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April 15, 2010

Ms. Pamela Pharris
Executive Director
Employees' Retirement System of Georgia
Two Northside 75, Suite 300
Atlanta, GA 30318-7778

Dear Ms. Pharris:

Enclosed is the "Employees' Retirement System of Georgia Report of the Actuary on the Valuation Prepared as of June 30, 2009".

The valuation indicates that employer contributions for the fiscal year ending June, 30, 2012 at the rate 6.88% of compensation for Old Plan Members, 11.63% of compensation for New Plan Members and 7.42% for GSEPS Members 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

Cathy Turcot
Principal and Managing Director

EAM:bdm

Enclosure

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**EMPLOYEES'
RETIREMENT SYSTEM
OF GEORGIA**

**EMPLOYEES' RETIREMENT SYSTEM OF GEORGIA
REPORT OF THE ACTUARY ON THE VALUATION
PREPARED AS OF JUNE 30, 2009**





Cavanaugh Macdonald

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April 15, 2010

Board of Trustees
Employees' Retirement System of Georgia
Two Northside 75, Suite 300
Atlanta, GA 30318-7778

Attention: Ms. Pamela Pharris, Executive Director

Members of the Board:

Section 47-2-26 of the law governing the operation of the Employees' 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 6.88% of compensation for Old Plan Members, 11.63% of compensation for New Plan Members, and 7.42% for GSEPS Members for the fiscal year ending June 30, 2012 are sufficient to support the benefits of the System.

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. 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, as well as the one-time bonus payment to retired members and beneficiaries made in October 2009.

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 being amortized as a level percent of payroll within a 30-year period.

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April 15, 2010
Board of Trustees
Page 2

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 valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the System may be safely anticipated.

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 System and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

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.

Sincerely yours,

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

Edward A. Macdonald, ASA, FCA, MAAA
President

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

Cathy Turcot
Principal and Managing Director

EAM:bdm



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**EMPLOYEES' RETIREMENT SYSTEM OF GEORGIA
REPORT OF THE ACTUARY
ON THE VALUATION
PREPARED AS OF June 30, 2009**

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 (all dollar amounts are in thousands):

Valuation Date	June 30, 2009	June 30, 2008
Number of active members	71,272	75,293
Annual earnable compensation	\$ 2,674,155	\$ 2,809,199
Number of retired members and beneficiaries	36,968	35,579
Annual allowances	\$ 1,062,758	\$ 997,623
Number of deferred vested members	4,104	N/A
Annual allowances	\$ 42,391	N/A
Assets:		
Market Value	\$ 10,550,357	\$ 13,080,653
Actuarial Value	13,613,606	14,017,346
Unfunded actuarial accrued liability	\$ 2,264,416	\$ 1,663,511
Amortization period (years)	30	26
Funding Ratio	85.7%	89.4%
For Fiscal Year Ending	June 30, 2012	June 30, 2011
Annual Required Employer Contribution Rates (ARC):		
Old Plan (prior to 7/1/1982)		
Initial Normal Rate	6.96%	6.80%
Employer Paid on Behalf of Employee	<u>(4.75)</u>	<u>(4.75)</u>
Normal Rate	2.21%	2.05%
Accrued Liability Rate	<u>4.67%</u>	<u>3.61%</u>
Total	6.88%	5.66%
New Plan (7/1/1982 through 12/31/2008)		
Normal Rate	6.96%	6.80%
Accrued Liability Rate	<u>4.67%</u>	<u>3.61%</u>
Total	11.63%	10.41%
GSEPS (on and after 1/1/2009)		
Normal Rate	2.75%	2.94%
Accrued Liability Rate	<u>4.67%</u>	<u>3.61%</u>
Total	7.42%	6.55%



2. The major benefit and contribution provisions of the System are summarized in Schedule F. The valuation takes into account the effect of amendments of the System enacted through the 2009 session of the General Assembly. The valuation reflects the one-time bonus payment made to retired members and beneficiaries in October 2009. The valuation also reflects the impact of the Willis lawsuit based on the most recent information and data provided by the Retirement System.
3. Schedule D of this report outlines the full set of actuarial assumptions and methods used to prepare the current valuation. There have been no changes since the previous valuation.
4. The entry age actuarial cost method was used to prepare the valuation. Schedule E contains a brief description of this method.
5. Comments on the valuation results as of June 30, 2009 are given in Section IV and further discussion of the employer contribution levels is set out in Section V.

