



Retirement Systems
of Alabama

**Teachers' Retirement System of Alabama
Report of the Actuary on the Annual Valuation
Prepared as of September 30, 2008**



Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

June 22, 2009

Board of Control
Teachers' Retirement System of Alabama
Montgomery, Alabama

Members of the Board:

In this report are submitted the results of the annual valuation of the assets and liabilities of the Teachers' Retirement System of Alabama, prepared as of September 30, 2008 in accordance with Section 367(15) of the act governing the operation of the System.

The purpose of this report is to provide a summary of the funded status of the System as of September 30, 2008, to recommend rates of State contribution and to provide accounting information under Governmental Accounting Standards Board Statements No. 25 and 27 (GASB 25 and 27). While not verifying the data at source, the actuary performed tests for consistency and reasonability. On the basis of this valuation, it is recommended that the State make contributions to the Retirement System at the rate of 13.38% of payroll for the fiscal year ending September 30, 2011, based on a 20-year amortization period.

The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the Entry Age Normal cost method. Five-year market related value of assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by 4.50% annually. The assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Fund and to reasonable expectations of anticipated experience under the Fund and meet the parameters for the disclosures under GASB 25 and 27.

We have prepared the Schedule of Funding Progress and Trend Information shown in the financial section of the Comprehensive Annual Financial Report, and all supporting schedules including the Schedule of Active Member Valuation Data, the Solvency Test and the Analysis of Financial Experience shown in the actuarial section of the Comprehensive Annual Financial Report. All historical information that references a valuation date prior to September 30, 2004 was prepared by the previous actuarial firm.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

Phone (678) 388-1700 • Fax (678) 388-1730

www.CavMacConsulting.com

Offices in Englewood, CO • Kennesaw, GA • Hilton Head Island, SC



June 22, 2009
Board of Control
Page 2

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

In our opinion the System is operating on an actuarially sound basis. Assuming that contributions to the System are made by the employer from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Edward A. Macdonald'.

Edward A. Macdonald, ASA, FCA, MAAA
President

A handwritten signature in black ink, appearing to read 'Cathy Turcot'.

Cathy Turcot
Principal and Managing Director

EAM/mjn



TABLE OF CONTENTS

<u>Section</u>	<u>Item</u>	<u>Page No.</u>
I	Summary of Principal Results	1
II	Membership	2
III	Assets	4
IV	Comments on Valuation	5
V	Contributions Payable by Employer	6
VI	Annual Actuarial Certification	8
VII	Analysis of Financial Experience	9
VIII	Accounting Information	10
<u>Schedule</u>		
A	Valuation Balance Sheet and Solvency Test	12
B	Development of the Actuarial Value of Assets	14
C	Summary of Receipts and Disbursements	15
D	Outline of Actuarial Assumptions and Methods	16
E	Actuarial Cost Method	19
F	Summary of Main Plan Provisions as Interpreted for Valuation Purposes	20
G	Schedule of Active Participant Data	23



**TEACHERS' RETIREMENT SYSTEM OF ALABAMA
REPORT OF THE ACTUARY ON THE ANNUAL VALUATION
PREPARED AS OF SEPTEMBER 30, 2008**

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below:

VALUATION DATE	September 30, 2008	September 30, 2007
Active members		
Number	141,528	141,217
Annual compensation*	\$ 5,969,302,850	\$ 5,589,726,297
Retired members and beneficiaries		
Number	66,928	64,429
Annual allowances*	\$ 1,375,347,821	\$ 1,314,053,230
DROP participants		
Number	5,169	5,071
Annual compensation*	\$ 325,038,414	\$ 308,045,402
Annual allowances	155,708,179	151,079,983
Assets		
Actuarial value	\$ 20,812,477,194	\$ 20,650,916,481
Market value	17,958,423,518	21,819,988,550
Unfunded accrued liability	\$ 5,991,639,989	\$ 5,320,618,237
Funded Ratio	77.6%	79.5%
CONTRIBUTIONS FOR FISCAL YEAR ENDING	September 30, 2011	September 30, 2010
Employer contribution rate		
Normal	6.39%	6.28%
Accrued liability	6.61	5.85
Death benefit	0.12	0.12
Term life	0.05	0.05
Administration	<u>0.21</u>	<u>0.21</u>
Total	13.38%	12.51%
Amortization period	20 years	20 years

*Amounts shown do not include any increase in effect after the valuation date.

