John Keel, CPA
State Auditor

A Report on

# The Audit of the Teacher Retirement System's Fiscal Year 2009 Financial Statements

January 8, 2010

Members of the Legislative Audit Committee:

In our audit report dated November 13, 2009, we concluded that the Teacher Retirement System's (System) basic financial statements for fiscal year 2009 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. However, in a separate letter to System management, we reported certain, less significant issues in monitoring the accuracy of certain investment valuations and improving certain information technology controls. 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 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, 2009, the System was serving 1,273,582 members: 988,968 were public and higher education employees and 284,614 were annuitants. These members were employed by 1,364 entities, including school districts, charter schools, colleges, and universities. The pension plan's net assets totaled $88.7 billion as of August 31, 2009. The System made $6.3 billion in benefit payments during fiscal year 2009.

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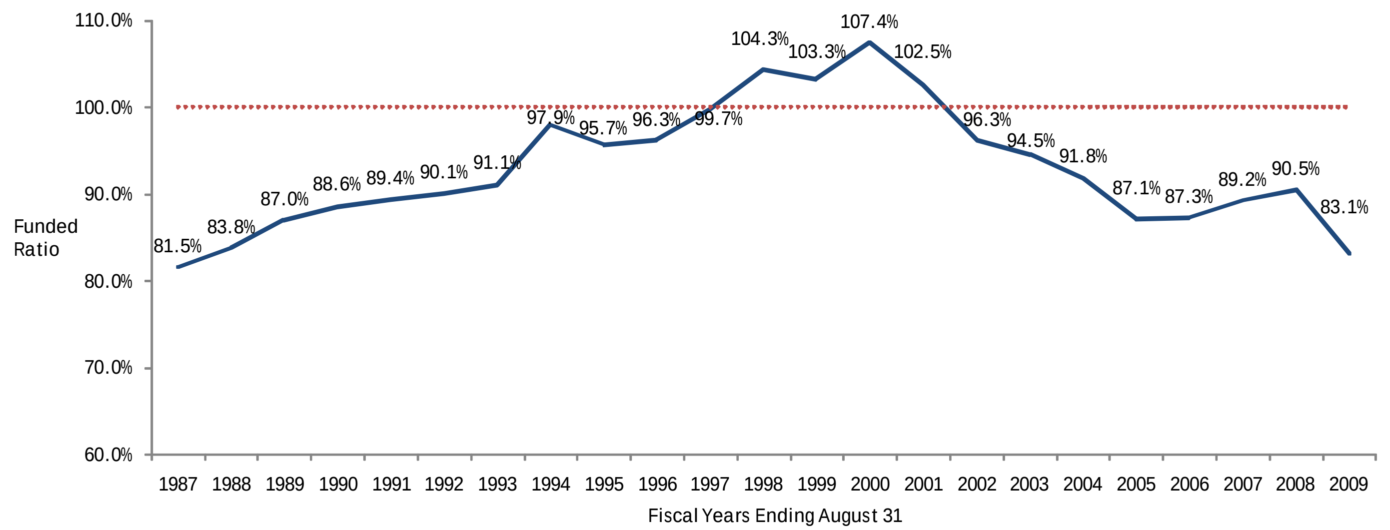
**Pension Plan Actuarial Funded Status**

The pension plan's (plan) funded ratio (the ratio of actuarial assets to actuarial liabilities) decreased to 83.1 percent at the end of fiscal year 2009. 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 2009**




Source: Teacher Retirement System *Actuarial Valuation Report for the Year Ended August 31, 2009*.

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 2009 by $10.1 billion to $21.6 billion. The increase in UAAL would have been larger if the System had not used a smoothing methodology, which it has used in the past few years, to defer $12.5 billion in fiscal year 2009 investment losses. The total deferred loss is now $17.7 billion, as shown in Table 3 on page 7. The actuary stated in its actuarial valuation report 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 12.80 percent of pay (6.40 percent from the State and 6.40 percent from active members) is not sufficient to amortize the current UAAL. (The actuary determined that the contribution rate was sufficient to amortize the UAAL over 20.7 years in fiscal year 2008.) The actuary calculated that the State would need to increase its contribution rate from the current 6.40 percent to an annual required contribution (ARC) rate of 7.72 percent to amortize the UAAL over a 30-year period. A 30-year amortization period is important because state law prohibits making certain changes to the plan, such as increasing benefits, if (1) the amortization period is 31 or more years or (2) the changes would increase the amortization period to 31 or more years (see Texas Government Code, Section 821.006).

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 State.

