

October 11, 2018

Board of Trustees
Teachers' Retirement System of Oklahoma
Oliver Hodge Education Building
2500 N. Lincoln Boulevard, 5th Floor
Oklahoma City, Oklahoma 73105

Re: GASB 74 and 75 OPEB Reporting and Disclosure Information for OTRS Fiscal Year Ending June 30, 2018

Dear Members of the Board:

This report provides information required by the Teachers' Retirement System of Oklahoma (OTRS) in connection with the Governmental Accounting Standards Board (GASB) Statement No. 74, "Financial Reporting for Postemployment Benefit Plans other than Pension Plans." Additionally, this report provides information required by the governmental employers participating in OTRS in connection with the GASB Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions." This information can be used by governmental employers in financial reporting for fiscal years ending between (and including) June 30, 2018 and June 30, 2019. The information provided herein was prepared for the purpose of assisting OTRS and the governmental employers in the compliance with the financial reporting and disclosure requirements of GASB Statement Nos. 74 and 75.

OTRS Statutes establish the Retiree Medical Benefit Fund (which is administered in accordance with the requirements under Section 401(h) of the Internal Revenue Code of 1986) for purposes of paying the Supplemental Medical Insurance benefit. The benefits and assets associated with the Retiree Medical Benefit Fund, which constitute the OTRS OPEB Plan, are covered in this report. All of the other benefits administered by OTRS are covered in the report prepared for reporting under GASB Statement Nos. 67 and 68.

In accordance with the Contribution and Allocation Policy for Retiree Medical Benefit Fund, adopted by the Board on August 23, 2017, the initial plan fiduciary net position was established such that the total OPEB liability less the OPEB fiduciary net position (i.e., the net OPEB liability) equaled zero.

The net OPEB liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The net OPEB liability is not an appropriate measure for assessing the need for or amount of future employer contributions. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 74 and 75 may produce significantly different results. This report may be provided to parties other than OTRS only in its entirety and only with the permission of OTRS.

The total OPEB liability, net OPEB liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of June 30, 2018. It is our opinion that the recommended assumptions are internally consistent, reasonable, and comply with the requirements under GASB Statement Nos. 74 and 75.

Based on the available data, the information contained in this report is accurate and fairly represents the actuarial position of the OTRS OPEB Plan as of the reporting date. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as the Actuarial Standards of Practice. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the author of the report prior to making such decision.

This report is based upon information, furnished to us by OTRS, which include benefit provisions, membership information, and financial data. This information was checked for internal consistency, but it was not audited. GRS is not responsible for the accuracy or completeness of the information provided to us by OTRS.

Certain tables included in the Required Supplementary Information should include a 10-year history of information. As provided for in GASB Statement Nos. 74 and 75, this historical information is only presented for the years in which the information was measured in conformity with the requirements of GASB Statement Nos. 74 and 75. The historical information in this report will begin with the information presented for the OTRS fiscal year ending June 30, 2017.

Paragraph 68 of GASB Statement No. 75 indicates that contributions to the OPEB plan subsequent to the measurement date of the net OPEB liability and prior to the end of the employer's reporting period should be reported by the employer as a deferred outflow of resources related to OPEB. The information contained in this report does not incorporate any contributions reported to OTRS subsequent to June 30, 2018.


This report complements the actuarial valuation as of June 30, 2018, provided for plan funding purposes, which was also provided to OTRS and should be considered together as a complete report for the plan year ending June 30, 2018. Please see the actuarial valuation report as of June 30, 2018 for additional discussion of the actuarial valuation, including the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

To the best of our knowledge, this report is complete and accurate and is in accordance with generally recognized actuarial practices and methods. Mr. Falls and Mr. Randall are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



R. Ryan Falls, FSA, MAAA, EA
Senior Consultant



Mark R. Randall, FCA, EA, MAAA
Chief Executive Officer

Summary of Population Statistics

The total OPEB liability described in this report is based on the membership of the OTRS OPEB Plan as of June 30, 2018:

Inactive Plan Members or Beneficiaries Currently Eligible to Receive Benefits	57,866
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	5,147
Active Plan Members	<u>88,534</u>
Total Plan Members	151,547

Measurement of the Net OPEB Liability

The net OPEB liability is measured as the total OPEB liability, less the amount of the plan's fiduciary net position. In actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations based on the Board's adopted assumptions and methods).

A single discount rate of 7.50% was used to measure the total OPEB liability as of both June 30, 2017 and June 30, 2018. This single discount rate was based on an expected rate of return on OPEB plan investments of 7.50% for the plan years ending June 30, 2017 and June 30, 2018. Based on the stated assumptions and the projection of cash flows, the OPEB plan's fiduciary net position and future contributions were projected to be available to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

The projection of cash flows used to determine this single discount rate assumed that contributions will be made based on the current funding policy as documented in the Contribution and Allocation Policy for Retiree Medical Benefit Fund.