2. Comments on the valuation results as of September 30, 2008 are given in Section IV and further discussion of the contribution levels is set out in Section V.
3. Schedule B shows the development of the actuarial value of assets. Schedule D of this report outlines the full set of actuarial assumptions and methods employed in the current valuation. There have been no changes since the previous valuation.



4. Provisions of the System, as summarized in Schedule F, were taken into account in the current valuation.
5. Section VI of this report shows the certification that there has been no change in the liquidation period used to determine the accrued liability contribution rate.

SECTION II - MEMBERSHIP

1. The following table shows the number of active members and their annual compensation as of September 30, 2008 on the basis of which the valuation was prepared.

TABLE 1

**THE NUMBER AND ANNUAL COMPENSATION OF
ACTIVE MEMBERS AS OF SEPTEMBER 30, 2008**

GROUP	NUMBER	COMPENSATION*
Males	37,156	\$ 1,904,593,051
Females	<u>104,372</u>	<u>4,064,709,799</u>
Total	141,528	\$ 5,969,302,850

*In addition, there are 5,169 members with compensation of \$325,038,414 who are currently participating in the DROP. Employers of the Retirement System contribute on this payroll.

The table reflects the active membership for whom complete valuation data were submitted. The results of the valuation were adjusted to take account of an additional 16,791 inactive members.



2. The following table shows a six-year history of active member valuation data.

TABLE 2
SCHEDULE OF ACTIVE MEMBER VALUATION DATA

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>Annual Average Pay</u>	<u>% Increase in Average Pay</u>
9/30/2008 ¹	141,528	\$ 5,969,302,850	\$ 42,178	6.55%
9/30/2007 ²	141,217	5,589,726,297	39,583	7.41
9/30/2006 ³	138,613	5,108,187,755	36,852	5.20
9/30/2005 ⁴	135,126	4,733,415,807	35,030	2.73
6/30/2004 ⁵	131,814	4,494,548,521	34,098	(1.48)
6/30/2003 ⁶	129,617	4,486,058,170	34,610	2.78

¹ In addition, there are 5,169 employees with annual compensation of \$325,038,414 who are currently participating in the DROP program. Employers of the Retirement System contribute on this payroll.

² In addition, there are 5,071 employees with annual compensation of \$308,045,402 who are currently participating in the DROP program. Employers of the Retirement System contribute on this payroll.

³ In addition, there are 5,375 employees with annual compensation of \$350,255,378 who are currently participating in the DROP program. Employers of the Retirement System contribute on this payroll.

⁴ In addition, there are 4,839 employees with annual compensation of \$291,497,474 who are currently participating in the DROP program. Employers of the Retirement System contribute on this payroll.

⁵ In addition, there are 4,468 employees with annual compensation of \$252,128,959 who are currently participating in the DROP program. Employers of the Retirement System contribute on this payroll.

⁶ In addition, there are 2,711 employees with annual compensation of \$146,552,344 who are currently participating in the DROP program. Employers of the Retirement System contribute on this payroll.

3. The following table shows the number and annual retirement allowances payable to retired members and their beneficiaries on the roll of the Retirement System as of the valuation date.

TABLE 3
THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF
RETIRED MEMBERS AND BENEFICIARIES ON THE ROLL
AS OF SEPTEMBER 30, 2008

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
Service Retirements	59,263	\$ 1,284,793,484
Disability Retirements	4,235	46,057,210
Beneficiaries of Deceased Members	3,430	44,497,127
DROP Participants	5,169	155,708,179
Total	72,097	\$ 1,531,056,000



4. Schedule G shows the distribution by age and service of the number and average annual compensation of active members included in the valuation.

SECTION III - ASSETS

1. The current retirement law provides for the maintenance of four funds for the purpose of recording the fiscal transactions of the System, namely, the Annuity Savings Fund, the Pension Accumulation Fund, the Pre-Retirement Death Benefit Fund, and the Deferred Retirement Option Plan Fund.

- (a) Annuity Savings Fund

The Annuity Savings Fund is the fund to which are credited all contributions made by members together with regular interest thereon. When a member retires or when a survivor allowance becomes payable the amount of the member's accumulated contributions are transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The market value of assets credited to the Annuity Savings Fund on September 30, 2008, which represent the accumulated contributions of active members to that date, including interest, amounted to \$3,153,858,976.

