GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

TRS–CARE RETIREE HEALTH CARE PLAN
TEACHER RETIREMENT SYSTEM OF TEXAS
ACTUARIAL VALUATION REPORT
FOR THE YEAR ENDING AUGUST 31, 2015

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November 11, 2015

Board of Trustees
Teacher Retirement System of Texas
1000 Red River Street
Austin, TX 78701-2698

Subject: GASB 43 Actuarial Valuation as of August 31, 2015 for TRS-Care

Submitted in this report are the results of an Actuarial Valuation of the liabilities associated with the employer financed retiree health benefits provided through TRS-Care, a benefit program designed to provide post-retirement medical benefits for certain members of the Teacher Retirement System of Texas (TRS). The date of the valuation was August 31, 2015. This report was prepared at the request of TRS.

The actuarial calculations were prepared for purposes of complying with the requirements of Statements 43 and 45 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 TRS-Care and participating employers may produce significantly different results. Actuarial valuations of the post-retirement benefits are performed annually.

The valuation was based upon information, furnished by TRS, concerning retiree health benefits, members' census, and financial data. Data was checked for internal consistency but was not otherwise audited. Certain demographic and economic assumptions are identical to the set of demographic and economic assumptions adopted by the Board based on the 2015 Experience Study of TRS. Assumptions applicable only to TRS-Care have changed since the prior report, and they are disclosed in the assumptions section of this report.

The following CAFR schedules were prepared by GRS and can be found in Section G of this report:

1. Actuarial Present Value of Benefits
2. Schedule of Funding Progress
3. Schedule of Contributions form Employer(s) and Other Contributing Entities
4. Key actuarial assumptions and methods
5. Solvency Test
6. Analysis of Financial Experience
7. Schedule of Retirants and Beneficiaries Added and Removed from Rolls

GRS is not responsible for any trend data schedules not found in this report.

The current objective is to fund the Trust in order to maintain benefits through individual biennial periods. 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 based on the current funding policy.

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; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

To the best of our knowledge, this report is complete and accurate and was made in accordance with generally recognized actuarial methods. Joe Newton and Mehdi Riazi are members of the American Academy of Actuaries and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

Respectfully submitted,

William J. Hickman	Joseph P. Newton, FSA, MAAA	Mehdi Riazi, ASA, EA, MAAA
Senior Consultant	Senior Consultant	Consultant

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Table of Contents

SECTION A

CURRENT OVERVIEW

SUMMARY OF GASB ACCOUNTING STANDARDS

OTHER POST EMPLOYMENT BENEFITS
SPONSORED BY THE
TEACHER RETIREMENT SYSTEM OF TEXAS

AS OF AUGUST 31, 2015

Introduction

Accounting standards Statements 43 and 45 issued by the Government Accounting Standards Board (GASB), determine the financial recognition of Other Post Employment Benefits (OPEB). For the participating members of TRS-Care, these benefits primarily include medical and prescription drug insurance benefits provided to eligible public school retirees. Any other OPEB benefits offered to the members and dependents of the Teacher Retirement System of Texas are outside the scope of this report. This would include OPEB benefits offered by the local school districts such as vision, dental, or life insurance.

The liabilities and schedule of funding progress provided in this report should be applied to the Comprehensive Annual Financial Report (CAFR) issued for the period September 1, 2014 through August 31, 2015 for TRS-Care.

The purpose of this Report is to provide: (a) results of the actuarial calculations necessary for financial reporting pursuant to GASB Statements 43 and 45, and (b) various other actuarial, statistical and benefit information useful for the operation of TRS-Care.

Funded and Unfunded Plans

Currently, the benefits of TRS-Care are financed through a combination of retiree premiums and percentage of payroll contributions from active employees, local school districts, and the State (currently 0.65% of payroll for active employees, 0.55% for local employers and 1.00% for the State). The current objective is to fund the Trust in order to maintain benefits through individual biennial periods. Furthermore, 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 based on the current funding policy. This trust has an asset balance of $973 million as of August 31, 2015. ($973 million represents roughly $105 million less than one year of employer provided benefits). These assets are invested in cash and other short-term investments according to the current investment policy.

Consequently, according to GASB Statement 43, the interest discount rate used to calculate the present values and costs of the OPEB must be the long-range expected return on such short-term fixed income instruments. The Board has selected an interest discount rate of 5.25% for this purpose. An explanation of this assumption can be found in the "Actuarial Assumptions and Methods" section of this report.

There is no current requirement by the GASB, by State or Federal Statute or regulation, or by any rating agencies to pre-fund the OPEB obligations with cash in a Trust. This accounting standard only requires participating employers to measure the obligation, and to recognize it and disclose it in their financial statements, as applicable. However, if the OPEB Plan were a funded plan and if its assets were invested in a trust with a longer term investment horizon, then a higher interest discount rate could be used. This would result in lower Annual OPEB Costs and lower liabilities. We have provided the liability and Annual OPEB Cost calculations in this report for illustrative purposes, utilizing the same 8.0% investment return assumption the Board has adopted for the pension plan. If advanced funding were to be adopted, we would revisit this assumption if the Board were to adopt a more aggressive or conservative investment policy for this pool of money.

Results of the Study

The following table presents the results which are usually of most interest. The actuarial liabilities are measured as of August 31, 2015. All liabilities and contribution requirements shown throughout the report are net of retiree premiums. The Unfunded Actuarial Accrued Liability would appear in the Notes to Financial Statements (not on the balance sheet or Statement of Net Assets). The Annual Required Contribution is the expense that would be recorded on the books. The Expected Net Employer Contribution is the amount estimated to be contributed against, and in satisfaction of, the Annual Required Contribution. Because TRS-Care is a multiple-employer plan, the Annual OPEB Cost for participating employers is set by the Legislature and must be disclosed in each employer's financial statements as the GASB 45 Annual OPEB Cost. Finally, for illustrative purposes, the expected net pay-as-you-go costs for TRS-Care are shown. The expected payroll contributions for fiscal year 2016 are $688 million. The expected net claims and expenses (net of retiree premiums) to be paid out of the trust are $1,078 million. The difference will be paid from the reserve or earnings.

The results are shown under two separate discount rates. The column displaying the 5.25% discount rate shows the liabilities valued under the current pay-as-you-go policy. The second scenario would be applicable in the event that the contributions are increased to fully fund the ARC based on a sound actuarial funding policy. This scenario assumes full pre-funding and the immediate availability of stocks and bonds in the portfolio, therefore assuming an 8.00% investment return.

$000s	Current Policy 5.25%	Advanced Funding 8.0%
Actuarial Accrued Liability	$ 44,203,329	$ 29,113,705
Actuarial Value of Assets	(972,919)	(972,919)
Unfunded Actuarial Accrued Liability (PUC)	43,230,410	28,140,786
Total ARC (and annual OPEB Cost) for FYE 8/31/2016	**$ 3,955,751**	**$ 2,860,539**
Per Active Participant	$ 5,778	$ 4,179
As % of Expected Payroll	12.66%	9.15%
Estimated Net Employer Contr. for FYE 8/31/2016	**$ 687,588**	**$ 2,860,539**
Estimated Pay-as-you-go costs for FYE 8/31/2016	**$ 1,078,004**	**$ 1,078,004**

For illustrative purposes in the above chart, the Net Employer Contribution is the expected contributions based on the current contribution policy. If an advanced funding policy were implemented, the actual contributions used in the GASB exhibits would be equal to the ARC. Any additional contributions above the pay-as-you-go costs are available for investment in the trust and help decrease costs in the future.

Please note, the expected pay-as-you-go costs are expected to exceed the employer contributions in fiscal year 2016. The current contribution policy equal to 2.20% of payroll cannot sustain the current benefit provisions and reserve levels. In addition, when the contributions are less than the ARC the UAAL will grow from year to year because the amortization schedule will not be met.

Cost Sharing Multiple-Employer Plans under GASB 43 & 45

Under GASB 43, a **Cost-sharing multiple-employer plan** is defined as a single plan with pooling (cost-sharing) arrangements for the participating employers. All risks, rewards, and costs, including benefit costs, are shared and are not attributed individually to the employers. A single actuarial valuation covers all plan members, and the same contribution rate(s) applies for each employer.

Under paragraph 22 of GASB 45, a cost sharing multiple employer postretirement benefit program must meet the following requirements:

1) The plan is administered as a formal trust or equivalent arrangement;
2) Employer contributions are irrevocable;
3) Plan assets are dedicated for providing postretirement benefits; and
4) Plan assets are legally protected from creditors of employers and of the plan administrator.

If the multiple employer plan does not satisfy the preceding conditions, then it is must be classified as an agent multiple employer plan for financial reporting purposes, and the participating employers should apply the requirements of an agent plan.

Furthermore, the glossary of GASB 45 and paragraph 127 of the GASB 43 and 45 Implementation Guide provides additional information on the definition of cost sharing plans as follows:

1) The intent of the cost sharing plan is to pool risks, rewards and costs among all participating employers,
2) A single valuation is performed and the same contribution rate applies to each participating employer, and
3) The cost sharing plan is administered as a legal trust or equivalent trust that makes the risk pooling mechanism possible.

We believe TRS-Care satisfies the conditions of a cost sharing multi-employer plan, and therefore, each employer is required to recognize OPEB expense for their contractually required contributions to the plan, currently 0.55% of payroll. Each employer is required to disclose how

the contractually required contribution rate is determined (for example, by statute or contract or on an actuarially determined basis) and no balance sheet liability will be generated, provided that the contractually prescribed contributions are made by the school districts.

It should be noted, however, that to be definitive such a determination should be made by the State's auditors, not the entity administering the Plan or by the Plan's actuary.

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. Then the investment discount rate assumption is used to discount those projected net OPEB benefits to a present value. This and other related present values are used to calculate the Annual Required Contribution that will be expensed and the Unfunded Actuarial Accrued Liability that will be disclosed in the financial statements.

This actuarial valuation of TRS-Care is similar to the actuarial valuations performed for the TRS' pension plan, except that the OPEB Valuation is more complex. The demographic assumptions (rates of retirement, termination and disability) used in this OPEB valuation were identical to those used in the latest TRS valuation.

Certain economic and behavioral assumptions, of course, are unique to medical benefits. It would be instructive to review the Section of this Report titled, "Actuarial Assumptions and Methods" for a detailed discussion and disclosure of all the relevant Actuarial Assumptions used in this Valuation.

Actuarial Cost Methods

GASB Statement 43 provides considerable flexibility to governmental employers (and their actuaries) in the use of various actuarial cost methods. Several of such acceptable actuarial cost methods were investigated. The Projected Unit Credit Cost Method was used in this valuation. This is both an acceptable and reasonable cost method for OPEB valuations. Furthermore, the amortization of any Unfunded Actuarial Accrued Liabilities was calculated using a level percent of pay over a 30 year period.

