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, 2014

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November 11, 2014

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, 2014 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, 2014. 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 2010 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 that roughly equal the annual expected net claim payments.

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,

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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, 2014

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 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, 2013 through August 31, 2014 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 that roughly equal the annual expected net claim payments. This trust has an asset balance of $458 million as of August 31, 2014. ($458 million represents roughly $502 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, 2014. 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 2015 are $709 million. The expected net claims and expenses (net of retiree premiums) to be paid out of the trust are $960 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	$ 33,718,549	$ 22,672,862
Actuarial Value of Assets	(457,940)	(457,940)
Unfunded Actuarial Accrued Liability (PUC)	33,260,609	22,214,922
Total ARC (and annual OPEB Cost) for FYE 8/31/2015	**$ 2,701,231**	**$ 2,070,110**
Per Active Participant	$ 3,862	$ 2,960
As % of Expected Payroll	8.38%	6.42%
Estimated Net Employer Contr. for FYE 8/31/2015	**$ 709,439**	**$ 2,070,110**
Estimated Pay-as-you-go costs for FYE 8/31/2015	**$ 959,511**	**$ 959,511**

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 2015. 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.

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, 2014

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 28% 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 2015 is $1,089 million, and this compares to the total estimated claims and expenses for FY 2015 of $1,339 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 $458 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, 2014 ($ in '000s)	Claims and Expenses		Retiree		As a % of
	Medical	Rx	Premiums	Grand Total	payroll
Number of Participants Covered					
Active Participants				699,479	
Retired Participants				251,523	
Total Participants				951,002	
Expected Payroll of Active Participants for FY 2015				$32,247,185	
Actuarial Present Value of Benefits					
Active Participants	$22,589,627	$22,183,679	($10,422,454)	$34,350,852	
Retired Participants	10,639,268	11,335,261	(5,667,042)	$16,307,487	
Total Partipants	$33,228,895	$33,518,940	($16,089,496)	$50,658,339	157%
Actuarial Accrued Liability					
(Projected Unit Credit Actuarial Cost Method)					
Active Participants	$12,157,906	$10,815,104	($5,561,948)	$17,411,062	
Retired Participants	10,639,268	11,335,261	(5,667,042)	$16,307,487	
Total Participants	$22,797,174	$22,150,365	($11,228,990)	$33,718,549	105%
Actuarial Value of Assets				(457,940)	
Unfunded Actuarial Accrued Liability (PUC)				$33,260,609	103%
Annual Required Contribution for YE 8/31/2015					
(Projected Unit Credit Actuarial Cost Method)					
Normal Cost				$1,266,091	3.93%
Amortization of UAAL (30 year, 3.5% payroll growth)				1,435,140	4.45%
Total ARC (and annual OPEB Cost) for FYE 8/31/2015				**$2,701,231**	**8.38%**
Per Active Participant (not in '000s)				$3,862	
Estimated Net Employer Contr. for FYE 8/31/2015					
(current policy)					
Local Employers				177,360	0.55%
Active Employees				209,607	0.65%
State Contributions				322,472	1.00%
Total Estimated Contributions				**$709,439**	**2.20%**
Estimated Cash Flows for FYE 8/31/2015					
(pay as you go costs under GASB 45)					
Active Participants	$25,781	$8,834	($8,990)	$25,625	0.08%
Retired Participants	809,306	495,063	(370,483)	$933,886	2.90%
Total pay as you go costs	$835,087	$503,897	($379,473)	**$959,511**	**2.98%**

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 2015.

As disclosed on page 41, the ARC for Fiscal Year 2014 was set in last year's valuation and was determined by taking the ARC as a percentage of payroll from the 2013 valuation (7.08%) and applying that to the actual payroll for fiscal year 2014, producing an ARC for Fiscal Year 2014 of $2,059 million.

The Employer ARC under GASB 43 is the Total ARC of 8.38% shown above less the 0.65% Active Employee Contribution rate, or 7.73%. This translates to an estimated Employer ARC for FYE 8/31/2015 of $2,493 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)
2015	$ 835,087	$ 503,897	$ 1,338,984	$ (379,473)	$ 959,511	$ 2,701,231
2016	906,036	575,179	1,481,215	(408,284)	1,072,931	2,850,113
2017	1,002,492	658,012	1,660,504	(446,727)	1,213,777	2,977,578
2018	1,102,593	749,149	1,851,742	(486,672)	1,365,070	3,106,228
2019	1,200,409	852,627	2,053,036	(539,264)	1,513,772	3,234,845
2020	1,291,853	965,214	2,257,067	(594,438)	1,662,629	3,363,500
2021	1,372,101	1,063,990	2,436,091	(636,712)	1,799,379	3,495,096
2022	1,447,302	1,150,256	2,597,558	(672,014)	1,925,544	3,628,737
2023	1,519,412	1,230,828	2,750,240	(704,583)	2,045,657	3,764,178
2024	1,591,400	1,311,048	2,902,448	(735,417)	2,167,031	3,901,120