- (b) Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which are credited all contributions made by the employer, except those contributions made to the Pre-Retirement Death Benefit Fund which was created October 1, 1983. When a member retires or when a survivor allowance becomes payable, the pension is paid from this fund. In addition, the amount of the member's accumulated contributions is transferred from the Annuity Savings Fund to the Pension Accumulation Fund and the annuity is paid from this fund. On September 30, 2008 the market value of assets credited to this fund amounted to \$14,211,165,853.

- (c) DROP Fund

The DROP Fund is the fund to which are credited deferred retirement benefits on behalf of members who elect to participate in the DROP, together with regular interest thereon. In addition, member contributions while participating in the DROP, together with regular interest therein, are credited to the Fund. At the end of the DROP deferral period, the member receives the amount of the deferred retirement benefits and contributions plus interest in the member's DROP account. On September 30, 2008, the market value of assets credited to this Fund amounted to \$593,398,689.

- (d) Pre-Retirement Death Benefit Fund

The Pre-Retirement Death Benefit Fund is the fund to which are credited contributions made by the employer for the special pre-retirement death benefit which became effective October 1, 1983. On September 30, 2008, the market value of assets credited to this fund amounted to \$23,356,980.



2. As of September 30, 2008 the total market value of assets reported exclusive of the Pre-Retirement Death Benefit Fund amounted to \$17,958,423,518 as shown in the following table.

TABLE 4
MARKET VALUE OF ASSETS BY FUND
AS OF SEPTEMBER 30, 2008

FUND	MARKET VALUE OF ASSETS
Annuity Savings Fund	\$ 3,153,858,976
Pension Accumulation Fund	14,211,165,853
DROP Fund	<u>593,398,689</u>
Total Market Value of Assets	\$ 17,958,423,518

3. The five-year market related actuarial value of assets as of September 30, 2008 was \$20,812,477,194. Schedule B shows the development of the actuarial value of assets as of September 30, 2008
4. Schedule C shows the receipts and disbursements of the System for the year preceding the valuation date and a reconciliation of the fund balances at market value.

SECTION IV - COMMENTS ON VALUATION

1. Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of September 30, 2008.
2. The valuation balance sheet shows that the System has total prospective liabilities of \$32,876,520,636. Of this amount, \$14,678,974,980 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and DROP participants, and \$18,197,545,656 is for the prospective benefits payable on account of present active and inactive members. Against these liabilities, the System has total present actuarial value of assets, exclusive of the Pre-Retirement Death Benefit Fund, of \$20,812,477,194 as of September 30, 2008. The difference of \$12,064,043,442 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future. Of this amount, \$2,666,494,692 is the present value of future contributions expected to be made by members to the Annuity Savings Fund, and the balance of \$9,397,548,750 represents the present value of future contributions payable by the employer.



3. The employer's regular contributions to the System consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 6.39% of payroll are required to provide the benefits of the System for the average new member.
4. Prospective normal contributions at the rate of 6.39% have a present value of \$3,405,908,761. When this amount is subtracted from \$9,397,548,750 which is the present value of the total future contributions to be made by the employer, there remains \$5,991,639,989 as the amount of future accrued liability contributions. Accrued liability contributions of 6.61% of payroll are to be made toward amortizing the unfunded accrued liability. Annual accrued liability contributions at the rate of 6.61% of payroll will amortize the unfunded accrued liability within 20 years from the valuation date on the assumption that the aggregate amount of accrued liability contribution will increase by 4.50% each year.
5. A contribution of 0.12% is required to meet the cost of the pre-retirement death benefit program this year. A contribution of 0.05% is required to meet the cost of group term-life insurance premiums.
6. An additional contribution of 0.21% of payroll is required to cover the expenses of administering the System.

SECTION V - CONTRIBUTIONS PAYABLE BY EMPLOYER

1. The retirement law provides that the employer contributions are to be paid from the same source from which employees' salaries are paid.
2. On the basis of the actuarial valuation prepared as of September 30, 2008 it is recommended that the employer make contributions at the following rates beginning October 1, 2010:



TABLE 5

**EMPLOYER CONTRIBUTION RATES
AS A PERCENTAGE OF MEMBERS' COMPENSATION**

EMPLOYER CONTRIBUTION	FISCAL YEAR ENDING SEPTEMBER 30, 2011
Normal	6.39%
Accrued Liability	6.61
Death Benefit	0.12
Term-Life	0.05
Administration	<u>0.21</u>
Total	13.38%

3. Contributions at the above rates of payroll are also recommended for payment by the Alabama High School Athletic Association. The following table shows the rates to be paid by special units of the System in addition to the rates shown above and the fiscal year through which these additional rates are required to be paid.