SECTION II - MEMBERSHIP

1. Data regarding the membership of the System for use as a basis for the valuation were furnished by the Retirement System office. The following table shows the number of active members, their annual compensation and average annual compensation as of June 30, 2009 on whose account benefits may be payable under the Retirement System.

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

GROUP	NUMBER	ANNUAL COMPENSATION (\$1,000's)	AVERAGE ANNUAL COMPENSATION
Old Plan	3,492	\$ 183,631	\$ 52,586
New Plan	65,675	2,426,713	36,950
GSEPS	<u>2,105</u>	<u>63,811</u>	30,314
Total	71,272	\$ 2,674,155	\$ 37,520



2. For the June 30, 2009 valuation, data was provided by the Retirement System for inactive members who are eligible for deferred vested benefits. The valuation included 4,104 deferred vested members with annual allowances totaling \$42,391,040.
3. The following table shows the number of retired members and 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 RETIRED MEMBERS AND BENEFICIARIES RECEIVING BENEFITS
AS OF JUNE 30, 2009**

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES (\$1,000's)
Service Retirements	27,285	\$ 855,917
Disability Retirements	4,772	136,295
Beneficiaries of Deceased Active and Retired Members	<u>4,911</u>	<u>70,546</u>
Total	36,968	\$ 1,062,758

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 \$653,761,000.



(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 \$9,896,596,000.

2. As of June 30, 2009 the total market value of assets amounted to \$10,550,357,000 as reported by the Auditor of the System. The actuarial value of assets used for the current valuation was \$13,613,606,000. Schedule B shows the development of the actuarial value of assets as of June 30, 2009.
3. Schedule C 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 \$17,552,256, of which \$10,034,939 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and \$7,517,317 is for the prospective benefits payable on account of present active members. Against these liabilities, the System has total present assets for valuation purposes of \$13,613,606 as of June 30, 2009. The difference of \$3,938,650 between the total liabilities and the total present assets represents the present value of contributions to be made in the future.
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 2.21% (6.96% less 4.75% Employer paid on behalf of Employee) of payroll for Old Plan members, 6.96% for New Plan members, and 2.75% for GSEPS members are required.



4. Prospective employer and employee normal contributions have a present value of \$1,674,234. When this amount is subtracted from \$3,938,650, which is the present value of the total future contributions to be made in the future, there remains \$2,264,416 as the unfunded actuarial accrued liability.
5. The accrued liability contribution rate is 4.67% of active member's compensation, which will amortize the unfunded actuarial liability over a 30-year period, on the assumption that the total payroll of active members will increase by 3.75% per year.

SECTION V – CONTRIBUTIONS PAYABLE BY EMPLOYERS

1. 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 (ARC)
FOR FISCAL YEAR ENDING JUNE 30, 2012**

	Old Plan	New Plan	GSEPS
Normal Rate			
Initial Normal Rate	6.96%	6.96%	2.75%
Employer Paid on behalf of Employee	<u>(4.75)</u>	<u>(0.00)</u>	<u>(0.00)</u>
Employer Normal Rate	2.21%	6.96%	2.75%
Accrued Liability Rate	4.67%	4.67%	4.67%
Total	6.88%	11.63%	7.42%

2. Schedule H summarizes the contribution rates required for groups of members with special benefits.



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	36,968
Terminated employees entitled to benefits but not yet receiving benefits	67,033
Active plan members	<u>71,272</u>
Total	175,273



