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July 21, 2010

Mr. Jeffrey L. Ezell
Executive Director
Teachers Retirement System of Georgia
Suite 100, Two Northside 75
Atlanta, GA 30318

Dear Mr. Ezell:

Enclosed are 35 bound copies and one unbound copy of the "Teachers Retirement System of Georgia Report of the Actuary on the Valuation Prepared as of June 30, 2009".

The valuation indicates that employer contributions at the rate of 10.28% of compensation are sufficient to support the benefits of the System. The valuation takes into account the effect of all amendments to the System enacted through the 2009 session of the General Assembly.

Please let us know if there are any questions concerning the report.

Sincerely yours,

Edward A. Macdonald, ASA, FCA, MAAA
President

EAM:mjn

Enclosure

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TEACHERS RETIREMENT SYSTEM OF GEORGIA

**REPORT OF THE ACTUARY ON THE VALUATION
PREPARED AS OF JUNE 30, 2009**





Cavanaugh Macdonald

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July 21, 2010

Board of Trustees,
Teachers Retirement System of Georgia
Suite 100, Two Northside 75
Atlanta, GA 30318

Members of the Board:

Section 47-3-23 of the law governing the operation of the Teachers Retirement System of Georgia provides that the actuary shall make annual valuations of the contingent assets and liabilities of the Retirement System on the basis of regular interest and the tables last adopted by the Board of Trustees. We have submitted the report giving the results of the actuarial valuation of the System prepared as of June 30, 2009. The report indicates that annual employer contributions at the rate of 10.28% of compensation for the fiscal year ending June 30, 2012 are sufficient to support the benefits of the System. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the System enacted through the 2009 session of the General Assembly. In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness.

The System is funded on an actuarial reserve basis. The actuarial assumptions recommended by the actuary and adopted by the Board are in the aggregate reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System. The assumptions and methods used for funding purposes meet the parameters set for the disclosures presented in the financial section by Governmental Accounting Standards Board (GASB) Statement Nos. 25 and 27. The funding objective of the plan is that contribution rates over time will remain level as a percent of payroll. The valuation method used is the entry age normal cost method. The normal contribution rate to cover current cost has been determined as a level percent of payroll. Gains and losses are reflected in the unfunded accrued liability, which is amortized as a level percent of payroll within a 2-year period.

The System is being funded in conformity with the minimum funding standard set forth in Code Section 47-20-10 of the Public Retirement Systems Standards Law. 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 assuming future required contributions (ARC) are contributed when due.

The valuation continues to reflect the impact of the Plymel lawsuit based on the most recent information and data provided by the Retirement System.

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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.

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.

Sincerely yours,

A handwritten signature in blue ink that reads 'Edward Macdonald'.

Edward A. Macdonald, ASA, FCA, MAAA
President

A handwritten signature in blue ink that reads 'Cathy Turcot'.

Cathy Turcot
Principal and Managing Director

EAM:mjn



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4. The entry age actuarial cost method was used to prepare the valuation. Schedule F contains a brief description of this method.
5. The major benefit and contribution provisions of the System as reflected in the current valuation are summarized in Schedule G. The valuation continues to reflect the impact of the Plymel lawsuit based on the most recent information and data provided by the Retirement System.
6. The data we received for the 2009 valuation was provided by the Retirement System. While not verifying the data at its source, we performed tests for consistency and reasonableness.

SECTION II - MEMBERSHIP

1. The following table shows the number of teachers and their annual earnable and average compensation as of June 30, 2009 on whose account benefits may be payable under the Retirement System.

THE NUMBER AND ANNUAL EARNABLE AND AVERAGE COMPENSATION OF ACTIVE MEMBERS AS OF JUNE 30, 2009

TOTAL NUMBER	ANNUAL COMPENSATION (\$1,000's)	AVERAGE COMPENSATION
226,537	\$10,641,543	\$46,975

The results of the valuation were adjusted for 77,968 terminated employees entitled to benefits but not yet receiving benefits.



2. The following table shows the number of beneficiaries on the roll as of June 30, 2009, together with the amount of their annual retirement allowances payable under the System as of that date.

**THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES
OF BENEFICIARIES ON THE ROLL AS OF JUNE 30, 2009**

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES (\$1,000's)
Service Retirements	73,184	\$ 2,460,279
Disability Retirements	3,542	65,413
Beneficiaries of Deceased Active and Retired Members	<u>5,632</u>	<u>104,629</u>
Total	82,358	\$ 2,630,321



SECTION III - ASSETS

1. The retirement law provides for the maintenance of two funds for the purpose of recording the financial transactions of the System; namely, the Annuity Savings Fund and the Pension Accumulation 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 if a death benefit allowance becomes payable to his beneficiary, his accumulated contributions are transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The annuity which these contributions provide is then paid from the Pension Accumulation Fund. On June 30, 2009 the value of assets credited to the Annuity Savings Fund amounted to \$6,382,932,000.

(b) Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which all income from investments and all contributions made by employers of members of the System and by the State for members of local retirement funds are credited. All retirement allowance and death benefit allowance payments are disbursed from this fund. Upon the retirement of a member, or upon his death if a death benefit allowance is payable, his accumulated contributions are transferred from the Annuity Savings Fund to this fund to provide the annuity portion of the allowance. On June 30, 2009 the market value of assets credited to the Pension Accumulation Fund amounted to \$36,095,651,000.

2. As of June 30, 2009 the total market value of assets amounted to \$42,478,583,000 as reported by the Auditor of the System. The actuarial value of assets used for the current valuation was \$54,818,373,000. Schedule B shows the development of the actuarial value of assets. The actuarial value of the assets does not include the accounts payable reserve held for the retroactive payments under the second phase of the Plymel lawsuit. The value of the retroactive payments is included as a liability in the valuation.

3. Schedule D shows receipts and disbursements of the System for the two years 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 June 30, 2009 (all amounts are in thousands).
2. The valuation balance sheet shows that the System has total prospective liabilities of \$64,625,453, of which \$29,725,063 is for the prospective benefits payable on account of present retired members and beneficiaries of deceased members and \$34,900,390 is for the prospective benefits payable on account of present active and inactive members and members entitled to deferred vested benefits. Against these liabilities, the System has total present assets for valuation purposes of \$54,818,373 as of June 30, 2009. The difference of \$9,807,080 between the total liabilities and the total present assets represents the present value of contributions to be made in the future. Of this amount, \$4,695,472 is the present value of future contributions expected to be made by members to the Annuity Savings Fund, and the balance of \$5,111,608 represents the present value of future contributions payable by the employer.
3. The employer's contributions to the System consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 5.30% of payroll are required, in addition to member contributions, to provide the benefits of the System for the average new member.
4. Prospective normal contributions, excluding administrative expenses, have a present value of \$4,287,909. When this amount is subtracted from \$5,111,608, which is the present value of the total future contributions to be made by the employer, there remains \$823,699 as the amount of future unfunded accrued liability contributions.



SECTION V – CONTRIBUTIONS PAYABLE BY EMPLOYERS

1. The Teachers Retirement System funding policy provides for periodic employer contributions at rates which, expressed as percents of annual covered payroll, are sufficient to provide resources to pay benefits when due without being increased for future generations of taxpayers.
2. The retirement law provides that the contributions of employers shall be a percentage of the compensation of active members consisting of a normal contribution rate and an unfunded accrued liability contribution rate as determined by actuarial valuation.
3. Normal contributions include 0.25% of compensation that is required to meet the expenses of administering the System.
4. Based on the current total employer contribution rate of 10.28% of payroll, the unfunded accrued liability contribution is 4.98% of payroll, which will amortize the unfunded accrued liability within a two year period.
5. The following table summarizes the employer contribution rates, which were determined by the June 30, 2009 valuation and are recommended for use.

**ANNUAL REQUIRED EMPLOYER CONTRIBUTION RATES
FOR FISCAL YEAR ENDING JUNE 30, 2012**

CONTRIBUTION	PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION
Normal	5.30%
Unfunded Accrued Liability	<u>4.98</u>
Total	10.28%



SECTION VI – 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 JUNE 30, 2009**

GROUP	NUMBER
Retirees and beneficiaries currently Receiving benefits	82,358
Terminated employees entitled to benefits but not yet receiving benefits	77,968
Active plan members	<u>226,537</u>
Total	<u>386,863</u>

