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TRS–CARE RETIREE HEALTH CARE PLAN
TEACHER RETIREMENT SYSTEM OF TEXAS

ACTUARIAL VALUATION REPORT
FOR THE YEAR ENDING AUGUST 31, 2013

CELEBRATING 75 YEARS GRS 75 SINCE 1938

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November 4, 2013

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, 2013 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, 2013. 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..

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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Senior Consultant

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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, 2013

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, 2012 through August 31, 2013 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 $551 million as of August 31, 2013. ($551 million represents roughly $297 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, 2013. 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 2014 are $671 million. In addition, the State is expected to make a supplemental appropriation of approximately $36 million in fiscal year 2014. The expected net claims and expenses (net of retiree premiums) to be paid out of the trust are $848 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	$ 29,834,771	$ 20,215,381
Actuarial Value of Assets	(551,048)	(551,048)
Unfunded Actuarial Accrued Liability (PUC)	29,283,723	19,664,333
Total ARC (and annual OPEB Cost) for FYE 8/31/2014	**$ 2,357,655**	**$ 1,786,900**
Per Active Participant	$ 3,480	$ 2,637
As % of Expected Payroll	7.73%	5.86%
Estimated Net Employer Contr. for FYE 8/31/2014	**$ 671,251**	**$ 1,786,900**
Estimated Pay-as-you-go costs for FYE 8/31/2014	**$ 847,793**	**$ 847,793**

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 2014. 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, 2013

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 30% 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 2014 is $1,080 million, and this compares to the total estimated claims and expenses for FY 2014 of $1,220 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 $551 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, 2013 ($ in '000s)**					
	Claims and Expenses		Retiree		As a % of payroll
	Medical	Rx	Premiums	Grand Total	
Number of Participants Covered					
Active Participants				677,533	
Retired Participants				243,263	
Total Participants				920,796	
Expected Payroll of Active Participants for FY 2014				$30,511,387	
Actuarial Present Value of Benefits					
Active Participants	$19,886,583	$19,438,191	($9,696,953)	$29,627,821	
Retired Participants	9,088,861	10,441,627	(5,163,456)	$14,367,032	
Total Partipants	$28,975,444	$29,879,818	($14,860,409)	$43,994,853	144%
Actuarial Accrued Liability					
(Projected Unit Credit Actuarial Cost Method)					
Active Participants	$10,733,350	$9,932,573	($5,198,184)	$15,467,739	
Retired Participants	9,088,861	10,441,627	(5,163,456)	$14,367,032	
Total Participants	$19,822,211	$20,374,200	($10,361,640)	$29,834,771	98%
Actuarial Value of Assets				(551,048)	
Unfunded Actuarial Accrued Liability (PUC)				$29,283,723	96%
Annual Required Contribution for YE 8/31/2013					
(Projected Unit Credit Actuarial Cost Method)					
Normal Cost				$1,094,111	3.59%
Amortization of UAAL (30 year, 3.5% payroll growth)				1,263,544	4.14%
Total ARC (and annual OPEB Cost) for FYE 8/31/2014				**$2,357,655**	**7.73%**
Per Active Participant (not in '000s)				$3,480	
Estimated Net Employer Contr. for FYE 8/31/2014					
(current policy)					
Local Employers (0.55% of payroll)				167,813	0.55%
Active Employees (0.65% of payroll)				198,324	0.65%
State Contributions (0.50% of payroll)				305,114	1.00%
Total Estimated Contributions				**$671,251**	**2.20%**
Estimated Cash Flows for FYE 8/31/2014					
(pay as you go costs under GASB 45)					
Active Participants	$23,558	$8,186	($8,666)	$23,078	0.08%
Retired Participants	725,407	463,323	(364,015)	$824,715	2.70%
Total pay as you go costs	$748,965	$471,509	($372,681)	**$847,793**	**2.78%**

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 2014.

As disclosed on page 38, the ARC for Fiscal Year 2013 was set in last year's valuation and was determined by taking the ARC as a percentage of payroll from the 2012 valuation (6.82%) and applying that to the actual payroll for fiscal year 2013, producing an ARC for Fiscal Year 2013 of $1,898 million.

The Employer ARC under GASB 43 is the Total ARC of 7.73% shown above less the 0.65% Active Employee Contribution rate, or 7.08%. This translates to an estimated Employer ARC for FYE 8/31/2014 of $2,160 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)
2014	$ 748,965	$ 471,509	$ 1,220,474	$ (372,681)	$ 847,793	$ 2,357,655
2015	796,289	536,824	1,333,113	(399,465)	933,648	2,480,128
2016	875,624	615,252	1,490,876	(434,831)	1,056,045	2,593,618
2017	965,115	699,755	1,664,870	(470,759)	1,194,111	2,708,583
2018	1,063,025	792,454	1,855,479	(509,987)	1,345,492	2,823,481
2019	1,167,170	897,393	2,064,563	(552,364)	1,512,199	2,937,515
2020	1,263,400	1,008,820	2,272,220	(605,997)	1,666,223	3,049,828
2021	1,336,959	1,102,771	2,439,730	(656,947)	1,782,783	3,163,988
2022	1,396,350	1,179,995	2,576,345	(685,648)	1,890,697	3,280,257
2023	1,446,156	1,245,823	2,691,979	(709,256)	1,982,723	3,398,420

