

Teachers' Retirement Insurance Program of the State of Illinois

GASB Statements No.74 and 75

Accounting and Financial Reporting for
Postemployment Benefits Other than Pensions

Actuarial Valuation Report as of
June 30, 2018



October 2, 2019

Illinois Department of Central Management Services
401 South Spring Street
Springfield, Illinois 62706

Subject: GASB Statements No. 74 and 75 Actuarial Valuation as of June 30, 2018, for Illinois TRIP

Submitted in this report are the results of the actuarial valuation as of June 30, 2018, of the liabilities associated with the employer financed retiree health benefits provided through the State of Illinois Teachers' Retirement Insurance Program (TRIP), a benefit plan designed to provide postemployment healthcare benefits to certain members receiving pension benefits under the Teachers' Retirement System of Illinois (TRS).

This report was prepared at the request of the Department of Central Management Services (CMS) and is intended for use by CMS and those designated or approved by CMS. This report may be provided to other parties only in its entirety and only with the permission of CMS.

The actuarial valuation as of June 30, 2018, was prepared for purposes of complying with the requirements of Statements No. 74 and 75 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the financial reporting requirements of TRIP and participating employers may produce significantly different results. The actuarial valuation was based upon:

- Census information used in the June 30, 2018, TRS pension actuarial valuation as provided by the System's actuary and TRS;
- Healthcare data and census data as of the June 30, 2018, for TRIP as provided by the Department of Central Management Services (CMS);
- Average expected per member costs by plan type for plan year end June 30, 2019, reviewed by the State's healthcare actuary and provided by CMS;
- Substantive plan information provided by TRS and CMS;
- Demographic assumptions consistent with the TRS actuarial valuation as of June 30, 2018, which reflect updates based on an experience study for the period from July 1, 2014, through June 30, 2017;
- Economic assumptions approved by the State, including a discount rate of 3.62 percent as of June 30, 2018, and 3.13 percent as of June 30, 2019, which comply with the requirements of GASB Statements No. 74 and 75;
- An ultimate trend rate assumption of 4.50 percent for Medicare coverage and 4.81 percent for non-Medicare coverage, which reflects the impact of the excise tax under healthcare reform; and
- Other healthcare-related assumptions recommended by GRS and approved by the State.

We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by TRS or CMS. Authorization of the assumptions and methods applicable to this actuarial valuation was granted by the State, and they are disclosed in the assumptions and methods section of this report.

The Net OPEB Liability and Annual OPEB Expense were developed in accordance with the requirements of GASB Statements No. 74 and 75, and are applicable only for financial reporting purposes. The Net OPEB Liability and annual OPEB Expense disclosed in this report should not be used to assess the level of plan assets needed to settle the plan's benefit obligations or the annual actuarially determined contributions needed to fund future benefit obligations.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

The signing actuaries are independent of the plan sponsor.

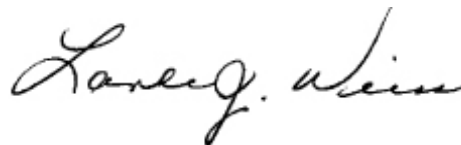
To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of TRIP as of the actuarial valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

Alex Rivera and Lance J. Weiss are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



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SECTION A

EXECUTIVE SUMMARY

Executive Summary

Introduction

The Governmental Accounting Standards Board (GASB) has issued accounting standards, Statements No. 74 and 75, relating to Other Postemployment Benefits (OPEB). For the participating members of the Teachers' Retirement Insurance Program of Illinois (TRIP), OPEB primarily includes medical and prescription drug insurance benefits provided to former public school employees and their spouses receiving pension benefits under the Teachers' Retirement System of Illinois (TRS). Any other OPEB offered to the members of the Teachers' Retirement System of Illinois are outside the scope of this report. For example, OPEB offered by the local school districts such as vision, dental, life insurance, or explicit healthcare subsidies to help defray the costs of the retiree's share of the TRIP premium, are not reflected in this actuarial valuation.

The purpose of this Report is to provide: (a) results of the actuarial calculations necessary for financial reporting pursuant to GASB Statements No. 74 and 75 and (b) various other actuarial, statistical, and benefit information useful to management for the operation of TRIP.

We understand TRIP is a cost-sharing multiple employer plan and as of June 30, 2018, 978 employers are participating in the plan.

Funded and Unfunded Plans

Currently, benefits offered through TRIP are financed through a combination of retiree premiums and percentage-of-payroll contributions from active employees, local school districts, the State, and subsidies from the Federal Government. Contributions are made to the Teacher Health Insurance Security Fund. For fiscal year 2019, active members contribute 1.24 percent of pay, school districts contribute 0.92 percent of pay and the State contributes 1.24 percent of pay. Retired members contribute through premium payments based on the coverage elected, Medicare eligibility, and the age of the member and dependents. The premium for retired members is not permitted to increase by more than 5.0 percent per year by statute. The Federal Government provides a Medicare Part D subsidy.

The current objective is to fund the Trust in order to maintain benefits through individual annual periods with appropriate margins for incurred but not paid liabilities. That is, there is no arrangement into which the participating employers would make contributions to advance-fund the obligation. However, a Trust does exist into which participating employers are making contributions that have historically marginally exceeded the annual expected net claim payments. However, this trust has a negative asset balance of \$(18.5) million as of June 30, 2018, and positive asset balance \$68.1 million as of June 30, 2019. Historically, these assets have been invested in cash and other short-term investments according to the current investment policy, and benefit obligations are effectively funded on a pay-as-you-go basis.

Consequently, according to GASB Statements No. 74 and 75, the discount rate used to calculate the present values and costs of the OPEB, for programs funded on a pay-as-you-go basis, should be consistent with an index of high quality 20-year general obligation bonds as of the measurement date. For this purpose, the plan sponsor has selected an interest discount rate of 3.62 percent as of June 30, 2018, and 3.13 percent as of June 30, 2019.

There is no current requirement by State or Federal Statute or regulation to pre-fund the OPEB obligations with real cash in a Trust. GASB Statements No. 74 and 75 only require the measurement and

Executive Summary

recognition of the Net OPEB Liability, Annual OPEB Expense, and disclosure in the financial statements, as applicable.

Results of the Study

The actuarial valuation as of June 30, 2018, for purposes of financial reporting under GASB Statements No. 74 and 75 requires:

- If benefits are funded on a pay-as-you-go basis, a discount rate based on the expected return for an index of high-quality 20-year general obligation bonds. For this purpose the sponsor selected a discount rate of 3.62 percent as of June 30, 2018, and 3.13 percent as of June 30, 2019.
- The Entry Age Normal cost method.

The following table shows a reconciliation of the Actuarial Accrued Liability since the last actuarial valuation:

Reconciliation of the Change in Actuarial Accrued Liability

Projected Actuarial Accrued Liability at June 30, 2018, at 3.62%	\$ 26,327,385,258
(Gain)/Loss due to:	
Demographic Experience	\$ (333,161,124)
Change in Pension-related Assumptions	(515,360,024)
Change in OPEB-related Assumptions	(1,768,461,670)
Change in Discount Rate Assumption from 3.62% to 3.13%	<u>2,146,859,427</u>
Total	\$ (470,123,391)
 Actuarial Accrued Liability at June 30, 2018, at 3.13%	 \$ 25,857,261,867

The actuarial Accrued Liability as of June 30, 2018, using a discount rate of 3.13 percent, is projected to June 30, 2019, for GASB Statements No. 74 and 75 financial reporting.

Liabilities decreased more than expected due to the following reasons:

- Favorable demographic experience;
- Favorable changes in pension-related assumptions;
- Favorable claims experience compared with assumed trend rates from the previous actuarial valuation and reductions in the expected average per capita claim costs for the fiscal year end June 30, 2018; and
- Favorable MAPD premium rates.

The decrease in liabilities was offset by the following factors:

- Decreasing the interest rate from 3.62 percent to 3.13 percent.

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In fiscal year 2019, employer costs, as reported in the fiscal year 2019 financial statements of the State and TRIP, and information provided by CMS, were allocated as follows:

Stakeholder/ Revenue Source	2019 Cost Sharing (\$ in millions)	Percent of Total Revenue	Statutory Requirement FY 2019	Statutory Requirement FY 2020
State	\$ 130.07	25.8%	1.24% of pay	1.24% of pay
School Districts	96.02	19.0%	0.92% of pay	0.92% of pay
Federal Part-D Subsidy	0.98	0.2%	Percent of Rx Claims Paid	Percent of Rx Claims Paid
Active Members	130.07	25.8%	1.24% of pay	1.24% of pay
Retirees	146.86	29.2%	Percent of premium	Percent of premium
COBRA	0.10	0.0%		
Total	\$ 504.10	100.0%		
Benefits and Expenses Paid	\$ 417.94			
Benefits and Expenses Covered by Revenue	121%			

Executive Summary

Actuarial Assumptions

In any long-term actuarial valuation (such as for Pensions and OPEBs), certain demographic, economic, and behavioral assumptions are made concerning the population, the investment discount rates, and the benefits provided. These actuarial assumptions form the basis for the actuarial model which is used to project the future population, the future benefits provided, and the future contributions collected. The discount rate assumption is used to discount projected net OPEB benefits to a present value. This and other related present values are used to calculate the Annual OPEB Expense and the Net OPEB Liability that will be disclosed in the Plan's and Plan Sponsor's financial statements.

This actuarial valuation of TRIP is similar to the actuarial valuation performed for the TRS pension plan. The demographic assumptions (rates of retirement, termination, and disability) used in this OPEB actuarial valuation were identical to those used in the latest TRS actuarial valuation. The pension-related assumptions have changed since the last OPEB actuarial valuation as of June 30, 2017. TRS conducted an Experience Study for the period from July 1, 2014, to June 30, 2017, and updated actuarial assumptions which were adopted for the TRS actuarial valuation as of June 30, 2018. Key changes in pension-related assumptions which impact the OPEB actuarial valuation include:

- The salary scale assumption was increased;
- The rates of retirement were adjusted based on service;
- The rates of termination were decreased;
- The rates of disability were decreased; and
- The mortality table was updated to reflect recent experience and mortality improvement scales.

Certain assumptions are unique to healthcare benefits. These assumptions include the healthcare trend, per capita claim costs, and the likelihood that a member selects healthcare coverage. Section E of this Report titled, "Summary of Actuarial Assumptions and Methods" contains a detailed discussion and disclosure of all the relevant actuarial assumptions and methods used in this actuarial valuation.

