



# Cavanaugh Macdonald

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April 17, 2014

Mr. James A. Potvin  
Executive Director  
Georgia Judicial Retirement System  
Two Northside 75, Suite 300  
Atlanta, GA 30318-7701

Dear Mr. Potvin:

Enclosed is the "Georgia Judicial Retirement System Report of the Actuary on the Valuation Prepared as of June 30, 2013".

The valuation indicates that employer contributions at the rate of 12.19% of compensation are sufficient to support the benefits of the System.

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

Edward J. Koebel, EA, FCA, MAAA  
Principal and Consulting Actuary

Enclosure

S:\Georgia Judicial\Valuations\2013\Report Template GA JRS Valuation.doc

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**Cavanaugh Macdonald**  
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**EMPLOYEES'**  
**RETIREMENT SYSTEM**  
OF GEORGIA

**GEORGIA JUDICIAL RETIREMENT SYSTEM**

**REPORT OF THE ACTUARY ON THE VALUATION  
PREPARED AS OF JUNE 30, 2013**





# Cavanaugh Macdonald

CONSULTING, LLC

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April 17, 2014

Board of Trustees  
Georgia Judicial Retirement System  
Suite 300, Two Northside 75  
Atlanta, GA 30318-7701

Attention: Mr. James Potvin, Executive Director

Members of the Board:

Section 47-23-21 of the law governing the operation of the Georgia Judicial Retirement System 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, 2013. The report indicates that annual employer contributions at the rate of 12.19% of compensation for the fiscal year ending June 30, 2016 are sufficient to support the benefits of the System.

Since the previous valuation, the Board has adopted a funding policy, which is shown in Schedule F of the report. In accordance with this funding policy, the actuarial value of assets was set equal to the market value of assets on June 30, 2013. Five-year smoothing of investment gains and losses will commence in subsequent years.

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 2013 session of the General Assembly.

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 total unfunded accrued liability which is negative and being amortized as a level percent of payroll in accordance with the funding policy adopted by the Board.

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Board of Trustees  
April 17, 2014  
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 and the funding policy adopted by the Board. 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.

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.

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', written in a cursive style.

Edward A. Macdonald, ASA, FCA, MAAA  
President

A handwritten signature in blue ink, appearing to read 'Cathy Turcot', written in a cursive style.

Cathy Turcot  
Principal and Managing Director

A handwritten signature in blue ink, appearing to read 'Edward J. Koebel', written in a cursive style.

Edward J. Koebel, EA, FCA, MAAA  
Principal and Consulting Actuary



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**GEORGIA JUDICIAL RETIREMENT SYSTEM  
REPORT OF THE ACTUARY  
ON THE VALUATION  
PREPARED AS OF JUNE 30, 2013**

**SECTION I - SUMMARY OF PRINCIPAL RESULTS**

1. For convenience of reference, the principal results of the current and preceding valuations are summarized below:

Valuation Date	June 30, 2013	June 30, 2012
Number of active members	506	503
Annual compensation	\$ 52,807,365	\$ 51,898,207
Retired members and beneficiaries:		
Number	263	234
Annual allowances	\$ 16,960,773	\$ 14,826,816
Deferred Vested Members:		
Number	33	31
Annual allowances	\$ 1,568,611	\$ 1,651,198
Assets:		
Market Value	\$ 351,889,000	\$ 319,766,000
Actuarial Value*	351,889,000	335,225,000
Unfunded actuarial accrued liability	\$ (16,097,023)	\$ (26,363,037)
Amortization period (years)	20	10
Funded Ratio	104.8%	108.5%
<b>For Fiscal Year Ending</b>	<b>June 30, 2016</b>	<b>June 30, 2015</b>
Annual Required Employer Contribution Rates (ARC):		
Normal**	14.36%	13.12%
Accrued liability	<u>(2.17)</u>	<u>(6.14)</u>
Total	12.19%	6.98%

\*Actuarial value of assets was set equal to market value on June 30, 2013. Five-year smoothing will commence in subsequent years.

\*\* Estimated budgeted administrative expenses are included in the normal contribution.