* 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, 2013

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 5.75%. 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 $29.8 billion to $20.2 billion and the annual expense from $2.4 billion to $1.8 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 advanced funded Plan using an 8.00% investment return assumption OPEB ACTUARIAL VALUATION RESULTS as of August 31, 2013 ($ in '000s)					
	Claims and Expenses		Retiree		As a % of payroll
	Medical	Rx	Premiums	Grand Total	
Number of Participants Covered					
Active Participants				677,533	
Retired Participants				243,263	
Total Participants				920,796	
Expected Payroll of Active Participants for FY 2014				$30,511,387	
Actuarial Present Value of Benefits					
Active Participants	$11,384,373	$9,741,380	($5,269,879)	$15,855,874	
Retired Participants	7,219,045	7,846,461	(4,068,782)	$10,996,724	
Total Partipants	$18,603,418	$17,587,841	($9,338,661)	$26,852,598	88%
Actuarial Accrued Liability					
(Projected Unit Credit Actuarial Cost Method)					
Active Participants	$6,809,494	$5,560,818	($3,151,655)	$9,218,657	
Retired Participants	7,219,045	7,846,461	(4,068,782)	$10,996,724	
Total Participants	$14,028,539	$13,407,279	($7,220,437)	$20,215,381	66%
Actuarial Value of Assets				(551,048)	
Unfunded Actuarial Accrued Liability (PUC)				$19,664,333	64%
Annual Required Contribution for YE 8/31/2014					
(Projected Unit Credit Actuarial Cost Method)					
Normal Cost				$606,318	1.99%
Amortization of UAAL (30 year, 3.5% payroll growth)				1,180,582	3.87%
Total ARC (and annual OPEB Cost) for FYE 8/31/2014				**$1,786,900**	**5.86%**
Per Active Participant (not in '000s)				$2,637	
Estimated Net Employer Contr. for FYE 8/31/2014					
(current policy)					
Local Employers *					
Active Employees *					
State Contributions *					
Total Estimated Contributions				**$1,786,900**	**5.86%**
Estimated Cash Flows for FYE 8/31/2014					
(pay as you go costs under GASB 45)					
Active Participants	$23,558	$8,186	($8,666)	$23,078	0.08%
Retired Participants	725,407	463,323	(364,015)	$824,715	2.70%
Total pay as you go costs	$748,965	$471,509	($372,681)	**$847,793**	**2.78%**

* 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 $939 million for FY 2014, or 3.08% 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 2023 is $417 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)
2014	$ 748,965	$ 471,509	$ 1,220,474	$ (372,681)	$ 847,793	$ 1,786,900
2015	796,289	536,824	1,333,113	(399,465)	933,648	1,858,337
2016	875,624	615,252	1,490,876	(434,831)	1,056,045	1,919,953
2017	965,115	699,755	1,664,870	(470,759)	1,194,111	1,983,428
2018	1,063,025	792,454	1,855,479	(509,987)	1,345,492	2,048,184
2019	1,167,170	897,393	2,064,563	(552,364)	1,512,199	2,114,065
2020	1,263,400	1,008,820	2,272,220	(605,997)	1,666,223	2,181,012
2021	1,336,959	1,102,771	2,439,730	(656,947)	1,782,783	2,251,684
2022	1,396,350	1,179,995	2,576,345	(685,648)	1,890,697	2,324,933
2023	1,446,156	1,245,823	2,691,979	(709,256)	1,982,723	2,400,211

* 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, 2013 ($ in '000s)

	Grand Total		
	Pessimistic Assumptions	**Intermediate Assumptions**	**Optimistic Assumptions**
Actuarial Present Value of Benefits			
Active Participants	$38,229,089	$29,627,821	$23,294,948
Retired Participants	$16,152,244	$14,367,032	$13,077,318
Total Partipants	$54,381,333	$43,994,853	$36,372,266
As a % of payroll	178 %	144 %	119 %
Actuarial Accrued Liability			
(Projected Unit Credit Actuarial Cost Method)			
Active Participants	$19,073,553	$15,467,739	$12,692,311
Retired Participants	$16,152,244	$14,367,032	$13,077,318
Total Participants	$35,225,797	$29,834,771	$25,769,629
As a % of payroll	115 %	98 %	84 %
Actuarial Value of Assets	($551,048)	($551,048)	($551,048)
Unfunded Actuarial Accrued Liability (PUC)	$34,674,749	$29,283,723	$25,218,581
As a % of payroll	114 %	96 %	83 %
Annual Required Contribution for FYE 8/31/2014			
(Projected Unit Credit Actuarial Cost Method)			
Normal Cost	$1,398,172	$1,094,111	$867,954
As a % of payroll	4.58 %	3.59 %	2.84 %
Amortization of UAAL (30 year, 3.5% payroll growth)	1,496,158	1,263,544	1,088,140
As a % of payroll	4.90 %	4.14 %	3.57 %
Total ARC (and annual OPEB Cost) for FYE 8/31/2014	**$2,894,330**	**$2,357,655**	**$1,956,094**
As a % of payroll	9.49 %	7.73 %	6.41 %
Per Active Participant (not in '000s)	$4,272	$3,480	$2,887

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**
2014	8.50 %	7.50 %	6.50 %
2015	8.25	7.25	6.25
2016	8.00	7.00	6.00
2017	7.75	6.75	5.75
2018	7.50	6.50	5.50
2019	7.00	6.00	5.00
2020	6.50	5.50	4.50
2021	6.00	5.00	4.00
2022	5.50	4.50	3.50
2023	5.35	4.35	3.35
2024	5.35	4.35	3.35
2025	5.35	4.35	3.35
2026	5.35	4.35	3.35
2027	5.35	4.35	3.35
2028	5.35	4.35	3.35
2029 & Later	5.35	4.35	3.35