* 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, 2014

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 3.50% 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 6.42%. 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 $33.3 billion to $22.2 billion and the annual expense from $2.7 billion to $2.1 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 advanced funded Plan using an 8.00% investment return assumption OPEB ACTUARIAL VALUATION RESULTS as of August 31, 2014 ($ in '000s)					
	Claims and Expenses		Retiree		As a % of payroll
	Medical	Rx	Premiums	Grand Total	
Number of Participants Covered					
Active Participants				699,479	
Retired Participants				251,523	
Total Participants				951,002	
Expected Payroll of Active Participants for FY 2015				$32,247,185	
Actuarial Present Value of Benefits					
Active Participants	$13,595,878	$11,342,067	($5,983,116)	$18,954,829	
Retired Participants	8,258,381	8,446,488	(4,346,670)	$12,358,199	
Total Partipants	$21,854,259	$19,788,555	($10,329,786)	$31,313,028	97%
Actuarial Accrued Liability					
(Projected Unit Credit Actuarial Cost Method)					
Active Participants	$7,637,435	$6,014,530	($3,337,302)	$10,314,663	
Retired Participants	8,258,381	8,446,488	(4,346,670)	$12,358,199	
Total Participants	$15,895,816	$14,461,018	($7,683,972)	$22,672,862	70%
Actuarial Value of Assets				(457,940)	
Unfunded Actuarial Accrued Liability (PUC)				$22,214,922	69%
Annual Required Contribution for YE 8/31/2015					
(Projected Unit Credit Actuarial Cost Method)					
Normal Cost				$736,399	2.28%
Amortization of UAAL (30 year, 3.5% payroll growth)				1,333,711	4.14%
Total ARC (and annual OPEB Cost) for FYE 8/31/2015				**$2,070,110**	**6.42%**
Per Active Participant (not in '000s)				$2,960	
Estimated Net Employer Contr. for FYE 8/31/2015					
(current policy)					
Local Employers *					
Active Employees *					
State Contributions *					
Total Estimated Contributions				**$2,070,110**	**6.42%**
Estimated Cash Flows for FYE 8/31/2015					
(pay as you go costs under GASB 45)					
Active Participants	$25,781	$8,834	($8,990)	$25,625	0.08%
Retired Participants	809,306	495,063	(370,483)	$933,886	2.90%
Total pay as you go costs	$835,087	$503,897	($379,473)	**$959,511**	**2.98%**

* 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 $1,111 million for FY 2015, or 3.44% 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 2024 is $598 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)
2015	835,087	$ 503,897	$ 1,338,984	$ (379,473)	$ 959,511	$ 2,070,110
2016	906,036	575,179	1,481,215	(408,284)	1,072,931	2,153,077
2017	1,002,492	658,012	1,660,504	(446,727)	1,213,777	2,222,928
2018	1,102,593	749,149	1,851,742	(486,672)	1,365,070	2,294,534
2019	1,200,409	852,627	2,053,036	(539,264)	1,513,772	2,367,355
2020	1,291,853	965,214	2,257,067	(594,438)	1,662,629	2,441,344
2021	1,372,101	1,063,990	2,436,091	(636,712)	1,799,379	2,519,055
2022	1,447,302	1,150,256	2,597,558	(672,014)	1,925,544	2,599,271
2023	1,519,412	1,230,828	2,750,240	(704,583)	2,045,657	2,681,366
2024	1,591,400	1,311,048	2,902,448	(735,417)	2,167,031	2,764,825

* 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, 2014 ($ in '000s)

	Grand Total		
	Pessimistic Assumptions	**Intermediate Assumptions**	**Optimistic Assumptions**
Actuarial Present Value of Benefits			
Active Participants	$43,117,010	$34,350,852	$26,141,891
Retired Participants	$18,188,692	$16,307,487	$14,710,120
Total Partipants	$61,305,702	$50,658,339	$40,852,011
As a % of payroll	190 %	157 %	127 %
Actuarial Accrued Liability			
(Projected Unit Credit Actuarial Cost Method)			
Active Participants	$21,521,881	$17,411,062	$14,256,502
Retired Participants	$18,188,692	$16,307,487	$14,710,120
Total Participants	$39,710,573	$33,718,549	$28,966,622
As a % of payroll	123 %	105 %	90 %
Actuarial Value of Assets	($457,940)	($457,940)	($457,940)
Unfunded Actuarial Accrued Liability (PUC)	$39,252,633	$33,260,609	$28,508,682
As a % of payroll	122 %	103 %	88 %
Annual Required Contribution for FYE 8/31/2015			
(Projected Unit Credit Actuarial Cost Method)			
Normal Cost	$1,573,903	$1,266,091	$972,913
As a % of payroll	4.88 %	3.93 %	3.02 %
Amortization of UAAL (30 year, 3.5% payroll growth)	1,693,686	1,435,140	1,230,102
As a % of payroll	5.25 %	4.45 %	3.81 %
Total ARC (and annual OPEB Cost) for FYE 8/31/2015	**$3,267,589**	**$2,701,231**	**$2,203,015**
As a % of payroll	10.13 %	8.38 %	6.83 %
Per Active Participant (not in '000s)	$4,671	$3,862	$3,150

