GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

TEACHER RETIREMENT SYSTEM OF TEXAS

ACTUARIAL VALUATION REPORT
FOR THE YEAR ENDING AUGUST 31, 2014

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November 12, 2014

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

Subject: Actuary's Certification of the Actuarial Valuation as of August 31, 2014

We certify that the information included herein and contained in the 2014 Actuarial Valuation Report is accurate and fairly presents the actuarial position of the Teacher Retirement System of Texas (TRS) as of August 31, 2014.

All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, the results presented comply with the requirements of the Texas statutes and, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries. Mr. White and Mr. Newton are Enrolled Actuaries, members of the American Academy of Actuaries and are qualified to give a Statement of Opinion. All are experienced in performing valuations for large public retirement systems.

Actuarial Valuations

The primary purpose of the valuation report is to determine the adequacy of the current State contribution rate through measuring the resulting funding period, to describe the current financial condition of the System, and to analyze changes in the System's condition. In addition, the report provides various summaries of the data. The information required by the System in connection with Governmental Accounting Standards Board Statement No. 67 (GASB No. 67) will be provided under separate cover. However, for the fiscal year ending August 31, 2014, we continue to provide the GASB No. 27 information needed for the State to complete its financial statements.

Valuations are prepared annually, as of August 31 of each year, the last day of the System's plan and fiscal year.

Financing Objective of the Plan

The employee and State contribution rates are established by Law that, over time, are intended to remain level as a percent of payroll. The actuarially determined contribution rates determined in this actuarial valuation are intended to provide for the normal cost plus the level percentage of payroll required to amortize the unfunded actuarial accrued liability over a period not in excess of 30 years.

Progress Toward Realization of Financing Objective

The actuarial accrued liability, the unfunded actuarial accrued liability (UAAL), and the calculation of the resulting funding period illustrate the progress toward the realization of financing objectives. Based on this actuarial valuation as of August 31, 2014, the System's under-funded status has increased to $31.6 billion from $28.9 billion as of August 31, 2013. The System's UAAL was expected to increase from the prior year based on the deferral of investment losses from prior valuations and the future increases in contributions not being effective for this fiscal year. For example, if the fiscal year 2017 contribution rates would have been effective during fiscal year 2014, the UAAL in this valuation would have been $0.8 billion less. In addition, the UAAL increased due to a change in the actuarial assumption regarding the mortality of current and future healthy retirees and beneficiaries, and the System also experienced a loss due to demographic experience. These losses were partially offset by gains on the actuarial value of assets resulting from the favorable investment performance fiscal year 2014.

This valuation shows a normal cost equal to 10.43% of pay. The State set its contribution rate to 6.80% for fiscal year 2015. In addition, covered employers whose employees are not participating in Social Security will begin contributing 1.50% of the minimum salary schedule beginning in fiscal year 2015. Combined it is expected that these contributions will be approximately 7.76% of total payroll. The member contribution rate will also increase beginning in fiscal year 2015 to 6.7% of pay and will continue to increase to 7.20% of pay in fiscal year 2016 and 7.70% of pay in fiscal year 2017. Thereafter, once the contribution rates have all ramped up the System is expected to receive a total contribution rate of 15.46% of pay.

Hence, beginning in FY2017, there is expected to be 5.03% of pay available to amortize the UAAL. If payroll grows as expected, the contributions provided by this portion of the contribution rate are sufficient to amortize the current unfunded actuarial accrued liabilities of the System over a period of 29.8 years based on the smoothed asset value as the valuation date. Therefore, the financing objectives of the System are being met.

The actuarial valuation report as of August 31, 2014 reveals that the funded ratio (the ratio of actuarial assets to actuarial accrued liability) is 80.2%. Because of the favorable investment performance in FY2014, the System is now deferring net investment gains of $4.4 billion and the funded status using the market value of assets is 83.0%. If there are no significant investment losses or other actuarial loses over the next several years, the funded status of the System would be expected to increase towards this number. This $4.4 billion in net deferred gains compares to the last valuation when the System was deferring $4.3 billion in net deferred losses and had a 77.9% funded ratio based on market value of assets.

The System's UAAL increased by $1.5 billion more than expected during the year. The market value of assets earned a 16.8% return on a dollar-weighted basis for the plan year ending August 31, 2014, which resulted in a gain on the actuarial value of assets of $1.1 billion. Therefore, the liabilities actually

increased $2.6 billion more than expected. Most of this was from the change ($2.3 billion) in the mortality assumption mentioned above. The remaining $0.3 billion increase was due to the liability experience of the System when compared to the actuarial assumptions.

In the absence of significant actuarial losses in the near future, the number of years needed to amortize the UAAL will decrease annually if all assumptions are met. Please note, this annual decrease in the funding period will only occur if the currently scheduled contribution levels remain in place over the funding period. Any decrease in the contribution rates will result in higher funding periods.

In addition, due to the current funding policy which utilizes level percentage of payroll amortization, the amortization payments will not be sufficient to cover all of the interest charges on the UAAL until the funding period reaches approximately 20 years. Table 11a provides a 10 year projection of various valuation results, including the UAAL, and that projection shows the UAAL is expected to increase to $35.7 billion in 2024. Extending the projection further would show the UAAL starts to decrease in 2025 and is fully amortized 20 years later.

Please note these expectations are based on the current benefit provisions and assumptions. Any additional benefit enhancements (ad hoc COLAs) granted without additional funding would increase the ultimate UAAL and extend the period before the funding status begins to improve. Thus, we continue to advise against any future benefit enhancements without additional sources of funding.

Plan Provisions

The plan provisions used in the actuarial valuation are described in Table 21 of the valuation report. There have been no changes to the benefit and contribution provisions of the System since the prior valuation. However, there were significant changes during the 2013 legislative session. As a reminder, a summary of these changes are shown below:

- Normal retirement eligibility was changed to age 65 with 5 years of service or Rule of 80 with a minimum age of 62 for all members not vested as of August 31, 2014 (it was Rule of 80 with a minimum age of 60)
- The 5% early retirement penalty for members who have met the rule of 80 begins from age 62 for employees who are not vested as of August 31, 2014 (it was age 60)
- An ad hoc COLA, equal to the lesser of 3% or $100 per month, was granted effective September 1, 2013 for members in payment status on August 31, 2004
- Increases in the member contribution rate as follows: 6.70% in fiscal year 2015, 7.20% in fiscal year 2016 and 7.70% in fiscal year 2017

There was also a significant change to the provisions of TRS Care during the 2013 legislative session. While this change did not impact the benefits paid out of the pension system, it did impact the assumptions we use for when members will retire. This is more fully discussed in the assumptions section.

Disclosure of Pension Information

Effective for the fiscal year ending August 31, 1996, the Board of Trustees adopted compliance with the reporting requirements specified by the Governmental Accounting Standards Board (GASB). Beginning with fiscal year 2014, the System will begin complying with the new disclosure requirements of Governmental Accounting Standards Board (GASB) Statement No. 67. The disclosure information for GASB No. 67 will be provided in a separate report and is not contained herein.

This report should not be relied on for any purpose other than the purpose described above. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

Actuarial Methods and Assumptions

The actuarial methods and assumptions have been selected by the Board of Trustees of the Teacher Retirement System of Texas based upon our analysis and recommendations. These assumptions and methods are detailed in Table 22 of the valuation report. The Board of Trustees has sole authority to determine the actuarial assumptions used for the plan. The actuarial methods and assumptions are primarily based on a study of actual experience for the four year period ending August 31, 2010 and adopted on April 8, 2011. With the exception of the post-retirement mortality rates for healthy lives and a minor change to the expected retirement age for inactive vested members stemming from the actuarial audit performed in the Summer of 2014, the assumptions and methods are the same as used in the prior valuation. When the mortality assumptions were adopted in 2011 they contained significant margin for possible future mortality improvement. As of the date of this valuation there has been a significant erosion of this margin to the point that the margin has been eliminated. Therefore, we have decreased the post-retirement mortality rates for current and future retirees to add additional margin for future improvement in mortality in accordance with the Actuarial Standards of Practice No. 35.

The results of the actuarial valuation are dependent on the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations are intended to provide information for rational decision making.

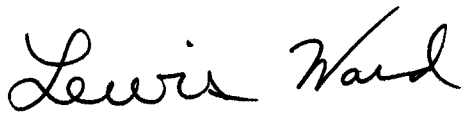
In our opinion, the actuarial assumptions used are appropriate for purposes of the valuation and are internally consistent and reasonably related to the experience of the System and to reasonable expectations.

Data

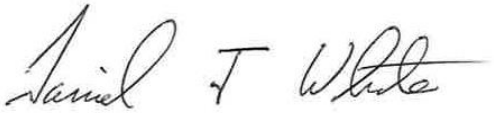
In preparing the August 31, 2014 actuarial valuation, we have relied upon member and asset data provided by the Teacher Retirement System of Texas. We have not subjected this data to any auditing procedures, but have examined the data for reasonableness and for consistency with prior years' data.

The schedules shown in the actuarial section and the trend data schedules in the financial section of the TRS financial report include selected actuarial information prepared by TRS staff. Six year historical information included in these schedules was based upon our work. For further information please see the full actuarial valuation report.

Respectfully submitted,
Gabriel, Roeder, Smith & Company



Lewis Ward
Consultant



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SECTION A

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The System had a favorable year on its investments. The System was expecting a loss on the actuarial value of assets but instead incurred a $1.1 billion gain. In addition, the System is now deferring $4.4 billion in net deferred gains, compared to $4.3 billion in net deferred losses in the prior valuation.

While the System experienced excellent investment performance, the liabilities of the System are higher than expected due to adverse demographic experience and the mortality assumption change previously discussed. Therefore, overall the System's UAAL is larger than expected. The actuarial valuation of the Teacher Retirement System of Texas (TRS) as of August 31, 2014, indicates that the System's unfunded actuarial accrued liability (UAAL) has increased from $28.9 billion in 2013 to $31.6 billion in 2014.

However, the impact of this loss on the funding period was partially offset by the overall growth in payroll exceeding the 3.50% assumption. This growth decreased the funding period by one year.

The net impact of the experience and funding policy produce a funding period of 29.8 years as of August 31, 2014.

Due to the change in position from deferred investment losses to deferred investment gains, the outlook of the System has improved. Without offsetting future actuarial losses, the funding period is expected to decrease as the deferred investment gains are recognized and as the scheduled increases in the contribution rates are worked in, and then continue to decrease in the future until the System is fully funded in 29.8 years.

We still recommend caution with regards to any benefit enhancements (including ad hoc COLAs). While the System's financial outlook is improved, the nominal dollar amount of the UAAL is still expected to increase for the next decade. The key results of this valuation as of August 31, 2014, may be summarized as follows.

EXECUTIVE SUMMARY

Item	2014	2013
Membership		
• Number of		
- Active members	857,342	831,302
- Service retirees	341,302	327,072
- Disabled retirees	9,413	9,249
- Beneficiaries	12,467	11,907
- Inactive, vested	82,123	77,524
- Inactive, nonvested	111,960	112,586
- Total	1,414,607	1,369,640
• Projected Payroll for Contributions	$ 38.522 billion	$ 36.505 billion
Statutory contribution rates		
• Combined State/Employers *	7.760%	7.760%
• Member **	7.700%	7.700%
Actuarial Information		
• Normal cost %	10.43%	10.31%
• Unfunded actuarial accrued liability (UAAL)	$ 31.638 billion	$ 28.936 billion
• UAAL as % of pay	82.1%	79.3%
• Funded ratio	80.2%	80.8%
• Funding period (years)	29.8	28.0
• GASB Annual Required Contribution (30 Year Amortization based on the Actuarial Value of Assets)	8.66%	8.67%

* The State contribution rate for FY2014 was set at 6.80% of pay. Beginning in fiscal year 2015, covered employers whose employees are not participating in Social Security will begin contributing 1.50% of the minimum salary schedule. Combined it is expected that these contributions will be approximately 7.76% of total payroll.

** The member contribution rate will begin increasing in fiscal year 2015 to 6.70% of pay and will continue to increase each year until the rate reaches 7.70% of pay in fiscal year 2017 (7.20% of pay in fiscal year 2016).

EXECUTIVE SUMMARY

Item	2014	2013
Assets		
• Market value	$ 132.779 billion	$ 117.388 billion
• Actuarial value	$ 128.398 billion	$ 121.730 billion
• Estimated yield on market value	16.8%	8.9%
• Estimated yield on actuarial value	8.9%	6.2%
• Ratio of actuarial to market value	96.7%	103.7%
• Employee contributions, including service purchases	$ 2,501.2 million	$ 2,405.7 million
• State contributions	1,550.3 million	1,776.8 million
• Employer contributions	984.6 million	499.8 million
• Benefit, refund, and expense payments	9,333.8 million	8,827.1 million
• Net external cash flow	(4,297.7) million	(4,144.8) million
Gains/(losses)		
• Asset experience	$ 1,095.4 million	$ (2,045.6) million
• Assumption changes/Legislative changes	(2,282.4) million	(708.0) million
• Liability experience	(357.7) million	1,829.1 million
• Total	$ (1,544.7) million	$ (924.5) million
Actuarial Information based on Market Value of Assets		
• Unfunded actuarial accrued liability (UAAL)	$ 27.256 billion	$ 33.278 billion
• UAAL as % of pay	70.8%	91.2%
• Funded ratio	83.0%	77.9%
• Funding period (years)	22.8	37.4
• GASB Annual Required Contribution	7.98%	9.38%

Item	UAAL ($ Millions)	Funding Period
(1)	(2)	(3)
1. 2013 Valuation	$28,936	28
2. Restated 2013 Valuation with Legislative changes (if applicable)	28,936	28
3. Expected 2014 UAAL using actual contributions	30,093	27
4. 2014 UAAL using expected assets and actual liabilities	30,451	28
5. 2014 UAAL recognizing past deferred asset gains/(losses)	32,496	31
6. 2014 UAAL using actual assets and liabilities, expected payroll	29,355	26
7. 2014 UAAL using actual payroll	29,355	25
8. 2014 UAAL change to assumptions	31,638	30

* The funding period for this entry uses the expected UAAL and expected payroll.
The expected payroll is the prior year's valuation payroll, rolled forward at the 3.5% payroll growth rate.

SECTION B

INTRODUCTION

INTRODUCTION

The valuation of the Teacher Retirement System of Texas (TRS) as of August 31, 2014, reflects the following ultimate contribution rates: (a) a member contribution rate of 7.70%, and (b) a State/Employer combined contribution rate of 7.76%. For purposes of determining the funding period, it was assumed that these ultimate contribution rates (both member and State/employer) would remain in place indefinitely after the scheduled ramp up over the next few fiscal years.

In preparing this valuation, Gabriel, Roeder, Smith & Company (GRS) has relied on employee data and asset information provided by the staff of the Teacher Retirement System. While not verifying the data at their source, GRS has performed such tests for consistency and reasonableness as has been deemed necessary to be satisfied with the appropriateness of using the data supplied.

Section A contains an executive summary of the most significant valuation results. The basic results of the valuation are covered in Section C. Section D discusses the sensitivity of the funded status to future investment performance. Section E discusses the changes in the necessary disclosure items required by the Governmental Accounting Standards Board (GASB). Section F provides analysis and discussion of changes in assets. Section G produces a determination of actuarial gains and losses for the year and an analysis of the change in the funding period since the prior year's valuation. Section H summarizes the findings of the valuation, and Section I provides the tables supporting the report.

There have been no changes in the benefit provisions of TRS since the prior valuation.

With the exception of the retirement rates, the healthy post-retirement mortality assumptions, and the assumed benefit commencement age for vested inactive members, this valuation utilizes actuarial assumptions and methods that were adopted by the Board on April 8, 2011. With the exception of the post-retirement mortality rates for healthy lives and the assumed benefit commencement age for vested inactive members, the assumptions and methods are the same as used in the prior valuation. When the mortality assumptions were adopted in 2011 they contained significant margin for possible future mortality improvement. As of the date of this valuation there has been a significant erosion of this margin to the point that the margin was eliminated. Therefore, we have decreased the post-retirement mortality rates for current and future retirees to add additional margin for future improvement in mortality in accordance with the Actuarial Standards of Practice No. 35.