Year	Prescription Drugs		
	Pessimistic	**Intermediate**	**Optimistic**
2014	8.50 %	7.50 %	6.50 %
2015	8.25	7.25	6.25
2016	8.00	7.00	6.00
2017	7.75	6.75	5.75
2018	7.50	6.50	5.50
2019	7.00	6.00	5.00
2020	6.50	5.50	4.50
2021	6.00	5.00	4.00
2022	5.50	4.50	3.50
2023	5.35	4.35	3.35
2024	5.35	4.35	3.35
2025	5.35	4.35	3.35
2026	5.35	4.35	3.35
2027	5.35	4.35	3.35
2028	5.35	4.35	3.35
2029 & 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, 2013

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, 2013 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, 2014 for a sample of ages under TRS-CARE 3:

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2014)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$735.80	$775.51	$231.02	$241.53	$1,569.15	$1,737.91	$586.49	$747.90
57	$764.02	$777.53	$237.45	$243.96	$1,569.15	$1,737.91	$586.49	$747.90
60	$808.41	$780.57	$246.18	$247.62	$1,569.15	$1,737.91	$586.49	$747.90
62	$839.42	$782.60	$251.38	$250.05	$1,569.15	$1,737.91	$586.49	$747.90
64	$871.62	$784.63	$256.09	$252.47	$1,569.15	$1,737.91	$586.49	$747.90

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2014)								
	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	$109.30	$98.05	$258.26	$253.68	$353.62	$317.21	$258.26	$253.68
70	$130.97	$115.77	$267.26	$259.65	$423.73	$374.55	$267.26	$259.65
75	$148.55	$129.75	$273.18	$265.55	$480.60	$419.78	$273.18	$265.55
80	$162.04	$139.99	$276.02	$271.36	$524.24	$452.90	$276.02	$271.36
85	$171.43	$146.48	$276.30	$277.09	$554.63	$473.90	$276.30	$277.09
90	$175.11	$148.58	$276.30	$277.09	$566.51	$480.69	$276.30	$277.09

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.

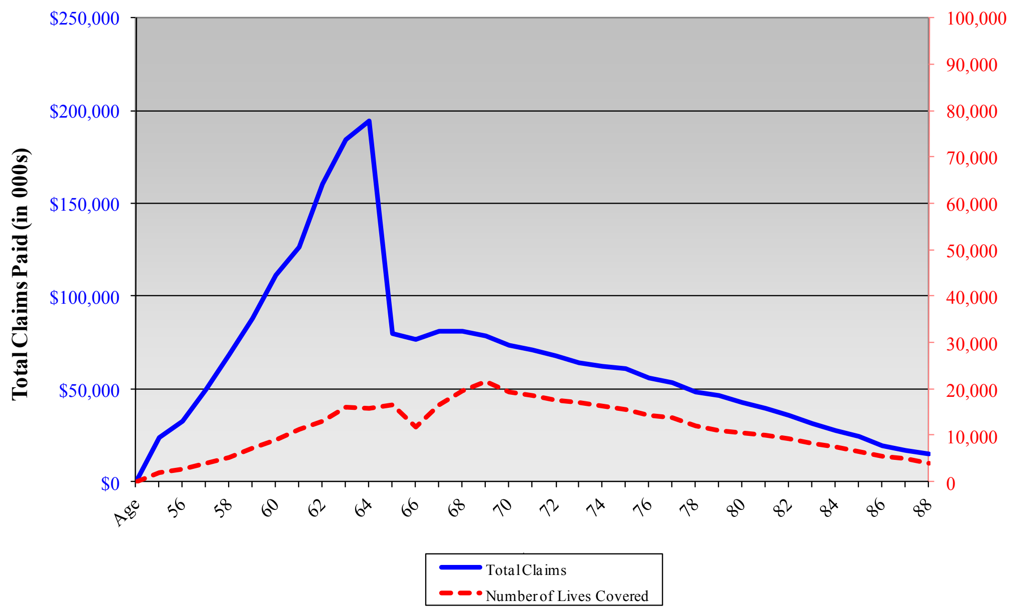
Disabled retirees demonstrated substantially different Baseline Costs, as compared to non-disabled retirees. This, of course is to be expected. Additionally, the pattern of costs by age differs significantly, as compared to non-disabled retirees.