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	\$ 12,797,389	\$ 13,106,648	\$ 309,259	97.6%	\$ 2,445,619	12.6%
6/30/2005	13,134,472	13,512,773	378,301	97.2	2,514,430	15.0
6/30/2006	13,461,132	14,242,845	781,713	94.5	2,630,167	29.7
6/30/2007	13,843,689	14,885,179	1,041,490	93.0	2,680,972	38.8
6/30/2008	14,017,346	15,680,857	1,663,511	89.4	2,809,199	59.2
6/30/2009	13,613,606	15,878,022	2,264,416	85.7	2,674,155	84.7

All figures prior to 6/30/2005 were reported by the prior actuarial firm.

3. The following shows the schedule of employer contributions (all dollar amounts are in thousands).

Year Ending	Annual Required Contribution	Percentage Contributed
6/30/2004	\$ 245,388	100%
6/30/2005	243,074	100
6/30/2006	258,482	100
6/30/2007	270,141	100
6/30/2008	286,256	100
6/30/2009	281,206	100

All figures prior to 6/30/2005 were reported by the prior actuarial firm.



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	30 years
Asset valuation method	7-year smoothed market
Actuarial assumptions:	
Investment rate of return*	7.50%
Projected salary increases*	5.45 – 9.25%
Cost-of-living adjustments	None
*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	\$ 270,141	100%	\$ 0
June 30, 2008	286,256	100	0
June 30, 2009	281,206	100	0



SECTION VII – EXPERIENCE

1. Section 47-2-26 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 experience investigation was prepared for the four-year period ending June 30, 2004, and based on the results of the investigation, new rates of separation and mortality were adopted by the Board on April 20, 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 an increase of \$600,905,000 in the unfunded accrued liability from \$1,663,511,000 to \$2,264,416,000 during the fiscal year ending June 30, 2009.

ANALYSIS OF THE INCREASE IN UNFUNDED ACCRUED LIABILITY

(in millions of dollars)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.50) added to previous unfunded accrued liability	\$ 124.8
Accrued liability contribution	(99.7)
Experience:	
Valuation asset growth	609.1
Pensioners' mortality	65.4
Turnover and retirements	107.3
New entrants	16.7
Salary increases*	(296.9)
Method changes	0.0
Amendments (COLAs)	(358.6)
Assumption changes	0.0
Lawsuit	75.9
Data changes	270.5
Miscellaneous changes	<u>86.4</u>
Total	\$ 600.9

*In previous valuations, actual reported salaries for the prior fiscal year were increased by one half year's salary increase assumption to estimate rates of salary at the valuation date. Based on information we received from the retirement system regarding actual anticipated salaries for the 2010 fiscal year, we have not applied this increase for this valuation. This is reflected as part of the salary gain in this table. All other future expected salary increases remain unchanged.



SCHEDULE A

**VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE EMPLOYEES' RETIREMENT SYSTEM OF GEORGIA
AS OF JUNE 30, 2009
(in thousands of dollars)**

ACTUARIAL LIABILITIES		
(1)	Present value of prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits	
	- Service and disability benefits	\$ 9,169,815
	- Death and survivor benefits	591,452
	- Deferred vested benefits	<u>273,672</u>
	Total	\$ 10,034,939
(2)	Present value of prospective benefits payable on account of present active members	<u>7,517,317</u>
(3)	TOTAL ACTUARIAL LIABILITIES	<u>\$ 17,552,256</u>
PRESENT AND PROSPECTIVE ASSETS		
(4)	Actuarial value of assets	\$ 13,613,606
(5)	Present value of total future contributions = (3)-(4)	\$ 3,938,650
(6)	Present value of future member contributions and employer normal contributions	1,674,234
(7)	Prospective unfunded accrued liability contributions = (5)-(6)	<u>2,264,416</u>
(8)	TOTAL PRESENT AND PROSPECTIVE ASSETS	<u>\$ 17,552,256</u>