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

SCHEDULE OF FUNDING PROGRESS
(Dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
6/30/2004	\$44,617,956	\$44,230,031	\$ (387,925)	100.9%	\$8,083,118	(4.8)%
6/30/2005	46,836,895	47,811,214	974,319	98.0	8,252,598	11.8
6/30/2006	49,263,027	51,059,681	1,796,654	96.5	8,785,985	20.4
6/30/2007	52,099,171	54,996,570	2,897,399	94.7	9,492,003	30.5
6/30/2008	54,354,284	59,133,777	4,779,493	91.9	10,197,584	46.9
6/30/2009	54,818,373	55,642,072	823,699	98.5	10,641,543	7.7



3. The following shows the schedule of employer contributions.

<u>Year Ending</u>	<u>Annual Required Contribution</u>	<u>Percentage Contributed</u>
6/30/2004	\$ 782,301	100%
6/30/2005	815,693	100
6/30/2006	855,626	100
6/30/2007	927,371	100
6/30/2008	986,759	100
6/30/2009	1,026,287	100

4. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2009. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2009
Actuarial cost method	Entry age
Amortization method	Level percent of pay, open
Remaining amortization period	2 years
Asset valuation method	7-year smoothed market
Actuarial assumptions:	
Ultimate investment rate of return*	7.50%
Projected salary increases*	3.20 – 8.60%
Cost-of-living adjustments	3.00% Annually
*Includes inflation at	3.75%



TREND INFORMATION
(Dollar amounts in thousands)

<u>Year Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage of APC Contributed</u>	<u>Net Pension Obligation</u>
June 30, 2007	\$ 927,371	100%	\$ 0
June 30, 2008	986,759	100	0
June 30, 2009	1,026,287	100	0

SECTION VII – EXPERIENCE

1. Section 47-3-23 of the act governing the operation of the System provides that as an aid to the Board in adopting service and mortality tables, the actuary will prepare an experience investigation at least once in each five-year period. The last investigation was prepared for the five-year period ending June 30, 2004 and, based on the results of the investigation, new rates of separation, mortality and salary increase were adopted by the Board on March 22, 2006. The next experience investigation will be prepared for the period July 1, 2004 through June 30, 2009.
2. The following table shows the estimated gain or loss from various factors that resulted in a decrease of \$3,955,794,000 in the unfunded accrued liability from \$4,779,493,000 to \$823,699,000 during the fiscal year ending June 30, 2009.



ANALYSIS OF THE INCREASE IN UNFUNDED ACCRUED LIABILITY
(Dollar amounts in millions)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.50%) added to previous unfunded accrued liability	\$ 358.5
Accrued liability contribution	(125.0)
Experience:	
Valuation asset growth	2,433.5
Pensioners' mortality	50.1
Turnover and retirements	307.1
New entrants	185.1
Salary increases	14.1
Method Changes	(7,250.1)
Miscellaneous	<u>70.9</u>
Total	\$ (3,955.8)



SCHEDULE A

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE TEACHERS RETIREMENT SYSTEM OF GEORGIA
AS OF JUNE 30, 2009
(Dollar amounts in thousands)**

<u>ASSETS</u>	
Actuarial Value of Assets	\$ 54,818,373
Present value of future member contributions to Annuity Savings Fund	4,695,472
Present value of future employer contributions to the Pension Accumulation Fund:	
Normal contributions	\$ 4,287,909
Unfunded accrued liability contributions	<u>823,699</u>
Total Prospective Employer Contributions	<u>5,111,608</u>
Total Assets	<u>\$ 64,625,453</u>
<u>LIABILITIES</u>	
Present value of prospective benefits payable on account of present retired members and beneficiaries of deceased members	\$ 29,725,063
Present value of prospective benefits payable on account of present active and inactive members and members entitled to deferred vested benefits	<u>34,900,390</u>
Total Liabilities	<u>\$ 64,625,453</u>