The following OPEB-related assumption changes were made since the last actuarial valuation as of June 30, 2017:

- The discount rate was changed from 3.62 percent at June 30, 2018, to 3.13 percent at June 30, 2019;
- The healthcare trend assumption was updated based on claim and enrollment experience through June 30, 2018, projected plan cost for plan year end June 30, 2019, premium changes through plan year end 2020, and expectation of future trend increases after June 30, 2019;
- The Excise Tax trend adjustment was updated based on available premium and enrollment information as of June 30, 2019;
- Per capita claim costs for plan year end June 30, 2019, were updated based on projected claims and enrollment experience through June 30, 2019, and updated premium rates through plan year 2020; and
- Healthcare plan participation rates by plan were updated based on observed experience.

Executive Summary

Adjustments to the Estimated Impact of Excise Tax under Healthcare Reform

Beginning in 2022, the Patient Protection and Affordable Care Act (PPACA) imposes a 40 percent excise tax on healthcare plan costs over certain statutory limits. The annual statutory limits for 2018 depend on the age and coverage tier as follows:

	Age less than 55 or greater than 64	Age greater than 54 or less than 65
Single person coverage	\$10,200	\$11,850
All other coverage types	\$27,500	\$30,950

In 2019 and 2020, the statutory limits are increased by the rate for the Consumer Price Index for all Urban Consumers (CPI-U) plus one percentage point, and after 2020 the statutory limits are increased by the CPI-U rate. The statutory limits don't recognize differences due to region, health status of the group, or plan design. Healthcare plan costs may be blended among active members, non-Medicare retirees, and Medicare retirees if members are covered by the same plan, and similar benefits are provided. Healthcare plan costs subject to the excise tax include: medical, prescription, and employer Health Savings Accounts and Health Reimbursement Accounts.

Beginning with the actuarial valuation as of June 30, 2011, the impact of the excise tax was estimated by:

- 1) Aggregating average costs by the PPO plans and the HMO plans;
- 2) Projecting average plan costs based on the assumed actuarial valuation trend rate;
- 3) Projecting the statutory limits assuming a CPI-U rate of 3.0 percent;
- 4) Estimating the projected excise tax based on the projected average costs and statutory limits;
- 5) Assuming the plan sponsor would subsidize the excise tax and no additional costs would be passed to plan members; and
- 6) Developing an adjusted trend rate, applied to the explicit costs, to approximate the impact of the additional excise tax costs.

Based on the preceding method, the trend rates for non-Medicare medical and prescription drug costs were increased by an additional 0.31 of a percentage point on and after 2022. Trend rates for Medicare medical and prescription drug costs were not adjusted because of the decrease in costs after the adoption of the MAPD plans.

Executive Summary

Actuarial Cost Methods

The actuarial valuation results are based on the Entry Age Normal cost method as required by GASB Statements No. 74 and 75.

The remainder of the report is an integral component of the actuarial valuation and includes:

- Key actuarial valuation results;
- An overview of the GASB Statements No. 74 and 75 requirements;
- Additional actuarial valuation exhibits and financial disclosure required under GASB Statements No. 74 and 75; and
- Summary of assumptions and methods and plan provisions.

SECTION B

ACTUARIAL VALUATION RESULTS

Actuarial Valuation Results

The following section shows actuarial valuation results as of June 30, 2018, projected to June 30, 2019, using two alternative discount rates of 3.62 percent and 3.13 percent.

Plan benefits are funded based on a pay-as-you-go policy. The current funding policy includes revenues from five sources: current retirees, current active employees, local school districts, the State, and the Medicare Part D subsidy from the Federal Government. Current retirees contribute a portion of the premium to participate in the program. All liability and expense numbers throughout the report are net of the retiree's share of premiums.

The unfunded actuarial accrued liability represents the portion of the total actuarial present value of all future employer-provided benefits which is attributable to prior years, minus any actuarial valuation assets. It represents a measure of the unfunded accrued liability allocable to past service. The cost and liabilities shown in the following pages are employer costs and liabilities, net of any co-pays, deductibles, retiree coinsurance, or retiree contributions using the Entry Age Normal cost method.

Actuarial Valuation Results

**Teachers' Retirement Insurance Program
Retiree Healthcare Program
Exhibit 1**

Discount Rate	3.62%	3.13%
Ultimate Trend Pre-Medicare	4.81%	4.81%
Ultimate Trend Post-Medicare	4.50%	4.50%

Summary of Actuarial Valuation Results as of	June 30, 2018	June 30, 2018
A) Actuarial Accrued Liability (AAL) ¹		
i) Active employees - Full-Time and Part-Time	\$ 11,920,368,752	\$ 13,059,127,834
ii) Active employees - Hourly and Substitute	689,858,641	786,510,668
iii) Current retirees and their covered dependents	7,922,434,305	8,428,599,100
iv) Waived retirees and their covered dependents ²	1,048,646,443	1,131,781,953
v) Deferred vesteds ^{2,3}	1,854,417,075	2,129,458,913
vi) Deferred vesteds ^{2,4}	274,677,226	321,783,400
vii) Total	<u>\$ 23,710,402,442</u>	<u>\$ 25,857,261,868</u>
B) Market Value of Assets	\$ (18,487,000)	\$ (18,487,000)
C) Unfunded Actuarial Accrued Liability (UAAL)	\$ 23,728,889,442	\$ 25,875,748,868
D) Funded Ratio: [B / A]	-0.1%	-0.1%
E) UAAL as a percentage of covered payroll	240.2%	261.9%
F) Gross Normal Cost	\$ 1,203,231,213	\$ 1,399,981,636
Expected Active Employee Contributions ⁵	<u>122,502,890</u>	<u>122,502,890</u>
Net Annual Normal Cost	\$ 1,080,728,323	\$ 1,277,478,746
G) Expected First Year Benefit Payments	359,299,876	\$ 359,299,876
H) Interest Cost	\$ 895,428,024	\$ 847,572,004
I) Projected Actuarial Accrued Liability at end of Year	\$ 25,449,761,803	\$ 27,745,515,633
J) Covered Payroll	\$ 9,879,265,292	\$ 9,879,265,292
K) Participant Information		
i) Number of Covered Participants		
a) Active employees - Full Time and Part Time	129,864	
b) Active employees - Hourly and Substitute	25,255	
c) Current retirees and survivors	65,570	
d) Waived retirees	21,320	
e) Dependents	10,978	
f) Deferred vesteds ^{2,3}	11,395	
g) Deferred vesteds ^{2,4}	6,180	
h) Deferred Survivors	<u>21</u>	
i) Total	270,583	

¹ Actuarial accrued liability as of June 30, 2018, based on census, assumptions, and methods as of June 30, 2018.

² Valuation assumes a percentage of waived retirees and deferred vested members under the age of 70 as of June 30, 2018, and waived beneficiaries over the age of 26 and under the age of 70 as of June 30, 2018, will elect retiree healthcare coverage in the future.

³ Members with at least 7 years of service.

⁴ Members with 5 to 7 years of service. Liability amount represents approximately 50% of the total liability determined for this group. Approximately 50% is allocated to TRIP and 50% is allocated to SEGIP.

⁵ Active members contribute 1.24% of pay for fiscal year 2019. Based on expected payroll for FY 2019.

SECTION C

GASB STATEMENTS NO. 74 AND 75 INFORMATION

Auditor's Note: This information is intended to assist in preparation of the financial statements of the Teacher's Retirement Insurance Program of Illinois. Financial statements are the responsibility of management, subject to the auditor's review. Please let us know if the auditor recommends any changes.

GASB Statements No. 74 and 75 Information

Discussion

Accounting Standard

For post-employment (OPEB) benefit plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 74, "Financial Reporting for Postemployment Benefit Plans other than Pension Plans," replaces the requirements of GASB Statement No. 43, "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans." GASB Statement No. 74 establishes standards of financial reporting for separately issued financial reports of state and local government OPEB plans.

GASB Statement No. 75 replaces the requirements of Statement No. 45, Accounting and Financial Reporting by Employers for Postemployments Benefits Other Than Pensions, as amended, and No. 57, OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans, for OPEB.

GASB Statements No. 74 and 75 are effective for fiscal years beginning after June 15, 2017, and June 15, 2018, respectively.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain non-actuarial information, such as notes regarding accounting policies and investments, is not included in this report. As a result, the plan sponsor will be responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

Plan Financial Statements

GASB Statement No. 74 requires defined benefit OPEB plans which are administered as trusts or equivalent arrangements to present two financial statements: a statement of fiduciary net position and a statement of changes in fiduciary net position. The statement of fiduciary net position presents the assets and liabilities of the OPEB plan at the end of the OPEB plan's reporting period. The statement of changes in fiduciary net position presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expense, and net increase or decrease in the fiduciary net position.

GASB Statement No. 75 requires state and local government employers to recognize the net OPEB liability and the OPEB expense on their financial statements, along with the related deferred outflows and inflows of resources. The net OPEB liability is the difference between the total OPEB liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets.

The OPEB expense recognized each fiscal year is equal to the change in the net OPEB liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

The GASB Statement No. 74 information contained in this report is based on an actuarial valuation date of June 30, 2018, projected to a measurement date of June 30, 2019.

GASB Statements No. 74 and 75 Information

For GASB Statement No. 75 reporting purposes, the plan sponsor's fiscal year end June 30, 2020, financial reporting will be based on a measurement date of June 30, 2019.

The information contained in this report does not incorporate any employer contributions made subsequent to the measurement date of June 30, 2019.

GASB Statement No. 75 requires that employer contributions made to the OPEB plan subsequent to the measurement date and before the end of the employer's reporting period should be reported as a deferred outflow of resources.

Notes to Financial Statements

GASB Statement No. 75 requires the notes of the employer's financial statements to disclose the total OPEB expense, the OPEB plan's liabilities and assets, and deferred outflows of resources and inflows of resources related to OPEB.

GASB Statements No. 74 and 75 require the notes of the financial statements for the Plan and Plan Sponsor to include certain additional information. The list of disclosure items should include:

- The name of the OPEB plan, the administrator of the OPEB plan, and the identification of whether the OPEB plan is a single-employer, agent, or cost-sharing OPEB plan;
- A description of the benefits provided by the plan;
- A brief description of changes in benefit terms or assumptions that affected the measurement of the total OPEB liability since the prior measurement date;
- The number of plan members by category and if the plan is closed;
- A description of the plan's funding policy, which includes member and employer contribution requirements;
- The OPEB plan's investment policies;
- The OPEB plan's fiduciary net position and the net OPEB liability;
- The net OPEB liability using +/- one percentage point change on the discount rate;
- The net OPEB liability using +/- one percentage point change on the healthcare trend rate;
- Significant assumptions and methods used to calculate the total OPEB liability;
- Inputs to the discount rates; and
- Certain information about mortality assumptions and the dates of experience studies.

