



**Cavanaugh Macdonald**  
CONSULTING, LLC  
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**GASB STATEMENT NO. 75 REPORT**

**For the Alabama State 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*

July 8, 2020

State Employees' Insurance Board  
RSA Tower  
201 South Union Street, Suite 200  
Montgomery, AL 36104

Dear Members of the Board:

Presented in this report is information to assist the Alabama State Employees' Health Insurance Plan (SEHIP) 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 were used in this report. The valuation was based upon data furnished by the Alabama State Employees Retirement System (System) and the SEIB 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.



July 8, 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 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

AB:jf



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*Section I – Summary of Principal Results*

**REPORT OF THE ANNUAL GASB STATEMENT NO. 75  
ALABAMA STATE EMPLOYEES  
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	7.50%	7.50%
Municipal Bond Index Rate at Measurement Date	3.00%	4.18%
Year in which Fiduciary Net Position is Projected to be Depleted	2035	2024
Single Equivalent Interest Rate at Measurement Date	3.63%	4.25%
<b>Net OPEB Liability:</b>		
Total OPEB Liability (TOL)	\$ 1,920,611,110	\$ 3,089,815,354
Fiduciary Net Position (FNP)	190,855,481	184,178,038
Net OPEB Liability (NOL = TOL – FNP)	\$ 1,729,755,629	\$ 2,905,637,316
FNP as a percentage of TOL	9.94%	5.96%
<b>OPEB Expense (OE):</b>	\$ (210,620,977)	\$ 58,385,514
<b>Deferred Outflows of Resources:</b>	\$ 128,527,712	\$ 0
<b>Deferred Inflows of Resources:</b>	\$ 1,563,699,487	\$ 544,692,479



## ***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 State Employees Health Insurance Plan (SEHIP) 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. 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 SEHIP. 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 SEHIP is assumed to be a single-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.

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.



## *Section II – Introduction*

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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%. To aid in the calculation of the projected FNP, it is recommended that a funding policy be implemented to project employer contributions. For the purpose of this report, we have determined that a discount rate of 3.63% as of September 30, 2019 meets the requirements of GASB 75.

The FNP projections are based upon the 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 51-52.:** 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 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, applied to all periods included in the measurement and rolled forward to the measurement date of September 30, 2019:

<b>Inflation</b>	2.75 percent
<b>Salary increases</b>	5.00 - 3.25 percent for State and Local Employees, 4.50 percent for Police and 3.50 - 3.25 percent for Judges, including 3.00 percent wage inflation
<b>Long-term investment rate of return</b>	7.50 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>	2035
<b>Single Equivalent Interest Rate at Measurement Date</b>	3.63 percent
<b>Single Equivalent Interest Rate at Prior Measurement Date</b>	4.25 percent
<b>Healthcare cost trend rate</b>	
Pre-Medicare Eligible	6.75 percent
Medicare Eligible	**
Ultimate trend rate	
Pre-Medicare Eligible	4.75 percent in 2026
Medicare Eligible	4.75 percent in 2024
Dental trend rate	4.50 percent

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





### ***Section III – Financial Statement Notes***

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#### **Mortality**

State and Local Employees: The rates of mortality for the period after service retirement are according to the sex distinct RP-2000 Blue Collar Mortality Table Projected with Scale BB to 2020 with an adjustment of 125% at all ages for males and 120% for females at ages on and after age 78. The rates of mortality for the period after disability retirement are according to the sex distinct RP-2000 Disabled Retiree Mortality Table Projected with Scale BB to 2020 with an adjustment of 130% at all ages for females.

Judicial Employees: 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 and methods used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2015, submitted to and adopted by the Board on September 29, 2016.

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 September 30, 2018 valuation were based on a review of recent plan experience done concurrently with the September 30, 2018 valuation.



**Section III – Financial Statement Notes**

**Paragraph 52(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	1,441,634,472	1,729,755,629	2,096,017,733

**Paragraph 53:**

- (a) **Discount rate (SEIR):** The discount rate used to measure the TOL at September 30, 2018 was 4.25 percent. The discount rate used to measure the TOL at September 30, 2019 was 3.63 percent.
- (b) **Projected cash flows:** The projection of cash flows used to determine the discount rate assumed that plan contributions will equal to the lesser of the prior year’s contribution indexed with inflation or actual benefit payments plus expenses.
- (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.