The retirement rates were modified in the 2013 valuation for employees who are not grandfathered under the current TRS Care eligibility provisions. For these members, it is assumed that upon attainment on normal retirement eligibility and prior to age 62, on average they will retire at a rate roughly equal to 85% of the rate at which grandfathered members will retire. For vested inactive members, their deferred benefit is now assumed to commence at the earliest age they are eligible for unreduced benefits. The prior assumption was that all of these members would commence at age 62. This change was based on a recommendation by the Segal Group in the actuarial audit performed in the summer of 2014.

SECTION C

FUNDED STATUS OF THE SYSTEM

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FUNDED STATUS OF THE SYSTEM

Table 3 in Section I details the normal cost of the Retirement System by its various components. This normal cost is developed based on the valuation method known as the entry-age-normal actuarial cost method. The total normal cost for the Retirement System is 10.43% of pay, this amount being inclusive of the amount contributed by the employees. The normal cost rate reflects the ultimate member contribution rate of 7.70% that begins in fiscal year 2017. Thus, the net normal cost for the State is 2.73% of pay based on the member contribution rate of 7.70%.

The State's contribution rate increased to 6.8% beginning in fiscal year 2014. Beginning in fiscal year 2015, covered employers whose employees are not participating in Social Security will begin contributing 1.50% of the minimum salary schedule. Combined with the State contribution, it is expected that these aggregate contributions will be approximately 7.76% of total payroll. Since the total State\employer contribution rate is 7.76%, this allows 5.03% of pay contributed by the State to be available to amortize any unfunded actuarial accrued liabilities beginning in FY2017.

As stated above, the funding period for the System is determined under the entry-age-normal actuarial cost method based on a level percentage of pay. The key points of this method are as follows:

1. The "normal cost" for the System is deemed to be equal to the average cost of benefits for newly hired participants.

2. The "actuarial accrued liability" for benefits payable in the future to present active members is calculated as the present value of benefits payable in the future to present active members less the present value of future normal costs.

3. Funding of the unfunded actuarial accrued liability (UAAL) is a function of the rate of future growth in total covered payroll and the contributions established in state statute.

Table 5 develops the funding period under the above approach not only for the current valuation, but also for the valuation as of August 31, 2013. As shown in Item A3 of Table 5, the normal cost for the System consists of the entire 7.70% of pay contributed by the members plus 2.73% of pay from the State/employers. As developed in Item A4, the 7.76% of pay contributed by the State/employers is 5.03% of pay more than the State's share of the normal cost. From an actuarial perspective, the contribution rate in excess of the System's normal cost should be sufficient to amortize the UAAL over a reasonable period of time. The ultimate contribution rate in excess of the System's normal cost (5.03%) is sufficient to amortize the System's UAAL over a period of 29.8 years (assuming all actuarial assumptions are exactly met).

Table 2 provides an overall summary of key actuarial data for the 2014 valuation, with comparative data for 2013. This information is summarized from the other tables, which supply more detail. Its value is in providing in one convenient place key comparative valuation results.

Table 7 offers a comparative view of the unfunded actuarial accrued liability (UAAL). It compares the UAAL with three items: the covered payroll for the year, the total actuarial value of assets at the end of the year, and the total actuarial liabilities (or, equivalently, the total present value of future benefits) as of the valuation date.

The UAAL as shown in Item B4 of Table 5 is $31.6 billion for 2014, an increase from $28.9 billion in 2013. As indicated in the table, the UAAL equals the difference between the total actuarial accrued liability (Item B2d) and current actuarial assets (Item B3). The excess contributions above the normal cost will be used to help reduce the UAAL. As a result of the favorable investment experience from the recent past, the System is now deferring $4.4 billion in net investment gains (the difference between the market value of assets and the actuarial value of assets).

In determining the number of years that will be required to amortize the UAAL, an assumption is made concerning future growth of the payroll of the System. Our current assumption is 3.50% per year, or 0.50% above the 3.00% inflation assumption.

As shown in Item B6 of Table 5 and using the assumed rate of increase in covered payroll of 3.50%, the period to fund the UAAL is 29.8 years. The funding periods using alternate payroll growth assumptions are also shown. An analysis of the change in the UAAL and the funding period since the 2013 valuation is provided in Section G.

The actuarial value of assets is developed in Table 4. It should be remembered that the intent of the actuarial asset valuation method is to smooth out year-to-year fluctuations in market rates of return. The current asset method determines the expected actuarial value of assets and then recognizes at least 20% of the difference between that expected actuarial value of assets and the actual market value of assets. As shown in Item 8 of Table 4, if the current year's difference between expected and actual investment income is of the opposite sign from the remaining deferred excesses/shortfalls, then this year's difference is directly offset against any prior year bases of the opposite sign (starting with the oldest base and working forward). For example, in this year's calculation, the positive investment performance from this fiscal year first offset deferred losses from prior years and then the remainder was set as a new base to be recognized over the next five years.

Any remaining bases are then recognized over the remaining number of years. This is intended to ensure the smoothed value of assets will converge towards the market value in a reasonable and finite amount of time.

While the design of the actuarial asset valuation method is to smooth out year-to-year fluctuations in market rates of return, the method is also designed to not allow the actuarial value of assets to drift too far from the actual market value of assets. To accomplish this goal, a corridor is established around the market value of assets (not less than 80% or more than 120% of the market value of assets). If the actuarial value of assets using the smoothing technique produces a preliminary actuarial value of assets that is outside of the corridor, then there is some advanced recognition of the deferred losses outside the corridor threshold.

The preliminary actuarial value of assets is $128.4 billion as shown in Item 9 of Table 4. This number is equal to 96.7% of the market value of assets. Since this lies within our 80% - 120% corridor, the preliminary actuarial value of assets becomes the final actuarial value of assets, as shown in Item 11 of Table 4.

Under the asset smoothing methodology, as may be seen by looking at the difference between Items 6 and 11 of Table 4, the AVA methodology is deferring net investment gains. The actuarial asset yield for 2014 is 8.9%, which is higher than the assumed rate of 8.0%. The market return for fiscal year 2014 was 16.8%.

As noted above, the System has a funding period of 29.8 years. The System has an unfunded liability of $31.6 billion, and $4.4 billion in net deferred investment gains. Without offsetting actuarial losses, the funding period is expected to decrease over the next several years.

SECTION D

SENSITIVITY TO INVESTMENT PERFORMANCE

Table 11b provides several additional risk metrics that can help relate the size of the investment risk to the System, the Sponsor, and the membership. As shown on Table 11b, the assets are currently 3.3 times as large as the covered payroll (source of funding). Based on this ratio, a 10% decrease in the asset levels that was never recovered by future gains would increase the 30-year contribution requirement by 2.00% of payroll (from the current 8.66% employer ARC to 10.66%) and decrease the funded ratio by 8% (from 80.2% to 72.2%). Table 11b also shows how these metrics have changed over time. As a System matures and/or achieves higher funded ratios, these risk metrics will actually show proportionately higher investment risk.

The following exhibit projects the actuarial status of the System as of August 31, 2014 based on varying actual investment returns over the next few years. All other assumptions are assumed to be met, including the continuation of the new statutory member and employer contribution rates.

	Based on an 4.0% Actual Investment Return on Market		Based on an 8.0% Actual Investment Return on Market		Based on an 12.0% Actual Investment Return on Market	
	Funded Ratio Measured By:					
August 31,	Actuarial Value of Assets	Market Value of Assets	Actuarial Value of Assets	Market Value of Assets	Actuarial Value of Assets	Market Value of Assets
(1)	(2)	(3)	(4)	(5)	(6)	(7)
2014	80.2%	83.0%	80.2%	83.0%	80.2%	83.0%
2015	80.5%	80.3%	81.2%	83.4%	81.9%	86.5%
2016	80.2%	77.6%	82.4%	83.9%	84.3%	90.4%
2017	79.4%	75.1%	83.6%	84.5%	87.6%	94.6%
2018	78.0%	72.5%	84.9%	85.1%	91.7%	99.2%
2019	76.0%	69.9%	85.6%	85.6%	96.2%	104.1%

The future liability is calculated by rolling forward the liabilities as of August 31, 2014, taking into account interest and benefit payments for the year, including mortality incidence and anticipated cost of living increases (none in this case). The 8.0% scenario above coincides with the actuarial investment return assumption of 8.0%. The 4.0% and 12.0% scenarios were selected because there is statistically a high probability of the return for a five year period being within +/- 4% of the expected return.

The scenarios above are for illustration purposes only and are in no way to be used as expected investment performance. There are no other deviations from the expected taken into consideration besides the asset performance. Careful consideration of this projected contribution should be taken into account before any benefit enhancement is adopted. Note that under the 8% return scenario, the funded ratio based on actuarial assets and market assets will have converged by FY2019 and are both expected to trend upward.

SECTION E

GASB DISCLOSURE

GASB DISCLOSURE

The Governmental Accounting Standards Board (GASB) has issued Statement No. 67 which provides the manner in which the actuarial condition of a public sector retirement plan is to be disclosed and which replaces GASB No. 25 for fiscal years ending after June 30, 2014.

We will provide a separate accounting report with the required disclosures under this new standard.

However, the State still reports and discloses certain information in accordance with GASB No. 27, and therefore, we have continued to provide the GASB No. 25 disclosure tables as represented by Tables 14a – 14c.

SECTION F

CHANGE IN ASSETS DURING THE YEAR

CHANGE IN ASSETS DURING THE YEAR

This section provides an analysis of the change in the Plan Net Assets during the year and an estimate of the yield on mean assets of the total System. Table 8a shows a rearrangement of some of the tables included in the annual financial statements of the System. Table 8b shows the estimated yield on a market value basis and on the actuarial asset valuation method.

To determine estimated yield on "mean assets", the traditional insurance company formula for yield rates is used. The estimated yield is derived by dividing the appropriate income by the corresponding mean assets. This is a "dollar weighted" rate of return, and will differ slightly from the "time weighted" return shown in the System's CAFR.

As indicated by Item A4 of Table 8b, the estimated yield on mean market value is 16.8%, following an 8.9% return in 2013. The actuarial asset yield (Item B4) is 8.9%, compared to 6.2% in 2013, and compared to the 8% assumption rate. This difference in the estimated yield on market value and actuarial value illustrates the smoothing effect of the asset valuation method.

As mentioned in Section C, the investment results on an actuarial value basis are favorable for the 2013/2014 plan year. On an actuarial value basis the System is above its 8% assumption rate by 0.9%. As a result, the System had an actuarial investment gain of $1.1 billion. It should also be noted that the asset valuation method is still deferring $4.4 billion in unrecognized net gains into future years. Absent future adverse investment experience, these deferred gains will be recognized over future actuarial valuations.

SECTION G

ACTUARIAL GAINS (LOSSES) AND THE FUNDING PERIOD

ACTUARIAL GAINS (LOSSES) AND THE FUNDING PERIOD

Section C has noted that the unfunded actuarial accrued liability (UAAL) has increased from $28.9 billion in 2013 to $31.6 billion in 2014. As such, the System's funding period has changed from 28.0 in 2013 to 29.8 years in 2014. The purpose of this section is to determine the source of the gains and losses and the impact of those gains and losses on the funding period.

An important factor was the fact that the scheduled higher contribution rates were not effective during FY2014 and thus the System did not receive an actuarially appropriate contribution during the year. This shortfall increased the UAAL by approximately $0.8 billion.

Section F has discussed the change in assets for the year. Tables 4 takes the information contained in Table 8 and develops the actuarial assets for this valuation, based on the investment return assumption of 8%. Table 8b develops the estimated yield for the year based on two measures of asset values.

As shown in Table 4, the expected value of actuarial assets as of August 31, 2014 is $127.3 billion (expected if the fund would have earned 8% on the actuarial value), and the actual value of actuarial assets as of the valuation date is $128.4 billion. Thus the asset gain for the year is the difference between the actual value and the expected value, or $1.1 billion (as shown in Item 12). Item 13 indicates that this gain represents 0.9% of this year's actuarial assets. This asset gain for the year is a direct reflection of the estimated yield for the year based on the value of actuarial assets, namely 8.9% (as shown in Item B4 of Table 8b).

Table 9 develops the total actuarial gain (loss) for the year and separates it between the asset gain (loss) and the liability gain (loss). The items in Table 9 that are used to develop the expected UAAL as of August 31, 2014 are derived from Table 5 and Table 8. The total actuarial loss for the year is seen to be $1.5 billion.

The $1.1 billion asset gain for the year was more than offset by the change in the post-retirement mortality assumption which added $2.3 billion to the liabilities as shown in Item B4 of Table 9. The net liability experience loss was $0.3 billion. The most significant source of liability losses came from the mortality experience during the fiscal year.

Table 10 traces the changes in the UAAL and the funding period from the valuation as of August 31, 2013, to August 31, 2014. Item 4 of Table 10 shows the funding status if there had been no actuarial gains or losses in the areas of assets, liabilities, and reflecting the actual State contributions for the 2013/2014 plan year. The UAAL would have increased during the year to $30.1 billion. Item 5 of Table 10 illustrates that the liability experience loss increased the UAAL to $31.2 billion and that the prior years' investment experience, as shown in Items 6 and 7, increased the UAAL to $33.2 billion. Item 8 shows the impact on the funding period of the covered compensation growing at a faster rate than the assumed rate of 3.5%.

SECTION H

SUMMARY AND CLOSING COMMENTS

SUMMARY AND CLOSING COMMENTS

The results of the actuarial valuation of the Teacher Retirement System as of August 31, 2014 are mostly positive. While there was an asset experience gain during the year, the UAAL still increased from last year by $2.7 billion and the funding period increased by two years. However, these results are better than projected from the prior valuation. In addition, the funding period remains below 30 years even after a change to the post-retirement mortality assumption.

The System's funded status is 80.2% on actuarial basis, and the funded status using the market value of assets is 83.0%. If there are no significant investment losses or other actuarial losses over the next several years, the funded status of the System would be expected to gradually increase.

It is important to understand that while the negotiation process by the Legislature included an ad hoc COLA paid to retirees in September of 2013, the legislation also included substantial increases in contribution rates. This should be the model used in any future year that a COLA is considered. In past negotiations, there were times that COLAs and retroactive benefit enhancements were granted without additional funding sources and that eventually deteriorated the financial health of the System.

Thus, we still urge caution in granting future unfunded additional liabilities without additional funding. As of now, based on the current benefit levels, the dollar amount of the unfunded actuarial accrued liability is expected to increase for the next decade before it is projected to begin decreasing. Adding additional unfunded liabilities will only increase the amount further and place more risk on future generations.

