GRS Gabriel Roeder Smith & Company
Consultants & Actuaries

TEACHER RETIREMENT SYSTEM OF TEXAS

ACTUARIAL VALUATION REPORT
FOR THE YEAR ENDING AUGUST 31, 2007

GRS
Gabriel Roeder Smith & Company
Consultants & Actuaries
5605 N. MacArthur Blvd.
Suite 870
Irving, TX 75038-2631
469.524.0000 phone
469.524.0003 fax
www.gabrielroeder.com

October 29, 2007

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, 2007

We certify that the information included herein and contained in the 2007 Actuarial Valuation Report is accurate and fairly presents the actuarial position of the Teacher Retirement System of Texas (TRS) as of August 31, 2007.

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. Carter and Mr. Newton are members of the American Academy of Actuaries, and are also Enrolled Actuaries. 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 information required by the System in connection with Governmental Accounting Standards Board Statement No. 25 (GASB No. 25), and it provides various summaries of the data.

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

Contribution rates are established by Law that, over time, are intended to remain level as a percent of payroll. The employee and State contribution rates have been set by Law and 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 31 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, 2007, the System's under-funded status has decreased to $12.5 billion from $13.7 billion as of August 31, 2006. This decrease in the UAAL is due to a large gain on the actuarial value of assets that resulted from good investment results for FY 2007 and the recognition of prior years' deferred investment gains.

This valuation shows a normal cost equal to 10.40% of pay. The State increased its contribution rate to 6.58% of pay as of September 1, 2007, which combined with the member contribution rate of 6.40% of pay provides a total contribution rate of 12.98% of pay. Therefore, there is 2.58% of pay available to amortize the UAAL. 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 27.4 years, which is less than the statutory limit of 31 years.

The actuarial valuation report as of August 31, 2007 reveals that while the System has an unfunded liability, it still has a funded ratio (the ratio of actuarial assets to actuarial accrued liability) of 89.2%. In addition, the System continues to defer a net investment gain from prior years' investment experience. Therefore, in the absence of actuarial losses in the future, the funded status of the System should improve as these deferred investment gains are recognized.

The System earned a 14.4% return on a dollar-weighted market value of assets basis for the plan year ending August 31, 2007, and the System experienced a $4.14 billion gain on the actuarial value of assets. In addition to the large asset gain, the System is still deferring $8.7 billion in investment gains to be recognized in future valuations.

In the absence of significant actuarial losses and/or additional benefit enhancements, over the near term the contribution rate needed to amortize the UAAL will decrease. If the System can earn 8% during fiscal year 2008, it is expected that the GASB Annual Required Contribution rate will drop below the statutory minimum of 6.00% at the next valuation. Note that the actual contribution rate would not be less than the statutory 6.00% minimum contribution rate.

Plan Provisions

The plan provisions used in the actuarial valuation are described in Table 21 of the valuation report. This valuation reflects the changes to plan provisions as enacted by the 80th Texas Legislature.

The 2007 legislation changed the benefit provisions as follows:

1. Effective September 1, 2007 the State contribution rate was increased from 6.00% to 6.58% of pay. The new law also requires the State contribution rate to be at least equal to the member contribution rate.

2. The legislature authorized the TRS Board to make a one time payment (13th check) to TRS retirees in January 2008 based on the following conditions:

   (i) The August 31, 2007 valuation must show the 13th check will not increase the funding period to more than 31 years,

   (ii) If necessary to meet this condition, the employee contribution rate may be increased,

   (iii) To be eligible for the 13th check, the retiree must have retired on or before December 31, 2006, and

   (iv) The 13th check will be equal to the lesser of the retiree's December 2006 payment and $2,400.

This valuation has found that the condition for the 13th check has been met and that no increase in the employee contribution rate is necessary in order to meet this condition. Therefore the 13th check can be paid in January, 2008, and the results disclosed in this report reflect the present value as of August 31, 2007 of that payment.

It should be noted that the 13th check would not have been possible if the State contribution rate had not been increased.

Disclosure of Pension Information

Effective for the fiscal year ending August 31, 1996, the Board of Trustees adopted compliance with the requirements of Governmental Accounting Standards Board (GASB) Statement No. 25. The required disclosure information is included in the body of the valuation report.

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 based on a study of actual experience for the four year period ending August 31, 2003 and were adopted on May 21, 2004. The next experience investigation is scheduled to begin this winter. This valuation includes some minor changes in assumptions that were adopted in 2005 as a result of the most recent actuarial audit, but there was no material impact from those changes.

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. The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in GASB 25.

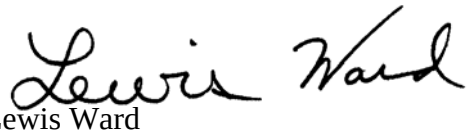
Data

In preparing the August 31, 2007 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. In conjunction with the actuarial audit performed prior to the 2005 valuation, effective with the 2005 valuation, certain miscellaneous changes were made in the handling of member records with missing data. However, none of these changes had any material impact on the actuarial results.

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

W. Michael Carter, FSA, EA, MAAA
Senior Consultant



Lewis Ward
Consultant

Joe Newton, FSA, EA, MAAA
Consultant
kb

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SECTION A

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The actuarial valuation of the Teacher Retirement System of Texas (TRS) as of August 31, 2007, indicates that the System continues to have an unfunded actuarial accrued liability (UAAL). The UAAL decreased from $13.7 billion in 2006 to $12.5 billion in 2007. Due to the increase in the State contribution rate, the System now has a funding period over which the UAAL can be amortized of less than 31 years. It should be noted that in the absence of future investment losses, liability losses, or non-funded benefit enhancements (including non-funded ad hoc increases) the recognition of the deferred investment gains over the next four valuations should significantly improve the financial position of TRS. These results reflect the payment of a "13th check" to be made to eligible retirees in January, 2008.

The key results of this valuation as of August 31, 2007, may be summarized as follows.

Item	2007	2006
Membership		
• Number of		
- Active members	777,789	761,658
- Service retirees	246,975	239,034
- Disabled retirees	8,473	8,462
- Beneficiaries	9,859	9,648
- Inactive, vested	52,416	48,324
- Inactive, nonvested	105,526	101,723
- Total	1,201,038	1,168,849
• Payroll	$ 31.114 billion	$ 28.397 billion
Statutory contribution rates		
• State	6.58%	6.00%
• Member	6.40%	6.40%
Actuarial Information		
• Normal cost %	10.40%	10.40%
• Unfunded actuarial accrued liability (UAAL)	$ 12.545 billion	$ 13.694 billion
• UAAL as % of pay	40.3%	48.2%
• Funded ratio	89.2%	87.3%
• Funding period (years)	27.4 years	Never
• GASB Annual Required Contribution	6.47%	7.02%

EXECUTIVE SUMMARY

Item	2007	2006
Assets		
• Market value	$ 112.129 billion	$ 100.239 billion
• Actuarial value	$ 103.419 billion	$ 94.218 billion
• Estimated yield on market value	14.4%	9.6%
• Estimated yield on actuarial value	12.5%	8.3%
• Ratio of actuarial to market value	92.2%	94.0%
• Employee contributions, including service purchases	$ 1,949.1 million	$ 1,854.0 million
• State contributions	1,472.6 million	1,333.1 million
• Employer contributions	282.1 million	267.4 million
• Benefit, refund, and expense payments	6,133.4 million	5,893.3 million
• Net external cash flow	(2,429.7) million	(2,438.8) million
Gains/(losses)		
• Asset experience	$ 4,140.2 million	$ 264.2 million
• Assumption changes/Legislative changes	(359.7) million	.0 million
• Liability experience	(2,134.9) million	(254.1) million
• Total	$ 1,645.5 million	$ 10.1 million

Item	UAAL ($ Millions)	Funding Period	GASB ARC
(1)	(2)	(3)	(4)
1. 2006 Valuation	13,694	Never	7.02%
2. Expected 2007 UAAL*	14,015	Never	7.00%
3. Expected 2007 UAAL using actual contributions	14,190	Never	7.04%
4. 2007 UAAL using expected assets and actual liabilities	16,325	Never	7.52%
5. 2007 UAAL using actual assets and liabilities, expected payroll	12,185	74	6.59%
6. 2007 UAAL using actual payroll	12,185	51	6.39%
7. 2007 UAAL after increase in employer contribution rate	12,185	26	6.39%
8. 2007 UAAL after 13th check	12,545	27	6.47%

* The funding period for this entry uses the expected UAAL based on 30 year required contribution and expected payroll. The expected payroll is the prior year's valuation payroll, rolled forward at the 3% payroll growth rate.