TABLE 6

ADDITIONAL RATES REQUIRED FOR SPECIAL UNITS OF THE SYSTEM


UNIT	ADDITIONAL EMPLOYER RATE	THROUGH FISCAL YEAR ENDING SEPTEMBER 30
Jefferson County American Federation of Teachers	4.15%	2009
Alabama State Employees Association	2.66	2015
Developing Alabama Youth Foundation	2.74	2017
Alabama Congress of Parents and Teachers	2.15	2020
Central Alabama Opportunities Industrialization Center	5.07	2020



SECTION VI – ANNUAL ACTUARIAL CERTIFICATION

The following is the annual actuarial certification to the Teachers' Retirement System of Alabama required by Act 2000-732.

1. We hereby certify that there has been no change since the previous valuation in the liquidation period of 20 years used to determine the accrued liability contribution rate of 6.61% as part of the total rate of 13.38% to be paid by employers to the Teachers' Retirement System of Alabama.

Signed 

Edward A. Macdonald, ASA, FCA, MAAA
President



SECTION VII – ANALYSIS OF FINANCIAL EXPERIENCE

The following table shows the estimated gain or loss from various factors that resulted in an increase of \$671,021,752 in the unfunded accrued liability from \$5,320,618,237 to \$5,991,639,989 during the year ending September 30, 2008.

ANALYSIS OF FINANCIAL EXPERIENCE

(in millions of dollars)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (8.00%) added to previous unfunded accrued liability	\$ 425.6
Accrued liability contribution	(314.3)
Experience:	
Valuation asset growth	938.4
Pensioners' mortality	19.2
Turnover and retirements	142.8
New entrants	48.9
Salary increases	(612.5)
Method changes	0.0
Amendments	0.0
Assumption changes	0.0
Miscellaneous changes	<u>22.9</u>
Total	\$ 671.0



SECTION VIII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statements of the System and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ACTIVE AND RETIRED MEMBERS
AS OF SEPTEMBER 30, 2008**

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	66,928
DROP participants	5,169
Terminated employees entitled to benefits but not yet receiving benefits	16,791
Active members	<u>141,528</u>
Total	230,416

2. Another such item is the schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS
(Dollar amounts in thousands)

Actuarial Valuation	Actuarial Value of Assets	Actuarial Accrued Liability (AAL) Entry Age	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percentage of Covered Payroll
<u>Date</u>	<u>(a)</u>	<u>(b)</u>	<u>(b - a)</u>	<u>(a / b)</u>	<u>(c)</u>	<u>((b - a) / c)</u>
6/30/2003	\$18,110,470	\$19,357,735	\$ 1,247,265	93.6%	\$4,632,611	26.9%
6/30/2004	18,704,009	20,886,190	2,182,181	89.6	4,846,677	45.0
9/30/2005	19,248,207	23,027,338	3,779,131	83.6	5,326,408*	71.0
9/30/2006	19,821,133	23,945,100	4,123,967	82.8	5,458,443	75.6
9/30/2007	20,650,916	25,971,534	5,320,618	79.5	6,310,616**	84.3
9/30/2008	20,812,477	26,804,117	5,991,640	77.6	6,294,341	95.2

*Includes pay increase granted under Act 2005-174.

**Includes pay increase granted under Act 2007-296.



3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at September 30, 2008. Additional information as of the latest actuarial valuation follows.

Valuation date	09/30/2008
Actuarial cost method	Entry Age Normal
Amortization method	Level percent open
Remaining amortization period	20 years
Asset valuation method	Five-year market related value
Actuarial assumptions:	
Investment rate of return*	8.00%
Projected salary increases*	5.00 - 7.75%
Cost-of-living adjustments	None
*Includes inflation at	4.50%

TREND INFORMATION
(\$ in 1,000's)

<u>Period Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage Of APC Contributed</u>	<u>Net Pension Obligation (NPO)</u>
September 30, 2006	\$413,975	100%	\$0
September 30, 2007	519,247	100	0
September 30, 2008	706,491	100	0