Summary of Changes to the Unfunded Actuarial Accrued Liability (UAAL)

As shown on page 41, Analysis of Financial Experience, the liability loss due to experience and the loss due to assumption changes were the key drivers behind the increase to the UAAL. The $3.4 billion loss due to experience was driven by the combination of retiree premiums remaining level and the estimated underlying claims increasing by more than expected. The $6.2 billon loss due to assumption changes can be broken into $2.1 billon attributable to the demographic assumption changes which resulted from the 2015 pension experience study and $4.1 billon attributable to the new health care trend assumption. The new trend assumption is very similar to the prior assumption for medical costs, but assumes higher future increases for prescription drug costs and also assumes retiree premiums will remain level through FYE17.

SECTION B

VALUATION RESULTS–TRS CARE

VALUATION RESULTS

CURRENT FUNDING POLICY

OTHER POST EMPLOYMENT BENEFITS
ADMINISTERED BY THE
TEACHER RETIREMENT SYSTEM OF TEXAS

AS OF AUGUST 31, 2015

Following is a table presenting the essential results of the valuation. The table presents the results as they relate to the TRS-Care's obligation for its own members and retirees.

The current funding policy includes revenues from four sources: current retirees, current active employees, local school districts, and the State. Current retirees have premium requirements to participate in the program and currently, these premiums are approximately 26% of the expected claims and expense costs. All liability and expense numbers throughout the report are net of these retiree premiums.

Active employees contribute into TRS-Care at a rate of 0.65% of payroll. Finally, local employers and the State contribute based on payroll at rates of 0.55% and 1.00%, respectively. The total estimated revenue (including retiree premiums and the expected additional supplemental appropriation) for TRS-CARE for FY 2016 is $1,071 million, and this compares to the total estimated claims and expenses for FY 2016 of $1,461 million. This plan would be considered unfunded according to GASB 43 because the annual revenues are calculated in such a way as to cover annual expenses and not to advance fund future obligations. However, there is a current asset balance of $973 million which is invested in a mix of cash and other short term investments. According to simulations, the current asset mix can support a 5.25% discount rate, the rate selected by the Board for this valuation.

The Unfunded Actuarial Accrued Liabilities (UAAL) were amortized as a level percent of active member payroll over a period of 30 years. A 30-year amortization period for Unfunded Actuarial Accrued Liabilities is the maximum period that complies with the GASB 43 requirements. Unlike a level dollar amortization which pays principle and interest each year, it is common for a level percent of pay (or increasing payment) amortization to not pay principle for an extended period.

The UAAL represents the portion of the total actuarial present value of all future employer-provided benefits which is attributable to prior years, minus any valuation assets. Basically, it is the measure of the unfunded liability allocable to past service. The UAAL is not booked as an expense all in one year and does not appear in the Plan's Statement of Net Assets. Nevertheless, it is reported in the Notes to the Financial Statements and in the Required Supplementary Information. These are informational sections within the Plan's financial statements.

The cost and liabilities shown below are employer costs and liabilities, net of any co-pays, deductibles, retiree contributions, and formulary rebates. The next chart provides a ten-year cash flow projection of medical claims, prescription drug claims, retiree premiums, and the ARC.

Teacher Retirement System of Texas TRS-Care Based on an current funding policy - using a 5.25% investment discount assumption OPEB ACTUARIAL VALUATION RESULTS as of August 31, 2015 ($ in '000s)					
	Claims and Expenses		Retiree		As a % of payroll
	Medical	Rx	Premiums	Grand Total	
Number of Participants Covered					
Active Participants				684,578	
Retired Participants				259,578	
Total Participants				944,156	
Expected Payroll of Active Participants for FY 2016				$31,254,028	
Actuarial Present Value of Benefits					
Active Participants	$27,343,585	$30,521,333	($11,174,538)	$46,690,380	
Retired Participants	11,456,408	14,992,390	(5,699,607)	$20,749,191	
Total Partipants	$38,799,993	$45,513,723	($16,874,145)	$67,439,571	216%
Actuarial Accrued Liability (Projected Unit Credit Actuarial Cost Method)					
Active Participants	$13,791,551	$15,430,378	($5,767,791)	$23,454,138	
Retired Participants	11,456,408	14,992,390	(5,699,607)	$20,749,191	
Total Participants	$25,247,959	$30,422,768	($11,467,398)	$44,203,329	141%
Actuarial Value of Assets				(972,919)	
Unfunded Actuarial Accrued Liability (PUC)				$43,230,410	138%
Annual Required Contribution for YE 8/31/2016 (Projected Unit Credit Actuarial Cost Method)					
Normal Cost				$1,841,715	5.89%
Amortization of UAAL (30 year, 2.5% payroll growth)				2,114,036	6.77%
Total ARC (and annual OPEB Cost) for FYE 8/31/2016				**$3,955,751**	**12.66%**
Per Active Participant (not in '000s)				$5,778	
Estimated Net Employer Contr. for FYE 8/31/2016 (current policy)					
Local Employers				171,897	0.55%
Active Employees				203,151	0.65%
State Contributions				312,540	1.00%
Total Estimated Contributions				**$687,588**	**2.20%**
Estimated Cash Flows for FYE 8/31/2016 (pay as you go costs under GASB 45)					
Active Participants	$26,001	$9,522	($7,848)	$27,675	0.09%
Retired Participants	896,832	528,980	(375,483)	$1,050,329	3.36%
Total pay as you go costs	$922,833	$538,502	($383,331)	**$1,078,004**	**3.45%**

The methodology used in this and future reports will calculate the ARC and the annual OPEB cost for the fiscal year immediately following the valuation date. As such, the above exhibit calculates the ARC for Fiscal Year 2016.

As disclosed on page 41, the ARC for Fiscal Year 2015 was set in last year's valuation and was determined by taking the ARC as a percentage of payroll from the 2014 valuation (7.73%) and applying that to the actual payroll for fiscal year 2015, producing an ARC for Fiscal Year 2015 of $2,357 million.

The Employer ARC under GASB 43 is the Total ARC of 12.66% shown above less the 0.65% Active Employee Contribution rate, or 12.01%. This translates to an estimated Employer ARC for FYE 8/31/2016 of $3,754 million.

Teacher Retirement System of Texas
TRS-CARE
Projected Health Claims, Premiums and Revenue Collected

Fiscal Year	Expected Medical Claims	Expected RX Claims	Net Benefits & Expenses	Expected Retiree Premiums	Total PayGo Costs	Projected Total ARC*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2016	$ 922,833	$ 538,502	$ 1,461,335	$ (383,331)	$ 1,078,004	$ 3,955,751
2017	981,682	639,487	1,621,169	(381,615)	1,239,554	4,102,182
2018	1,076,985	763,147	1,840,132	(420,905)	1,419,227	4,323,779
2019	1,181,600	902,034	2,083,634	(463,115)	1,620,519	4,553,015
2020	1,283,809	1,062,177	2,345,986	(518,018)	1,827,968	4,786,470
2021	1,371,775	1,234,687	2,606,462	(570,396)	2,036,066	5,026,902
2022	1,453,521	1,387,507	2,841,028	(612,995)	2,228,033	5,273,776
2023	1,532,533	1,518,392	3,050,925	(650,099)	2,400,826	5,527,663
2024	1,613,087	1,638,062	3,251,149	(685,190)	2,565,959	5,789,552
2025	1,695,490	1,755,955	3,451,445	(719,155)	2,732,290	6,059,889

* based on current asset levels and expectation that annual revenues will equal annual net benefits & expenses
$ in 000s
This projection assumes an open group and that all assumptions are exactly met.

VALUATION RESULTS
ADVANCED-FUNDING SCENARIO

OTHER POST EMPLOYMENT BENEFITS
ADMINISTERED BY THE
TEACHER RETIREMENT SYSTEM OF TEXAS

AS OF AUGUST 31, 2015

The following table is for illustrative purposes and details the valuation results if actuarial funding policy is adopted that funds to the ARC. These results are based on an 8.00% investment return assumption.

The applicable investment return assumption is based on the expected investment return which the current asset allocation of the pension trust is expected to yield over the long term. The Board has adopted 8.00% per annum for the actuarial assumption as the long term rate of return for the TRS, which is authorized to invest in an asset mix that supports the 8.00% assumption.

The ARC as a percentage of payroll should be emphasized in the following chart, as opposed to the preceding chart which emphasized the ARC as a dollar amount. For contributions that will be made on an advance funding basis to the trust, the stated percentage of payroll will be applied to the actual payroll paid throughout the year. The estimated ARC below is based on the expected payroll. If the actual payroll is different, the dollar amount of ARC will be adjusted accordingly. Currently, the payroll is assumed to increase at 2.50% annually.

As shown on the next page, for advanced funding to be adopted, the combined employee, local employer, and State contribution rate would need to increase from the current 2.20% of payroll to 8.99%. This increase could come from the current active members, local employers, the State, or some combination of these. In addition, an increase in the cost sharing between the current retirees and the payroll contributions could decrease this expense.

The increase in the investment return assumption decreases the actuarial liabilities dramatically from $44.2 billion to $28.1 billion and the annual expense from $4.0 billion to $2.8 billion. This decrease occurs because the actuarial model assumes additional money will be available from investment earnings in the future to help pay the benefits. This is an important point. The increased investment return assumption does not lower the expected benefits to be paid on behalf of the retirees, but instead lowers the share of the benefit paid by contributions.