SECTION B

INTRODUCTION

INTRODUCTION

The valuation of the Teacher Retirement System of Texas (TRS) as of August 31, 2007, reflects the following contribution rates: (a) a member contribution rate of 6.40%, and (b) a State contribution rate of 6.58% (to be effective September 1, 2007). For purposes of determining the funding period, it was assumed that the current (6.58%) State contribution rate would remain in place indefinitely.

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.

This valuation reflects two significant changes to plan provisions as enacted by the 80th Texas Legislature. This legislation changed the contribution and benefit provisions as follows:

1. The State contribution rate was increased to 6.58% effective September 1, 2007. In addition, a change in the law requires the State contribution rate to be at least equal to the employee contribution rate. (An increase in the employee contribution rate up to 6.58% of pay was also authorized if necessary to produce a 31-year funding period after reflecting the payment of the "13th check" discussed below. The results of this valuation show that such a conditional increase is not necessary.)

2. The legislature authorized the TRS Board to make a one time payment (13th check) to TRS retirees in January 2008 based on the following conditions:

    (i) The August 31, 2007 valuation must show the 13th check will not increase the funding period to more than 31 years,

    (ii) To be eligible for the 13th check, the retiree must have retired on or before December 31, 2006, and

    (iii) The 13th check will be equal to the lesser of the retiree's December 2006 payment and $2,400.

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 contains the necessary disclosure items required by the Governmental Accounting Standards Board (GASB). Section E provides analysis and discussion of changes in assets. Section F 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 G summarizes the findings of the valuation, and Section H provides the tables supporting the report.

This valuation utilizes actuarial assumptions and methods modified as a result of the Experience Study for the four-year period ending August 31, 2003. These assumptions and methods were adopted by the Board on May 21, 2004.

In conjunction with the actuarial audit performed prior to the 2005 valuation, certain miscellaneous changes were made in the handling of member records with missing data, effective with the 2005 valuation. However, none of these changes had any material impact on the actuarial results

SECTION C

FUNDED STATUS OF THE SYSTEM

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FUNDED STATUS OF THE SYSTEM

Table 3 in Section H 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 10.40% of pay, this amount being inclusive of the amount contributed by the employees. The net normal cost for the State is 4.00% of pay based on the member contribution rate of 6.40%.

Since the State contribution rate is 6.58% (effective September 1, 2007), this allows 2.58% of pay contributed by the State to be available to amortize any unfunded actuarial accrued liabilities.

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.

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, 2006. As shown in Item A3 of Table 5, the normal cost for the System consists of the entire 6.40% of pay contributed by the members plus 4.00% of pay from the State. As developed in Item A4, the 6.58% of pay contributed by the State is 2.58% of pay more than the State 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 current contribution rate in excess of the System's normal cost (2.58%) is sufficient to amortize the System's UAAL, if all actuarial assumptions are exactly met, over a period of 27.4 years.

The UAAL as shown in Item B4 of Table 5 is $12.5 billion for 2007, a decrease from $13.7 billion in 2006. 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. It should be noted that the System is now deferring $8.7 billion in net investment gains. In the absence of future investment losses, liability losses, or non-funded benefit enhancements (including non-funded retiree ad hoc increases), the UAAL should decrease over the next four valuations.

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. GASB Statement No. 25 requires that the payroll growth assumption not consider growth in the active employee census. Under GASB 25 the appropriate payroll growth assumption is 3.00%.

As shown in Item B6 of Table 5 and using the assumed rate of increase in covered payroll of 3.00%, the period to fund the UAAL is 27.4 years. An analysis of the change in the UAAL and the funding period since the 2006 valuation is provided in Section F.

There was favorable investment experience on a market value basis during the year, and combined with the favorable market value experience of the prior three years the experience on an actuarial value of assets (AVA) basis was very favorable. This is due to the asset smoothing methodology that is used to determine the actuarial value of assets. Under the asset smoothing methodology, as may be seen in Item 2 of Table 4b, the AVA methodology no longer has any prior investment losses to defer and is only deferring investment gains. This means that the System should continue to experience gains on the actuarial value of assets for the near future. The actuarial asset yield for 2007 is 12.5%, higher than the assumed rate of 8.0%, but lower than the market return of 14.4%.

With the very good investment return for 2007, TRS finds itself in a position where it recognized $2.4 billion in deferred investment gains from fiscal years 2003-2006 and yet saw its net deferred investment gains grow from $6.0 billion to $8.7 billion

It should also be noted that the System continues the favorable position developed last year where the actuarial value of assets is less than the market value of assets, as represented by the $8.7 billion in deferred investment gains. Without significant actuarial losses and/or unfunded legislative enhancements over the next few years, these deferred gains will lower the UAAL over the next four valuations.

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 actuarial value of assets is developed in Table 4b. 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. It accomplishes this smoothing effect by recognizing the excess or shortfall in total market return over the expected return at the rate of 20% per year over a five year period. The excess or shortfall of investment income attributable to the most recent four years is shown in Table 4a.

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 the actuarial value of assets is set equal to the nearest corridor threshold.

The 2002 valuation was the first time this corridor had impacted the actuarial value of assets. At the 2003 valuation the actuarial value of assets returned to a value that was inside the corridor, and it has remained there since. The preliminary actuarial value of assets is $103.4 billion as shown in Item 4 of Table 4b. This number is equal to 92.2% of the market value of assets. Since that lies within our 80% to 120% corridor, the preliminary actuarial value of assets becomes the final actuarial value of assets as shown in Item 6 of Table 4b.

Table 2 provides an overall summary of key actuarial data for the 2007 valuation, with comparative data for 2006. 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.

As noted above, the System once again has a definable funding period (27.4 years). The System has an unfunded liability of $12.5 billion, but also has $8.7 billion in net deferred investment gains. Because of the market performance of the past four years (particularly 2005 and 2007), the 30 year ARC is expected to decrease next year to less than the 6.0% statutory minimum contribution rate.

As explained in Section B, all valuation results for 2007 presented in this report reflect the January 2008 payment of the 13th check.

SECTION D

GASB DISCLOSURE

GASB DISCLOSURE

The Governmental Accounting Standards Board (GASB) has issued Statement No. 25 which provides the manner in which the actuarial condition of a public sector retirement plan is to be disclosed and which replaces GASB No. 5.

TRS elected to comply with GASB No. 25 beginning with the fiscal and plan year ending August 31, 1996. The required actuarial disclosure tables are represented by Tables 14a – 14c.

GASB No. 25 provides for a calculation of an annual required contribution (ARC). The ARC for TRS is the amount necessary to pay the normal cost and amortize the unfunded liabilities of the System over a period of 30 years. For the 2007 valuation, it is 6.47% of pay for the 2007/2008 plan year.

TRS's auditors consider TRS a "special situation multi-employer plan" under GASB 27, and the State has established a Net Pension Obligation. The State's 2007/2008 fiscal year should reflect the difference between its 6.58% contribution rate and the 6.47% ARC.

SECTION E

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 14.4%, following a 9.6% return in 2006. The actuarial asset yield (Item B4) is 12.5%, compared to 8.3% in 2006, 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 very favorable for the 2006/2007 plan year. On an actuarial value basis the System exceeded its 8% assumption rate by 4.5%. As a result, the System had a large actuarial investment gain of $4.14 billion. It should also be noted that the asset valuation method is still deferring $8.7 billion in unrecognized gains into future years. These deferred gains will be recognized over the next four actuarial valuations. If there are no investment losses, other liability losses, or non-funded benefit enhancements during these four years, the funded status of the System should strengthen.

