

(g): Sensitivity analysis: This paragraph requires disclosure of the sensitivity of the Net OPEB Liability to changes in the discount rate. The following presents the Net OPEB Liability, calculated using the discount rate of 3.58 percent, as well as the Net OPEB Liability calculated using a discount rate that is 1-percentage-point lower (2.58 percent) or 1-percentage-point higher (4.58 percent) than the current rate:

	1% Decrease (2.58%)	Current Discount Rate (3.58%)	1% Increase (4.58%)
Net OPEB Liability	14,264,285,215	12,272,147,094	10,651,632,172



Section III – Financial Statement Notes (continued)

Paragraph 35.c.: June 30, 2018 is the actuarial valuation date upon which the TOL is based. The result was rolled forward using standard actuarial techniques to the measurement date. The roll forward calculation adds the normal cost (also called the service cost) for the period July 1, 2018 through June 30, 2019, subtracts the actual benefit payments for the same period and then applies the expected investment rate of return for the period. If applicable, actuarial gains and losses arising from benefit changes, the differences between estimates and actual experience, and changes in assumptions or other inputs are reconciled to the TOL as of the Measurement Date. The procedure was used to determine the TOL as of June 30, 2019, as shown in the following table:

TOL Roll Forward	
(a) TOL as of June 30, 2018*	\$13,092,956,161
(b) Actual Benefit Payments for the Period July 1, 2018 – June 30, 2019	(339,753,889)
(c) Interest on TOL = [(a) x Prior SEIR] + [(b) x Prior SEIR x 0.50]	500,123,166
(d) Service Cost for the Period July 1, 2018 – June 30, 2019 at the End of the Period	408,666,633
(e) Change Due to Experience	(1,298,676,985)
(f) Change Due to Change in Assumptions	<u>503,959,116</u>
(g) TOL Rolled Forward to June 30, 2019 = (a) + (b) + (c) + (d) + (e)	\$12,867,274,202

* The TOL as of June 30, 2018 used in the roll forward was calculated using the discount rate as of the Prior Measurement Date. The Change Due to Experience is primarily due to claims experience, especially for Medicare eligible members. The Change Due to Change in Assumptions is primarily due to the change in the discount rate.



Section IV – Required Supplementary Information

There are several tables of Required Supplementary Information (RSI) that need to be included in the Plan’s financial statements. Paragraph numbers are provided for ease of reference.

Paragraphs 36.a.-c.: The required tables of schedules are provided in Schedule A.

Paragraph 36.d. and 37: The required schedule presenting the annual money-weighted rates of return is to be supplied by the Plan.

Paragraph 38: The following information should be noted regarding the RSI, particularly for the *Schedule of Employer Contributions*:

Changes in actuarial assumptions:

6/30/2017 valuation: The participation assumption, tobacco use assumption and morbidity factors were revised.

6/30/2015 valuation: Decremental and underlying inflation assumptions were changed to reflect the Retirement Systems’ experience studies.

6/30/2012 valuation: A data audit was performed and data collection procedures and assumptions were changed.

Method and assumptions used in calculations of actuarially determined contributions. The actuarially determined contribution rates in the schedule of employer contributions are calculated as of June 30, three years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine the most recent contribution rate reported in that schedule:

Actuarial cost method	Projected unit credit
Amortization method	Level percent of pay, open
Remaining amortization period	30 years
Asset valuation method	Market value of assets
Inflation	2.75%
Healthcare cost trend rate	
Pre-Medicare eligible	7.75%
Medicare eligible	5.75%
Ultimate trend rate	
Pre-Medicare eligible	5.00%
Medicare eligible	5.00%
Year of ultimate trend rate	2022
Investment rate of return	4.50%, including inflation