Teacher Retirement System of Texas TRS-Care Based on an current funding policy - using a 8.00% investment discount assumption OPEB ACTUARIAL VALUATION RESULTS as of August 31, 2015 ($ in '000s)					
	Claims and Expenses		Retiree		As a % of
	Medical	Rx	Premiums	Grand Total	payroll
Number of Participants Covered					
Active Participants				684,578	
Retired Participants				259,578	
Total Participants				944,156	
Expected Payroll of Active Participants for FY 2016				$31,254,028	
Actuarial Present Value of Benefits					
Active Participants	$15,125,434	$14,817,568	($5,820,046)	$24,122,956	
Retired Participants	8,909,127	11,047,510	(4,351,420)	$15,605,217	
Total Partipants	$24,034,561	$25,865,078	($10,171,466)	$39,728,173	127%
Actuarial Accrued Liability (Projected Unit Credit Actuarial Cost Method)					
Active Participants	$8,503,888	$8,371,207	($3,366,607)	$13,508,488	
Retired Participants	8,909,127	11,047,510	(4,351,420)	$15,605,217	
Total Participants	$17,413,015	$19,418,717	($7,718,027)	$29,113,705	93%
Actuarial Value of Assets				(972,919)	
Unfunded Actuarial Accrued Liability (PUC)				$28,140,786	90%
Annual Required Contribution for YE 8/31/2016 (Projected Unit Credit Actuarial Cost Method)					
Normal Cost				$979,482	3.13%
Amortization of UAAL (30 year, 3.5% payroll growth)				1,881,057	6.02%
Total ARC (and annual OPEB Cost) for FYE 8/31/2016				**$2,860,539**	**9.15%**
Per Active Participant (not in '000s)				$4,179	
Estimated Net Employer Contr. for FYE 8/31/2016 (current policy)					
Local Employers *					
Active Employees *					
State Contributions *					
Total Estimated Contributions				**$2,860,539**	**9.15%**
Estimated Cash Flows for FYE 8/31/2016 (pay as you go costs under GASB 45)					
Active Participants	$26,001	$9,522	($7,848)	$27,675	0.09%
Retired Participants	896,832	528,980	(375,483)	$1,050,329	3.36%
Total pay as you go costs	$922,833	$538,502	($383,331)	**$1,078,004**	**3.45%**

* The advanced funding scenario is only applicable if the contributions are increased to fully fund the ARC. The methodology to distribute the contributions across the three sources is indeterminable and inconsequential to this valuation, and therefore, the Estimated Net Employer Contribution above was shown in total only.

The next chart provides a ten-year cash flow projection of medical claims, prescription drug claims, retiree premiums, and the ARC. This projection assumes the ARC is contributed annually and invested according to the same asset allocation as the current pension assets. Please note the ARC includes the current cash requirements, making the incremental costs $1,783 million for FY 2016, or 5.70% of payroll. (The incremental cost is the additional contributions needed to fund the ARC over the current pay-as-you-go costs). Also, this incremental cost decreases over time as investment earnings begin to help fund the benefits. For example, the projected incremental cost for FY 2025 is $975 million.

Teacher Retirement System of Texas
TRS-CARE Advance Funding
Projected Health Claims, Premiums and Revenue Collected

Fiscal Year	Expected Medical Claims	Expected RX Claims	Net Benefits & Expenses	Expected Retiree Premiums	Total PayGo Costs	Projected Total ARC*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2016	$ 922,833	$ 538,502	$ 1,461,335	$ (383,331)	$ 1,078,004	$ 2,860,539
2017	981,682	639,487	1,621,169	(381,615)	1,239,554	2,910,798
2018	1,076,985	763,147	1,840,132	(420,905)	1,419,227	2,998,252
2019	1,181,600	902,034	2,083,634	(463,115)	1,620,519	3,089,118
2020	1,283,809	1,062,177	2,345,986	(518,018)	1,827,968	3,182,208
2021	1,371,775	1,234,687	2,606,462	(570,396)	2,036,066	3,279,794
2022	1,453,521	1,387,507	2,841,028	(612,995)	2,228,033	3,381,463
2023	1,532,533	1,518,392	3,050,925	(650,099)	2,400,826	3,486,736
2024	1,613,087	1,638,062	3,251,149	(685,190)	2,565,959	3,595,261
2025	1,695,490	1,755,955	3,451,445	(719,155)	2,732,290	3,706,806

* based on current asset levels and expectation that payroll contributions will equal the ARC
$ in 000s
This projection assumes an open group and that all assumptions are exactly met.

SECTION C

SENSITIVITY ANALYSIS

POSTEMPLOYMENT HEALTH INSURANCE SENSITIVITY ANALYSIS

Actuarial valuations deal with the cost of benefits to be paid in the future. The payments considered will range from one month in the future to decades from the valuation date (for a young, newly hired employee who may retire many years from now and live for many years in the future). In order to establish a present day cost for these future benefit obligations, the actuary bases the valuation on a number of assumptions about future occurrences. The occurrences that must be considered include employee turnover, pay increases, disablement, retirements, deaths, and investment income on anticipated plan assets.

When the benefits being valued are health care benefits, a key factor is the future cost of the medical benefits being promised. Our projections not only include the current cost of the System's health care benefits, but also include future health care cost increases. The final cost of providing retiree health care benefits will depend upon how the charges for health care services actually increase in the future.

In order to demonstrate how the cost of these benefits can vary depending upon future health care cost increases, we have performed additional valuations based upon alternative health care cost increase assumptions. The schedule on page 15 compares (i) the computed cost of the retiree health care benefits using the valuation (Intermediate) assumptions to (ii) results of alternate valuations. One of the alternate valuations is based upon a pessimistic health care cost increase assumption. The other is based upon a more optimistic health care cost increase assumption. The schedule on page 16 exhibits the health care cost increase assumptions used in each of the valuations.

Teacher Retirement System of Texas
TRS-Care
Sensitivity Analysis

OPEB ACTUARIAL VALUATION RESULTS as of August 31, 2015 ($ in '000s)

	Grand Total		
	Pessimistic Assumptions	**Intermediate Assumptions**	**Optimistic Assumptions**
Actuarial Present Value of Benefits			
Active Participants	$61,168,289	$46,690,380	$36,165,370
Retired Participants	$23,240,589	$20,749,191	$18,632,348
Total Partipants	$84,408,878	$67,439,571	$54,797,718
As a % of payroll	270 %	216 %	175 %
Actuarial Accrued Liability			
(Projected Unit Credit Actuarial Cost Method)			
Active Participants	$29,384,142	$23,454,138	$18,958,052
Retired Participants	$23,240,589	$20,749,191	$18,632,348
Total Participants	$52,624,731	$44,203,329	$37,590,400
As a % of payroll	168 %	141 %	120 %
Actuarial Value of Assets	($972,919)	($972,919)	($972,919)
Unfunded Actuarial Accrued Liability (PUC)	$51,651,812	$43,230,410	$36,617,481
As a % of payroll	165 %	138 %	117 %
Annual Required Contribution for FYE 8/31/2016			
(Projected Unit Credit Actuarial Cost Method)			
Normal Cost	$2,396,474	$1,841,715	$1,435,786
As a % of payroll	7.67 %	5.89 %	4.59 %
Amortization of UAAL (30 year, 2.5% payroll growth)	2,525,856	2,114,036	1,790,654
As a % of payroll	8.08 %	6.77 %	5.73 %
Total ARC (and annual OPEB Cost) for FYE 8/31/2016	**$4,922,330**	**$3,955,751**	**$3,226,440**
As a % of payroll	15.75 %	12.66 %	10.32 %
Per Active Participant (not in '000s)	$7,190	$5,778	$4,713

Based on a 5.25% interest discount assumption

Health care trend rates used in the sensitivity analysis are shown below.

Year	Medical		
	Pessimistic	**Intermediate**	**Optimistic**
2016	8.50 %	7.50 %	6.50 %
2017	8.25	7.25	6.25
2018	8.00	7.00	6.00
2019	7.75	6.75	5.75
2020	7.50	6.50	5.50
2021	7.25	6.25	5.25
2022	7.00	6.00	5.00
2023	6.75	5.75	4.75
2024	6.50	5.50	4.50
2025	6.25	5.25	4.25
2026	6.00	5.00	4.00
2027	5.75	4.75	3.75
2028	5.50	4.50	3.50
2029	5.25	4.25	3.25
2030 & Later	5.20	4.20	3.20

Year	Prescription Drugs		
	Pessimistic	**Intermediate**	**Optimistic**
2016	11.00 %	10.00 %	9.00 %
2017	10.50	9.50	8.50
2018	10.00	9.00	8.00
2019	9.50	8.50	7.50
2020	9.00	8.00	7.00
2021	8.50	7.50	6.50
2022	8.00	7.00	6.00
2023	7.50	6.50	5.50
2024	7.00	6.00	5.00
2025	6.50	5.50	4.50
2026	6.00	5.00	4.00
2027	5.75	4.75	3.75
2028	5.50	4.50	3.50
2029	5.25	4.25	3.25
2030 & Later	5.20	4.20	3.20

SECTION D

DEVELOPMENT OF BASELINE COSTS

DEVELOPMENT OF BASELINE COSTS

Other Post Employment Benefits
Sponsored by the
Teacher Retirement System of Texas

As of August 31, 2015

Data Source

TRS-Care maintains a substantial amount of data for all its covered members for many years of coverage. Substantial data maintained by the Retirement System was also provided for the purpose of this OPEB Valuation. Claims and exposures for the three years ending August 31, 2015 were used for the development of the Baseline Costs. These were compared to industry data for reasonableness. The actual claims and exposures were available by age, sex, status, member type, plan coverage, years since retirement, etc. The actual claims and exposure data were reliable and credible for the development of reasonable Baseline Costs.

Baseline Costs

An OPEB Valuation is a projection of long term benefit costs. So as a starting point, initial, current year costs must be developed. Projections of future costs, many years ahead, are based upon these initial current year costs. Care must be taken to ensure that reasonable Baseline Costs are developed for each relevant Costing Variable.

Baseline Costs for this OPEB Valuation take the form of tables of current costs of benefits for retirees (and their dependents and survivors), separately by:

- age (20 through 110),
- sex (M and F),
- benefit type (medical, prescription drug),
- health status (disabled and non-disabled),
- TRS Plan choice

Following are tables that present the Baseline Costs used in this OPEB Valuation. These represent the expected monthly cost of providing the benefits promised for the year ending August 31, 2016 for a sample of ages under TRS-CARE 3:

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2016)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$864.40	$911.05	$261.03	$272.92	$2,556.68	$2,556.68	$781.78	$781.78
57	$897.56	$913.42	$268.30	$275.65	$2,556.68	$2,556.68	$781.78	$781.78
60	$949.70	$916.99	$278.16	$279.79	$2,556.68	$2,556.68	$781.78	$781.78
62	$986.13	$919.38	$284.04	$282.54	$2,556.68	$2,556.68	$781.78	$781.78
64	$1,023.96	$921.77	$289.36	$285.28	$2,556.68	$2,556.68	$781.78	$781.78

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2016)								
	Medicare A&B				B Only			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
65	$123.28	$110.59	$291.81	$286.64	$361.00	$323.83	$291.81	$286.64
70	$147.72	$130.58	$301.98	$293.39	$432.58	$382.37	$301.98	$293.39
75	$167.55	$146.35	$308.67	$300.05	$490.64	$428.55	$308.67	$300.05
80	$182.76	$157.89	$311.89	$306.62	$535.19	$462.36	$311.89	$306.62
85	$193.36	$165.22	$312.20	$313.10	$566.22	$483.80	$312.20	$313.10
90	$197.50	$167.58	$312.20	$313.10	$578.35	$490.74	$312.20	$313.10

