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**GASB STATEMENT NO. 75 REPORT**

**For the Alabama Public Education Employees'  
Health Insurance Plan**

**PREPARED AS OF SEPTEMBER 30, 2019**

**FOR FINANCIAL REPORTING AS OF SEPTEMBER 30, 2020**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

May 12, 2020

Alabama Public Education Employees' Health Insurance  
Plan Board of Control  
P.O. Box 302150  
Montgomery, AL 36130-2150

Dear Members of the Board:

Presented in this report is information to assist the Alabama Public Education Employees' Health Insurance Plan (PEEHIP) in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 75 for the participating employers. The information is presented for the one-year period ending September 30, 2019. GASB Statement No. 75 (GASB 75) establishes accounting and financial reporting requirements for governmental employers who have other postemployment benefits (OPEB) plans. This report has been prepared as of September 30, 2019 (Measurement Date) for financial reporting as of September 30, 2020. The calculations in this report have been made on a basis that is consistent with our understanding of the accounting standard.

The annual actuarial valuation performed as of September 30, 2018 was used as the basis for much of the information presented as of September 30, 2019 in this report, however updated Medicare Advantage premium rates which reflect the repeal of the ACA Health Insurer Fee, updated Optionals claims costs, and updated participation assumptions were used in this report. The valuation was based upon data furnished by the Alabama Teachers' Retirement System (System) and the PEEHIP 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.

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 and retiree health benefit plans. 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.



May 12, 2020

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The calculations are based on the current provisions of the System, and on actuarial assumptions that are, individually and in the aggregate, internally consistent and reasonably based on the actual experience of the System. In addition, the calculations were completed in compliance with the laws governing the System. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 75 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems and retiree health benefit plans, that the valuations were prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that 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.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Alisa Bennett'.

Alisa Bennett, FSA, EA, FCA, MAAA  
President

A handwritten signature in blue ink, appearing to read 'Larry Langer'.

Larry Langer, ASA, FCA, EA, MAAA  
Principal and Consulting Actuary



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*Section I – Summary of Collective Amounts*

**REPORT OF THE ANNUAL GASB STATEMENT NO. 75  
ALABAMA PUBLIC EDUCATION EMPLOYEES’  
HEALTH INSURANCE PLAN**

**PREPARED AS OF SEPTEMBER 30, 2019**

<b>Valuation Date (VD):</b>	September 30, 2018	September 30, 2017
<b>Measurement Date (MD):</b>	September 30, 2019	September 30, 2018
<b>Reporting Date (RD):</b>	September 30, 2020	September 30, 2019
<b>Discount Rate:</b>		
Long-Term Expected Rate of Return	7.25%	7.25%
Municipal Bond Index Rate at Measurement Date	3.00%	4.18%
Year in which Fiduciary Net Position is Projected to be Depleted	2055	2029
Single Equivalent Interest Rate at Measurement Date	5.50%	4.44%
<b>Net OPEB Liability:</b>		
Total OPEB Liability (TOL)	\$ 5,249,844,863	\$ 9,647,529,392
Fiduciary Net Position (FNP)	<u>1,477,077,000</u>	<u>1,428,803,000</u>
Net OPEB Liability (NOL = TOL – FNP)	\$ 3,772,767,863	\$ 8,218,726,392
FNP as a percentage of TOL	28.14%	14.81%
<b>OPEB Expense (OE):</b>	\$ (308,748,455)	\$ 515,489,751
<b>Deferred Outflows of Resources:</b>	\$ 313,063,329	\$ 154,733,476
<b>Deferred Inflows of Resources:</b>	\$ 4,455,497,906	\$ 444,363,751



## ***Section II – Introduction***

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The Governmental Accounting Standards Board issued Statement No. 75 (GASB 75), “*Accounting and Financial Reporting for Postemployment Benefit Plans other than Pension*” in June 2015. The effective date for reporting under GASB 75 is plan years beginning after June 15, 2017. This report, prepared as of September 30, 2019 (the Measurement Date), presents information to assist the Public Education Employees Health Insurance Plan (PEEHIP) in providing the required information under GASB 75 to participating employers. Much of the material provided in this report, including the Net OPEB Liability, is based on the results of the GASB 74 report for the Alabama Retired Education Employees’ Health Care Trust, which was issued February 12, 2020. See that report for more information on the member data, actuarial assumptions and methods used in developing the GASB 74 results.

GASB 75 requires the inclusion of a Net OPEB Liability (NOL) on the plan sponsor’s balance sheet and a determination of an OPEB Expense (OE), which may bear little relationship to the funding requirements for the PEEHIP. In fact, it is possible in some years for the NOL to be an asset or the OE to be an income item. The NOL is set equal to the Total OPEB Liability (TOL) minus the Fiduciary Net Position (FNP). The benefit provisions recognized in the calculation of the TOL are summarized in Appendix B. For the purposes of reporting under GASB 75, the PEEHIP is assumed to be a cost-sharing-employer defined benefit OPEB plan.

OE includes amounts for Service Cost (the Normal Cost under Entry Age Normal (EAN) for the year), interest on the TOL, employee contributions, administrative expenses, other cash flows during the year, recognition of increases/decreases in the TOL due to changes in the benefit structure, actual versus expected experience, actuarial assumption changes, and recognition of investment gains/losses. The actual experience and assumption change impacts are recognized over the average expected remaining service life of the System membership as of the beginning of the measurement period, while investment gains/losses are recognized equally over five years. The development of the OE is shown in Section V. The unrecognized portions of each year’s experience, assumption changes and investment gains/losses are used to develop Deferred Inflows and Outflows of Resources, which also must be included on the employer’s Statement of Net Position.



## ***Section II – Introduction (continued)***

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Among the items needed for the TOL calculation is a discount rate, as defined by GASB, or a Single Equivalent Interest Rate (SEIR). To determine the SEIR, the FNP must be projected into the future for as long as there are anticipated benefits payable under the plan provisions applicable to the membership and beneficiaries of the System on the Measurement Date. Future contributions were projected to be made at the current levels set in statute. 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.

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 average of the Bond Buyer General Obligation 20-year Municipal Bond Index, the Fidelity General Obligation AA 20-year Municipal Bond Index, and the S&P High Grade 20-year Municipal Bond Index. The rates as of September 30, 2019 were 2.66%, 2.75%, and 3.58% for the Bond Buyer, Fidelity, and S&P Municipal Bond Indices respectively. These three rates resulted in an averaged Municipal Bond Index Rate of 3.00%. For the purpose of this report, we have determined that a discount rate of 5.50% as of September 30, 2019 meets the requirements of GASB 75, as it is our understanding that a portion of the health care premium rate paid on behalf of active employees will be used to fund the OPEB plan.