SCHEDULE A

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE TEACHERS' RETIREMENT SYSTEM OF ALABAMA
AS OF SEPTEMBER 30, 2008**

	September 30, 2008	September 30, 2007
<u>ASSETS</u>		
Actuarial Value of Present Assets	\$ 20,812,477,194	\$ 20,650,916,481
Present value of future members' contributions to the Annuity Savings Fund	\$ 2,666,494,692	\$ 2,674,289,348
Present value of future employer contributions to the Pension Accumulation Fund		
Normal contributions	\$ 3,405,908,761	\$ 3,357,152,675
Unfunded accrued liability contributions	<u>5,991,639,989</u>	<u>5,320,618,237</u>
Total prospective employer contributions	\$ 9,397,548,750	\$ 8,677,770,912
Total Assets	<u>\$ 32,876,520,636</u>	<u>\$ 32,002,976,741</u>
<u>LIABILITIES</u>		
Present value of benefits payable on account of retired members, beneficiaries of deceased members now drawing retirement allowances, and DROP participants	\$ 14,678,974,980	\$ 14,048,525,282
Present value of prospective benefits payable on account of present active and inactive members:		
Service retirement allowances	\$ 17,075,876,708	\$ 16,850,707,815
Disability retirement allowances	545,654,982	540,042,391
Survivor allowances	153,263,201	149,878,426
Refunds of members' contributions	<u>422,750,765</u>	<u>413,822,827</u>
Total	\$ 18,197,545,656	\$ 17,954,451,459
Total Liabilities	<u>\$ 32,876,520,636</u>	<u>\$ 32,002,976,741</u>



SCHEDULE A
(continued)

SOLVENCY TEST
(\$1000's)

Valuation Date	Aggregate Accrued Liabilities For			Reported Assets	Portion of Accrued Liabilities Covered by Reported Asset		
	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)		(1)	(2)	(3)
9/30/2008	\$3,153,859	\$14,678,975	\$8,971,283	\$20,812,477	100%	100%	33.2%
9/30/2007 ¹	3,038,296	14,048,525	8,884,713	20,650,916	100	100	40.1
9/30/2006 ²	2,943,588	13,408,294	7,593,218	19,821,133	100	100	45.7
9/30/2005 ³	2,856,983	12,998,138	7,172,217	19,248,207	100	100	47.3
6/30/2004 ⁴	2,779,858	11,491,556	6,614,776	18,704,009	100	100	67.0
6/30/2003	2,750,536	9,548,773	7,058,426	18,110,470	100	100	82.3

¹ Reflects pay increase payable under Act 2007-296.

² Reflects changes in actuarial assumptions.

³ Reflects pay increase payable under Act 2005-174 and additional allowance payable under Act 2006-310.

⁴ Reflects additional allowance payable under Act 2005-174.



SCHEDULE B

DEVELOPMENT OF SEPTEMBER 30, 2008 ACTUARIAL VALUE OF ASSETS

(1)	Actuarial Value of Assets on September 30, 2007	\$ 20,650,916,481
(2)	Market Value of Assets on September 30, 2008	17,958,423,518
(3)	Market Value of Assets on September 30, 2007	21,819,988,550
(4)	Net Cash Flow During the Fiscal Year	
	a. Contributions	1,033,495,090
	b. Benefit Payments	1,561,551,808
	c. Administrative Expenses	2,800,982
	d. Investment Expenses	<u>4,332,163</u>
	e. Net Cash Flow: (a. - b. - c. - d.)	(535,189,863)
(5)	Actual Investment Return ((2) - (3) - (4)e.)	(3,326,375,169)
(6)	Assumed Rate of Return on Assets	8.00%
(7)	Expected Investment Return ((3) * (6)) + (((4)a. - (4)b. - (4)c.) * .5 * (6)) + (4)d.	1,728,696,939
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))	(5,055,072,108)
(9)	Phased-In Recognition of Investment Gain/(Loss)	
	a. Current Fiscal Year: (.2 * (8))	(1,011,014,422)
	b. Prior Fiscal Year	362,301,545
	c. Second Prior Fiscal Year	13,979,879
	d. Third Prior Fiscal Year	75,139,616
	e. Fourth Prior Fiscal Year	<u>(472,352,981)</u>
	f. Total Recognized Investment Gain/(Loss) for Fiscal Year	(1,031,946,363)
(10)	Actuarial Value of Assets on September 30, 2008 ((1) + (4)e. + (7) + (9)f.)	\$ 20,812,477,194