Costing Variables

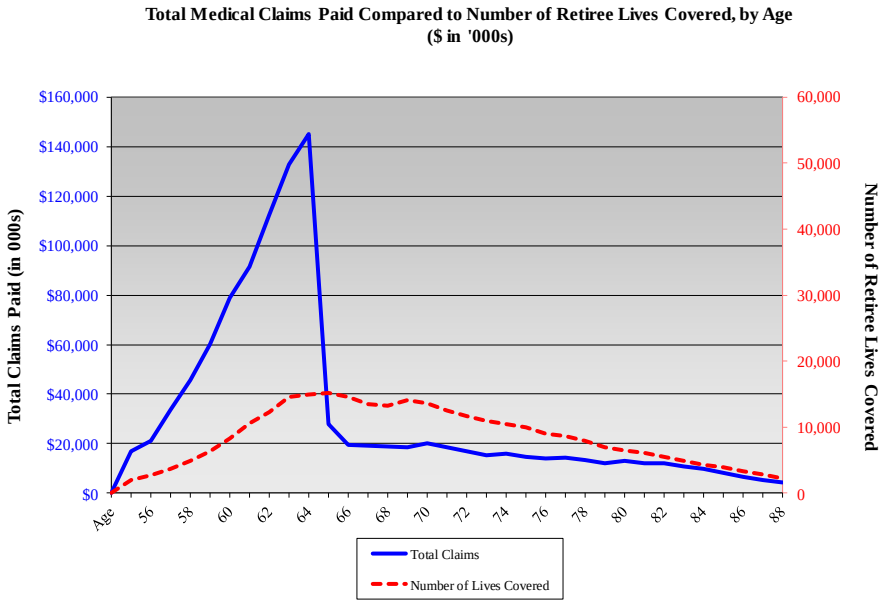
Baseline Costs vary depending on many different factors or characteristics of each member. For example, age is possibly the most obvious variable that affects the cost of medical coverage, but they may have different patterns based on the benefit package chosen. No significant difference was found in the Baseline Costs of retirees and spouses. Therefore, membership status, was deemed not to be a necessary Costing Variable, and the data for retirees and spouses were combined.

Disabled retirees demonstrated substantially different Baseline Costs, as compared to non-disabled retirees. This, of course is to be expected. Additionally, the pattern of costs by age differs significantly, as compared to non-disabled retirees.

Methodology

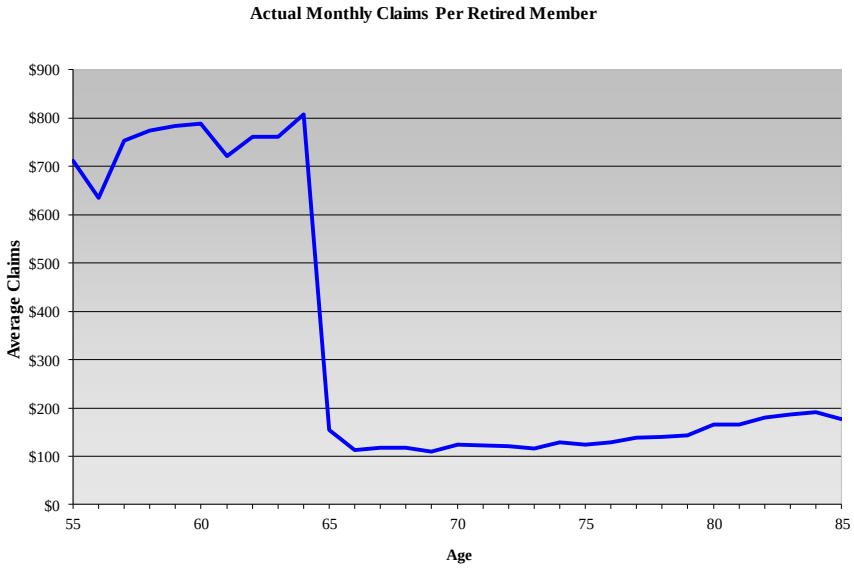
Gather Data

The first step in determining the expected claims for the population was to gather claims data. Paid claims data for medical and pharmacy were analyzed by age and sex. The following graph shows the total paid medical claims for the period September 1, 2012 through August 31, 2015 by age, along with the number of lives covered over the same period for members in TRS-Care 3.



Clearly, the total medical claims before age 65 are considerably higher than the total after age 65. This decrease occurs because Medicare coverage begins at age 65. Also, the total claims before age 65 are increasing considerably faster than the number of lives is increasing. For example, the average claim per member is higher for a member age 63 than a member age 57.

The following graph shows the average monthly claims cost per member.



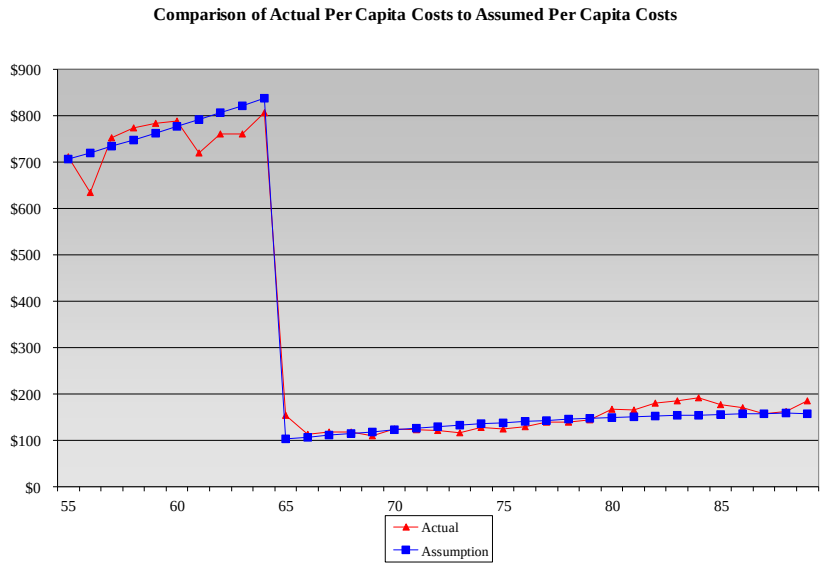
These two graphs show a need to model the increasing claims cost by age in the valuation. This is consistent with other health care experience. This assumption is referred to as the aging factor table. However, the aging experience for TRS-CARE is substantially less impactful when compared to other healthcare populations. The reason for this is unknown. Because TRS has

enough credible experience, we were able to develop an aging table to model this dampened impact of aging.

Develop Aging Table

The second step in determining the expected claims for the population was to develop the aging factor table. In preparing the 2007 valuation, we developed an aging table based on the claims history for fiscal years 2005-2007. The average increases at each age were developed and smoothed based on the actual experience. Separate aging factor tables were developed for medical and pharmacy, as well as by sex and health status.

The following graph compares the total claims paid to the expected claims paid. It shows how the assumed claims will approximate the actual claims that were paid, but will take out the variation from age to age and produce smoothed results.



The claims cost developed by the preceding process is appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, the actuarial process "distributes" the average premium over all age/sex combinations and assigns a unique premium for each combination. This process more accurately reflects health care costs in the retired population over the projection period.

Adjust from Paid to Incurred

The next step is to make a slight adjustment to convert from paid to incurred. The expected per capita costs need to be adjusted to recognize the trend increase in the incurred but not paid at the end of the year in comparison to the claims paid in the first part of the year that were incurred in the last part of the year before.

Administration Expenses

Administration expenses are included in the monthly per capita costs based on historical expenses per member in the separate cost categories based on the following table:

Assumption for Expenses per Member

	Medicare Part A&B			B Only			Non Medicare		
	Care 1	Care 2	Care 3	Care 1	Care 2	Care 3	Care 1	Care 2	Care 3
Medical									
FY 2016	$11.92	$9.47	$11.38	$19.44	$15.56	$18.81	$24.22	$20.34	$23.59
Prescription Drugs									
FY 2016	N/A	$0.85	$0.85	N/A	$0.85	$0.85	N/A	$0.85	$0.85

The administrative Rx expenses shown above are for members who opt-out of the EGWP-Wrap plan. For members enrolled in the EGWP-Wrap plan, the administrative expense assumption is $7.78 per month.

Adjusted to project to year ending 08/31/2016

The claims data represented the period beginning September 1, 2012 and ending August 31, 2015. The actuarial valuation uses the expected claims that will be paid in the year beginning September 1, 2015 and ending August 31, 2016. Therefore, the claims need to be increased by trend. The trend rate used to project the FY 2013 thru FY 2015 claims forward to FY 2016 was 7.5% for medical and 10.0% for pharmacy.

Disabled Members

The pre-Medicare per capita assumptions for disabled members were developed in the same way as the healthy members, except that no age/sex-rating factors were used. The claims data showed insufficient differences by age/sex for the disabled members.

Medicare Part D Premiums

Based on the guidance provided by GASB on issues related to Medicare Part D payments to State and Local Governments effective June 30, 2006, a Plan should apply the measurement requirements of GASB Statement No. 43 to determine the actuarial accrued liabilities, the annual required contribution to the Plan, and the annual OPEB cost without reduction for Retiree Drug Subsidy (RDS) payments. Therefore, the impact of the RDS that is part of the Medicare Prescription Drug Improvement and Modernization Act of 2003 is not reflected in the ARC or the Actuarial Accrued Liabilities.