**Section III – Financial Statement Notes**

**(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	28.2%	4.40%
US Domestic Stocks	55.2%	8.70%
International Developed Market Stocks	10.8%	9.80%
Cash	<u>5.8%</u>	1.50%
Total	100.0%	

\*Geometric mean, includes 2.5% inflation

**(g) Sensitivity analysis:** 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 3.63 percent, as well as the System’s NOL calculated using a discount rate that is 1-percentage-point lower (2.63 percent) or 1-percentage-point higher (4.63 percent) than the current rate:

	1% Decrease (2.63%)	Current Discount Rate (3.63%)	1% Increase (4.63%)
Net OPEB Liability	2,028,742,823	1,729,755,629	1,486,498,500



**Section III – Financial Statement Notes**

**Paragraph 56 (a):** September 30, 2018 is the actuarial valuation date upon which the TOL is based. 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*	\$ 3,089,815,354
(b) Actual Benefit Payments and Refunds, for the Period October 1, 2018 - September 30, 2019	(74,691,645)
(c) Interest on TOL = [(a) x (Prior SEIR)] + [(b) x (Prior SEIR *0.5)]	129,729,955
(d) Service Cost for the Period October 1, 2018 - September 30, 2019 at the End of the Period	49,012,454
(e) Change Due to Change in Experience	(1,429,779,671)
(f) Change Due to Change in Assumptions	156,524,663
(g) TOL Rolled Forward to September 30, 2019 = (a) + (b) + (c) + (d) + (e) + (f)	\$ 1,920,611,110

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



***Section III – Financial Statement Notes***

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**Paragraphs 56(c) and (d):** The following change was made to the assumptions as noted:

***Changes in actuarial assumptions:***

In 2016, rates of withdrawal, retirement, disability and mortality 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.

***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 a MAPD plan.

**Paragraph 56(f):** There were no changes between the measurement date of the collective net OPEB liability and the employer's reporting date.

**Paragraph 56(g):** Please see Section V of the report for the development of the collective OPEB expense. The OE for each employer is shown in Schedule B.



**Section III – Financial Statement Notes**

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**Paragraph 56(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 provides 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.

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences Between Expected and Actual Experience	\$ 0	\$ 1,197,763,393
Changes of Assumptions	127,430,859	365,936,094
Net Difference Between Projected and Actual Earnings on Plan Investments	1,096,853	0
Total	\$ 128,527,712	\$ 1,563,699,487



**Section III – Financial Statement Notes**

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**Paragraph 56(i):** The collective amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB 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	\$ (375,639,802)
Year 2	\$ (375,639,804)
Year 3	\$ (330,490,666)
Year 4	\$ (263,468,990)
Year 5	\$ (89,932,513)
Thereafter	\$ 0

**Paragraph 56(j):** There are no non-employer contributions recognized for the support provided by non-employer contributing entities in SEHIP.



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

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**Paragraph 57:** CMC was not required to provide this information.

**Paragraph 58:** Information about factors that significantly affect trends in the amounts in the schedules required by paragraph 58 should be presented as notes to the schedule. Comments on additional years will be added as they occur.

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

In 2016, rates of withdrawal, retirement, disability and mortality 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.

#### ***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 a MAPD plan.





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

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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, two 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 percent
Healthcare cost trend rate	
Pre-Medicare eligible	7.00 percent
Medicare eligible	5.50 percent
Ultimate trend rate	
Pre-Medicare eligible	4.75 percent in 2026
Medicare eligible	4.75 percent in 2024
Dental trend rate	4.50 percent
Investment rate of return	5.00 percent, including inflation



**Section V – OPEB Expense**

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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 9.39 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 5.38 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	32,133	9.39
b. Inactive Members	<u>23,956</u>	0.00
c. Total	56,089	
Weighted Average Years of Working Lifetime [(a1 * a2) + (b1 * b2)]/c1		5.38



### ***Section V – OPEB Expense***

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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 4.25 percent on the Prior Measurement Date to 3.63 percent on the Measurement Date.

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		7.50%
(b) Beginning of Year Market Value of Assets (BOY)	\$	184,178,038
(c) End of Year Market Value of Assets (EOY)		190,855,481
(d) Expected Return on BOY for Plan Year (a x b)		13,813,353
External Cash Flow		
Contributions - Employer		74,781,414
Contributions - Member		0
Refund of Contributions		0
Benefits Paid		(74,691,645)
Admin Expenses and Other		(89,769)
(e) Total Net External Cash Flow		0
(f) Expected Return on Net Cash Flow (a x 0.5 x e)		0
(g) Projected Earnings for Plan Year (d + f)		13,813,353
(h) Net Investment Income (c - b - e)		6,677,443
<b>Investment Earnings (Gain)/Loss (g - h)</b>	<b>\$</b>	<b><u>7,135,910</u></b>



**Section V – OPEB Expense**

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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.

<b>Collective OPEB Expense Determined as of the Measurement Date</b>	
Service Cost	\$ 49,012,454
Interest on the TOL and Cash Flow	129,729,955
Current-Period Benefit Changes	0
Expensed Portion of Current-Period Differences Between Expected and Actual Experience in the TOL	(265,758,303)
Expensed Portion of Current-Period Changes of Assumptions	29,093,804
Member Contributions	0
Projected Earnings on Plan Investments	(13,813,353)
Expensed Portion of Current-Period Differences Between Projected and Actual Earnings on Plan Investments	1,427,182
Administrative Expense	89,769
Other	0
Recognition of Beginning Deferred Outflows of Resources	0
Recognition of Beginning Deferred Inflows of Resources	<u>(140,402,485)</u>
Collective OPEB Expense	<u>\$ (210,620,977)</u>



## ***Schedule B – Statement of Actuarial Assumptions and Methods***

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**ELIGIBILITY:** Retiree medical eligibility is attained when a retired employee with at least ten years of service to the State retires, and is immediately eligible to draw a retirement annuity from the Alabama Employees' Retirement System, the Alabama Judicial Retirement System, and for a small group of employers, the Teachers' Retirement System of Alabama.