Methodology

Gather Data

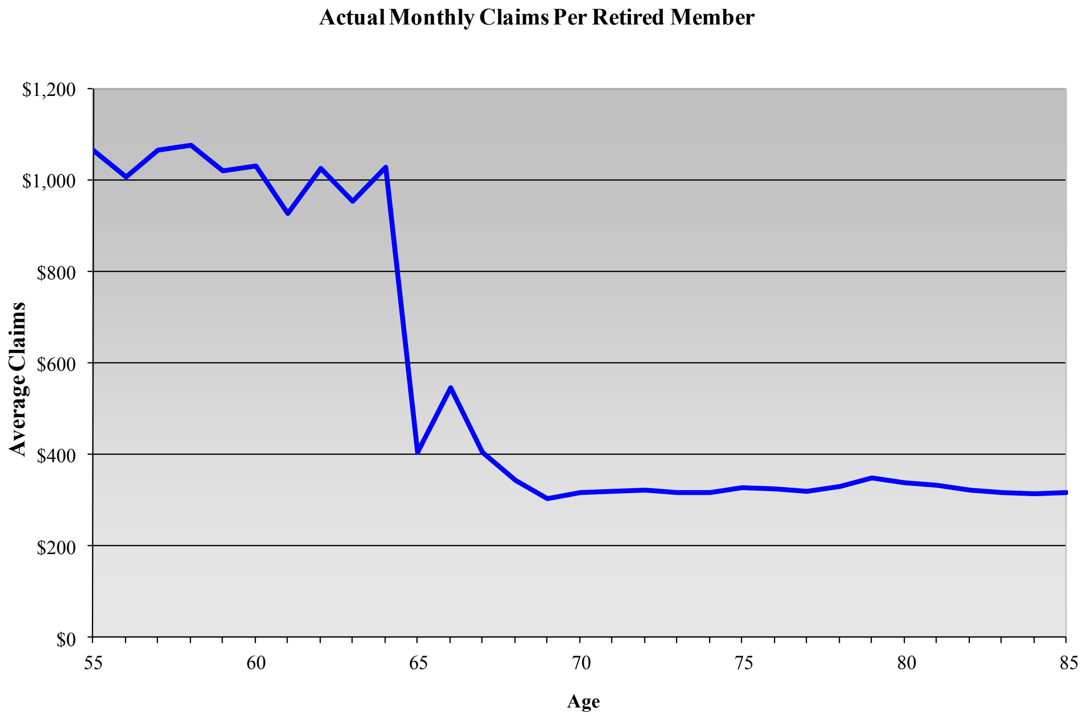
The first step in determining the expected claims for the population was to gather claims data. Paid claims data for medical and pharmacy were analyzed by age and sex. The following graph shows the total paid claims for the period September 1, 2009 through August 31, 2013 by age, along with the number of lives covered over the same period for members in TRS-Care 3.

Total Claims Paid Compared to Number of Retiree Lives Covered, by Age
($ in '000s)



Clearly, the total claims before age 65 are considerably higher than the total claims 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.



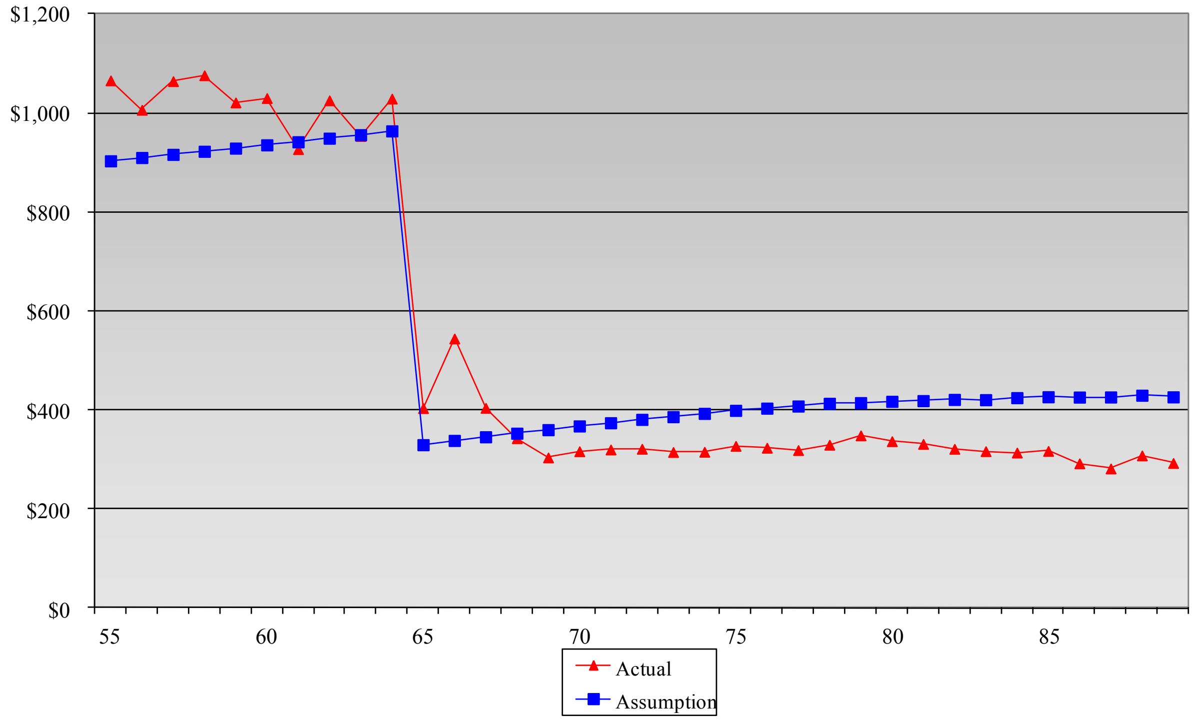
These two graphs show a need to model the increasing claims cost by age in the valuation. This is consistent with other health care experience. This assumption is referred to as the aging factor table. However, the aging experience for TRS-CARE is substantially less impactful when compared to other healthcare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

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.