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
2015	8.50 %	7.50 %	6.50 %
2016	8.25	7.25	6.25
2017	8.00	7.00	6.00
2018	7.75	6.75	5.75
2019	7.50	6.50	5.50
2020	7.25	6.25	5.25
2021	7.00	6.00	5.00
2022	6.75	5.75	4.75
2023	6.50	5.50	4.50
2024	6.25	5.25	4.25
2025	6.00	5.00	4.00
2026	5.75	4.75	3.75
2027	5.50	4.50	3.50
2028	5.35	4.35	3.35
2029	5.35	4.35	3.35
2030 & Later	5.35	4.35	3.35

Year	Prescription Drugs		
	Pessimistic	Intermediate	Optimistic
2015	8.50 %	7.50 %	6.50 %
2016	8.25	7.25	6.25
2017	8.00	7.00	6.00
2018	7.75	6.75	5.75
2019	7.50	6.50	5.50
2020	7.25	6.25	5.25
2021	7.00	6.00	5.00
2022	6.75	5.75	4.75
2023	6.50	5.50	4.50
2024	6.25	5.25	4.25
2025	6.00	5.00	4.00
2026	5.75	4.75	3.75
2027	5.50	4.50	3.50
2028	5.35	4.35	3.35
2029	5.35	4.35	3.35
2030 & Later	5.35	4.35	3.35

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, 2014

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, 2014 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, 2015 for a sample of ages under TRS-CARE 3:

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2015)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$785.19	$827.57	$227.12	$237.46	$1,923.84	$1,923.84	$781.72	$781.72
57	$815.31	$829.72	$233.44	$239.84	$1,923.84	$1,923.84	$781.72	$781.72
60	$862.67	$832.96	$242.02	$243.44	$1,923.84	$1,923.84	$781.72	$781.72
62	$895.76	$835.13	$247.14	$245.83	$1,923.84	$1,923.84	$781.72	$781.72
64	$930.13	$837.30	$251.77	$248.21	$1,923.84	$1,923.84	$781.72	$781.72

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2015)								
	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	$119.01	$106.75	$253.90	$249.40	$357.81	$320.97	$253.90	$249.40
70	$142.60	$126.05	$262.75	$255.27	$428.75	$378.99	$262.75	$255.27
75	$161.74	$141.27	$268.57	$261.07	$486.30	$424.75	$268.57	$261.07
80	$176.43	$152.42	$271.37	$266.78	$530.45	$458.26	$271.37	$266.78
85	$186.66	$159.49	$271.64	$272.42	$561.21	$479.52	$271.64	$272.42
90	$190.66	$161.78	$271.64	$272.42	$573.23	$486.39	$271.64	$272.42

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.

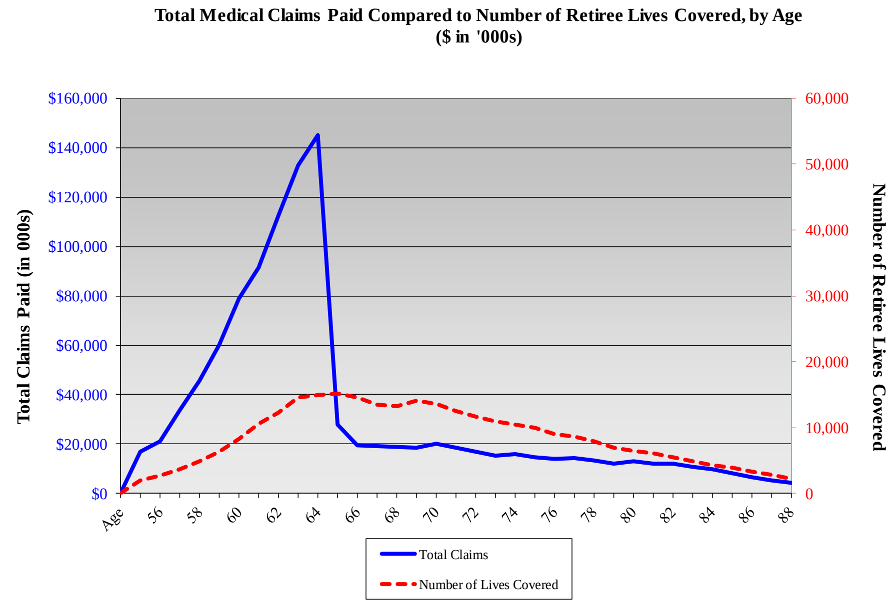
No significant difference was found in the Baseline Costs of retirees and spouses. Therefore, membership status, was deemed not to be a necessary Costing Variable, and the data for retirees and spouses were combined.