SCHEDULE C

**SUMMARY OF RECEIPTS AND DISBURSEMENTS
FOR THE PERIOD ENDING SEPTEMBER 30, 2008**

<u>Receipts for the Period</u>		
Contributions:		
Members	\$ 327,004,024	
Employer	<u>706,491,066</u>	
Total		\$ 1,033,495,090
Investment Income		<u>(3,330,707,332)</u>
TOTAL		\$ (2,297,212,242)
<u>Disbursements for the Period</u>		
Benefit Payments		\$ 1,358,651,898
Refunds to Members		32,092,512
DROP Distributions		128,321,321
Miscellaneous:		
Transfers to Plant Fund	\$41,083,790	
Transfers to Expense Fund	2,800,982	
Transfers to Pre-Retirement Death Benefit Fund	<u>1,402,287</u>	
Total		<u>45,287,059</u>
TOTAL		\$ 1,564,352,790
<u>Excess of Receipts over Disbursements</u>		\$ (3,861,565,032)
<u>Reconciliation of Asset Balances</u>		
Market Value of Assets as of September 30, 2007		\$ 21,819,988,550
Excess of Receipts over Disbursements		<u>(3,861,565,032)</u>
Market Value of Assets as of September 30, 2008		<u>\$ 17,958,423,518</u>



SCHEDULE D

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2005, submitted to and adopted by the Board on May 21, 2007.

INVESTMENT RATE OF RETURN: 8% per annum, compounded annually.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 4.50% per annum:

<u>Age</u>	<u>Annual Rate</u>
20	7.25%
25	7.25
30	7.75
35	7.00
40	6.50
45	6.25
50	6.00
55	5.50
60	5.00
65	5.00

SEPARATIONS BEFORE SERVICE RETIREMENT: Representative values of the assumed annual rates of death, disability, and withdrawal are as follows:

<u>Age</u>	<u>Death</u>	<u>Disability</u>	<u>Annual Rate of</u>			
			<u>Withdrawal</u>			
			<u>Years of Service</u>			
			<u>0-4</u>	<u>5-9</u>	<u>10-20</u>	<u>20+</u>
		<u>Male</u>				
20	0.05%	0.05%	30.00%			
25	0.07	0.06	16.50	12.00%		
30	0.08	0.07	15.00	5.50	5.50%	
35	0.09	0.13	15.00	5.50	3.00	
40	0.11	0.20	14.50	5.50	3.00	1.25%
45	0.16	0.21	14.50	5.25	3.00	1.00
50	0.26	0.64	12.00	4.50	3.00	1.00
55	0.44	1.20	11.50	4.00	2.25	1.00
60	0.80		10.00	4.00		
65	1.45		10.00	6.00		
69	2.17		10.00	6.00		
		<u>Female</u>				
20	0.03%	0.10%	30.00%			
25	0.03	0.10	14.50	8.00%		
30	0.04	0.10	14.50	6.00	4.00%	
35	0.05	0.15	13.50	6.00	3.50	
40	0.08	0.16	12.00	4.50	2.50	1.50%
45	0.10	0.37	11.50	3.75	2.50	0.75
50	0.16	0.70	11.00	3.75	2.50	0.75
55	0.26	1.10	10.50	3.75	2.50	0.75
60	0.51		11.00	4.50		
65	0.97		14.00	6.00		
69	1.37		14.00	6.00		



SERVICE RETIREMENT: Representative values of the assumed annual rates of service retirement are as follows:

For members first eligible for unreduced benefits upon attaining 25 years of service but before age 65, rates are as follows:

<u>Age</u>	<u>Annual Rate*</u>	
	<u>Male</u>	<u>Female</u>
45	30.0%	30.0%
50	15.0	16.0
55	48.0	53.0
60	40.0	49.0
62	50.0	55.0

*Retirement rates are increased by 7% in year when member first becomes eligible for unreduced service retirement on or after age 50 but before age 60.

For members first eligible for unreduced benefits before attaining 25 years of service and all members age 65 and over, the rates are as follows:

<u>Age</u>	<u>Annual Rate</u>	
	<u>Male</u>	<u>Female</u>
60	13.0%	22.0%
62	30.0	30.0
65	34.0	35.0
67	26.0	27.0
69	25.0	26.0
70	25.0	26.0
72	26.0	25.0
75	100.0	100.0

DEATHS AFTER RETIREMENT: Rates of mortality for the period after service retirement are according to the 1994 Group Annuity Mortality Table set forward one year for females. Special tables are used for the period after disability retirement. Representative values of the assumed annual rates of death after service and disability retirement are as follows:



Annual Rate of Death after

<u>Age</u>	<u>Service Retirement</u>		<u>Disability Retirement</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
40	0.11%	0.08%	3.32%	2.60%
45	0.16	0.10	3.49	2.43
50	0.26	0.16	3.76	2.50
55	0.44	0.26	4.20	2.67
60	0.80	0.51	4.88	2.95
65	1.45	0.97	5.95	3.39
70	2.37	1.50	7.63	4.08
75	3.72	2.53	10.22	5.16
80	6.20	4.40	14.17	6.85
85	9.72	7.53	20.09	9.47
90	15.29	12.88	28.67	13.46

SPOUSE'S BENEFIT: For those eligible for spouse's benefits, it is assumed that 75% will elect the lump sum death benefit and 25% will elect the spouse's benefit.

VALUATION METHOD: Entry age normal cost method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability.

ASSETS: Actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected value.



SCHEDULE E

ACTUARIAL COST METHOD

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 8%), of each member's expected benefit payable at retirement or death is determined, based on his age, service, sex and compensation. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the probability of his terminating with a service, disability or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable from the System on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the System are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
4. The unfunded accrued liability contributions are determined by subtracting the present value of prospective employer normal contributions and member contributions together with the current assets held from the present value of expected benefits to be paid from the System.



SCHEDULE F

SUMMARY OF MAIN PLAN PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

The Teachers' Retirement System of Alabama was established on September 15, 1939 and went into effect September 30, 1941. The valuation took into account amendments to the System through the valuation date. The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

1 - DEFINITIONS

Average Final Compensation - the average compensation of a member for the 3 highest years in the last 10 years of Creditable Service.

Membership Service – all service rendered while a member of the retirement system and for which contributions are made.

Creditable Service – the sum of membership service, prior service, and any other service established as creditable in accordance with the provisions of the retirement law.

Annuity – payments for life derived from accumulated contributions of a member.

Pension – payments for life derived from employer contributions.

Retirement Allowance – the sum of the annuity and pension.

2 - BENEFITS

Service Retirement Allowance

Condition for Allowance

A retirement allowance is payable upon the request of any member who has completed 25 years of creditable service or who has attained age 60 and completed at least 10 years of creditable service.

Amount of Allowance

Upon service retirement a member receives a retirement allowance equal to 2.0125% of the member's average final compensation multiplied by the number of years of creditable service. At retirement, a member receives one additional year of creditable service in determining the retirement allowance for each five years of service as a full-time certified firefighter, police officer, or correctional officer.

The member may elect to receive a reduced retirement allowance in order to provide an allowance to a designated beneficiary after the member's death (see "Special Privileges at Retirement" below).



Disability Retirement Allowance

Condition for Allowance

A disability retirement allowance may be granted to a member who has 10 years or more of creditable service who becomes totally and permanently incapacitated for duty before reaching eligibility for a service retirement allowance.

Amount of Allowance

On retirement for disability, a member receives a retirement allowance equal to 2.0125% of the member's average final compensation multiplied by the number of years of creditable service. At retirement, a member receives one additional year of creditable service in determining the retirement allowance for each five years of service as a full-time certified firefighter, police officer, or correctional officer.

The member may elect to receive a reduced retirement allowance in order to provide an allowance to a designated beneficiary after the member's death (see "Special Privileges at Retirement" below).

Benefits Payable on Separation from Service

Any member who withdraws from service is entitled to receive his or her contributions with allowable interest. A member who has completed 10 years of creditable service may, after separation from service, continue in the membership of the System and file for service retirement after reaching age 60.

Benefits Payable upon Death in Active Service

In the event of the death of a member eligible for service retirement, the designated beneficiary may elect (1) to exercise Option 3 defined below under "Special Privileges at Retirement" or (2) to receive a return of member contributions and total earned interest plus a death benefit payable from the pre-retirement death benefit fund equal to the salary on which the member made retirement contributions for the previous scholastic year (July 1-June 30).*

In the event of the death of a member with more than one year of service who is not eligible to retire, the designated beneficiary shall receive the return of member contributions and total earned interest. Also, the designated beneficiary shall receive an additional death benefit payable from the pre-retirement death benefit fund equal to the salary on which retirement contributions were made for the previous scholastic year (July 1-June 30).*

In the event of a job-related death of a member with less than one year of service, the designated beneficiary shall receive the return of member contributions and total earned interest plus a death benefit payable from the pre-retirement death benefit fund equal to the annual earnable compensation of the member at the time of death.*



In the event of the death of a member with less than one year of service that is not job-related, the designated beneficiary shall receive the return of member contributions and total earned interest plus a matching death benefit which is limited to a \$5,000 maximum.