SCHEDULE B

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

(1)	Actuarial Value Beginning of Year	\$	14,017,346
(2)	Market Value End of Year	\$	10,550,357
(3)	Market Value Beginning of Year	\$	13,080,653
(4)	Cash Flow		
	(a) Contributions	\$	325,184
	(b) Benefit Payments and Expenses		(1,140,564)
	(c) Investment Expenses		<u>(1,883)</u>
	(d) Net: (4)(a) + (4)(b) + (4)(c)	\$	(817,263)
(5)	Investment Income		
	(a) Market Total: (2) – (3) – (4)(d)	\$	(1,713,033)
	(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)	\$	952,355
	(d) Amount for Phased-In Recognition: (5)(a) – (5)(c)		(2,665,388)
(6)	Phased-In Recognition of Investment Income		
	(a) Current Year: (5)(d) / 7	\$	(380,770)
	(b) First Prior Year		(217,597)
	(c) Second Prior Year		130,747
	(d) Third Prior Year		(71,212)
	(e) Fourth Prior Year		0
	(f) Fifth Prior Year		0
	(g) Sixth Prior Year		<u>0</u>
	(h) Total Recognized Investment Gain	\$	(538,832)
(7)	Actuarial Value End of Year: (1) + (4)(d) + (5)(c) + (6)(h)	\$	13,613,606
(8)	Difference Between Market & Actuarial Values: (2) – (7)	\$	(3,063,249)
(9)	Rate of Return on Actuarial Value		(3.02)%



SCHEDULE C

**SUMMARY OF RECEIPTS AND DISBURSEMENTS
(Market Value)**

	YEAR ENDING	
	June 30, 2009 (\$1,000's)	June 30, 2008 (\$1,000's)
<u>Receipts for the Year</u>		
Contributions:		
Members	\$ 43,978	\$ 48,324
Employer	<u>281,206</u>	<u>286,256</u>
Subtotal	\$ 325,184	\$ 334,580
Investment Earnings	<u>(1,714,916)</u>	<u>(479,471)</u>
TOTAL	\$ (1,389,732)	\$ (144,891)
<u>Disbursements for the Year</u>		
Benefit Payments	\$ 1,117,158	\$ 1,019,950
Refunds to Members	6,597	7,815
Administration Expense	<u>16,809</u>	<u>18,805</u>
TOTAL	\$ 1,140,564	\$ 1,046,570
<u>Excess of Receipts over Disbursements</u>	\$ (2,530,296)	\$ (1,191,461)
<u>Reconciliation of Asset Balances</u>		
Asset Balance as of the Beginning of Year	\$ 13,080,653**	\$ 14,272,114*
Excess of Receipts over Disbursements	<u>(2,530,296)</u>	<u>(1,191,461)</u>
Asset Balance as of the End of Year	<u>\$ 10,550,357***</u>	<u>\$ 13,080,653**</u>
Rate of Return	(13.53)%	(3.45)%

* Excludes assets in the Survivor Benefit Fund totaling \$90,333,000

** Excludes assets in the Survivor Benefit Fund totaling \$87,125,000

*** Excludes assets in the Survivor Benefit Fund totaling \$75,738,000



SCHEDULE D

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

Adopted by the Board April 20, 2006, with the exception of the valuation interest rate and rates of salary increases which were adopted based on the valuation report dated October 11, 2005.

VALUATION INTEREST RATE: 7.50 per annum, compounded annually.

SALARY INCREASES:

Age	Annual Rate	Age	Annual Rate
20	9.25%	45	5.45%
25	8.25	50	5.45
30	6.25	55	5.45
35	5.75	60	5.45
40	5.45	65	5.45

SEPARATIONS BEFORE RETIREMENT: Representative values of the assumed annual rates of separation other than retirement for non-law enforcement officers are as follows. Special rates of separation apply to law enforcement officers.