SCHEDULE B

**DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS
(Dollar amounts in thousands)**

(1)	Actuarial Value Beginning of Year	\$ 54,354,284
(2)	Market Value End of Year*	42,750,883
(3)	Market Value Beginning of Year*	50,440,873
(4)	Cash Flow	
	(a) Contributions	1,593,922
	(b) Benefit Payments and Expenses*	2,711,417
	(c) Investment Expenses	<u>18,871</u>
	(d) Net: (4)(a) - (4)(b) - 4(c)	(1,136,366)
(5)	Investment Income	
	(a) Market Total: (2) - (3) - (4)(d)	(6,553,624)
	(b) Assumed Rate	7.50%
	(c) Amount for Immediate Recognition: [(3) x (5)(b)] + [(4)(a) - (4)(b)] x (5)(b) x 0.5 + (4)(c)	3,760,030
	(d) Amount for Phased-In Recognition: 5(a) - (5)(c)	(10,313,654)
(6)	Phased-In Recognition of Investment Income	
	(a) Current Year: 5(d) / 7	(1,473,379)
	(b) First Prior Year	(818,542)
	(c) Second Prior Year	468,459
	(d) Third Prior Year	(336,113)
	(e) Fourth Prior Year	0
	(f) Fifth Prior Year	0
	(g) Sixth Prior Year	0
	(h) Seventh Prior Year	<u>0</u>
	(i) Total Recognized Investment Gain	(2,159,575)
(7)	Actuarial Value End of Year: (1) + (4)(d) + 5(c) + (6)(i)	54,818,373
(8)	Difference Between Market & Actuarial Values: (2) - (7)	\$ (12,067,490)
(9)	Rate of Return on Actuarial Value	2.94%

*Amounts adjusted for the accounts payable reserves held for the retroactive payments under the Plymel lawsuit. The value of the retroactive payments for phase 2 of the lawsuit is included as a liability in the valuation.



SCHEDULE C

SMOOTHED INTEREST RATE

Actual Rate of Return for 7 Year Look Back Period

Fiscal Year Ending 6/30	Actual Rate of Return for Fiscal Year
2003	4.56 %
2004	9.86
2005	7.87
2006	6.05
2007	14.61
2008	-3.38
2009	-13.06

In order to obtain an average rate of return of 7.50%, the average expected annual rate of return during the 23 year look forward period has been determined to be 8.77%, based on the actual rates of return shown in the table above for the 7 year look back period. The expected annual rate of return after 23 year look forward period is 7.50%.



SCHEDULE D

**SUMMARY OF RECEIPTS AND DISBURSEMENTS
(Dollar amounts in thousands)**

	YEAR ENDING	
	June 30, 2009	June 30, 2008
<u>Receipts for the Year</u>		
Contributions:		
Members	\$ 567,635	\$ 554,027
Employer	<u>1,026,287</u>	<u>986,759</u>
Subtotal	\$ 1,593,922	\$ 1,540,786
Investment Income (Net of Investment Expenses)	1,382,848	1,603,572*
Unrealized Appreciation/(Depreciation)	<u>(7,955,283)</u>	<u>(3,379,150)*</u>
TOTAL	\$ (4,978,513)	\$ (234,792)
<u>Disbursements for the Year</u>		
Benefit Payments	\$ 2,534,487	\$ 2,756,483
Refunds to Members	49,414	54,482
Administration Expense	<u>22,603</u>	<u>23,744</u>
TOTAL	\$ 2,606,504	\$ 2,834,709
<u>Excess of Receipts over Disbursements</u>	\$ (7,585,017)	\$ (3,069,501)
<u>Reconciliation of Asset Balances</u>		
Asset Balance as of the Beginning of Year (Market Value)	\$ 50,063,600	\$ 53,133,101
Excess of Receipts over Disbursements	<u>(7,585,017)</u>	<u>(3,069,501)</u>
Asset Balance as of the End of Year (Market Value)	<u>\$ 42,478,583</u>	<u>\$ 50,063,600</u>

*Adjusted from last year



SCHEDULE E

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

The valuation of the Retirement System prepared as of June 30, 2009 was made on the basis of the interest rate assumption adopted November 19, 2003 and rates of separation, mortality tables and salary increase tables adopted March 22, 2006. The next experience investigation will be conducted on the five year period ending June 30, 2009. Representative values of the assumed annual rates are shown below.

INVESTMENT RATE OF RETURN (Discount Rate): 8.77% per annum, compounded annually, for the 23-year look-forward period and 7.50% per annum, compounded annually, thereafter.