Sensitivity of the Net OPEB Liability to the Single Discount Rate Assumption

Below is a table providing the sensitivity of the net OPEB liability to changes in the discount rate as of June 30, 2018. In particular, the table presents the plan's net OPEB liability, if it were calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the single discount rate:

Discount		
1% Decrease	Rate Assumption	1% Increase
6.50%	7.50%	8.50%
\$ (22,697,593)	\$ (64,625,470)	\$ (100,451,837)

The benefits paid by the OTRS OPEB Plan are not impacted by healthcare cost trend rates. As a result, changes in the healthcare cost trend rate assumption will have no impact on the net OPEB liability.

Statement of Changes in Fiduciary Net Position as of June 30, 2018

Fiscal Year	2018
Additions	
Contributions	
Member contributions, including state credit	\$ 0
Grant matching funds	0
State contribution	0
Employer/district contributions	2,912,563
Total Contributions	\$ 2,912,563
Net investment earnings	
Investment income	\$ 46,853,816
Investment expenses	(2,093,391)
Net Investment Income	\$ 44,760,425
Total Additions	\$ 47,672,988
Deductions	
Benefit Payments	\$ 36,963,620
Refunds	0
Administrative Expense	11,427
Other	0
Total Deductions	\$ 36,975,047
Net Increase in Net Position	\$ 10,697,941
Net Position Restricted for OPEB	
Beginning of Year	\$ 473,358,221
End of Year	\$ 484,056,162

This reconciliation only includes the items needed to reconcile the changes in Net OPEB Liability during the fiscal year. The Reconciliation of Fiduciary Net Position required by GASB may require additional detail regarding the changes throughout the year.

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the Employers' Net OPEB Liability and Related Ratios

Fiscal year ending June 30,	2018	2017
Total OPEB liability		
Service cost	\$ 6,431,010	\$ 6,647,749
Interest on the total OPEB liability	31,012,327	31,728,895
Changes of benefit terms	0	0
Difference between expected and actual experience	(9,813,028)	(14,186,133)
Changes of assumptions	0	0
Benefit payments, including refunds of employee contributions	(36,963,620)	(30,309,127)
Net change in total OPEB liability	(9,333,311)	(6,118,616)
Total OPEB liability - beginning	428,764,003	434,882,619
Total OPEB liability - ending (a)	\$ 419,430,692	\$ 428,764,003
Plan fiduciary net position		
Employer contributions	\$ 2,912,563	\$ 6,513,158
Employee contributions	0	0
OPEB plan net investment income	44,760,425	62,298,028
Benefit payments, including refunds of employee contributions	(36,963,620)	(30,309,127)
OPEB plan administrative expense	(11,427)	(26,457)
Other	0	0
Net change in plan fiduciary net position	10,697,941	38,475,602
Plan fiduciary net position - beginning	473,358,221	434,882,619
Plan fiduciary net position - ending (b)	\$ 484,056,162	\$ 473,358,221
Net OPEB liability - ending (a) - (b)	\$ (64,625,470)	\$ (44,594,218)
Plan fiduciary net position as a percentage		
of total OPEB liability	115.41 %	110.40 %
Covered-employee payroll	\$ 4,149,557,077	\$ 4,070,723,673
Net OPEB liability as a percentage		
of covered-employee payroll	(1.56)%	(1.10)%

Notes to Schedule:

-- The covered employee payroll is an estimate of the actual payroll, imputed from individual employer contributions.

SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Employer Contributions

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll
2017	\$ 6,513,158	\$ 6,513,158	\$ 0	\$ 4,070,723,673	0.16 %
2018	2,912,563	2,912,563	0	4,149,557,077	0.07 %

Notes to Schedule of Contributions

Valuation Date: June 30, 2018

Notes The ADEC is the amount needed to fund the normal cost, the anticipated administrative expenses, and a payment towards eliminating the Unfunded Actuarial Accrued Liability (UAAL). The payment towards eliminating the UAAL is based on an closed period of twenty (20) years calculated as a level percentage of future payroll with the initial period beginning on July 1, 2016.

Methods and Assumptions Used to Determine Contribution Rates:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll
Remaining Amortization Period	20 years beginning on July 1, 2016
Asset Valuation Method	Market
Inflation	2.50%
Salary Increases	Composed of 2.50% inflation, plus 0.75% productivity increase rate, plus step-rate promotional increases for members with less than 25 years of service.
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates based on age, service, and tier.
Mortality	RP-2000 Combined Mortality Table for males with White Collar Adjustments with fully generational projection by Scale BB from the table's base year of 2000. For females, the GRS Southwest Region Teacher Mortality Table, scaled at 105%, with fully generational projection by Scale BB from the table's base year of 2012.
Health Care Trend Rates	Due to the nature of the benefit, health care trend rates are not applicable to the calculation of contribution rates.
Expenses	Administrative expenses are explicitly included in the ADEC. Investment expenses are paid through investment returns.