	Annual Rates of			
	<u>Death</u>		<u>Disability</u>	
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>
20	.06%	.03%	.05%	.05%
25	.07	.03	.05	.05
30	.08	.04	.05	.05
35	.09	.06	.10	.05
40	.13	.08	.35	.14
45	.19	.11	.77	.40
50	.32	.17	1.30	.70
55	.56	.29	2.00	1.20
60	1.02	.58	--	--
65	1.80	1.08	--	--
69	2.60	1.50	--	--



<u>Annual Rates of Withdrawal</u>			
<u>Age</u>	<u>Years of Service</u>		
	<u>0-4</u>	<u>5-9</u>	<u>10 & Over</u>
<u>Males</u>			
20	30.00%		
25	24.00	11.00%	
30	22.00	9.00	6.00%
35	22.00	8.00	5.00
40	20.00	8.00	4.00
45	17.00	7.00	3.00
50	14.00	6.00	3.50
55	13.00	5.00	4.00
60	13.00	5.00	4.50
65	16.00	10.00	4.50
<u>Females</u>			
20	28.00%		
25	24.00	11.00%	
30	22.00	11.00	8.00%
35	20.00	9.00	6.00
40	17.00	8.00	4.00
45	16.00	7.00	3.50
50	16.00	6.00	3.50
55	15.00	6.00	5.00
60	15.00	6.00	5.00
65	20.00	11.00	5.00



RETIREMENT: Representative values of the assumed annual rates of service retirement for non-law enforcement officers are as follows. Special retirement rates apply to law enforcement officers.

Age	Old Plan ¹				New Plan and GSEPS ²	
	Age 65 or more than 34 years		Age 60 or 30 years		Male	Female
	Male	Female	Male	Female		
50	50%	50%	9.0%	7.5%	10%	10%
55	50	50	11.0	11.5	10	10
60	50	50	22.0	24.0	15	20
62	50	50	43.0	44.0	38	36
64	50	50	27.0	30.0	29	30
65	44	45			43	38
67	26	28			27	34
70	100	100			100	100

¹ It is also assumed that 95% of active Old Plan members will retire during the year in which they attain 34 years of service. In addition, it is assumed that 3.5% of male members under age 55, 7.5% of male members ages 55 and over, 3.0% of female members under age 55 and 8.0% of female members ages 55 and over will retire under early reduced retirement.

² An additional 10% of active New Plan and GSEPS members less than age 65 are expected to retire in the year in which they attain 30 years of service. In addition, it is assumed that 6.0% of male members under age 55, 6.5% of male members ages 55 and over, 5.0% of female members under age 55 and 10.0% of female members ages 55 and over will retire under early reduced retirement.

DEATHS AFTER RETIREMENT: The 1994 Group Annuity Table rated forward two years is used for the period after service retirement and for dependent beneficiaries. The RP-2000 Disabled Mortality Table set forward three years is used for the period after disability retirement.

Representative values of the assumed annual rates of mortality after service retirement are as follows:

Age	Males	Females	Age	Males	Females
40	.125%	.082%	65	1.803%	1.076%
45	.190	.111	70	2.848	1.651
50	.321	.173	75	4.517	2.837
55	.558	.292	80	7.553	4.915
60	1.015	.583	85	11.567	8.402

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.



VALUATION METHOD: Entry age actuarial cost method. See Schedule E for a brief description of this method.

DEATH BENEFITS: It is assumed that 100% of the membership will select a beneficiary with the male three years older than the female.



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 7.50%), 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 F

SUMMARY OF MAIN SYSTEM PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

The Employees' Retirement System of Georgia (ERS) was established February 3, 1949 to provide retirement benefits and other benefits to employees of the State of Georgia. The commencement date was January 1, 1950. "Old Plan" means the plan applicable to members beginning employment prior to July 1, 1982, "New Plan" means the plan applicable to members employed on or after July 1, 1982 and before January 1, 2009, and "GSEPS" means the plan applicable to members employed on or after January 1, 2009. The following summary describes the main provisions of the System.