SALARY INCREASES:

<u>Age</u>	<u>Annual Rate</u>	<u>Age</u>	<u>Annual Rate</u>
20	8.60%	45	4.90%
25	6.00	50	4.40
30	5.50	55	3.80
35	5.50	60	3.40
40	5.40	65	3.30
		70	3.20

SERVICE RETIREMENT:

<u>Age</u>	<u>Annual Rate*</u>		<u>Age</u>	<u>Annual Rate*</u>	
	<u>Men</u>	<u>Women</u>		<u>Men</u>	<u>Women</u>
50	28.00%	23.00%	65	32.00%	30.00%
55	29.00	28.00	66	25.00	30.00
60	23.00	30.00	67	30.00	26.00
61	23.00	25.00	68	28.00	26.00
62	29.00	31.00	69	28.00	26.00
63	23.00	27.00	70	100.00	100.00
64	25.00	26.00			

* It is also assumed that 10% of eligible active members will retire each year with a reduced early retirement benefit and that an additional 5% of active members will retire in their first year of eligibility for unreduced retirement with 30 years of service.



SEPARATION BEFORE SERVICE RETIREMENT:

<u>Age</u>	<u>Annual Rate of</u>				
	<u>Death</u>	<u>Disability</u>	<u>Withdrawal</u>		
			<u>Years of Service</u>		
			<u>0-4</u>	<u>5-9</u>	<u>10+</u>
<u>MEN</u>					
20	0.05%	0.05%	39.00%	-	-
25	0.06	0.05	18.00	11.00%	-
30	0.08	0.07	16.00	6.00	7.00%
35	0.09	0.07	15.00	6.00	3.00
40	0.10	0.09	15.00	6.00	2.00
45	0.15	0.11	13.00	6.00	2.00
50	0.23	0.25	11.00	4.50	2.00
55	0.40	0.53	12.00	4.50	2.00
60	0.71	-	-	-	-
64	1.15	-	-	-	-
<u>WOMEN</u>					
20	0.03%	0.03%	30.00%	-	-
25	0.03	0.03	15.00	13.00%	-
30	0.03	0.04	16.00	8.00	5.00%
35	0.05	0.05	15.00	8.00	4.00
40	0.07	0.07	12.00	6.00	3.00
45	0.09	0.11	11.00	5.00	2.00
50	0.13	0.20	11.00	4.50	2.00
55	0.21	0.63	12.00	4.50	3.00
60	0.39	-	-	-	-
64	0.67	-	-	-	-



DEATHS AFTER RETIREMENT: The 1994 Group Annuity Mortality Table (set back one year) is used for death after service retirement. The RP-2000 Disabled Mortality Table (set back five years for males) is used for death after disability retirement. Representative values of the assumed annual rates of death after service retirement and after disability retirement are shown below:

<u>Age</u>	<u>Annual Rate of Death After</u>			
	<u>Service Retirement</u>		<u>Disability Retirement</u>	
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
40	.10%	.07%	2.26%	0.75%
45	.15	.09	2.26	0.75
50	.23	.13	2.26	1.15
55	.40	.21	2.90	1.65
60	.71	.39	3.54	2.18
65	1.29	.76	4.20	2.80
70	2.17	1.27	5.02	3.76
75	3.41	2.04	6.26	5.22
80	5.59	3.54	8.21	7.23
85	8.96	6.10	10.94	10.02
90	13.95	10.46	14.16	14.00
95	21.57	17.07	18.34	19.45

COST OF LIVING: Increases of 1.5% semi-annually.

EXPENSES: 0.25% of active members' payroll included in normal contribution.

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 actuarial value of assets, based on the assumed valuation rate of return. The amount recognized each year is 1/7 of the difference between market value and expected actuarial value.

SPOUSES: 85% of males and 60% of female active members were assumed to be married with the husband 4 years older than his wife.

VALUATION INTEREST RATE SMOOTHING: The valuation liabilities are calculated using a smoothed interest rate method. The interest rate used during the look forward period (currently 23 years from the valuation date) is the interest rate expected to be earned during the look forward period based on the actual rate of return earned during the look back period (currently 7 years) such that the average over the combined 30 year period is equal to the assumed long term investment rate of return, or discount rate (currently 7.50%). The interest rate after the 23-year look forward period is the ultimate investment rate of return of 7.50%. The interest rate used in the current valuation is shown in Schedule C.



SCHEDULE F

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 (see Schedules C and E for a description of the interest rate used), of each active member's expected benefit 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 possibility of his terminating with a service, disability or survivor's benefit. Future salary increases and post-retirement cost-of-living adjustments 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 and inactive members 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 is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the System.



SCHEDULE G

SUMMARY OF MAIN PLAN PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

The Teachers Retirement System of Georgia began operation as of January 1, 1945. The System is supported by the joint contributions of the members and their employers. All teachers employed by an agency of and within the State of Georgia are eligible for membership in the System. The State makes contributions for certain retired members of local funds and certain benefits are payable by the System to them or on their account.