SECTION F

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 decreased from $13.7 billion in 2006 to $12.5 billion in 2007. The System has gone from a funding period of "never" in 2006 to a funding period of 27.4 years in 2007. 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.

Section E has discussed the change in assets for the year. Table 8b develops the estimated yield for the year based on two measures of asset values. Table 9 takes the information contained in Table 8 and develops the expected value of actuarial assets for this valuation, based on the investment return assumption of 8%.

As shown in Item 7 of Table 9, the expected value of actuarial assets as of August 31, 2007 is $99.3 billion. As developed in Table 4, the actual value of actuarial assets as of the valuation date is $103.4 billion (as repeated in Item 8 of Table 9). Thus the asset gain for the year is the difference between the actual value and the expected value, or $4.1 billion (as shown in Item 9). Item 10 indicates that this gain represents 4.00% 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 12.5% (as shown in Item B4 of Table 8b).

Both the market value and the actuarial value of assets represent all-time highs for TRS at its August 31 valuation date.

Table 10 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 10 that are used to develop the expected UAAL as of August 31, 2007 are derived from Table 5 and Table 8. The total actuarial gain for the year is seen to be $1.65 billion, significantly better that the 2006 gain of $10 million.

Since the asset gain for the year is $4.14 billion, this means that there is an overall actuarial loss associated with the liabilities of the System of $2.49 billion (total gain of $1.65 billion less the asset gain of $4.14 billion). The loss can be separated into the portion attributable to 2007 legislative changes ($360 million) and the portion attributable to the liability experience of the System ($2.13 billion). The $360 million loss due to legislative changes represents the discounted value of the expected 13th check payments. The actual 13th check payments are expected to be $365 - $375 million. The liability loss was significant in size, but was completely offset by the asset gain. Almost all of the liability experience loss is attributable to larger than expected salary increases, due in large part to the legislated increases for classroom teachers authorized by the Legislature in the summer of 2006.

Table 11 traces the changes in the UAAL and the funding period from the valuation as of August 31, 2006, to August 31, 2007.

Item 3 of Table 11 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 2006/2007 plan year. The UAAL would have increased during the year to $14.19 billion.

Item 4 of Table 11 illustrates that the liability experience loss increased the UAAL to $16.33 billion but that the asset gain decreased the UAAL back down to $12.19 billion, as shown in Item 5. Item 6 shows the impact on the funding period of the covered compensation growing at a faster rate than the assumed rate of 3.0%. Item 7 shows that the increase in the State contribution rate from 6.00% to 6.58% reduced the funding period to less than 31 years. Item 8 shows the impact of the legislated 13th check.

Column 7 traces the change in the GASB Annual Required Contribution (ARC) from the valuation as of August 31, 2006 to August 31, 2007. The ARC has decreased from 7.02% to 6.47%.

What Table 11 illustrates is that all of the decrease in the UAAL from $13.69 billion last year to $12.55 billion this year is attributable to the significant asset gain on the actuarial assets during the year.

SECTION G

SUMMARY AND CLOSING COMMENTS

SUMMARY AND CLOSING COMMENTS

To summarize the results of the actuarial valuation of the Teacher Retirement System as of August 31, 2007, it is our opinion that the System has moved to a more encouraging position from an actuarial perspective. Due to the large actuarial asset gain and the increase in the State contribution rate, the System has gone from a funding period of "never" to a funding period of less than 31 years. It is our opinion that without significant asset or liability losses, the GASB annual required contribution (ARC) will decrease next year to less than the 6.00% statutory minimum.

This valuation has several encouraging results and outlooks. The key ones are as follow:

- The UAAL decreased for the first time since 2000.
- Even though the System recognized $2.4 billion in deferred investment gains, the additional deferred investment gains from FY 2007 increased the net deferred investment gain from $6.0 billion as of August 31, 2006 to $8.7 billion as of August 31, 2007.
- The System has $8.7 billion in deferred asset gains, and in the absence of future offsetting investment or liability losses or non-funded benefit enhancements (including non-funded retiree ad hoc increases), these deferred gains will reduce the UAAL by more than 2/3 over the next four years.
- It appears that TRS's funded ratio may have bottomed out in 2006 and may now be on an increasing pattern. (TRS's funded ratio peaked at 107% in 2000 and had declined through 2005 to 87.1%. For this 2007 valuation, it has increased to 89.2%.)

The increase in the State contribution rate is a significant reason for the improvement in the funding period. While the funding period would no longer have been "never" this year even if the State contribution had remained at 6.00%, the funding period would have been more than 31 years and the System would not have been able to authorize payment of the 13th check.

In spite of the more encouraging results of this valuation, we still urge caution in relation to providing non-funded benefit enhancements (including non-funded retiree ad hoc increases). The market melt-down of 2001 – 2003 showed how rapidly a favorable actuarial condition could disappear. The diligent efforts of the TRS Investment group have overcome that melt-down and restored TRS's favorable actuarial condition. A return to past practices of major non-funded benefit enhancements (including non-funded retiree ad hoc increases) could return TRS to an unfavorable position if another major market downturn occurs.

SECTION H

ACTUARIAL TABLES

ACTUARIAL TABLES

ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS

	August 31, 2007 (1)	August 31, 2006 (2)
A. Present Value of Benefits Presently Being Paid:		
1. Service retirement benefits	$ 49,127,012,614	$ 47,342,229,127
2. Disability retirement benefits	867,741,482	868,773,088
3. Death benefits	744,775,521	737,960,508
4. Present survivor benefits	193,404,910	191,103,604
5. 13th check payable January 1, 2008	359,741,971	N/A
6. Total present value of benefits presently being paid	$ 51,292,676,498	$ 49,140,066,327
B. Present Value of Benefits Payable In the Future To Present Active Members:		
1. Service retirement benefits	$ 81,124,860,135	$ 73,866,987,834
2. Disability retirement benefits	998,734,203	916,344,099
3. Termination benefits	4,683,072,513	4,221,247,677
4. Death and survivor benefits	1,433,711,132	1,319,745,974
5. Total active member liabilities	$ 88,240,377,983	$ 80,324,325,584
C. Present Value of Benefits Payable In the Future To Present Inactive Members:		
1. Inactive vested participants		
a. Retirement benefits	$ 1,337,890,796	$ 1,180,903,351
b. Death benefits	103,845,430	93,646,265
c. Total inactive vested benefits	$ 1,441,736,226	$ 1,274,549,616
2. Refunds of contributions to inactive nonvested members	241,750,800	230,309,001
3. Future survivor benefits payable on behalf of present annuitants	973,143,379	937,244,511
4. Total inactive liabilities	$ 2,656,630,405	$ 2,442,103,128
D. Total Actuarial Present Value of Future Benefits:	$ 142,189,684,886	$ 131,906,495,039