The FNP projections are based upon the Alabama Retired Education Employees' Health Care Trust financial status on the Measurement Date, the indicated set of methods and assumptions, and the requirements of GASB 74 and 75. As such, the FNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing plan basis, reflecting the impact of future members. Therefore, the results of this test do not necessarily indicate whether or not the fund will actually run out of money, the financial condition of the System, or the System's ability to make benefit payments in future years.

The sections that follow provide the results of all the required calculations, presented in the order laid out in GASB 75 for note disclosure and Required Supplementary Information (RSI).



**Section III – Financial Statement Notes**

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The material presented herein will follow the order presented in GASB 75. Paragraph numbers are provided for ease of reference.

**Paragraph 92-93.:** This paragraph requires information to be disclosed regarding the actuarial assumptions and other inputs used to measure the TOL. The complete set of actuarial assumptions and other inputs utilized in developing the TOL are outlined in Appendix C. The TOL as of September 30, 2019 was determined based on an actuarial valuation prepared as of September 30, 2018, using the following actuarial assumptions as well as updated Medicare Advantage premium rates which reflect the repeal of the ACA Health Insurer Fee, updated Optionals claims costs, and updated participation assumptions:

<b>Inflation</b>	2.75 percent
<b>Salary increases</b>	5.00–3.25 percent, including 3.00% wage inflation
<b>Long-term investment rate of return</b>	7.25 percent compounded annually, net of investment expense, and including inflation
<b>Municipal Bond Index Rate at Measurement Date</b>	3.00 percent
<b>Municipal Bond Index Rate at Prior Measurement Date</b>	4.18 percent
<b>Year FNP is projected to be depleted</b>	2055
<b>Single Equivalent Interest Rate at Measurement Date</b>	5.50 percent
<b>Single Equivalent Interest Rate at Prior Measurement Date</b>	4.44 percent
<b>Healthcare cost trend rate</b>	
Pre-Medicare Eligible	6.75%
Medicare Eligible	**
Ultimate trend rate	
Pre-Medicare Eligible	4.75% in 2026
Medicare Eligible	4.75% in 2024

\*\*Initial Medicare claims are set based on scheduled increases through plan year 2022.





**Section III – Financial Statement Notes (continued)**

**Mortality** Rates of mortality for the period after service retirement are according to the RP-2000 White Collar Mortality Table projected to 2020 using scale BB and adjusted 115% for all ages for males and 112% for ages 78 and over for females. The rates of disabled mortality were based on the RP-2000 Disabled Mortality Table projected to 2020 using scale BB and adjusted 105% for males and 120% for females.

The decremental assumptions used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2015, submitted to and adopted by the Teachers’ Retirement System of Alabama Board on September 13, 2016.

The remaining actuarial assumptions (e.g., initial per capita costs, health care cost trends, rate of plan participation, rates of plan election, etc.) were based on the September 30, 2018 valuation, however updated Medicare Advantage premium rates which reflect the repeal of the ACA Health Insurer Fee, updated Optionals claims costs, and updated participation assumptions were used in this report.

**93(e) Sensitivity analysis:** This paragraph requires disclosure of the sensitivity of the NOL to changes in the health care cost trend rates. The following exhibit presents the NOL of the Plan, calculated using the health care cost trend rates, as well as what the Plan’s NOL would be if it were calculated using a health care cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease (5.75% decreasing to 3.75% for pre-Medicare, Known decreasing to 3.75% for Medicare eligible)	Current Healthcare Trend Rate (6.75% decreasing to 4.75% for pre-Medicare, Known decreasing to 4.75% for Medicare eligible)	1% Increase (7.75% decreasing to 5.75% for pre-Medicare, Known decreasing to 5.75% for Medicare eligible)
Net OPEB Liability	3,025,081,168	3,772,767,863	4,714,445,368



***Section III – Financial Statement Notes (continued)***

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**Paragraph 94:**

- (a) Discount rate (SEIR):** The discount rate used to measure the TOL at September 30, 2019 was 5.50%.
- (b) Projected cash flows:** The projection of cash flows used to determine the discount rate assumed that plan contributions will be made at the current contribution rates. Each year, the State specifies the monthly employer rate that participating school systems must contribute for each active employee. 20.307% of the employer contributions were used to assist in funding retiree benefit payments in 2018. 24.245% of the employer contributions were used to assist in funding retiree benefit payments in 2019. It is assumed that once benefit payments exceed employer contributions, this amount will increase by 1.00% per year and continue into the future.
- (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.
- (d) Municipal bond rate:** The discount rate determination will use a municipal bond rate to the extent the trust 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 2117. The long term rate of return is used until the assets are expected to be depleted in 2055, after which the municipal bond rate is used.



**Section III – Financial Statement Notes (continued)**

**(f) Assumed asset allocation:** The target asset allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return*
Fixed income	30%	4.40%
US Large Stocks	38%	8.00%
US Mid Stocks	8%	10.00%
US Small Stocks	4%	11.00%
International Developed Market Stocks	15%	9.50%
Cash	5%	1.50%
Total	100.0%	

\*Geometric mean, includes 2.5% inflation

**(g)** This paragraph requires disclosure of the sensitivity of the NOL to changes in the discount rate. The following exhibit presents the NOL of the Plan, calculated using the discount rate of 5.50%, as well as the System’s NOL calculated using a discount rate that is 1-percentage-point lower (4.50%) or 1-percentage-point higher (6.50%) than the current rate:

	1% Decrease (4.50%)	Current Discount Rate (5.50%)	1% Increase (6.50%)
Net OPEB Liability	4,560,264,439	3,772,767,863	3,129,642,950

**Paragraph 96(a):** This paragraph requires the disclosure of the employer’s proportionate share of the Collective NOL and if an employer has as special funding situation, the portion of the non-employer contributing entities proportionate share of the collective NOL that is associated with the employer. These amounts are shown in Appendix B. Note that there is no special funding situation.

**Paragraph 96(b):** This paragraph requires disclosure of the employer’s proportion of the collective NOL and the change in the proportion since the prior measurement date. These amounts are shown in Appendix A.



**Section III – Financial Statement Notes (continued)**

**Paragraph 96(c):** September 30, 2018 is the actuarial valuation date upon which the TOL is based, however updated Medicare Advantage premium rates, which reflect the repeal of the ACA Health Insurer Fee, updated Optionals claims costs, and updated participation assumptions were used in this report. The result is 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 October 1, 2018 through September 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 September 30, 2019, as shown in the following table:

TOL Roll Forward		
(a) TOL as of September 30, 2018*	\$	9,647,529,392
(b) Actual Benefit Payments and Refunds, for the Period October 1, 2018 - September 30, 2019		(289,843,000)
(c) Interest on TOL = [(a) x (Prior SEIR)] + [(b) x (Prior SEIR *0.5)]		421,915,790
(d) Service Cost for the Period October 1, 2018 - September 30, 2019 at the End of the Period		219,135,939
(e) Change Due to Change in Experience**		(3,452,330,157)
(f) Change Due to Change in Assumptions***		<u>(1,296,563,101)</u>
(g) TOL Rolled Forward to September 30, 2019 = (a) + (b) + (c) + (d) + (e) + (f)	\$	5,249,844,863

\* The TOL as of September 30, 2018 used in the roll forward was calculated using the discount rate as of the Prior Measurement Date.