Final Per Capita Assumptions

TRS-Care 1

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2016)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$455.81	$480.41	NA	NA	$919.68	$919.68	NA	NA
57	$473.30	$481.66	NA	NA	$919.68	$919.68	NA	NA
60	$500.79	$483.54	NA	NA	$919.68	$919.68	NA	NA
62	$520.00	$484.80	NA	NA	$919.68	$919.68	NA	NA
64	$539.95	$486.06	NA	NA	$919.68	$919.68	NA	NA

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2016)								
	Medicare A&B				B Only			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
65	$50.32	$45.14	NA	NA	$54.76	$49.12	NA	NA
70	$60.30	$53.30	NA	NA	$65.62	$58.00	NA	NA
75	$68.40	$59.74	NA	NA	$74.43	$65.01	NA	NA
80	$74.61	$64.45	NA	NA	$81.18	$70.14	NA	NA
85	$78.93	$67.44	NA	NA	$85.89	$73.39	NA	NA
90	$80.62	$68.41	NA	NA	$87.73	$74.44	NA	NA

TRS-Care 2

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2016)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$595.16	$627.28	$166.40	$173.98	$1,948.47	$1,948.47	$507.21	$489.36
57	$617.99	$628.91	$171.04	$175.72	$1,948.47	$1,948.47	$507.21	$489.36
60	$653.89	$631.37	$177.32	$178.36	$1,948.47	$1,948.47	$507.21	$489.36
62	$678.97	$633.01	$181.07	$180.11	$1,948.47	$1,948.47	$507.21	$489.36
64	$705.02	$634.66	$184.46	$181.86	$1,948.47	$1,948.47	$507.21	$489.36

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2016)								
	Medicare A&B				B Only			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
65	$78.74	$70.63	$186.02	$182.72	$173.35	$155.50	$186.02	$182.72
70	$94.35	$83.40	$192.51	$187.03	$207.72	$183.61	$192.51	$187.03
75	$107.02	$93.47	$196.77	$191.27	$235.60	$205.78	$196.77	$191.27
80	$116.73	$100.85	$198.82	$195.46	$256.99	$222.02	$198.82	$195.46
85	$123.50	$105.53	$199.02	$199.59	$271.89	$232.31	$199.02	$199.59
90	$126.15	$107.04	$199.02	$199.59	$277.71	$235.64	$199.02	$199.59

TRS-Care 3

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2016)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$864.40	$911.05	$261.03	$272.92	$2,556.68	$2,556.68	$781.78	$781.78
57	$897.56	$913.42	$268.30	$275.65	$2,556.68	$2,556.68	$781.78	$781.78
60	$949.70	$916.99	$278.16	$279.79	$2,556.68	$2,556.68	$781.78	$781.78
62	$986.13	$919.38	$284.04	$282.54	$2,556.68	$2,556.68	$781.78	$781.78
64	$1,023.96	$921.77	$289.36	$285.28	$2,556.68	$2,556.68	$781.78	$781.78

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2016)								
	Medicare A&B				B Only			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
65	$123.28	$110.59	$291.81	$286.64	$361.00	$323.83	$291.81	$286.64
70	$147.72	$130.58	$301.98	$293.39	$432.58	$382.37	$301.98	$293.39
75	$167.55	$146.35	$308.67	$300.05	$490.64	$428.55	$308.67	$300.05
80	$182.76	$157.89	$311.89	$306.62	$535.19	$462.36	$311.89	$306.62
85	$193.36	$165.22	$312.20	$313.10	$566.22	$483.80	$312.20	$313.10
90	$197.50	$167.58	$312.20	$313.10	$578.35	$490.74	$312.20	$313.10

Children

Baseline Costs for Children (Expected Monthly Per Capita Costs for Fiscal 2016)				
	Medical Coverage		Prescription Drug Coverage	
Tier	Male	Female	Male	Female
1	$223.34	$223.34	NA	NA
2	$223.75	$223.75	$46.99	$46.99
3	$337.94	$337.94	$65.37	$65.37

SECTION E

SUMMARY OF BENEFIT PROVISIONS

SUMMARY OF THE
TRS-Care Retiree Health Care Plan Provisions

Other Post Employment Benefits
Sponsored by the
Teacher Retirement System of Texas

As of August 31, 2015

PLAN PARTICIPANTS

Members of the Teacher Retirement System of Texas are eligible to receive retiree health care benefits.

BENEFIT ELIGIBILITY

Eligibility conditions for retiree health care benefits are as follows:

If you are not eligible for health care coverage as an employee or retiree of the State of Texas, or a public college or university in the State of Texas.

Service Retirees Who Retire after September 1, 2005: To be eligible for TRS-Care, the member must have at least 10 years of service credit in the system. This service credit may include up to five years of military service credit, but it may not include any other special or equivalent service credit purchased.

Additionally, the member must meet one of the following requirements: the sum of the retiree's age and years of service credit in the system equals or exceeds 80 at the time of retirement, regardless of whether the retiree had a reduction in the retirement annuity for early age (years of service credit can include all purchased service); or the retiree has 30 or more years of service credit in the retirement system at the time of retirement. (Years of service credit can include all purchased service.)

For individuals who take a service retirement on or after September 1, 2014, there will be a minimum age of 62 to be eligible for TRS-Care 2 and 3. All service retirees affected by this limitation will be able to choose TRS-Care 2 or 3 when they turn 62 years of age. However, a service retiree is not subject to the new age requirements if the sum of the person's age and years of service credit is 70 or greater on or before August 31, 2014; or if the person has at least 25 years of service credit on or before August 31, 2014.

Health Care Benefit Provided by Plan

Member: Basic coverage (TRS-Care 1) is available at no cost for the retirees. Member must contribute toward any additional cost in excess of base coverage.
Spouse: Member must contribute towards cost of spouse coverage.
Dependent: Members must contribute towards cost of coverage for dependent children.

SURVIVING SPOUSE RETIREMENT BENEFITS

Surviving Spouses are eligible to elect coverage if they were married to the retiree of TRS at time of the retiree's death and that the retiree qualified, or would have qualified for coverage under the following:

Surviving Spouses of active TRS members are eligible if the member had 10 or more years of actual service credit in Texas public schools and made contributions to the Texas Public Retired Employees Group Insurance Fund.

Health Care Benefit Provided by Plan

Spouse: Spouse must pay cost of coverage
Dependent: Must pay cost of coverage.

DISABLED RETIREMENT BENEFITS

Health Care Benefit Eligibility Conditions

Any age with 10 years of service.
With less than 10 years of service, coverage ends when the disability retirement benefit ends.

Health Care Benefit Provided by Plan

Member: TRS pays 100% of the base coverage for the retirees. Member must cover any additional cost in excess of base coverage.
Spouse: Member pays for spouse coverage.
Dependent: Members pays for dependent coverage

TRS-Care Benefit Levels
September 1, 2015 – August 31, 2016

Plan	Deductible		Maximum Out-of-Pocket	
	Individual	Family	Individual	Family
TRS-Care 1				
Retirees or Surviving Spouses Enrolled in Medicare Part A and eligible for Part B	$1,800	$3,600	$4,800	$9,600
Retirees or Surviving Spouses not enrolled in Medicare Part A but eligible for Part B	$3,000	$6,000	$6,000	$12,000
Retirees or Surviving Spouses not eligible for Medicare	$4,000	$8,000	$6,350	$12,700
TRS-Care 2				
All	$1,000	$2,000	$4,400	$8,800
TRS-Care 3				
All	$300	$600	$3,700	$7,400
Aetna Medicare Advantage Care 2				
All	$500	N/A	$3,500	N/A
Aetna Medicare Advantage Care 3				
All	$150	N/A	$3,150	N/A

Medicare Advantage premiums are effective January 1, 2016 through December 31, 2016.
Maximum Out-of-Pocket includes deductibles, co-pays and out-of-pocket expenses.

TRS-Care Monthly Retiree Premium Rates Effective September 1, 2015

	Retiree Premium TRS-Care 1	Retiree Premium TRS-Care 2			Retiree Premium TRS-Care 3		
		Years of Service			Years of Service		
		<20	20-29	30+	<20	20-29	30+
Retiree or Surviving Spouse Only							
With Part A&B of Medicare	$0	$80	$70	$60	$110	$100	$90
With Part B of Medicare Only	$0	$165	$155	$145	$245	$230	$215
Not Eligible for Medicare	$0	$210	$200	$190	$310	$295	$280
Retiree and Spoouse							
Both with Part A&B of Medicare	$20	$190	$175	$160	$275	$255	$235
Both with Part B Only of Medicare	$75	$360	$340	$320	$535	$505	$475
Neither Eligible for Medicare	$140	$450	$430	$410	$665	$635	$605
Retiree with A&B/Spouse with B Only	$60	$275	$255	$235	$400	$375	$350
Retiree with A&B/Spouse not Eligible for Medicare	$90	$320	$300	$280	$465	$440	$415
Retiree with B Only/Spouse not Eligible for Medicare	$120	$405	$385	$365	$600	$570	$540
Retiree with B Only/Spouse with A&B	$25	$275	$260	$245	$410	$385	$360
Retiree not Eligible for Medicare/Spouse with A&B	$30	$320	$305	$290	$475	$450	$425
Retiree not Eligible for Medicare/ Spouse with B Only	$80	$405	$385	$365	$600	$570	$540
Retiree or Suviving Spouse and Child(ren)							
With Part A&B of Medicare	$41	$142	$132	$122	$192	$182	$172
With Part B of Medicare Only	$34	$227	$217	$207	$327	$312	$297
Not Eligible for Medicare	$28	$272	$262	$252	$392	$377	$362
Retiree, Spouse and Child(ren)							
Retiree and Spouse with Medicare A&B	$61	$252	$237	$222	$357	$337	$317
Retiree and Spouse with Medicare B Only	$109	$422	$402	$382	$617	$587	$557
Retiree and Spouse not Eligible for Medicare	$168	$512	$492	$472	$747	$717	$687
Retiree with A&B/Spouse with B Only	$101	$337	$317	$297	$482	$457	$432
Retiree with A&B/Spouse not Eligible for Medicare	$131	$382	$362	$342	$547	$522	$497
Retiree with B Only/Spouse not Eligible for Medicare	$154	$467	$447	$427	$682	$652	$622
Retiree with B Only/Spouse with A&B	$59	$337	$322	$307	$492	$467	$442
Retiree not Eligible for Medicare/Spouse with A&B	$58	$382	$367	$352	$557	$532	$507
Retiree not Eligible for Medicare/ Spouse with B Only	$108	$467	$447	$427	$682	$652	$622
Surviving Child Only	$28	$62	$62	$62	$82	$82	$82

Retirees who are enrolled in Medicare A&B are eligible for coverage through a separate, fully-insured Medicare Advantage plan. Retirees and spouses who enroll in the Medicare Advantage plan will receive a $15 discount for each participating member.

SECTION F

SUMMARY OF PARTICIPANT DATA

SUMMARY OF PARTICIPANT DATA

Other Post Employment Benefits
Sponsored by the
Teacher Retirement System of Texas

As of August 31, 2015

A. Members Currently in Retired Status
    1. Counts by Age and Plan
    2. Expected Medical Claims by Age and Plan
    3. Expected Prescription Drug Claims by Age and Plan
    4. Expected Retiree Premiums by Age and Plan

    The members in the schedules referenced above include only those retirees who have elected to receive health care coverage through TRS Care.