SUMMARY OF COST ITEMS

	Valuation as of August 31, 2007		Valuation as of August 31, 2006	
	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	739,049		715,148	
2. In DROP	895		1,076	
b. Active noncontributing members				
1. Assumed to be active	9,495		9,061	
2. Assumed to be inactive vested	29,220		27,369	
3. Assumed to be inactive nonvested	56,233		54,184	
4. Total	94,948		90,614	
c. New entrants missing data	28,350		36,373	
d. Active subtotal	863,242		843,211	
e. Inactive members w/deferred benefits	23,196		20,955	
f. Retired members and beneficiaries	265,307		257,144	
g. Subtotal, members	1,151,745		1,121,310	
h. Inactive nonvested members due refunds	49,293		47,539	
i. Total membership	1,201,038		1,168,849	
2. Covered Payroll	$ 31,114,096,372		$ 28,397,283,377	
3. Average for Active Members				
a. Average age	43.8		43.6	
b. Average years of service	9.4		9.2	
c. Average pay	$ 40,003		$ 37,284	
4. Present Value of Future Pay	$ 252,172,721,287		$ 230,721,498,396	
5. Normal Cost Rate				
a. Gross normal cost	10.40%		10.40%	
b. Less employee contribution rate	(6.40%)		(6.40%)	
c. State normal cost	4.00%		4.00%	
6. Present Value of Future Benefits				
a. Retired members - in pay or deferred	$ 51,292,676,498		$ 49,140,066,327	
b. Retired members - future survivor benefits	973,143,379		937,244,511	
c. Vested inactive members	1,441,736,226		1,274,549,616	
d. Active members	88,240,377,983		80,324,325,584	
e. Inactive nonvested members	241,750,800		230,309,001	
f. Total	$ 142,189,684,886	457.0%	$ 131,906,495,039	464.5%
7. Present Value of Future Normal Costs (employee plus employer)	$ 26,225,963,014	84.3%	$ 23,995,035,833	84.5%
8. Actuarial Accrued Liability	$ 115,963,721,872	372.7%	$ 107,911,459,206	380.0%
9. Actuarial Value of Assets	$ 103,419,088,392	332.4%	$ 94,217,921,767	331.8%
10. Unfunded Actuarial Accrued Liability	$ 12,544,633,480	40.3%	$ 13,693,537,439	48.2%
11. Employer Contribution Rate	6.58%		6.00%	
12. Funding Period	27.4 years		Never	
13. Estimated Yield on Actuarial Assets	12.5%		8.3%	
14. GASB 25 Funded Ratio	89.2%		87.3%	
15. GASB Annual Required Contribution Rate (ARC) for State	6.47%		7.02%	

ANALYSIS OF NORMAL COST BY COMPONENT

Benefit Component	8/31/2007 Cost as % of Pay	8/31/2006 Cost as % of Pay
(1)	(2)	(3)
1. Normal Cost		
a. Retirement Benefits	7.82%	7.82%
b. Disability Benefits	0.18%	0.18%
c. Death Benefits (including survivor benefits)	0.37%	0.37%
d. Termination benefits	2.03%	2.03%
e. Total	10.40%	10.40%
2. Employee Contribution Rate	(6.40%)	(6.40%)
3. State Normal Cost (Item 1e - Item 2)	4.00%	4.00%

CALCULATION OF EXCESS INVESTMENT INCOME FOR ACTUARIAL VALUE OF ASSETS

Item	Plan Year Ending August 31, 2007	2006	2005	2004
(1)	(2)	(3)	(4)	(5)
1. Actual net investment income based on market value of assets	$ 14,271,049,707	$ 8,924,425,546	$ 11,927,731,186	$ 9,121,019,840
2. Market value of assets, beginning of year	100,238,963,187	93,707,816,093	84,202,981,707	77,633,002,461
3. Contributions during year				
a. Employee	1,862,595,865	1,700,415,419	1,578,339,475	1,530,276,750
b. State and employer	1,754,662,676	1,600,543,061	1,479,756,824	1,434,701,368
c. Reinstatements	86,497,411	153,556,417	149,994,343	191,227,695
d. Total	3,703,755,952	3,454,514,897	3,208,090,642	3,156,205,813
4. Benefits paid during year	(5,807,036,778)	(5,582,306,639)	(5,387,605,428)	(5,486,849,698)
5. Refunds paid during year	(277,932,219)	(265,487,479)	(243,382,014)	(220,396,709)
6. Expenses for year (netted in Item 1 above)	N/A	N/A	N/A	N/A
7. Expected net investment income at 8% earned on:				
a. Market value of assets, beginning of year	8,019,117,055	7,496,625,287	6,736,238,537	6,210,640,197
b. Contributions	148,150,238	138,180,596	128,323,626	126,248,233
c. Benefits	(232,281,471)	(223,292,266)	(215,504,217)	(219,473,988)
d. Refunds	(11,117,289)	(10,619,499)	(9,735,281)	(8,815,868)
e. Expenses	N/A	N/A	N/A	N/A
f. Total	7,923,868,533	7,400,894,118	6,639,322,665	6,108,598,574
8. Excess investment income for year (Item 1 - Item 7f)	$ 6,347,181,174	$ 1,523,531,428	$ 5,288,408,521	$ 3,012,421,266

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

Item	Plan Year Ending August 31, 2007	Plan Year Ending August 31, 2006
(1)	(2)	(3)
1. Excess (Shortfall) of invested income for current and previous 3 years		
a. Current year	$ 6,347,181,174	$ 1,523,531,428
b. Current year - 1	1,523,531,428	5,288,408,521
c. Current year - 2	5,288,408,521	3,012,421,266
d. Current year - 3	3,012,421,266	2,121,013,294
e. Total for four years	$ 16,171,542,389	$ 11,945,374,509
2. Deferral of excess (shortfall) of invested income		
a. Current year (80%)	$ 5,077,744,939	$ 1,218,825,142
b. Current year - 1 (60%)	914,118,857	3,173,045,113
c. Current year - 2 (40%)	2,115,363,408	1,204,968,506
d. Current year - 3 (20%)	602,484,253	424,202,659
e. Total deferred for year	$ 8,709,711,457	$ 6,021,041,420
3. Market value of plan net assets, end of year	$ 112,128,799,849	$ 100,238,963,187
4. Preliminary actuarial value of plan assets, end of year (Item 3 - Item 2e)	$ 103,419,088,392	$ 94,217,921,767
5. Actuarial value of assets corridor		
a. 80% of market value, end of year	$ 89,703,039,879	$ 80,191,170,550
b. 120% of market value, end of year	$ 134,554,559,819	$ 120,286,755,824
6. Final actuarial value of plan net assets, end of year (Item 4, but not less than Item 5a, and not more than Item 5b)	$ 103,419,088,392	$ 94,217,921,767

DEVELOPMENT OF YEARS TO FUND THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

	As of August 31, 2007 (1)	As of August 31, 2006 (2)
A. Basic Data		
1. Covered payroll	$ 31,114,096,372	$ 28,397,283,377
2. Present value of future pay	$ 252,172,721,287	$ 230,721,498,396
3. Normal cost rate of benefits		
a. Total normal cost rate	10.40%	10.40%
b. Less employee contribution rate	(6.40%)	(6.40%)
c. State normal cost rate	4.00%	4.00%
4. State contribution rate for funding unfunded actuarial accrued liability		
a. Total State contribution rate	6.58%	6.00%
b. Less State normal cost rate	(4.00%)	(4.00%)
c. State contribution rate available	2.58%	2.00%
5. Actuarial accrued liability for present active members		
a. Present value of benefits payable in the future to present members	$ 88,240,377,983	$ 80,324,325,584
b. Less present value of future normal costs	(26,225,963,014)	(23,995,035,833)
c. Actuarial accrued liability	$ 62,014,414,969	$ 56,329,289,751
B. Development of Funding Period		
1. Normal cost		
a. Employee normal cost (Item A3b x Item A1)	$ 1,991,302,168	$ 1,871,948,920
b. State normal cost (Item A3c x Item A1)	1,244,563,855	1,169,968,075
c. Total normal cost	$ 3,235,866,023	$ 3,041,916,995
2. Total actuarial accrued liability		
a. Present value of benefits presently being paid	$ 51,292,676,498	$ 49,140,066,327
b. Actuarial accrued liability for present active members (Item A5c)	62,014,414,969	56,329,289,751
c. Present value of benefits for inactive members	$ 2,656,630,405	$ 2,442,103,128
d. Total	$ 115,963,721,872	$ 107,911,459,206
3. Current actuarial assets	103,419,088,392	94,217,921,767
4. Unfunded actuarial accrued liability (UAAL) (Item B2d - Item B3)	$ 12,544,633,480	$ 13,693,537,439
5. Amount of State contribution available to fund unfunded actuarial accrued liability (Item A4c x Item A1)	$ 802,743,686	$ 567,945,668
6. Years to fund unfunded actuarial accrued liability	27.4 years	Never

Rate of Increase in Covered Payroll		
0.00%	37.3	Never
3.00%	27.4	Never
4.00%	22.8	58.3
4.75%	20.5	41.4
6.00%	17.8	30.7

7. Annual Required Contribution Rate (ARC) (Normal cost + 30-year amortization of UAAL)	6.47%	7.02%

*Also adjusted for payroll growth rate assumption.