\*\* Change due to Experience includes demographic changes such as retirements, terminations, disabilities, and deaths different from expected as well as claims costs different from expected, most notably lower Medicare Advantage rates due to contract renegotiations and the elimination of the ACA Health Insurer Fee.

\*\*\* Change due to Assumptions includes \$(432,706,680) due to participation assumption changes and \$(863,856,421) due to the change in discount rate.



***Section III – Financial Statement Notes (continued)***

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**Paragraphs 96(d) and (e):** The following change was made to the assumptions as noted:

***Changes in actuarial assumptions:***

In 2019, the anticipated rates of participation, spouse coverage, and tobacco use were adjusted to more closely reflect actual experience.

In 2016, rates of withdrawal, retirement, disability, mortality, spouse coverage and tobacco usage were adjusted to more closely reflect actual experience. In 2016, economic assumptions and the assumed rates of salary increase were adjusted to more closely reflect actual and anticipated experience. In 2016 and later, the expectation of retired life mortality was changed to the RP-2000 White Collar Mortality Table projected to 2020 using scale BB and adjusted 115% for all ages for males and 112% for ages 78 and over for females. The rates of disabled mortality were based on the RP-2000 Disabled Mortality Table projected to 2020 using scale BB and adjusted 105% for males and 120% for females.

***Recent Plan Changes:***

Beginning in plan year 2021, the MAPD plan premium rates exclude the ACA Health Insurer Fee which was repealed on December 20, 2019.

Effective January 1, 2017, Medicare eligible medical and prescription drug benefits are provided through the MAPD plan.

The Health Plan is changed each year to reflect the ACA maximum annual out-of-pocket amounts.

**Paragraph 96(f):** There were no changes between the measurement date of the collective net OPEB liability and the employer's reporting date.

**Paragraph 96(g):** Please see Section V of the report for the development of the collective OPEB expense. The OE for each employer is shown in Appendix B.



**Section III – Financial Statement Notes (continued)**

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**Paragraph 96(h):** Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce OPEB expense they are labeled deferred inflows. If they will increase OPEB expense they are labeled deferred outflows. As noted in the previous section, the amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are amortized over the average remaining service life of the active and inactive System members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five year period.

The table below provide a summary of the deferred inflows and outflows as of the Measurement Date. The allocation of deferred inflows and outflows will be determined by the System.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences Between Expected and Actual Experience	\$ 124,919,704	\$ 2,892,795,286
Changes of Assumptions	180,360,912	1,562,702,620
Net Difference Between Projected and Actual Earnings on Plan Investments	7,782,713	0
Total	\$ 313,063,329	\$ 4,455,497,906



**Section III – Financial Statement Notes (continued)**

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**Paragraph 96(i):** The collective amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEBs will be recognized in OPEB expense as follows:

<b>Deferred Amounts to be Recognized in Future</b>	
	<b>Deferred Outflows/(Inflows) of Resources</b>
Year 1	\$ (848,166,309)
Year 2	\$ (848,166,307)
Year 3	\$ (838,280,246)
Year 4	\$ (721,145,523)
Year 5	\$ (755,831,482)
Year 6	\$ (130,844,710)
Thereafter	\$ 0

**Paragraph 96(j):** There are no non-employer contributions recognized for the support provided by non-employer contributing entities in PEEHIP.



#### ***Section IV – Required Supplementary Information***

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**Paragraph 97(a) and (b):** CMC was not required to provide this information.

**Paragraph 98:** Information about factors that significantly affect trends in the amounts in the schedules required by paragraph 98 should be presented as notes to the schedule. Comments on additional years will be added as they occur.

#### ***Changes in actuarial assumptions:***

In 2019, the anticipated rates of participation, spouse coverage, and tobacco use were adjusted to more closely reflect actual experience.

In 2016, rates of withdrawal, retirement, disability, mortality, spouse coverage and tobacco usage were adjusted to more closely reflect actual experience. In 2016, economic assumptions and the assumed rates of salary increase were adjusted to more closely reflect actual and anticipated experience. In 2016 and later, the expectation of retired life mortality was changed to the RP-2000 White Collar Mortality Table projected to 2020 using scale BB and adjusted 115% for all ages for males and 112% for ages 78 and over for females.

#### ***Recent Plan Changes:***

Beginning in plan year 2021, the MAPD plan premium rates exclude the ACA Health Insurer Fee which was repealed on December 20, 2019.

Effective January 1, 2017, Medicare eligible medical and prescription drug benefits are provided through the MAPD plan.

The Health Plan is changed each year to reflect the ACA maximum annual out-of-pocket amounts.





***Section IV – Required Supplementary Information (continued)***

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***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 September 30, three years prior to the end of the fiscal year in which contributions are reported. Therefore, the actuarially determined employer contribution for fiscal year ending September 30, 2019 is determined based on the actuarial valuation as of September 30, 2016. The following actuarial methods and assumptions were used to determine the most recent contribution rate reported in that schedule:

Actuarial cost method	Entry Age Normal
Amortization method	Level percent of pay, closed
Remaining amortization period	25 years
Asset valuation method	Market value of assets
Inflation	2.875%
Healthcare cost trend rate	
Pre-Medicare eligible	7.75%
Medicare eligible	5.00%
Ultimate trend rate	
Pre-Medicare eligible	5.00%
Medicare eligible	5.00%
Year of ultimate trend rate	2022 for pre-Medicare eligible 2018 for Medicare eligible
Investment rate of return	5.00%, including inflation



**Section V – OPEB Expense**

The OPEB Expense (OE) consists of a number of different items. GASB 75 refers to the first item as Service Cost which is the Normal Cost using the Entry Age Normal actuarial funding method. The second item is interest on the TOL at the Discount Rate in effect as of the Prior Measurement Date.

The next three items refer to any changes that occurred in the TOL due to:

- benefit changes, or
- actual versus expected experience, or
- changes in assumptions or other inputs.

Benefit changes, which are reflected immediately, will increase OE, if there is a benefit improvement for existing Plan members, or decrease OE, if there is a benefit reduction. For the year ended September 30, 2019, there were no benefit changes to be recognized.