OPEB plans that are administered through trusts or equivalent arrangements are required to disclose additional information in accordance with GASB Statement No. 74. This information includes:

- The composition of the OPEB plan's Board and the authority under which benefit terms may be amended;
- A description of how fair value is determined;
- Information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5 percent, receivables and insurance contracts excluded from plan assets; and
- Annual money-weighted rate of return.

GASB Statements No. 74 and 75 Information

Required Supplementary Information

GASB Statement No. 74 requires a 10-year fiscal history of:

- Sources of changes in the net OPEB liability;
- Information about the components of the net OPEB liability and related ratios, including the OPEB plan's fiduciary net position as a percentage of the total OPEB liability, and the net OPEB liability as a percent of covered-employee payroll;
- Comparison of the actual employer contributions to the actuarially determined contributions, if applicable, based on the plan's funding policy; and
- For plans with an actuarially determined contribution, the schedule covering each of the 10 most recent fiscal years of the actuarially determined contribution, contributions to the OPEB plan and related ratios.

Frequency and Timing of the Actuarial Valuation

An actuarial valuation to determine the total OPEB liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net OPEB liability and OPEB expense should be measured as of the employer's "measurement date," which may not be earlier than the employer's prior fiscal year end-date. If the actuarial valuation used to determine the total OPEB liability is not calculated as of the measurement date, the total OPEB liability is required to be rolled forward from the actuarial valuation date to the measurement date.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

Since TRIP is financed on a pay-as-you-go basis, the sponsor has selected a discount rate consistent with the 20-year general obligation bond index described above. The discount rates are 3.62 percent as of June 30, 2018, and 3.13 percent as of June 30, 2019.

Actuarial Assumptions

The actuarial assumptions used to value the liabilities are outlined in detail in Section E. The assumptions include details on the healthcare trend assumption and the aging factors, as well as the cost method used to develop the OPEB expense.

The pension-related assumptions were based on an experience study for the period July 1, 2014, to June 30, 2017, conducted by the pension system's actuary as approved by the pension system. The OPEB-related assumptions were recommended by GRS and approved by CMS.

GASB Statements No. 74 and 75 Information

Future Uncertainty or Risk

Future results may differ from those anticipated in this actuarial valuation. Reasons include, but are not limited to:

- Claims experience differing from expected;
- Medical trend experience differing from expected;
- Changes in the healthcare plan designs offered to active and retired members;
- Changes in healthcare related costs due to recent experience; and
- Participant behavior differing from expected; e.g.,
 - Elections at retirement;
 - One-person versus two-person coverage elections; and
 - Timing of retirement or termination.

Benefits Valued

The benefit provisions that were valued are described in Section F. The actuarial valuation is required to be performed on the current benefit terms and existing legal agreements. Consideration is to be given to the written plan document as well as other communications between the employer and plan members and an established pattern of practice for cost sharing. The summary of major plan provisions is designed to outline principal plan benefits.

GASB Statements No. 74 and 75 Information

This section contains the following GASB Statements No. 74 and 75 information:

- GASB Statements No. 74 and 75 Summary;
- GASB Statement No. 74 Changes in Net OPEB Liability for plan year end June 30, 2019;
- GASB Statement No. 74 Multiyear Net OPEB Liability;
- GASB Statement No. 74 Schedule of Contributions;
- Notes to Schedule of Contributions;
- GASB Statements No. 74 and 75 Sensitivity of Net OPEB Liability plan year end June 30, 2019;
- GASB Statement No. 75 Changes in Net OPEB Liability for plan year end June 30, 2019, applicable to sponsor's fiscal year end June 30, 2020;
- GASB Statement No. 75 Expense measured as of plan year end June 30, 2019, and applicable to sponsor's fiscal year end June 30, 2020; and
- GASB Statement No. 75 Development of Inflows and Outflows as of June 30, 2019.

GASB Statements No. 74 and 75 Information

Summary of GASB Statements No. 74 and 75 Results

	2019	
Actuarial Valuation Date	June 30, 2018	
Measurement Date of the Net OPEB Liability	June 30, 2019	
Plan Year End for GASB Statement No. 74	June 30, 2019	
Employer's Fiscal Year End for GASB Statement No. 75	June 30, 2020	
Membership		
Number of		
- Retirees and Beneficiaries	65,570	
- Inactive, Nonretired Members	38,916	
- Active Members	155,119	
- Total	259,605	
Covered Payroll ^b	\$ 9,879,265,292	
Net OPEB Liability		
Total OPEB Liability	\$ 27,745,515,633	
Plan Fiduciary Net Position	68,064,000	
Net OPEB Liability	\$ 27,677,451,632	
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	0.25%	
Net OPEB Liability as a Percentage of Covered Payroll	280.16%	
Development of the Single Discount Rate		
Single Discount Rate Beginning of Year	3.62%	
Single Discount Rate End of Year	3.13%	
Long-Term Expected Rate of Investment Return, Beginning of Year	0.00%	
Long-Term Expected Rate of Investment Return, End of Year	0.00%	
Long-Term Municipal Bond Rate Beginning of Year ^a	3.62%	
Long-Term Municipal Bond Rate End of Year ^a	3.13%	
Year Assets are Projected to be depleted	2018	
Total OPEB Expense for Fiscal Year End June 30, 2019, Applicable to Sponsor's Fiscal Year End June 30, 2020	\$ 1,248,365,025	
Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future OPEB Expenses as of June 30, 2020		
	Deferred Outflows of Resources	Deferred (Inflows) of Resources
Difference Between Expected and Actual Experience	\$ -	\$ (459,285,430)
Changes in Assumptions	10,492,795	(3,172,737,362)
Net Difference Between projected and Actual Earnings on OPEB Plan Investments	-	(906,200)
Total	\$ 10,492,795	\$ (3,632,928,992)

^a Source:

Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index." In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax-exempt securities.

GASB Statements No. 74 and 75 Information

GASB Statement No. 74 Schedule of Changes in Net OPEB Liability and Related Ratios Multiyear

Fiscal Year Ending June 30,	2019	2018	2017
Total OPEB Liability			
Service Cost	\$ 1,203,231,213	\$ 1,282,452,212	\$ 1,684,864,123
Interest on the Total OPEB Liability	895,428,024	921,017,244	820,960,601
Changes of Benefit Terms	-	-	-
Difference between Expected and Actual Experience	(431,808,998)	(94,796,551)	(16,955,687)
Changes of Assumptions	11,932,136	(1,410,427,032)	(3,564,237,510)
Benefit Payments ^a	(260,652,000)	(275,400,000)	(296,480,000)
Net Change in Total OPEB Liability	1,418,130,375	422,845,873	(1,371,848,473)
Total OPEB Liability - Beginning	26,327,385,258	25,904,539,385	27,276,387,858
Total OPEB Liability - Ending (a)	\$ 27,745,515,633	\$ 26,327,385,258	\$ 25,904,539,385
Plan Fiduciary Net Position			
Employer Contributions	\$ 226,089,000	\$ 208,564,000	\$ 210,466,000
Active Member Contributions	130,068,000	119,906,000	111,734,000
Net Investment Income	397,000	743,000	357,000
Benefit Payments ^a	(260,652,000)	(275,400,000)	(296,480,000)
Operating Expenses	(10,430,000)	(14,226,000)	(13,790,000)
Other	1,079,000	1,614,000	2,099,000
Net Change in Plan Fiduciary Net Position	86,551,000	41,201,000	14,386,000
Plan Fiduciary Net Position - Beginning^b	(18,487,000)	(59,688,000)	(59,415,000)
Plan Fiduciary Net Position - Ending (b)	68,064,000	(18,487,000)	(45,029,000)
Net OPEB Liability - Ending (a) - (b)	\$ 27,677,451,632	\$ 26,345,872,258	\$ 25,949,568,385
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	0.25%	-0.07%	-0.17%
Covered-Employee Payroll	\$ 9,879,265,292	\$ 9,600,528,968	\$ 9,444,442,000
Net OPEB Liability as a Percentage of Covered-Employee Payroll	280.16%	274.42%	274.76%

^a Actual benefits paid by sponsor.

^b Plan Fiduciary Net Position was restated from \$(45,029,000) as of June 30, 2017, to \$(59,688,000) as of July 1, 2017.

GASB Statements No. 74 and 75 Information

GASB Statement No. 74 Schedule of Net OPEB Liability Multiyear

FY Ending June 30,	Total OPEB Liability	Fiduciary Net Position	Net OPEB Liability	Fiduciary Net Position as a % of Total OPEB Liability	Covered Payroll ^a	Net OPEB Liability as a % of Covered Payroll
2016	\$ 27,276,387,858	\$ (59,415,000)	\$ 27,335,802,858	-0.22%	\$ 9,147,159,000	298.84%
2017	25,904,539,385	(45,029,000)	25,949,568,385	-0.17%	9,444,442,000	274.76%
2018	26,327,385,258	(18,487,000)	26,345,872,258	-0.07%	9,600,528,968	274.42%
2019	27,745,515,633	68,064,000	27,677,451,632	0.25%	9,879,265,292	280.16%

^a Estimated payroll for fiscal year end June 30, 2016, based on fiscal year end June 30, 2017, payroll adjusted by wage inflation assumption of 3.25 percent.

^b Plan Fiduciary Net Position was restated from \$(45,029,000) as of June 30, 2017, to \$(59,688,000) as of July 1, 2017.

GASB Statements No. 74 and 75 Information

GASB Statement No. 74 Schedule of Contributions Multiyear

<u>FY Ending June 30,</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Employer Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Actual Contribution as a % of Covered Payroll</u>
2016	N/A	\$ 194,405,000	N/A	\$ 9,147,159,000	2.13%
2017	N/A	210,466,000	N/A	9,444,442,000	2.23%
2018	N/A	208,564,000	N/A	9,600,528,968	2.17%
2019	N/A	226,089,000	N/A	9,879,265,292	2.29%

Contributions for TRIP are defined by State statute and Actuarially Determined Contributions are not developed. Benefits are financed on a pay-as-you basis, based on contribution rates defined by statute. For fiscal year end June 30, 2019, contribution rates are 1.24 percent of pay for active members, 0.92 percent of pay for school districts, and 1.24 percent of pay for the State. Retired members contribute a percentage of premium rates. The goal of the policy is to finance current year costs plus a margin for incurred but not paid plan costs.

