State Auditor's Office

John Keel, CPA
State Auditor

A Report on

The Audit of the Teacher Retirement System's Fiscal Year 2010 Financial Statements

December 22, 2010

Members of the Legislative Audit Committee:

In our audit report dated November 10, 2010, we concluded that the Teacher Retirement System's (System) basic financial statements for fiscal year 2010 were materially correct and presented in accordance with accounting principles generally accepted in the United States of America.

We also issued a report on internal control over financial reporting and on compliance and other matters as required by auditing standards. Our procedures did not identify any material weaknesses in internal control over financial reporting or any noncompliance with laws or regulations that materially affected the financial statements. However, our procedures were not intended to provide an opinion on internal control over financial reporting or to provide an opinion on compliance with laws and regulations.

The major internal controls that we tested for the purpose of forming our opinion on the financial statements were operating effectively. As required by professional auditing standards, we have also communicated to the System's Board of Trustees certain matters related to the conduct of a financial statement audit.

Conducting our audit of the System's financial statements enabled us to obtain information on the actuarial funded status of the pension plan and the retiree health care plan, which is summarized below.

Background Information

The Teacher Retirement System (System), under Article 16, Section 67, of the Texas Constitution, is authorized to provide retirement and related benefits for employees of public schools, colleges, and universities supported by the State of Texas. The System also administers health care plans for retirees (TRS-Care), active public school employees (TRS-ActiveCare), and their dependents.

The System is responsible for investing funds under its stewardship and for delivering benefits to members as authorized by the Legislature. The System's pension plan is a defined benefit plan, with retirement benefits determined by a pre-established formula.

As of August 31, 2010, the System was serving 1,300,680 members: 1,004,189 were public and higher education employees and 296,491 were annuitants. These members were employed by 1,367 entities, including school districts, charter schools, colleges, and universities. The pension plan's net assets totaled $95.7 billion as of August 31, 2010. The System made $6.7 billion in benefit payments during fiscal year 2010.