The next item to be recognized is the portion of current year changes in TOL due to actual versus expected Plan experience for the year. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire Plan membership at the beginning of the measurement period. The average expected remaining service life of active members is the average number of years the active members are expected to remain in covered employment. For the year ended September 30, 2019 this number is 10.51 years. The average expected remaining service life of the inactive members is zero. Therefore, the recognition period is the weighted average of these two amounts, or 6.17 years. The development of the average remaining service life is shown in the table below.

**Calculation of Weighted Average Years of Working Lifetime**

Category	Number (1)	Average Years of Working Lifetime (2)
a. Active Members	134,598	10.51
b. Inactive Members	<u>94,773</u>	0.00
c. Total	229,371	
[(a1 * a2) + (b1 * b2)]/c1		6.17



**Section V – OPEB Expense (continued)**

The last item under changes in TOL is changes in assumptions or other inputs. The portion to recognize in the current year is determined by spreading the total change over the average expected remaining service life of the entire Plan membership, similar to the way experience gains and losses are recognized. For the year ended September 30, 2019, there was a change in the TOL arising from the change in the Discount Rate from 4.44% on the Prior Measurement Date to 5.50% on the Measurement Date. Additionally, the anticipated rates of participation, spouse coverage, and tobacco use were adjusted to more closely reflect actual experience.

Member contributions for the year and projected earnings on the FNP at the discount rate serve to reduce the expense. One-fifth of current-period difference between actual and projected earning on the FNP are recognized in the OPEB expense.

<b>Investment Earnings (Gain)/Loss as of September 30, 2020</b>		
a	Expected asset return rate	7.25%
b	Beginning of year market value assets (BOY)	\$ 1,428,803,000
c	End of year market value assets (EOY)	1,477,077,000
d	Expected return on BOY for plan year (a x b)	103,588,218
	External Cash Flow	
	Contributions - employer	284,411,000
	Contributions - member	0
	Refunds of contributions	0
	Benefits paid	(289,843,000)
	Admin expenses and other	(1,701,000)
e	Total net external cash flow	(7,133,000)
f	Expected return on net cash flow (a x 0.5 x e)	(258,571)
g	Projected earnings for plan year (d + f)	103,329,647
h	Net investment income (c - b - e)	55,407,000
	<b>Investment earnings (gain)/loss (g - h)</b>	<b>\$ 47,922,647</b>



**Section V – OPEB Expense (continued)**

The current year portions of previously determined experience and assumption amounts, recognized as Deferred Outflows of Resources and Deferred Inflows of Resources are included. Deferred Outflows of Resources are added to the OE while Deferred Inflows of Resources are subtracted from the OE. Finally, other miscellaneous items are included.

Collective OPEB Expense Determined as of the Measurement Date	
Service Cost	\$ 219,135,939
Interest on the TOL and Cash Flow	421,915,790
Current-period benefit changes	0
Expensed portion of current-period difference between expected and actual experience in the total OPEB liability	(559,534,871)
Expensed portion of current-period changes of assumptions	(210,139,887)
Member contributions	0
Projected earnings on plan investments	(103,329,647)
Expensed portion of current-period differences between actual and projected earnings on plan investments	9,584,529
Administrative expense	1,653,000
Other	42,772
Recognition of beginning deferred outflows/(inflows) of resources as OPEB expense	<u>(88,076,080)</u>
Collective OPEB Expense	<u>\$ (308,748,455)</u>



## ***Schedule A – Summary of Main Benefit Provisions***

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**ELIGIBILITY:** Retiree medical eligibility is attained when an employee retires, and is immediately eligible to draw a retirement annuity from the Teachers' Retirement System of Alabama.

**RETIREE CONTRIBUTIONS:** Retiree contributions vary based on plan election, dependent coverage, Medicare eligibility and election, tobacco usage and, for non-Medicare eligible retirees and spouses, wellness credits.

In November 2004, the Alabama Legislature enacted legislation (Act 2004-649) that required the Public Education Employees' Insurance Board to implement a sliding scale premium for all employees retiring after September 30, 2005, based on their years of service at retirement.

The premium for retiree coverage is broken down into the employer share (what PEEHIP pays) and the retiree share. Under the sliding scale, the retiree will still be responsible for the retiree share, however, the employer share will increase or decrease based upon a retiree's years of service. For those employees retiring with 25 years of service, the employer would pay 100% of the employer share of the premium. For each year less than 25, the employer share would be reduced by 2% and the retiree share will be increased accordingly. For each year over 25, the employer share would be increased by 2% and the retiree share is reduced accordingly.

The sliding scale premium will not apply to disability retirements for twenty-four (24) months from the member's date of retirement, provided the member submits to PEEHIP proof of application for Social Security Disability benefits. The exemption from the sliding scale premium can be extended beyond twenty-four (24) months from the member's date of retirement if the member qualifies for Social Security Disability benefits during the twenty-four (24) months following the member's date of retirement.

For members retiring on or after January 1, 2012, Act 2011-704 establishes changes to the sliding scale premium calculation. Under the law there are three major changes to the retiree sliding scale premium. These changes are related to a retiree's years of service (Service Premium Component), age at the time of retirement (Age Component) and subsidy premium (Subsidy Component).

- **Service Premium Component:** An employee who retires with less than 25 years of service will contribute 4% of the employer share for each year under 25 years of service instead of 2% under the current law. The Service Premium Component continues for the retiree's lifetime.
- **Age Component:** An employee who retires before becoming Medicare eligible will contribute 1% of the employer share for each year less than 65. Upon Medicare entitlement, the age component will be removed.
- **Subsidy Component:** An employee will contribute the net difference between the active employee subsidy and the non-Medicare eligible retiree subsidy (subsidy premium). The Fiscal Year 2019 subsidy premium amount is \$162.93 per month. Upon Medicare entitlement, the subsidy component will be removed.



**Schedule A – Summary of Main Benefit Provisions (continued)**

**Retired Members**

The following health insurance premiums are the base rates set by the PEEHIP Board. Base rates are before the wellness premiums, tobacco premiums, or the retiree sliding scale adjustments are applied, if applicable. The monthly premiums for members who retired prior to October 1, 2005, or members who retired on or after October 1, 2005, and before January 1, 2012, with 25 years of service are listed in the chart below and show a retiree’s out-of-pocket cost after subtracting the retiree insurance contribution.