GASB Statements No. 74 and 75 Information

Notes to Schedule of Contributions

Valuation Date	June 30, 2018
Measurement Date	June 30, 2019
Sponsor's Fiscal year End	June 30, 2020

Methods and Assumptions Used to Determine Actuarial Liability and Contributions:

Actuarial Cost Method	Entry Age Normal, used to measure the Total OPEB Liability
Contribution Policy	Benefits are financed on a pay-as-you basis. Contribution rates are defined by statute. For fiscal year end June 30, 2019, contribution rates are 1.24% of pay for active members, 0.92% of pay for school districts, and 1.24% of pay for the State. Retired members contribute a percentage of premium rates. The goal of the policy is to finance current year costs plus a margin for incurred but not paid plan costs.
Asset Valuation Method	Market value
Investment Rate of Return	0%, net of OPEB plan investment expense, including inflation, for all plan years.
Inflation	2.50%
Salary Increases	Depends on service and ranges from 9.50% at 1 year of service to 4.00% at 20 or more years of service. Salary increase includes a 3.25% wage inflation assumption.
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the June 30, 2018, actuarial valuation.
Mortality	Retirement and Beneficiary Annuitants: RP-2014 White Collar Annuitant Mortality Table, adjusted for TRS experience. Disabled Annuitants: RP-2014 Disabled Annuitant Table. Pre-Retirement: RP-2014 White Collar Table. All tables reflect future mortality improvements using Projection Scale MP-2017.
Healthcare Cost Trend Rates	Actual trend used for fiscal year 2019. For fiscal years on and after 2020, trend starts at 8.00% and 9.00% for non-Medicare cost and Medicare costs, respectively, and gradually decreases to an ultimate trend of 4.50%. Additional trend rate of 0.31% is added to non-Medicare cost on and after 2022 to account for the Excise Tax.
Aging Factors	Based on the 2013 SOA Study "Health Care Costs - From Birth to Death"
Expenses	Health administrative expenses are included in the development of the per capita claims costs. Operating expenses are included as a component of the Annual OPEB Expense.

GASB Statements No. 74 and 75 Information

Single Discount Rate

The State, school districts, and active members contribute 1.24 percent, 0.92 percent, 1.24 percent of pay, respectively, for fiscal year 2019. Retirees contribute a percentage of the premium rate. The State also contributes an additional amount to cover plan costs in excess of contributions and investment income. Because plan benefits are financed on a pay-as-you-go basis, the single discount rate is based on a tax-exempt municipal bond rate index of 20-year general obligation bonds with an average AA credit rating as of the measurement date. A single discount rate of 3.62 percent at June 30, 2018, and 3.13 percent at June 30, 2019, was used to measure the total OPEB liability. The decrease in the single discount rate, from 3.62 percent to 3.13 percent, caused the total OPEB liability to increase by approximately \$2,296 million as of June 30, 2019.

Investment Return

During plan year end June 30, 2019, the trust earned \$397,000 in interest, and the market value of assets at June 30, 2019, is \$68 million. Given the low asset value and pay-as-you-go funding policy, the investment return assumption was set to zero.

Money-Weighted Rate of Return

The annual money-weighted rate of return was estimated based on monthly investment performance, net of investment expenses, adjusted for changing amounts actually invested. The annual money-weighted rate of return was 2.038 percent for plan year end June 30, 2019, and 1.301 percent for plan year end June 30, 2018.

Sensitivity of Net OPEB Liability

The following table shows the plan's net OPEB liability as of June 30, 2019, using the current single discount rate of 3.13 percent and sensitivity single discount rates that are either one percentage point higher or lower:

	1% Decrease	Current Single Discount	1% Increase
	2.13%	Rate Assumption	4.13%
	3.13%	3.13%	4.13%
\$	33,278,341,661	\$ 27,677,451,632	\$ 23,253,949,315

GASB Statements No. 74 and 75 Information

The following table shows the plan's net OPEB liability as of June 30, 2019, using current trend rates and sensitivity trend rates that are either one percentage point higher or lower. The key trend rates are 8.00% in 2020 decreasing to an ultimate trend rate of 4.81% in 2027, for non-Medicare coverage, and 9.00% in 2020 decreasing to an ultimate trend rate of 4.50% in 2027 for Medicare coverage.

Healthcare Cost		
<u>1% Decrease^a</u>	<u>Trend Rates Assumption</u>	<u>1% Increase^b</u>
\$ 22,361,123,161	\$ 27,677,451,632	\$ 34,857,824,252

^a One percentage point decrease in healthcare trend rates are 7.00% in 2020 decreasing to an ultimate trend rate of 3.81% in 2027, for non-Medicare coverage, and 8.00% in 2020 decreasing to an ultimate trend rate of 3.50% in 2027 for Medicare coverage.

^b One percentage point increase in healthcare trend rates are 9.00% in 2020 decreasing to an ultimate trend rate of 5.81% in 2027, for non-Medicare coverage, and 10.00% in 2020 decreasing to an ultimate trend rate of 5.50% in 2027 for Medicare coverage.

GASB Statements No. 74 and 75 Information

Schedule of Changes in Net OPEB Liability under GASB Statement No. 75 Measured as of June 30, 2019 Applicable to Plan Sponsor's Fiscal Year End of June 30, 2020

Fiscal Year Ending June 30,	2019	2018	2017
Total OPEB Liability			
Service Cost	\$ 1,203,231,213	\$ 1,282,452,212	\$ 1,684,864,123
Interest on the Total OPEB Liability	895,428,024	921,017,244	820,960,601
Changes of Benefit Terms	-	-	-
Difference between Expected and Actual Experience	(431,808,998)	(94,796,551)	(16,955,687)
Changes of Assumptions	11,932,136	(1,410,427,032)	(3,564,237,510)
Benefit Payments ^a	(260,652,000)	(275,400,000)	(296,480,000)
Net Change in Total OPEB Liability	1,418,130,375	422,845,873	(1,371,848,473)
Total OPEB Liability - Beginning	26,327,385,258	25,904,539,385	27,276,387,858
Total OPEB Liability - Ending (a)	\$ 27,745,515,633	\$ 26,327,385,258	\$ 25,904,539,385
Plan Fiduciary Net Position			
Employer Contributions	\$ 226,089,000	\$ 208,564,000	\$ 210,466,000
Active Member Contributions	130,068,000	119,906,000	111,734,000
Net Investment Income	397,000	743,000	357,000
Benefit Payments ^a	(260,652,000)	(275,400,000)	(296,480,000)
Operating Expenses	(10,430,000)	(14,226,000)	(13,790,000)
Other	1,079,000	1,614,000	2,099,000
Net Change in Plan Fiduciary Net Position	86,551,000	41,201,000	14,386,000
Plan Fiduciary Net Position - Beginning^b	(18,487,000)	(59,688,000)	(59,415,000)
Plan Fiduciary Net Position - Ending (b)	68,064,000	(18,487,000)	(45,029,000)
Net OPEB Liability - Ending (a) - (b)	\$ 27,677,451,632	\$ 26,345,872,258	\$ 25,949,568,385
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	0.25%	-0.07%	-0.17%
Covered-Employee Payroll	\$ 9,879,265,292	\$ 9,600,528,968	\$ 9,444,442,000
Net OPEB Liability as a Percentage of Covered-Employee Payroll	280.16%	274.42%	274.76%

^a Actual benefits paid by sponsor.

^b Plan Fiduciary Net Position was restated from \$(45,029,000) as of June 30, 2017, to \$(59,688,000) as of July 1, 2017.

GASB Statements No. 74 and 75 Information

Statement of OPEB Expense under GASB Statement No. 75 Measured as of June 30, 2019 Applicable to Plan Sponsor's Fiscal Year End June 30, 2020

A. Expense

1. Service Cost	\$	1,203,231,213
2. Interest on the Total OPEB Liability		895,428,024
3. Current-Period Benefit Changes		-
4. Active Member Contributions		(130,068,000)
5. Projected Earnings on Plan Investments		-
6. OPEB Plan Operating Expenses		10,430,000
7. Other Changes in Plan Fiduciary Net Position		(1,079,000)
8. Recognition of Outflow/(Inflow) due to Liability Experience		(67,052,997)
9. Recognition of Outflow/(Inflow) due to Assumption Changes		(662,224,814)
10. Recognition of Outflow/(Inflow) due to Investment Experience		(299,400)
11. Total OPEB Expense	\$	1,248,365,025

B. Reconciliation of Net OPEB Liability

1. Net OPEB Liability Beginning of Year	\$	26,345,872,258
2. OPEB Expense		1,248,365,025
3. Employer Contributions		(226,089,000)
4. Change in Liability Experience Outflows/(Inflows) Recognized in Current Liabilities		(364,756,001)
5. Change in Assumption Changes Experience Outflows/(Inflows) Recognized in Current Liabilities		674,156,950
6. Change in Investment Experience Outflows/(Inflows) Recognized in Current Assets		(97,600)
7. Net OPEB Liability End of Year	\$	27,677,451,632

GASB Statements No. 74 and 75 Information

Recognition of Deferred Outflows and Inflows of Resources

Differences between expected and actual experience and changes in assumptions are recognized in OPEB expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with OPEB through the OPEB plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the current measurement period, the expected remaining service lives of all active employees in the plan was approximately 2,152,772 years. Additionally, the total plan membership (active employees and inactive employees) was 259,605. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 8.29 years.

Additionally, differences between projected and actual earnings on OPEB plan investments should be recognized in OPEB expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the OPEB expense as a level dollar amount over the closed period identified above.