Schedule A – Required Supplementary Information

**SCHEDULE OF CHANGES IN THE NET OPEB LIABILITY
GASB 74 Paragraph 36.a.**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total OPEB Liability										
Service Cost	\$557,769,672	\$521,134,528	\$408,666,633							
Interest	452,024,327	504,681,027	500,123,166							
Benefit changes	0	0	0							
Difference between expected and actual experience	0	(341,373,142)	(1,298,676,985)							
Changes of assumptions	(1,262,290,993)	(1,506,312,743)	503,959,116							
Benefit payments	(383,556,270)	(364,817,814)	(339,753,889)							
Refunds of contributions	0	0	0							
Net change in Total OPEB Liability	\$(636,053,264)	\$(1,186,688,144)	(225,681,959)							
Total OPEB Liability - beginning	\$14,915,697,569	\$14,279,644,305	\$13,092,956,161							
Total OPEB Liability - ending (a)	\$14,279,644,305	\$13,092,956,161	\$12,867,274,202							
Plan Fiduciary Net Position										
Contributions – employer	\$521,407,903	\$518,290,365	\$538,569,200							
Contribution - non-employer	0	0	0							
Contributions – member*	0	0	0							
Net investment income	1,147,877	4,563,373	17,466,249							
Benefit payments*	(383,556,270)	(364,817,814)	(339,753,889)							
Administrative expense	(4,726,741)	(4,457,431)	(4,417,498)							
Refund of contributions	0	0	0							
Other	0	0	0							
Net change in Plan Fiduciary Net Position	\$134,272,769	\$153,578,493	\$211,864,062							
Plan Fiduciary Net Position – beginning	\$95,411,784	\$229,684,553	\$383,263,046							
Plan Fiduciary Net Position - ending (b)	229,684,553	383,263,046	595,127,108							
Net OPEB Liability - ending (a) - (b)	\$14,049,959,752	\$12,709,693,115	\$12,272,147,094							
*Benefit payments are net of member contributions and include claims related expenses.										



Schedule A – Required Supplementary Information (continued)

**SCHEDULE OF THE NET OPEB LIABILITY
GASB 74 Paragraph 36.b.**

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Total OPEB Liability	\$14,279,644,305	\$13,092,956,161	\$12,867,274,202							
Plan Fiduciary Net Position	229,684,553	383,263,046	595,127,108							
Net OPEB Liability	\$14,049,959,752	\$12,709,693,115	\$12,272,147,094							
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	1.61%	2.93%	4.63%							
Covered payroll*	\$10,086,189,000	\$10,516,260,733	\$10,583,166,690							
Net OPEB Liability as a percentage of covered-employee payroll	139.30%	120.86%	115.96%							



Schedule A – Required Supplementary Information (continued)

SCHEDULE OF EMPLOYER CONTRIBUTIONS
GASB 74 Paragraph 36.c.
(\$ in Thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Actuarially determined employer contribution	\$833,291	\$824,872	\$669,894	\$873,736	\$873,278	\$943,310	\$982,120	\$1,054,708	\$1,050,851	\$1,080,042
Actual employer contributions	538,569	518,290	521,408	432,438	408,538	408,422	362,527	380,859	339,221	308,539
Annual contribution deficiency (excess)	\$294,722	\$306,582	\$148,486	\$441,298	\$464,740	\$534,888	\$619,593	\$673,849	\$711,630	\$771,503
Covered payroll	\$10,583,167	\$10,516,261	\$10,086,189	\$10,086,189	\$9,429,531	\$9,429,531	\$9,445,376	\$11,127,288	\$11,127,288	\$11,446,504
Actual contributions as a percentage of covered-employee payroll	5.09%	4.93%	5.17%	4.29%	4.33%	4.33%	3.84%	3.42%	3.05%	2.70%



Schedule B – Summary of Benefit Provisions Valued

SUMMARY OF BENEFIT PROVISIONS VALUE

School Personnel OPEB Fund Eligibility

The following summary gives the main participation, benefit and contribution provisions of the Plan as interpreted in preparing the actuarial valuation.

Retiree medical eligibility is attained when an employee retires, and is immediately eligible to draw a retirement annuity from any of these systems:

- Teachers Retirement System
 - Service Retirement: 25 years of service or age 60 with 10 years of service
 - Disability Retirement: 10 years of service
 - Active Death Surviving Spouse: 10 years of service
- Public School Employees Retirement System
 - Service Retirement: age 60 with 10 years of service
 - Disability Retirement: 15 years of service
 - Active Death Surviving Spouse: age 60 with 10 years of service

Retirees from other systems who may be eligible for post-employment benefits other than pensions were included in the valuation if they were included in the DCH census data. Employees with payroll location codes greater than 60000 were included in the School Employee OPEB Fund. Less than one tenth of one percent of these employees are members of the Employees Retirement System. Information about this System can be found in the GASB 74 report for the State Employee OPEB Fund.