SECTION I

ACTUARIAL TABLES

ACTUARIAL TABLES

ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS

	August 31, 2014 (1)	August 31, 2013 (2)
A. Present Value of Benefits Presently Being Paid:		
1. Service retirement benefits	$ 76,357,134,130	$ 71,820,668,352
2. Disability retirement benefits	1,014,408,651	989,311,958
3. Death benefits	839,061,459	810,515,534
4. Present survivor benefits	241,128,389	223,686,635
5. Total present value of benefits presently being paid	$ 78,451,732,629	$ 73,844,182,479
B. Present Value of Benefits Payable In the Future To Present Active Members:		
1. Service retirement benefits	$ 100,367,139,589	$ 95,127,960,463
2. Disability retirement benefits	1,492,083,391	1,417,907,563
3. Termination benefits	8,638,663,636	7,448,756,121
4. Death and survivor benefits	1,983,416,721	1,852,668,542
5. Total active member liabilities	$ 112,481,303,337	$ 105,847,292,689
C. Present Value of Benefits Payable In the Future To Present Inactive Members:		
1. Inactive vested participants		
a. Retirement benefits	$ 3,122,143,391	$ 2,828,390,234
b. Death benefits	162,843,256	159,885,733
c. Total inactive vested benefits	$ 3,284,986,647	$ 2,988,275,967
2. Refunds of contributions to inactive nonvested members	371,647,155	368,715,419
3. Future survivor benefits payable on behalf of present annuitants	1,302,923,361	1,283,662,384
4. Total inactive liabilities	$ 4,959,557,163	$ 4,640,653,770
D. Total Actuarial Present Value of Future Benefits:	$ 195,892,593,129	$ 184,332,128,938

SUMMARY OF COST ITEMS

	Valuation as of August 31, 2014		Valuation as of August 31, 2013	
	Cost Item	Cost as % of Pay	Cost Item	Cost as % of Pay
	(1)	(2)	(3)	(4)
1. Participants				
a. Active contributing members				
1. Not in DROP	808,152		783,933	
2. In DROP	122		158	
b. Active noncontributing members				
1. Assumed to be active	11,864		11,804	
2. Assumed to be inactive vested	42,158		39,939	
3. Assumed to be inactive nonvested	64,613		66,293	
4. Total	118,635		118,036	
c. New entrants missing data	37,204		35,407	
d. Active subtotal	964,113		937,534	
e. Inactive members w/deferred benefits	39,965		37,585	
f. Retired members and beneficiaries	363,182		348,228	
g. Subtotal, members	1,367,260		1,323,347	
h. Inactive nonvested members due refunds	47,347		46,293	
i. Total membership	1,414,607		1,369,640	
2. Projected Payroll for Contributions	$ 38,522,207,389		$ 36,504,575,995	
3. Average for Active Members				
a. Average age	44.5		44.4	
b. Average years of service	9.9		10.0	
c. Average pay	$ 45,717		$ 44,634	
4. Present Value of Future Pay	$ 343,787,078,648		$ 326,537,679,959	
5. Normal Cost Rate				
a. Gross normal cost	10.43%		10.31%	
b. Less employee contribution rate*	(7.70%)		(7.70%)	
c. State normal cost	2.73%		2.61%	
6. Present Value of Future Benefits				
a. Retired members - in pay or deferred	$ 78,451,732,629		$ 73,844,182,479	
b. Retired members - future survivor benefits	1,302,923,361		1,283,662,384	
c. Vested inactive members	3,284,986,647		2,988,275,967	
d. Active members	112,481,303,337		105,847,292,689	
e. Inactive nonvested members	371,647,155		368,715,419	
f. Total	$ 195,892,593,129	508.5%	$ 184,332,128,938	505.0%
7. Present Value of Future Normal Costs (employee plus employer)	$ 35,856,992,303	93.1%	$ 33,666,034,804	92.2%
8. Actuarial Accrued Liability	$ 160,035,600,826	415.4%	$ 150,666,094,134	412.7%
9. Actuarial Value of Assets	$ 128,397,777,855	333.3%	$ 121,729,818,906	333.5%
10. Unfunded Actuarial Accrued Liability	$ 31,637,822,971	82.1%	$ 28,936,275,228	79.3%
11. Employer Contribution Rate **	7.760%		7.760%	
12. Funding Period	29.8 years		28.0 years	
13. Estimated Yield on Actuarial Assets	8.9%		6.2%	
14. Funded Ratio - Smoothed Basis	80.2%		80.8%	
15. GASB Annual Required Contribution Rate (ARC) for State	8.66%		8.67%	

* The member contribution rate will begin increasing in fiscal year 2015 to 6.70% of pay and will continue to increase each year until the rate reaches 7.70% of pay in fiscal year 2017 (7.20% of pay in fiscal year 2016).

** The State contribution rate for FY2014 was set at 6.80% of pay. Beginning in fiscal year 2015, covered employers whose employees are not participating in Social Security will begin contributing 1.50% of pay. Combined it is expected that these contributions will be approximately 7.76% of total payroll.

ANALYSIS OF NORMAL COST BY COMPONENT

Benefit Component	8/31/2014 Cost as % of Pay	8/31/2013 Cost as % of Pay
(1)	(2)	(3)
1. Normal Cost		
a. Retirement Benefits	7.10%	7.00%
b. Disability Benefits	0.18%	0.18%
c. Death Benefits (including survivor benefits)	0.37%	0.36%
d. Termination benefits	2.78%	2.77%
e. Total	10.43%	10.31%
2. Employee Contribution Rate*	(7.70%)	(7.70%)
3. State Normal Cost (Item 1e - Item 2)	2.73%	2.61%

* Employee contribution rate will increase to 6.70% in fiscal year 2015, 7.20% in fiscal year 2016, and 7.70% in fiscal year 2017.

Development of Actuarial Value of Assets

	Year Ending August 31, 2014
1. Actuarial value of assets at beginning of year	$ 121,729,818,906
2. Net new investments	
a. Contributions	$ 5,036,110,456
b. Benefits and refunds paid	(9,041,680,523)
c. Subtotal	(4,005,570,067)
3. Assumed investment return rate for fiscal year	8.00%
4. Assumed investment return rate for fiscal year (Item 1 + Item 2 / 2) x Item 3	$ 9,578,162,710
5. Expected Actuarial Value at end of year (1+ 2 + 4)	$ 127,302,411,548
6. Market value of assets at end of year	$ 132,779,243,085
7. Excess/(Shortfall) (6 - 5)	$ 5,476,831,537
8. Development of amounts to be recognized as of August 31, 2014:	

Fiscal Year End	Remaining Deferrals of Excess (Shortfall) of Investment Income	Offsetting of Gains/(Losses)	Net Deferrals Remaining	Years Remaining	Recognized for this valuation	Remaining after this valuation
	(1)	(2)	(3) = (1) + (2)	(4)	(5) = (3) / (4)	(6) = (3) - (5)
2010	$ 0	$ 0	$ 0	1	$ 0	$ 0
2011	(3,590,082,250)	3,590,082,250	0	2	0	0
2012	(751,592,797)	751,592,797	0	3	0	0
2013	0	0	0	4	0	0
2014	9,818,506,584	(4,341,675,047)	5,476,831,537	5	1,095,366,307	4,381,465,230
Total	$ 5,476,831,537	$ 0	$ 5,476,831,537		$ 1,095,366,307	$ 4,381,465,230

9. Preliminary actuarial value of plan assets, end of year (Item 6 + Item 8)	$ 128,397,777,855
10. Actuarial value of assets corridor	
a. 80% of market value, end of year	$ 106,223,394,468
b. 120% of market value, end of year	$ 159,335,091,702
11. Final actuarial value of plan net assets, end of year (Item 9, but recognize 1/3 of any deferred gains or losses outside of 10)	$ 128,397,777,855
12. Asset gain (loss) for year (Item 11 - Item 5)	$ 1,095,366,307
13. Asset gain (loss) as % of actual actuarial assets	0.85%
14. Ratio of actuarial value to market value	96.7%

Notes: Remaining deferrals in Column (1) for prior years are from last year's report column (6). The number in the current year is the difference between the remaining deferrals for prior years and the total Excess/(Shortfall) return shown in Item 7.
Column 2 is a direct offset of the current year's excess/(shortfall) return against prior years' excess/(shortfall) of the opposite type.

DEVELOPMENT OF YEARS TO FUND THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

	As of August 31, 2014 (1)	As of August 31, 2013 (2)
A. Basic Data		
1. Projected Covered payroll	$ 38,522,207,389	$ 36,504,575,995
2. Present value of future pay	$ 343,787,078,648	$ 326,537,679,959
3. Normal cost rate of benefits		
a. Total normal cost rate	10.43%	10.31%
b. Less employee contribution rate*	(7.70%)	(7.70%)
c. State normal cost rate	2.73%	2.61%
4. State contribution rate for funding unfunded actuarial accrued liability		
a. Total State/employer contribution rate**	7.760%	7.760%
b. Less State normal cost rate	(2.730%)	(2.610%)
c. State contribution rate available	5.030%	5.150%
5. Actuarial accrued liability for present active members		
a. Present value of benefits payable in the future to present members	$ 112,481,303,337	$ 105,847,292,689
b. Less present value of future normal costs	(35,856,992,303)	(33,666,034,804)
c. Actuarial accrued liability	$ 76,624,311,034	$ 72,181,257,885
B. Development of Funding Period		
1. Normal cost		
a. Employee normal cost (Item A3b x Item A1)	$ 2,966,209,969	$ 2,810,852,352
b. State normal cost (Item A3c x Item A1)	1,051,656,262	952,769,433
c. Total normal cost	$ 4,017,866,231	$ 3,763,621,785
2. Total actuarial accrued liability		
a. Present value of benefits presently being paid	$ 78,451,732,629	$ 73,844,182,479
b. Actuarial accrued liability for present active members (Item A5c)	76,624,311,034	72,181,257,885
c. Present value of benefits for inactive members	$ 4,959,557,163	$ 4,640,653,770
d. Total	$ 160,035,600,826	$ 150,666,094,134
3. Current actuarial assets	128,397,777,855	121,729,818,906
4. Unfunded actuarial accrued liability (UAAL) (Item B2d - Item B3)	$ 31,637,822,971	$ 28,936,275,228
5. Amount of State contribution available to fund unfunded actuarial accrued liability (Item A4c x Item A1)	$ 1,937,667,032	$ 1,879,985,664
6. Years to fund unfunded actuarial accrued liability	29.8 years	28.0 years
Rate of Increase in Covered Payroll		
0.00%	Never	Never
2.00%	55.8	46.1
3.00%	33.8	31.3
3.50%	29.8	28.0
4.25%	25.9	24.6
7. Annual Required Contribution Rate (ARC) (Normal cost + 30-year amortization of UAAL)	8.66%	8.67%

* The member contribution rate will begin increasing in fiscal year 2015 to 6.70% of pay and will continue to increase each year until the rate reaches 7.70% of pay in fiscal year 2017 (7.20% of pay in fiscal year 2016).

** The State contribution rate for FY2014 was set at 6.80% of pay. Beginning in fiscal year 2015, covered employers whose employees are not participating in Social Security will begin contributing 1.50% of pay. Combined it is expected that these contributions will be approximately 7.76% of total payroll.

GROWTH OF COVERED PAYROLL AND ACTIVE MEMBERS

	Covered Payroll		Active Members			Average Salary		
Year Ending August 31,	Amount in $ Millions	Percent Increase	Number	Percent Increase	Compound Increase Between Year Indicated and 08-31-2014	Average Salary	Percent Increase	Compound Increase Between Year Indicated and 08-31-2014
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1990	$ 10,446	7.0%	483,262	2.8%	2.4%	$ 21,616	4.1%	3.2%
1991	11,181	7.0%	502,625	4.0%	2.3%	22,245	2.9%	3.2%
1992	11,961	7.0%	521,661	3.8%	2.3%	22,928	3.1%	3.2%
1993	13,391	12.0%	575,088	10.2%	1.9%	23,285	1.6%	3.3%
1994	14,167	5.8%	600,484	4.4%	1.8%	23,593	1.3%	3.4%
1995	14,888	5.1%	625,878	4.2%	1.7%	23,788	0.8%	3.5%
1996	15,983	7.4%	652,197	4.2%	1.5%	24,506	3.0%	3.5%
1997	17,044	6.6%	678,749	4.1%	1.4%	25,112	2.5%	3.6%
1998	18,325	7.5%	705,447	3.9%	1.2%	25,977	3.4%	3.6%
1999	19,529	6.6%	736,058	4.3%	1.0%	26,533	2.1%	3.7%
2000	21,920	12.2%	766,906	4.2%	0.8%	28,583	7.7%	3.4%
2001	23,365	6.6%	797,339	4.0%	0.6%	29,303	2.5%	3.5%
2002	24,818	6.2%	745,923	(6.4%)	1.2%	33,272	13.5%	2.7%
2003	25,756	3.8%	754,715	1.2%	1.2%	34,127	2.6%	2.7%
2004	25,485	(1.1%)	729,411	(3.4%)	1.6%	34,939	2.4%	2.7%
2005	25,957	1.9%	715,495	(1.9%)	2.0%	36,278	3.8%	2.6%
2006	28,397	9.4%	761,658	6.5%	1.5%	37,284	2.8%	2.6%
2007	31,114	9.6%	777,789	2.1%	1.4%	40,003	7.3%	1.9%
2008	33,238	6.8%	801,455	3.0%	1.1%	41,472	3.7%	1.6%
2009	35,097	5.6%	817,537	2.0%	1.0%	42,930	3.5%	1.3%
2010	36,629	4.4%	834,060	2.0%	0.7%	43,916	2.3%	1.0%
2011	36,797	0.5%	828,919	(0.6%)	1.1%	44,392	1.1%	1.0%
2012	36,310	(1.3%)	815,155	(1.7%)	2.6%	44,543	0.3%	1.3%
2013	37,104	2.2%	831,302	2.0%	3.1%	44,634	0.2%	2.4%
2014	39,195	5.6%	857,342	3.1%	--	45,717	2.4%	--

Note: Beginning August 31, 1993, the above amounts include counts and estimated pay for new entrants with incomplete data.
Beginning August 31, 2002, the definition of active member was changed.
Beginning August 31, 2005, the method of determining new entrant errors was changed.

RELATIVE SIZE OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

Year Ending August 31,	Unfunded Actuarial Accrued Liability in $ Millions	Relative to Covered Payroll		Relative to Actuarial Value of Assets		Relative to Total Actuarial Liabilities (Present Value of Future Benefits)	
		Covered Payroll In $ Millions	Percent of Covered Payroll	Assets in $ Millions	Percent of Assets	Actuarial Liabilities in $ Millions	Percent of Actuarial Liabilities
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1969	$ 1,312	$ 1,299	101.0%	$ 1,364	96.2%	$ 3,960	33.1%
1970	1,444	1,528	94.5%	1,534	94.1%	4,384	32.9%
1971	1,632	1,758	92.8%	1,726	94.6%	5,100	32.0%
1972	1,720	1,904	90.5%	1,937	88.8%	5,551	31.0%
1973	1,633	2,079	78.5%	2,171	75.2%	5,733	28.5%
1974	1,739	2,246	77.4%	2,394	72.6%	6,207	28.0%
1975	1,998	2,583	77.4%	2,764	72.3%	7,143	28.0%
1976	2,445	2,875	85.0%	3,103	78.8%	8,067	30.3%
1977	2,879	3,246	88.7%	3,531	81.5%	9,626	29.9%
1978	2,422	3,636	66.6%	4,016	60.3%	9,858	24.6%
1979	3,322	3,928	84.6%	4,529	73.3%	12,336	26.9%
1980	2,785	4,378	63.6%	5,342	52.1%	12,181	22.9%
1981	3,300	4,970	66.4%	6,386	51.7%	13,890	23.8%
1982	3,864	5,616	68.8%	7,373	52.4%	16,135	23.9%
1983	4,549	6,378	71.3%	8,586	53.0%	20,277	22.4%
1984	4,849	6,652	72.9%	9,851	49.2%	22,456	21.6%
1985	6,474	7,547	85.8%	12,096	53.5%	29,618	21.9%
1986	5,365	8,237	65.1%	14,939	35.9%	32,273	16.6%
1987	4,096	8,646	47.4%	18,055	22.7%	34,801	11.8%
1988	3,890	9,166	42.4%	20,096	19.4%	37,332	10.4%
1989	3,489	9,764	35.7%	23,302	15.0%	41,084	8.5%
1990	3,343	10,446	32.0%	26,111	12.8%	45,685	7.3%
1991	3,429	11,181	30.7%	28,860	11.9%	49,515	6.9%
1992	3,441	11,959	28.8%	31,201	11.0%	53,123	6.5%