Sample Premium Rates 2018-2019 Plan Year			
Type of Contract	*Retiree Monthly Out-of-Pocket Premium	Premium if One Covered Dependent is ME Spouse	Premium if One Covered Dependent is NME Spouse
Individual Coverage / NME Retired Member	\$166	N/A	N/A
Family Coverage / NME Retired Member & More Than 1 Dependent or Only Dependent NME	\$421	\$451	\$521
Family/NME Retired Member with Only 1 Dependent who is their Spouse	N/A	\$305	\$496
Family Coverage/ NME Retired Members & Only Dependent ME	\$280	N/A	N/A
Individual Coverage / ME Retired Member	\$25	N/A	N/A
Family Coverage / ME Retired Member & More Than 1 Dependent or Only Dependent NME	\$280	\$310	\$380
Family/ME Retired Member with Only 1 Dependent who is their Spouse	N/A	\$164	\$355
Family Coverage / ME Retired Member & Only Dependent ME	\$139	N/A	N/A

*\* This rate applies to the PEEHIP Hospital Medical or the VIVA Health Plan and is the monthly amount that will be deducted from a retiree’s check. The VIVA Health Plan is not available to retired members who are Medicare eligible or retired members who have dependents who are Medicare eligible.*

The premium rates above do not include the \$50 monthly tobacco surcharge for both retirees and their spouses.

Retirees participating in the PEEHIP Supplemental Plan were assumed to cost \$149 monthly effective October 1, 2018.

The University System makes a contribution to PEEHIP for every University retiree participating in PEEHIP plans regardless of age or plan tier election. For Fiscal Year 2019, the monthly amount is \$338 per retiree.



**Schedule A – Summary of Main Benefit Provisions (continued)**

The State per member per month funding can be used to purchase the PEEHIP Supplemental Plan or two optional plans at no cost to the retiree if the retiree is not purchasing one of the hospital medical plans. Additional optional plans can be purchased for \$38.00 per month per plan.

Optional Coverage: Active and Retired Members

- Cancer \$38.00/month Individual or Family Coverage
- Indemnity \$38.00/month Individual or Family Coverage
- Dental \$38.00/month Individual Coverage  
\$50.00/month Family Coverage
- Vision \$38.00/month Individual or Family Coverage

Retiree premiums for the four optional plans, Hospital Indemnity, Dental, Cancer and Vision, are \$38 per retiree per month. Since two of these plans can be purchased for \$0 in lieu of taking the hospital medical coverage, it is assumed that 75% of participants in the Dental plan and 50% of participants in the other optional plans are making the \$38 per month (\$50 for Family Dental) contributions.

**Surviving Dependent**

The following health insurance premiums are the base rates set by law and approved by the PEEHIP Board. Base rates are before wellness and tobacco premiums are applied, if applicable. These rates begin the first of the month following the member’s date of death.

<b>Premium Rates 2018-2019 Plan Year</b>	
<b>Type of Contract</b>	<b>Monthly Premium for PEEHIP Hospital Medical or VIVA Health Plan</b>
Individual Coverage/Non-Medicare-eligible (NME) Survivor	\$826
Family Coverage/NME Survivor & More Than 1 Dependent or Only Dependent NME	\$1,098
Family Coverage/NME Survivor & Only Dependent Medicare-eligible (ME)	\$1,002
Individual Coverage/ME Survivor	\$355
Family Coverage/ME Survivor & More Than 1 Dependent or Only Dependent NME	\$705
Family Coverage/Medicare-eligible Survivor & Only Dependent ME	\$609
Supplemental Medical Plan (Single or Family)	\$149
Optional (Each) – Cancer, Indemnity, Vision, and Single Dental	\$38
Optional – Family Dental Premium	\$50
Tobacco Premium for Survivor Enrolling in Hospital Medical	\$50
Wellness Premium/NME Survivor	\$50



## **Schedule A – Summary of Main Benefit Provisions (continued)**

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### **Benefit Policy and Premium Changes**

**Effective October 1, 2018**

*(Unless otherwise notated)*

#### **Teladoc®**

- ◆ All members who are enrolled in the PEEHIP Hospital Medical Plan Group #14000 have access to Teladoc®, which provides consultations with board-certified doctors via phone or video 24 hours a day/7 days a week. This service is available at zero copay and can be used to speak with a doctor about a variety of issues such as cold, flu, allergies, infections, and more. Plus, when necessary, the doctor can even prescribe the appropriate medication needed for treatment. This exciting new benefit can be used in place of the emergency room or urgent care for non-emergency situations.

#### **Applied Behavior Analysis (ABA) Therapy Copay Reduction**

- ◆ PEEHIP covers Applied Behavior Analysis (ABA) Therapy for children ages 0 through 18 at 100% of the Blue Cross Blue Shield of Alabama allowance, subject to a **\$15** copay per visit and the annual dollar maximum limits of \$40,000 for ages 0 through 9, \$30,000 for ages 10 through 13, and \$20,000 for ages 14 through 18, for in-network and out-of-network enrolled providers, **effective retroactively to January 1, 2018.**

#### **Flexible Spending Account (FSA) Plan Changes**

- ◆ The Flex debit card will be allowed for all eligible expenses for medical, dental, vision as well as pharmacy claims; the automatic bump reimbursement option will be eliminated.
- ◆ The annual maximum Health FSA contribution amount increased to **\$2,650** beginning fiscal year October 1, 2018. This is a benefit enhancement.
- ◆ The Dependent Care Reimbursement Account (DCRA) annual maximum contribution remains unchanged at \$5,000 (\$2,500 each if married filing separately).

#### **VIVA Health Plan Benefit Changes**

- ◆ PEEHIP members covered by the VIVA Health Plan have access to teleconsultation through Teladoc® just like members covered under the PEEHIP Hospital Medical Plan Group #14000 administered by Blue Cross Blue Shield of Alabama. The copay for VIVA members is increasing to **\$45** per consult effective October 1, 2018.
- ◆ The combined medical and prescription drug in-network maximum annual out-of-pocket amounts will increase to **\$7,350** for individual and **\$14,700** per family for the 2018-2019 benefits. Maximum out-of-pocket amounts are a benefit to members because they limit the total amount members will pay out-of-pocket for their in-network healthcare expenses.
- ◆ VIVA will also begin covering ABA therapy effective October 1, 2018, and coverage will be at 80% of the allowed amount after members meet the deductible. The calendar year deductible remains unchanged at \$500 for individual and \$1,500 per family contract for the 2019 fiscal year. ABA therapy will be available to those members with a diagnosis of autism, autism spectrum disorder, or pervasive developmental delay.
- ◆ VIVA benefits have always included Diabetic Self-Management Education (DSME) with no limit. This benefit was previously billed by a hospital as an outpatient claim, causing the applicable member cost-sharing and deductible. DSME will not be a new benefit category, which is a benefit enhancement because the deductible no longer applies.





## ***Schedule A – Summary of Main Benefit Provisions (continued)***

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### **Maximum Annual Out-of-Pocket Amounts**

- ◆ The combined medical and prescription drug in-network maximum annual out-of-pocket amounts will increase to **\$7,900** per individual and **\$15,800** per family per calendar year effective January 1, 2019.