The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

1 - DEFINITIONS

"Prior service" means service rendered prior to January 1, 1945 for which credit is allowed. "Creditable service" means the sum of membership service and prior service. "Earnable compensation" means the full rate of compensation that would be payable to a member teacher if he worked the full normal working time and shall include compensation paid to a member by an employer from grants or contracts made by outside agencies with the employer. "Employer" means the State of Georgia, the county or independent board of education, the State Board of Education, the Board of Regents of the University System of Georgia, or any other agency of and within the State by which a teacher is paid.

2 - BENEFITS

MEMBERS OF THE RETIREMENT SYSTEM

Service Retirement Benefit

Condition for Allowance

Any member may retire on a service retirement allowance upon the attainment of age 60 and the completion of 10 years of creditable service or upon the completion of 25 years of creditable service.



Amount of Allowance

The service retirement allowance consists of:

- (a) An annuity which is the actuarial equivalent of the member's accumulated contributions at the time of his retirement; and
- (b) A pension which, together with the annuity, will provide a total annual allowance equal to 2.00% of the member's average annual compensation during the two consecutive years of his creditable service as a contributing member producing the highest such average, multiplied by the number of years of his creditable service limited to 40 years.

If the member has less than 30 years of creditable service and has not attained age 60 at the time of retirement, his allowance is reduced by the lesser of 1/12 of 7% for each month that retirement precedes age 60 or 7% for each year or fraction of a year by which the member has less than 30 years of creditable service at the time of retirement.

The minimum service retirement allowance is \$204 per annum for each year of creditable service, not to exceed 40 years of such service.

In no event will a teacher who was a member on June 30, 1961 receive a smaller retirement allowance than he would have received under the benefit provisions of the System in effect on that date.

Disability Retirement Benefit

Condition for Allowance

A disability retirement allowance is payable to any member who becomes permanently incapacitated, mentally or physically, for the further performance of duty, after having rendered 10 or more years of creditable service.

Amount of Allowance

If a member qualifies for either service retirement or disability retirement and a service retirement calculation exceeds the amount that he would receive on disability, he shall receive a service retirement allowance. Otherwise he receives a disability retirement allowance determined as a service retirement allowance on the basis of the member's creditable service and compensation up to the time of disability, but with no reduction for age.



Death Benefit

Condition for Allowance

A death benefit is payable on account of a member who dies after having completed 10 or more years of creditable service provided there is a named living beneficiary.

Amount of Allowance

The death benefit is the amount which would have become payable to the member's beneficiary had the member retired on the date of his death on either a service retirement allowance or a disability retirement allowance, whichever is larger, and died after an election of Option 2 had become effective.

Vesting Benefit

Condition for Allowance

A member who withdraws from service prior to attaining age 60 after having rendered at least 10 years of creditable service and who elects to leave his accumulated contributions in the System is eligible for a vesting retirement allowance upon application therefore upon the attainment of age 60 or at any time thereafter.

Amount of Allowance

The vesting allowance is determined as a service retirement allowance on the basis of the member's creditable service and compensation up to the time of withdrawal from service and on the basis of his age at the time the allowance commences.

Return of Contributions Prior to Retirement

Upon a member's withdrawal from service or death prior to retirement, his accumulated contributions together with the accumulated interest are returned to him, or are paid to his designated beneficiary or estate, provided no other benefit is payable under the Retirement System.

Return of Contributions After Retirement Under Maximum Plan

Benefits are payable to a member retired on service or disability for the remainder of his lifetime under the maximum plan. In the event total monthly benefits paid at the time of death are less than the contributions which the member made to the System, the difference between the benefits paid and the amount of contributions is refunded to the member's designated beneficiary or estate, provided no optional allowance has been selected.