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 2014	$11.51	$9.66	$11.54	$18.88	$15.63	$18.82	$23.57	$20.32	$23.51
Prescription Drugs									
FY 2014	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 08/31/2014

The claims data represented the period beginning September 1, 2010 and ending August 31, 2013. The actuarial valuation uses the expected claims that will be paid in the year beginning September 1, 2013 and ending August 31, 2014. Therefore, the claims need to be increased by trend. The trend rate used to project the FY 2011 thru FY 2013 claims forward to FY 2014 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 2014)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$340.83	$359.23	NA	NA	$529.24	$649.61	NA	NA
57	$353.91	$360.16	NA	NA	$529.24	$649.61	NA	NA
60	$374.46	$361.57	NA	NA	$529.24	$649.61	NA	NA
62	$388.83	$362.51	NA	NA	$529.24	$649.61	NA	NA
64	$403.74	$363.45	NA	NA	$529.24	$649.61	NA	NA

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2014)								
	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	$49.17	$44.10	NA	NA	$55.84	$50.09	NA	NA
70	$58.91	$52.08	NA	NA	$66.91	$59.14	NA	NA
75	$66.82	$58.36	NA	NA	$75.89	$66.29	NA	NA
80	$72.89	$62.97	NA	NA	$82.78	$71.52	NA	NA
85	$77.11	$65.89	NA	NA	$87.58	$74.83	NA	NA
90	$78.77	$66.83	NA	NA	$89.46	$75.91	NA	NA

TRS-Care 2

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2014)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$521.81	$549.97	$129.65	$135.55	$1,400.45	$1,309.38	$327.53	$497.02
57	$541.83	$551.40	$133.26	$136.91	$1,400.45	$1,309.38	$327.53	$497.02
60	$573.30	$553.56	$138.16	$138.97	$1,400.45	$1,309.38	$327.53	$497.02
62	$595.29	$555.00	$141.07	$140.33	$1,400.45	$1,309.38	$327.53	$497.02
64	$618.13	$556.44	$143.72	$141.69	$1,400.45	$1,309.38	$327.53	$497.02

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2014)								
	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	$73.82	$66.22	$144.94	$142.37	$241.46	$216.60	$144.94	$142.37
70	$88.46	$78.19	$149.99	$145.72	$289.33	$255.75	$149.99	$145.72
75	$100.33	$87.64	$153.31	$149.03	$328.17	$286.63	$153.31	$149.03
80	$109.44	$94.55	$154.91	$152.29	$357.96	$309.25	$154.91	$152.29
85	$115.79	$98.94	$155.06	$155.51	$378.72	$323.59	$155.06	$155.51
90	$118.27	$100.35	$155.06	$155.51	$386.83	$328.23	$155.06	$155.51

TRS-Care 3

Baseline Costs for Pre65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2014)								
	Healthy Retirees				Disabled Retirees			
	Medical Coverage		Prescription Drug Coverage		Medical Coverage		Prescription Drug Coverage	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$735.80	$775.51	$231.02	$241.53	$1,569.15	$1,737.91	$586.49	$747.90
57	$764.02	$777.53	$237.45	$243.96	$1,569.15	$1,737.91	$586.49	$747.90
60	$808.41	$780.57	$246.18	$247.62	$1,569.15	$1,737.91	$586.49	$747.90
62	$839.42	$782.60	$251.38	$250.05	$1,569.15	$1,737.91	$586.49	$747.90
64	$871.62	$784.63	$256.09	$252.47	$1,569.15	$1,737.91	$586.49	$747.90

Baseline Costs for Post65 Retirees and Spouses (Expected Monthly Per Capita Costs for Fiscal 2014)								
	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	$109.30	$98.05	$258.26	$253.68	$353.62	$317.21	$258.26	$253.68
70	$130.97	$115.77	$267.26	$259.65	$423.73	$374.55	$267.26	$259.65
75	$148.55	$129.75	$273.18	$265.55	$480.60	$419.78	$273.18	$265.55
80	$162.04	$139.99	$276.02	$271.36	$524.24	$452.90	$276.02	$271.36
85	$171.43	$146.48	$276.30	$277.09	$554.63	$473.90	$276.30	$277.09
90	$175.11	$148.58	$276.30	$277.09	$566.51	$480.69	$276.30	$277.09

Children

Baseline Costs for Children (Expected Monthly Per Capita Costs for Fiscal 2014)				
	Medical Coverage		Prescription Drug Coverage	
Tier	Male	Female	Male	Female
1	$96.78	$96.78	NA	NA
2	$137.21	$137.21	$41.03	$41.03
3	$201.72	$201.72	$68.77	$68.77

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, 2013

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

Summary of Plan Changes

1. Non-grandfathered employees (those who are more than 5 years away from TRS-Care eligibility as of 8/31/2014) must be at least 62 years old to participate in TRS-Care 2 and TRS-Care 3.
2. The normal retirement age was increased to age 62, with the Rule of 80, and at least five years of service credit for all members who are not vested as of August 31, 2014.

TRS-Care Benefit Levels
September 1, 2013 – August 31, 2014

Plan	Deductible		Coinsurance Limit		Maximum Out-of-Pocket	
	Individual	Family	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	$3,000	$6,000	$4800	$9,600
Retirees or Surviving Spouses not enrolled in Medicare Part A but eligible for Part B	$3,000	$6,000	$3,000	$6,000	$6,000	$12,000
Retirees or Surviving Spouses not eligible for Medicare	$4,000	$8,000	$3,000	$6,000	$7,000	$14,000
TRS-Care 2						
All	$1,000	$2,000	$3,000	$6,000	$4,000	$8,000
TRS-Care 3						
All	$300	$600	$3,000	$6,000	$3,300	$6,600
Aetna Medicare Advantage Care 2						
All	$500	N/A	$3,000	N/A	$3,500	N/A
Aetna Medicare Advantage Care 3						
All	$150	N/A	$3,000	N/A	$3,150	N/A