### **Supplemental Medical Changes**

- ◆ The annual maximum amount of claims paid under Group #61000 will increase to **\$7,900** per individual and per calendar year effective January 1, 2019. This is a benefit enhancement.

### **Blue Distinction Centers for Bariatric Surgery**

- ◆ Since both quality of care and cost of care vary significantly among the broad choice of providers in Alabama, Blue Cross Blue Shield of Alabama has established Blue Distinction Centers as facilities within the state that are proven to show the best healthcare outcomes for certain procedures. To ensure members covered under the PEEHIP Hospital Medical Plan Group receive the safest and highest level of care when seeking treatment for surgery for morbid obesity or related bariatric procedures, coverage for these procedures is available only at Alabama Blue Distinction Center facilities effective January 1, 2018. No coverage is available for these procedures when done at a non-Alabama Blue Distinction Center. By using these facilities with proven results of better outcomes, members will experience less avoidable complications and re-admissions. Higher quality care and less complications equates to lower costs for the plan.
- ◆ Any in-network facility within the state can become a Blue Distinction Center if they meet certain quality of care criteria as set by Blue Cross Blue Shield of Alabama.

### **Pharmacy Changes**

- ◆ Due to the fast-moving nature of both new drugs becoming available and price changes amongst existing drugs, PEEHIP implements various utilization management programs throughout the plan year to the commercial plan formulary, including prior authorizations, step therapy, quantity limits and the exclusion of some drugs to drive utilization to lower cost therapeutic alternative medications. This is to ensure that the PEEHIP formulary covers the most effective drugs at the most reasonable price. No changes were made to the drug copay tiers.



**Schedule B – Outline of Actuarial Assumptions and Methods**

The decremental assumptions used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2015, submitted to and adopted by the Teachers’ Retirement System of Alabama Board on September 13, 2016, and are reasonable expectations of anticipated experience under the Plan. The assumptions were used in the retiree health care valuation for consistency and are under PEEHIP Board jurisdiction.

**VALUATION DATE:** September 30, 2018

**PAYROLL GROWTH:** 3.00% per annum, compounded annually.

**HEALTH CARE COST TREND RATES:** Health care cost trend rates reflect the change in per capita health costs over time due to factors such as inflation, utilization, plan design, and technology improvements which are detailed in the “Annual Increase in Medical/Prescription Drug/Optional Plan Costs” below.

Annual Increase in Medical/Prescription Drug/Optional Plan Costs			
Year	Pre-Medicare Medical Trend*	Medicare-Eligible Medical Trend*	Optional Plans Trend
2018	6.75%	**	2.00%
2019	6.50%	**	2.00%
2020	6.25%	**	2.00%
2021	6.00%	**	2.00%
2022	5.75%	5.00%	2.00%
2023	5.50%	5.00%	2.00%
2024	5.25%	4.75%	2.00%
2025	5.00%	4.75%	2.00%
2026	4.75%	4.75%	2.00%

\* Also applies to sliding scale age and years of service premium to be contributed by retirees, surviving dependent contributions, University Contributions and the PEEHIP Supplemental Plan cost.

\*\* No trend is applied to the MAPD until 2022 because the rates are guaranteed through 2021.

The “Annual Increase in Base Contributions Received from Covered Members” details how the expected increase in the amounts contributed from covered retirees and dependents will increase over time. The trend rates are detailed below and apply to the base rate retiree premiums only. The sliding scale premiums are assumed to increase with health care trend. The premiums for surviving dependents are assumed to approximate the assumed claims cost over time.

Annual Increase in Base Contributions Received from Covered Members		
Retiree Share of Premium		Retiree Optional Plans Premium
Pre-Medicare	Medicare Eligible	
2.0%	1.0%	2.0%



**Schedule B – Outline of Actuarial Assumptions and Methods (continued)**

**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*
< 40	0.0%
40 – 44	2.6%
45 – 49	2.6%
50 – 54	3.2%
55 – 59	3.4%
60 - 64	3.7%
65 – 69	3.2%
70 – 74	2.4%
75 – 79	1.8%
80 – 84	1.3%
85 and over	0.0%

*\*Optional and Supplemental Plan costs are not age adjusted.*

**ANTICIPATED PLAN PARTICIPATION:** The assumed annual rates of plan participation and spouse coverage are as follows:

Medical	Under 65	Over 65
Disabled Retirement*	60%	85%
Service Retirement	60%	85%
Spouse Coverage**	55%	45%

*\* 100% of current disabled retirees and future disabled retirees who are not also eligible for service retirement are assumed to qualify for Social Security Disability benefits and thus would be exempt from sliding scale contributions.*

*\*\*Percentage of participating members who are assumed to cover a spouse.*

Optional Plans	
Plan	Participation
Hospital Indemnity	5%
Dental	50%
Cancer	7.5%
Vision	15%

Wives are assumed to be three years younger than husbands.

We assume 15% of males and 6% of females pay the \$50 monthly tobacco surcharge. This applies to both retirees and spouses.

We assume 100% of pre-Medicare eligible retirees and covered spouses will qualify for the wellness credit.



**Schedule B – Outline of Actuarial Assumptions and Methods (continued)**

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**ANNUAL EXPECTED MEDICAL/PRESCRIPTION DRUGS CLAIMS (AGE 65):** Following is a chart detailing expected per member per year medical/prescription drugs claims for pre-65 members for the year following the valuation date. Post-65 claims are based on the adjusted premium rate for the MAPD plan. Claims are age-adjusted to age 65.

Medical/Prescription Drugs	
Pre-65	\$11,440
Post-65	\$2,185

**MEDICARE ADVANTAGE PREMIUMS:** Claims for Medicare-Eligible retirees are set based on scheduled premium rate increases until the 2022 plan year. Premium rates drop beginning with plan year 2021 due to the repeal of the ACA Health Insurer Fee effective January 1, 2021.

**ANNUAL EXPECTED OPTIONAL PLAN CLAIMS:** Following is a chart detailing expected Optional Plan claims for the year following the valuation date. Optional Plan claims are not age-adjusted.

Dental Plan	Vision Plan	Cancer Plan	Hospital Indemnity Plan
\$457	\$73	\$129	\$184

**ACTUARIAL METHOD:** Costs were determined using the Entry Age Normal Cost Method. Under this method, the normal cost is determined as a level percentage of payroll which, if applied for the average new member during the entire period of his/her anticipated covered service from hire date through full retirement eligibility date, would be required to meet the cost of all benefits payable on behalf of the member. The unfunded accrued liability is determined by subtracting the present value of future normal costs together with the actuarial value of assets from the present value of expected benefits to be paid by the Plan.