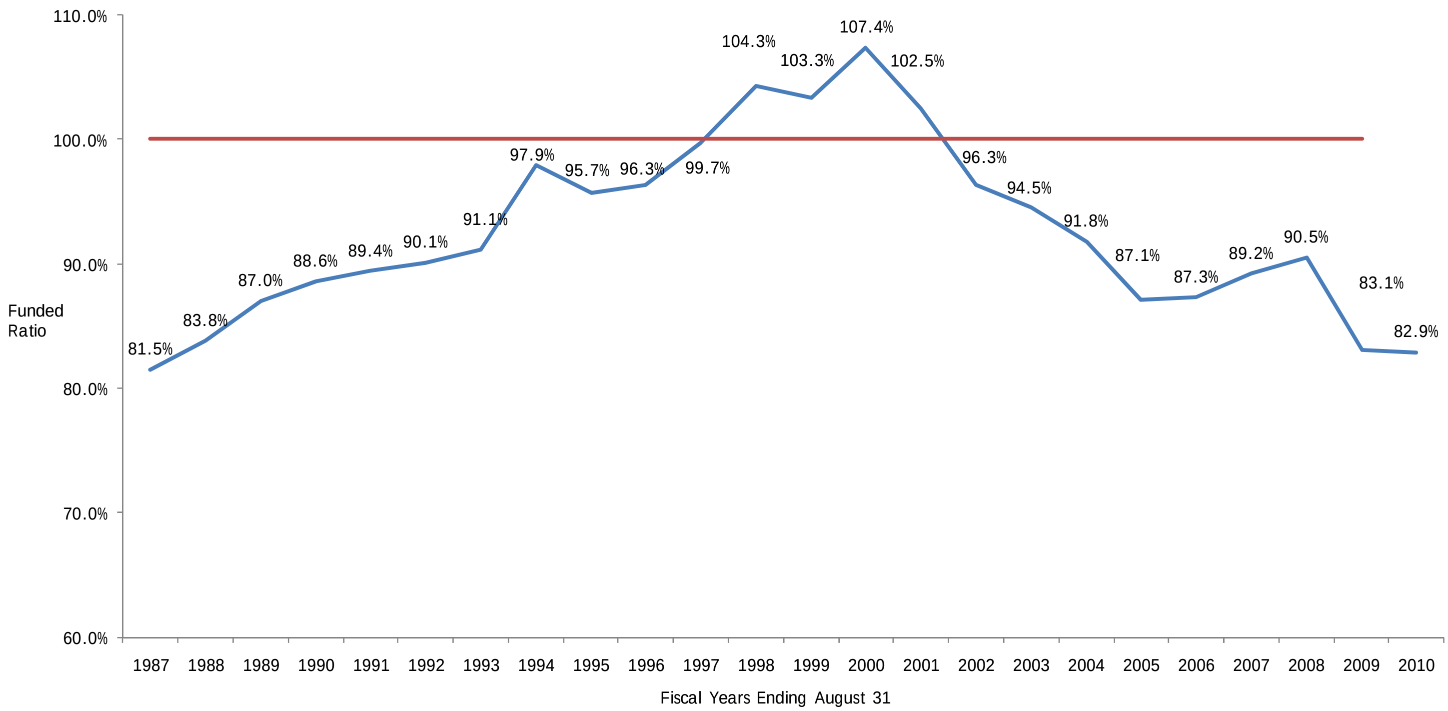
SAO Report No. 11-014

Pension Plan Actuarial Funded Status

The pension plan's (plan) funded ratio (the ratio of actuarial assets to actuarial liabilities) decreased to 82.9 percent at the end of fiscal year 2010. This was the plan's lowest funded ratio since fiscal year 1987 (see Figure 1).

Figure 1

Teacher Retirement System Pension Plan Funded Ratio
Fiscal Years 1987 through 2010



Source: Teacher Retirement System *Actuarial Valuation Report for the Year Ended August 31, 2010*.

The plan's unfunded actuarial accrued liability (UAAL), which represents the deficit of the plan's actuarial assets compared with its actuarial liabilities, increased in fiscal year 2010 by $1.3 billion to $22.9 billion. The increase in UAAL is due to the System recognizing deferred investment losses from fiscal years 2008 and 2009. The total deferred loss that remains to be recognized in future years is now $15.6 billion (as shown in Table 3 on page 8). In its actuarial report, the System's actuary stated that, "In the absence of a significant recovery in the investment markets, the UAAL should increase over the next four valuations."

According to the actuary's calculations, the current total annual contribution rate of 13.044 percent of pay (6.644 percent from the State and 6.400 percent from active members) is not sufficient to amortize the current UAAL. The actuary calculated that, if the member contribution rate remains unchanged, the State would have to increase its contribution rate to 7.770 percent to amortize the UAAL over a 30-year period. Government accounting standards specify a 30-year maximum amortization period for amortizing the total unfunded actuarial liability. The actuary also noted that the contribution rate necessary to amortize the UAAL would increase over the next several valuations as the deferred investment losses are recognized through a smoothing process.

The actuary stated that any benefit enhancements should be fully funded by separate appropriation on their own merit, rather than adding new unfunded liabilities to the System.

Table 1 summarizes actuarial and contribution rate information regarding the plan for fiscal years 2000 through 2010.

Table 1

Teacher Retirement System Pension Plan Actuarial and Contribution Information
Fiscal Years 2000 through 2010

Fiscal Year	Unfunded Actuarial Accrued Liability (UAAL)	Years to Fund UAAL	Funded Ratio	Annual Required Contribution (ARC) (Actuarially Determined)	Actual Contribution Rate (Statutorily Determined)
2010	$22.9 billion	Never	82.9%	7.77%	6.644%
2009	$21.6 billion	Never	83.1%	6.10%	6.580%
2008	$11.5 billion	20.7	90.5%	6.47%	6.580%
2007	$12.5 billion	27.4	89.2%	7.02%	6.000%
2006	$13.7 billion	Never	87.3%	7.19%	6.000%
2005	$13.2 billion	Never	87.1%	7.31%	6.000%
2004	$8.0 billion	Never	91.8%	7.39%	6.000%
2003	$5.2 billion	Never	94.5%	7.15%	6.000%
2002	$3.3 billion	Never	96.3%	5.70%	6.000%
2001	-$2.1 billion	0	102.5%	4.12%	6.000%
2000	-$5.4 billion	0	107.4%	4.92%	6.000%

Source: Teacher Retirement System.