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 08-31-2007	Average Salary	Percent Increase	Compound Increase Between Year Indicated and 08-31-2007
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1980	$ 4,378	11.5%	385,332	3.0%	2.6%	$ 11,363	8.2%	4.8%
1981	4,970	13.5%	389,735	1.1%	2.7%	12,751	12.2%	4.5%
1982	5,616	13.0%	395,578	1.5%	2.7%	14,196	11.3%	4.2%
1983	6,378	13.6%	404,656	2.3%	2.8%	15,761	11.0%	4.0%
1984	6,652	4.3%	404,976	0.1%	2.9%	16,427	4.2%	3.9%
1985	7,547	13.5%	413,938	2.2%	2.9%	18,234	11.0%	3.6%
1986	8,237	9.1%	432,749	4.5%	2.8%	19,034	4.4%	3.6%
1987	8,646	5.0%	443,593	2.5%	2.8%	19,492	2.4%	3.7%
1988	9,166	6.0%	455,460	2.7%	2.9%	20,124	3.2%	3.7%
1989	9,764	6.5%	470,042	3.2%	2.8%	20,772	3.2%	3.7%
1990	10,446	7.0%	483,262	2.8%	2.8%	21,616	4.1%	3.7%
1991	11,181	7.0%	502,625	4.0%	2.8%	22,245	2.9%	3.7%
1992	11,961	7.0%	521,661	3.8%	2.7%	22,928	3.1%	3.8%
1993	13,391	12.0%	575,088	10.2%	2.2%	23,285	1.6%	3.9%
1994	14,167	5.8%	600,484	4.4%	2.0%	23,593	1.3%	4.1%
1995	14,888	5.1%	625,878	4.2%	1.8%	23,788	0.8%	4.4%
1996	15,983	7.4%	652,197	4.2%	1.6%	24,506	3.0%	4.6%
1997	17,044	6.6%	678,749	4.1%	1.4%	25,112	2.5%	4.8%
1998	18,325	7.5%	705,447	3.9%	1.1%	25,977	3.4%	4.9%
1999	19,529	6.6%	736,058	4.3%	0.7%	26,533	2.1%	5.3%
2000	21,920	12.2%	766,906	4.2%	0.2%	28,583	7.7%	4.9%
2001	23,365	6.6%	797,339	4.0%	(0.4%)	29,303	2.5%	5.3%
2002	24,818	6.2%	745,923	(6.4%)	0.8%	33,272	13.5%	3.8%
2003	25,756	3.8%	754,715	1.2%	0.8%	34,127	2.6%	4.1%
2004	25,485	(1.1%)	729,411	(3.4%)	2.2%	34,939	2.4%	4.6%
2005	25,957	1.9%	715,495	(1.9%)	4.3%	36,278	3.8%	5.0%
2006	28,397	9.4%	761,658	6.5%	2.1%	37,284	2.8%	7.3%
2007	31,114	9.6%	777,789	2.1%	--	40,003	7.3%	--

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%

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)
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%
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%

CHANGE IN PLAN NET ASSETS

	Year Ending August 31, 2007 (1)	Year Ending August 31, 2006 (2)
I. Revenue for the Year		
A. Contribution and fees		
1. Member contributions	$ 1,862,595,865	$ 1,700,415,419
2. State contributions - State of Texas	1,471,131,358	1,332,101,481
3. State contributions - 415 Excess Plan	1,453,605	1,041,961
4. State contributions - Employers	282,077,713	267,399,619
5. Reinstatement of withdrawals	45,003,113	106,755,570
6. Reinstatement fees	41,494,298	46,800,847
7. Total	$ 3,703,755,952	$ 3,454,514,897
B. Income		
1. Interest	$ 1,629,566,321	$ 1,334,450,945
2. Dividends	1,413,189,832	1,276,009,852
3. Net appreciation in fair value of investments	11,232,429,170	6,326,056,726
4. Income from Securities Lending	44,303,657	33,451,823
5. Investment expenses	(20,942,402)	(19,099,395)
6. Total	14,298,546,578	8,950,869,951
C. Other Adjustments	$ 5,405	$ 769
D. Total Revenue	$ 18,002,307,935	$ 12,405,385,617
II. Expenditures for the Year		
A. Refund of Contributions	$ 277,932,219	$ 265,487,479
B. Benefit Payments		
1. Service retirements	$ 5,104,816,272	$ 4,896,156,393
2. DROP payments	31,939,855	36,033,028
3. Partial Lump Sum Option payments	325,688,244	313,359,714
4. 415 Excess Plan payments	1,453,605	1,041,961
5. Disability retirements	134,866,736	132,155,505
6. Death and survivor benefits	208,272,066	203,560,038
7. Total benefits	$ 5,807,036,778	$ 5,582,306,639
C. Expenses		
1. Gross expenses		
a. Administrative expenses	$ 27,502,276	$ 26,444,405
2. Miscellaneous reimbursements	-	-
3. Total expenses	27,502,276	26,444,405
D. Total Expenditures	$ 6,112,471,273	$ 5,874,238,523
III. Net Increase in Plan Net Assets (Item I.D. - Item II.D.)	$ 11,889,836,662	$ 6,531,147,094

ESTIMATION OF YIELDS

Item	Year Ending August 31, 2007	Year Ending August 31, 2006
(1)	(2)	(3)
A. Market value yield		
1. Beginning of year net market assets	$ 100,238,963,187	$ 93,707,816,093
2. Investment income (net of all expenses)	14,271,049,707	8,924,425,546
3. End of year market assets	112,128,799,849	100,238,963,187
4. Estimated market value yield	14.4%	9.6%
B. Actuarial value yield		
1. Beginning of year actuarial assets	$ 94,217,921,767	$ 89,298,813,225
2. Investment income	11,582,379,670	7,312,387,763
3. End of year actuarial assets	103,419,088,392	94,217,921,767
4. Estimated actuarial value yield	12.5%	8.3%

ACTUAL VERSUS EXPECTED ACTUARIAL ASSETS

Item	Year Ending August 31, 2007	Year Ending August 31, 2006
(1)	(2)	(3)
1. Actuarial assets, beginning of year	$ 94,217,921,767	$ 89,298,813,225
2. Total contributions during year	3,703,755,952	3,454,514,897
3. Benefits paid during year (including DROP)	(5,807,036,778)	(5,582,306,639)
4. Refunds paid during year	(277,932,219)	(265,487,479)
5. Expenses for the year	N/A	N/A
6. Assumed net investment income at 8%		
a. Beginning of year assets	$ 7,537,433,741	$ 7,143,905,058
b. Contributions	148,150,238	138,180,596
c. Benefits	(232,281,471)	(223,292,266)
d. Refunds	(11,117,289)	(10,619,499)
e. Expenses	N/A	N/A
f. Total	$ 7,442,185,219	$ 7,048,173,889
7. Expected actuarial assets, end of year (Sum of Items 1 through 6)	$ 99,278,893,941	$ 93,953,707,893
8. Actual actuarial assets, end of year	103,419,088,392	94,217,921,767
9. Asset gain (loss) for year (Item 8 - Item 7)	4,140,194,451	264,213,874
10. Asset gain (loss) as % of actual actuarial assets	4.00%	0.28%