**ASSET VALUATION METHOD:** Market value.



**Schedule B – Outline of Actuarial Assumptions and Methods (continued)**

The following decremental assumptions used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2015, submitted to and adopted by the Teachers' Retirement System of Alabama Board on September 13, 2016.

**SEPARATIONS BEFORE SERVICE RETIREMENT:** Representative values of the assumed annual rates of death, disability, and withdrawal are as follows:

Age	Annual Rate of							
	Death*	Disability**				Withdrawal***		
		Tier I		Tier II				
		Years of Service		Years of Service		Years of Service		
	10-24	25+	10+	0-4	5-9	10-19	20+	
<b>Male</b>								
20	0.0293%	0.0008%		0.0008%	25.00%			
25	0.0319	0.0250		0.0250	14.80	11.00%		
30	0.0376	0.0425		0.0425	13.80	5.40	3.50%	
35	0.0655	0.1300		0.1300	13.50	5.40	2.50	
40	0.0914	0.1700		0.1700	13.00	5.40	2.25	
45	0.1278	0.2700	0.2000%	0.2700	13.00	5.40	2.25	
50	0.1812	0.6000	0.2000	0.6000	12.00	5.00	2.50	
55	0.2567	0.9000	0.2000	0.9000	11.50	5.00	2.50	
60	0.3815	0.5000	0.5000	1.3000	12.00	4.50	2.50	
65	0.5353	0.5000	0.5000	0.5000	12.00	6.00		
69	0.6326	0.5000	0.5000	0.5000	12.00	6.25		
<b>Female</b>								
20	0.0108%	0.0100%		0.0100%	25.00%			
25	0.0117	0.0275		0.0275	12.75	9.00%		
30	0.0149	0.0425		0.0425	13.50	5.80	4.30%	
35	0.0268	0.1000		0.1000	13.50	5.00	2.60	
40	0.0399	0.2000		0.2000	11.50	4.75	2.00	
45	0.0635	0.3500	0.2000%	0.3500	10.75	4.10	2.00	
50	0.0947	0.6500	0.2000	0.6500	10.75	3.90	2.20	
55	0.1371	1.0500	0.2000	1.0500	11.00	4.20	2.40	
60	0.1929	0.5000	0.5000	1.4000	12.00	4.50	2.70	
65	0.2743	0.5000	0.5000	0.5000	15.00	6.75		
69	0.3435	0.5000	0.5000	0.5000	15.00	7.25		

\*Rates of pre-retirement mortality are according to the sex distinct RP-2000 Employee Mortality Table (with the sex distinct RP-2000 Combined Mortality Table used for ages over 70) projected with Scale BB to 2020 with an adjustment factor of 90% for males and 60% for females.

\*\*No rates of disability are assumed for members with less than 10 years of service.

\*\*\*No rates of withdrawal are assumed after eligibility for service retirement.



**Schedule B – Outline of Actuarial Assumptions and Methods (continued)**

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**SERVICE RETIREMENT:**

The assumed annual rates of service retirement for **Tier I** members are as follows:

For Tier I members upon attaining 25 years of service, rates are as follows:

<u>Age Group</u>	<u>Annual Rate</u>	
	<u>Male*</u>	<u>Female**</u>
47 & Under	25.0%	28.0%
48	25.0	20.0
49	20.0	17.0
50	16.5	13.0
51 to 53	16.0	15.0
54	16.0	17.0
55	16.0	18.0
56-57	16.0	19.0
58	16.0	21.0
59	20.0	22.0
60	20.0	30.0
61	20.0	27.5
62	35.0	45.0
63	30.0	35.0
64	23.0	32.0
65	28.0	38.0
66	27.0	40.0
67	22.0	35.0
68	22.0	37.0
69 to 70	22.0	30.0
71-74	20.0	30.0
75	100.0	100.0

*\*For males, retirement rates are increased by 5% in the year first attaining 25 years of service from age 51 through age 60.*

*\*\*For females, retirement rates are increased by 9% in the year first attaining 25 years of service from age 50 through age 59.*



**Schedule B – Outline of Actuarial Assumptions and Methods (continued)**

For Tier I members first eligible for unreduced pension benefits before attaining 25 years of service, the rates are as follows:

<u>Age Group</u>	<u>Annual Rate</u>	
	<u>Male</u>	<u>Female</u>
60	12.5%	17.0%
61	11.0	13.5
62	25.0	23.5
63	18.5	18.0
64	15.0	17.0
65	28.0	28.0
66	27.0	28.0
67	22.0	23.0
68	22.0	27.0
69	22.0	22.0
70	22.0	26.0
71 to 74	20.0	24.0
75 & Above	100.0	100.0

The assumed annual rates of service retirement for **Tier II** members are as follows:

<u>Age Group</u>	<u>Annual Rate</u>			
	<u>Male*</u>		<u>Female**</u>	
	<u>Less than 25</u> <u>years of service</u>	<u>25 or more years</u> <u>of service</u>	<u>Less than 25 years</u> <u>of service</u>	<u>25 or more years</u> <u>of service</u>
62	50.0%	60.0%	50.0%	70.0%
63	18.5	30.0	18.0	35.0
64	15.0	23.0	17.0	32.0
65	28.0	28.0	28.0	38.0
66	27.0	27.0	28.0	40.0
67	22.0	22.0	23.0	35.0
68	22.0	22.0	27.0	37.0
69	22.0	22.0	22.0	30.0
70	22.0	22.0	26.0	30.0
71 to 74	20.0	20.0	24.0	30.0
75 & above	100.0	100.0	100.0	100.0

\* For FLC Tier II members, rates on or after age 60 are the same as those for Tier I, while rates from ages 56 to 59 are equal to 0.20 for service less than 25 years and 0.30 for service greater than or equal to 25 years.

\*\* For FLC Tier II members, rates on or after age 60 are the same as those for Tier I, while rates from ages 56 to 59 are equal to 0.20 for service less than 25 years and 0.40 for service greater than or equal to 25 years.



**Schedule B – Outline of Actuarial Assumptions and Methods (continued)**

**DEATHS AFTER RETIREMENT:** Rates of mortality for the period after service retirement are according to the RP-2000 White Collar Mortality Table projected to 2020 using scale BB and adjusted 115% for all ages for males and 112% for ages 78 and over for females. The rates of disabled mortality were based on the RP-2000 Disabled Mortality Table projected to 2020 using scale BB and adjusted 105% for males and 120% for females. Representative values of assumed mortality are as follows:

Age	Service Retirement		Disability Retirement	
	Male	Female	Male	Female
55	0.3575%	0.2339%	3.5044%	1.7959%
60	0.5579	0.3825	3.8359	2.1434
65	0.9991	0.6795	4.1382	2.6417
70	1.6384	1.1928	4.8570	3.5474
75	2.8589	2.0200	6.3692	4.9231
80	5.0501	3.7900	8.4883	6.8160
85	8.8966	6.5271	10.9897	9.4450
90	16.4327	11.3249	15.4359	13.4706

**SALARY INCREASES:** Representative values of the assumed annual rates of future salary increases are as follows:

Service	Annual Rate
	2017 Valuation and later*
0	5.000 %
1-5	4.000
6-10	3.750
11-15	3.500
16 & Over	3.250

*\*Includes wage inflation at 3.000% per annum.*

**AFFORDABLE CARE ACT:** The impact of the Affordable Care Act (ACA) was addressed in this valuation in our long term trend assumption. 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 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., 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.