TRS-Care Monthly Retiree Premium Rates Effective September 1, 2013

	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, 2013

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, 2013

	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	1	4	23				304	3,747	3,120	305	3,751	3,143	7,199
25-29		5	12				59	811	832	59	816	844	1,719
30-34	2	4	11				1	19	61	3	23	72	98
35-39	5	8	16				1	15	44	6	23	60	89
40-44	14	32	42	1	8	3		3	34	15	43	79	137
45-49	55	90	134	1	11	7	1	2	28	57	103	169	329
50-54	312	1,702	1,006	40	443	130			9	352	2,145	1,145	3,642
55-59	1,250	8,848	5,912	160	2,555	982	1	1	12	1,411	11,404	6,906	19,721
60-64	3,341	16,243	17,362	401	4,811	3,354			4	3,742	21,054	20,720	45,516
65-69	4,189	7,460	32,498	429	2,591	7,956			3	4,618	10,051	40,457	55,126
70-74	4,830	2,419	27,052	388	813	6,507				5,218	3,232	33,559	42,009
75-79	5,334	666	19,579	322	200	3,892				5,656	866	23,471	29,993
80-84	4,650	197	13,268	156	43	1,946				4,806	240	15,214	20,260
85-89	2,726	61	7,576	50	9	745				2,776	70	8,321	11,167
90-94	1,499	23	3,030	12	1	136				1,511	24	3,166	4,701
95-99	515	10	771	2	1	27				517	11	798	1,326
Over 100	91	1	139							91	1	139	231
Total	**28,814**	**37,773**	**128,431**	**1,962**	**11,486**	**25,685**	**367**	**4,598**	**4,147**	**31,143**	**53,857**	**158,263**	**243,263**
			195,018			**39,133**			**9,112**				

*Surviving spouses are included in the retiree counts.

Estimated Medical Costs for Retirees and Beneficiaries by Age and Plan as of September 1, 2013

	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	$4,090	$25,724	$208,326				$342,347	$5,981,364	$7,331,547	$346,437	$6,007,088	$7,539,873
25-29		41,099	107,864				57,002	1,116,429	1,677,469	57,002	1,157,528	1,785,333
30-34	10,662	34,182	142,608				1,157	30,320	143,381	11,819	64,502	285,989
35-39	33,826	98,365	239,860				1,157	24,012	102,886	34,983	122,377	342,746
40-44	81,412	452,922	736,721	4,090	50,887	26,966		4,752	79,637	85,502	508,561	843,324
45-49	359,034	1,236,213	2,318,665	4,311	69,885	63,738	1,098	3,112	65,171	364,443	1,309,210	2,447,574
50-54	1,573,507	12,867,937	12,367,428	169,492	2,811,507	1,116,977			21,207	1,742,999	15,679,444	13,505,612
55-59	5,961,913	60,827,450	60,097,804	672,897	16,141,696	8,499,633	1,160	1,682	28,379	6,635,970	76,970,828	68,625,816
60-64	15,163,927	110,031,517	167,380,226	1,383,744	25,267,424	21,567,829			10,088	16,547,671	135,298,941	188,958,143
65-69	3,159,766	9,066,689	35,982,339	789,371	6,576,851	16,153,091				3,949,137	15,643,540	52,135,430
70-74	3,525,128	2,028,007	26,654,128	446,585	1,248,981	7,858,224				3,971,713	3,276,988	34,512,352
75-79	4,229,793	623,966	20,590,293	302,309	247,907	4,069,476				4,532,102	871,873	24,659,769
80-84	3,903,858	220,926	14,727,140	142,988	50,701	2,045,319				4,046,846	271,627	16,772,459
85-89	2,328,552	82,722	8,494,105	45,690	12,432	931,427				2,374,242	95,154	9,425,532
90-94	1,272,839	26,008	3,233,642	10,693	666	146,737				1,283,532	26,674	3,380,379
95-99	431,372	13,255	775,258	1,725	667	31,811				433,097	13,922	807,069
Over 100	77,793	677	165,396							77,793	677	165,396
Total	**$42,117,472**	**$197,677,659**	**$354,221,803**	**$3,973,895**	**$52,479,604**	**$62,511,228**	**$403,921**	**$7,161,671**	**$9,459,765**	**$46,495,288**	**$257,318,934**	**$426,192,796**
			$594,016,934			**$118,964,727**			**$17,025,357**			**$730,007,018**

Estimated Prescription Drug Costs for Retirees and Beneficiaries by Age and Plan as of September 1, 2013

	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		$6,366	$65,142					$1,750,137	$2,444,835		$1,756,503	$2,509,977
25-29		12,259	33,768					326,732	559,454		338,991	593,222
30-34		10,455	51,808					8,872	47,811		19,327	99,619
35-39		34,701	94,606					7,023	34,334		41,724	128,940
40-44		154,514	298,481		12,596	8,422		1,392	26,569		168,502	333,472
45-49		412,287	936,919		17,316	19,848		914	21,763		430,517	978,530
50-54		3,484,433	4,475,616		706,711	363,941			7,069		4,191,144	4,846,626
55-59		15,475,272	19,821,456		4,142,105	2,804,982		482	9,448		19,617,859	22,635,886
60-64		28,409,299	55,138,498		7,741,996	9,129,851			3,292		36,151,295	64,271,641
65-69		10,359,815	72,990,496		3,712,824	19,016,401					14,072,639	92,006,897
70-74		3,103,377	61,681,937		1,107,015	15,331,097					4,210,392	77,013,034
75-79		872,663	45,625,342		267,673	9,195,140					1,140,336	54,820,482
80-84		261,800	31,453,559		57,418	4,618,782					319,218	36,072,341
85-89		82,001	18,136,898		11,897	1,784,265					93,898	19,921,163
90-94		31,061	7,255,951		1,347	324,697					32,408	7,580,648
95-99		13,399	1,846,188		1,347	65,296					14,746	1,911,484
Over 100		1,353	332,931								1,353	332,931
Total		**$62,725,055**	**$320,239,596**		**$17,780,245**	**$62,662,722**		**$2,095,552**	**$3,154,575**		**$82,600,852**	**$386,056,893**
			$382,964,651			**$80,442,967**			**$5,250,127**			**$468,657,745**