GOVERNMENTAL EMPLOYER FINANCIAL STATEMENTS
OPEB Expense for OTRS Fiscal Year Ending June 30, 2018
To be used for Governmental Employer Reporting for Fiscal Years Ending
Between June 30, 2018 and June 30, 2019

1. Service Cost	\$ 6,431,010
2. Interest on the Total OPEB Liability	31,012,327
3. Current-Period Benefit Changes	0
4. Employee Contributions	0
5. Projected Earnings on Plan Investments	(34,224,523)
6. OPEB Plan Administrative Expense	11,427
7. Other Changes in Plan Fiduciary Net Position	0
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	(3,774,208)
9. Recognition of Outflow (Inflow) of Resources due to Assets	<u>(8,222,216)</u>
10. Total OPEB Expense	\$ (8,766,183)

Recognition of Deferred Outflows and Inflows of Resources

According to paragraph 86 of GASB No. 75, *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 2018 fiscal year, the expected remaining service lives of all contributing members was 942,597 years for OTRS. Additionally, the OTRS OPEB Plan membership (active employees and inactive employees) was 149,670. 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 2018 fiscal year is 6.3 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.

GOVERNMENTAL EMPLOYER FINANCIAL STATEMENTS

Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods

For Plan Year Ending June 30, 2018

To be used for Governmental Employer Reporting for Fiscal Years Ending

Between June 30, 2018 and June 30, 2019*

A. New Deferred Outflows and Inflows of Resources by Source Established in Fiscal Year

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ 0	\$ 9,813,028	\$ (9,813,028)
2. Assumption Changes	0	0	0
3. Net Difference between projected and actual earnings on OPEB plan investments	0	10,535,902	(10,535,902)
4. Total	\$ 0	\$ 20,348,930	\$ (20,348,930)

B. Outflows and Inflows of Resources by Source to be recognized in Current OPEB Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ 0	\$ 3,774,208	\$ (3,774,208)
2. Assumption Changes	0	0	0
3. Net Difference between projected and actual earnings on OPEB plan investments	0	8,222,216	(8,222,216)
4. Total	\$ 0	\$ 11,996,424	\$ (11,996,424)

C. Deferred Outflows and Deferred Inflows of Resources by Source to be recognized in Future OPEB Expense

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	\$ 0	\$ 18,008,369	\$ (18,008,369)
2. Assumption Changes	0	0	0
3. Net Difference between projected and actual earnings on OPEB plan investments	0	26,773,824	(26,773,824)
4. Total	\$ 0	\$ 44,782,193	\$ (44,782,193)

D. Deferred Outflows and Deferred Inflows of Resources by Year to be recognized in Future OPEB Expenses

Period	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
Fiscal Year + 1	\$ 0	\$ 11,996,424	\$ (11,996,424)
Fiscal Year + 2	0	11,996,424	(11,996,424)
Fiscal Year + 3	0	11,996,422	(11,996,422)
Fiscal Year + 4	0	5,881,386	(5,881,386)
Fiscal Year + 5	0	2,444,253	(2,444,253)
Thereafter	0	467,284	(467,284)
Total	\$ 0	\$ 44,782,193	\$ (44,782,193)

* Amounts shown are based on the collective deferred inflows and outflows for the plan. Each individual employer may have additional deferred inflows and outflows associated with changes in proportion or differences between employer contributions and proportionate share of contributions.

GOVERNMENTAL EMPLOYER FINANCIAL STATEMENTS
Recognition of Deferred Outflows and Inflows of Resources
For Plan Year Ending June 30, 2018
To be used for Governmental Employer Reporting for Fiscal Years Ending
Between June 30, 2018 and June 30, 2019

Year Established	Initial Amount	Initial Recognition Period	Current Year Recognition	Remaining Recognition	Remaining Recognition Period
Deferred Outflow (Inflow) due to Differences Between Expected and Actual Experience on Liabilities					
2017	(14,186,133)	6.4	(2,216,584)	(9,752,965)	4.4
2018	(9,813,028)	6.3	(1,557,624)	(8,255,404)	5.3
Total			(3,774,208)	(18,008,369)	
Deferred Outflow (Inflow) due to Assumption Changes					
2017	0	6.4	0	0	4.4
2018	0	6.3	0	0	5.3
Total			0	0	
Deferred Outflow (Inflow) due to Differences Between Projected and Actual Earnings on Plan Investments					
2017	(30,575,173)	5.0	(6,115,035)	(18,345,103)	3.0
2018	(10,535,902)	5.0	(2,107,181)	(8,428,721)	4.0
Total			(8,222,216)	(26,773,824)	