2. The valuation takes into account the effect of amendments of the System enacted through the 2013 session of the General Assembly. The major benefit and contribution provisions of the System as reflected in the valuation are summarized in Schedule G.
3. Schedule D of this report outlines the full set of actuarial assumptions and methods used to prepare the current valuation. Since the previous valuation, the Board has adopted a funding policy, which is shown in Schedule F. In accordance with this funding policy, the actuarial value



of assets was set equal to the market value of assets on June 30, 2013. Five-year smoothing of investment gains and losses will commence in subsequent years.

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, 2013 are given in Section IV and further discussion of the contributions is set out in Section V.
6. We have prepared the Solvency Test and the Schedule of Retirants Added to and Removed from Rolls for the System's Comprehensive Annual Financial Report. These tables are shown in Schedule I.

## **SECTION II - MEMBERSHIP**

1. Data regarding the membership of the System for use as a basis of the valuation were furnished by the Retirement System office. The valuation included 506 active members, with annual compensation of \$52,807,365.
2. For the June 30, 2013 valuation, data was provided by the Retirement System for inactive members who are eligible for deferred vested benefits. The valuation included 33 deferred vested members with annual allowances totaling \$1,568,611. In addition, there are 39 inactive non-vested members included in the valuation entitled to a refund of member contributions.
3. The following table shows the number of retired members and beneficiaries receiving a benefit as of June 30, 2013, together with the amount of their annual 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, 2013**

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
Service Retirements	198	\$ 14,901,519
Disability Retirements	2	112,010
Beneficiaries of Deceased Members	<u>63</u>	<u>1,947,244</u>
Total	263	\$ 16,960,773

**SECTION III - ASSETS**

1. As of June 30, 2013, the total market value of assets amounted to \$351,889,000 as reported by the Auditor of the System. The actuarial value of assets as of June 30, 2013 was determined to be \$345,062,000 based on a seven year smoothing of investment gains and losses. However, the final actuarial value of assets used for the current valuation was set equal to the market value of assets of \$351,889,000 as of June 30, 2013. Five year smoothing of investment gains and losses will commence in subsequent years. Schedule B shows the development of the actuarial value of assets as of June 30, 2013.
2. 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, 2013. The valuation was prepared in accordance with the actuarial assumptions and methods set forth in Schedule D and the actuarial cost method which is described in Schedule E.





2. The valuation balance sheet shows that the System has total prospective liabilities of \$426,881,668, of which \$162,363,884 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and \$264,517,784 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 \$351,889,000 as of June 30, 2013. The difference of \$74,992,668 between the total liabilities and the total present assets represents the present value of contributions to be made in the future. Of this amount, \$36,307,339 is the present value of future contributions expected to be made by or on behalf of members, and the balance of \$38,685,329 represents the present value of future contributions payable by the employers.
3. The employer's contributions to the System consist of normal contributions and accrued liability contributions. The valuation indicates that annual employer normal contributions at the rate of 12.28% of active members' compensation are required to provide the currently accruing benefits of the System.
4. Prospective normal contributions at the rate of 12.28% of active members' compensation have a present value of \$54,782,352. When this amount is subtracted from \$38,685,329, which is the present value of the total future contributions to be made by the employers, the result is a prospective unfunded actuarial accrued liability of (\$16,097,023).
5. The funding policy adopted by the Board, as shown in Schedule F, provides that the unfunded actuarial accrued liability as of June 30, 2013 (Transitional UAAL) will be amortized as a level dollar amount over a closed 20-year period. In each subsequent valuation all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation will determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level dollar amount over a closed 20-year period from the date it is established.



## **SECTION V – CONTRIBUTIONS PAYABLE BY EMPLOYERS**

1. The contributions of employers consist of a normal contribution and an accrued liability contribution as determined by actuarial valuation.
2. The normal contribution rate is calculated as the level percentage rate which, if applied to the compensation of the average 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. On the basis of the valuation, the normal contribution rate was determined to be 12.28% of active members' compensation.
3. An additional contribution of 2.08% of active members' compensation is required for administrative expenses for the fiscal year ending June 30, 2016.
4. The total normal contribution rate including administrative expenses is, therefore, 14.36% of active members' compensation.
5. The accrued liability contribution on the basis of the Board's funding policy is (2.17)% of active members' compensation and was determined assuming that the total payroll of active members will increase by 3.75% each year.
6. The following table summarizes the employer contribution rates, which were determined by the June 30, 2013 valuation and are recommended for use.