GASB Statements No. 74 and 75 Information

Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods Measured as of June 30, 2019, Applicable to Plan Sponsor's Fiscal Year End June 30, 2020

A. Outflows and (Inflows) of Resources Recognized in Current and Future OPEB Expenses as of Plan Year End June 30, 2019

Experience (Gain)/Loss				Original	Amount Recognized in Past OPEB Expenses	Amount Recognized in Current OPEB Expense	Deferred (Inflows) to be Recognized in Future OPEB Expenses	Deferred Outflows to be Recognized in Future OPEB Expenses
	Original Balance	Date Established	Recognition Period/ Amortization Factor					
1. Liability (Gain)/Loss	\$ (431,808,998)	June 30, 2019	8.2900		\$ -	\$ (52,087,937)	\$ (379,721,061)	\$ -
	\$ (94,796,551)	June 30, 2018	7.4600		\$ (12,707,312)	\$ (12,707,312)	\$ (69,381,926)	\$ -
	\$ (16,955,687)	June 30, 2017	7.5100		\$ (4,515,496)	\$ (2,257,748)	\$ (10,182,443)	\$ -
					\$ (17,222,808)	\$ (67,052,997)	\$ (459,285,430)	\$ -
2. Assumption Changes	\$ 11,932,136	June 30, 2019	8.2900		\$ -	\$ 1,439,341	\$ -	\$ 10,492,795
	\$ (1,410,427,032)	June 30, 2018	7.4600		\$ (189,065,286)	\$ (189,065,286)	\$ (1,032,296,460)	\$ -
	\$ (3,564,237,510)	June 30, 2017	7.5100		\$ (949,197,739)	\$ (474,598,870)	\$ (2,140,440,901)	\$ -
					\$ (1,138,263,025)	\$ (662,224,814)	\$ (3,172,737,362)	\$ 10,492,795
3. Investment (Gain)/Loss and Actual Investment Earnings	\$ (397,000)	June 30, 2019	5.0000		\$ -	\$ (79,400)	\$ (317,600)	\$ -
	\$ (743,000)	June 30, 2018	5.0000		\$ (148,600)	\$ (148,600)	\$ (445,800)	\$ -
	\$ (357,000)	June 30, 2017	5.0000		\$ (142,800)	\$ (71,400)	\$ (142,800)	\$ -
					\$ (291,400)	\$ (299,400)	\$ (906,200)	\$ -
4. Total					\$ (1,155,777,233)	\$ (729,577,212)	\$ (3,632,928,992)	\$ 10,492,795

B. Deferred Outflows and Deferred (Inflows) of Resources by Year to be Recognized in Future OPEB Expenses

Year Ending June 30,	Liability	Assumption Changes	Investment	Year Ending June 30,	Deferred Outflows	Deferred (Inflows)	Net Outflows/(Inflows)
	Outflows / (Inflows)	Outflows/(Inflows)	Outflows/(Inflows)				
2020	\$ (67,052,997)	\$ (662,224,814)	\$ (299,400)	2020	\$ 1,439,341	\$ (731,016,553)	\$ (729,577,212)
2021	\$ (67,052,997)	\$ (662,224,814)	\$ (299,400)	2021	\$ 1,439,341	\$ (731,016,553)	\$ (729,577,212)
2022	\$ (67,052,997)	\$ (662,224,814)	\$ (228,000)	2022	\$ 1,439,341	\$ (730,945,153)	\$ (729,505,812)
2023	\$ (67,052,997)	\$ (662,224,814)	\$ (79,400)	2023	\$ 1,439,341	\$ (730,796,553)	\$ (729,357,212)
2024	\$ (65,946,701)	\$ (429,671,368)	\$ -	2024	\$ 1,439,341	\$ (497,057,410)	\$ (495,618,069)
2025	\$ (57,933,301)	\$ (85,530,691)	\$ -	2025	\$ 1,439,341	\$ (144,903,332)	\$ (143,463,991)
2026	\$ (52,087,937)	\$ 1,439,341	\$ -	2026	\$ 1,439,341	\$ (52,087,937)	\$ (50,648,596)
2027	\$ (15,105,502)	\$ 417,409	\$ -	2027	\$ 417,409	\$ (15,105,502)	\$ (14,688,093)
2028	\$ -	\$ -	\$ -	2028	\$ -	\$ -	\$ -
Total	\$ (459,285,430)	\$ (3,162,244,567)	\$ (906,200)		\$ 10,492,795	\$ (3,632,928,992)	\$ (3,622,436,198)
Change in Outflows/(Inflows)	\$ (364,756,001)	\$ 674,156,950	\$ (97,600)				

Numbers may not add due to rounding.

SECTION D

ADDITIONAL VALUATION EXHIBITS

Additional Valuation Exhibits

Exhibit 1

40-Year Projection of Expected Employer Claims ^a

Fiscal Year End June 30	Expected Employer Claims	Fiscal Year End June 30	Expected Employer Claims
2019	\$ 359,299,900	2039	\$ 1,941,826,400
2020	408,525,300	2040	2,045,232,300
2021	471,254,600	2041	2,148,645,000
2022	539,203,900	2042	2,244,068,200
2023	613,536,800	2043	2,328,652,900
2024	693,798,500	2044	2,405,468,700
2025	776,356,300	2045	2,462,948,500
2026	857,355,000	2046	2,503,729,700
2027	935,330,800	2047	2,532,206,000
2028	1,008,082,800	2048	2,540,595,700
2029	1,076,522,500	2049	2,540,731,100
2030	1,149,716,700	2050	2,539,037,300
2031	1,227,516,800	2051	2,545,743,000
2032	1,308,960,800	2052	2,567,802,300
2033	1,395,647,800	2053	2,601,512,800
2034	1,482,364,200	2054	2,644,500,000
2035	1,565,903,400	2055	2,693,525,300
2036	1,648,700,400	2056	2,740,676,000
2037	1,739,110,200	2057	2,783,278,700
2038	1,837,876,900	2058	2,807,994,900

^a Expected claims net of retiree contributions for current participants.

Additional Valuation Exhibits

Exhibit 2

Summary of Demographic Information as of June 30, 2018

A) Active Participants - Full-Time and Part-Time	Primary Member	Dependent	Total
i) Counts	129,864		129,864
ii) Average Age	41.3		41.3
iii) Average Service	13.1		13.1
B) Active Participants - Hourly and Substitute			
i) Counts	25,255		25,255
ii) Average Age	44.7		44.7
iii) Average Service	2.4		2.4
C) Retirees and Dependents Under Age 65 ^b			
i) Counts	11,706	1,624	13,330
ii) Average Age	61.4	60.3	61.3
D) Retirees and Dependents Over Age 65 ^b			
i) Counts	53,854	8,679	62,533
ii) Average Age	74.4	74.3	74.4
E) Waived Retirees and Dependents ^c			
i) Counts	21,320		21,320
ii) Average Age	64.2		64.2
F) Children			
i) Counts	10	675	685
ii) Average Age	17.1	20.8	20.8
G) Deferred vesteds ^d			
i) Counts	11,395		11,395
ii) Average Age	46.9		46.9
H) Deferred vesteds ^e			
i) Counts	6,180		6,180
ii) Average Age	44.8		44.8
I) Deferred survivors			
i) Counts	21		21
ii) Average Age	43.2		43.2
J) Total Participants	259,605	10,978	270,583

^a Excludes members who are active in TRS and categorized as a dependent in SEGIP, and 1,253 active members in TRS with vested benefits in SERS, SURS, GARS, or JRS.

^b Only includes members and dependents currently receiving benefits through TRIP.

^c Includes members currently under the age of 70 and waived beneficiaries over the age of 26 and under 70.

^d Members with at least 7 years of service and currently under the age of 70.

^e Members with 5 to 7 years of service and currently under the age of 70.

Additional Valuation Exhibits

Exhibit 3

Assets Available for Benefits

As of June 30,

2018 2019

Net Assets Held in Trust for Post-Employment Benefits, Beginning of Year	\$	(45,029,000)	\$	(18,487,000)
Adjustment to Net Assets, Beginning of Year		(14,659,000)		-
Net Assets, Beginning of Year	\$	(59,688,000)	\$	(18,487,000)

Revenues

State Contributions	\$	119,568,000	\$	130,068,000
Employer Contributions		88,996,000		96,021,000
Federal Government Medicare Part D Subsidy		1,533,000		975,000
Active Member Contributions		119,906,000		130,068,000
Retired Member Contributions		147,600,257		146,861,668
COBRA		81,000		104,000
Interest		743,000		397,000
Total Revenues	\$	478,427,257	\$	504,494,668

Deductions

Benefits		423,000,257	\$	407,513,668
Administrative Expense		14,226,000		10,430,000
Total Deductions	\$	437,226,257	\$	417,943,668

Net Change	\$	41,201,000	\$	86,551,000
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Net Assets Held in Trust for Post-Employment Benefits, End of Year	\$	(18,487,000)	\$	68,064,000
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SECTION E

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Summary of Actuarial Assumptions and Methods

Development of Per Capita Claim Costs

The per capita claims used in the actuarial valuation were calculated by the State's healthcare actuary and are based on average per member costs by plan type for the period July 1, 2018, through June 30, 2019, as provided by the Department of Central Management Services (CMS). Per capita costs for MAPD coverage includes an adjustment of approximately \$35 per member per month to approximate the expected ACA Health Insurer Fee starting in 2020. The per capita claims for the MAPD plans used in the actuarial valuation were based on weighted average premium rate, as provided by CMS. The average costs were adjusted at each respective retirement age by the morbidity factors disclosed in the assumption section of the report.

Cost Method and Expense Calculations for Retiree Healthcare Benefits

The retiree healthcare actuarial valuation was based on the Entry Age Normal cost method. Under this method, the normal cost and actuarial accrued liability are directly proportional to the employee's salary. The normal cost rate equals the present value of future benefits at entry age divided by the present value of future salary at entry age. The normal cost at the member's attained age equals the normal cost rate at entry age multiplied by the salary at attained age. The actuarial accrued liability equals the present value of benefits at attained age less present value of future salaries at attained age multiplied by normal cost rate at entry age.

Under GASB Statements No. 74 and 75, the Entry Age Normal Method is the required cost method.

Census Data

The actuarial valuation was based on TRS active, inactive and retiree data as of June 30, 2018, and TRIP retiree data as of June 30, 2018.

Summary of Actuarial Assumptions and Methods

Actuarial Assumptions

The actuarial assumptions used in our actuarial valuation are outlined on the following pages.

Actuarial Valuation Date	June 30, 2018
Measurement Date	June 30, 2019
Discount Rate	3.62% at June 30, 2018 3.13% at June 30, 2019
Inflation¹	2.50%
Wage Inflation²	3.25%

OPEB Assumptions

<u>Fiscal Year</u>	Healthcare Trend		
	Pre-Medicare Rx^{3,5}	Post-Medicare Rx^{4,5}	<u>Retiree Premium</u>
2020	8.00%	9.00%	5.00%
2021	7.50%	8.50%	5.00%
2022	7.31%	8.00%	5.00%
2023	6.81%	7.50%	5.00%
2024	6.31%	7.00%	5.00%
2025	5.81%	6.50%	5.00%
2026	5.31%	6.00%	5.00%
2027	4.81%	5.50%	4.50%
2028	4.81%	5.00%	4.50%
2029	4.81%	4.50%	4.50%

¹ Inflation assumption used to estimate the impact of the Excise Tax under Healthcare Reform.