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

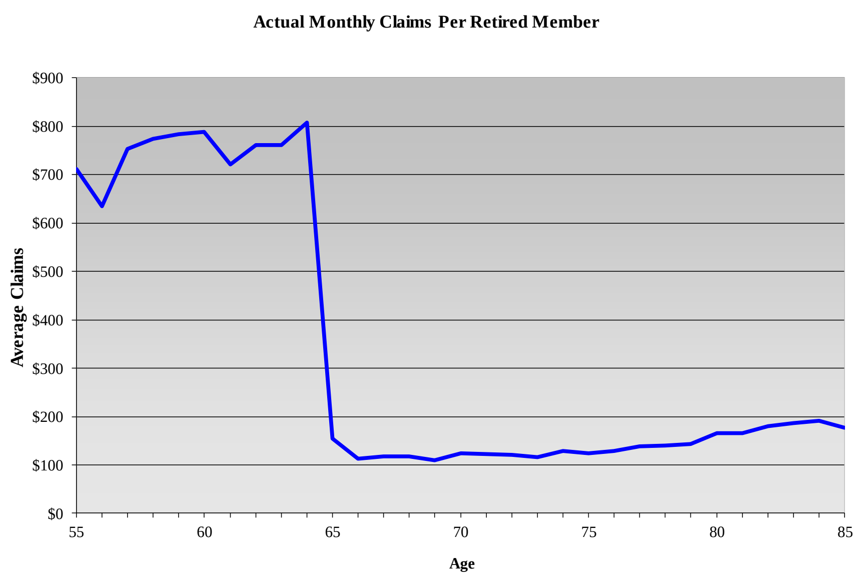
Gather Data

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, 2011 through August 31, 2014 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.



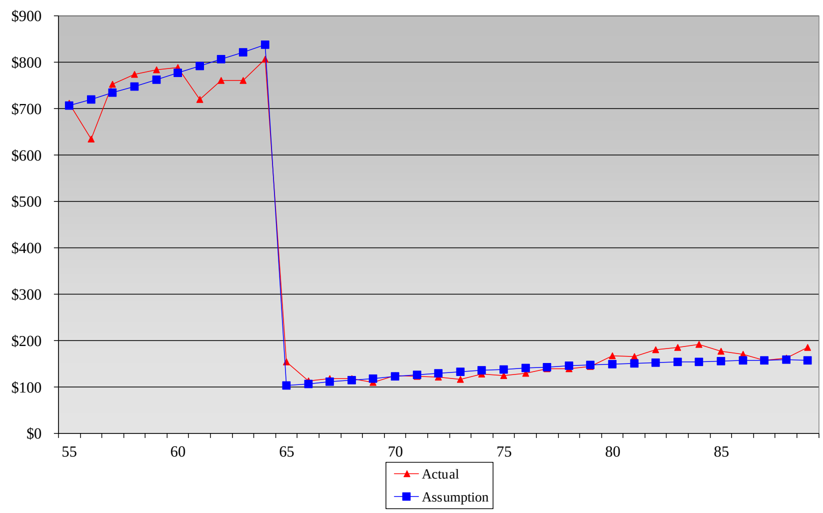
These two graphs show a need to model the increasing claims cost by age in the valuation. This is consistent with other health care experience. This assumption is referred to as the aging factor table. However, the aging experience for TRS-CARE is substantially less impactful when compared to other healthcare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

<u>Develop Aging Table</u>

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.

Comparison of Actual Per Capita Costs to Assumed Per Capita Costs



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.

<u>Adjust from Paid to Incurred</u>

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.

<u>Administration Expenses</u>

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 2015	$11.51	$9.66	$11.54	$18.88	$15.63	$18.82	$23.57	$20.32	$23.51
Prescription Drugs									
FY 2015	N/A	$0.09	$0.09	N/A	$0.09	$0.09	N/A	$0.00	$0.00

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 $8.15 per month.

Adjusted to project to year ending 08/31/2015

The claims data represented the period beginning September 1, 2011 and ending August 31, 2014. The actuarial valuation uses the expected claims that will be paid in the year beginning September 1, 2014 and ending August 31, 2015. Therefore, the claims need to be increased by trend. The trend rate used to project the FY 2012 thru FY 2014 claims forward to FY 2015 was 8.0% for medical and 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 2015)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$373.38	$393.53	NA	NA	$750.94	$750.94	NA	NA
57	$387.70	$394.56	NA	NA	$750.94	$750.94	NA	NA
60	$410.23	$396.10	NA	NA	$750.94	$750.94	NA	NA
62	$425.96	$397.13	NA	NA	$750.94	$750.94	NA	NA
64	$442.30	$398.16	NA	NA	$750.94	$750.94	NA	NA

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2015)								
	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	$46.93	$42.10	NA	NA	$62.14	$55.74	NA	NA
70	$56.23	$49.71	NA	NA	$74.46	$65.82	NA	NA
75	$63.78	$55.71	NA	NA	$84.45	$73.76	NA	NA
80	$69.57	$60.10	NA	NA	$92.12	$79.58	NA	NA
85	$73.61	$62.89	NA	NA	$97.46	$83.28	NA	NA
90	$75.18	$63.79	NA	NA	$99.55	$84.47	NA	NA