### **ANNUAL REQUIRED EMPLOYER CONTRIBUTION RATES (ARC) FOR FISCAL YEAR ENDING JUNE 30, 2016**

<b>CONTRIBUTION</b>	<b>PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION</b>
Normal	14.36%
Accrued Liability	<u>(2.17)</u>
Total	12.19%



**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, 2013**

<b>GROUP</b>	<b>NUMBER</b>
Retirees and beneficiaries currently receiving benefits	263
Terminated employees entitled to benefits but not yet receiving benefits	72
Active plan members	<u>506</u>
Total	841

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

**SCHEDULE OF FUNDING PROGRESS**  
(Dollar amounts in thousands)

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) - Entry Age (b)</b>	<b>Unfunded AAL (UAAL) (b - a)</b>	<b>Funded Ratio (a / b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll ((b - a) / c)</b>
6/30/2008	\$ 313,315	\$ 268,516	\$ (44,799)	116.7%	\$ 51,102	(87.7)%
6/30/2009	317,624	282,474	(35,150)	112.4	52,083	(67.5)
6/30/2010	320,050	281,496	(38,554)	113.7	51,293	(75.2)
6/30/2011	327,483	290,486	(36,997)	112.7	52,331	(70.7)
6/30/2012	335,225	308,862	(26,363)	108.5	51,898	(50.8)
6/30/2013	351,889	335,792	(16,097)	104.8	52,807	(30.5)



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

<u>Year Ending</u>	<u>Annual Required Contribution</u>	<u>Percentage Contributed</u>
6/30/2008	\$ 2,395	100%
6/30/2009	1,703	100
6/30/2010	2,600	100
6/30/2011	1,932	100
6/30/2012	2,083	100
6/30/2013	2,279	100

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2013. Since JRS is a cost sharing multiple employer pension plan, GASB Statement 27 does not require the participating employers to disclose this information.

**Annual Pension Cost and Net Pension Obligation for Fiscal Year Ending June 30, 2013**

(a)	Employer annual required contribution	\$ 2,279,000
(b)	Interest on net pension obligation	83,000
(c)	Adjustment to annual required contribution	<u>93,000</u>
(d)	Annual pension cost (a) + (b) – (c)	\$ 2,269,000
(e)	Employer contributions made for fiscal year ending 06/30/13	<u>2,279,000</u>
(f)	Increase (decrease) in net pension obligation (d) – (e)	\$ (10,000)
(g)	Net pension obligation beginning of fiscal year	<u>1,103,000</u>
(h)	Net pension obligation end of fiscal year (f) + (g)	\$ 1,093,000

**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, 2011	\$ 1,912	101%	\$ 1,156
June 30, 2012	2,030	103	1,103
June 30, 2013	2,269	100	1,093



5. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2013. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2013
Actuarial cost method	Entry age
Amortization method	Level percent of pay, closed
Remaining amortization period	20 years
Asset valuation method*	5-year smoothed market
Actuarial assumptions:	
Investment rate of return**	7.50%
Projected salary increases**	6.00%
Cost-of-living adjustments	None

\* Actuarial value of assets was set equal to the market value of assets on June 30, 2013. Five-year smoothing will commence in subsequent years.

\*\* Includes inflation at 3.00%



### **SECTION VII – EXPERIENCE**

1. The last experience investigation was prepared for the five-year period ending June 30, 2009, and based on the results of the investigation, various assumptions and methods were adopted by the Board on December 16, 2010. The next experience investigation will be prepared for the period July 1, 2009 through June 30, 2014.
2. The following table shows the estimated gain or loss from various factors that resulted in an increase of \$10,266,014 in the unfunded accrued liability from (\$26,363,037) to (\$16,097,023) during the fiscal year ending June 30, 2013.