Normal Retirement Benefit

Eligibility

A member is eligible for normal retirement upon the attainment of age 65 and 10 years of creditable service (prior service plus membership service plus purchased service plus forfeited leave – minimum 960 hours) or 30 years of creditable service regardless of age.

Benefit

Old Plan

(A) x (B) x (C), where

(A) = Average final compensation (the average annual compensation of a member during the 24 consecutive calendar months of his creditable service that will yield the highest average)

(B) = Creditable service, and

(C) = $.0115 + .0003 \times$ (creditable service up to 35 years).

The minimum benefit is 2.00% of average final compensation times years of creditable service.

New Plan

2.00% of average final compensation multiplied by years of creditable service.

GSEPS

1.00% of average final compensation multiplied by years of creditable service.

Uniform division and judicial members may be eligible for additional minimum benefits.

With all plans, a one-time 3.0% increase is made at time of retirement.



Early Retirement Benefit

Eligibility A member is eligible for early retirement upon the attainment of age 60 and 10 years of creditable service or 25 years of creditable service regardless of age.

Benefit The annual early retirement benefit is determined in the same manner as the normal retirement benefit based on creditable service and average final compensation as of the early retirement date. If the member is less than age 60, the retirement benefit is reduced by the lesser of:

- (i) 7% for each year by which his age is less than 60, and
- (ii) 7% for each year by which his creditable service at retirement is less than 30.

Uniform division and judicial members may be eligible for additional minimum benefits.

Disability Retirement Benefit

Old Plan and New Plan

Eligibility A member is eligible for disability retirement after having at least 13 years and 4 months of service and being certified by the medical board as permanently disabled for the further performance of the duties of the position held at the time of disability.

Benefit The annual disability retirement benefit is an immediate benefit with the amount depending upon service at the time of disability.

Uniform division members may be eligible for an additional benefit if disabled in line of duty.

Service at Disability

Benefit

- | | |
|---|--|
| (1) 13 years 4 months to 18 years | 75% of what the normal retirement benefit would have been had the member continued to work until age 60 with no further change in compensation |
| (2) Over 18 years to 22 years 9 months | 100% of age 60 benefit |
| (3) Over 22 years 9 months to 27 years 6 months | 75% of age 65 benefit |
| (4) Over 27 years 6 months | 100% of age 65 benefit |



GSEPS

Eligibility A member is eligible for disability retirement after having at least 15 years of service and being certified by the medical board as permanently disabled for the further performance of the duties of the position held at the time of disability.

Benefit The annual disability retirement benefit is an immediate benefit equal to 1.00% of average final compensation multiplied by years of credited service at disability.

Involuntary Retirement Benefit

Eligibility Member prior to April 1, 1972, termination is involuntary and without prejudice, and member has more than 18 years of membership service.

For members prior to February 13, 1962, the service requirement is more than 18 years of creditable service.

Benefit Computed as for disability retirement.

Deferred Vested Retirement Benefit

Eligibility 10 years of creditable service. Member contributions not withdrawn.

Benefit Accrued benefit deferred to age 60.

Death Benefit

Old Plan and New Plan

Eligibility

Benefit

(1) Before retirement, before age 60, before completing 13 years 4 months service Refund of all employee contributions plus allowable interest.

(2) Before retirement, before age 60, after completing 13 years 4 months service Benefit equal to disability retirement immediately prior to death under Option 2.

(3) Before retirement, after age 60, more than 10 years creditable service (5 years service if member prior to July 1, 1968) Benefit equal to retirement immediately prior to death under Option 2.



(4) After retirement

Payments continued to spouse as determined by options (if any) elected before retirement.