Optional Allowances

Upon retirement, any member may elect to convert the retirement allowance otherwise payable to him, except any additional pension payable under the minimum provision, to a reduced retirement allowance of equivalent actuarial value in one of the following optional forms:

Option 1. If he dies before receiving in annuity payments the amount of his accumulated contributions at retirement, the balance is paid to his designated beneficiary or to his estate; or

Option 2. Upon his death his reduced retirement allowance is continued throughout the life of and paid to his designated beneficiary; or

Option 3. Upon his death one-half of his reduced retirement allowance is continued throughout the life of and paid to his designated beneficiary; or

Option 4. A reduced retirement allowance payable during the life of the retired member, with the provision that upon his death some other benefit shall be payable; provided that the total value of such benefits is the actuarial equivalent of the retirement allowance he would have received without optional modification and provided the benefit is approved by the Board of Trustees; or

Option 5. A member may elect Option 2 with the added provision that in the event the designated beneficiary predeceases the member, the retirement allowance payable to the member after the designated beneficiary's death shall be equal to the retirement allowance which would have been payable had the member not elected the option; or

Option 6. A member may elect Option 3 with the added provision that in the event the designated beneficiary predeceases the member, the retirement allowance payable to the member after the designated beneficiary's death shall be equal to the retirement allowance which would have been payable had the member not elected the option.



Cost-of-Living Adjustment

The retirement allowances of members or of any beneficiary of a member who died in service will be subject to adjustment as of each January 1 and July 1 based upon the change in the average CPI during the previous six-month period. The maximum increase in retirement allowances for any such six-month period will be 1-1/2% and no adjustment of less than 1/2% will be made. If the CPI decreases, no reduction in allowance will be made for the first 2-1/2% of a reduction and retirement allowances will not be reduced below the amounts initially paid upon retirement.

In addition, a one-time 3% increase on the first \$37,500 of members' allowances is made at retirement.

A member who retires prior to age 60 with less than 30 years of creditable service is not eligible for post-retirement adjustments until such time as the member reaches age 60 or would have obtained 30 years of creditable service, whichever occurs earlier.

3 - CONTRIBUTIONS

By Members

Each member contributes 5.00% of his earnable compensation. However, no contributions are payable after the attainment of age 65 and the completion of 40 years of creditable service. Members may elect to cease making contributions after the completion of 40 years of creditable service but before the attainment of age 65. Effective July 1, 2009, the member contribution rate will be 5.25%. Effective July 1, 2010, the member contribution rate will be 5.53%.

By Employer

The employer contributes at a specified percentage of active member payroll determined annually by actuarial valuation.



SCHEDULE H

**THE NUMBER AND AVERAGE ANNUAL COMPENSATION OF ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JUNE 30, 2009**

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 & Up	
Under 25	144	3,853	21								4,018
Avg. Pay	20,684	30,577	26,029								30,199
25 to 29	251	17,737	4,216	16							22,220
Avg. Pay	22,710	36,040	43,672	31,688							37,334
30 to 34	206	11,556	12,399	2,780	14						26,955
Avg. Pay	26,365	36,759	47,688	52,565	35,987						43,337
35 to 39	199	10,948	9,150	9,583	2,546	39					32,465
Avg. Pay	28,038	36,597	46,170	55,766	60,089	40,404					46,748
40 to 44	174	9,469	7,747	6,051	6,028	2,010	29				31,508
Avg. Pay	30,388	35,109	42,984	52,114	61,819	62,536	47,194				47,156
45 to 49	179	7,761	7,495	5,794	4,210	5,239	1,752	54			32,484
Avg. Pay	31,894	34,930	40,880	46,982	56,285	63,733	66,478	48,419			47,573
50 to 54	109	5,609	6,200	5,721	4,755	4,204	3,938	1,526	15		32,077
Avg. Pay	30,185	36,643	41,776	46,351	52,816	57,636	68,488	69,018	53,180		49,951
55 to 59	78	3,734	4,372	4,483	4,480	4,451	2,955	2,015	537	2	27,107
Avg. Pay	24,679	39,147	44,772	47,210	52,355	55,920	67,235	72,570	74,028	112,960	52,526
60 to 64	33	1,822	2,446	2,228	2,131	2,375	1,405	878	493	63	13,874
Avg. Pay	27,548	39,877	46,274	48,823	54,182	55,216	65,387	75,850	80,879	77,263	53,722
65 to 69	6	389	598	568	407	450	272	214	133	46	3,083
Avg. Pay	33,559	37,759	41,500	47,412	54,582	57,033	68,244	73,339	94,664	96,211	53,775
70 & up	2	111	137	132	102	77	56	58	41	30	746
Avg. Pay	5,588	32,904	34,598	40,198	47,544	58,289	64,341	57,327	85,944	98,559	48,868
Total Count	1,381	72,989	54,781	37,356	24,673	18,845	10,407	4,745	1,219	141	226,537
Avg. Pay	26,809	36,016	44,455	50,499	56,390	59,096	67,287	71,608	79,195	88,482	46,975