GAIN OR LOSS FOR THE YEAR

Item	Year Ending August 31, 2007	Year Ending August 31, 2006
(1)	(2)	(3)
A. CALCULATION OF TOTAL GAIN OR LOSS		
1. Unfunded actuarial accrued liability (UAAL),		
a. Previous year, before Assumption changes	$ 13,693,537,439	$ 13,195,722,869
b. Previous year, after Assumption changes	13,693,537,439	13,195,722,869
2. Normal cost for the year	3,041,415,305	2,774,274,639
3. Contributions for the year	(3,617,258,541)	(3,300,958,480)
4. Interest at 8%		
a. On UAAL	$ 1,095,482,995	$ 1,055,657,830
b. On normal cost	121,656,612	110,970,986
c. On contributions	(144,690,342)	(132,038,339)
d. Total	$ 1,072,449,265	$ 1,034,590,477
5. Expected UAAL (Sum of Items A1 through A4)	14,190,143,468	13,703,629,505
6. Actual UAAL	12,544,633,480	13,693,537,439
7. Gain (loss) for the year (Item A5 - Item A6)	$ 1,645,509,988	$ 10,092,066
B. SOURCE OF GAINS AND LOSSES		
1. Asset gain (loss) for the year (Table 9)	$ 4,140,194,451	$ 264,213,874
2. Asset gain (loss) as a % of actuarial assets	4.00%	0.28%
3. Total actuarial accrued liability gain (loss) for year (Item A7 - Item B1)	(2,494,684,463)	(254,121,808)
4. Analysis of actuarial accrued liability loss		
a. Legislative changes[1]	(359,741,971)	-
b. Liability experience	(2,134,942,492)	(254,121,808)
c. Total	$ (2,494,684,463)	$ (254,121,808)
5. Experience liability gain (loss) as % of total actuarial accrued liability (Item B4b as % of total actuarial accrued liability)	(1.84%)	(0.24%)

[1] For 8/31/2007, present value as of valuation date of 13th check payable 1/1/2008

ANALYSIS OF CHANGE IN FUNDING PERIOD

Basis	UAAL ($ Millions)	Normal Cost Rate	Total Contribution Rate	Funding Period	Change in Funding Period	GASB ARC
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. 2006 Valuation	13,694	10.40%	12.40%	Never	--	7.02%
2. Expected 2007 UAAL	14,015	10.40%	12.40%	Never	--	7.00%
3. Expected 2007 UAAL using actual contributions	14,190	10.40%	12.40%	Never	--	7.04%
4. 2007 UAAL using expected assets and actual liabilities	16,325	10.40%	12.40%	Never	--	7.52%
5. 2007 UAAL using actual assets and liabilities, expected payroll	12,185	10.40%	12.40%	73.7	--	6.59%
6. 2007 UAAL using actual payroll	12,185	10.40%	12.40%	51.2	(22.6)	6.39%
7. 2007 UAAL after increase in employer contribution rate	12,185	10.40%	12.98%	25.9	(25.3)	6.39%
8. 2007 UAAL after 13th check	12,545	10.40%	12.98%	27.4	1.6	6.47%

2. The funding period for this entry uses the expected UAAL based on 30-year required contribution and expected payroll. The expected payroll is the prior year's valuation payroll, rolled forward at the 3% payroll growth rate.
3. This entry is the same as #2 except that the actual contributions are used to calculated the expected UAAL instead of the expected contributions based on the 30 year ARC. This item uses expected assets, expected liabilities, and expected payroll growth.
4. This entry uses expected assets and payroll growth, while incorporating the actual liabilities as of August 31, 2007.
5. This entry uses actual assets and actual liabilities as of August 31, 2007, while still applying the expected payroll growth.
6. 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
7. This entry incorporates the increase in the employer contribution rate from 6.00% to 6.58%.

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)
1988	$ 1,271,996,942	$ (874,560,122)	$ (113,178,276)	$ -	$ (15,155,899)	$ (1,002,894,297)	$ 269,102,645	$ 19,188,847,074	1.4%
1989	1,356,713,827	(935,943,118)	(118,507,638)	(899,352)	(14,314,799)	(1,069,664,907)	287,048,920	23,941,442,793	1.2%
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%)

[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 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)
1976/77		6.00%	6.00%	12.00%
1977/78		7.50%	6.65%	14.15%
1978/79		7.50%	6.65%	14.15%
1979/80		8.50%	6.65%	15.15%
1980/81		8.50%	6.65%	15.15%
1981/82		8.50%	6.65%	15.15%
1982/83		8.50%	6.65%	15.15%
1983/84		7.10%	6.00%	13.10%
1984/85		7.10%	6.00%	13.10%
1985/86		8.00%	6.40%	14.40%
1986/87		8.00%	6.40%	14.40%
1987/88		7.20%	6.40%	13.60%
1988/89		7.20%	6.40%	13.60%
1989/90		7.65%	6.40%	14.05%
1990/91		7.65%	6.40%	14.05%
1991/92		7.31%	6.40%	13.71%
1992/93		7.31%	6.40%	13.71%
1993/94		7.31%	6.40%	13.71%
1994/95		7.31%	6.40%	13.71%
1995/96		6.00%	6.40%	12.40%
1996/97	6.00%	6.00%	6.40%	12.40%
1997/98	6.00%	6.00%	6.40%	12.40%
1998/99	4.12%	6.00%	6.40%	12.40%
1999/00	4.92%	6.00%	6.40%	12.40%
2000/01	4.12%	6.00%	6.40%	12.40%
2001/02	5.70%	6.00%	6.40%	12.40%
2002/03	7.15%	6.00%	6.40%	12.40%
2003/04	7.39%	6.00%	6.40%	12.40%
2004/05	7.31%	6.00%	6.40%	12.40%
2005/06	7.19%	6.00%	6.40%	12.40%
2006/07	7.02%	6.00%	6.40%	12.40%
2007/08	6.47%	6.58%	6.40%	12.98%

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)
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%
1989	23,301	26,790	3,488	87.0%	9,764	35.7%
1988	20,095	23,985	3,890	83.8%	9,166	42.4%
1987	18,055	22,151	4,096	81.5%	8,646	47.4%

Note: Amount in $ millions.
Actuarial assumptions were modified effective August 31, 2004.

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

Fiscal Year Ended	Annual Required Contribution	Percentage Contributed
(1)	(2)	(3)
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%
1994	7.31%	100%
1993	7.31%	100%
1992	7.31%	100%
1991	7.65%	100%

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, 2007
Actuarial cost method	Entry Age Normal
Amortization method	Level percent, open
Remaining amortization period*	27.4 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return **	8.00%
Projected salary increases **	4.25% to 26.40%
Weighted-average at valuation date	6.77%
**Includes inflation at	3.0%
Cost-of-living adjustments	None

* Based on the employer contribution rate of 6.58% effective 9/1/2007. This assumes the 6.58% rate continues indefinitely.

STATISTICAL INFORMATION

	August 31, 2007 (1)	August 31, 2006 (2)	August 31, 2005 (3)
A. Number			
1. Active Members			
a. Total active members	777,789	761,658	715,495
b. Average age	43.8	43.6	43.6
c. Average service	9.4	9.2	9.4
2. Inactive Vested Members			
a. Male members	11,045	10,015	9,253
b. Female members	41,371	38,309	35,820
c. Total inactive vested members	52,416	48,324	45,073
3. Inactive Nonvested Members	105,526	101,723	106,157
B. Annualized Salaries			
1. Active members			
a. Total active members	$ 31,114,096,372	$ 28,397,283,377	$ 25,956,806,593
b. Average annual salary	40,003	37,284	36,278
C. Accumulated Members Contributions			
1. Total Active Members	20,721,145,913	19,249,416,115	17,860,078,657
2. Inactive Vested Members			
a. Male members	$ 343,705,014	$ 301,171,080	$ 274,791,820
b. Female members	1,067,523,549	959,793,686	872,715,984
c. Total inactive vested members	$ 1,411,228,563	$ 1,260,964,766	$ 1,147,507,804
3. Inactive Nonvested Members	$ 241,750,800	$ 230,309,001	$ 221,901,390
D. Active Members in DROP (included in above totals)			
1. Number	895	1,076	1,197
2. DROP Balance	$ 86,319,448	$ 102,948,834	$ 108,474,273
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	9,495	9,061	9,100
b. Annualized salaries	$ 248,155,045	$ 229,173,467	$ 222,032,943
2. Treated as inactive vested members			
a. Number	29,220	27,369	26,362
b. Accumulated contributions	$ 782,039,619	$ 710,256,388	$ 667,043,833
3. Treated as inactive nonvested members			
a. Number	56,233	54,184	55,533
b. Accumulated contributions	$ 188,608,819	$ 178,077,513	$ 171,728,926