² Wage inflation used to project payroll.

³ Higher trend rate on and after 2022 to account for the Excise Tax under Federal Healthcare Reform.

⁴ In addition to these trend rates, the per capita claims costs for the Medicare Advantage Prescription Drug plans (MAPD) are increased to reflect an ultimate MAPD savings of 15 percent in 2027 and thereafter.

⁵ Fiscal year 2019 trend based on premium decreases for MAPD plans, and 8.0% for all other plans.

Summary of Actuarial Assumptions and Methods

<u>Age</u>	<u>Morbidity Factor</u>	
	<u>Male</u>	<u>Female</u>
50	5.81%	3.46%
55	5.44%	2.84%
60	5.02%	3.66%
65	1.68%	2.46%
70	1.72%	1.89%
75	1.07%	1.20%
80	0.62%	0.97%
85	-0.37%	0.36%
90	-0.28%	-0.14%
95	-0.38%	-2.21%

Annual Per Capita Claims Costs for Pre 65, Not Medicare Eligible Members

TCHP			OAP			HMO		
Age	Medical and Rx		Age	Medical and Rx		Age	Medical and Rx	
	Male	Female		Male	Female		Male	Female
20	\$3,619	\$4,736	20	\$3,636	\$4,758	20	\$3,168	\$4,145
25	3,064	6,264	25	3,078	6,293	25	2,682	5,483
30	3,752	8,828	30	3,770	8,870	30	3,284	7,728
35	4,674	9,604	35	4,697	9,650	35	4,092	8,407
40	5,837	9,485	40	5,865	9,530	40	5,110	8,303
45	7,267	10,029	45	7,301	10,077	45	6,361	8,779
50	9,462	11,656	50	9,507	11,712	50	8,282	10,203
51	10,012	12,060	51	10,059	12,117	51	8,764	10,556
52	10,584	12,455	52	10,635	12,515	52	9,265	10,903
53	11,180	12,840	53	11,233	12,901	53	9,786	11,240
54	11,802	13,218	54	11,858	13,281	54	10,330	11,570
55	12,451	13,595	55	12,510	13,659	55	10,899	11,900
56	13,128	13,981	56	13,190	14,047	56	11,491	12,238
57	13,831	14,388	57	13,897	14,456	57	12,107	12,594
58	14,558	14,827	58	14,627	14,897	58	12,743	12,979
59	15,307	15,307	59	15,380	15,380	59	13,399	13,399
60	16,081	15,834	60	16,158	15,910	60	14,076	13,860
61	16,889	16,414	61	16,969	16,492	61	14,783	14,368
62	17,735	17,046	62	17,819	17,127	62	15,524	14,921
63	18,624	17,727	63	18,712	17,811	63	16,302	15,517
64	19,555	18,455	64	19,648	18,542	64	17,117	16,154

Summary of Actuarial Assumptions and Methods

Annual Per Capita Claims Costs for Medicare Eligible Members

Age	TCHP		OAP		HMO		MAPD	
	Medical and Rx		Medical and Rx		Medical and Rx		Medical and Rx	
	Male	Female	Male	Female	Male	Female	Male	Female
65	\$6,087	\$5,741	\$7,091	\$6,688	\$6,151	\$5,802	\$2,794	\$2,635
66	6,189	5,882	7,210	6,853	6,254	5,944	2,841	2,700
67	6,294	6,021	7,333	7,014	6,361	6,084	2,889	2,763
68	6,403	6,157	7,460	7,173	6,471	6,222	2,939	2,826
69	6,515	6,289	7,590	7,327	6,584	6,355	2,990	2,887
70	6,631	6,416	7,725	7,475	6,701	6,484	3,043	2,945
71	6,745	6,537	7,858	7,616	6,816	6,607	3,096	3,001
72	6,853	6,652	7,984	7,750	6,925	6,722	3,145	3,053
73	6,951	6,759	8,098	7,875	7,025	6,831	3,191	3,102
74	7,040	6,858	8,202	7,990	7,115	6,931	3,231	3,148
75	7,121	6,949	8,297	8,096	7,197	7,022	3,269	3,189
76	7,198	7,032	8,385	8,193	7,274	7,107	3,304	3,228
77	7,272	7,112	8,472	8,286	7,349	7,187	3,338	3,264
78	7,346	7,190	8,558	8,377	7,423	7,267	3,372	3,300
79	7,415	7,269	8,639	8,468	7,494	7,346	3,404	3,336
80	7,476	7,345	8,710	8,557	7,555	7,423	3,431	3,371
81	7,523	7,416	8,764	8,640	7,602	7,495	3,453	3,404
82	7,551	7,480	8,797	8,714	7,631	7,559	3,466	3,433
83	7,559	7,535	8,807	8,779	7,639	7,615	3,470	3,459
84	7,551	7,582	8,797	8,833	7,631	7,662	3,466	3,480
85	7,530	7,619	8,773	8,876	7,610	7,700	3,456	3,497
86	7,503	7,646	8,741	8,908	7,582	7,727	3,444	3,510
87+	7,472	7,666	8,705	8,932	7,551	7,748	3,430	3,519

Summary of Actuarial Assumptions and Methods

Annual Per Capita Claims Costs for Post 65, Not Medicare Eligible Members

TCHP			OAP			HMO		
Medical and Rx			Medical and Rx			Medical and Rx		
Age	Male	Female	Age	Male	Female	Age	Male	Female
65	\$22,002	\$20,752	65	\$21,248	\$20,041	65	\$17,420	\$16,430
66	22,371	21,262	66	21,605	20,534	66	17,712	16,834
67	22,753	21,763	67	21,974	21,018	67	18,014	17,231
68	23,145	22,254	68	22,353	21,492	68	18,325	17,620
69	23,551	22,733	69	22,744	21,954	69	18,646	17,998
70	23,968	23,193	70	23,147	22,398	70	18,976	18,362
71	24,381	23,631	71	23,546	22,822	71	19,303	18,709
72	24,771	24,045	72	23,923	23,222	72	19,612	19,037
73	25,127	24,433	73	24,267	23,596	73	19,894	19,345
74	25,449	24,791	74	24,578	23,942	74	20,149	19,628
75	25,742	25,118	75	24,861	24,258	75	20,381	19,887
76	26,018	25,421	76	25,127	24,550	76	20,599	20,126
77	26,287	25,709	77	25,387	24,828	77	20,812	20,354
78	26,552	25,992	78	25,643	25,102	78	21,023	20,579
79	26,804	26,275	79	25,886	25,375	79	21,222	20,803
80	27,024	26,551	80	26,099	25,642	80	21,396	21,022
81	27,193	26,809	81	26,261	25,891	81	21,529	21,226
82	27,294	27,038	82	26,360	26,112	82	21,610	21,407
83	27,325	27,239	83	26,390	26,306	83	21,634	21,566
84	27,295	27,408	84	26,360	26,469	84	21,610	21,700
85	27,221	27,541	85	26,288	26,598	85	21,551	21,805
86	27,120	27,640	86	26,191	26,694	86	21,472	21,884
87+	27,009	27,713	87+	26,085	26,764	87+	21,384	21,941

Summary of Actuarial Assumptions and Methods

Participation

Eighty percent of future retirees that are currently active are assumed to elect healthcare coverage, with 80 percent electing single coverage and 20 percent electing two-person coverage.

Seventy percent of current deferred vested participants with at least seven years of service and younger than age 70 as of June 30, 2018, are assumed to elect healthcare coverage, with 80 percent electing single coverage and 20 percent electing two-person coverage.

Thirty-five percent of current deferred vested participants with five to seven years of service and younger than age 70 as of June 30, 2018, are assumed to be eligible under SEGIP or TRIP before retirement and elect healthcare coverage, with 80 percent electing single coverage and 20 percent electing two-person coverage. The liability for this group is allocated equally to TRIP and SEGIP.

For current retirees that have waived coverage, we have assumed:

- a) For those under age 62, 30 percent elect coverage at 62;
- b) For those age 62 to 70, 30 percent elect coverage as of the actuarial valuation date; and
- c) For those over age 70, 0 percent elect coverage.

Age for waived retirees was measured as of June 30, 2018.

The percentage of future members electing coverage under the TCHP, OAP, and other HMO plans was based on the actual election percentages of the current TRIP population. Currently for pre-Medicare participants, about 38 percent participate in the TCHP, 31 percent participate in the OAP and 31 percent participate in HMO plans.

Retired members are assumed to participate in an MAPD plan six months after attaining age 65.

One hundred percent of spouses are expected to continue coverage after the death of the retiree.

Females are assumed to be three years younger than their spouses in cases where no spouse date of birth is supplied.

Pension-related assumptions

The pension-related assumptions disclosed in the Teachers' Retirement System (TRS) experience study for the period from July 1, 2014, to June 30, 2017, as used for the TRS actuarial valuation report as of June 30, 2018, were applied to the TRIP actuarial valuation as of June 30, 2018.

Rates are applied consistently with the pension actuarial valuations, using the census data as of June 30, 2018, as provided by TRS and CMS. Retirement rates are applied at first eligibility for pension benefits, although retiree healthcare benefits may not be payable.

Summary of Actuarial Assumptions and Methods

Deferred vested members are assumed to commence benefits at age 62.

Salary Increase	
Service	Annual Increase
1	9.50%
2	7.50%
3	7.00%
4	6.75%
5	6.50%
6	6.25%
7	6.00%
8	5.75%
9	5.50%
10	5.50%
11	5.25%
12	5.00%
13	5.00%
14	4.75%
15	4.75%
16	4.50%
17	4.50%
18	4.25%
19	4.00%
20 & above	4.00%

Summary of Actuarial Assumptions and Methods

Demographic Assumptions

Mortality

Healthy Life Mortality, Post-Retirement

RP-2014 White Collar Annuitant Tables, sex distinct with female rates multiplied by 70% for ages under 78 and 110% for ages 78 to 114, and male rates multiplied by 94% for ages under 81 and 110% for ages 81 to 114

Healthy Life Mortality, Post-Retirement Beneficiary

RP-2014 Annuitant Tables, sex distinct with female and male rates multiplied by 96% and 116%, respectively, for ages 50 to 114

Healthy Life Mortality, Pre-Retirement

RP-2014 White Collar Mortality Tables, sex distinct with female and male rates multiplied by 104% for all ages

Disabled Life Mortality, Post-Retirement

RP-2014 Disabled Tables, sex distinct with female and male rates multiplied by 117% for ages 45 to 99

Future annual improvements in mortality are based on the Society of Actuaries Mortality Projection Scale MP-2017.