Average Age: 43.86

Average Service: 10.17



**NUMBER OF RETIRED MEMBERS
AND THEIR BENEFITS BY AGE**

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	56	\$ 1,511,642	\$ 26,994
50 – 54	1,628	60,454,939	37,134
55 – 59	8,046	332,554,967	41,332
60 – 64	17,758	631,593,311	35,567
65 – 69	16,475	539,968,204	32,775
70 – 74	11,274	362,650,092	32,167
75 – 79	8,242	258,767,502	31,396
80 – 84	5,144	155,903,210	30,308
85 – 89	2,808	76,892,692	27,383
90 – 94	1,228	28,516,338	23,222
95 & Over	525	11,465,604	21,839
Total	73,184	\$ 2,460,278,501	\$ 33,618

**NUMBER OF BENEFICIARIES
AND THEIR BENEFITS BY AGE**

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	1,186	\$ 12,230,002	\$ 10,312
50 – 54	325	4,618,421	14,211
55 – 59	472	8,472,559	17,950
60 – 64	611	12,177,493	19,930
65 – 69	623	12,903,405	20,712
70 – 74	636	13,901,774	21,858
75 – 79	660	14,716,094	22,297
80 – 84	538	12,910,298	23,997
85 – 89	363	8,193,344	22,571
90 – 94	159	3,543,810	22,288
95 & Over	59	961,807	16,302
Total	5,632	\$ 104,629,007	\$ 18,578



**NUMBER OF DISABLED RETIREES
AND THEIR BENEFITS BY AGE**

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	225	\$ 2,971,610	\$ 13,207
50 – 54	399	6,819,457	17,091
55 – 59	806	15,148,761	18,795
60 – 64	903	17,811,813	19,725
65 – 69	555	10,650,558	19,190
70 – 74	283	5,186,594	18,327
75 – 79	154	2,970,849	19,291
80 – 84	125	2,192,211	17,538
85 – 89	64	1,115,986	17,437
90 – 94	23	441,082	19,177
95 & Over	5	104,086	20,817
Total	3,542	\$ 65,413,007	\$ 18,468



SCHEDULE I

CAFR SCHEDULES

Active Members				
Fiscal Year	Number of Members	Annual Payroll (000's)	Average Pay (000's)	% Increase
2000	190,911	\$ 7,218,644	\$ 37,812	3.40 %
2001	192,654	7,306,855	37,927	0.30
2002	199,029	7,617,869	38,275	0.90
2003	205,453	8,261,961	40,213	5.10
2004	198,572	8,083,118	40,706	1.20
2005	199,088	8,252,598	41,452	1.80
2006	206,592	8,785,985	42,528	2.60
2007	215,566	9,492,003	44,033	3.50
2008	224,993	10,197,584	45,324	2.90
2009	226,537	10,641,543	46,975	3.60

Retirants and Beneficiaries								
Fiscal Year	Added to Roll		Removed from Roll		Roll – End of Year		% Increase In Annual Allowances	Average Annual Income
	Number of Members	Annual Allowances (000's)	Number of Members	Annual Allowances (000's)	Number of Members	Annual Allowances (000's)		
2000	4,814	\$ 187,262	1,441	\$ 25,067	47,105	\$ 1,033,324	18.6 %	\$ 21,937
2001	5,246	171,642	1,584	26,671	50,767	1,178,295	14.0	23,210
2002	4,858	169,833	1,403	26,286	54,222	1,321,842	12.2	24,378
2003	5,097	188,458	1,627	30,581	57,692	1,479,719	11.9	25,469
2004	5,381	206,251	1,483	29,525	61,590	1,656,445	11.9	26,895
2005	6,176	230,973	1,594	33,139	66,172	1,854,279	11.9	28,022
2006	5,691	223,279	1,644	37,087	70,219	2,040,471	10.0	29,059
2007	5,858	230,924	1,656	39,293	74,421	2,232,102	9.4	29,993
2008	5,817	238,137	1,655	39,808	78,583	2,430,431	8.9	30,928
2009	5,543	245,006	1,768	45,116	82,358	2,630,321	8.2	31,938