TRS-Care 2

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2015)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$540.37	$569.54	$135.05	$141.20	$1,507.63	$1,507.63	$497.32	$497.32
57	$561.10	$571.02	$138.81	$142.61	$1,507.63	$1,507.63	$497.32	$497.32
60	$593.69	$573.25	$143.91	$144.76	$1,507.63	$1,507.63	$497.32	$497.32
62	$616.47	$574.74	$146.95	$146.18	$1,507.63	$1,507.63	$497.32	$497.32
64	$640.12	$576.23	$149.71	$147.59	$1,507.63	$1,507.63	$497.32	$497.32

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2015)								
	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	$79.78	$71.57	$150.98	$148.30	$226.59	$203.26	$150.98	$148.30
70	$95.60	$84.51	$156.24	$151.79	$271.51	$240.00	$156.24	$151.79
75	$108.43	$94.71	$159.70	$155.24	$307.96	$268.98	$159.70	$155.24
80	$118.28	$102.18	$161.36	$158.64	$335.92	$290.20	$161.36	$158.64
85	$125.14	$106.92	$161.52	$161.99	$355.39	$303.66	$161.52	$161.99
90	$127.82	$108.45	$161.52	$161.99	$363.01	$308.02	$161.52	$161.99

TRS-Care 3

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2015)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$785.19	$827.57	$227.12	$237.46	$1,923.84	$1,923.84	$781.72	$781.72
57	$815.31	$829.72	$233.44	$239.84	$1,923.84	$1,923.84	$781.72	$781.72
60	$862.67	$832.96	$242.02	$243.44	$1,923.84	$1,923.84	$781.72	$781.72
62	$895.76	$835.13	$247.14	$245.83	$1,923.84	$1,923.84	$781.72	$781.72
64	$930.13	$837.30	$251.77	$248.21	$1,923.84	$1,923.84	$781.72	$781.72

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2015)								
	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	$119.01	$106.75	$253.90	$249.40	$357.81	$320.97	$253.90	$249.40
70	$142.60	$126.05	$262.75	$255.27	$428.75	$378.99	$262.75	$255.27
75	$161.74	$141.27	$268.57	$261.07	$486.30	$424.75	$268.57	$261.07
80	$176.43	$152.42	$271.37	$266.78	$530.45	$458.26	$271.37	$266.78
85	$186.66	$159.49	$271.64	$272.42	$561.21	$479.52	$271.64	$272.42
90	$190.66	$161.78	$271.64	$272.42	$573.23	$486.39	$271.64	$272.42

Children

Baseline Costs for Children (Expected Monthly Per Capita Costs for Fiscal 2015)				
	Medical Coverage		Prescription Drug Coverage	
Tier	Male	Female	Male	Female
1	$175.55	$175.55	NA	NA
2	$185.68	$185.68	$44.57	$44.57
3	$241.61	$241.61	$73.11	$73.11

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, 2014

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, 2014 – August 31, 2015

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, 2015 through December 31, 2015.
Maximum Out-of-Pocket includes deductibles, co-pays and out-of-pocket expenses.

TRS-Care Monthly Retiree Premium Rates Effective September 1, 2014

	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, 2014

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, 2014

	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	2	8	30				343	4,194	2,933	345	4,202	2,963	7,510
25-29		4	8				51	959	835	51	963	843	1,857
30-34	2	2	3				4	42	84	6	44	87	137
35-39	4	6	11				1	27	62	5	33	73	111
40-44	15	45	38	1	9	5		4	56	16	58	99	173
45-49	63	84	120	1	15	7	2	3	54	66	102	181	349
50-54	314	1,804	877	39	446	110			30	353	2,250	1,017	3,620
55-59	1,224	9,090	5,244	171	2,577	873	1		23	1,396	11,667	6,140	19,203
60-64	3,190	18,064	15,668	383	5,278	3,039			17	3,573	23,342	18,724	45,639
65-69	3,960	9,044	33,252	386	3,251	8,209			4	4,346	12,295	41,465	58,106
70-74	4,594	3,027	28,397	389	1,076	7,011			2	4,983	4,103	35,410	44,496
75-79	5,018	899	20,451	319	275	4,185				5,337	1,174	24,636	31,147
80-84	4,485	227	13,775	164	45	2,045				4,649	272	15,820	20,741
85-89	2,875	75	8,156	59	13	795				2,934	88	8,951	11,973
90-94	1,456	24	3,149	11	1	154				1,467	25	3,303	4,795
95-99	533	12	847	2	1	23				535	13	870	1,418
Over 100	111		137							111		137	248
Total	**27,846**	**42,415**	**130,163**	**1,925**	**12,987**	**26,456**	**402**	**5,229**	**4,100**	**30,173**	**60,631**	**160,719**	**251,523**
			200,424			**41,368**			**9,731**				

*Surviving spouses are included in the retiree counts.