RELATIVE SIZE OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

Year Ending August 31,	Unfunded Actuarial Accrued Liability in $ Millions	Relative to Covered Payroll		Relative to Actuarial Value of Assets		Relative to Total Actuarial Liabilities (Present Value of Future Benefits)	
		Covered Payroll In $ Millions	Percent of Covered Payroll	Assets in $ Millions	Percent of Assets	Actuarial Liabilities in $ Millions	Percent of Actuarial Liabilities
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1993	$ 3,440	$ 13,391	25.7%	$ 35,179	9.8%	$ 59,210	5.8%
1994	825	14,167	5.8%	38,843	2.1%	58,351	1.4%
1995	1,956	14,888	13.1%	43,442	4.5%	65,259	3.0%
1996	1,813	15,983	11.3%	47,487	3.8%	68,948	2.6%
1997	146	17,044	0.9%	53,760	0.3%	74,677	0.2%
1998	(2,463)	18,325	(13.4%)	60,357	(4.1%)	79,603	(3.1%)
1999	(2,190)	19,529	(11.2%)	69,435	(3.2%)	91,563	(2.4%)
2000	(5,446)	21,920	(24.8%)	79,328	(6.9%)	100,414	(5.4%)
2001	(2,135)	23,365	(9.1%)	86,352	(2.5%)	113,663	(1.9%)
2002	3,287	24,818	13.2%	86,035	3.8%	118,100	2.8%
2003	5,230	25,756	20.3%	89,033	5.9%	123,677	4.2%
2004	7,953	25,485	31.2%	88,784	9.0%	121,267	6.6%
2005	13,196	25,957	50.8%	89,299	14.8%	124,556	10.6%
2006	13,694	28,397	48.2%	94,218	14.5%	131,906	10.4%
2007	12,545	31,114	40.3%	103,419	12.1%	142,190	8.8%
2008	11,523	33,238	34.7%	110,233	10.5%	150,999	7.6%
2009	21,646	35,097	61.7%	106,384	20.3%	158,899	13.6%
2010	22,899	36,629	62.5%	111,293	20.6%	166,445	13.8%
2011	24,062	36,797	65.4%	115,253	20.9%	173,204	13.9%
2012	26,101	36,310	73.6%	118,326	22.1%	177,901	14.7%
2013	28,936	37,104	79.3%	121,730	23.8%	184,332	15.7%
2014	31,638	39,195	80.7%	128,398	24.6%	195,893	16.2%

CHANGE IN PLAN NET ASSETS

	Year Ending August 31, 2014 (1)	Year Ending August 31, 2013 (2)
I. Revenue for the Year		
A. Contribution and fees		
1. Member contributions	$ 2,357,686,000	$ 2,252,094,934
2. State contributions - State of Texas	1,548,064,142	1,459,139,315
3. State contributions - 415 Excess Plan	2,273,832	2,520,830
4. State contributions - Employers	984,552,391	820,134,412
5. State contributions - Legislative Appropriations	-	-
6. Purchase of Service Credit-Refundable	67,386,116	65,965,332
7. Purchase of Service Credit-Non-Refundable	76,147,975	82,435,548
8. Total	$ 5,036,110,456	$ 4,682,290,371
B. Income		
1. Interest	$ 1,864,096,050	$ 676,438,748
2. Dividends	1,254,816,385	1,204,184,693
3. Net appreciation in fair value of investments	16,443,655,756	8,055,066,425
4. Income from Securities Lending	122,114,760	144,728,009
5. Investment expenses	(250,252,917)	(246,281,870)
6. Total	19,434,430,034	9,834,136,005
C. Other Adjustments	$ 4,143,449	$ 2,629,383
D. Total Revenue	$ 24,474,683,939	$ 14,519,055,759
II. Expenditures for the Year		
A. Refund of Contributions	$ 490,764,166	$ 466,805,558
B. Benefit Payments		
1. Service retirements	$ 7,795,690,586	$ 7,251,369,740
2. DROP payments	14,974,505	17,223,523
3. Partial Lump Sum Option payments	322,033,388	410,323,790
4. 415 Excess Plan payments	2,273,832	2,520,830
5. Disability retirements	164,299,506	156,308,471
6. Death and survivor benefits	251,644,540	239,982,960
7. Total benefits	$ 8,550,916,357	$ 8,077,729,314
C. Expenses		
1. Gross expenses		
a. Administrative expenses	$ 41,904,190	$ 36,264,062
2. Miscellaneous reimbursements	-	-
3. Total expenses	41,904,190	36,264,062
D. Total Expenditures	$ 9,083,584,713	$ 8,580,798,934
III. Net Increase in Plan Net Assets (Item I.D. - Item II.D.)	$ 15,391,099,226	$ 5,938,256,825

ESTIMATION OF YIELDS

Item	Year Ending August 31, 2014	Year Ending August 31, 2013
(1)	(2)	(3)
A. Market value yield		
1. Beginning of year net market assets	$ 117,388,143,859	$ 111,449,887,034
2. Investment income (net of all expenses)	19,396,669,293	9,800,501,326
3. End of year market assets	132,779,243,085	117,388,143,859
4. Estimated market value yield	16.8%	8.9%
B. Actuarial value yield		
1. Beginning of year actuarial assets	$ 121,729,818,906	$ 118,326,041,892
2. Investment income	10,673,529,016	7,266,021,514
3. End of year actuarial assets	128,397,777,855	121,729,818,906
4. Estimated actuarial value yield	8.9%	6.2%

GAIN OR LOSS FOR THE YEAR

Item	Year Ending August 31, 2014	Year Ending August 31, 2013
(1)	(2)	(3)
A. CALCULATION OF TOTAL GAIN OR LOSS		
1. Unfunded actuarial accrued liability (UAAL),		
a. Previous year, before Legislative changes	$ 28,936,275,228	$ 26,101,184,048
b. Previous year, after Legislative changes	28,936,275,228	26,809,184,048
2. Normal cost for the year	3,922,591,472	3,776,385,063
3. Contributions for the year	(5,036,110,456)	(4,682,290,371)
4. Interest at 8%		
a. On UAAL	$ 2,314,902,018	$ 2,144,734,724
b. On normal cost	156,903,659	151,055,403
c. On contributions	(201,444,418)	(187,291,615)
d. Total	$ 2,270,361,259	$ 2,108,498,512
5. Expected UAAL (Sum of Items A1 through A4)	30,093,117,503	28,011,777,252
6. Actual UAAL	31,637,822,971	28,936,275,228
7. Gain (loss) for the year (Item A5 - Item A6)	$ (1,544,705,468)	$ (924,497,977)
B. SOURCE OF GAINS AND LOSSES		
1. Asset gain (loss) for the year (Table 4)	$ 1,095,366,307	$ (2,045,572,057)
2. Asset gain (loss) as a % of actuarial assets	0.85%	(1.68%)
3. Total actuarial accrued liability gain (loss) for year (Item A7 - Item B1)	(2,640,071,775)	1,121,074,080
4. Analysis of actuarial accrued liability loss		
a. Assumption/Legislative changes	(2,282,415,121)	(708,000,000)
b. Liability experience	(357,656,654)	1,829,074,080
c. Total	$ (2,640,071,775)	$ 1,121,074,080
5. Experience liability gain (loss) as % of total actuarial accrued liability (Item B4b as % of total actuarial accrued liability)	(0.22%)	1.21%

ANALYSIS OF CHANGE IN FUNDING PERIOD

Basis	UAAL ($ Millions)	Normal Cost Rate	Total Contribution Rate	Funding Period	Change in Funding Period
(1)	(2)	(3)	(4)	(5)	(6)
1. 2013 Valuation	28,936	10.31%	15.46%	28.0	33.0
2. Restated 2013 Valuation with Legislative changes (if applicable)	28,936	10.31%	15.46%	28.0	-
3. Expected 2014 UAAL using ultimate contribution levels	29,265	10.31%	15.46%	25.6	(2.4)
4. Expected 2014 UAAL using actual contributions	30,093	10.31%	15.46%	26.9	1.3
5. 2014 UAAL using expected assets and actual liabilities	30,451	10.31%	15.46%	27.5	1.9
6. 2014 UAAL recognizing past deferred asset gains/(losses)	32,496	10.31%	15.46%	31.3	3.7
7. 2014 UAAL using actual assets and liabilities, expected payroll	29,355	10.31%	15.46%	25.8	(5.5)
8. 2014 UAAL using actual payroll	29,355	10.31%	15.46%	24.9	(0.9)
9. 2014 UAAL change to assumptions	31,638	10.43%	15.46%	29.8	4.9

3. The funding period for this entry uses the expected UAAL and expected payroll. The expected payroll is the prior year's valuation payroll, rolled forward at the 3.5% payroll growth rate.
4. This entry uses actual contributions based on actual payroll during FY2014
5. This entry uses expected assets and payroll growth, while incorporating the actual liabilities as of August 31, 2014.
6. This entry recognizes deferred investment gains/(losses) as of August 31, 2013 from prior valuations.
7. This entry includes the current year investment results.
8. This entry incorporates known assets, liabilities, and payroll growth. The overall payroll growth does not affect the liabilities of the plan, but instead affects the calculation of the ARC because the payroll is the denominator in the calculation of the amortization payment. Higher than expected payroll growth leads to a decrease in the required amortization payment as a percentage of payroll
9. This entry shows the impact of any assumption changes

Near Term Outlook

Valuation as of August 31,	Unfunded Actuarial Accrued Liability (UAAL, in Millions)	Funded Ratio	Funding Period	Actuarial Value of Assets (AVA, in Millions)	For Fiscal year Ending August 31,	Projected Payroll for Contributions (in Millions)	Employer Contributions (in Millions)	Employee Contributions (in Millions)	Benefit Payments and Refunds for Following FY	External Cash Flow
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2014	$ 31,637	80.2%	29.8	$ 128,398	2015	$ 38,522	$ 2,976	$ 2,581	$ 9,304	$ (3,747)
2015	32,540	80.5%	29.1	134,710	2016	39,642	3,062	2,854	9,874	(3,958)
2016	33,256	80.9%	28.2	141,303	2017	40,980	3,165	3,155	10,440	(4,120)
2017	33,749	81.5%	27.2	148,246	2018	42,358	3,271	3,262	11,027	(4,495)
2018	34,201	82.0%	26.2	155,350	2019	43,782	3,380	3,371	11,624	(4,872)
2019	34,611	82.5%	25.2	162,624	2020	45,252	3,493	3,484	12,104	(5,126)
2020	34,969	83.0%	24.2	170,212	2021	46,781	3,611	3,602	12,678	(5,465)
2021	35,268	83.5%	23.2	178,049	2022	48,360	3,733	3,724	13,268	(5,812)
2022	35,502	84.0%	22.2	186,148	2023	49,988	3,858	3,849	13,872	(6,165)
2023	35,660	84.5%	21.2	194,523	2024	51,663	3,987	3,978	14,502	(6,537)
2024	35,734	85.0%	20.2	203,175	2025	53,378	4,119	4,110	14,881	(6,652)

Assumes statutory member and State contribution rates
Assumes 8.00% investment return on actuarial value each year
Assumes all other assumptions exactly met

HISTORY OF RISK METRICS

Valuation As of August 31,	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Annual Covered Payroll	AVA as % of Covered Payroll (2) / (4)	AAL as % of Covered Payroll (3) / (4)	Change in ARC if Assets Decrease 10%	Funded Ratio	Change in Funded Ratio if Assets Decrease 10%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)
2014	$ 128,398	$ 160,036	$ 39,195	328%	408%	2.0%	80.2%	8.0%
2013	121,730	150,666	37,104	328%	406%	2.0%	80.8%	8.1%
2012	118,326	144,427	36,310	326%	398%	2.0%	81.9%	8.2%
2011	115,253	139,315	36,797	313%	379%	1.9%	82.7%	8.3%
2010	111,293	134,191	36,629	304%	366%	1.8%	82.9%	8.3%
2009	106,384	128,029	35,097	303%	365%	1.8%	83.1%	8.3%
2008	110,233	121,757	33,238	332%	366%	2.0%	90.5%	9.1%
2007	103,419	115,964	31,114	332%	373%	2.0%	89.2%	8.9%
2006	94,218	107,911	28,397	332%	380%	2.0%	87.3%	8.7%
2005	89,299	102,495	25,957	344%	395%	2.1%	87.1%	8.7%
2004	88,784	96,737	25,485	348%	380%	2.1%	91.8%	9.2%
2003	89,033	94,263	25,756	346%	366%	2.1%	94.5%	9.4%
2002	86,035	89,322	24,818	347%	360%	2.1%	96.3%	9.6%
2001	86,352	84,217	23,365	370%	360%	2.2%	102.5%	10.3%
2000	79,328	73,882	21,920	362%	337%	2.2%	107.4%	10.7%
1999	69,435	67,245	19,529	356%	344%	2.1%	103.3%	10.3%
1998	60,357	57,893	18,325	329%	316%	2.0%	104.3%	10.4%
1997	53,760	53,906	17,044	315%	316%	1.9%	99.7%	10.0%
1996	47,487	49,300	15,983	297%	308%	1.8%	96.3%	9.6%
1995	43,442	45,398	14,888	292%	305%	1.8%	95.7%	9.6%

HISTORY OF CASH FLOW

Year Ending August 31,	Contributions for the Year[1]	Expenditures During the Year: Benefit Payments	Refund of Contributions	Transfer to Employees Retirement System	Expenses[3]	Total	External Cash Flow for the Year[2]	Market Value of Assets	External Cash Flow as Percent of Market Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1990	$ 1,502,302,663	$ (1,084,811,284)	$ (127,848,570)	$ -	$ (17,093,847)	$ (1,229,753,701)	$ 272,548,962	$ 24,555,334,041	1.1%
1991	1,600,092,649	(1,185,833,198)	(133,870,775)	-	(21,115,074)	(1,340,819,047)	259,273,602	29,695,711,781	0.9%
1992	1,663,664,046	(1,361,265,788)	(130,032,827)	-	(22,150,155)	(1,513,448,770)	150,215,276	32,766,914,759	0.5%
1993	1,792,999,133	(1,446,714,384)	(122,114,590)	-	(25,779,705)	(1,594,608,679)	198,390,454	37,981,853,461	0.5%
1994	1,887,530,125	(1,604,046,513)	(133,227,183)	-	(25,975,865)	(1,763,249,561)	124,280,564	39,277,226,893	0.3%
1995	1,980,678,842	(1,731,747,042)	(146,099,978)	-	(25,896,749)	(1,903,743,769)	76,935,073	45,965,182,547	0.2%
1996	1,927,100,219	(2,105,423,164)	(162,257,383)	-	(25,457,726)	(2,293,138,273)	(366,038,054)	50,101,367,986	(0.7%)
1997	2,052,261,338	(2,217,173,754)	(166,125,695)	-	(24,468,347)	(2,407,767,796)	(355,506,458)	62,160,927,516	(0.6%)
1998	2,197,477,431	(2,503,386,682)	(183,430,398)	-	(26,803,767)	(2,713,620,847)	(516,143,416)	66,456,822,943	(0.8%)
1999	2,334,197,510	(2,639,947,187)	(206,354,473)	-	(29,146,859)	(2,875,448,519)	(541,251,009)	79,910,553,792	(0.7%)
2000	2,569,218,427	(3,360,116,181)	(214,999,991)	-	(31,133,307)	(3,606,249,479)	(1,037,031,052)	89,987,158,209	(1.2%)
2001	2,712,395,592	(3,667,711,511)	(214,434,792)	-	(32,641,273)	(3,914,787,576)	(1,202,391,984)	79,428,239,521	(1.5%)
2002	2,920,429,953	(4,366,038,505)	(186,421,065)	-	(37,518,541)	(4,589,978,111)	(1,669,548,158)	71,695,802,361	(2.3%)
2003	3,094,280,741	(4,753,849,401)	(186,082,670)	-	(38,030,992)	(4,977,963,063)	(1,883,682,322)	77,633,002,461	(2.4%)
2004	3,156,205,813	(5,486,849,698)	(220,396,709)	-	(41,092,036)	(5,748,338,443)	(2,592,132,630)	84,202,981,707	(3.1%)
2005	3,208,090,642	(5,387,605,428)	(243,382,014)	-	(42,488,318)	(5,673,475,760)	(2,465,385,118)	93,707,816,093	(2.6%)
2006	3,454,514,897	(5,582,306,639)	(265,487,479)	-	(45,543,800)	(5,893,337,918)	(2,438,823,021)	100,238,963,187	(2.4%)
2007	3,703,755,952	(5,807,036,778)	(277,932,219)	-	(48,444,678)	(6,133,413,675)	(2,429,657,723)	112,128,799,849	(2.2%)
2008	4,142,958,389	(6,454,687,449)	(275,482,331)	-	(55,452,812)	(6,785,622,592)	(2,642,664,203)	104,910,497,545	(2.5%)
2009	4,352,908,188	(6,343,563,704)	(266,695,076)	-	(97,300,965)	(6,707,559,745)	(2,354,651,557)	88,652,971,682	(2.7%)
2010	4,587,520,751	(6,669,304,862)	(265,186,589)	-	(141,911,262)	(7,076,402,713)	(2,488,881,962)	95,688,405,009	(2.6%)
2011	4,704,016,139	(7,175,255,376)	(399,040,901)	-	(275,521,878)	(7,849,818,155)	(3,145,802,016)	107,420,786,893	(2.9%)
2012	4,391,331,052	(7,726,105,535)	(452,217,315)	-	(249,825,059)	(8,428,147,909)	(4,036,816,857)	111,449,887,034	(3.6%)
2013	4,682,290,371	(8,077,729,314)	(466,805,558)	-	(282,545,932)	(8,827,080,804)	(4,144,790,433)	117,388,143,859	(3.5%)
2014	5,036,110,456	(8,550,916,357)	(490,764,166)	-	(292,157,107)	(9,333,837,630)	(4,297,727,174)	132,779,243,085	(3.2%)