Summary of Actuarial Assumptions and Methods

Spouse and Marriage Assumptions:

80.0 percent of active male participants and 70.0 percent of active female participants are assumed to be married. If no data is available, the female spouse is assumed to be three years younger than the male spouse.

Sample Turnover Rates				
% Separating Within Next Year				
Age	Under 5 Years of Service		5 or More Years of Service	
	Male	Female	Male	Female
25	7.0%	6.5%	3.0%	5.0%
30	6.5%	7.0%	3.0%	4.8%
35	8.0%	7.5%	1.5%	3.0%
40	10.0%	8.0%	1.8%	1.5%
45	11.0%	8.0%	1.3%	1.3%
50	12.0%	8.0%	1.3%	1.5%
55	11.5%	11.8%	2.0%	2.0%
60	15.0%	14.0%	3.0%	2.5%
65	30.0%	30.0%	3.0%	3.0%

Sample Disability Rates		
% Separating Within Next Year		
Age	Male	Female
25	0.01%	0.03%
30	0.01%	0.04%
35	0.02%	0.06%
40	0.03%	0.07%
45	0.05%	0.10%
50	0.10%	0.18%
55	0.14%	0.20%
60	0.18%	0.27%
65	0.25%	0.30%

Summary of Actuarial Assumptions and Methods

The following assumptions apply to members hired before January 1, 2011:

Sample Normal Retirement Rates					
% Separating Within Next Year (Age-Based)					
Age	Service				
	5 - 18	19 - 29	30-31	32 - 33	34 +
54	0%	7%	8%	40%	45%
55	0%	7%	8%	40%	45%
56	0%	7%	8%	40%	45%
57	0%	7%	10%	40%	45%
58	0%	7%	10%	40%	40%
59	0%	30%	35%	60%	40%
60	20%	30%	40%	60%	40%
61	17%	30%	40%	50%	40%
62	15%	30%	40%	50%	40%
63	15%	30%	40%	50%	40%
64	22%	40%	45%	50%	40%
65	25%	40%	45%	50%	40%
66	25%	40%	45%	50%	40%
67	20%	40%	45%	50%	45%
68	20%	40%	40%	50%	45%
69	25%	40%	40%	50%	45%
70	100%	100%	100%	50%	30%
71	100%	100%	100%	50%	30%
72	100%	100%	100%	50%	30%
73	100%	100%	100%	50%	30%
74	100%	100%	100%	100%	30%
75 & older	100%	100%	100%	100%	100%

Summary of Actuarial Assumptions and Methods

The following assumptions apply to members hired on or after January 1, 2011:

Sample Normal Retirement Rates					
% Separating Within Next Year (Age-Based)					
Age	Service				
	9 - 18	19 - 30	31	32 - 33	34 +
61 and younger	0%	0%	0%	0%	0%
62	13%	15%	20%	25%	25%
63-65	8%	10%	15%	20%	20%
66	20%	10%	15%	20%	20%
67	20%	40%	70%	70%	70%
68	20%	40%	40%	40%	40%
69	20%	40%	40%	40%	40%
70	100%	100%	100%	100%	100%

SECTION F

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Summary of Principal Plan Provisions

PLAN MEMBERS

All members receiving monthly benefits from the Teachers' Retirement System (TRS) who have at least eight years of creditable service with TRS, the survivor of an annuitant or benefit recipient who had at least eight years of creditable service or a recipient of a monthly disability benefit are eligible to enroll in TRIP. Certain members covered under TRS for pension purposes are eligible for retiree healthcare benefits under the State Employees Group Insurance Program (SEGIP). Members eligible for coverage under SEGIP include: certified teachers working for certain State agencies, executives working for the Board of Education, regional superintendents, regional assistant superintendents, TRS fund staff and certain members with reciprocal service. Any member that was a participant in the plan that preceded TRIP is eligible to participate in TRIP.

ELIGIBLE SERVICE

Eligible Service includes creditable service used for purposes of determining pension benefits payable from TRS

NORMAL RETIREMENT

Retirees are eligible to participate in TRIP if they retire under the conditions of TRS and have a minimum of eight years of TRS service. The eligibility conditions for normal retirement under TRS are shown below.

Eligibility conditions

Age 60 with 10 years of service, age 62 with 5 years of service or age 55 with 35 years of service for members hired before January 1, 2011.

Age 67 with 10 years of service for members hired on or after January 1, 2011.

EARLY RETIREMENT

Early retirees are eligible to participate in TRIP if they retire under the conditions of TRS and have a minimum of eight years of TRS service. The eligibility conditions for early retirement under TRS are shown below.

Eligibility conditions

Age 55 with 20 years of service for members hired before January 1, 2011.

Age 62 with 10 years of service for members hired on or after January 1, 2011.

DISABILITY RETIREMENT

Disabled members are eligible to participate in TRIP if they are receiving disability benefits under the conditions of TRS.

Eligibility conditions

There is no specific age or service requirement for receipt of disability benefits except for temporary disability benefits which require a minimum of 3 years of TRS service.

VESTED TERMINATIONS

Members who terminate with more than eight years of service are eligible to enroll in TRIP once they begin receiving retirement benefits. Members hired on or after January 1, 2011, are vested after 10 years of service.

Summary of Principal Plan Provisions

DEPENDENTS ELIGIBLE FOR COVERAGE

If a plan member enrolls in TRIP, they may enroll the following dependents: spouses; unmarried children age 26 and under; unmarried children age 26 and under that are full-time students, financially dependent for at least one-half of their support, and eligible to be claimed on income tax return; disabled children that have been continuously disabled from causes originating prior to age 26, financially dependent for at least one-half of their support, and eligible to be claimed on income tax return; and parents if they are financially dependent for at least one-half of their support and eligible to be claimed on income tax return.

ENROLLMENT TIMING

Members who have not previously enrolled in TRIP are eligible to enroll when they begin receiving pension benefits through TRS, during any annual open enrollment period, when turning 65 or becoming Medicare eligible or after losing coverage by a former plan. Members and beneficiaries who previously were enrolled in TRIP, and subsequently waive coverage, are only eligible to reenroll due to the loss of prior coverage by a former plan or at the attainment of age 65 or when Medicare eligible.

SURVIVING SPOUSE COVERAGE

Spouses of employees/retirees who die are eligible to maintain health insurance coverage until the surviving spouse's death. If the surviving spouse elects a monthly benefit, he or she becomes the member with the same TRIP rights.

MEDICARE

Coverage through TRIP becomes secondary to Medicare after Medicare eligibility has been reached. Members must enroll in Medicare Parts A and B to receive the reduced premium available to Medicare eligible participants. Benefits are coordinated so that Teachers' Choice Health Plan (TCHP) pays the 20 percent of approved charges not covered by Medicare. If the provider does not accept Medicare assignment, TCHP pays all amounts Medicare does not cover, up to the Medicare maximum limiting charges.

Prescription drug coverage provided by the plan is at least as valuable as benefits provided through Medicare Part D.

DENTAL AND VISION BENEFITS

Dental and vision benefits are not provided through TRIP.

FUNDING POLICY

Retiree healthcare benefits are funded on a pay-as-you-go basis. Medical benefits provided through TRIP are self-insured. The cost of TRIP is shared among active members, retirees, the individual school districts, and the state. Contributions are made to the Teacher Health Insurance Security Fund. For fiscal year 2019, active members contribute 1.24 percent of pay, school districts contribute 0.92 percent of pay and the State contributes 1.24 percent of pay. Retired members contribute through premium payments based on the coverage elected and the age of the member and dependents. The premium for retired members is not permitted to increase by more than 5.0 percent per year per statute.

Summary of Principal Plan Provisions

HEALTHCARE PLANS

Members may elect coverage in the TCHP, a managed care HMO plan or the Healthlink Open Access Plan (OAP). The TCHP is a traditional medical indemnity plan. There are six HMOs offering coverage that varies by location throughout the state. The OAP is a managed care plan that offers three benefit levels based on the provider used.

Premium rates for members depend on the coverage elected and whether a managed care plan is available in their County of residence. The following table gives the member premium amounts by type of coverage and availability of a managed care plan.

The premiums charged to members reflect approximately a 75 percent subsidy for members that elect a managed care plan or elect the TCHP plan if a managed care plan is either not available or only partially available. Members receive approximately a 50 percent subsidy if they elect the TCHP when a managed care plan is available. Medicare primary dependent beneficiaries enrolled in a managed care plan or in the TCHP when no managed care plan is available receive a premium subsidy.

TOTAL RETIREE ADVANTAGE ILLINOIS (TRAIL)

Annuitants and survivors who become enrolled in Medicare Parts A and B and meet all the criteria for enrollment in the Medicare Advantage Program are required to choose a Medicare Advantage Plan or opt out of all TRIP coverage.

Summary of Principal Plan Provisions

TRIP Member Premiums from July 1, 2018, through June 30, 2019

	Not Medicare Primary Under Age 26	Not Medicare Primary Age 26-64	Not Medicare Primary Age 65 & Above	Medicare Primary All Ages ¹
Benefit recipient enrolled in any managed care plan	\$83.40	\$259.09	\$353.00	\$102.39
Benefit recipient enrolled in TCHP when a managed care plan is available	\$216.47	\$610.96	\$918.86	\$242.78
Benefit recipient enrolled in TCHP when a managed care plan is not available	\$108.23	\$305.49	\$459.44	\$121.40
Dependent beneficiary enrolled in any managed care plan	\$333.75	\$1,036.33	\$1,411.95	\$354.71
Dependent beneficiary enrolled in TCHP when a managed care plan is available	\$432.93	\$1,221.94	\$1,837.71	\$485.56
Dependent beneficiary enrolled in TCHP when a managed care plan is not available	\$432.93	\$1,221.94	\$1,837.71	\$364.18

For plans other than MAPD plans, Member Premium for Plan Year End June 30, 2020, increased by approximately 5 percent.

TRIP MAPD Premiums from January 1, 2019, through December 31, 2019

	HMO Plans			PPO Plan
	Coventry Adventra	Health Alliance	Humana	United Healthcare
Member Rate	\$35.14	\$48.99	\$33.50	\$52.87
Dependent Rate	\$105.42	\$146.97	\$100.49	\$158.60

TRIP MAPD Premiums from January 1, 2020, through December 31, 2020

	HMO Plans			PPO Plan
	Coventry Adventra	Health Alliance	Humana	United Healthcare
Member Rate	\$36.90	\$51.26	\$35.18	\$54.19
Dependent Rate	\$110.69	\$153.77	\$105.51	\$162.56

¹ Member must enroll in Medicare Parts A and B to qualify for lower premiums.