B. Members Currently in Active Status
    1. Age and Service Distribution

Counts of Retirees and Beneficiaries by Age and Plan as of September 1, 2015

	Retirees*			Spouses			Children			Total			Total
Age	CARE -1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	All Plans
Up to 25	3	8	29	1	1		363	4,561	2,863	367	4,570	2,892	7,829
25-29	4	3	13			1	62	1,051	746	66	1,054	760	1,880
30-34	3	3	3		7	3	4	42	85	7	52	91	150
35-39	7	7	8	2	16	7	1	26	66	10	49	81	140
40-44	15	42	35	10	43	9		7	59	25	92	103	220
45-49	61	94	118	24	170	64		1	57	85	265	239	589
50-54	308	1,818	771	71	712	202	1	2	33	380	2,532	1,006	3,918
55-59	1,245	9,195	4,738	188	2,188	871	1		22	1,434	11,383	5,631	18,448
60-64	3,130	19,631	14,192	390	4,974	2,757			18	3,520	24,605	16,967	45,092
65-69	3,704	10,978	34,091	365	4,324	6,853			4	4,069	15,302	40,948	60,319
70-74	4,390	3,719	29,364	341	1,520	7,094			1	4,731	5,239	36,459	46,429
75-79	4,728	1,164	21,308	284	375	5,077				5,012	1,539	26,385	32,936
80-84	4,385	296	14,371	148	104	2,782				4,533	400	17,153	22,086
85-89	3,009	87	8,609	69	17	1,028				3,078	104	9,637	12,819
90-94	1,372	24	3,362	9	5	224				1,381	29	3,586	4,996
95-99	536	9	884	3		33				539	9	917	1,465
Over 100	103		159							103		159	262
Total	**27,003**	**47,078**	**132,055**	**1,905**	**14,456**	**27,005**	**432**	**5,690**	**3,954**	**29,340**	**67,224**	**163,014**	**259,578**
			206,136			**43,366**			**10,076**				

*Surviving spouses are included in the retiree counts.

Estimated Medical Costs for Retirees and Beneficiaries by Age and Plan as of September 1, 2015

	Retirees			Spouses			Children			Total		
Age	CARE -1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3
Up to 25	$16,410	$57,906	$308,657	$5,765	$7,142		$945,098	$11,869,820	$11,275,271	$967,273	$11,934,868	$11,583,928
25-29	22,470	22,581	138,209			10,933	138,706	2,320,605	2,519,959	161,176	2,343,186	2,669,101
30-34	16,410	38,051	51,426		52,689	32,799	10,269	109,062	333,464	26,679	199,802	417,689
35-39	56,168	68,159	185,079	11,530	121,231	76,531	2,670	67,906	259,602	70,368	257,296	521,212
40-44	127,758	773,619	893,277	57,355	320,593	96,717		18,177	231,943	185,113	1,112,389	1,221,937
45-49	539,061	1,637,593	2,984,976	137,770	1,260,416	690,192		2,538	224,691	676,831	2,900,547	3,899,859
50-54	2,161,683	16,482,966	12,748,777	399,580	5,236,833	2,155,266	2,533	5,076	128,559	2,563,796	21,724,875	15,032,602
55-59	8,041,123	74,170,294	60,997,402	1,081,448	16,473,761	9,506,726	2,683		87,899	9,125,254	90,644,055	70,592,027
60-64	19,452,162	154,258,411	166,022,926	2,334,619	39,371,846	31,141,717			73,298	21,786,781	193,630,257	197,237,941
65-69	2,918,757	15,402,200	47,240,351	289,127	5,367,644	8,923,650				3,207,884	20,769,844	56,164,001
70-74	3,196,136	3,980,725	39,654,676	251,793	1,566,702	8,662,534				3,447,929	5,547,427	48,317,210
75-79	3,777,851	1,382,049	31,135,704	231,734	427,466	6,822,291				4,009,585	1,809,515	37,957,995
80-84	3,706,106	396,639	22,587,894	129,278	130,856	4,017,805				3,835,384	527,495	26,605,699
85-89	2,604,123	126,107	13,892,997	63,252	21,736	1,555,215				2,667,375	147,843	15,448,212
90-94	1,182,444	31,757	5,203,978	8,703	7,633	337,299				1,191,147	39,390	5,541,277
95-99	453,664	12,000	1,342,439	2,827		49,644				456,491	12,000	1,392,083
Over 100	87,507		255,773							87,507		255,773
Total	**$48,359,833**	**$268,841,057**	**$405,644,541**	**$5,004,781**	**$70,366,548**	**$74,079,319**	**$1,101,959**	**$14,393,184**	**$15,134,686**	**$54,466,573**	**$353,600,789**	**$494,858,546**
			$722,845,431			**$149,450,648**			**$30,629,829**			**$902,925,908**

Estimated Prescription Drug Costs for Retirees and Beneficiaries by Age and Plan as of September 1, 2015

	Retirees			Spouses			Children			Total		
Age	CARE -1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3
Up to 25		$16,158	$92,830		$1,997			$2,439,322	$2,132,312		$2,457,477	$2,225,142
25-29		6,264	41,574			3,275		476,865	476,841		483,129	521,690
30-34		9,957	15,645		14,616	9,825		22,422	63,101		46,995	88,571
35-39		18,309	59,024		33,773	22,925		13,946	49,104		66,028	131,053
40-44		197,101	277,826		89,276	29,046		3,737	43,876		290,114	350,748
45-49		421,264	928,768		350,479	207,169		524	42,486		772,267	1,178,423
50-54		4,472,703	3,927,322		1,459,027	647,965		1,048	24,354		5,932,778	4,599,641
55-59		20,499,068	18,557,507		4,565,363	2,847,257			16,518		25,064,431	21,421,282
60-64		43,817,638	51,549,961		10,845,822	9,307,704			13,624		54,663,460	60,871,289
65-69		17,422,564	78,278,733		6,675,217	15,952,199					24,097,781	94,230,932
70-74		5,528,562	68,360,758		2,292,593	16,797,570					7,821,155	85,158,328
75-79		1,768,278	50,649,845		575,527	12,234,626					2,343,805	62,884,471
80-84		456,083	34,777,785		161,684	6,773,000					617,767	41,550,785
85-89		135,615	21,034,429		26,429	2,510,573					162,044	23,545,002
90-94		37,455	8,217,358		7,698	546,591					45,153	8,763,949
95-99		14,026	2,161,071			80,239					14,026	2,241,310
Over 100			388,270									388,270
Total		**$94,821,045**	**$339,318,706**		**$27,099,501**	**$67,969,964**		**$2,957,864**	**$2,862,216**		**$124,878,410**	**$410,150,886**
			$434,139,751			**$95,069,465**			**$5,820,080**			**$535,029,296**

Estimated Premiums Collected from Retirees and Beneficiaries by Age and Plans as of September 1, 2015

	Retirees			Spouses			Children			Total		
Age	CARE -1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3	CARE-1	CARE-2	CARE-3
Up to 25		$19,080	$103,020	$1,680	$2,640		$121,968	$3,393,384	$2,817,192	$123,648	$3,415,104	$2,920,212
25-29		6,960	46,200			4,260	17,906	663,121	631,236	17,906	670,081	681,696
30-34		7,200	10,980		19,200	12,060	1,344	31,248	83,640	1,344	57,648	106,680
35-39		17,640	29,040	3,360	44,795	27,840	336	19,344	64,944	3,696	81,779	121,824
40-44		105,480	129,660	16,800	117,596	36,540		5,208	58,056	16,800	228,284	224,256
45-49		231,600	431,400	40,320	463,147	256,980		744	56,088	40,320	695,491	744,468
50-54		4,298,640	2,711,520	119,280	1,936,456	807,240	336	1,488	32,472	119,616	6,236,584	3,551,232
55-59		21,579,960	16,394,160	315,840	5,944,529	3,472,680	336		21,648	316,176	27,524,489	19,888,488
60-64		45,746,848	47,957,680	643,445	13,432,225	10,817,464			16,974	643,445	59,179,073	58,792,118
65-69		10,554,671	41,110,871	154,887	5,308,120	11,945,910				154,887	15,862,791	53,056,781
70-74		3,018,964	33,785,556	113,520	1,669,248	11,918,868				113,520	4,688,212	45,704,424
75-79		958,674	24,365,448	89,280	410,896	8,520,096				89,280	1,369,570	32,885,544
80-84		251,976	16,437,156	38,820	114,959	4,668,656				38,820	366,935	21,105,812
85-89		78,414	9,857,292	16,560	18,426	1,723,332				16,560	96,840	11,580,624
90-94		19,799	3,787,368	2,160	6,436	373,248				2,160	26,235	4,160,616
95-99		7,310	993,360	1,380		55,134				1,380	7,310	1,048,494
Over 100			180,420									180,420
Total		**$86,903,216**	**$198,331,131**	**$1,557,332**	**$29,488,673**	**$54,640,308**	**$142,226**	**$4,114,537**	**$3,782,250**	**$1,699,558**	**$120,506,426**	**$256,753,689**
			$285,234,347			**$85,686,313**			**$8,039,013**			**$378,959,673**

Distribution of Active Members by Age and by Years of Service
As of August 31, 2015

Attained Age	Years of Credited Service												
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	Total
	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.	Count & Avg. Comp.
Under 25	6	9,289	3,895	976	237	137							14,540
	$7,526	$28,076	$30,974	$23,490	$23,410	$23,912							$28,421
25-29	6	16,115	15,801	12,410	6,748	11,321	121						62,522
	$6,977	$32,710	$40,638	$43,301	$45,218	$45,036	$34,158						$40,398
30-34	4	10,547	9,350	7,719	5,305	39,331	9,141	125					81,522
	$18,594	$29,132	$36,447	$40,066	$42,759	$48,308	$50,132	$38,134					$43,513
35-39	3	8,839	7,323	5,987	3,582	25,562	29,557	6,858	85				87,796
	$16,190	$27,059	$33,479	$36,730	$37,975	$44,892	$53,234	$55,000	$44,454				$44,903
40-44	1	7,886	6,673	5,433	3,353	22,023	20,755	23,099	5,081	74			94,378
	$14,535	$26,150	$32,243	$34,423	$35,228	$41,034	$49,440	$57,557	$59,700	$48,212			$45,485
45-49	4	6,530	5,661	4,616	3,032	20,392	18,686	16,655	17,350	4,318	96		97,340
	$18,350	$24,981	$30,561	$32,568	$33,719	$37,944	$44,581	$51,483	$61,592	$62,115	$45,350		$45,143
50-54	2	5,131	4,448	3,648	2,344	16,389	16,761	15,424	12,467	12,462	3,698	54	92,828
	$33,750	$23,125	$28,622	$30,342	$30,304	$35,384	$40,942	$45,041	$53,980	$63,480	$65,033	$54,447	$44,126
55-59	4	3,775	3,248	2,709	1,723	11,583	13,119	14,367	12,190	7,397	6,646	1,801	78,562
	$7,129	$21,773	$27,314	$27,696	$29,317	$33,573	$39,599	$43,450	$49,155	$57,525	$68,552	$68,760	$43,701
60-64		2,044	1,852	1,632	1,050	7,136	8,344	9,134	7,378	4,986	2,656	2,779	48,991
		$20,421	$25,115	$26,471	$26,209	$31,666	$38,248	$42,734	$47,270	$53,691	$60,961	$73,742	$42,410
65 +		1,353	1,237	1,211	787	4,601	4,480	3,750	3,103	2,444	1,407	1,377	25,750
		$15,919	$19,504	$19,462	$21,508	$25,805	$33,216	$38,177	$43,534	$49,004	$52,990	$66,837	$35,662
Total	30	71,839	59,506	46,342	28,161	158,475	120,964	89,412	57,654	31,681	14,503	6,011	684,578
	$13,130	$27,434	$34,009	$36,237	$37,637	$41,341	$46,036	$49,450	$54,320	$59,210	$64,601	$70,494	$43,303