Estimated Premiums Collected from Retirees and Beneficiaries by Age and Plans as of September 1, 2013

	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		$9,720	$82,140				$102,144	$2,787,768	$3,070,080	$102,144	$2,797,488	$3,152,220
25-29		12,000	42,660				17,136	520,707	702,904	17,136	532,707	745,564
30-34		9,615	39,660				336	14,136	60,024	336	23,751	99,684
35-39		20,160	58,620				336	11,160	43,296	336	31,320	101,916
40-44		80,640	155,700	1,680	23,040	12,780		2,232	33,456	1,680	105,912	201,936
45-49		221,280	488,940	1,680	31,080	28,920	336	1,488	27,552	2,016	253,848	545,412
50-54		4,018,920	3,537,120	67,200	1,186,499	506,497			8,856	67,200	5,205,419	4,052,473
55-59		20,738,280	20,426,100	258,867	6,668,028	3,693,951	336	744	11,808	259,203	27,407,052	24,131,859
60-64		37,920,976	58,806,392	527,753	11,098,858	10,485,117			3,936	527,753	49,019,834	69,295,445
65-69		7,517,871	40,398,825	318,108	4,230,264	15,975,980				318,108	11,748,135	56,374,805
70-74		2,024,425	31,482,925	199,020	1,109,754	11,558,076				199,020	3,134,179	43,041,001
75-79		558,749	22,529,964	119,704	252,652	6,685,957				119,704	811,401	29,215,921
80-84		171,697	15,203,928	52,440	53,507	3,318,421				52,440	225,204	18,522,349
85-89		57,301	8,673,552	15,420	11,734	1,310,753				15,420	69,035	9,984,305
90-94		20,351	3,422,940	3,540	1,084	232,710				3,540	21,435	3,655,650
95-99		9,498	855,624	480	1,032	46,992				480	10,530	902,616
Over 100		722	160,548								722	160,548
Total		**$73,392,205**	**$206,365,638**	**$1,565,892**	**$24,667,532**	**$53,856,154**	**$120,624**	**$3,338,235**	**$3,961,912**	**$1,686,516**	**$101,397,972**	**$264,183,704**
			$279,757,843			**$80,089,578**			**$7,420,771**			**$367,268,192**

Distribution of Active Members by Age and by Years of Service
As of 08/31/2013

	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 Age	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	5,787	7,908	2,214	738	429	195							17,271
	$31,010	$33,699	$33,272	$23,915	$29,528	$24,084							$32,113
25-29	6,094	14,262	9,356	10,008	8,343	13,513	77						61,653
	$33,458	$38,318	$41,530	$44,553	$45,178	$44,589	$33,553						$41,634
30-34	4,121	8,697	4,964	5,860	6,607	41,622	8,301	96					80,268
	$30,854	$33,277	$35,985	$40,334	$43,193	$48,023	$49,834	$39,115					$44,017
35-39	3,679	7,377	4,060	4,359	4,575	27,579	27,302	6,115	62				85,108
	$28,978	$31,388	$32,707	$36,534	$38,958	$44,616	$53,651	$55,481	$42,974				$45,185
40-44	3,073	7,007	4,097	4,269	4,732	25,924	20,715	21,686	5,072	60			96,635
	$27,332	$29,244	$30,935	$34,443	$35,752	$40,561	$49,020	$57,897	$58,816	$46,085			$45,071
45-49	2,539	5,497	3,359	3,469	3,808	22,067	17,643	14,388	15,535	4,151	85		92,541
	$27,265	$27,140	$28,672	$31,601	$33,740	$36,887	$43,014	$51,057	$61,012	$60,520	$50,431		$43,912
50-54	1,887	4,395	2,595	2,873	3,003	18,505	17,122	15,032	12,291	12,808	3,429	60	94,000
	$27,985	$25,956	$27,187	$29,625	$32,098	$35,359	$40,918	$45,857	$54,093	$64,035	$65,795	$49,685	$44,434
55-59	1,302	3,138	1,812	1,878	1,982	12,996	13,168	13,632	12,125	7,167	6,331	1,860	77,391
	$27,389	$23,681	$25,487	$28,639	$30,672	$33,930	$40,253	$44,450	$50,052	$58,449	$69,359	$71,311	$44,517
60-64	626	1,773	1,100	1,194	1,228	7,912	7,924	8,567	7,158	4,691	2,507	2,525	47,205
	$24,453	$21,850	$24,081	$26,117	$28,622	$32,539	$38,839	$43,647	$48,944	$54,319	$62,411	$74,000	$43,099
65 +	313	1,307	740	756	797	4,771	4,009	3,306	2,850	2,232	1,052	1,132	23,265
	$18,611	$15,630	$18,139	$20,110	$22,122	$25,498	$33,357	$38,712	$44,722	$49,502	$54,375	$66,214	$35,503
Total	29,421	62,606	34,933	35,719	35,504	175,084	116,261	82,822	55,093	31,109	13,404	5,577	677,533
	$29,908	$31,556	$33,710	$36,806	$38,329	$40,988	$45,824	$49,870	$54,423	$59,737	$65,852	$71,261	$43,510