Summary of Principal Plan Provisions

TCHP

<i>Plan Feature</i>	<i>In Network</i>	<i>Out of Network</i> ¹												
Annual Deductible	\$500 per enrollee	\$500 per enrollee												
Annual Out of Pocket Limit	\$1,200 per individual \$2,750 per family, per plan year	\$4,400 per individual \$8,800 per family, per plan year												
<u>Covered Services</u>	<u>Coinsurance</u>	<u>Coinsurance</u>												
-Office Visits	80% after deductible	60% after deductible												
-Emergency Room	\$400 copay, then 80% after deductible	\$400 copay, then 60% after deductible												
-Inpatient Services	\$200 copay, then 80% after deductible	\$400 copay, then 60% after deductible												
-Outpatient Services														
-Lab/X-ray	80% after plan deductible	60% after plan deductible												
-Other	80% after plan deductible	60% after plan deductible												
Prescription Drug Copays	<p>80% plan coinsurance with the following minimum and maximum copays (for a 30-day supply). The copays double for mail order prescriptions (for a 90-day supply). Annual out of pocket limit for prescriptions of \$1,500.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 20%; text-align: center;">Minimum Copay</th> <th style="width: 20%; text-align: center;">Maximum Copay</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Generic Copay</td> <td style="text-align: center;">greater of 20% or \$7</td> <td style="text-align: center;">lesser of 20% or \$50</td> </tr> <tr> <td style="text-align: center;">Preferred Brand Copay</td> <td style="text-align: center;">greater of 20% or \$14</td> <td style="text-align: center;">lesser of 20% or \$100</td> </tr> <tr> <td style="text-align: center;">Nonpreferred Brand Copay</td> <td style="text-align: center;">greater of 20% or \$28</td> <td style="text-align: center;">lesser of 20% or \$150</td> </tr> </tbody> </table>			Minimum Copay	Maximum Copay	Generic Copay	greater of 20% or \$7	lesser of 20% or \$50	Preferred Brand Copay	greater of 20% or \$14	lesser of 20% or \$100	Nonpreferred Brand Copay	greater of 20% or \$28	lesser of 20% or \$150
	Minimum Copay	Maximum Copay												
Generic Copay	greater of 20% or \$7	lesser of 20% or \$50												
Preferred Brand Copay	greater of 20% or \$14	lesser of 20% or \$100												
Nonpreferred Brand Copay	greater of 20% or \$28	lesser of 20% or \$150												
Maximum Lifetime Benefit	Unlimited													

¹ Out of network claims covered only up to usual and customary amount.

Summary of Principal Plan Provisions

HMO

<i>Plan Feature</i>							
Annual Deductible	\$0						
Out of Pocket Maximum	\$3,000 individual \$6,000 family						
<u>Covered Services</u>	<u>Coinsurance</u>						
-Physicians Visits	\$20 Copay						
-Emergency Care	\$200 Copay						
-Inpatient Services	\$250 Copay						
-Outpatient Services	\$150 Copay						
Prescription Drug Copays (30-day supply)	<table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">Generic</td> <td style="text-align: right;">\$10</td> </tr> <tr> <td style="padding-right: 20px;">Preferred Brand</td> <td style="text-align: right;">\$20</td> </tr> <tr> <td style="padding-right: 20px;">Nonpreferred Brand</td> <td style="text-align: right;">\$40</td> </tr> </table>	Generic	\$10	Preferred Brand	\$20	Nonpreferred Brand	\$40
Generic	\$10						
Preferred Brand	\$20						
Nonpreferred Brand	\$40						
Maximum Lifetime Benefit	Unlimited						

Summary of Principal Plan Provisions

OAP

<i>Plan Feature</i>	<i>Tier I</i>	<i>Tier II</i>	<i>Tier III</i>
Annual Deductible	\$0	\$300 per enrollee	\$400 per enrollee
Annual Out of Pocket Limit	\$6,600 per enrollee \$13,200 per family Tier I and Tier II charges combined		N/A
<u>Covered Services</u>	<u>Coinsurance/Copay</u> ¹	<u>Coinsurance/Copay</u> ¹	<u>Coinsurance/Copay</u> ²
-Office Visits	\$20 copay	80%	60%
-Emergency Room	\$200 copay	\$200 copay	\$200 copay
-Inpatient Services	\$250 copay	\$300 copay, then 80%	\$400 copay, then 60%
-Outpatient Services			
-Lab/X-ray	100%	80%	60%
-Other	100%	80%	60%
Prescription Drug Copays (30-day supply)		Generic \$10 Preferred Brand \$20 Nonpreferred Brand \$40	
Maximum Lifetime Benefit	Unlimited	Unlimited	Unlimited

¹ Network charges.

² Usual and customary charges.

Summary of Principal Plan Provisions

TRAIL MAPD HMO

<i>Plan Feature</i>				
Annual Deductible	\$0			
Out of Pocket Maximum	\$3,000 per enrollee			
<u>Covered Services</u>	<u>Coinsurance</u>			
-Physicians Visits	\$20 Copay			
-Emergency Care	\$120 Copay Copay waived if admitted within 24 hours			
-Inpatient Services	\$250 Copay			
-Outpatient Services	\$150 Copay			
Prescription Drug Copays ¹	Supply	30 days	60 days	90 days
	Tier 1	\$10	\$20	\$30
	Tier 2	\$20	\$40	\$60
	Tier 3 or 4	\$40	\$80	\$120
Maximum Lifetime Benefit	Unlimited			

¹ To obtain a 90-day supply, copayments are 2 times the 30-day supply copayment under Coventry Advantra, 2.5 times the 30-day supply copayment under Health Alliance MAPD and 3 times the 30-day supply copayment under Health Alliance MAPD and Humana MAPD. Copayments are capped once a member reaches \$5,100 in "true out-of-pocket" prescription drug costs.

Summary of Principal Plan Provisions

TRAIL MAPD PPO

<i>Plan Feature</i>	<i>In Network</i>	<i>Out of Network</i>		
Annual Deductible	\$250 per enrollee	\$250 per enrollee		
Annual Out of Pocket Limit	\$1,100 per enrollee	\$1,100 per enrollee		
<u>Covered Services</u>	<u>Coinsurance</u>	<u>Coinsurance</u>		
-Office Visits	80% after deductible	80% after deductible		
-Emergency Room	\$120 Copay Copay waived if admitted within 24 hours	\$120 Copay Copay waived if admitted within 24 hours		
-Inpatient Services	80% after deductible	80% after deductible		
-Outpatient Services	80% after plan deductible	80% after plan deductible		
Prescription Drug Copays ¹	Supply	30 days	60 days	90 days
	Tier 1	\$10	\$20	\$30
	Tier 2	\$25	\$50	\$75
	Tier 3	\$50	\$100	\$150
Maximum Lifetime Benefit	Unlimited			

¹ Copayments are capped once a member reaches \$5,100 in "true out-of-pocket" prescription drug costs.

SECTION G

GLOSSARY

Glossary

Accrued Service. The service credited under the plan, which was rendered before the date of the actuarial valuation.

Actuarial Accrued Liability (AAL). The difference between (i) the actuarial present value of future plan benefits; and (ii) the actuarial present value of future normal cost, which is sometimes referred to as "accrued liability" or "past service liability."

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the "actuarial present value of future plan benefits" between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the "actuarial funding method."

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Actuarial Value of Assets. The value of cash, investments, and other property belonging to a pension or OPEB plan, as used by the actuary for the purpose of an actuarial valuation.

Actuarially Determined Contribution (ADC). The ADC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ADC is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Annual OPEB Expense. An accrual-basis measure of the periodic cost of an employer's participation in a defined OPEB plan.

Discount Rate. The rate used to adjust a series of future payments to reflect the time value of money.

Glossary

Entry Age Normal Cost Method. A method under which the normal cost and actuarial accrued liability are directly proportional to the employee's salary. The normal cost rate equals the present value of future benefits at entry age divided by the present value of future salary at entry age. The normal cost at the member's attained age equals the normal cost rate at entry age multiplied by the salary at attained age. The actuarial accrued liability equals the present value of benefits at attained age less present value of future salaries at attained age multiplied by normal cost rate at entry age.

Expected Net Employer Contributions. The difference between the age-adjusted premium or expected retiree healthcare claims and retired member's share of the premium. This amount is used to offset the Annual OPEB Cost during the fiscal year.

Explicit Rate Subsidy. The portion of the premium paid by the employer. The premium may be based on the experience of active and retired members or retired members only.

Governmental Accounting Standards Board (GASB). GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

Implicit Rate Subsidy. The de facto subsidy of retirees by permitting them to pay lower than age-adjusted premiums through the use of a single common or blended premium for both retirees and active employees.

Medical Trend Rate (Health Inflation). The increase in the plan's cost over time. Trend includes all elements that may influence a plan's cost, assuming those enrollments and the plan benefits do not change. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology and cost shifting.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost." Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Other Postemployment Benefits (OPEB). OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs, or other healthcare benefits.

Pay-As-You-Go Funding. A method of financing benefits by making required payments only as they come due.

Plan Member. A plan's membership includes active service employees, terminated employees who are eligible to receive benefits but are not receiving them, and retired employees and beneficiaries currently receiving benefits.

Pre-Funding. A method of financing benefits by placing resources in trust as employees earn benefits so that the resources thus accumulated, along with related earnings, can be used to make benefit payments as they become due.

Glossary

Present Value of all Projected Benefits. The present value of the cost to finance benefits payable in the future, discounted to reflect the expected effects of the time value of money and the probabilities of payment.

Projected Unit Credit Cost Method. A method under which the normal cost and actuarial accrued liability are directly proportional to the employee's service. The normal cost equals the present value of future benefits divided by projected service at retirement, and the actuarial accrued liability equals the present value of benefits multiplied by the ratio of service at the actuarial valuation date to projected service at retirement.

Qualified Plan. A qualified plan is an employer-sponsored retirement plan that qualifies for special tax treatment under Section 401(a) of the Internal Revenue Code.

Reserve Account. An account used to indicate that funds have been set-aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability (UAAL). The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability."

Valuation Assets. The value of current plan assets recognized for actuarial valuation purposes.