Estimated Medical Costs for Retirees and Beneficiaries by Age and Plan as of September 1, 2014

	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	$8,962	$52,922	$289,277				$695,558	$9,060,598	$8,256,200	$704,520	$9,113,520	$8,545,477
25-29		26,286	76,903				85,808	1,776,928	1,985,669	85,808	1,803,214	2,062,572
30-34	13,733	24,926	55,594				6,080	90,486	236,228	19,813	115,412	291,822
35-39	36,044	97,294	213,463				2,098	58,670	173,284	38,142	155,964	386,747
40-44	104,178	712,118	745,718	4,481	59,308	47,110		8,537	157,584	108,659	779,963	950,412
45-49	471,407	1,280,510	2,330,606	4,481	98,418	68,179	1,991	6,318	151,512	477,879	1,385,246	2,550,297
50-54	1,842,739	14,464,052	12,077,790	180,597	2,929,614	1,043,808			83,532	2,023,336	17,393,666	13,205,130
55-59	6,509,799	65,338,942	57,737,749	784,182	16,907,428	7,975,199	2,106		65,323	7,296,087	82,246,370	65,778,271
60-64	16,113,006	127,470,080	162,555,124	1,470,375	29,200,364	20,844,121			51,101	17,583,381	156,670,444	183,450,346
65-69	3,142,114	13,262,388	45,349,975	741,748	8,677,753	19,325,178				3,883,862	21,940,141	64,675,153
70-74	3,495,489	3,328,161	36,788,941	410,876	1,839,454	10,620,400				3,906,365	5,167,615	47,409,341
75-79	4,090,323	1,103,462	28,577,884	288,662	421,870	5,820,596				4,378,985	1,525,332	34,398,480
80-84	3,813,360	323,185	20,656,115	150,825	53,192	2,896,590				3,964,185	376,377	23,552,705
85-89	2,472,708	115,397	12,453,792	49,191	24,937	1,154,588				2,521,899	140,334	13,608,380
90-94	1,229,465	34,051	4,599,448	9,298	1,063	214,823				1,238,763	35,114	4,814,271
95-99	441,916	15,770	1,190,779	1,804	1,063	28,378				443,720	16,833	1,219,157
Over 100	92,660		214,288							92,660		214,288
Total	**$43,877,903**	**$227,649,544**	**$385,913,446**	**$4,096,520**	**$60,214,464**	**$70,038,970**	**$793,641**	**$11,001,537**	**$11,160,433**	**$48,768,064**	**$298,865,545**	**$467,112,849**
			$657,440,893			**$134,349,954**			**$22,955,611**			**$814,746,458**

Estimated Prescription Drug Costs for Retirees and Beneficiaries by Age and Plan as of September 1, 2014

	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		$13,187	$83,375					$2,128,814	$2,443,892		$2,142,001	$2,527,267
25-29		6,557	22,175					417,451	587,862		424,008	610,037
30-34		7,662	21,487					21,270	69,934		28,932	91,421
35-39		31,534	83,348					13,771	51,342		45,305	134,690
40-44		229,948	291,168		14,762	13,625		2,010	46,648		246,720	351,441
45-49		410,974	908,822		24,554	19,589		1,491	44,868		437,019	973,279
50-54		3,890,416	4,188,041		738,336	306,819			24,762		4,628,752	4,519,622
55-59		16,698,480	17,820,705		4,341,584	2,456,334			19,299		21,040,064	20,296,338
60-64		32,982,565	49,667,195		8,907,721	8,275,962			14,934		41,890,286	57,958,091
65-69		13,707,514	77,847,944		5,077,877	20,254,308					18,785,391	98,102,252
70-74		4,297,402	67,646,898		1,579,143	17,168,110					5,876,545	84,815,008
75-79		1,303,701	49,767,699		402,707	10,315,726					1,706,408	60,083,425
80-84		333,755	34,126,122		65,507	5,059,548					399,262	39,185,670
85-89		111,626	20,396,074		19,352	1,976,437					130,978	22,372,511
90-94		35,665	7,879,637		1,491	383,285					37,156	8,262,922
95-99		17,866	2,118,952		1,491	57,600					19,357	2,176,552
Over 100			342,975									342,975
Total		**$74,078,852**	**$333,212,617**		**$21,174,525**	**$66,287,343**		**$2,584,807**	**$3,303,541**		**$97,838,184**	**$402,803,501**
			$407,291,469			**$87,461,868**			**$5,888,348**			**$500,641,685**

Estimated Premiums Collected from Retirees and Beneficiaries by Age and Plans as of September 1, 2014