**BENEFITS:** The State Employees' Insurance Board (SEIB) serves as the Plan Administrator for the SEHIP. This is a self-insured comprehensive health benefit plan serving active and retired State employees and their dependents. As Plan Administrator, the SEIB is primarily responsible for the control and supervision for the SEHIP. The SEIB is also responsible for designing benefits and setting premiums.

**PROVISIONS FOR MEDICARE:** The SEHIP remains the primary insurer for medical coverage until the retiree is entitled to Medicare. Health benefits will be modified when the retiree or dependent becomes entitled to Medicare.

A Medicare retiree and/or spouse should have both Medicare Parts A and B to have adequate coverage with the State of Alabama. A retiree cannot have SEHIP prescription drug coverage if enrolled for Medicare Part D prescription drug coverage.

The SEHIP prescription drug benefit for Medicare retirees and/or spouses is provided through the SEHIP Employer Group Waiver Plan (EGWP).

**RETIREE CONTRIBUTIONS:** Retiree contributions vary based on type of contract, dependent coverage, Medicare eligibility and election, wellness participation, spousal surcharge, and tobacco usage.

A sliding scale premium is applied after September 30, 2005 to all employees retiring after September 30, 2005, based on their years of service. The premium for retiree coverage is broken down into the employer share (what SEHIP 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 reduced accordingly.

For members retiring on or after January 1, 2012, the 2% reduction in the employer share of the premium for each year of service less than 25 will be increased to 4%. In addition, a 1% reduction in the employer share of the premium will be added for each year of age less than the Medicare entitlement age. This additional age premium component will be removed upon attaining Medicare entitlement.

Employees who retire on disability on or after January 1, 2012 are exempt from the retiree sliding scale premium calculation for a period of two years, provided the retiree applies for Social Security disability. However, these employees are not exempt from the retiree sliding scale premium calculation based on age. To obtain the two-year exemption, the retiree must submit documentation from the Social Security Administration acknowledging the retiree's application for disability benefits. To maintain the exemption after two years the retiree must be approved for Social Security disability. If the retiree fails to obtain Social Security disability within two years from retirement the retiree permanently loses the eligibility for this exemption.



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

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Furthermore, monthly retiree contributions are subject to discounts for wellness, non-tobacco use and spousal surcharge waiver and are as follows:

- Wellness (Pre-Medicare only): \$25 retiree, \$25 spouse.
- Non-Tobacco use: \$60 retiree, \$60 spouse
- Spousal Surcharge: Spousal surcharge of \$50 if a spouse is covered but is eligible for other insurance coverage.

**Sliding Scale (Employer base share)**

Type of Contract	Sliding Scale Employer Base Share
Individual Coverage/ Non-Medicare Eligible Retired Member	\$ 555.00
Family Coverage/Non-Medicare Eligible Retired Member and Non-Medicare Eligible Dependent(s)	\$ 968.00
Family Coverage/Non-Medicare Eligible Retired Member and Medicare Eligible Dependent(s)	\$ 845.00
Individual Coverage/ Medicare Eligible Retired Member	\$ 350.00
Family Coverage/Medicare Eligible Retired Member	\$ 604.00
Family Coverage/Medicare Eligible Retired Member and Medicare Eligible Dependent(s)	\$ 640.00



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

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**Retired Members**

The base retiree premiums as of January 1, 2019 before sliding scale adjustment, if applicable, are shown below.

Type of Contract	Retiree Monthly Base Premium	Non-Tobacco User, Wellness and No Spouse Surcharge Premium Discount	Retiree Monthly Base Premium With All Discounts
Individual Coverage/ Non-Medicare Eligible Retired Member	\$ 359.00	\$ (85.00)	\$ 274.00
Family Coverage/Non-Medicare Eligible Retired Member and Non-Medicare Eligible Dependent(s)	\$ 756.00	\$ (220.00)	\$ 536.00
Individual Coverage/ Medicare Eligible Retired Member	\$ 75.00	\$ (60.00)	\$ 15.00
Family Coverage/Medicare Eligible Retired Member and Medicare Eligible Dependent(s)	\$ 306.00	\$ (170.00)	\$ 136.00

Dental monthly premiums are \$8 for single coverage and \$15 for family coverage for Blue Cross Blue Shield or Southland.