Coverage starts immediately at retirement, provided the retiree makes proper premium payments or has the premiums deducted from the annuity check. If elected, dependent coverage starts on the same day as retiree coverage. A change from single to family coverage as a retiree is allowed only with a qualified change in status.

A tobacco surcharge of \$80 per month is charged to those tobacco users not participating in the Medicare Advantage plans. Based on analysis of the current census data, it is assumed that 2.5% of retirees not participating in the Medicare Advantage plans pay the tobacco surcharge.



Schedule B – Summary of Benefit Provisions Valued

2019 Plan Options

The plan designs offered for the 2019 plan year are as follows. Please note that Medicare Advantage premium rates for the 2020 plan year are available and are used in the valuation.

For Medicare-eligible members

- UnitedHealthcare Medicare Advantage (MAPD) Plan Options (Standard and Premium)
- Anthem Blue Cross and Blue Shield Medicare Advantage (MAPD) Plan Options (Standard and Premium)

Non-MA Plan Options

- Anthem Gold, Silver, Bronze Health Reimbursement Arrangement (HRA) Plan Options
- Anthem, Kaiser Permanente (KP) and UnitedHealthcare Health Maintenance Organization (HMO) Plan Options
- UnitedHealthcare High Deductible Health Plan (HDHP)

Premiums

Retiree premiums vary based on plan election, dependent coverage, Medicare eligibility and election. Premiums shown are monthly and are effective January 1, 2019.

**STATE HEALTH BENEFIT PLAN
ANNUITANT UNDER 65 RATES
JANUARY 1 - DECEMBER 31, 2019**

	YOU	YOU + CHILD(REN)	YOU + SPOUSE	YOU + FAMILY
Anthem Gold	\$168.73	\$307.13	\$418.09	\$556.50
Anthem Silver	\$110.89	\$208.80	\$296.62	\$394.54
Anthem Bronze	\$72.45	\$143.46	\$215.91	\$286.92
Anthem HMO	\$135.65	\$250.90	\$348.63	\$463.89
UHC HMO	\$172.56	\$313.65	\$426.14	\$567.22
UHC HDHP	\$58.03	\$118.94	\$185.62	\$246.54
Kaiser HMO	\$142.71	\$262.59	\$362.49	\$482.37

The Medicare Advantage Plan monthly retiree premiums for members with Medicare Parts A and B as of January 1, 2020 are as follows. The Fund pays the Medicare Part B late enrollment penalty for members who were required to pay the penalty when the Medicare Advantage plans were first implemented. Future retirees are required to enroll in Medicare Part B when first eligible to avoid the penalty, or be responsible for paying the late enrollment penalty if applicable.

Medicare Advantage Plan	Retiree Premium
UHC Standard MA	\$ 20.00
UHC Premium MA	\$ 128.22
Anthem Standard MA	\$ 146.15
Anthem Premium MA	\$ 182.82



Schedule B – Summary of Benefit Provisions Valued

For active employees with less than 5 years of service, premiums will be subject to the service based schedule shown below.

CONTRIBUTIONS (Actives with less than five years of service as of January 1, 2012): The Health Benefit Fund will pay a portion of the blended contribution rate for the Bronze Plan or the UHC Premium MA Plan based on the retirees’ service at retirement. The retiree or spouse will pay the remainder of the premium for the chosen plan, not less than the premium paid by those with more than five years of service as of January 1, 2012.

Service at Retirement	Health Benefit Fund’s Share of Contribution Rate		Retiree’s Share of Contribution Rate	
	Retiree	Spouse	Retiree	Spouse
30 and above	75%	55%	25%	45%
29	72%	53%	28%	47%
28	69%	51%	31%	49%
27	66%	49%	34%	51%
26	63%	47%	37%	53%
25	60%	45%	40%	55%
24	57%	43%	43%	57%
23	54%	41%	46%	59%
22	51%	39%	49%	61%
21	48%	37%	52%	63%
20	45%	35%	55%	65%
19	42%	33%	58%	67%
18	39%	31%	61%	69%
17	36%	29%	64%	71%
16	33%	27%	67%	73%
15	30%	25%	70%	75%
14	27%	23%	73%	77%
13	24%	21%	76%	79%
12	21%	19%	79%	81%
11	18%	17%	82%	83%
10	15%	15%	85%	85%
9 and below	0%	0%	100%	100%