SECTION G

ACCOUNTING SCHEDULES

TRS CARE CAFR Exhibit

Actuarial Present Value of Future Benefits

Actuarial Valuation August 31, 2013

Based on a 5.25% Discount Rate

Present Value of Benefits Being Paid:		
1. Future Medical Claims	$	9,088,861,049
2. Future Rx Claims		10,441,627,210
3. Retiree Premiums Collected		(5,163,456,140)
4. Net Present Value of Benefits for Current Retirees	$	14,367,032,119
Present Value of Benefits Payable In the Future To Present Active Members:		
1. Future Medical Claims	$	19,886,583,108
2. Future Rx Claims		19,438,190,636
3. Retiree Premiums Collected		(9,696,952,532)
4. Net Present Value of Benefits for Future Retirees	$	29,627,821,212
Total Actuarial Present Value of Future Benefits:	$	43,994,853,331
Summary of Cost Items		
1. Actuarial Present Value of Future Benefits	$	43,994,853,331
2. Present Value of Future Normal Costs		(14,160,082,069)
3. Actuarial Accrued Liability		29,834,771,262
4. Actuarial Value of Assets		(551,048,281)
Unfunded Actuarial Accrued Liability	$	29,283,722,981

GASB STATEMENT NUMBERS 43 AND 45
Required Supplementary Information

TRS CARE CAFR Exhibit
Schedule of Funding Progress
Actuarial Valuation August 31, 2013
(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%

TRS CARE CAFR Exhibit
Schedule of Contributions From Employer(s) and Other Contributing Entities
Actuarial Valuation August 31, 2013

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 %

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 (7.47%). The ARC for FY2013 was determined by applying the Employer ARC determined in the 2012 valuation as a percentage of payroll (6.82%) to the actual payroll paid in FY 2013 ($27.8 billion).

TRS CARE CAFR Exhibit

Notes to Required Supplementary Information
Actuarial Valuation August 31, 2013

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, 2013
Actuarial cost method	Projected Unit Credit
Amortization method	Level percent, open
Remaining 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	5.62%
Payroll growth rate	3.50%
Healthcare Trend Rates *	7.50% to 4.35%
*Includes inflation at	3.0%

TRS CARE CAFR Exhibit
Solvency Test
Actuarial Valuation August 31, 2013

	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%

* Active member contributions are non-refundable

TRS CARE CAFR Exhibit
Analysis of Financial Experience
Actuarial Valuation August 31, 2013

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)

$ in millions

TRS CARE CAFR Exhibit
Schedule of Retirants and Beneficiaries Added and Removed from Rolls
Actuarial Valuation August 31, 2013

	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

* 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.

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, 2013 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 equal 7.5% for medical and Rx. Based on the trend assumption in the prior report, the initial trend for the August 31, 2013 valuation would have been 9.00% for Medical and 8.50% for Rx. Although the initial rates are now lower, the rates decrease at a slower pace compare to the prior assumption and the ultimate trend rate is reached in 2022 instead of 2021.
2) The Rx savings associated with the EGWP-Wrap plan were adjusted and are now assumed to wear-away by 2020. In the prior valuation, there was no wear-away assumption.
3) The percentages related to the health plan elections (TRS-Care 1, TRS-Care 2, or TRS-Care 3) were updated based on the plan's recent experience. The new rates reflect higher TRS-Care 2 elections (lower TRS-Care 3 elections) than the prior assumption.
4) For retired participants, the percentage of TRS-Care 2 non-Medicare retirees who switch to TRS-Care 3 at age 65 was decreased from 75% to 70%.
5) The percentage of future TRS-Care 1 participants who have a spouse covered under the health plan was decreased from 15% to 10%.
6) Children who are over the age of 26 as of the valuation date are now assumed to keep their coverage until they reach the age of 65.
7) 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.

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
2014	7.50%	7.50%	7.50%
2015	7.25%	7.25%	7.25%
2016	7.00%	7.00%	7.00%
2017	6.75%	6.75%	6.75%
2018	6.50%	6.50%	6.50%
2019	6.00%	6.00%	6.00%
2020	5.50%	5.50%	5.50%
2021	5.00%	5.00%	5.00%
2021 & Beyond	4.35%	4.35%	4.35%

Trend increases are assumed to occur 8/31 of each year beginning 8/31/2014.
The premiums are assumed to increase at the weighted average increase of claims over the long term.

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%	55%	41%	4%	19%	77%
20-29 years of service	68%	10%	61%	29%	10%	23%	67%
<20 years of service	55%	20%	51%	29%	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 17 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 70% 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.

Aetna Medicare Advantage Participation and Savings:

Effective January 1, 2013, 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 2014 Medicare Advantage premiums were expected to be $0.00 per month. The actual cost for 2014 will be $34.97 per month. As the 2014 experience shows, the future growth to the Aetna 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 of 7.5% in 2015 and at a rate which is 2.5% less than the medical trend assumption shown on page 44 after 2015. 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 24 and 25:

Fiscal Year	TRS-Care 2	TRS-Care 3
2014	50%	42%
2015	60%	49%
2016	69%	56%
2017	83%	68%
2018	96%	79%
2019	100%	90%
2020	100%	98%
2021 and later	100%	100%

Express Scripts EGWP-Wrap Rx Participation and Savings:

Effective January 1, 2013, 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 ($2,930 for 2012) to the catastrophic coverage limit ($6,658 for 2012). 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 7% 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 7% 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 prior to 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.