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 | Data will not be available until after August 31, 2010 | | | 7.72% | 6.40% |
| 2009 | $21.6 billion | Never | 83.1% | 6.10% | 6.58% |
| 2008 | $11.5 billion | 20.7 | 90.5% | 6.47% | 6.58% |
| 2007 | $12.5 billion | 27.4 | 89.2% | 7.02% | 6.00% |
| 2006 | $13.7 billion | Never | 87.3% | 7.19% | 6.00% |
| 2005 | $13.2 billion | Never | 87.1% | 7.31% | 6.00% |
| 2004 | $8.0 billion | Never | 91.8% | 7.39% | 6.00% |
| 2003 | $5.2 billion | Never | 94.5% | 7.15% | 6.00% |
| 2002 | $3.3 billion | Never | 96.3% | 5.70% | 6.00% |
| 2001 | -$2.1 billion | 0 | 102.5% | 4.12% | 6.00% |
| 2000 | -$5.4 billion | 0 | 107.4% | 4.92% | 6.00% |

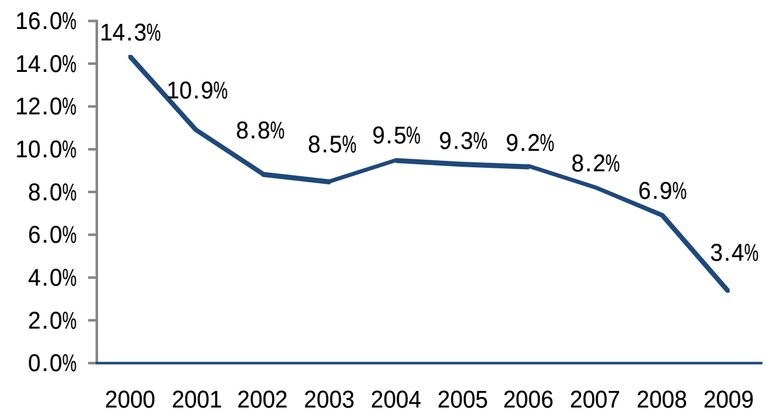
Source: Teacher Retirement System.

**Pension Plan Financial Highlights**

The plan experienced net investment losses of $14.0 billion (or a -13.1 percent annual return) during fiscal year 2009. The average annual return on the plan's investments during the past 10 years has been 3.4 percent. Figure 2 shows the 10-year average return on investment for 10-year periods ending August 31, 2000, through August 31, 2009. Management stated in the Management's Discussion and Analysis section of the financial statements that, "When comparing returns, it is important to remember that as a pension fund, the TRS investment performance has a very long horizon."

Figure 2

**Teacher Retirement System Pension Plan 10-Year Rate of Return on Investment**
**Fiscal Years 2000 through 2009**




Source: Teacher Retirement System *Comprehensive Annual Financial Reports* for 10-year periods ending August 31, 2000, through August 31, 2009.

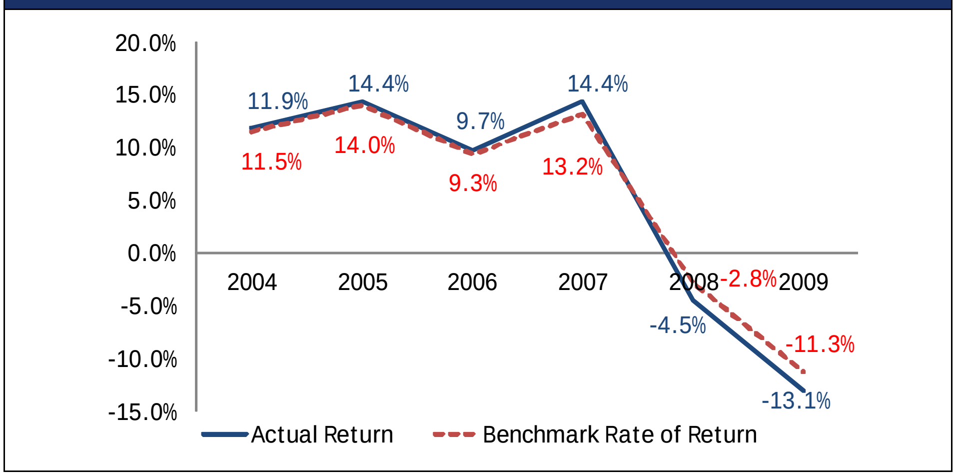
When calculated on an actuarial basis, the plan had a $22.3 billion loss for fiscal year 2009. The plan's assumed long-term rate of return used for actuarial valuation purposes is 8.0 percent. The System will recognize $12.5 billion of the fiscal year 2009 losses across fiscal years 2010 through 2013 under a five-year smoothing methodology. In fiscal year 2009, however, the plan recognized $5.4 billion more in losses than it normally would. The System accelerated the loss recognition because, if it had not done so, the actuarial value of the plan's assets would have exceeded 120 percent of actual market value allowed by the smoothing methodology. The System previously accelerated loss recognition in fiscal 2002, when it recognized an additional $1.9 billion in losses.