	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		$19,320	$107,100				$114,240	$3,120,336	$2,886,072	$114,240	$3,139,656	$2,993,172
25-29		9,480	28,500				14,196	612,095	695,155	14,196	621,575	723,655
30-34		4,920	10,980				1,008	31,248	82,656	1,008	36,168	93,636
35-39		15,120	40,560				336	20,088	61,008	336	35,208	101,568
40-44		112,800	140,640	1,680	25,920	21,300		2,976	55,104	1,680	141,696	217,044
45-49		207,000	439,020	1,680	42,000	28,920	336	2,232	53,136	2,016	251,232	521,076
50-54		4,266,600	3,086,940	65,520	1,195,947	436,728			29,520	65,520	5,462,547	3,553,188
55-59		21,313,200	18,135,360	277,860	6,711,313	3,260,230	336		22,632	278,196	28,024,513	21,418,222
60-64		42,159,022	53,122,413	511,841	12,175,057	9,425,424			16,728	511,841	54,334,079	62,564,565
65-69		9,136,661	41,010,292	288,277	5,213,604	16,386,099				288,277	14,350,265	57,396,391
70-74		2,492,111	32,885,871	176,031	1,412,999	12,346,387				176,031	3,905,110	45,232,258
75-79		747,617	23,469,984	116,559	344,742	7,131,831				116,559	1,092,359	30,601,815
80-84		196,438	15,790,620	55,140	51,376	3,465,498				55,140	247,814	19,256,118
85-89		67,502	9,351,228	17,950	17,626	1,346,542				17,950	85,128	10,697,770
90-94		21,263	3,546,900	3,300	1,084	257,892				3,300	22,347	3,804,792
95-99		9,581	939,048	480	1,032	37,746				480	10,613	976,794
Over 100			157,956									157,956
Total		**$80,778,635**	**$202,263,412**	**$1,516,318**	**$27,192,700**	**$54,144,597**	**$130,452**	**$3,788,975**	**$3,902,011**	**$1,646,770**	**$111,760,310**	**$260,310,020**
			$283,042,047			**$82,853,615**			**$7,821,438**			**$373,717,100**

Distribution of Active Members by Age and by Years of Service
As of 08/31/2014

	Years of Credited Service												
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	Total
Attained <u>Age</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>	Count & <u>Avg. Comp.</u>
Under 25	6,057	9,568	3,280	626	329	169							20,029
	$31,956	$34,014	$32,916	$25,507	$26,665	$27,592							$32,771
25-29	6,378	15,983	14,166	8,627	7,918	12,337	95						65,504
	$34,472	$39,147	$42,494	$45,613	$47,281	$45,967	$38,700						$42,534
30-34	4,317	10,358	7,972	4,994	6,108	41,299	8,666	92					83,806
	$31,778	$34,817	$38,002	$41,131	$44,595	$49,564	$51,446	$39,613					$45,044
35-39	3,850	8,287	6,405	3,735	4,100	26,658	28,144	6,526	65				87,770
	$29,861	$32,306	$35,295	$36,826	$39,833	$46,084	$54,964	$56,480	$46,463				$46,219
40-44	3,216	7,847	6,105	3,770	3,944	24,352	20,945	22,498	5,158	83			97,918
	$28,167	$31,367	$33,192	$34,413	$37,620	$41,865	$50,733	$59,236	$60,329	$42,694			$46,437
45-49	2,658	6,254	4,914	3,091	3,338	21,486	17,699	15,243	16,507	4,067	97		95,354
	$28,080	$29,160	$30,839	$32,270	$34,985	$38,345	$44,880	$52,373	$62,830	$62,104	$47,388		$45,472
50-54	1,974	5,035	3,918	2,469	2,697	17,697	16,889	15,094	12,579	12,799	3,585	63	94,799
	$28,856	$27,165	$29,138	$29,959	$31,774	$36,419	$42,036	$46,589	$55,152	$65,224	$67,364	$50,672	$45,343
55-59	1,360	3,521	2,844	1,758	1,851	12,380	13,069	13,892	12,544	7,458	6,530	1,986	79,193
	$28,242	$26,282	$27,680	$28,746	$30,917	$34,569	$40,986	$45,016	$50,683	$59,405	$70,271	$72,765	$45,315
60-64	655	1,919	1,669	1,094	1,167	7,640	7,969	8,847	7,571	5,071	2,609	2,939	49,150
	$25,207	$23,679	$25,211	$26,107	$28,637	$33,141	$39,799	$43,950	$49,439	$54,990	$63,666	$75,686	$44,087
65 +	328	1,282	1,240	765	793	4,856	4,274	3,649	3,100	2,475	1,323	1,330	25,415
	$19,156	$18,211	$18,654	$20,504	$22,048	$26,294	$34,465	$39,617	$45,268	$50,405	$55,076	$68,432	$36,767
Total	30,793	70,426	52,611	31,000	32,245	168,874	117,750	85,841	57,524	31,953	14,144	6,318	699,479
	$30,817	$32,817	$35,246	$37,215	$39,628	$42,304	$47,248	$50,852	$55,550	$60,638	$66,738	$72,991	$44,543

SECTION G

ACCOUNTING SCHEDULES

Actuarial Present Value of Future Benefits
Actuarial Valuation August 31, 2014
Based on a 5.25% Discount Rate