[1] Column (2) includes employee and employer contributions, as well as any service purchase or account reinstatement receipts during the year

[2] Column (8) = Column (2) - Column (7)

[3] Column (6) includes both administrative and investment expenses

HISTORY OF CONTRIBUTION RATES

Fiscal Year	GASB 25 Annual Required Contribution Rate	State Contribution Rate	Member Contribution Rate	Total Contribution Rate
(1)	(2)	(3)	(4)	(5)
1977/78		7.500%	6.650%	14.150%
1978/79		7.500%	6.650%	14.150%
1979/80		8.500%	6.650%	15.150%
1980/81		8.500%	6.650%	15.150%
1981/82		8.500%	6.650%	15.150%
1982/83		8.500%	6.650%	15.150%
1983/84		7.100%	6.000%	13.100%
1984/85		7.100%	6.000%	13.100%
1985/86		8.000%	6.400%	14.400%
1986/87		8.000%	6.400%	14.400%
1987/88		7.200%	6.400%	13.600%
1988/89		7.200%	6.400%	13.600%
1989/90		7.650%	6.400%	14.050%
1990/91		7.650%	6.400%	14.050%
1991/92		7.310%	6.400%	13.710%
1992/93		7.310%	6.400%	13.710%
1993/94		7.310%	6.400%	13.710%
1994/95		7.310%	6.400%	13.710%
1995/96		6.000%	6.400%	12.400%
1996/97	6.00%	6.000%	6.400%	12.400%
1997/98	6.00%	6.000%	6.400%	12.400%
1998/99	4.12%	6.000%	6.400%	12.400%
1999/00	4.92%	6.000%	6.400%	12.400%
2000/01	4.12%	6.000%	6.400%	12.400%
2001/02	5.70%	6.000%	6.400%	12.400%
2002/03	7.15%	6.000%	6.400%	12.400%
2003/04	7.39%	6.000%	6.400%	12.400%
2004/05	7.31%	6.000%	6.400%	12.400%
2005/06	7.19%	6.000%	6.400%	12.400%
2006/07	7.02%	6.000%	6.400%	12.400%
2007/08	6.47%	6.580%	6.400%	12.980%
2008/09	6.10%	6.580%	6.400%	12.980%
2009/10	7.72%	6.644%	6.400%	13.044%
2010/11	7.77%	6.644%	6.400%	13.044%
2011/12	8.13%	6.000%	6.400%	12.400%
2012/13	8.62%	6.400%	6.400%	12.800%
2013/14	8.67%	6.800%	6.400%	13.200%
2014/15	8.66%	6.800%	6.700%	13.500%

SCHEDULE OF FUNDING PROGRESS
(as required by GASB No. 25)

Valuation As of August 31,	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funding Ratio Assets as % of AAL	Annual Covered Payroll	UAAL as a % of Covered Payroll
(1)	(2)	(3)	(4)	(5)	(6)	(7)
			(3) - (2)	(2) / (3)		(4) / (6)
2014	$ 128,398	$ 160,036	$ 31,638	80.2%	$ 39,195	80.7%
2013	121,730	150,666	28,936	80.8%	37,104	79.3%
2012	118,326	144,427	26,101	81.9%	36,310	73.6%
2011	115,253	139,315	24,062	82.7%	36,797	65.4%
2010	111,293	134,191	22,899	82.9%	36,629	62.5%
2009	106,384	128,029	21,646	83.1%	35,097	61.7%
2008	110,233	121,757	11,523	90.5%	33,238	34.7%
2007	103,419	115,964	12,545	89.2%	31,114	40.3%
2006	94,218	107,911	13,694	87.3%	28,397	48.2%
2005	89,299	102,495	13,196	87.1%	25,957	50.8%
2004	88,784	96,737	7,953	91.8%	25,485	31.2%
2003	89,033	94,263	5,230	94.5%	25,756	20.3%
2002	86,035	89,322	3,287	96.3%	24,818	13.2%
2001	86,352	84,217	(2,135)	102.5%	23,365	(9.1%)
2000	79,328	73,882	(5,446)	107.4%	21,920	(24.8%)
1999	69,435	67,245	(2,190)	103.3%	19,529	(11.2%)
1998	60,357	57,893	(2,463)	104.3%	18,325	(13.4%)
1997	53,760	53,906	146	99.7%	17,044	0.9%
1996	47,487	49,300	1,813	96.3%	15,983	11.3%
1995	43,442	45,398	1,956	95.7%	14,888	13.1%
1994	38,843	39,668	825	97.9%	14,167	5.8%
1993	35,179	38,619	3,440	91.1%	13,391	25.7%
1992	31,201	34,643	3,441	90.1%	11,959	28.8%
1991	28,860	32,289	3,429	89.4%	11,181	30.7%
1990	26,111	29,455	3,343	88.6%	10,446	32.0%

SCHEDULE OF EMPLOYER CONTRIBUTIONS
(As required by GASB No. 25)

Fiscal Year Ending	Annual Required Contribution	Percentage Contributed
(1)	(2)	(3)
2014	8.67%	78%
2013	8.62%	74%
2012	8.13%	74%
2011	7.77%	86%
2010	7.72%	86%
2009	6.10%	108%
2008	6.47%	102%
2007	7.02%	85%
2006	7.19%	83%
2005	7.31%	82%
2004	7.39%	81%
2003	7.15%	84%
2002	5.70%	105%
2001	4.12%	146%
2000	4.92%	122%
1999	4.12%	146%
1998	6.00%	100%
1997	6.00%	100%
1996	6.00%	100%
1995	7.31%	100%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION
(as required by GASB No. 25)

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	Entry Age Normal
Amortization method	Level percent, open
Remaining amortization period*	29.8 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return **	8.00%
Projected salary increases **	4.25% to 7.25%
Weighted-average at valuation date	5.55%
**Includes inflation at	3.0%
Cost-of-living adjustments	None

* The funding period shown reflects changes to the benefit provisions of TRS as well as future legislated increases in the member and employer contribution rates.
The ARC for Fiscal Year 2014 (8.66%) was determined using a 30-year amortization period and the 6.70% member contribution rate in effect for fiscal year 2015.

STATISTICAL INFORMATION

	August 31, 2014 (1)	August 31, 2013 (2)	August 31, 2012 (3)
A. Number			
1. Active Members			
a. Total active members	857,342	831,302	815,155
b. Average age	44.5	44.4	44.4
c. Average service	9.9	10.0	10.1
2. Inactive Vested Members			
a. Male members	18,128	16,837	15,573
b. Female members	63,995	60,687	56,846
c. Total inactive vested members	82,123	77,524	72,419
3. Inactive Nonvested Members	111,960	112,586	116,081
B. Annualized Salaries			
1. Active members			
a. Total active members	$ 39,195,084,110	$ 37,104,056,289	$ 36,309,836,366
b. Average annual salary	45,717	44,634	44,543
C. Accumulated Members Contributions			
1. Total Active Members	30,037,789,687	28,405,248,977	27,337,569,635
2. Inactive Vested Members			
a. Male members	$ 693,051,568	$ 614,920,914	$ 551,735,817
b. Female members	2,055,071,435	1,882,207,305	1,708,677,068
c. Total inactive vested members	$ 2,748,123,003	$ 2,497,128,219	$ 2,260,412,885
3. Inactive Nonvested Members	$ 371,647,155	$ 368,715,419	$ 360,056,410
D. Active Members in DROP (included in above totals)			
1. Number	122	158	219
2. DROP Balance	$ 11,884,433	$ 15,613,675	$ 21,459,174
E. Members With No Contributions in Most Recent Plan Year, but With Contributions During Last Five Plan Years *			
1. Treated as active members			
a. Number	11,864	11,804	11,960
b. Accumulated contributions	$ 183,752,958	$ 171,893,819	$ 376,084,105
2. Treated as inactive vested members			
a. Number	42,158	39,939	37,822
b. Accumulated contributions	$ 1,403,042,973	$ 1,279,993,670	$ 1,174,552,626
3. Treated as inactive nonvested members			
a. Number	64,613	66,293	69,822
b. Accumulated contributions	$ 287,748,014	$ 293,249,098	$ 291,477,436

* The counts and amounts in item E are included in items A, B and C above.

STATISTICAL INFORMATION

	August 31, 2014 (1)	August 31, 2013 (2)	August 31, 2012 (3)
F. Persons Receiving Benefits			
1. Number			
a. Life annuities*	339,556	325,342	309,520
b. Annuities certain	1,746	1,730	1,650
c. Disability annuities - less than 10 years of service	240	229	231
d. Disability annuities - 10 or more years of service	9,173	9,020	8,822
e. Incomplete data records	0	0	0
f. Survivor annuities			
1) Currently in pay	11,529	11,011	10,599
2) Deferred	938	896	925
3) Total	12,467	11,907	11,524
g. Total persons receiving benefits	363,182	348,228	331,747
2. Annual Annuities			
a. Life annuities **	$ 8,128,042,004	$ 7,734,901,119	$ 7,164,180,784
b. Annuities certain **	22,655,673	21,874,538	20,351,998
c. Disability annuities - less than 10 years of service	432,000	412,200	415,800
d. Disability annuities - 10 or more years of service	133,984,126	130,641,726	125,255,950
e. Survivor annuities			
1) Currently in pay	34,644,926	33,091,960	31,855,360
2) Deferred	2,721,700	2,597,300	2,691,800
3) Total	37,366,626	35,689,260	34,547,160
f. Total persons receiving benefits	$ 8,322,480,429	$ 7,923,518,843	$ 7,344,751,692
g. Average monthly annuities			
1) Life annuities **	$ 1,995	$ 1,981	$ 1,929
2) Annuities certain **	1,081	1,054	1,028
3) Disability annuities - 10 or more years of service	1,217	1,207	1,183
h. DROP Lump Sum payments during year	$ 14,974,505	$ 17,223,523	$ 22,361,937
i. Partial Lump Sum Option payments during year	$ 322,033,388	$ 410,323,790	$ 501,152,157

* Includes 1,502 disabled annuitants who are receiving a retirement benefit as of August 31, 2014

** Annual and average life annuity amounts represent values after Partial Lump Sum Option Elections.

STATEMENT OF PLAN NET ASSETS

	August 31, 2014 (1)	August 31, 2013 (2)
A. ASSETS		
1. Current Assets		
a. Cash and short term investments		
1) Cash on hand and State Treasury	$ 1,236,857,997	$ 1,317,323,833
2) Short term investments	3,932,116,117	3,665,754,715
b. Accounts Receivable		
1) Member contributions	43,700,908	108,487,128
2) School districts	193,809,457	49,804,896
3) Employees Retirement System	1,540,855	1,486,700
4) State	109,118,444	0
5) Sale of investments	949,152,042	1,291,126,272
6) Interest and dividends	217,521,931	221,516,141
7) Other	265,806	462,137
c. Prepaid assets	0	0
d. Total current assets	6,684,083,557	6,655,961,822
2. Long Term Investments		
a. Fixed income	$ 23,475,157,395	$ 20,771,288,034
b. Alternative assets	44,439,452,144	39,101,997,773
c. Equities	52,316,260,451	46,507,775,056
d. Pooled investments	7,432,120,860	6,657,919,480
e. Invested securities lending collateral	22,876,578,455	21,921,125,536
f. Total long term investments	$ 150,539,569,305	$ 134,960,105,879
3. Other Assets		
a Non-depreciable assets	$ 11,684,248	$ 4,310,529
b. Building and equipment after depreciation	26,370,131	28,004,355
c. Deferred assets	0	0
d. Total other assets	$ 38,054,379	$ 32,314,884
4. Total Assets	$ 157,261,707,241	$ 141,648,382,585
B. LIABILITIES		
1. Current Liabilities		
a. Accounts payable	$ 52,115,729	$ 39,699,607
b. Benefits payable	747,290,981	715,444,886
c. Due to Employees Retirement System	6,845,375	6,640,923
d. Due to State's General Revenue Fund	0	120,636,297
e. Investments purchased payable	799,099,305	1,418,336,292
f. Securities lending collateral	22,869,875,747	21,914,338,510
g. Total current liabilities	$ 24,475,227,137	$ 24,215,096,515
2. Deferred Credits	7,237,019	45,142,211
3. Total Liabilities and Deferred credits	24,482,464,156	24,260,238,726
C. NET ASSETS HELD IN TRUST	$ 132,779,243,085	$ 117,388,143,859
D. ASSET ALLOCATION FOR CASH & LONG TERM INVESTMENTS		
1. Cash	3.3%	3.6%
2. Fixed Income	15.1%	14.8%
3. Alternative Assets	28.5%	27.9%
4. Equities	33.6%	33.2%
5. Pooled investments	4.8%	4.8%
6. Invested securities lending collateral	14.7%	15.7%
7. Total	100.0%	100.0%

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 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	2	11,958	4,067	871	389	195							17,482
	$9,477	$28,315	$32,682	$27,683	$27,445	$28,324							$29,278
25-29		21,086	17,921	10,878	9,348	14,239	107						73,579
		$33,501	$41,716	$44,761	$46,465	$45,533	$39,123						$41,150
30-34	6	14,795	11,333	7,484	8,135	48,371	9,709	129					99,962
	$12,121	$32,260	$40,013	$43,294	$45,521	$49,574	$51,583	$42,197					$45,311
35-39	2	11,400	8,830	5,519	5,635	33,301	31,646	7,294	77				103,704
	$8,607	$31,275	$39,435	$41,902	$44,101	$48,156	$55,514	$56,619	$49,160				$47,845
40-44	2	10,184	7,927	5,154	5,175	30,231	24,606	25,038	5,719	112			114,148
	$19,948	$30,295	$37,378	$39,558	$42,380	$45,262	$52,690	$59,821	$61,012	$47,829			$48,577
45-49	1	7,983	6,287	4,170	4,341	26,410	21,218	17,825	18,239	4,627	118		111,219
	$2,728	$28,486	$35,306	$37,777	$39,591	$41,993	$47,937	$54,103	$63,477	$62,476	$50,208		$47,852
50-54	2	6,632	5,167	3,492	3,617	22,463	20,375	17,895	14,486	14,177	4,060	93	112,459
	$17,469	$28,032	$34,122	$36,335	$37,466	$40,569	$45,078	$49,071	$56,728	$65,623	$67,220	$55,489	$47,686
55-59	1	4,692	3,790	2,584	2,568	16,401	16,316	16,657	14,442	8,586	7,185	2,217	95,439
	$14,218	$27,939	$33,144	$37,058	$37,242	$40,094	$44,759	$47,409	$52,499	$60,696	$70,654	$72,219	$47,913
60-64		2,587	2,227	1,566	1,663	10,619	10,547	10,952	8,686	5,809	3,018	3,227	60,901
		$26,372	$32,591	$33,697	$37,370	$40,099	$45,087	$46,868	$51,387	$56,596	$65,250	$75,700	$47,400
65 +		1,609	1,474	967	1,041	6,364	5,739	4,471	3,576	2,838	1,545	1,621	31,245
		$20,967	$23,317	$26,967	$30,707	$33,506	$41,947	$43,872	$48,004	$53,160	$57,645	$72,627	$41,785
Total	16	92,926	69,023	42,685	41,912	208,594	140,263	100,261	65,225	36,149	15,926	7,158	820,138
	$11,495	$26,850	$35,878	$39,946	$42,222	$44,753	$49,482	$52,442	$56,856	$61,566	$67,341	$73,663	$46,365

Note: Table includes contributing members (except for the new entrant data errors) and those noncontributing members assumed to be active.