Pension Plan Financial Highlights

The plan experienced net investment gains of $9.4 billion (or a 10.7 percent annual return) during fiscal year 2010. These gains exceeded the actuary's 8.0 percent assumed long-term rate of return. Because the fund had to recognize a portion of the $23.1 billion in losses deferred from fiscal year 2009, the plan had a $1.2 billion actuarial loss for fiscal year 2010.

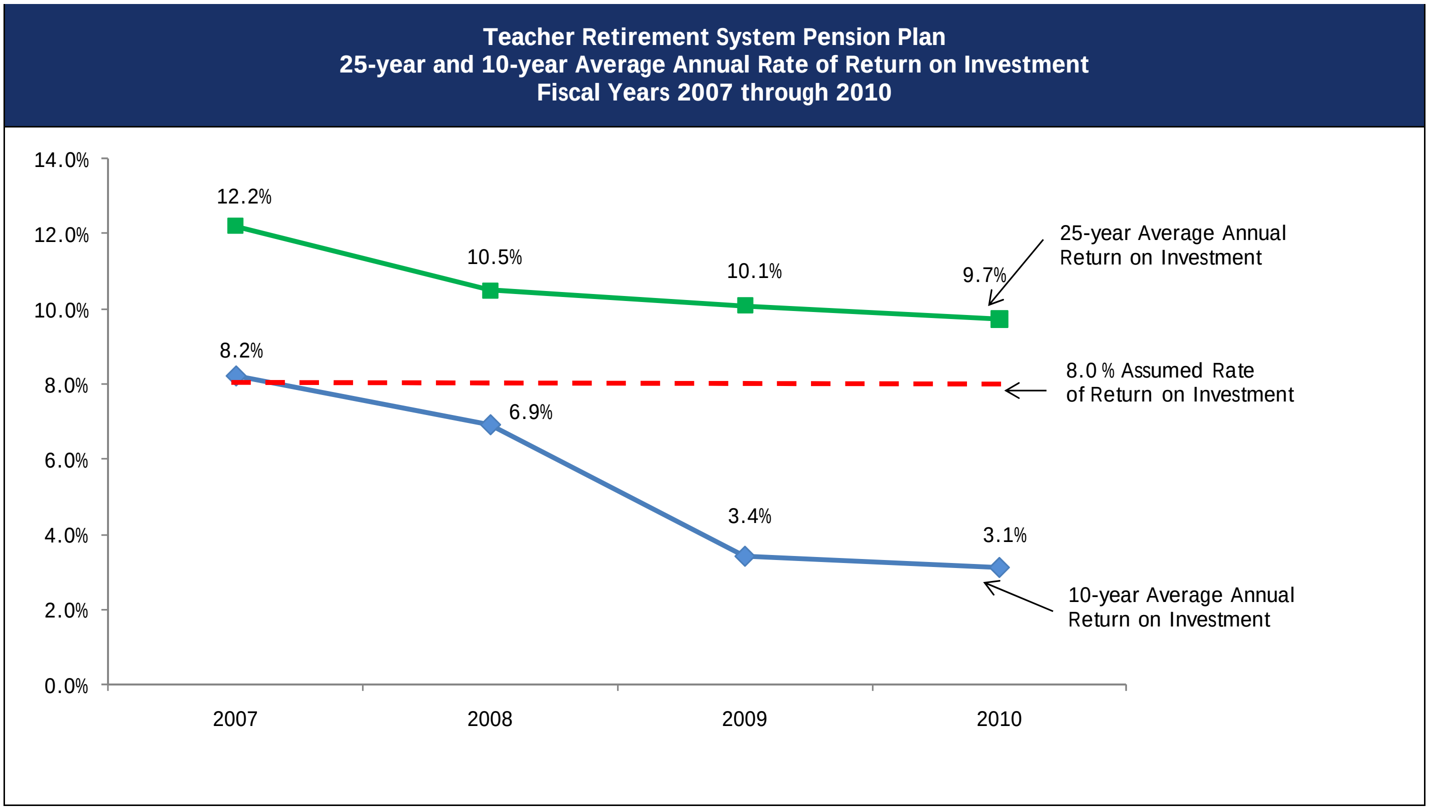
Between fiscal year 2004 and fiscal year 2010, the plan's actual annual rate of return fluctuated between -13.1 percent and 14.4 percent (as shown in Figure 3 on page 6). Annual returns are not the only way to evaluate pension plan performance. Average returns over multiple years also can be used to evaluate plan performance. In March 2010, the National Association of State Retirement Administrators (NASRA) stated that the process for establishing and reviewing the investment return assumption is based on a very long-term view, typically 30 to 50 years.