SECTION G

ACCOUNTING SCHEDULES

Actuarial Present Value of Future Benefits
Actuarial Valuation August 31, 2015
Based on a 5.25% Discount Rate

Present Value of Benefits Being Paid:		
1. Future Medical Claims	$	11,456,408,122
2. Future Rx Claims		14,992,390,269
3. Retiree Premiums Collected		(5,699,607,494)
4. Net Present Value of Benefits for Current Retirees	$	20,749,190,897
Present Value of Benefits Payable In the Future To Present Active Members:		
1. Future Medical Claims	$	27,343,585,400
2. Future Rx Claims		30,521,332,625
3. Retiree Premiums Collected		(11,174,537,629)
4. Net Present Value of Benefits for Future Retirees	$	46,690,380,396
Total Actuarial Present Value of Future Benefits:	$	67,439,571,293
Summary of Cost Items		
1. Actuarial Present Value of Future Benefits	$	67,439,571,293
2. Present Value of Future Normal Costs		(23,236,242,417)
3. Actuarial Accrued Liability		44,203,328,876
4. Actuarial Value of Assets		(972,919,240)
Unfunded Actuarial Accrued Liability	$	43,230,409,636

GASB STATEMENT NUMBERS 43 AND 45
Required Supplementary Information

Schedule of Funding Progress
Actuarial Valuation August 31, 2015
(Amounts Shown in Millions)

Valuation As of August 31,	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funding Ratio Assets as % of AAL	Annual Covered Payroll	UAAL As a % of Covered Payroll
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(3) - (2)	(2) / (3)		(4) / (6)
2007	$ 623	$ 19,748	$ 19,125	3.2%	$ 26,076	73%
2008	$ 729	$ 22,313	$ 21,584	3.3%	$ 27,979	77%
2009	$ 800	$ 24,357	$ 23,557	3.3%	$ 29,490	80%
2010	$ 815	$ 25,808	$ 24,993	3.2%	$ 30,758	81%
2011	$ 891	$ 29,785	$ 28,894	3.0%	$ 30,515	95%
2012	$ 741	$ 27,542	$ 26,801	2.7%	$ 29,777	90%
2013	$ 551	$ 29,835	$ 29,284	1.8%	$ 30,511	96%
2014	$ 458	$ 33,719	$ 33,261	1.4%	$ 32,247	103%
2015	$ 973	$ 44,203	$ 43,230	2.2%	$ 31,254	138%

Schedule of Contributions From Employer(s) and Other Contributing Entities
Actuarial Valuation August 31, 2015

Annual Required Contributions ($ in 000's)

Fiscal Year Ended	GASB ARC	Actual Contributions				Percentage Contributed
		From State	From Reporting Entities	On-behalf from Federal Government	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2007	$ 1,436,756	$ 238,191	$ 136,009	$ 52,330	$ 426,530	29.69 %
2008	$ 1,535,975	$ 254,722	$ 141,673	$ 59,486	$ 455,881	29.68 %
2009	$ 1,655,647	$ 267,471	$ 149,563	$ 61,531	$ 478,565	28.90 %
2010	$ 1,806,751	$ 279,251	$ 155,918	$ 70,796	$ 505,964	28.00 %
2011	$ 1,821,817	$ 282,891	$ 158,724	$ 136,888	$ 578,503	31.75 %
2012	$ 1,980,371	$ 272,029	$ 154,608	$ 68,634	$ 495,271	25.01 %
2013	$ 1,898,160	$ 241,577	$ 160,953	$ 74,511	$ 477,041	25.13 %
2014	$ 2,058,689	$ 303,695	$ 193,125	$ 78,589	$ 575,409	27.95 %
2015	$ 2,357,011	$ 1,049,199	$ 202,976	$ 126,807	$ 1,378,982	58.51 %

Annual valuations set the ARC on a prospective basis, meaning each valuation will set the ARC for the following fiscal year. Because 2007 was the first valuation, the ARC calculated from the 2007 valuation set the ARC for two fiscal years, FY2007 and FY2008.

The employer ARC was determined by netting the active employee contributions (0.65%) out of the Total ARC (8.38%). The ARC for FY2015 was determined by applying the Employer ARC determined in the 2014 valuation as a percentage of payroll (7.73%) to the actual payroll paid in FY 2015 ($30.5 billion).

Notes to Required Supplementary Information
Actuarial Valuation August 31, 2015

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	August 31, 2015
Actuarial cost method	Projected Unit Credit
Amortization method	Level percent, open
Amortization period	30 years
Asset valuation method	Market
Actuarial assumptions:	
Investment rate of return *	5.25%
Projected salary increases *	3.50% to 9.50%
Weighted-average at valuation date	4.79%
Payroll growth rate	2.50%
Healthcare Trend Rates *	10.0% to 4.20%
*Includes inflation at	2.50%

Analysis of Financial Experience
Actuarial Valuation August 31, 2015

Year Ended August 31,	Asset Gain/(Loss)	Liability Gain/(Loss)	New Assumptions Gain/(Loss)	Benefit Changes Gain/(Loss)	Contributions Gain/(Loss)	Net
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2011	($36)	($44)	($2,003)	$0	($1,243)	($3,326)
2012	($38)	$2,148	($1,302)	$3,458	($1,485)	$2,781
2013	($31)	$24	($1,699)	$1,266	($1,458)	($1,898)
2014	($24)	($619)	($1,235)	$0	($1,522)	($3,400)
2015	($36)	($3,369)	($6,232)	$0	($1,004)	($10,641)

$ in millions

Schedule of Retirants and Beneficiaries Added and Removed from Rolls
Actuarial Valuation August 31, 2014

	Added to Rolls		Removed from Rolls		Rolls-End of Year			
Year Ended August 31,	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances *	% Increase in Annual Allowances	Average Annual Allowances
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2008					198,968	$ 605,932,252	NA	$ 3,045
2009	12,158	$ 54,271,769	8,192	$ 19,365,868	202,934	$ 694,017,558	14.5%	$ 3,420
2010	14,996	$ 71,136,696	7,924	$ 21,837,784	210,006	$ 757,979,912	9.2%	$ 3,609
2011	20,467	$ 109,331,023	8,019	$ 24,802,618	222,454	$ 898,001,599	18.5%	$ 4,037
2012	19,407	$ 92,279,848	8,220	$ 28,700,248	233,641	$ 768,682,199	(14.4%)	$ 3,290
2013	19,798	$ 98,603,255	10,176	$ 25,946,471	243,263	$ 824,715,257	7.3%	$ 3,390
2014	18,916	$ 97,956,524	10,656	$ 27,648,497	251,523	$ 933,885,969	13.2%	$ 3,713
2015	19,171	$ 106,177,651	11,116	$ 31,400,277	259,578	$ 1,050,329,854	12.5%	$ 4,046

* Expected employer provided claims and expenses (net of retiree premiums)

Annual allowances in Column (7) include increases due to health care inflation for continuing retirees. Therefore, the annual allowance is not equal to the the beginning of year allowance plus the "Added to rolls" allowance minus the "Removed from Rolls" allowance.

Solvency Test
Actuarial Valuation August 31, 2015

	Aggregated Accrued Liabilities for						
		Retirees				by Reported Assets	
Valuation Date at August 31,	Active Members Contributions	Beneficiaries and Vested Terminations	Members (Employer Financed Portion)	Actuarial Value of Assets	(5)/(2)	[(5)-(2)]/(3)	[(5)-(2)-(3)]/(4)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2007	NA *	$ 8,328,549,742	$ 11,419,115,569	$ 622,796,928	NA	7.5%	0%
2008	NA *	$ 9,318,488,707	$ 12,994,409,340	$ 728,839,325	NA	7.8%	0%
2009	NA *	$ 9,641,882,166	$ 14,715,609,398	$ 800,148,392	NA	8.3%	0%
2010	NA *	$ 10,918,483,900	$ 14,889,285,169	$ 814,964,303	NA	7.5%	0%
2011	NA *	$ 13,710,226,766	$ 16,074,942,191	$ 890,870,306	NA	6.5%	0%
2012	NA *	$ 12,676,391,675	$ 14,865,894,917	$ 741,013,656	NA	5.8%	0%
2013	NA *	$ 14,367,032,119	$ 15,467,739,143	$ 551,048,281	NA	3.8%	0%
2014	NA *	$ 16,307,486,652	$ 17,411,062,427	$ 457,940,487	NA	2.8%	0%
2015	NA *	$ 20,749,190,897	$ 23,454,137,979	$ 972,919,240	NA	4.7%	0%

* Active member contributions are non-refundable

SECTION H

ACTUARIAL ASSUMPTIONS AND METHODS

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS
Demographic and Certain Economic Assumptions

This Actuarial Valuation of the OPEB offered through TRS-Care is similar to the Actuarial Valuations performed for the Teacher Retirement System of Texas, except that the OPEB Valuation is more complex. All of the demographic assumptions (rates of retirement, termination and disability) and most of the economic assumptions (general inflation, salary increases, and general payroll growth) used in this OPEB Valuation were identical to those which were adopted by the Board in 2015 after the preparation of an actuarial experience study and used in the respective TRS valuation. Since the assumptions were based upon a recent actuarial experience study and they were reasonable for this OPEB Valuation, they were employed in this report.

The following assumptions used for members of TRS are identical to the assumptions employed in the August 31, 2015 TRS annual actuarial valuation:

- Rates of Mortality
- Rates of Retirement
- Rates of Termination
- Rates of Disability Incidence
- General Inflation
- Wage Inflation
- Expected Payroll Growth

The following assumptions which are specific to OPEB were updated from the prior year's report:

1) The trend rates were reset to better reflect the plan's anticipated experience. The new trend assumptions (shown on the following page):
    a. assume faster growth in prescription drug costs than the prior assumption
    b. assume retiree premiums will not increase in FYE17
    c. assume a lower ultimate trend assumption based on the revised inflation assumption

2) The ultimate trend assumption was increased by 0.20% to reflect the anticipated costs associated with the "Cadillac Tax".