DISTRIBUTION OF LIFE ANNUITIES BY AGE

Age	Number	Annual Annuities	Monthly Average Annuity
(1)	(2)	(3)	(4)
Up to 35	491	$ 6,428,358	$ 1,091
35-40	314	5,072,983	1,346
40-44	483	7,016,040	1,210
45-49	667	9,963,237	1,245
50-54	5,420	179,480,547	2,760
55-59	27,120	872,917,208	2,682
60-64	62,870	1,763,243,591	2,337
65-69	81,623	1,953,447,639	1,994
70-74	62,301	1,324,764,390	1,772
75-79	43,212	871,692,244	1,681
80-84	29,874	618,276,906	1,725
85-89	16,632	343,572,418	1,721
90-94	6,658	134,318,699	1,681
95-99	1,635	32,682,443	1,666
100 & up	256	5,165,301	1,681
TOTAL	339,556	$ 8,128,042,004	$ 1,995

DISTRIBUTION OF DISABLED ANNUITIES BY AGE

Age	Number	Annual Annuities	Monthly Average Annuity
(1)	(2)	(3)	(4)
Up to 35	1	$ 8,402	$ 700
35-40	30	328,964	914
40-44	132	1,719,218	1,085
45-49	374	5,570,231	1,241
50-54	962	15,621,555	1,353
55-59	1,566	23,541,614	1,253
60-64	1,807	25,380,900	1,170
65-69	1,477	19,009,412	1,073
70-74	967	12,633,906	1,089
75-79	742	11,172,102	1,255
80-84	670	11,891,434	1,479
85-89	321	5,303,428	1,377
90-94	102	1,495,234	1,222
95 -99	20	282,548	1,177
100 & up	2	25,178	0
TOTAL	9,173	$ 133,984,126	$ 1,217

RETIREES, BENEFICIARIES, AND DISABLED PARTICIPANTS ADDED TO AND REMOVED FROM ROLLS

	Added to Rolls		Removed from Rolls		Rolls-End of Year			
Valuation 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)
2001					188,882	$ 3,703,642,072		$ 19,608
2002	19,678	$ 426,133,328	7,119	$ 100,259,400	201,441	4,029,516,000	8.8%	20,003
2003	23,061	477,035,602	7,025	125,196,802	217,477	4,381,354,800	8.7%	20,146
2004	30,288	640,407,566	7,138	108,483,938	240,627	4,913,278,428	12.1%	20,419
2005	15,153	292,452,315	7,271	127,291,874	248,509	5,078,438,869	3.4%	20,436
2006	15,810	324,292,542	7,175	120,623,840	257,144	5,282,107,571	4.0%	20,541
2007	15,861	336,348,640	7,698	131,295,705	265,307	5,487,160,506	3.9%	20,682
2008	17,727	391,920,863	7,806	135,160,090	275,228	5,743,921,279	4.7%	20,870
2009	17,326	392,452,923	7,940	136,537,511	284,614	5,999,836,691	4.5%	21,081
2010	20,076	473,512,423	8,199	142,187,645	296,491	6,331,161,469	5.5%	21,354
2011	24,688	620,038,676	8,499	147,985,004	312,680	6,803,215,141	7.5%	21,758
2012	27,915	697,134,389	8,848	155,597,838	331,747	7,344,751,692	8.0%	22,140
2013	25,825	743,998,946	9,344	165,231,795	348,228	7,923,518,843	7.9%	22,754
2014	24,429	573,876,713	9,475	174,915,127	363,182	8,322,480,429	5.0%	22,915

SUMMARY OF THE BENEFIT PROVISIONS OF THE RETIREMENT SYSTEM AS OF AUGUST 31, 2014

The Teacher Retirement System of Texas makes retirement, disability, and death and survivor benefits to all employees of the public school system of Texas. The major provisions of the System may be summarized as follows:

A. RETIREMENT BENEFITS

1. Grandfather Criteria:

   To be grandfathered, you must have met at least one of the following requirements as a member on or before August 31, 2005: (i) at least 50 years old, or (ii) age and years of service credit equal at least 70, or (iii) have at least 25 years of service credit.

2. Normal Retirement Date:

   (a) end of month following age 65 and 5 years of creditable service,

   (b) (i) For members hired before August 31, 2007: end of month following attainment of "Rule of 80"

   (ii) For members hired on or after August 31, 2007 and who are vested as of August 31, 2014: end of month following attainment of "Rule of 80" with minimum age of 60.

   (iii) For members who are not vested as of August 31, 2014: end of month following attainment of "Rule of 80" with minimum age of 62.

2. Standard Annuity:

   The product of 2.3% of the member's average compensation multiplied by years of creditable service. The average compensation is calculated as the average of the highest five annual salaries (based on creditable compensation). Members who as of August 31, 2005, were either age 50, had 25 years of service, or whose age plus service totaled 70 have their standard annuity calculated using the average of their highest three annual salaries.

3. Normal Retirement Benefits:

   Greater of standard annuity, or $150 per month.

4. Early Retirement:

   (a) after age 55 with 5 or more years of creditable service, or

   (b) after 30 years of creditable service, regardless of age.

   (c) For members hired after August 31, 2007, end of month following attainment of "Rule of 80".

5. Early Retirement Benefits:

   (a) If a member was hired prior to September 1, 2007, has more than 30 years of service but does not meet the Rule of 80, and has maintained continuous membership until retirement, the early retirement benefit is equal to the normal retirement benefit earned to the date of retirement, reduced by 2% for each point the member is less than age 50.

   (b) If a member is grandfathered the early retirement benefit is equal to the normal retirement benefit earned to the date of retirement, reduced according to the following table:

	AGE AT DATE OF RETIREMENT					
Years of Service	55	56	57	58	59	60
20	90%	92%	94%	96%	98%	100%
21	92%	94%	96%	98%	100%	100%
22	94%	96%	98%	100%	100%	100%
23	96%	98%	100%	100%	100%	100%
24	98%	100%	100%	100%	100%	100%
25	100%	100%	100%	100%	100%	100%
26	100%	100%	100%	100%	100%	100%
27	100%	100%	100%	100%	100%	100%
28	100%	100%	100%	100%	100%	100%
29	100%	100%	100%	100%	100%	100%
30 or more	100%	100%	100%	100%	100%	100%

   (c) If the member was hired after August 31, 2007 and is vested as of August 31, 2014 and the member has met the "Rule of 80" or has 30 years of service the benefit is reduced 5% per year from age 60.

   (d) If the member is not vested as of August 31, 2014 and the member has met the "Rule of 80" or has 30 years of service the benefit is reduced 5% per year from age 62.

(e) If the member does not meet any of the conditions (a) – (d) above, the early retirement benefit is equal to the normal retirement benefit earned to the date of retirement, reduced according to the following table:

AGE AT DATE OF RETIREMENT										
55	56	57	58	59	60	61	62	63	64	65
47%	51%	55%	59%	63%	67%	73%	80%	87%	93%	100%

6. Normal Form of Benefit:

Straight life annuity payable monthly with benefits commencing at end of month following retirement with the last payment payable on behalf of the annuitant in the month of death.

7. Optional Forms:

Option 1 - joint and 100% survivor, benefit reverts to normal form following the death of the joint annuitant.

Option 2 - joint and 50% contingent survivor, benefit reverts to normal form following the death of the joint annuitant.

Option 3 - 5 years certain and life.

Option 4 - 10 years certain and life.

Option 5 - Joint and 75% contingent survivor, benefit reverts to normal form following the death of the joint annuitant.

8. Deferred Retirement Option Plan (DROP):

(a). Eligibility:

1) Must be an active contributing member.

2) Must be eligible for a standard service retirement annuity that is not reduced for retirement at an early age.

3) Must have at least 25 years of creditable service.

4) Must have entered the DROP program before January 1, 2006.

(b). Program Summary:

1) Participation begins the 1st of the month following the member's application and TRS approval of the application. Participation may begin in any month.

2) Participation may range from a minimum of one year to a maximum of five years, in 12-month increments. The member elects the period of participation at the outset.

3) The amount of the member's standard annuity is established as of the date of participation in the DROP. This amount is also used in determining the monthly deposit to the DROP account. A member will not accumulate further retirement annuity benefits during DROP participation, i.e., no further credit will be achieved from years of service or compensation changes.

4) Any special service credit that a member wishes to purchase must be paid in full prior to DROP participation.

5) A separate DROP account will be established for each participating member. Each month, an amount equal to 60 percent of the calculated standard annuity will be deposited into the account. At retirement, the account plus interest at the rate of five percent per annum will be distributed.

6) Member and employer contributions continue during DROP participation. Contributions are not deposited into the member's DROP account and will not be refunded.

7) Three events terminate participation - death, retirement or expiration of the participation period.

8) Upon retirement, participating members will receive their retirement annuity plus the balance in their DROP account including interest. DROP balances may be paid by TRS in a lump sum or on a time payout selected by the member.

10. Partial Lump-Sum Option Program:

Members, eligible for unreduced retirement and either (1) grandfathered or (2) meeting the Rule of 90, and not participating in the DROP program, may select a partial lump-sum distribution not to exceed an amount equal to 36 months of a standard service retirement annuity. When this option is selected, the member's annuity will be actuarially reduced to reflect that distribution and will be computed so that no actuarial loss results to TRS.

The percentage shown in the following table will be applied to reduce the standard annuity when the partial lump-sum option is elected.

	Percentage of Standard Annuity		
Age	12 Months	24 Months	36 Months
45	91.66	83.32	74.98
46	91.62	83.23	74.85
47	91.57	83.13	74.70
48	91.51	83.03	74.54
49	91.46	82.92	74.37
50	91.40	82.79	74.19
51	91.33	82.66	73.99
52	91.26	82.52	73.78
53	91.18	82.37	73.55
54	91.10	82.20	73.31
55	91.01	82.03	73.04
56	90.92	81.84	72.75
57	90.81	81.63	72.44
58	90.70	81.41	72.11
59	90.58	81.17	71.75
60	90.46	80.91	71.37
61	90.32	80.64	70.95
62	90.24	80.48	70.71
63	90.01	80.03	70.04
64	89.85	79.69	69.54
65	89.67	79.34	69.01
66	89.48	78.96	68.44
67	89.28	78.56	67.84
68	89.06	78.13	67.19
69	88.84	77.67	66.51
70	88.59	77.18	65.77
71	88.32	76.65	64.97
72	88.03	76.07	64.10
73	87.72	75.43	63.15
74	87.37	74.74	62.12
75	87.00	74.00	61.00
76	86.59	73.19	59.78
77	86.15	72.31	58.46
78	85.68	71.35	57.03
79	85.16	70.31	55.47
80	84.59	69.18	53.78
81	83.98	67.96	51.94
82	83.32	66.64	49.96
83	82.61	65.21	47.82
84	81.83	63.67	45.50
85	81.00	62.00	42.99
86	80.09	60.18	40.27
87	79.09	58.19	37.28
88	78.00	56.00	34.00
89	76.81	53.62	30.43
90	75.52	51.04	26.56
91	74.13	48.26	22.39

10. Minimum Annuity Payments:

Total annuity payments shall in no case be less than the member's accumulated contributions at retirement. Upon the death of a retiree, the excess, if any, of accumulated contributions over total annuity payments received prior to death will be paid to the beneficiary.

B. DISABILITY BENEFITS

1. Less than 10 years of creditable service: $150.00 per month for the shorter of:

(a) disability, or

(b) number of months of creditable service as of date of disability retirement.

2. At least 10 years of creditable service: the greater of accrued retirement income or $6.50 per month per year of creditable service, payable for duration of disability; disability presumed continuous if it continues past age 60. The minimum disability payment made on behalf of a member will be no less than $150.00 per month.

C. DEATH BENEFITS

1. Eligibility: applicable if death occurs:

(a) in service,

(b) while absent from service for good cause,

(c) while not in service but eligible to retire,

(d) while not in service but would be eligible to retire without additional service before April 15 of the sixth school year after last creditable year of service, or

(e) while receiving a disability benefit, but only eligible for 2f, below.

2. Benefit: any one of the following, at the option of the beneficiary:

(a) a lump sum (not to exceed $80,000) equal to two times the rate of pay for the last year of service,

(b) a lump sum (not to exceed $80,000) equal to two times annual pay for the year preceding last year of service,

(c) 60 monthly payments of accrued standard annuity,

(d) a life annuity payable under Option 1 as if the member had retired on the last day of the month preceding death,

(e) a refund of accumulated contributions, or

(f) the survivor benefits, if eligible.

Note: Items (c) and (d) available only if member has at least 5 years of creditable service.

3. Benefit if Absent from Service Without Good Cause: return of accumulated contributions.

D. SURVIVOR BENEFITS

1. Benefits: (a) or (b) at the election of the beneficiary:

(a) lump sum payment of $10,000, or

(b) lump sum payment of $2,500 plus one of the following, if the designated beneficiary is eligible:

(i) if a spouse or dependent parent, $250 per month commencing at age 65,

(ii) if a spouse with children under age 18, $350 per month until youngest child reaches 18, then $250 per month commencing at spouse's age 65, or

(iii) if dependent children, $350 per month as long as at least two dependent children under 18, reducing to $250 per month when there is only one child under 18.

If benefits are payable under (i) or (ii) above and eligible spouse or dependent dies, payments will revert in accordance with (iii) above.

2. Eligibility:

(a) all employees eligible for a death benefit other than refund of accumulated contributions,

(b) any retired member, in addition to any benefit provided by his or her option of payment, or

(c) any disabled participant, in lieu of other death benefits (Item C2).

E. VESTING OF BENEFITS

1. Vesting: a member is fully vested after 5 years of creditable service.

2. Benefits upon Vesting: a fully vested member is entitled to the following:

   (a) upon becoming inactive, not required to withdraw accumulated contributions within seven years,

   (b) may apply at age 65 for normal retirement benefit equal to accrued standard annuity, or

   (c) may apply for any other retirement benefits for which he or she is eligible upon satisfying age requirement (if applicable) if he or she satisfied the corresponding service requirement at time of last termination; benefit is based on his or her full accrued standard annuity.

F. MEMBER CONTRIBUTIONS

6.40% of compensation per year for fiscal year 2014, 6.70% for fiscal year 2015, 7.20% for fiscal year 2016, and 7.70% for years on and after 2017.

G. STATE CONTRIBUTIONS

State will contribute 6.80% of member compensation for FY2014, and each year thereafter. Beginning in fiscal year 2015, covered employers whose employees are not participating in Social Security will begin contributing 1.50% of pay. Combined it is expected that these contributions will be approximately 7.76% of total payroll.