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

Highlights of the BlueCard PPO for non-Medicare eligible retirees effective 1/1/2019 are as follows. The SEIB and Blue Cross and Blue Shield of Alabama provided members with a new, comprehensive Medicare Advantage prescription drug plan beginning January 1, 2017. This new plan, Blue Advantage, is a preferred provider organization that combines all the benefits of health and prescription drug coverage under one all-inclusive and convenient plan.

**BlueCard PPO for non-Medicare eligible retirees effective 1/1/2019**

Medical Benefit	In Network (PPO)	Out Of Network (Non-PPO)
Inpatient Hospital Benefits	\$200 per admission deductible with pre-certification. \$25 co-pay for days 2-5	\$200 per admission deductible with pre-certification. Covered at 80% of the allowance.
	All hospital admissions require pre-admission certification except maternity.	
Outpatient Hospital Benefits	Most services covered at 100%, subject to co-pay.	Most services covered at 80%, subject to deductible.
	In Alabama, outpatient benefits for non-member hospitals are available only in cases of accidental injury.	
Physician/Nurse Practitioner Benefits and Routine Preventive Care	Most services covered at 100%, subject to co-pay.	Most services covered at 80%, subject to deductible.
Major Medical General Provisions	\$300 per person each calendar year, maximum of three deductibles per family. \$7,900 individual out-of-pocket maximum; \$15,800 aggregate family maximum. Most services are covered at 80%.	
Prescription Drug Benefit	Participating Pharmacy	Non-Participating Pharmacy
Prescription Drugs	Covered at 100% subject to the following co-pays:  Active employees and Non-Medicare Retirees: <ul style="list-style-type: none"> <li>• \$10 co-pay per prescription for Tier 1 Drugs for a 30 or 60 day supply, \$15 for a 90 day supply</li> <li>• 20% co-pay with a \$40 minimum and a \$80 maximum per prescription for Tier 2 Drugs</li> <li>• 20% co-pay with a \$60 minimum and a \$120 maximum per prescription for Tier 3 Drugs</li> <li>• 50% co-pay with a \$150 maximum per prescription for Tier 4 Drugs</li> <li>• \$150 copay for Tier 5 Drugs</li> </ul>	No benefits
SEIB Discounted Vision Care Program – administered by SEIB	In Network	Out Of Network
	One examination per year subject to a \$40 co-pay.	Not covered.





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

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2015, submitted to and adopted by the Board on September 29, 2016.

**VALUATION DATE:** September 30, 2018

**PAYROLL GROWTH:** 3.00% per annum

**HEALTH CARE COST TREND RATES:** The following chart details the trend assumptions

Year	Pre-Medicare Medical Trend*	Medicare-Eligible Medical Trend*	SEHIP Dental Trend
2018	6.75%	0.00%	4.50%
2019	6.50%	**	4.50%
2020	6.25%	**	4.50%
2021	6.00%	5.00%	4.50%
2022	5.75%	5.00%	4.50%
2023	5.50%	5.00%	4.50%
2024	5.25%	4.75%	4.50%
2025	5.00%	4.75%	4.50%
2026 and beyond	4.75%	4.75%	4.50%

\* Includes sliding scale base amounts. Southland Plan and Supplemental Plan claims are trended at 5.0%.

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

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 – 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**
< 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%

*\*\*Dental, and Southland Plan costs are not age adjusted.*

**ANTICIPATED PLAN PARTICIPATION:** Retirees who are eligible for post-employment health benefits may choose to waive coverage or elect full medical, prescription drug and dental coverage, dental coverage only, or Southland optional plans. Those who elect coverage may elect to cover dependents. Current retirees are included in the valuation based on their actual plan and tier elections. Assumptions must be made for actives who will retire in the future. The assumed annual rates of plan participation, spouse coverage, wellness participation and tobacco use for future retirees are as follows. For future retirees who participate in the plan, we assume they all choose full medical, prescription drug and dental coverage. We assume future retirees elect the SEHIP Dental plan.

Medical	Under 65	Over 65
Plan Participation	90% if eligible for immediate retirement 0% if terminating with a deferred benefit.	90% if eligible for immediate retirement 0% if terminating with a deferred benefit.
Wellness	85%	N/A
Tobacco	4%	4%
Spouse Surcharge	16%	16%
Spouse Coverage		
Male	50%	50%
Female	20%	20%

Wives are assumed to be three years younger than husbands.



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

It is assumed that retirees who do not elect to continue their coverage under the SEHIP upon retirement will not enroll during a future open enrollment period. All retirees are assumed to continue their spouse or family coverage at the same level as reported on the valuation date. Future retirees are assumed to maintain spouse or family coverage, if elected, for life.

**ANNUAL EXPECTED MEDICAL/PRESCRIPTION DRUGS/DENTAL CLAIMS (AGE 65):** Following is a chart detailing expected per member per year medical/prescription drugs, Supplemental Plan and dental claims for pre and post Medicare for the year following the valuation date. Medical and prescription drug claims and Supplemental Plan claims are age-adjusted to age 65, dental claims are not age-adjusted. The SEHIP Vision Plan was determined to be self-financed by retiree contributions and thus no liability was assumed. Medicare eligible rates are based on the self-insured MAPD EGWP projections from BCBS.