Schedule B – Summary of Benefit Provisions Valued

BLENDED CONTRIBUTION RATES: The blended contribution rates used in valuation and trended back to the valuation date are as follows:

2019 Rates				
Medical Plan	Under 65 Retiree with Under 65 Spouse (If Covered)			
	Ret Only	Ret+Ch	Ret+Sp	Family
Anthem HRA Gold	\$696.99	\$1,184.89	\$1,463.69	\$1,951.58
Anthem HRA Silver	\$638.46	\$1,085.38	\$1,340.76	\$1,787.69
Anthem HRA Bronze	\$599.99	\$1,019.97	\$1,259.97	\$1,679.96
Anthem HMO	\$664.30	\$1,129.30	\$1,395.02	\$1,860.03
UHC HMO	\$700.05	\$1,190.08	\$1,470.10	\$1,960.13
UHC HDHP	\$583.68	\$992.26	\$1,225.73	\$1,634.30
Kaiser HMO	\$589.34	\$1,001.89	\$1,237.62	\$1,650.17

2020 Medicare Eligible Retirees Coverage Tier	Anthem MA Plans		UHC MA Plans	
	MA PREM	MA STD	MA PREM	MA STD
Retiree Only	\$363.80	\$146.15	\$309.20	\$20.00
Retiree & Spouse	\$727.60	\$292.30	\$618.40	\$40.00



Schedule C – Statement of Actuarial Assumptions and Methods

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

VALUATION DATE: June 30, 2018

DISCOUNT RATE: 3.58% per annum, compounded annually, net of expenses

AFFORDABLE CARE ACT: The impact of the Affordable Care Act (ACA) was addressed in this valuation. Review of the information currently available did not identify any specific provisions of the ACA that are anticipated to significantly impact results. While the impact of certain future provisions should be recognized in the determination of liabilities, overall future plan costs and the resulting liabilities are driven by amounts employers and retirees can afford (i.e., trend). The trend assumption forecasts the anticipated increase to initial per capita costs, taking into account health care cost inflation, increases in benefit utilization, plan changes, government-mandated benefits and technological advances. Given the uncertainty regarding the ACA’s implementation (e.g., the impact of excise tax on high-value health insurance plans, changes in participation resulting from the implementation of state-based health insurance exchanges), continued monitoring of the ACA’s impact on the Plan’s liability will be required.

ANNUAL EXPECTED MEDICAL/RX CLAIMS (AGE ADJUSTED TO AGE 65):

PRE-MEDICARE

Following is a chart detailing expected claims for pre-65 retirees blended based on assumed plan elections and normalized to age 65.

Pre-Medicare*	\$ 13,718

*Retirees selecting one of the HRA plans will also receive annual credits to use for eligible medical expenses. For 2019, the credits are \$400 for the Gold Plan, \$200 for the Silver Plan and \$100 for the Bronze plan. For members participating in the Anthem or UnitedHealthcare plans, wellness credits up to \$480 are available to those completing certain wellness requirements. Claims are adjusted for HRA credits and it is assumed that 50% of eligible plan participants receive the additional wellness credits.

MEDICARE ELIGIBLE

Effective January 1, 2010, the Medicare Advantage Plans are mandatory for Medicare-eligible retirees to receive the State subsidy.

The Medicare Advantage Plan monthly retiree premiums for members with Medicare Parts A and B as of January 1, 2020 are as follows:



Schedule C – Statement of Actuarial Assumptions and Methods

Medicare Advantage Plan	Retiree Premium
UHC Standard MA	\$ 20.00
UHC Premium MA	\$ 128.22
Anthem Standard MA	\$ 146.15
Anthem Premium MA	\$ 182.82

Following is a chart detailing expected claims costs for Medicare Advantage Plan retirees blended based on assumed plan elections and normalized to age 65. It is assumed that 95% of retirees will choose UHC plans and 5% of retirees will choose Anthem plans. It is further assumed that 40% choose a Premium plan and 60% choose a Standard plan.