H. LEGISLATIVE CHANGES MADE BY THE 1991 STATE LEGISLATURE

1. The minimum retirement benefit increased from $75 to $100 per month.

2. The disability death benefit changed to the same as a service retirement death benefit.

3. An ad hoc cost of living increase was approved for members who retired prior to May 1, 1989. The increase does not apply to a survivor benefit or to a disability benefit for a member who had less than 10 years of service at the time of retirement or death. The amount of the increase is five-tenths of one percent of each full six-month period between the latest effective date of retirement (or date of death) and August 1, 1991. The increase begins August 1991.

I. LEGISLATIVE CHANGES MADE BY THE 1993 STATE LEGISLATURE

1. Increase in survivor benefit by $50 per month.

2. Retroactive minimum benefit of $6.50 per year of service for members retired as of November 1, 1991.

3. An ad hoc cost of living increase approximating a 25% CPI catch-up. The actual percentage increase varies by year of retirement and has a minimum increase of 5%. The increase begins with the January, 1994 annuity check and covers all benefit recipients who began receiving benefits before August 31, 1991, except that it does not apply to survivor benefits or to a disability benefit for a member who had less than 10 years of service at the time of retirement or death.

4. ERS/TRS transfer provisions.

   (a) Service credit transfers allowed if the participant is a member of both ERS and TRS and has at least three years of service credit in the System from which the member is retiring.

   (b) A member may reinstate or purchase service credit in the other System prior to making the transfer if that member has at least three years of service credit in the current System.

   (c) TRS and ERS will jointly set rules for the assumptions used in computing asset transfer amounts. The transfer of funds between ERS and TRS takes place at the time of actual retirement.

J. LEGISLATIVE CHANGES MADE BY THE 1995 STATE LEGISLATURE

1. Unreduced benefits at retirement were expanded to include participants age 50 or older with 30 or more years of service.

2. Annuitants' benefits increased in an amount equal to the greater of:

   (a) A recalculation of benefits based on

      (i) January 1, 1995 law with all intervening ad hoc increases, plus

      (ii) A CPI catch-up increase.

(b) A recalculation of benefits for retirees who retired before September 1, 1993, based on a 2% multiplier and a minimum annual salary of a classroom teacher or full-time librarian as described by the Education Code. This annual salary is currently $17,000 based on current Education Code.

3. Treat all Option 1 and Option 2 benefits as including the pop-up feature.

4. The annuity payment in the month of death is payable on behalf of the annuitant.

5. The disability benefit payable when a member has less than ten years of service increased from $50 per month to $150 per month for both current and future disabled members. The minimum disability payment made on behalf of a member with ten or more years of service shall be no less than $150 per month.

6. The benefit increase reserve account in TRS was eliminated, resulting in the liability for all annuity benefits being included within the retired reserve account.

7. The maximum two-times-pay death benefit payable on behalf of a member would increase from $60,000 to $80,000.

K. LEGISLATIVE CHANGES MADE BY THE 1997 STATE LEGISLATURE

1. Driver's education pay is added to plan compensation for the determination of a member's best 3-year average compensation.

2. Disabled participants are allowed to select a Joint and Survivor annuity option after commencement of disability benefits, if they become married after date of disability.

3. Retirees are allowed to change the designated beneficiary for pension benefits payable after their death under certain conditions.

4. Adoption of "Rule of 80" criteria for unreduced standard retirement annuity (i.e., sum of member's age & credited service is greater than or equal to 80).

5. Elimination of $6.50 per month per year of service minimum standard retirement annuity benefit.

6. Addition of $50.00 to the minimum survivor benefit.

7. Creation of a Deferred Retirement Option Program (DROP), described in Item A8 above.

8. A CPI catch-up ad hoc cost-of-living increase for retired members.

L. LEGISLATIVE CHANGES MADE BY THE 1999 STATE LEGISLATURE

1. Increased multiplier from 2.0% to 2.2% effective September 1, 1999, and an equivalent 10% increase for all retirees.

2. A CPI catch-up ad hoc cost-of-living increase for retired members.

3. Established a partial lump-sum option at time of retirement.

4. DROP participant enrolled on or before August 31, 1999, have a one-year window from September 1, 1999 to revoke DROP participation.

5. For members entering DROP on or after September 1, 1999, the monthly DROP deposit will be reduced from 79% to 60% of the standard annuity.

9. Provides a lump-sum death benefit of $160,000 for an active member employed by a school district who dies due to a physical assault during the performance of their regular duties.

10. Allows a return to teaching after being retired at least 12 months without a reduction in the retirement benefit under certain circumstances.

M. LEGISLATIVE CHANGES MADE BY THE 2001 STATE LEGISLATURE

1. Increased multiplier from 2.2% to 2.3% effective September 1, 2001, and an equivalent 4.5% increase for all retirees.

2. A 6% ad hoc increase for retired members.

3. Increase in survivor benefits of $50 per month.

4. Allows a return to work as a bus driver with no reduction in the monthly benefit if retired with an unreduced benefit.

5. Permits purchase of up to 3 years of "air time" if the member has at least 7 years of actual membership service. Purchase price is the full actuarial cost of the purchased service.

N. LEGISLATIVE CHANGES MADE BY THE 2003 STATE LEGISLATURE

1. For employees hired on or after September 1, 2003, a 90-day waiting period is required for participation in TRS. Members may have the option to purchase this service. This provision is set to expire on September 1, 2005.

2. Limits the collection of overpayments to the three years prior to the overpayment discovery, except in cases of fraud or knowledge by the participant that the payments were incorrect.

3. Repealed the requirement that in order to reinstate service withdrawn after August 31, 2003, for the purposes of ERS/TRS transfer, the member must belong to the system from which the service is purchased.

4. Retirees who are employed by a third-party entity are considered to be employees of the school for return to work purposes unless the retiree does not perform duties or provide services in behalf of the school

5. Retirees may work as a substitute and on a half-time basis during a single calendar month as long as the total days worked do not exceed the number of days for one-half time employment for that month.

O. LEGISLATIVE CHANGES MADE BY THE 2005 STATE LEGISLATURE

1. Final average salary at retirement will be determined by the highest five years (instead of three years) of salary, subsidized early retirement will be eliminated, and partial lump sum option eligibility will require a combined age plus years of creditable service that equals at least 90 ("Rule of 90").

2. Future members (those who establish TRS membership on or after September 1, 2007) will have the following eligibility requirements to qualify for an unreduced annuity at retirement: (i) age 65 with 5 years of service, or (ii) age 60 with at least 5 years of service and meets the Rule of 80 (combined age and years of service equal at least 80).

3. Employers will be required to pay a monthly surcharge to the pension fund for each retiree working in a TRS-covered position and reported to TRS.

4. The Deferred Retirement Option Plan (DROP) is being discontinued for new participation effective December 31, 2005.

P. LEGISLATIVE CHANGES MADE BY THE 2007 STATE LEGISLATURE

1. The State contribution rate was increased to 6.58% for fiscal year 2008. In addition, the new law requires the State contribution rate to be at least equal to the member contribution rate.

2. The Legislature authorized TRS to make a one-time payment (13th check) in January 2008, if the August 31, 2007 actuarial valuation showed that the funding period would be less than 31 years with the payment. The payment is equal to the lesser of the member's December monthly payment or $2,400. To be eligible a retiree must have retired on or before December 31, 2006.

Q. LEGISLATIVE CHANGES MADE BY THE 2009 STATE LEGISLATURE

1. The Legislature included funding for a one-time supplemental payment of $500 million for current retirees. This appropriation was contingent upon a ruling by the Attorney General's office that such a payment is permissible under State law. The Attorney General determined this payment was not permissible, and therefore the additional appropriation will be contributed to the Trust as additional contributions, increasing the State contribution rate to an effective 6.644% for the biennium.

R. LEGISLATIVE CHANGES MADE BY THE 2013 STATE LEGISLATURE

1. The normal retirement eligibility for members who are not vested as of August 31, 2014 to the "Rule of 80" with minimum age 62 (was minimum age of 60).

2. For members who are not vested as of August 31, 2014, their early retirement benefit will be reduced from age 62 (was 60) if they meet the Rule of 80" but are not eligible for normal retirement.

3. The Legislature granted an ad hoc COLA for members in payment status since August 31, 2004. The payment is equal to the lesser of $100 or 3% of their monthly payment.

4. The member contribution rate will increase to 6.70% in fiscal year 2015, 7.20% in fiscal year 2016, and 7.70% for fiscal years on and after 2017.

5. The State's contribution rate increased to 6.80% in fiscal year 2014.

6. Covered employers whose employees are not participating in Social Security **whose positions are subject to the state statutory minimum salary schedule** will begin contributing 1.50% of pay in fiscal year 2015.

ACTUARIAL ASSUMPTIONS AND METHODS
(Adopted April 8, 2011)

ACTUARIAL ASSUMPTIONS

1. Investment Return Rate — 8.00% per annum net of investment and administrative expenses, compounded annually, composed of an assumed 3.00% inflation rate and a 5.00% real rate of return

2. Mortality, Withdrawal, Disability Retirement, and Service Retirement Rates:

   Rates and scales developed in the actuarial investigation as August 31, 2007, with values at specimen ages shown in the tables below:

   a.

	PROBABILITY OF DECREMENT DUE TO	
Age	Death	Disability Retirement
	MALE MEMBERS	
20	0.000297	0.000003
30	0.000624	0.000042
40	0.000849	0.000381
50	0.001458	0.001287
60	0.003979	0.002455
70	0.012940	0.000574
	FEMALE MEMBERS	
20	0.000189	0.000006
30	0.000291	0.000065
40	0.000449	0.000234
50	0.000923	0.001256
60	0.002084	0.002436
70	0.007621	0.000551

b. The following select tables are used for the first 10 years of employment:

Probability of Decrement Due to Withdrawal – Male Members

Age	Years of Service 0	1	2	3	4	5	6	7	8	9
20	0.2606	0.2266	0.1716	0.1335	0.1050	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.2173	0.1890	0.1560	0.1233	0.0952	0.0789	0.0652	0.0648	0.0628	0.0536
40	0.2172	0.1888	0.1430	0.1253	0.0873	0.0833	0.0690	0.0608	0.0542	0.0464
50	0.1937	0.1684	0.1245	0.0993	0.0754	0.0684	0.0644	0.0544	0.0512	0.0466
60	0.2021	0.1757	0.1324	0.1160	0.0751	0.0664	0.0518	0.0495	0.0426	0.0341
70	0.2371	0.2062	0.1724	0.1174	0.1017	0.0000	0.0000	0.0000	0.0000	0.0000

Probability of Decrement Due to Withdrawal – Female Members

Age	Years of Service 0	1	2	3	4	5	6	7	8	9
20	0.1938	0.1685	0.1438	0.1263	0.1075	0.0000	0.0000	0.0000	0.0000	0.0000
30	0.1948	0.1694	0.1435	0.1218	0.1007	0.0935	0.0825	0.0724	0.0564	0.0570
40	0.1807	0.1571	0.1235	0.1052	0.0826	0.0743	0.0641	0.0578	0.0560	0.0459
50	0.1755	0.1526	0.1199	0.0971	0.0792	0.0708	0.0638	0.0549	0.0472	0.0402
60	0.1959	0.1703	0.1356	0.1082	0.0846	0.0660	0.0671	0.0509	0.0463	0.0438
70	0.2483	0.2159	0.1929	0.1994	0.1254	0.0000	0.0000	0.0000	0.0000	0.0000

The following table is used for all years after the first ten years of employment. Rates after 29 continue to increase by 0.0001 per year.

Probability of Decrement Due to Withdrawal
Based on Years from Normal Retirement

Years from Retirement	Male Members	Female Members	Years from Retirement	Male Members	Female Members
0	0	0	15	0.0283	0.0314
1	0.009	0.0068	16	0.0291	0.0326
2	0.0121	0.0101	17	0.0299	0.0337
3	0.0143	0.0127	18	0.0306	0.0348
4	0.0162	0.0149	19	0.0313	0.0359
5	0.0178	0.0169	20	0.0318	0.0369
6	0.0192	0.0187	21	0.0322	0.0378
7	0.0205	0.0204	22	0.0325	0.0386
8	0.0217	0.0220	23	0.0327	0.0393
9	0.0228	0.0235	24	0.0328	0.0399
10	0.0239	0.0250	25	0.0329	0.0404
11	0.0248	0.0264	26	0.0330	0.0408
12	0.0258	0.0277	27	0.0331	0.0411
13	0.0267	0.0290	28	0.0332	0.0413
14	0.0275	0.0302	29	0.0333	0.0414

c. Rates of Retirement

(for members hired on or prior to August 31, 2007)

Probability of Decrement Due to Retirement – Male Members

	Years of Service							
Age	0-4	5-9	10-14	15-18	19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.370
55	0.000	0.010	0.010	0.010	0.010	0.030	0.180	0.180
60	0.000	0.020	0.020	0.020	0.020	0.220	0.220	0.220
65	0.000	0.220	0.220	0.220	0.220	0.220	0.220	0.220
70	0.000	0.200	0.200	0.200	0.200	0.200	0.200	0.200
74	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Probability of Decrement Due to Retirement – Female Members

	Years of Service							
Age	0-4	5-9	10-14	15-18	19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.300
55	0.000	0.010	0.010	0.010	0.010	0.030	0.160	0.160
60	0.000	0.020	0.020	0.020	0.020	0.200	0.200	0.200
65	0.000	0.220	0.220	0.220	0.220	0.220	0.220	0.220
70	0.000	0.200	0.200	0.200	0.200	0.200	0.200	0.200
74	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

(for members hired after August 31, 2007)

Probability of Decrement Due to Retirement – Male Members

	Years of Service							
Age	0-4	5-9	10-14	15-18	19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010
55	0.000	0.010	0.010	0.010	0.010	0.010	0.010	0.010
60	0.000	0.020	0.020	0.020	0.020	0.220	0.220	0.220
65	0.000	0.220	0.220	0.220	0.220	0.220	0.220	0.220
70	0.000	0.200	0.200	0.200	0.200	0.200	0.200	0.200
74	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Probability of Decrement Due to Retirement – Female Members

	Years of Service							
Age	0-4	5-9	10-14	15-18	19	20-24	25-29	30+
50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010
55	0.000	0.010	0.010	0.010	0.010	0.010	0.010	0.010
60	0.000	0.020	0.020	0.020	0.020	0.200	0.200	0.200
65	0.000	0.220	0.220	0.220	0.220	0.220	0.220	0.220
70	0.000	0.200	0.200	0.200	0.200	0.200	0.200	0.200
74	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

For members who have 30 years of service but who have not attained age the Rule of 80, there is a 1% probability of retirement.

For members hired after August 31, 2007 who have met the Rule of 80, there is a 1% probability of retirement prior to age 50.

For members hired prior to August 31, 2007, 2% will be added to the normal retirement rate as an adjustment of the rate for male members when they reach first eligibility for unreduced retirement. 4% is added for female members.

2% will be added to the early retirement rate for the grandfathered members with 20 or more years of service as an adjustment to the rate.

For members hired after August 31, 2007 and who are vested as of August 31, 2014, the retirement rates for members once they reach unreduced retirement eligibility at age 60 are increased 10% for each year the member is beyond the Rule of 80 (i.e. if the member reached the Rule of 80 at age 58 then the probability of retirement at age 60 is 120% of the rate shown above).

For members hired after August 31, 2007 and who are not vested as of August 31, 2014, or, for members hired after August 31, 2014, the retirement rates for members once they reach unreduced retirement eligibility at age 62 are increased 10% for each year the member is beyond the Rule of 80 (i.e. if the member reached the Rule of 80 at age 58 then the probability of retirement at age 62 is 140% of the rate shown above).

The rates of retirement for normal retirement benefits for members who are not TRS-Care grandfathered as of August 31, 2014 are 85% of the rates described above prior to age 62 and an increased rate at age 62 by adding 5%.