GSEPS

Eligibility

15 years of creditable service.

Benefit

Benefit equal to disability retirement immediately prior to death under Option 2.

Termination Benefit

Eligibility

Termination with less than 10 years creditable service.

Benefit

Return of all member contributions and employer contributions made on behalf of member with allowable interest. Life insurance premiums paid by the employee are not refundable.

Payment Options

At application for retirement, a member must choose one of the following methods of payment. All forms are of equivalent actuarial value.

Maximum Benefit

Life annuity, payable to members for the member's life with the final payment (for month of member's death) going to member's designated beneficiary.

Option 1

Full cash refund, paying a reduced retirement benefit to members so that, upon member's death, the beneficiary receives a lump sum cash settlement equal to the difference between the member's accumulated contributions at retirement and the benefit payments due to member contributions received prior to member's death.

Option 2

Joint and 100% of survivor. Member receives a reduced benefit for life with the same benefit continuing for life of beneficiary upon member's death.

Option 3

Joint and 50% to survivor. Member receives a reduced benefit for life with one-half members' benefit continuing to beneficiary for life upon member's death.

Other Options

Other options are available with certain restrictions.

Post-Retirement Adjustments

The Board may from time to time grant a Cost of Living Adjustment.



Contributions

By Members

Old Plan

4% of annual compensation up to \$4,200 plus 6% of annual compensation over \$4,200. A member with 34 or more years of service may cease contributing until age 65, when he must resume contributing if he continues employment and wishes to receive additional service credit. The State pays member contributions except for 1.25% of annual compensation. These State contributions paid on behalf of members are included in the member's account for refund purposes. Covered tax officials and their employees and covered employees of State Courts continue to pay their full member contributions.

New Plan and GSEPS

Member contributions are 1.25% of annual compensation

By Employers

The employers contribute at a specified percentage of active member payroll determined annually by actuarial valuation. The State contribution is not subject to refund upon member termination.



SCHEDULE G

**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	674	1,912	38									2,624
Avg. Pay	\$23,451	\$25,579	\$28,089									\$25,069
25 to 29	908	4,740	1,039	23								6,710
Avg. Pay	\$27,266	\$29,858	\$31,465	\$36,701								\$29,780
30 to 34	627	3,832	2,493	708	7							7,667
Avg. Pay	\$30,029	\$31,884	\$34,627	\$36,881	\$34,678							\$33,088
35 to 39	554	3,274	2,400	1,971	630	30						8,859
Avg. Pay	\$31,589	\$33,331	\$36,644	\$39,242	\$41,076	\$43,551						\$36,020
40 to 44	489	2,820	1,950	1,660	1,678	953	42					9,592
Avg. Pay	\$32,488	\$33,085	\$36,749	\$39,138	\$42,798	\$43,655	\$46,115					\$37,653
45 to 49	430	2,532	1,908	1,480	1,625	1,994	785	77				10,831
Avg. Pay	\$31,490	\$33,369	\$36,267	\$38,176	\$40,388	\$45,537	\$49,330	\$46,113				\$39,003
50 to 54	342	2,040	1,795	1,445	1,492	1,651	1,445	681	1			10,892
Avg. Pay	\$34,944	\$34,636	\$36,902	\$38,109	\$41,325	\$44,417	\$51,311	\$53,001	\$60,738			\$41,241
55 to 59	212	1,610	1,470	1,172	1,266	1,346	959	678	16			8,729
Avg. Pay	\$38,738	\$37,245	\$38,714	\$39,589	\$40,176	\$43,347	\$50,518	\$55,095	\$60,482			\$42,097
60 to 64	79	815	900	597	621	564	347	229	20	2		4,174
Avg. Pay	\$36,925	\$38,344	\$40,911	\$39,936	\$44,355	\$44,817	\$50,813	\$58,165	\$71,145	\$92,929		\$43,175
65 to 69	13	159	249	175	117	85	60	36	8	4		906
Avg. Pay	\$47,755	\$40,991	\$43,229	\$46,313	\$45,233	\$45,970	\$49,296	\$64,154	\$115,497	\$93,405		\$46,106
70 & up	7	39	54	59	52	38	18	11	3	7		288
Avg. Pay	\$87,960	\$35,127	\$46,956	\$47,728	\$44,049	\$37,819	\$54,982	\$56,491	\$53,725	\$96,613		\$46,922
Total	4,335	23,773	14,296	9,290	7,488	6,661	3,656	1,712	48	13		71,272
Avg. Pay	\$30,135	\$32,360	\$36,525	\$38,966	\$41,562	\$44,439	\$50,556	\$54,468	\$73,677	\$95,059		\$37,520