2020 premium rates, trended to the valuation date, were used to develop the expected claims costs for Medicare Advantage Plan retirees.

Medicare Advantage*	\$ 1,261
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*Claims costs for current retirees with no Medicare Part A coverage were assumed to be 373% of the claims shown above.

HEALTH CARE COST TREND RATES: Following is a chart detailing trend assumptions:

Year	Pre-65 Retiree Claims Trend	Post-65 Retiree Claims Trend
2018	7.25%	5.375%
2019	7.00%	5.250%
2020	6.75%	5.125%
2021	6.50%	5.000%
2022	6.25%	4.750%
2023	6.00%	4.750%
2024	5.75%	4.750%
2025	5.50%	4.750%
2026	5.25%	4.750%
2027	5.00%	4.750%
2028 and beyond	4.75%	4.750%



Schedule C – Statement of Actuarial Assumptions and Methods

AGE RELATED MORBIDITY: Per capita costs are adjusted to reflect expected cost changes related to age. The increase to the net incurred claims was assumed to be:

Participant Age	Annual Increase
Under 30	0.00%
30 – 34	1.00%
35 – 39	1.50%
40 – 44	2.00%
45 – 49	2.60%
50 – 54	3.30%
55 – 59	3.60%
60 – 64	4.20%
65 – 69	3.00%
70 – 74	2.50%
75 – 79	2.00%
80 – 84	1.00%
85 – 89	0.50%
90 and over	0.00%

Percent Married: 100% of active members were assumed to be married with the husband 4 years older than his wife for TRS members and the husband 3 years older than his wife for PSERS members.



Schedule C – Statement of Actuarial Assumptions and Methods

ANTICIPATED PARTICIPATION: Representative values of the assumed annual rates of member participation and spouse coverage by future retirees are as follows. Members who elect to participate are assumed to participate for the remainder of their lives and no lapses are assumed.

	School
Member Participation*:	
If 5 years of service on 1/1/2012	95%
If less than 5 years of service on 1/1/2012:	
Years of Service at Retirement:	
30+	95%
25-29	90%
20-24	80%
15-19	65%
10-14	50%
Under 10	20%
Spouse Coverage:	
If retiree had 5 years of service on 1/1/2012	40%
If retiree had less than 5 years of service on 1/1/2012:	
Years of Retiree Service at Retirement:	
30+	32%
25-29	30%
20-24	26%
15-19	20%
10-14	18%
Under 10	8%

* Sufficient experience for developing plan specific participation rates for members with less than 5 years of service on 1/1/2012 has not yet developed, so standard actuarial assumptions for participation based on level of subsidization are used. Active employees currently waiving health coverage are assumed to join the plan at a later date at the rate of 20% and then participate in the same pattern as current participating members. The 20% assumption is based on actual experience using past 4 years of waiver data.

ACTUARIAL VALUE OF ASSETS: Market Value



Schedule C – Statement of Actuarial Assumptions and Methods

School Personnel OPEB Fund Members Participating in the Teachers Retirement System of Georgia

All assumptions, with the exception of the discount rate, payroll growth and the inflation component of the rates of salary increases, were adopted by the Georgia Teachers Retirement System Board on November 18, 2015. Starting with the June 30, 2018 Georgia Teachers Retirement System funding valuation, the assumed annual rate of inflation has been reduced from 2.75% to 2.50%.

SALARY INCREASES*:

<u>Service</u>	<u>Annual Rate</u>	<u>Service</u>	<u>Annual Rate</u>	<u>Service</u>	<u>Annual Rate</u>
0	8.75 %	7	4.25 %	14	3.25 %
1	7.25	8	3.75	15	3.25
2	5.75	9	3.75	16	3.00
3	5.25	10	3.50	17	3.00
4	5.00	11	3.50	18	3.00
5	5.00	12	3.50	19	3.00
6	5.00	13	3.50	20 or more	3.00

*includes price inflation component of 2.50% and a real rate of salary increase component of 0.50%

SERVICE RETIREMENT:

<u>AGE</u>	<u>Annual Rate</u>			
	<u>Male</u>		<u>Female</u>	
	<u>Less than 30 years of service</u>	<u>30 or more years of service</u>	<u>Less than 30 years of service</u>	<u>30 or more years of service</u>
50	3.5 %	60.0 %	3.0 %	55.0 %
55	5.0	40.0	5.5	37.0
60	20.0	36.0	25.0	43.0
61	18.0	32.0	25.0	43.0
62	26.0	36.0	25.0	43.0
63	22.0	33.0	25.0	43.0
64	22.0	32.0	25.0	43.0
65	30.0	30.0	31.0	31.0
66	32.0	32.0	33.0	33.0
67	30.0	30.0	30.0	30.0
68	30.0	30.0	30.0	30.0
69	28.0	28.0	30.0	30.0
70	30.0	30.0	30.0	30.0



Schedule C – Statement of Actuarial Assumptions and Methods

School Personnel OPEB Fund Members Participating in the Teachers Retirement System of Georgia

SEPARATION BEFORE SERVICE RETIREMENT:

<u>Age</u>	<u>Death*</u>	<u>Disability</u>	<u>Annual Rate of</u>		
			<u>0-4</u>	<u>5-9</u>	<u>10+</u>
<u>Male</u>					
20	0.0320%	0.0135%	25.00%	-	-
25	0.0349	0.0135	17.00	12.00%	-
30	0.0412	0.0210	13.50	7.00	8.00%
35	0.0717	0.0330	13.50	6.00	3.00
40	0.1001	0.0550	13.00	6.00	2.50
45	0.1399	0.0900	12.00	6.00	2.30
50	0.1983	0.1700	11.00	5.50	2.50
55	0.2810	0.3000	11.00	5.50	3.00
60	0.4092	-	12.00	5.50	-
64	0.5330	-	13.00	6.50	-
<u>Female</u>					
20	0.0177%	0.0100%	28.00%	-	-
25	0.0192	0.0130	13.50	16.00%	-
30	0.0245	0.0140	13.50	8.00	6.00%
35	0.0441	0.0190	13.00	7.00	3.50
40	0.0655	0.0390	11.00	6.50	3.00
45	0.1043	0.0650	10.50	6.00	2.30
50	0.1555	0.1400	10.00	5.00	2.40
55	0.2228	0.3400	10.00	5.00	2.75
60	0.3058	-	10.50	5.50	-
64	0.4015	-	13.00	6.50	-

* The RP-2000 Employee Mortality Table projected to 2025 with projection scale BB is used for death prior to service retirement.



Schedule C – Statement of Actuarial Assumptions and Methods

School Personnel OPEB Fund Members Participating in the Teachers Retirement System of Georgia

DEATHS AFTER RETIREMENT: The RP-2000 White Collar Mortality Table projected to 2025 with projection scale BB (set forward 1 year for males) is used for death after service retirement and beneficiaries. The RP-2000 Disabled Mortality Table projected to 2025 with projection scale BB (set forward two years for males and four years for females) is used for death after disability retirement. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on November 18, 2015, the numbers of expected future deaths are 8-11% less than the actual number of deaths that occurred during the study period for healthy retirees and 9-11% less than expected under the selected table for disabled retirees. We monitor the liability gains and losses due to mortality each year in order to remain confident that the assumption continues to be appropriate.

We are aware that the Society of Actuaries has released a new public sector mortality table, and although we will look at the fit of this table to actual rates of retired member mortality under TRS during the next experience study, we believe that the current assumed rates of mortality remain appropriate for use at this time. The next experience study for TRS will be for the period ending June 30, 2018, at which time we will conduct analysis that will consider a fully generational improvement methodology.

Representative values of the assumed annual rates of death after service retirement and after disability retirement are shown below:

<u>Age</u>	<u>Annual Rate of Death After</u>			
	<u>Service Retirement</u>		<u>Disability Retirement</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
40	0.0889%	0.0598%	2.0938%	0.6911%
45	0.1352	0.0942	2.3306	0.9865
50	0.2136	0.1474	2.9279	1.4019
55	0.3478	0.2281	3.4400	1.6567
60	0.5197	0.3638	3.5881	1.9670
65	0.9071	0.6397	3.8275	2.6129
70	1.4666	1.1229	4.7566	3.6157
75	2.5894	1.9017	6.3153	5.0131
80	4.5768	3.1857	8.3527	6.9358
85	8.0034	5.4864	10.9122	9.6851
90	15.1656	9.5675	17.2787	15.3358
95	25.0467	16.0813	27.1263	21.4644



Schedule C – Statement of Actuarial Assumptions and Methods (continued)

**School Personnel OPEB Fund Members Participating in the
Public School Employees Retirement System of Georgia**

Actuarial assumptions and methods adopted by the Georgia Public School Employees Retirement System Board December 17, 2015.