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

STATISTICAL INFORMATION

	August 31, 2007 (1)	August 31, 2006 (2)	August 31, 2005 (3)
F. Persons Receiving Benefits			
1. Number			
a. Life annuities*	245,591	237,663	229,404
b. Annuities certain	1,384	1,371	1,336
c. Disability annuities - less than 10 years of service	296	308	310
d. Disability annuities - 10 or more years of service	8,177	8,154	8,017
e. Incomplete Data Records	0	0	0
f. Survivor annuities			
1) Currently in pay	9,013	8,789	8,591
2) Deferred	846	859	851
3) Total	9,859	9,648	9,442
g. Total persons receiving benefits	265,307	257,144	248,509
2. Annual Annuities			
a. Life annuities **	$ 5,326,559,243	$ 5,121,823,271	$ 4,921,871,453
b. Annuities certain **	15,720,517	16,070,599	14,770,103
c. Disability annuities - less than 10 years of service	532,800	554,400	558,000
d. Disability annuities - 10 or more years of service	114,799,138	114,754,993	112,945,505
e. Survivor annuities			
1) Currently in pay	27,109,108	26,426,008	25,834,708
2) Deferred	2,439,700	2,478,300	2,459,100
3) Total	29,548,808	28,904,308	28,293,808
f. Total persons receiving benefits	$ 5,487,160,506	$ 5,282,107,571	$ 5,078,438,869
g. Average monthly annuities			
1) Life annuities **	$ 1,807	$ 1,796	$ 1,788
2) Annuities certain **	947	977	921
3) Disability annuities - 10 or more years of service	1,170	1,173	1,174
h. DROP Lump Sum payments during year	$ 31,939,855	$ 36,033,028	$ 55,152,336
i. Partial Lump Sum Option payments during year	$ 325,688,244	$ 313,359,714	$ 288,088,743

* Includes 1,235 disabled annuitants who are receiving a retirement benefit

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

STATEMENT OF PLAN NET ASSETS

	August 31, 2007 (1)	August 31, 2006 (2)
A. ASSETS		
1. Current Assets		
a. Cash and short term investments		
1) Cash on hand and State Treasury	$ 899,404,472	$ 713,226,819
2) Short term investments	1,682,728,425	3,975,201,346
b. Accounts Receivable		
1) Member contributions	63,290,874	59,332,211
2) School districts	17,905,406	18,792,989
3) Employees Retirement System	686,833	663,277
4) State	61,383,142	20,545,728
5) Sale of investments	57,001,840	648,751,739
6) Interest and dividends	448,536,270	391,434,145
7) Other	397,048	769,935
c. Prepaid assets	0	0
d. Total current assets	3,231,334,310	5,828,718,189
2. Long Term Investments		
a. Fixed income	$ 31,358,468,837	$ 27,183,486,889
b. Alternative assets	7,824,404,404	4,263,373,772
c. Equities	70,255,220,452	65,836,033,359
d. Real estate held for sale	0	0
e. Total long term investments	$ 109,438,093,693	$ 97,282,894,020
3. Other Assets		
a Land	$ 1,658,310	$ 1,658,310
b. Building and equipment after depreciation	27,523,958	28,286,274
c. Deferred assets	0	0
d. Total other assets	$ 29,182,268	$ 29,944,584
4. Total Assets	$ 112,698,610,271	$ 103,141,556,793
B. LIABILITIES		
1. Current Liabilities		
a. Accounts payable	$ 4,898,231	$ 3,734,690
b. Benefits payable	482,647,875	460,899,265
c. Due to Employees Retirement System	4,051,819	3,927,278
d. Due to State's General Revenue Fund	0	0
e. Investments purchased payable	43,358,581	2,397,062,425
f. Total current liabilities	$ 534,956,506	$ 2,865,623,658
2. Deferred Credits	34,853,916	36,969,948
3. Total Liabilities and Deferred credits	569,810,422	2,902,593,606
C. NET ASSETS HELD IN TRUST	$ 112,128,799,849	$ 100,238,963,187
D. ASSET ALLOCATION FOR CASH & LONG TERM INVESTMENTS		
1. Cash	2.3%	4.6%
2. Fixed Income	28.0%	26.7%
3. Alternative Assets	7.0%	4.2%
4. Equities	62.7%	64.5%
5. Total	100.0%	100.0%

Distribution of Active Members by Age and by Years of Service
As of 08/31/2007

	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 $12,199	10,835 $28,746	4,342 $28,048	1,089 $22,508	383 $21,194	323 $23,074							16,974 $27,887
25-29	2 $5,020	18,703 $34,422	17,614 $37,198	13,467 $39,366	8,354 $40,775	14,235 $39,748	142 $33,514						72,517 $37,789
30-34	3 $7,864	12,179 $31,268	10,490 $34,576	8,646 $37,872	6,607 $40,081	37,947 $43,623	7,021 $45,211	71 $40,230					82,964 $39,914
35-39	1 $4,121	15,092 $29,755	10,567 $32,457	8,394 $35,585	5,627 $36,583	30,714 $40,320	25,959 $48,483	5,912 $49,589	81 $42,358				102,347 $39,963
40-44	3 $8,622	9,917 $27,386	8,746 $29,904	7,227 $32,771	4,893 $33,919	27,242 $36,012	18,081 $43,474	17,700 $51,867	5,174 $52,299	187 $44,049			99,170 $39,326
45-49	2 $15,412	8,349 $27,001	7,623 $30,285	6,472 $32,744	4,617 $33,261	27,381 $35,489	19,908 $40,155	15,207 $47,564	15,537 $56,425	6,472 $56,812	145 $47,416		111,713 $40,886
50-54	3 $4,087	6,280 $27,594	5,725 $30,993	5,009 $34,476	3,500 $33,771	22,442 $36,208	19,728 $40,273	16,888 $45,508	12,734 $52,215	15,147 $60,935	4,709 $63,058	40 $54,759	112,205 $43,708
55-59	58 $4,971	4,230 $27,712	4,036 $30,794	3,620 $34,213	2,484 $35,214	15,637 $36,516	14,274 $40,120	15,118 $45,152	12,259 $50,277	7,753 $57,053	6,984 $67,005	1,631 $70,062	88,084 $44,507
60-64	49 $5,000	2,224 $25,422	2,181 $28,845	2,062 $35,373	1,416 $33,595	8,824 $34,429	7,407 $38,470	7,851 $43,249	5,904 $48,133	3,560 $52,706	2,292 $61,555	1,977 $73,094	45,747 $42,099
65 +	15 $5,000	1,119 $17,601	1,020 $21,032	966 $28,418	652 $25,420	4,114 $26,596	3,167 $31,900	2,358 $37,612	1,605 $42,423	1,170 $46,531	745 $53,398	787 $70,595	17,718 $33,991
Total	138 $5,181	88,928 $26,285	72,344 $30,954	56,952 $35,152	38,533 $36,350	188,859 $38,172	115,687 $42,523	81,105 $47,060	53,294 $52,243	34,289 $57,841	14,875 $64,043	4,435 $71,370	749,439 $40,611