Present Value of Benefits Being Paid:		
1. Future Medical Claims	$	10,639,267,795
2. Future Rx Claims		11,335,260,965
3. Retiree Premiums Collected		(5,667,042,108)
4. Net Present Value of Benefits for Current Retirees	$	16,307,486,652
Present Value of Benefits Payable In the Future To Present Active Members:		
1. Future Medical Claims	$	22,589,627,235
2. Future Rx Claims		22,183,678,917
3. Retiree Premiums Collected		(10,422,453,865)
4. Net Present Value of Benefits for Future Retirees	$	34,350,852,287
Total Actuarial Present Value of Future Benefits:	$	50,658,338,939
Summary of Cost Items		
1. Actuarial Present Value of Future Benefits	$	50,658,338,939
2. Present Value of Future Normal Costs		(16,939,789,860)
3. Actuarial Accrued Liability		33,718,549,079
4. Actuarial Value of Assets		(457,940,487)
Unfunded Actuarial Accrued Liability	$	33,260,608,592

GASB STATEMENT NUMBERS 43 AND 45
Required Supplementary Information

TRS CARE CAFR Exhibit
Schedule of Funding Progress
Actuarial Valuation August 31, 2014
(Amounts Shown in Millions)

Valuation As of August 31,	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) (3) - (2)	Funding Ratio Assets as % of AAL (2) / (3)	Annual Covered Payroll	UAAL As a % of Covered Payroll (4) / (6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
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%

TRS CARE CAFR Exhibit
Schedule of Contributions From Employer(s) and Other Contributing Entities
Actuarial Valuation August 31, 2014

Annual Required Contributions ($ in 000's)

Fiscal Year Ended	GASB ARC	Actual Contributions From State	From Reporting Entities	On-behalf from Federal Government	Total	Percentage Contributed
(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 %

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 (7.73%). The ARC for FY2014 was determined by applying the Employer ARC determined in the 2013 valuation as a percentage of payroll (7.08%) to the actual payroll paid in FY 2014 ($29.1 billion).

TRS CARE CAFR Exhibit

Notes to Required Supplementary Information
Actuarial Valuation August 31, 2014

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, 2014
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 *	4.25% to 7.25%
Weighted-average at valuation date	5.55%
Payroll growth rate	3.50%
Healthcare Trend Rates *	7.50% to 4.35%
*Includes inflation at	3.0%

TRS CARE CAFR Exhibit

Analysis of Financial Experience

Actuarial Valuation August 31, 2014

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)

$ in millions

TRS CARE CAFR Exhibit

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

* 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.

TRS CARE CAFR Exhibit

Solvency Test

Actuarial Valuation August 31, 2014

	Aggregated Accrued Liabilities for				by Reported Assets		
Valuation Date at August 31,	Active Members Contributions	Retirees 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%

* 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 2012 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, 2014 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 initial trend rates were reset to 7.50% for medical and Rx. Based on the trend assumption in the prior report, the initial trend for the August 31, 2014 valuation would have been 7.25% for Medical and 7.25% for Rx. The new trend rates decrease at a slower pace compare to the prior assumption and the ultimate trend rate is reached in 2028 instead of 2022. The trend rate assumption was reset to better reflect the plan's anticipated experience.
2) Based on the plan's recent experience, the manufacturer's Rx rebate assumption was increased from 7% to 12%.
3) The morality assumption for healthy retirees was updated to match the new mortality assumption used in the August 31, 2014 pension valuation.

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
2015	7.50%	7.50%	7.50%
2016	7.25%	7.25%	7.25%
2017	7.00%	7.00%	7.00%
2018	6.75%	6.75%	6.75%
2019	6.50%	6.50%	6.50%
2020	6.25%	6.25%	6.25%
2021	6.00%	6.00%	6.00%
2022	5.75%	5.75%	5.75%
2023	5.50%	5.50%	5.50%
2024	5.25%	5.25%	5.25%
2025	5.00%	5.00%	5.00%
2026	4.75%	4.75%	4.75%
2027	4.50%	4.50%	4.50%
2028 & Beyond	4.35%	4.35%	4.35%

Trend increases are assumed to occur 8/31 of each year beginning 8/31/2015.
The premiums are assumed to increase at the weighted average increase of claims over the long term.
The ultimate trend rate was increased by 0.10% 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%	56%	40%	4%	19%	77%
20-29 years of service	68%	10%	62%	28%	10%	23%	67%
<20 years of service	55%	20%	52%	28%	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 16 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 2015 Medicare Advantage premiums were expected to be $37.51 per month. The actual cost for 2015 is $62.16 per month. As the 2015 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 2018 for TRS-Care 2 and by 2020 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
2015	73%	57%
2016	89%	68%
2017	98%	79%
2018	100%	90%
2019	100%	98%
2020 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.

85% 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 2020.

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 12% 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.

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 and mortality decrements are added to the termination decrements during the first 5 years. 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 12% 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.