Although comparable data for the plan's performance during the last 30 to 50 years was not readily available, auditors were able to obtain data for the last 28 years.[1] The plan has a mixed record of meeting its 8 percent assumed rate of return over the long-term.

Figure 2 on the next page shows the 10-year and 25-year average annual returns on investment for fiscal years 2007 through 2010. The average annual return on the plan's investments during the past 10 years was 3.1 percent, which is below the actuary's 8.0 percent assumed rate of return. In contrast, the average annual return on the plan's investments during the past 25 years was 9.7 percent, which exceeds the actuary's 8.0 percent assumed rate of return. The plan's performance is comparable to other public pension plans. The NASRA reported that the median annualized investment returns for the period ended December 31, 2009, were 3.9 percent for 10 years and 9.3 percent for 25 years.

[1] Two factors must be considered in analyzing this data. First, investment returns calculated prior to the implementation of current accounting pronouncements that require valuing investment holdings at market values would be substantially different from investment returns calculated using generally accepted accounting principles that were formerly in place. Second, after reporting original investment rates of return in its comprehensive annual financial reports, the System later updated some of those rates of returns in subsequent comprehensive annual financial reports due to changes in the methodology it used to capture performance results. However, the differences between the original and updated investment rates of return are not considered significant.

Figure 2



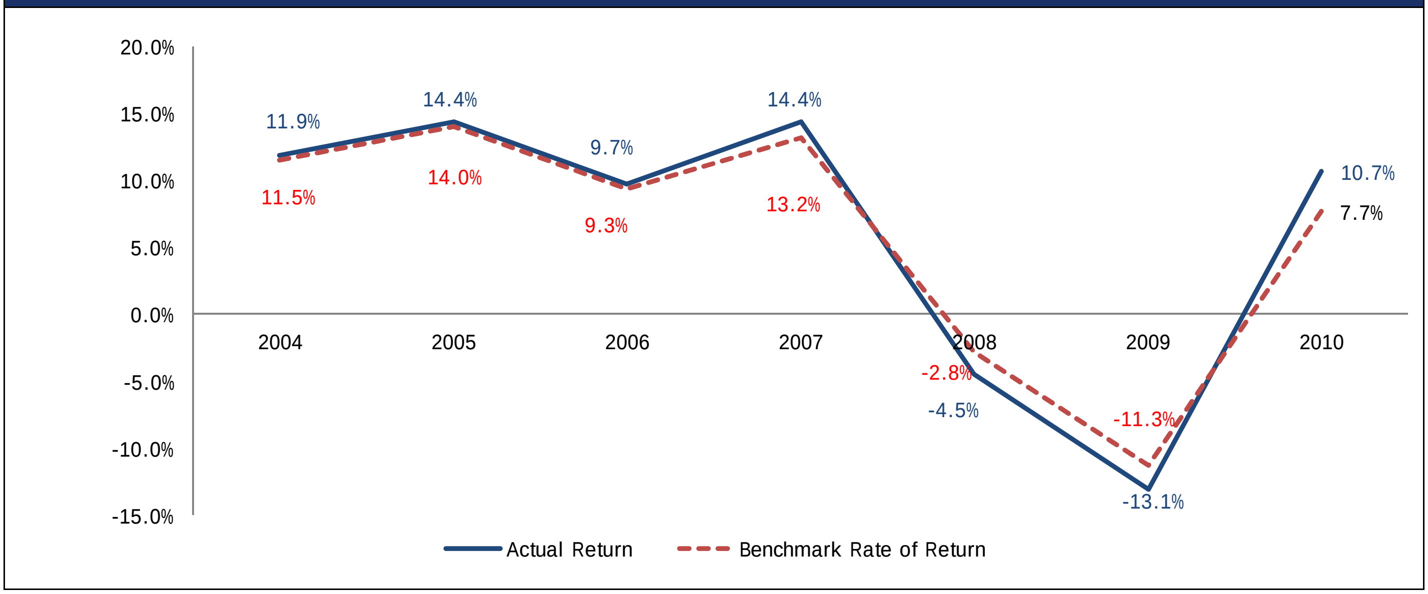
Source: Teacher Retirement System.