3. Rates of Salary Increase

Inflation rate of 3.00%, plus productivity component of 1.25%, plus step-rate/promotional component as shown:

	Annual Step Rate/ Promotional Rates of Increase		Total Annual Rate of Increase	
Years of Service	Males	Females	Males	Females
(1)	(2)	(3)	(4)	(5)
1	3.00%	3.00%	7.25%	7.25%
2	3.00%	3.00%	7.25%	7.25%
3	2.75%	2.75%	7.00%	7.00%
4	2.50%	2.50%	6.75%	6.75%
5	2.25%	2.25%	6.50%	6.50%
6	2.00%	2.00%	6.25%	6.25%
7-8	1.75%	1.75%	6.00%	6.00%
9-10	1.50%	1.50%	5.75%	5.75%
11	1.25%	1.25%	5.50%	5.50%
12	1.00%	1.00%	5.25%	5.25%
13-18	0.75%	0.75%	5.00%	5.00%
19-21	0.50%	0.50%	4.75%	4.75%
22-24	0.25%	0.25%	4.50%	4.50%
25 or more	0.00%	0.00%	4.25%	4.25%

This weighted average salary increase rate is 5.55% based on the active member service distribution as of August 31, 2014.

DISABILITY ANNUITANTS:

1. Investment Return Rate: 8% per annum, compounded annually.

2. Mortality: The PBGC Male Disabled Mortality Table for plan terminations after December 1, 1980, with a six-year setback and the PBGC Female Disabled Mortality Table for plan terminations after December 1, 1980, with a four-year setback.

Age	Probability of Mortality		Life Expectancy (Years)	
	Male	Female	Male	Female
55	0.0367	0.0264	15.81	20.98
65	0.0581	0.0339	12.19	16.62
75	0.0723	0.0421	9.48	12.06
85	0.1043	0.0813	6.06	7.23
95	0.2330	0.1825	3.10	3.84

SERVICE RETIREMENT ANNUITANTS, NOMINEES AND SURVIVORS:

1. Investment Return Rate: 8% per annum, compounded annually (benefit increase reserve account eliminated by the 1995 legislative session).

2. Mortality: Client specific tables; used for service retirement annuitants, beneficiaries and survivors. These tables are selected to best reflect the experience developed in the actuarial investigation as of August 31, 2010, further adjusted in conjunction with the August 31, 2014 valuation. The rates below

Age	Probability of Mortality		Life Expectancy (Years)	
	Male	Female	Male	Female
55	0.003388	0.002580	28.16	31.92
65	0.010017	0.005625	19.49	22.92
75	0.029614	0.017861	12.07	14.65
85	0.087554	0.063094	6.54	8.33
95	0.213094	0.150113	3.62	5.05

MORTALITY IMPROVEMENT:

To account for future mortality improvement, the rates were chosen so that the assumed mortality rates are smaller than the rates observed in the most recent experience study and further adjusted in 2014. The ratio of the actual number of deaths occurring during this fiscal year to the expected number based on the selected assumptions was 104% for healthy male annuitants, 107% for healthy female annuitants, 103% for disabled male annuitants, and 99% for disabled female annuitants.

ERS/TRS TRANSFER ASSUMPTIONS:

A liability for the present value of the potential asset transfer has been calculated assuming that the TRS members who will be eligible for the transfer benefit are approximated by 10% of the inactive

TRS members who have at least five years of service and have left their contributions on deposit. The liability is based on the actuarial present value of the deferred benefit assuming future salary increases at the current salary scale rates and that they will retire at the earliest age for which an unreduced benefit will be received.

HANDLING OF ACTIVE DATA WITH MISSING INFORMATION:

As of the close of each fiscal year there is a large number of records for whom no statistical data has been received. The only information TRS has is an identification number and initial contributions. Any of these records that were in the prior year's data are treated as non-vested terminated members. The remaining records are treated as new entrants. Beginning with the valuation as of August 31, 1993, active member results have been imputed for this new entrant error group according to the following procedures:

1. The count for this group has been added to the active member count.

2. Covered payroll and the present value of future pay have been increased by the product of the number of such members multiplied by average new entrant pay and present value of future pay.

3. The present value of future benefits for active members has been increased by the product of the new entrant normal cost rate multiplied by the imputed present value of future pay for this group, as determined under Item 2 above.

There are other records provided by TRS that have missing gender and/or missing date of births. These records are handled as follows:

1. 80% of records with missing gender are assumed to be female. The overall male/female ratio of the active membership is used to set this assumption.

2. Records with missing dates of birth are assigned a date of birth that produces an entry age equal to the average entry age for the overall active population, based on the member's actual service.

ASSUMPTION FOR DROP PARTICIPATION

Members are no longer eligible to enter DROP. Members who have exited DROP but are not yet retired are assumed to retire immediately.

BENEFIT ELECTION OF VESTED TERMINATING MEMBERS:

In determining the liabilities developed for future terminating vested members, it is assumed that the member elects either a refund or a deferred vested benefit, whichever is more valuable. The deferred benefit is assumed to commence at the earliest age the member will be eligible for unreduced benefits. For current inactive members, the retirement benefit was estimated using 2.3% of the final salary per year of service.

ELECTION RATES FOR ACTIVE MEMBER DEATH BENEFITS:

It is assumed that the beneficiary will elect the death benefit option with the greatest value.

DECREMENT TIMING:

With the exception of retirement, all decrements are assumed to occur mid-year. Retirement is assumed to occur at the end of the year.

FORM OF PAYMENT:

Many forms of payment are available under the terms of the plan. As they are considered actuarial equivalent at the point of retirement, only the life only form of payment has been valued for members expected to retire in the future.

MARRIAGE ASSUMPTION:

100% of active members are assumed to be married.

SPOUSAL AGE DIFFERENCE:

Husbands are assumed to be three years older than their wives.

CLASSIFICATION OF WHO ARE ACTIVE MEMBERS:

For members who had no contribution postings during the just-completed plan year but did have a posting during one or more of the four preceding plan years:

1. 10% of such members will be assumed to return to contributing status in the new plan year (i.e., they will be assumed to be active for valuation purposes).

2. 90% of such members will be treated as inactives for the new plan year.

3. The 90% group will be valued as inactive vested or inactive nonvested depending on their years of service credit.

4. If they are considered inactive vested, their actuarial liability will be the present value of their accrued benefit assuming benefit commencement at the age when they first reach normal retirement eligibility with the vested service, plus the value of any death benefit.

5. If they are considered inactive nonvested, their actuarial liability will be their accumulated account balance.

AVERAGE SURVIVOR BENEFIT LIABILITY:

One of the options on the death of an active member, a disabled member, or a retired member is a survivor benefit. To determine the liability for this benefit the following average values are used.

		Males	Females
1.	Active member	$62,200	$59,000
2.	Disabled member	$13,000	$11,000
3.	Retired member	$12,000	$12,000

ACTUARIAL VALUE OF ASSETS:

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual income. The actual calculation is based on the difference between actual market value and the expected actuarial value of assets each year, and recognizes the cumulative excess return (or shortfall) over at a minimum rate of 20% per year. Each year a base is set up to reflect this difference. If the current year's base is of opposite sign to the deferred bases then it is offset dollar for dollar against the deferred bases. Any remaining bases are then recognized over the remaining period for the base (5 less the number of years between the bases year and the valuation year). This is intended to ensure the smoothed value of assets will converge towards the market value in a reasonable amount of time. The actuarial value of assets is further adjusted by 33% of any difference between the initial value and a 20% corridor around the market value of assets, if necessary. If the corridor is applicable for a given year, the next year's expected actuarial value of assets will be determined from the post-corridor adjusted asset value.

Expected earnings are determined using the assumed investment return rate and the beginning of year actuarial value of assets (adjusted for receipts and disbursements during the year). The returns are computed net of administrative and investment expenses.

PAYROLL GROWTH FOR FUNDING OF UNFUNDED ACTUARIAL ACCRUED LIABILITY:

1. Total payroll growth rate: 3.50%.

2. Portion attributable to inflation: 3.00%.

3. Portion attributable to active member growth: No growth.

ACTUARIAL COST METHOD:

The funding period required to amortize the unfunded actuarial accrued liability (UAAL) is determined using the Entry Age Actuarial Cost Method. This method assigns the plan's total unfunded liabilities (the actuarial present value of future benefits less the actuarial value of assets) to various periods. The unfunded actuarial accrued liability is assigned to years prior to the valuation, and the normal cost is assigned to the year following the valuation. The remaining costs are assigned to future years.

The normal cost is determined as a level percentage of payroll for a group of new entrants, based on actual new entrant experience for the period 2007-2010.

The actuarial accrued liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs. The unfunded actuarial accrued liability (UAAL) is the excess of the actuarial accrued liability over the actuarial value of assets.

Since the State statutes governing the System establish the current employee and State contribution rates, the actuarial valuation determines the number of years required to amortize (or fund) the UAAL on a level percentage of payroll basis, taking into account the payroll growth assumption and the normal cost expressed as a percent of pay.

Because of this amortization procedure, any change in the unfunded actuarial accrued liability due to (i) actuarial gains and losses, (ii) changes in actuarial assumptions, or (iii) amendments, affects the funding period. The statutory goal is that the State contribution rate be sufficient to keep the funding period below 31 years.

PROJECTED PAYROLL FOR CONTRIBUTIONS:

The aggregate projected payroll for the fiscal year following the valuation date is calculated by increasing the actual payroll paid during the previous fiscal year by the payroll growth rate and multiplying by the ratio of current active members to the average number of active members during the previous fiscal year.

USE OF CELLED DATA:

For valuation purposes, the active valuation data is celled by benefit tier, gender, years of service, month and year of birth. The individual cell is valued using the sum of the salary and account balances of the members in the cell. Every year we test this approach against using the individual records and the results are consistently less than 0.02% different in total present value of benefits.

NEW ENTRANT PROFILE:

There is a single new entrant profile used to determine the ultimate normal cost, the additional liabilities for the new entrant errors, and for future active members in open group projections. This profile is updated with each experience study, with the last one based on the new members from 2007 through 2010. Members with 1 year of service are selected from each year's data and rolled forward to

the measurement date, in this case August 31, 2010. Members are then grouped based on year of birth, gender, and partial year pay group. Members with fiscal year salaries less than $30,000 were assumed to have worked less than a full year and their salaries for year 2 are assumed to increase by an additional 30% over the normal salary scale. The following is a summary of the profile as of August 31, 2010.

	Initial Pay >$30,000		Initial Pay <$30,000		
	Count	Average Pay	Count	Average Pay	% Female
<20	24	38,070	3,063	8,787	58%
20-29	56,898	43,319	58,451	16,365	73%
30-39	30,410	47,342	47,314	16,065	74%
40-49	16,925	49,501	39,004	15,526	74%
50-59	9,181	52,370	22,547	15,091	66%
60-69	1,646	56,211	6,834	12,658	49%
>70	75	58,503	810	11,005	37%

FUNDING OF UNFUNDED ACTUARIAL ACCRUED LIABILITY:

Funded by the excess of future State contributions required by Law over the amount of such contributions required to fund the normal cost of benefits. Based on a study of all new entrants hired in the period from 2007 through 2010 and taking into account all changes in benefit provisions, the ultimate normal cost for benefits provided by the System is 10.43% of payroll (7.70% by members plus 2.73% by the State), which is 5.03% of payroll less than the ultimate total contribution rate required by Law. It is intended that the excess amount of 5.03% of payroll will be used to amortize any unfunded actuarial accrued liabilities of the System, assuming that total payroll increases by 3.50% per year.

As of the valuation as of August 31, 2014, these excess contributions of 5.03% of pay are sufficient to amortize the UAAL under the required time period.

CHANGES SINCE THE PRIOR VALUATION:

1. The rates of post-retirement mortality for healthy annuitants were decreased from an 87% multiplier on the TRS-Specific Table to an 80% multiplier after the data analysis process found that the margin for future improvement in mortality had eroded faster than expected.

2. Based on recommendations from the actuarial audit performed by the Segal Group, Inc. the assumption for when Members who had terminated from service but were due a benefit was changed from a fixed age 62 to the earliest age the individual would be eligible for an unreduced benefit.

DEFINITION OF ACTUARIAL TERMS

H.B. 2206 as passed by the 1979 Legislature requires that any actuarial study of a public retirement system include "a complete definition of each actuarial term used in the study". In our report we have attempted to avoid the use of a multitude of complex actuarial terminology, but we realize that different users of our reports may have differing opinions as to what constitutes an "actuarial term". Accordingly, in keeping with the intent and the spirit of the law, we offer the following definitions of several terms contained in this report which might be considered actuarial in nature. Any qualified user of our report who believes that additional terms should be included is invited to communicate such terms either directly to us or through the Teacher Retirement System of Texas.

1. *Actuarial Accrued Liability* - for benefits payable in the future to present members, it will equal the present value of benefits payable in the future to them less the present value of future normal costs.

2. *Actuarial Assumptions* - assumptions as to future experience under the System. Current actuarial assumptions are detailed in Table 21 of the current annual valuation report. Assumptions include future fund earning rates, rates of future salary increases, and rates of death (both before and after retirement), disability, retirement, and withdrawal. Effective August 31, 1985, select and ultimate assumptions were adopted for retirement and withdrawal rates and the salary scale.

3. *Actuarial Gain or Actuarial Loss* - a measure of the difference between actual experience and assumed experience of the System. Through the actuarial assumptions, rates of decrements, rates of salary increases, and rates of fund earnings have been forecasted. To the extent that actual experience differs from that assumed, actuarial liabilities emerge which may be the same as forecasted, or they may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., the System's assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results that produce actuarial liabilities which are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.

4. *Actuarial Liabilities* - the actuarially determined present value of future benefits to be provided by the System. There are separate actuarially determined present values for retired members and non-retired members (either active or inactive). When applied to active members, it takes into account benefits which will be earned through future service and future salary increases.

5. *Actuarial Value of Present Assets* - the value of present System assets for valuation purposes. Prior to August 31, 1985, this value was the same as the book value of assets. Beginning August 31, 1985, through August 31, 1993, this value was calculated under the "market over book adjusted asset valuation method." Beginning August 31, 1993, this value is calculated

under a five-year phase in of the excess (shortfall) between expected and actual income return on the market value of assets.

6. *Actuarially Determined* - values which have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.

7. *Decrements* - those types of activities by members of the System which cause them no longer to be members, i.e., death, retirement, disability, and withdrawal. It is a general term referring to any or all of these membership terminating events.

8. *Defined Benefits* - in a retirement plan, benefits which are defined by a specific formula applied to specific member compensation and/or specific years of service. The amount of the benefit is not a function of contributions or actual earnings on those contributions.

9. *Defined Contributions* - in a retirement plan, periodic contributions to the plan which are defined as a specific percent of compensation.

10. *Experience Study* - a periodic review and analysis of the actual experience of the System which may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.

11. *Funding Period* - the number of years in the future that will be required to fund (i.e., pay off or eliminate) the unfunded actuarial accrued liability, based on the actuarial assumptions and assuming no future actuarial gains or losses.

12. *Future Benefits* - benefits specified in the law which will become payable at some time in the future when the member satisfies the requirement to receive such benefits.

13. *Future Contributions* - contributions to be made by the member or the State in the future, as required by the law.

14. *Normal Cost* - the actuarial cost to fund the benefits provided by the System were the funding to begin at date of hire. It is expressed as a percent of pay and is equal to the present value at hire of all possible benefits of the System divided by the present value of anticipated future compensation to be received by the new member. In the aggregate, it must be less than the total future contribution to the System if the unfunded actuarial accrued liability is to be amortized. Otherwise there must be a funding surplus sufficient in size to offset any contribution rate shortfall.

15. *Present Value* - the actuarially determined lump sum value as of the valuation date of a series of payments to be made in the future, where the lump sum value is equal to the sum of the discounted value of each future payment. The discounted value of each payment is the product of (a) the amount of the payment, (b) the probability that the payment will be made (based on the current actuarial assumptions as to future experience), and (c) the time value of money (based on the current assumed interest rate).

16. *Unfunded Actuarial Accrued Liability* - that portion of the actuarial accrued liability (including the present value of benefits presently being paid to retired members) that exceeds the value of current actuarial assets. A funding surplus exists if the actuarial accrued liability is less than the actuarial assets.