*However, if the death occurred more than 180 calendar days after the member's last day in pay status, or if the deceased had applied for a refund of contributions or terminated employment, the lump sum will be the same as if the member had less than one year of service and the death was not job-related.

Special Privileges at Retirement

In lieu of the full retirement allowance, any member may, at retirement, elect to receive a reduced retirement allowance equal in value to the full allowance, with the provision that:

Option 1 - If the member dies before annuity payments have equaled the present value of the annuity at the date of retirement, the balance is paid to a designated beneficiary or to his estate, or

Option 2 - After the member's death, the member's allowance is continued throughout the life of the designated beneficiary, or

Option 3 - After the member's death, one-half of the member's allowance is continued throughout the life of the designated beneficiary, or

Option 4 - Some other benefit is paid either to the member or to such other person as the member shall designate provided such benefit, together with the reduced retirement allowance, is of equivalent actuarial value to his retirement allowance and is approved by the Board of Control.

Deferred Retirement Option Plan (DROP)

A member may elect to participate in the Deferred Retirement Option Plan (DROP) upon completion of at least 25 years of creditable service (excluding sick leave) and attainment of at least 55 years of age. Under the DROP, the member may defer receipt of a retirement allowance and continue employment for a period not to exceed five years, nor to be less than three years. At the end of this period, the member will withdraw from active service and receive the retirement benefit calculated at the time of enrollment in the DROP, and also receive a payment for the deferred retirement benefits, employee contributions while participating in the DROP and interest earned on DROP deposits.

Member Contributions

Regular members contribute 5% of salary. Certified police officers and firefighters contribute 6% of salary. DROP participants continue to contribute during the DROP period, but receive a refund of these contributions and interest upon retirement.



SCHEDULE G

**SCHEDULE OF ACTIVE PARTICIPANT DATA
AS OF SEPTEMBER 30, 2008**

Attained Age	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	≥ 40	
Under 25	2,041	2,557	20								4,618
Avg. Pay	28,859	31,640	26,803								30,390
25 to 29	1,892	9,257	2,222	9							13,380
Avg. Pay	30,946	35,887	41,774	34,281							36,165
30 to 34	1,579	6,018	6,255	1,856	11						15,719
Avg. Pay	33,098	36,426	44,511	47,907	40,185						40,667
35 to 39	1,584	6,088	4,805	5,689	1,557	25					19,748
Avg. Pay	31,543	34,703	43,325	49,874	52,329	38,807					42,313
40 to 44	1,114	4,851	4,327	3,943	3,910	1,322	39				19,506
Avg. Pay	31,197	33,603	39,552	46,436	52,983	52,589	41,844				42,567
45 to 49	889	4,033	4,210	4,123	3,438	3,308	1,081	34			21,116
Avg. Pay	32,529	32,665	38,144	42,445	49,398	54,151	54,581	46,256			42,895
50 to 54	680	3,206	3,390	3,812	3,773	3,297	2,434	1,198	12		21,802
Avg. Pay	34,405	33,950	38,882	42,135	48,208	52,620	58,075	59,764	41,542		45,569
55 to 59	482	2,276	2,340	2,716	2,961	2,947	657	391	55		14,825
Avg. Pay	32,994	36,193	39,532	40,341	46,460	51,031	59,549	64,266	66,589		44,265
60 to 64	443	1,379	1,393	1,231	1,378	1,253	334	103	49	15	7,578
Avg. Pay	52,198	41,960	37,577	40,459	48,931	50,905	54,128	66,717	89,375	78,365	45,507
65 to 69	126	550	516	382	312	268	99	50	18	15	2,336
Avg. Pay	55,353	46,883	33,497	44,540	50,103	52,376	54,477	53,346	75,202	92,424	46,031
70 & up	30	169	224	180	111	96	39	29	8	14	900
Avg. Pay	46,279	40,838	24,397	26,769	41,644	48,757	40,085	36,193	77,128	66,615	35,599
Total	10,860	40,384	29,702	23,941	17,451	12,516	4,683	1,805	142	44	141,528
Avg. Pay	32,609	35,165	40,775	44,813	49,627	52,413	56,833	60,325	74,021	79,419	42,178