The System will recognize $13.4 billion of the fiscal year 2009 losses across fiscal years 2010 through 2013 under a five-year smoothing methodology.

At the end of fiscal year 2010, the market value of the plan's net assets was $95.7 billion, compared with net assets of $88.7 billion at the end of fiscal year 2009. For fiscal year 2010, the plan exceeded its benchmark rate of return by 3.0 percent. (A benchmark rate of return is the return on a predetermined set of investments chosen for purposes of comparison.) The plan realized a 10.7 percent rate of return and its benchmark rate of return was 7.7 percent (see Figure 3).

Figure 3

Teacher Retirement System
Pension Plan Annual Rate of Return and Benchmark Rate of Return
Fiscal Years 2004 through 2010



Sources: Legislative Budget Board *Annual Reports on Major State Investment Funds*, fiscal years 2004-2009, and the Teacher Retirement System.

Table 2 summarizes the plan's investment gains and losses and specifies whether the System has realized the loss.

Table 2

Teacher Retirement System Pension Plan Investment Gains and Losses Fiscal Year 2010 (in millions)				
Gain/Loss Category	Realized Gain/(Loss) [a]	Net Change in Unrealized Gain/(Loss) [b c]	Total Net Appreciation/(Depreciation) in Fair Value of Investments	Related Asset Balance as of August 31, 2010
Short-term Investments	$ 61	$ 44	$ 105	$ 8,176
Equities	2,211	70	2,281	42,805
Fixed Income	(138)	2,269	2,131	19,502
Alternative Investments	908	2,008	2,916	21,071
Derivative Investments	659	(539)	120	-124
Pooled Investments	7	174	181	3,495
Foreign Exchange [d]	42	(233)	(191)	Not Applicable
Totals	**$ 3,750**	**$ 3,793**	**$7,543**	**$ 94,925**

[a] Realized gains/(losses) are based on the original cost of the investment compared with the price at which it was sold (or the interim payments on derivatives).

[b] Unrealized gain/(loss) at a point in time is the difference between an investment's cost and its current market value.

[c] Net change in unrealized gain/(loss) for fiscal year 2010 is the difference between the unrealized gain/(loss) at August 31, 2010, and the unrealized gain/(loss) at August 31, 2009.

[d] Foreign exchange gains and losses are experienced across several gain and loss categories.

Source: Teacher Retirement System.

Table 3 summarizes the plan's investment results for fiscal years 2001 through 2010.