SEPARATIONS BEFORE SERVICE RETIREMENT: Representative values of the assumed annual rates of separation before service retirement are as follows:

Annual Rates of Withdrawal			
Years of Service			
Age	<u>0-4</u>	<u>5-9</u>	<u>10 & Over</u>
<u>Males</u>			
20	37.0%		
25	28.0	17.0%	
30	25.0	15.0	12.0%
35	23.0	13.0	9.0
40	21.0	12.0	7.5
45	19.0	11.0	6.5
50	17.0	9.0	6.5
55	15.0	9.0	6.0
60	12.0	7.5	
<u>Females</u>			
20	32.0%		
25	28.0	18.0%	
30	23.0	15.0	10.0%
35	19.0	13.0	10.0
40	17.0	12.0	8.0
45	15.5	10.0	7.0
50	14.0	8.5	6.0
55	12.0	8.0	5.5
60	11.0	7.5	



Schedule C – Statement of Actuarial Assumptions and Methods (continued)

**School Personnel OPEB Fund Members Participating in the
Public School Employees Retirement System of Georgia**

Age	Annual Rates of		
	Death		Disability
	<u>Males</u>	<u>Females</u>	
20	0.0320%	0.0177%	0.0000%
25	0.0349	0.0192	0.0000
30	0.0412	0.0245	0.0000
35	0.0717	0.0441	0.0025
40	0.1001	0.0655	0.0110
45	0.1399	0.1043	0.0370
50	0.1983	0.1555	0.0865
55	0.2810	0.2228	0.2250
60	0.4092	0.3058	0.3500
65	0.5600	0.4304	0.0000

RETIREMENT:

Age	Annual Rate	Age	Annual Rate
60	13.0%	68	23.0%
61	13.0	69	26.0
62	22.0	70	27.0
63	17.5	71	27.0
64	17.0	72	27.0
65	28.0	73	27.0
66	27.0	74	27.0
67	23.0	75 & Over	100.0



Schedule C – Statement of Actuarial Assumptions and Methods (continued)

**School Personnel OPEB Fund Members Participating in the
Public School Employees Retirement System of Georgia**

DEATHS AFTER RETIREMENT: The RP-2000 Blue-Collar Mortality Table projected to 2025 with projection scale BB (set forward 3 years for males and 2 years for females) is used for the period after service retirement and for beneficiaries of deceased members. The RP-2000 Disabled Mortality projected to 2025 with projection scale BB (set forward 5 years for both males and females) is used for the period after disability retirement. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on December 17, 2015, the numbers of expected future deaths are 9-11% less than the actual number of deaths that occurred during the study period for healthy retirees and 9-11% less than expected under the selected table for disabled retirees.

Representative values of the assumed annual rates of mortality for service retirements and beneficiaries are as follows:

Age	Males	Females	Age	Males	Females
40	0.1476%	0.0995%	65	1.4859%	0.9774%
45	0.1974	0.1484	70	2.4262	1.7054
50	0.3057	0.2084	75	3.9830	2.7288
55	0.5644	0.2844	80	6.5238	4.4542
60	0.9575	0.5014	85	10.9551	7.5727



Schedule D – Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 3.58% for disclosure), of each participant’s expected retiree health benefit at retirement or death based on his age and service. The calculations take into account the probability of a participant’s death or termination of employment prior to becoming eligible for a benefit, as well as the probability of his terminating with a service, disability or survivor’s benefit. The present value of the expected benefits payable on account of the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of participants and beneficiaries.

2. The service cost is determined using the “entry age normal” method. Using this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of each participant during the entire period of his anticipated covered service, would be required in addition to the contributions of the participant to meet the cost of all benefits payable on his behalf.

3. The present value of future unfunded accrued liability contributions is determined by subtracting the present value of prospective normal contributions together with the current assets held, from the present value of expected benefits to be paid from the Plan.