	Medical/Prescription Drugs	Dental
Pre-Medicare	\$10,880	\$272
Medicare-Eligible	\$1,198	\$272

**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. The following table details expected Medicare Advantage monthly premium rates. Following these three years, monthly premiums are expected to increase with the health care cost trend rates, as described on the previous page.

Medicare Advantage Plan Monthly Premium Rates

Calendar Year	2020	2021	2022
Expected Monthly Premium Rates	\$126.00	\$101.41	\$110.00

**ANNUAL EXPECTED OPTIONAL PLAN CLAIMS:** Following is a chart detailing expected Southland Plan claims for the year following the valuation date. Southland Plan claims are not age-adjusted. Only retirees who have currently elected the Southland Plan are assumed to elect them in the future. Active employees are assumed to elect the SEHIP BlueCard PPO Medical/Prescription Drug Plan upon retirement.

Vision Plan	Cancer Plan	Hospital Indemnity Plan	Dental
\$80	\$155	\$219	\$526

**ACTUARIAL METHOD:** Entry age actuarial cost method.

**ASSET VALUATION METHOD:** Market value.



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

**STATE AND LOCAL EMPLOYEES**

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

Years of Service	Annual Rate*
0	5.00 %
1-5	4.00
6-10	3.75
11-15	3.50
16 & Over	3.25

\*Includes wage inflation at 3.00% per annum.

SEPARATIONS FROM ACTIVE SERVICE:

TERMINATION: Representative values of the assumed annual rates of withdrawal are shown in the following tables:

**REGULAR MEMBERS**

Age	Annual Rate*							
	Years of Service							
	0-4		5-9		10-20		20+	
	Male	Female	Male	Female	Male	Female	Male	Female
20	24.00%	33.00%	9.00%	12.00%	5.00%	6.50%	1.50%	1.50%
25	19.50	23.00	8.50	11.00	5.00	6.50	1.50	1.50
30	17.50	20.00	7.00	8.25	4.00	5.25	1.50	1.50
35	16.00	18.00	6.50	7.50	3.25	5.25	1.50	1.50
40	15.50	17.00	5.50	7.25	3.00	3.50	1.50	1.50
45	13.50	15.50	5.00	6.50	2.75	3.50	1.50	1.50
50	13.00	14.50	5.00	6.25	2.50	3.50	1.50	1.50
55	11.50	14.00	5.00	5.50	2.50	3.50	1.50	1.50
60	11.50	15.00	5.50	6.00	2.50	3.50	1.50	2.00
65	15.50	16.00	7.50	8.50	2.75	3.50	1.50	2.00
69	15.50	16.00	7.50	8.50	2.75	3.50	1.50	2.00

\* For local employers with fewer than 25 employees the rates are multiplied by 50%.

There are no withdrawal decrements after eligibility for service retirement.



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

**CERTIFIED FIREFIGHTERS, POLICE OFFICERS, OR CORRECTIONAL OFFICERS (FLC MEMBERS)**

Age	Annual Rate*			
	Years of Service			
	0-4	5-9	10-20	20+
20	17.00%	6.50%	3.25%	1.25%
25	14.50	6.50	3.25	1.25
30	13.50	6.00	3.25	1.25
35	13.50	5.50	3.25	1.25
40	13.00	5.00	2.50	1.25
45	12.50	4.50	2.25	1.25
50	11.00	4.50	2.25	1.25
55	10.00	4.50	2.25	1.25
60	12.00	5.50	2.00	1.25
65	17.00	6.00	2.00	1.25
69	17.00	6.00	2.00	1.25

\* For local employers with fewer than 25 employees the rates are multiplied by 50%.

There are no withdrawal decrements after eligibility for service retirement.

SERVICE RETIREMENT: The assumed annual rates of service retirement are as follows:

**REGULAR MEMBERS**

Age	Annual Rate <sup>1</sup>			
	TIER I <sup>2</sup>		TIER II	
	1 <sup>ST</sup> Eligible	Subsequent	1 <sup>ST</sup> Eligible	Subsequent
50 & Under	18.00%	11.50%		
51 to 56	20.00	11.50		
57	25.00	11.50		
58 to 59	25.00	15.00		
60	13.00	13.00		
61	13.00	13.00		
62	25.00	25.00	50.00%	50.00%
63	25.00	20.00	25.00	20.00
64	25.00	20.00	25.00	20.00
65	35.00	25.00	35.00	25.00
66	35.00	30.00	35.00	30.00
67	35.00	25.00	35.00	25.00
68	35.00	21.00	35.00	21.00
69 to 74	35.00	21.00	35.00	21.00
75 & Above	100.00	100.00	100.00	100.00

<sup>1</sup>For local employers with fewer than 25 employees we assume that all members retire upon first eligibility for a service retirement benefit.