*Schedule C – Deferred Outflows and Inflows of Resources*

**SCHEDULE OF DIFFERENCES BETWEEN EXPECTED AND ACTUAL EXPERIENCE**

Year	Difference Between Expected and Actual Experience	Recognition Period (Years)	Increase/(Decrease) in OPEB Expense Arising from the Recognition of the Effects of the Differences Between Expected and Actual Experience							
			2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	Thereafter	
2016 - 2017	\$0	6.23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2017 - 2018	\$184,547,248	6.19	\$29,813,772	\$29,813,772	\$29,813,772	\$29,813,772	\$29,813,772	\$29,813,772	\$5,664,616	\$0
2018 - 2019	(\$3,452,330,157)	6.17	(\$559,534,871)	(\$559,534,871)	(\$559,534,871)	(\$559,534,871)	(\$559,534,871)	(\$559,534,871)	(\$559,534,871)	(\$95,120,931)
			(\$529,721,099)	(\$529,721,099)	(\$529,721,099)	(\$529,721,099)	(\$529,721,099)	(\$529,721,099)	(\$553,870,255)	(\$95,120,931)

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in		
			OPEB Expense Through September 30, 2019 (c)	Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) + (c)
2016 - 2017	\$0	\$0	\$0	\$0	\$0
2017 - 2018	\$184,547,248	\$0	\$59,627,544	\$124,919,704	\$0
2018 - 2019	\$0	\$3,452,330,157	(\$559,534,871)	\$0	\$2,892,795,286
			(\$499,907,327)	\$124,919,704	\$2,892,795,286



*Schedule C – Deferred Outflows and Inflows of Resources (continued)*

**SCHEDULE OF DIFFERENCES BETWEEN PROJECTED AND ACTUAL EARNINGS ON PLAN INVESTMENTS**

Year	Difference Between Projected and Actual Earnings on OPEB Plan Investments	Recognition Period (Years)	Increase/(Decrease) in OPEB Expense Arising from the Recognition of the Differences Between Projected and Actual Earnings on OPEB Plan Investments					
			2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	Thereafter
2016 - 2017	(\$49,430,303)	5.00	(\$9,886,061)	(\$9,886,061)	(\$9,886,059)	\$0	\$0	\$0
2017 - 2018	(\$17,972,143)	5.00	(\$3,594,429)	(\$3,594,429)	(\$3,594,429)	(\$3,594,427)	\$0	\$0
2018 - 2019	\$47,922,647	5.00	\$9,584,529	\$9,584,529	\$9,584,529	\$9,584,529	\$9,584,531	\$0
			(\$3,895,961)	(\$3,895,961)	(\$3,895,959)	\$5,990,102	\$9,584,531	\$0

Year	Difference Between Projected and Actual Earnings on OPEB Plan Investments (a)	Amounts Recognized in OPEB Expense Through September 30, 2019 (b)	Amounts of Deferred Resources Outflows/(Inflows) (a) – (b)
2016 - 2017	(\$49,430,303)	(\$29,658,183)	(\$19,772,120)
2017 - 2018	(\$17,972,143)	(\$7,188,858)	(\$10,783,285)
2018 - 2019	\$47,922,647	\$9,584,529	\$38,338,118
		(\$27,262,512)	\$7,782,713



*Schedule C – Deferred Outflows and Inflows of Resources (continued)*

**SCHEDULE OF CHANGES OF ASSUMPTION**

Year	Assumption Changes	Recognition Period (Years)	Increase/(Decrease) in OPEB Expense Arising from the Recognition of the Effects of Assumption Changes						
			2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	Thereafter
2016 - 2017	(\$918,644,181)	6.23	(\$147,454,925)	(\$147,454,925)	(\$147,454,925)	(\$147,454,925)	(\$33,914,631)	\$0	\$0
2017 - 2018	\$266,452,038	6.19	\$43,045,563	\$43,045,563	\$43,045,563	\$43,045,563	\$43,045,563	\$8,178,660	\$0
2018 - 2019	(\$1,296,563,101)	6.17	(\$210,139,887)	(\$210,139,887)	(\$210,139,887)	(\$210,139,887)	(\$210,139,887)	(\$210,139,887)	(\$35,723,779)
			(\$314,549,249)	(\$314,549,249)	(\$314,549,249)	(\$314,549,249)	(\$201,008,955)	(\$201,961,227)	(\$35,723,779)

Year	Assumption Losses (a)	Assumption Gains (b)	Amounts Recognized in		
			OPEB Expense Through September 30, 2019 (c)	Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) + (c)
2016 - 2017	\$0	\$918,644,181	(\$442,364,775)	\$0	\$476,279,406
2017 - 2018	\$266,452,038	\$0	\$86,091,126	\$180,360,912	\$0
2018 - 2019	\$0	\$1,296,563,101	(\$210,139,887)	\$0	\$1,086,423,214
			(\$566,413,536)	\$180,360,912	\$1,562,702,620



*Schedule C – Deferred Outflows and Inflows of Resources (continued)*

**SUMMARY OF RECOGNIZED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES**

	Net Increase/(Decrease) in OPEB Expense						
	2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	Thereafter
Differences between Expected and Actual Experience	(\$529,721,099)	(\$529,721,099)	(\$529,721,099)	(\$529,721,099)	(\$529,721,099)	(\$553,870,255)	(\$95,120,931)
Changes of Assumptions	(\$314,549,249)	(\$314,549,249)	(\$314,549,249)	(\$314,549,249)	(\$201,008,955)	(\$201,961,227)	(\$35,723,779)
Differences between Projected and Actual Earnings on OPEB Plan Investments	(\$3,895,961)	(\$3,895,961)	(\$3,895,959)	\$5,990,102	\$9,584,531	\$0	\$0
<b>Grand Total</b>	<b>(\$848,166,309)</b>	<b>(\$848,166,309)</b>	<b>(\$848,166,307)</b>	<b>(\$838,280,246)</b>	<b>(\$721,145,523)</b>	<b>(\$755,831,482)</b>	<b>(\$130,844,710)</b>