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	370	$ 4,609,928	$ 1,038
35-40	243	3,596,510	1,233
40-44	296	4,267,417	1,201
45-49	579	8,148,848	1,173
50-54	6,162	177,316,898	2,398
55-59	30,782	817,745,230	2,214
60-64	50,140	1,180,812,688	1,963
65-69	47,989	979,312,074	1,701
70-74	39,933	794,676,265	1,658
75-79	31,688	634,476,622	1,669
80-84	20,119	393,518,379	1,630
85-89	11,336	215,822,190	1,587
90-94	4,550	84,669,062	1,551
95 & up	1,404	27,587,132	1,637
TOTAL	245,591	$ 5,326,559,243	$ 1,807

DISTRIBUTION OF DISABLED ANNUITIES BY AGE

Age	Number	Annual Annuities	Monthly Average Annuity
(1)	(2)	(3)	(4)
Up to 35	2	$ 14,100	$ 588
35-40	31	286,966	771
40-44	126	1,220,026	807
45-49	402	5,238,062	1,086
50-54	902	13,287,131	1,228
55-59	1,448	20,184,971	1,162
60-64	1,408	17,582,776	1,041
65-69	1,108	14,832,769	1,116
70-74	1,007	15,482,355	1,281
75-79	917	15,361,516	1,396
80-84	494	7,166,799	1,209
85-89	242	3,155,382	1,087
90-94	77	869,438	941
95 & up	13	116,847	749
TOTAL	8,177	$ 114,799,138	$ 1,170

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

SUMMARY OF THE BENEFIT PROVISIONS OF THE RETIREMENT SYSTEM AS OF AUGUST 31, 2007

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. Normal Retirement Date:

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

   (b) end of month following age 60 and 20 years of creditable service, or

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

2. Standard Annuity:

   The product of 2.3% of the member's average compensation multiplied by years of creditable service. For members hired before August 31, 2007, the average compensation is calculated as the best 3-year average. For members hired after that date, the average compensation is a 5-year average.

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 meets any one of the following criteria 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, 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%

(b) If the member was hired before August 31, 2007 and either (1)is not grandfathered as described above, or (2) does not have 20 years of service, 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	61	62	63	64	65
5-19	47%	51%	55%	59%	63%	67%	73%	80%	87%	93%	100%

(c) If the member was hired after August 31, 2007 the benefit is reduced 5% per year from age 60.

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.

Partial Lump Sum Option - Members, with a combined age plus years of service that equals at least 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.

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.

9. 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.

G. STATE CONTRIBUTIONS

6.58% of member compensation each year.

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.

6. 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.

7. 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.

ACTUARIAL ASSUMPTIONS AND METHODS
(Adopted May 21, 2004)

ACTUARIAL ASSUMPTIONS

1. Investment Return Rate — 8.00% per annum, 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 of August 31, 2003, with values at specimen ages shown in the tables below:

   a.

	PROBABILITY OF DECREMENT DUE TO	
Age	Death	Disability Retirement
	MALE MEMBERS	
20	.000430	.000003
30	.000727	.000043
40	.000891	.000381
50	.001899	.001287
60	.005581	.002455
70	.018034	.000000
	FEMALE MEMBERS	
20	.000242	.000006
30	.000294	.000065
40	.000512	.000234
50	.001033	.001256
60	.002563	.002436
70	.009694	.000000

b.

Probability of Decrement Due to Withdrawal – Male Members

	Years of Service										
Age	0	1	2	3	4	5	6	7	8	9	10+
20	0.2465	0.2458	0.1794	0.1329	0.1058	0.0897	0.0908	0.0934	0.0821	0.0719	0.0795
30	0.2060	0.1955	0.1514	0.1178	0.0900	0.0772	0.0700	0.0655	0.0593	0.0519	0.0565
40	0.1923	0.1831	0.1399	0.1063	0.0832	0.0756	0.0639	0.0549	0.0474	0.0395	0.0242
50	0.1640	0.1562	01162	0.0827	0.0620	0.0557	0.0508	0.0475	0.0451	0.0360	0.0151
60	0.1715	0.1633	0.1294	0.0925	0.0659	0.0526	0.0431	0.0380	0.0328	0.0244	0.0108
70	0.1954	0.1861	0.1563	0.1145	0.0795	0.0534	0.0381	0.0315	0.0257	0.0168	0.0079

Probability of Decrement Due to Withdrawal – Female Members

	Years of Service										
Age	0	1	2	3	4	5	6	7	8	9	10+
20	0.1957	0.1864	0.1486	0.1275	0.1109	0.1043	0.0967	0.0900	0.0818	0.0725	0.0644
30	0.1912	0.1821	0.1459	0.1199	0.1002	0.0956	0.0870	0.0806	0.0729	0.0642	0.0535
40	0.1682	0.1602	0.1194	0.0933	0.0774	0.0704	0.0643	0.0542	0.0493	0.0439	0.0255
50	0.1498	0.1427	0.1054	0.0841	0.0664	0.0591	0.0520	0.0484	0.0432	0.0371	0.0182
60	0.1767	0.1683	0.1315	0.1036	0.0784	0.0602	0.0534	0.0468	0.0409	0.0313	0.0092
70	0.2094	0.1994	0.1948	0.1521	0.1002	0.0596	0.0448	0.0354	0.0356	0.0303	0.0086

c.

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	0.300
55	0.000	0.010	0.010	0.010	0.010	0.070	0.220	0.220
60	0.000	0.020	0.020	0.020	0.020	0.300	0.300	0.300
65	0.000	0.300	0.300	0.300	0.300	0.300	0.300	0.300
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	0.020	0.020	0.020	0.020	0.080	0.230	0.230
60	0.000	0.030	0.030	0.030	0.030	0.300	0.300	0.300
65	0.000	0.320	0.320	0.320	0.320	0.320	0.320	0.320
70	0.000	0.250	0.250	0.250	0.250	0.250	0.250	0.250
74	0.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

There is a minimum 0.1000 probability for retirement under Rule of 80. Also, for members hired after August 31, 2007, the retirement rates for members once they reach unreduced retirement eligibility at age 60 are increased 10% for each year the member would have been eligible under the Rule of 80.

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	22.15%	19.60%	26.40%	23.85%
2	3.25%	2.75%	7.50%	7.00%
3	2.55%	2.00%	6.80%	6.25%
4	2.35%	1.75%	6.60%	6.00%
5	2.15%	1.60%	6.40%	5.85%
6	1.85%	1.60%	6.10%	5.85%
7	1.65%	1.40%	5.90%	5.65%
8	1.50%	1.35%	5.75%	5.60%
9	1.25%	1.25%	5.50%	5.50%
10	1.05%	1.15%	5.30%	5.40%
11-19	0.65%	0.50%	4.90%	4.75%
20 or more	0.00%	0.00%	4.25%	4.25%

This weighted average projected salary increase rate is 6.77% based on the active member service distribution as of August 31, 2007.

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.

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: RP-2000 Male Mortality Table with a one-year setback and the RP-2000 Female Mortality Table with a two-year setback; 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, 2003.

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 social security 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

It is assumed that no members will enter DROP.

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 age 65.

ELECTION RATES FOR ACTIVE MEMBER DEATH BENEFITS:

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

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 age 65, 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 with the resulting value not being less than 80% or more than 120% of the market value of assets.

PAYROLL GROWTH FOR FUNDING OF UNFUNDED ACTUARIAL ACCRUED LIABILITY:

1. Total payroll growth rate: 3.00%.

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 2000-2003. This percentage of payroll is then applied to the total compensation for the prior year for all active members, and is then adjusted for the payroll growth assumption.

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.

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 1999 through 2003 and taking into account all changes in benefit provisions, the normal cost for benefits provided by the System is 10.40% of payroll (6.40% by members plus 4.00% by the State), which is 2.58% of payroll less than the total contributions required by Law. It is intended that the excess amount of 2.58% of payroll will be used to amortize any unfunded actuarial accrued liabilities of the System, assuming that total payroll increases by 3.00% per year.

As of the valuation as of August 31, 2007, these excess contributions of 2.58% of pay are sufficient to amortize the UAAL over a period of 27.4 years.

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.