At the end of the fiscal year 2009, the plan's net assets were $88.7 billion, compared with net assets of $104.9 billion at the end of fiscal year 2008. This represents a significant recovery since February 28, 2009, when the market value of the plan's assets was $70.6 billion, the plan's funded ratio was 67.7 percent, and the ARC was 11.25 percent.

For the second consecutive year, the plan did not meet its benchmark rate of return in fiscal year 2009. (A benchmark rate of return is the return on a predetermined set of investments chosen for purposes of comparison.) As discussed above, the plan realized a -13.1 rate of return; however, its benchmark rate of return was -11.3 percent (see Figure 3).

Figure 3

**Teacher Retirement System**
**Pension Plan Annual Rate of Return and Benchmark Rate of Return**
**Fiscal Years 2004 through 2009**




Sources: Legislative Budget Board *Annual Reports on Major State Investment Funds*, fiscal years 2004-2008, 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 2009**
**(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, 2009 |
|---|---|---|---|---|
| Short-term Investments | $ (62) | $ (21) | $ (84) | $ 8,997 |
| Equities | (16,486) | 7,989 | (8,497) | 43,047 |
| Fixed Income | (25) | (277) | (303) | 16,578 |
| Alternative Investments | 119 | (3,226) | (3,107) | 17,315 |
| Derivative Investments | (4,361) | 873 | (3,488) | 302 |
| Pooled Investments | (131) | 133 | 2 | 1,475 |
| Foreign Exchange [d] | (987) | 432 | (555) | Not Applicable |
| Totals | **$ (21,933)** | **$ 5,903** | **$(16,031)** | **$ 87,713** |

[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 2009 is the difference between the unrealized gain/(loss) at August 31, 2009, and the unrealized gain/(loss) at August 31, 2008.

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

Source: Teacher Retirement System.

Table 3 summarizes plan's investment results for fiscal years 2000 through 2009.

Table 3

**Teacher Retirement System Pension Plan Investment Results**
**Fiscal Years 2000 through 2009**

| 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) |
|---|---|---|---|---|---|
| 2009 | ($14.0) | -13.1% | $88.7 | ($22.3) | ($17.7) |
| 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) |
| 2000 | $11.1 | 14.0% | $90.0 | $4.8 | $10.7 |

Source: Teacher Retirement System.

**Retiree Health Care Plan Actuarial Funded Status**

The August 31, 2009, actuarial valuation of the retiree health plan (health plan) included the following information:

- The UAAL was $23.6 billion ($24.4 billion in actuarial accrued liabilities less $800 million in health plan assets) for fiscal year 2009. Therefore, the health plan's fiscal year 2009 funded ratio (actuarial assets/actuarial liabilities) was 3.3 percent.

- The actuarially determined annual required contribution (ARC) rate from employers and other contributing entities for fiscal year 2009 was 6.84 percent of payroll ($1.7 billion) based on an amortization period of 30 years. The State contributed 1.00 percent ($267 million), employers and other contributing entities contributed 0.55 percent ($150 million), and Medicare Part D reimbursements of $62 million were received from the federal government. These contributions represented 28.90 percent of the ARC for fiscal year 2009.

- 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 2009. 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 $540 million less than the $1.909 billion that the actuary projects would be needed to fully fund the ARC during fiscal year 2010 (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. Seth Crone, Jr.
Mr. Robert Gauntt
Mr. Eric Craig McDonald
Mr. Philip Mullins
Ms. Nannette 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 Teacher Retirement System's (System) fiscal year 2009 financial statements.

The audit scope covered the System's basic financial statements for fiscal year 2009.

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)
- Roger Ferris, CPA (Assistant Project Manager)
- Ishani Baxi
- Darrell Edgar, CFE
- Seorin Kim, CPA, MPA
- Amadou N'gaide, CFE, MBA, CIDA
- Kenneth Wade, CIA, CGAP
- Michael Yokie, CISA (Information Systems Audit Team)
- Charles P. Dunlap, Jr., CPA (Quality Control Reviewer)
- Verma Elliott, MBA, CIA, CGAP (Audit Manager)