Table 3

Teacher Retirement System Pension Plan Investment Results Fiscal Years 2001 through 2010					
Fiscal Year	Total Net Investment Income/(Loss) (in billions)	Rate of Return on Investments	Net Assets Held in Trust (in billions)	Actuarial Net Investment Income /(Loss) (in billions)	Total Deferred Gain/(Loss) (in billions)
2010	$9.4	10.7%	$95.7	$2.4	($15.6)
2009	($14.0)	(13.1%)	$88.7	($22.3)	($23.1)
2008	($4.6)	(4.5%)	$104.9	($13.5)	($5.3)
2007	$14.3	14.4%	$112.1	$6.3	$8.7
2006	$9.0	9.7%	$100.2	$1.5	$6.0
2005	$12.0	14.4%	$93.7	$5.3	$4.4
2004	$9.1	11.9%	$84.2	$3.0	($4.6)
2003	$7.8	11.3%	$77.6	$2.1	($11.4)
2002	($6.1)	(7.8%)	$71.7	($12.4)	($14.3)
2001	($9.4)	(10.6%)	$79.4	($16.5)	($6.9)

Source: Teacher Retirement System.

Retiree Health Care Plan Actuarial Funded Status

The August 31, 2010, actuarial valuation of the retiree health plan (health plan) included the following information:

- The UAAL was $25.0 billion ($25.8 billion in actuarial accrued liabilities less $815 million in health plan assets) for fiscal year 2010. Therefore, the health plan's fiscal year 2010 funded ratio (actuarial assets/actuarial liabilities) was 3.2 percent.

- The actuarially determined annual required contribution (ARC) rate from employers and other contributing entities for fiscal year 2010 was 7.12 percent of payroll ($1.8 billion) based on an amortization period of 30 years. The State contributed 1.00 percent ($279 million), employers and other contributing entities contributed 0.55 percent ($156 million), and Medicare Part D reimbursements of $71 million were received from the federal government. These contributions represented 28.00 percent of the ARC for fiscal year 2010.

The actuarial assumed rate of return on health plan investments, which are comprised of short-term investments only, was 5.25 percent for fiscal year 2010 However, if the health plan could accumulate enough assets to invest using a long-term strategy and use the same 8.00 percent assumed rate of return that is used for the pension plan, the State, employers, and other contributing entities would be required to contribute $552 million less than the $1.981 billion that the actuary projects would be needed to fully fund the ARC during fiscal year 2011 (based on an assumed 5.25 percent rate of return and excluding contributions from active employees).

We appreciate the System's cooperation during this audit. If you have any questions, please contact Verma Elliott, Audit Manager, or me at (512) 936-9500.

Sincerely,

John Keel, CPA
State Auditor

cc: Members of the Teacher Retirement System Board of Trustees
Mr. R. David Kelly, Chair
Mr. Linus D. Wright, Vice Chair
Mr. Todd Barth
Ms. Charlotte Clifton
Mr. Robert Gauntt
Mr. Eric C. McDonald
Mr. Christopher Moss
Mr. Philip Mullins
Ms. Nanette Sissney
Mr. Ronnie G. Jung, CPA, Executive Director Teacher Retirement System

Summary of Objective, Scope, and Methodology

The objective of the audit was to issue an opinion on the System's fiscal year 2010 financial statements.

The audit scope covered the System's basic financial statements for fiscal year 2010.

The audit methodology included review of internal control over financial reporting, analytical review of material account balances, detailed tests of sample transactions, confirmations of investment holdings and market values, and tests of compliance with laws and regulations.

The audit was conducted in accordance with auditing standards generally accepted in the United States of America and standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States.

The following staff of the State Auditor's Office performed the audit:

- Gregory Scott Adams, CPA, MPA, CGFM (Project Manager)
- Amadou N'gaide, CFE, MBA, CIDA (Assistant Project Manager)
- Ishani Baxi
- Bruce W. Dempsey, CPA
- Michele Pheeney, CPA
- Kenneth Wade, CIA, CGAP
- Michael Yokie, CISA
- Charles P. Dunlap, Jr., CPA (Quality Control Reviewer)
- Verma Elliott, CPA, MBA, CIA, CGAP (Audit Manager)