Average Age: 43.8
Average Service: 9.6



SCHEDULE G
(Continued)

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

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	69	\$ 1,757,931	\$ 25,477
50-54	663	23,095,613	34,835
55-59	2,837	127,607,801	44,980
60-64	6,351	234,087,191	36,858
65-69	5,996	185,554,107	30,946
70-74	4,453	127,350,601	28,599
75-79	3,187	80,472,834	25,250
80-84	2,074	45,800,000	22,083
85-89	1,178	21,943,701	18,628
90-94	391	6,649,170	17,006
95+	86	1,598,126	18,583
Total	27,285	\$ 855,917,075	\$ 31,370

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

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	686	\$ 6,009,827	\$ 8,761
50-54	254	3,107,752	12,235
55-59	352	6,080,217	17,273
60-64	473	8,574,653	18,128
65-69	519	9,445,503	18,199
70-74	625	10,023,283	16,037
75-79	640	9,597,720	14,996
80-84	635	9,439,924	14,866
85-89	459	5,533,055	12,055
90-94	206	2,269,257	11,016
95+	62	464,505	7,492
Total	4,911	\$ 70,545,696	\$ 14,365



SCHEDULE G
(Continued)

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

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	416	\$ 10,620,857	\$ 25,531
50-54	611	18,395,154	30,107
55-59	1,173	36,708,985	31,295
60-64	1,267	38,669,703	30,521
65-69	731	19,636,183	26,862
70-74	318	7,000,573	22,014
75-79	130	2,708,316	20,833
80-84	70	1,430,055	20,429
85-89	45	959,361	21,319
90-94	8	110,935	13,867
95+	3	54,735	0
Total	4,772	\$ 136,294,857	\$ 28,561

**NUMBER OF DEFERRED VESTED
AND THEIR BENEFITS BY AGE**

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 35	37	\$ 264,590	\$ 7,151
35-39	255	2,258,374	8,856
40-44	632	6,021,638	9,528
45-49	900	9,179,974	10,200
50-54	936	9,869,377	10,544
55-59	987	11,112,265	11,259
60-64	261	2,886,598	11,060
65+	96	798,225	8,315
Total	4,104	\$ 42,391,041	\$ 10,329



SCHEDULE H

CONTRIBUTION RATES FOR MEMBERS WITH SPECIAL BENEFITS

Groups that have Age 55 Retirement and Line-of-Duty Disability Benefits:

- Public Safety #466
- Revenue Agents #474
- DNR Conservation Rangers #462
- GBI Officers/Agents #471

PLAN	Additional Rate	Total Rate
Old Plan	0.03%	6.91%
New Plan	1.48%	13.11%
GSEPS	0.65%	8.07%

Groups that have Line-of-Duty Disability Benefits:

- Deputy DNR Conservation Rangers #462
- Special Investigators Department of Revenue #474
- Probation Officers #467
- Parole Officers – Pardons and Paroles #465

PLAN	Additional Rate	Total Rate
Old Plan	0.03%	6.91%
New Plan	0.08%	11.71%
GSEPS	0.12%	7.51%

Appellate Court Judges: Total rate equal to 36.45% of payroll