<sup>2</sup>25% are assumed to retire at age 60 with 25 years of service and 17% are assumed to retire at age 60 with 26 or more years of service.



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

**FLC MEMBERS**

Age	Annual Rate <sup>1</sup>			
	TIER I <sup>2</sup>		TIER II	
	1 <sup>ST</sup> Eligible	Subsequent	1 <sup>ST</sup> Eligible	Subsequent
50 & Under	40.00%	25.00%		
51 to 55	40.00	20.00		
56	40.00	20.00	15.00%	15.00%
57 to 59	40.00	17.00	15.00	15.00
60	15.00	15.00	15.00	15.00
61	40.00	18.00	15.00	15.00
62	40.00	28.00	40.00	28.00
63	40.00	28.00	40.00	28.00
64	40.00	21.00	40.00	21.00
65	40.00	25.00	40.00	25.00
66	40.00	40.00	40.00	40.00
67 to 74	40.00	30.00	40.00	30.00
75 & Above	100.00	100.00	100.00	100.00

<sup>1</sup>For local employers with fewer than 25 employees we assume that all members retire upon first eligibility for a service retirement benefit.

<sup>2</sup>40% are assumed to retire at age 60 with 25 years of service and 20% are assumed to retire at age 60 with 26 or more years of service.

DEATH AND DISABILITY: Representative values of the assumed annual rates of death and disability are as follows:

**STATE EMPLOYEES**

Age	Annual Rate							
	Death		Disability				Tier II	
			Tier I		Service >=25			
	Male	Female	Service < 25	Female		Male	Female	
20	0.023%	0.009%	0.060%	0.052%		0.060%	0.052%	
25	0.025	0.010	0.090	0.074		0.090	0.074	
30	0.029	0.012	0.117	0.100		0.117	0.100	
35	0.051	0.022	0.151	0.187		0.151	0.187	
40	0.071	0.033	0.405	0.372	0.250%	0.405	0.372	
45	0.099	0.053	0.630	0.559	0.250	0.630	0.559	
50	0.141	0.079	1.155	0.898	0.250	1.155	0.898	
55	0.200	0.114	1.530	1.400	0.250	1.530	1.400	
60	0.297	0.161	0.500	1.000	0.250	0.500	1.000	
65	0.416	0.229	0.500	1.000		0.500	1.000	
69	0.492	0.286						



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

**LOCAL EMPLOYEES**

Age	Death		Annual Rate					
			Disability			Tier II		
	Tier I		Service >=25	Tier II				
	Service < 25	Service >=25				Male	Female	
Male	Female	Male	Female			Male	Female	
20	0.023%	0.009%	0.040%	0.040%			0.040%	0.040%
25	0.025	0.010	0.060	0.057			0.060	0.057
30	0.029	0.012	0.078	0.077			0.078	0.077
35	0.051	0.022	0.101	0.144			0.101	0.144
40	0.071	0.033	0.270	0.286			0.270	0.286
45	0.099	0.053	0.500	0.430	0.250%		0.500	0.430
50	0.141	0.079	0.900	0.691	0.250		0.900	0.691
55	0.200	0.114	1.400	1.000	0.250		1.400	1.000
60	0.297	0.161	0.500	0.250	0.250		2.000	1.000
65	0.416	0.229	0.500	0.250	0.250		0.500	0.250
69	0.492	0.286						



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

**STATE POLICEMEN**

SALARY INCREASES: 4.50% per annum for all years of service, including wage inflation at 3.00%.

Please note that there are 79 state Police officers classified as FLC employees. Please refer to Withdrawal and Retirement assumptions for State FLC employees on the preceding pages for these participants. The tables below apply for any remaining decrement assumptions for these employees.

Age	Death		Disability	Annual Rate Withdrawal		Retirement		
	Male	Female		Service		Service		
				0-4	5+	10-19	20-24	25+
20	0.023%	0.009%	0.080%	2.00%	1.50%			
25	0.025	0.010	0.100	2.00	1.50			
30	0.029	0.012	0.140	2.00	1.50			
35	0.051	0.022	0.220	2.00	1.00			
40	0.071	0.033	0.340	2.00	1.00			40.00%
45	0.099	0.053	0.460	5.00	1.00			40.00
50	0.141	0.079	0.600	5.00	1.50			40.00
55	0.200	0.114		10.00		5.00%	35.00%	35.00
60	0.297	0.161		10.00		25.00	25.00	25.00
62	0.346	0.183		10.00		25.00	25.00	25.00
65	0.416	0.229				100.00	100.00	100.00

DEATH AFTER RETIREMENT: The rates of mortality for the period after service retirement are according to the sex distinct RP-2000 Blue Collar Mortality Table Projected with Scale BB to 2020 with an adjustment of 125% at all ages for males and 120% for females at ages on and after age 78. The rates of mortality for the period after disability retirement are according to the sex distinct RP-2000 Disabled Retiree Mortality Table Projected with Scale BB to 2020 with an adjustment of 130% at all ages for females. Representative values of assumed mortality are as follows:

Age	Annual Rate			
	Service Retirement		Disability Retirement	
	Male	Female	Male	Female
55	0.4939%	0.2528%	3.3375%	1.9456%
60	0.8983	0.4048	3.6532	2.3221
65	1.5257	0.8167	3.9411	2.8618
70	2.4722	1.4637	4.6257	3.8430
75	3.9850	2.4262	6.0659	5.3334
80	6.5180	4.6142	8.0841	7.3840
85	10.6322	7.8329	10.4664	10.2321
90	18.2107	13.1471	14.7009	14.5932





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**JUDICIAL**

SALARY INCREASES: 3.50% per annum for all ages with service less than 14 years, and 3.25% per annum for all ages with service of 14 years or more, compounded annually, including wage inflation at 3.00%.

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

Age	Withdrawal	Annual Rate		Disability**
		Death*		
		Male	Female	
30	2.50%	0.0376%	0.0149%	0.020%
35	2.50	0.0655	0.0268	0.040
40	2.50	0.0914	0.0399	0.068
45	2.50	0.1278	0.0635	0.108
50	2.50	0.1812	0.0947	0.163
55	2.50	0.2567	0.1371	0.250
60	2.50	0.3815	0.1929	0.395
64	2.50	0.5070	0.2558	0.570

\* 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 for ages over 70) projected with Scale BB to 2020 with an adjustment factor of 90% for males and 60% for females.

\*\*Disability rates turn off at retirement eligibility.

**RATES OF RETIREMENT:**

**Tier I (Groups 1 and 2):** Between the ages of 55 and 59, 25% of members are assumed to retire in the year when first eligible and 10% in each year thereafter. Between the ages of 60 and 69, 30% of members are assumed to retire in the year when first eligible and 15% in each year thereafter. 30% of the remaining members are assumed to retire each year between age 70 and 74, and all remaining members are assumed to retire at age 75.

**Tier II (Groups 3) – Judges, Clerks, and District Attorney’s Plan:**

Age	Annual Rate		Clerks and District Attorneys
	Judges Service		
	<18 Years	≥ 18 Years	
62 – 69	10%	15%*	10%**
70 – 74	30	30	30
75	100	100	100

\* An additional 15% are assumed to retire when first eligible for retirement and at 18 years of service.

\*\* An additional 20% are assumed to retire when first eligible for retirement and at 27 years of service.



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

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DEATH AFTER RETIREMENT: Rates of mortality for the period after service retirement are according to the sex distinct RP-2000 White Collar Mortality Table projected to 2020 using scale BB and adjusted 115% for males and 112% for females older than age 78. The sex distinct 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	Annual Rate			
	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



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

**TEACHERS**

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

Service	Annual Rate	
	2016 Valuation*	2017 Valuation and later**
0	5.125 %	5.000 %
1-5	4.125	4.000
6-10	3.875	3.750
11-15	3.625	3.500
16 & Over	3.375	3.250

\*Includes wage inflation at 3.125% per annum.

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

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

Age	Death*	Annual Rate						
		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+
Male								
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	0.50%
40	0.0914	0.1700		0.1700	13.00	5.40	2.25	0.50
45	0.1278	0.2700	0.2000%	0.2700	13.00	5.40	2.25	0.75
50	0.1812	0.6000	0.2000	0.6000	12.00	5.00	2.50	0.80
55	0.2567	0.9000	0.2000	0.9000	11.50	5.00	2.50	0.90
60	0.3815	0.5000	0.5000	1.3000	12.00	4.50	2.50	0.90
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		

\*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 – Statement of Actuarial Assumptions and Methods**

Age	Death*	Annual Rate						
		Disability**			Withdrawal***			
		Tier I	Tier II		Years of Service			
		Years of Service						
10-24	25+	10+	0-4	5-9	10-19	20+		
Female								
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	1.50%
40	0.0399	0.2000		0.2000	11.50	4.75	2.00	1.50
45	0.0635	0.3500	0.2000%	0.3500	10.75	4.10	2.00	0.50
50	0.0947	0.6500	0.2000	0.6500	10.75	3.90	2.20	0.75
55	0.1371	1.0500	0.2000	1.0500	11.00	4.20	2.40	0.80
60	0.1929	0.5000	0.5000	1.4000	12.00	4.50	2.70	1.00
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 – Statement of Actuarial Assumptions and Methods**

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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:

Age	Annual Rate	
	Male*	Female**
47 & Under	25.0%	28.0%
48	25.0	20.0
49	20.0	17.0
50	16.5	13.0
51 – 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 – 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 – Statement of Actuarial Assumptions and Methods**

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

Age	Annual Rate	
	Male	Female
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:

Age	Annual Rate			
	Male*		Female**	
	Less than 25 years of service	25 or more years of service	Less than 25 years of service	25 or more years of service
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 – Statement of Actuarial Assumptions and Methods**

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	Annual Rate			
	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

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 Deferred 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						
			2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025	Thereafter
2017 - 2018	\$0	5.37	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2018 - 2019	(\$53,532,069)	5.41	(\$9,895,022)	(\$9,895,022)	(\$9,895,022)	(\$9,895,022)	(\$4,056,959)	\$0	\$0
2019 - 2020	(\$1,429,779,671)	5.38	(\$265,758,303)	(\$265,758,303)	(\$265,758,303)	(\$265,758,303)	(\$265,758,303)	(\$100,988,156)	\$0
			(\$275,653,325)	(\$275,653,325)	(\$275,653,325)	(\$275,653,325)	(\$269,815,262)	(\$100,988,156)	\$0

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in		
			OPEB Expense Through September 30, 2020 (c)	Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) + (c)
2017 - 2018	\$0	\$0	\$0	\$0	\$0
2018 - 2019	\$0	\$53,532,069	(\$19,790,044)	\$0	\$33,742,025
2019 - 2020	\$0	\$1,429,779,671	(\$265,758,303)	\$0	\$1,164,021,368
			(\$285,548,347)	\$0	\$1,197,763,393





*Schedule C – Deferred Outflows and Deferred Inflows of Resources*

**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					
			2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	Thereafter
2017 - 2018	(\$6,610,352)	5.00	(\$1,322,070)	(\$1,322,070)	(\$1,322,072)	\$0	\$0	\$0
2018 - 2019	(\$3,279,555)	5.00	(\$655,911)	(\$655,911)	(\$655,911)	(\$655,911)	\$0	\$0
2019 - 2020	\$7,135,910	5.00	\$1,427,182	\$1,427,182	\$1,427,182	\$1,427,182	\$1,427,182	\$0
			(\$550,799)	(\$550,799)	(\$550,801)	\$771,271	\$1,427,182	\$0

Year	Difference Between Projected and Actual Earnings on OPEB Plan Investments (a)	Amounts Recognized in OPEB Expense Through September 30, 2020 (b)	Amounts of Deferred Resources Outflows/(Inflows) (a) - (b)
2017 - 2018	(\$6,610,352)	(\$3,966,210)	(\$2,644,142)
2018 - 2019	(\$3,279,555)	(\$1,311,822)	(\$1,967,733)
2019 - 2020	\$7,135,910	\$1,427,182	\$5,708,728
		(\$3,850,850)	\$1,096,853



*Schedule C – Deferred Outflows and Deferred Inflows of Resources*

**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						
			2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025	Thereafter
2017 - 2018	(\$373,573,542)	5.37	(\$69,566,768)	(\$69,566,768)	(\$69,566,768)	(\$25,739,702)	\$0	\$0	\$0
2018 - 2019	(\$318,988,284)	5.41	(\$58,962,714)	(\$58,962,714)	(\$58,962,714)	(\$58,962,714)	(\$24,174,714)	\$0	\$0
2019 - 2020	\$156,524,663	5.38	\$29,093,804	\$29,093,804	\$29,093,804	\$29,093,804	\$29,093,804	\$11,055,643	\$0
			(\$99,435,678)	(\$99,435,678)	(\$99,435,678)	(\$55,608,612)	\$4,919,090	\$11,055,643	\$0

Year	Amounts Recognized in				
	Assumption Losses (a)	Assumption Gains (b)	OPEB Expense Through September 30, 2020 (c)	Deferred Outflows of Resources (a) – (c)	Deferred Inflows of Resources (b) + (c)
2017 - 2018	\$0	\$373,573,542	(\$208,700,304)	\$0	\$164,873,238
2018 - 2019	\$0	\$318,988,284	(\$117,925,428)	\$0	\$201,062,856
2019 - 2020	\$156,524,663	\$0	\$29,093,804	\$127,430,859	\$0
			(\$297,531,928)	\$127,430,859	\$365,936,094



*Schedule C – Deferred Outflows and Deferred Inflows of Resources*

	Net Increase/(Decrease) in OPEB Expense						
	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023	2023 - 2024	2024 - 2025	Thereafter
Differences between Expected and Actual Experience	(\$275,653,325)	(\$275,653,325)	(\$275,653,325)	(\$275,653,325)	(\$269,815,262)	(\$100,988,156)	\$0
Changes of Assumptions	(\$99,435,678)	(\$99,435,678)	(\$99,435,678)	(\$55,608,612)	\$4,919,090	\$11,055,643	\$0
Differences between Projected and Actual Earnings on OPEB Plan Investments	(\$550,799)	(\$550,799)	(\$550,801)	\$771,271	\$1,427,182	\$0	\$0
Grand Total	(\$375,639,802)	(\$375,639,802)	(\$375,639,804)	(\$330,490,666)	(\$263,468,990)	(\$89,932,513)	\$0