HEALTHCARE AND OTHER ECONOMIC ASSUMPTIONS

The Interest Discount Rate assumed in the valuation was based on the current unfunded plan structure. Based on simulations, the following are the ranges of reasonable discount rates provided based on a 3.0% general inflation assumption:

	Real Returns		Nominal Returns	
	Low	High	Low	High
100% Cash Equiv	0.23%	0.73%	3.23%	3.73%
50% Cash Equiv + 50% Interm Bonds	1.42%	2.23%	4.42%	5.23%
25% Cash Equiv + 25% Interm Bonds + 50% Corp Bonds	1.53%	2.46%	4.53%	5.46%

The low and the high results shown above are the 25% percentiles and the 75% percentiles, respectively.

Based on a portfolio somewhere between the 100% cash equivalents and the 50% cash equivalents + 50% Intermediate Bonds, the reasonable range is between 4.25% and 5.25%. Because the total contributions flowing into the fund have historically been greater than the pay-as-you-go costs, there is a current balance of assets in the trust. Because future benefits are expected to be paid from the trust, we believe the Board's chosen discount rate at the top of the reasonable range, or 5.25%, is reasonable.

For the valuation results under the pre-funded scenarios in which a qualifying OPEB trust is established and an actuarial pre-funding policy is created, the interest discount rate is 8.00% per year compounded annually. This assumes the asset allocation for the OPEB trust would be similar to the asset allocation of the current Pension Trust.

Health Cost and Premium Increases *– See table below*

Year	Medical	Rx	Premiums
2016	7.50%	10.00%	0.00%
2017	7.25%	9.50%	8.38%
2018	7.00%	9.00%	8.00%
2019	6.75%	8.50%	7.63%
2020	6.50%	8.00%	7.25%
2021	6.25%	7.50%	6.88%
2022	6.00%	7.00%	6.50%
2023	5.75%	6.50%	6.13%
2024	5.50%	6.00%	5.75%
2025	5.25%	5.50%	5.38%
2026	5.00%	5.00%	5.00%
2027	4.75%	4.75%	4.75%
2028	4.50%	4.50%	4.50%
2029	4.25%	4.25%	4.25%
2030 & Beyond	4.20%	4.20%	4.20%

Trend increases are assumed to occur 8/31 of each year beginning 8/31/2016.
Except for FYE16, the premiums are assumed to increase at the average increase of medical and Rx claims.
The ultimate trend rate was increased by 0.20% to reflect the expected impact of the excise tax on high-cost employer health plans effective January 1, 2018.

Aging Factors: In any given year, the cost of medical and pharmacy benefits vary by age. As the ages of employees and retirees in the covered population increase so does the cost of benefits. Morbidity tables are employed to develop Per Capita Costs at every relevant age. The following table represents the percent by which the cost of benefits for non-disabled lives at one age is higher than the cost for the previous age. For example, according to the following table, the cost of benefits for a male age 55 is 1.90% higher than for one age 54. As discussed previously, disabled lives exhibited minimal variation by age and sex. These percentages below are separate from the annual Medical Trend, which operates to increase costs independent of and in addition to the Aging Factors shown below. These factors were developed based on actual experience data gathered from TRS-Care.

Sample Ages	Cost Increase by Age			
	Medical		Rx	
	Male	Female	Male	Female
45	0.00%	0.00%	0.00%	0.00%
50	0.00%	0.00%	0.00%	0.00%
55	1.90%	0.13%	1.42%	0.50%
60	1.90%	0.13%	1.08%	0.49%
65	4.26%	3.92%	0.79%	0.47%
70	2.93%	2.67%	0.54%	0.46%
75	2.04%	1.81%	0.30%	0.44%
80	1.36%	1.14%	0.07%	0.42%
85	0.81%	0.58%	0.00%	0.00%
90	0.00%	0.00%	0.00%	0.00%

Election percentage:

Service at Retirement	General Coverage Election:	Plan Selection - Pre 65			Plan Selection - Post 65		
		Plan 1	Plan 2	Plan 3	Plan 1	Plan 2	Plan 3
30+ years of service	82%	4%	57%	39%	4%	19%	77%
20-29 years of service	68%	10%	63%	27%	10%	23%	67%
<20 years of service	55%	20%	53%	27%	20%	27%	53%
Two Person Coverage		10%	35%	25%	10%	35%	25%

It was assumed that the number of members selecting Plan 3 before age 65 will decrease and the number of members selecting Plan 2 will increase over time as health costs increase. The assumption is that the number of members selecting Plan 3 will decrease by 1% per year and the number of members selecting Plan 2 will increase by 1% per year for the next 15 years. For non-grandfathered active employees who are only eligible for TRS-Care 1 prior to age 62, the Two Person Coverage assumption was 30% prior to age 62. After age 62, the plan selection rates and two-person coverage assumptions equal those shown in the table above.

For retired participants, it is assumed that 65% of members who select Plan 2 before age 65 will change to Plan 3 at age 65. For active and retired participants, it was assumed that 85% of members hired before 1986 will be eligible for Medicare and 100% of members hired after 1986 will be eligible for Medicare. Coverage for children who were under the age of 26 as of the valuation date is assumed to end at the age of 26.

Medicare Advantage Participation and Savings:

Effective January 1, 2014, TRS-Care 2 and 3 participants who have both Medicare Parts A and B have a Medicare Advantage plan option in addition to their current plan offerings. The required retiree premiums for those who choose to participate in the Medicare Advantage plan will decrease by $15 for each individual enrolled in either the Aetna Medicare Advantage Care 2 Plan or the Aetna Medicare Advantage Care 3 Plan. For this valuation, it is assumed that 70% of eligible members will choose to participate in the Medicare Advantage health plan. In the prior valuation, the 2016 Medicare Advantage premiums were expected to be $84.11 per month. The actual cost for 2016 is $64.08 per month. As the 2016 experience shows, the future growth to the Medicare Advantage premiums is subject to considerable uncertainty. The premiums are highly dependent on the level of subsidy provided by the Centers for Medicare and Medicaid Services (CMS). We have assumed that the CMS subsidy will grow at a rate which is 2.5% less than the medical trend assumption shown on page 44. Furthermore, we have assumed that TRS-Care will discontinue the Medicare Advantage plan options when those premiums exceed the cost of the traditional TRS-Care 2 and 3 options plans for Medicare A & B retirees. Therefore, the approach we have utilized in this valuation assumes that the cost savings provided to TRS-Care due to the Aetna Medicare Advantage plan options will phase out by 2019 for TRS-Care 2 and by 2021 for TRS-Care 3. Correspondingly, we have assumed that the $15 per individual reduction to the retiree's premiums will be discontinued once the Medicare Advantage savings are fully phased out. The following tables show the loads which were applied to the age-rated Medicare A&B medical costs for TRS-Care 2 and Care 3 shown on pages 25 and 26:

Fiscal Year	TRS-Care 2	TRS-Care 3
2016	82%	61%
2017	92%	68%
2018	99%	79%
2019	100%	89%
2020	100%	98%
2021 and later	100%	100%

Express Scripts EGWP-Wrap Rx Participation and Savings:

Effective January 1, 2014, Medicare eligible members will be have the option to participate in an Employer Group Waiver Plan (EGWP) with a "Wrap" feature. The EGWP design is based on a federally approved drug formulary and plan design. A sponsor may provide additional benefits through a supplementary "Wrap" plan that ensures members will receive benefits that are relatively equal to those of the traditional plan that the sponsor currently offers. In most instances, the current plan benefit design can be replicated through the combination of an EGWP-Wrap plan at reduced costs. The key components which are expected to reduce costs include:

1. Fifty percent discount on brand name drugs while member is in the "donut hole" coverage gap. (Under a standard or model Medicare Part D program, a member is responsible for 100 percent of the prescription costs from the initial coverage limit to the catastrophic coverage limit. This coverage gap is also known as the "donut hole". The discount is also applied to the member's true out of pocket costs which allows federal catastrophic coverage to be reached sooner.
2. The "donut hole" coverage gap is reduced ratably and completely eliminated by 2020.
3. As the coverage gap diminishes, the sponsor's "Wrap" supplemental benefits within the "donut hole" decreases.
4. Federal prescription drug subsidies must be used to reduce the cost of providing benefits to Medicare eligible members, resulting in lower premium rates. This feature allows the sponsor to reflect certain EGWP-Wrap savings in the GASB 45 valuation.

80% of current and future Medicare retirees are assumed to participate in the EGWP – Wrap plan. The EGWP-Wrap design feature is expected to reduce the aggregate prescription costs for Medicare eligible members by approximately 22 percent in the near-term. However, it is not clear how brand name discounts and federal subsidies will impact the effective trend rates and overall costs in the future. Consequently, for GASB 45 valuation purposes, we have assumed that the EGWP – Wrap savings will gradually wear-away by the end of 2021.

Rx Rebates:

The age-rated claims shown in Section D are net of pharmaceutical manufacturer rebates. It was assumed that the manufacturer's rebates would equal 17% of the Rx claims. The claims shown in Section D do not reflect the discounts and subsidies related to the EGWP-Wrap plan. As mentioned on page 22, the ARC, associated liabilities, and projected claims payments shown in this report do not reflect Retiree Drug Subsidy (RDS) payments.

Cadillac Tax:

The ultimate trend assumption was increased from 4.00% to 4.20% to reflect the anticipated impact of the excise tax on high-cost employer health plans effective January 1, 2018.

ACTUARIAL METHODS

The Projected Unit Credit actuarial cost method of valuation was used in determining liabilities and normal cost. A method under which the benefits of each individual included in an Actuarial Valuation are allocated by a consistent formula to valuation years. All benefits are projected according to healthcare trends and aging factors as disclosed above.

The Actuarial Present Value of benefits allocated to a valuation year is called the Normal Cost. The Actuarial Present Value of benefits allocated to all periods prior to a valuation year is called the Actuarial Accrued Liability.

Differences between assumed experience and actual experience ("actuarial gains and/or losses") become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce payments (principal & interest) which are a level percent of payroll.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing:	Beginning of (fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Retirement decrements are assumed to occur at the end of the year. All other decrements are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Operation:	Disability is added to the retirement decrement during retirement eligibility.
Incidence of ARC Contributions:	The ARC is assumed to be received once a year at the middle of the year.
Administrative Expenses:	The expenses are represented in the monthly expected claims.
Prescription Drug Rebates	It was assumed the Trust would receive rebates equaling 17% of claims. The rebates are used as a credit in the liability and contribution calculations. The Rx claims shown in Section D reflect the cost of the benefits inclusive of the rebate.

APPENDIX
GLOSSARY

GLOSSARY

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

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. 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.

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 Required Contribution (ARC). The ARC is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The ARC 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.

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.

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 that 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 Post Employment Employee 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.

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. 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 valuation purposes.