#### **ANALYSIS OF THE INCREASE IN UNFUNDED ACCRUED LIABILITY** (in thousands of dollars)

<b>ITEM</b>	<b>AMOUNT OF INCREASE/ (DECREASE)</b>
Interest (7.50) added to previous unfunded accrued liability	\$ (1,977.2)
Accrued liability contribution	5,187.8
Experience:	
Valuation asset growth	4,949.6
Pensioners' mortality	533.8
Turnover and retirements	3,941.4
New entrants	3,138.0
Salary increases	(4,620.6)
Method changes	(6,827.0)
Amendments	0.0
Assumption changes	0.0
Programming modification	4,606.4
Miscellaneous changes	<u>1,333.8</u>
Total	\$ 10,266.0



**SCHEDULE A**

**VALUATION BALANCE SHEET  
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF  
THE GEORGIA JUDICIAL RETIREMENT SYSTEM  
AS OF JUNE 30, 2013**

<b><u>ACTUARIAL LIABILITIES</u></b>		
(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	\$ 131,468,167
-	Death and survivor benefits	13,690,757
-	Deferred vested benefits	<u>17,204,960</u>
	Total	\$ 162,363,884
(2)	Present value of prospective benefits payable on account of present active members	<u>264,517,784</u>
(3)	TOTAL ACTUARIAL LIABILITIES	\$ <u>426,881,668</u>
<b><u>PRESENT AND PROSPECTIVE ASSETS</u></b>		
(4)	Actuarial value of assets	\$ 351,889,000
(5)	Present value of total future contributions = (3)-(4)	\$ 74,992,668
(6)	Present value of future member contributions	36,307,339
(7)	Present value of future employer contributions = (5)-(6)	\$ 38,685,329
(8)	Employer normal contribution rate (net of expenses)	12.28%
(9)	Present value of future payroll	\$ 446,110,360
(10)	Prospective normal contributions = (8) x (9)	54,782,352
(11)	Prospective unfunded accrued liability contributions = (7)-(10)	<u>(16,097,023)</u>
(12)	TOTAL PRESENT AND PROSPECTIVE ASSETS	\$ <u>426,881,668</u>



**SCHEDULE B**

**DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS**

(1)	Actuarial Value Beginning of Year	\$	335,225,000
(2)	Market Value End of Year	\$	351,889,000
(3)	Market Value Beginning of Year	\$	319,766,000
(4)	Cash Flow		
	(a) Contributions	\$	6,687,000
	(b) Benefit Payments and expenses		<u>(16,668,000)</u>
	(c) Net: (4)(a) + (4)(b)	\$	(9,981,000)
(5)	Investment Income		
	(a) Market Total: (2) – (3) – (4)(c)	\$	42,104,000
	(b) Assumed Rate		7.50%
	(c) Amount for Immediate Recognition: [(3) x (5)(b)] + [(4)(c) x (5)(b) x 0.5]	\$	23,608,000
	(d) Amount for Phased-In Recognition: (5)(a) – (5)(c)		18,496,000
(6)	Phased-In Recognition of Investment Income		
	(a) Current Year: (5)(d) / 7	\$	2,642,000
	(b) First Prior Year		(2,459,000)
	(c) Second Prior Year		5,327,000
	(d) Third Prior Year		1,278,000
	(e) Fourth Prior Year		(8,548,000)
	(f) Fifth Prior Year		(4,782,000)
	(g) Sixth Prior Year		<u>2,752,000</u>
	(h) Total Recognized Investment Gain	\$	(3,790,000)
(7)	Actuarial Value End of Year: (1) + (4)(c) + (5)(c) + (6)(h)	\$	345,062,000
(8)	Final Actuarial Value of Assets on June 30, 2013*	\$	351,889,000
(9)	Difference Between Market & Actuarial Values: (2) – (8)	\$	0
(10)	Rate of Return on Actuarial Value		8.07%

\*Actuarial value of assets was set equal to market value on June 30 2013. Five-year smoothing will commence in subsequent years.





**SCHEDULE C**

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

	YEAR ENDING	
	<u>June 30, 2013</u>	<u>June 30, 2012</u>
	(\$1,000's)	(\$1,000's)
<u>Receipts for the Year</u>		
Contributions:		
Members	\$ 4,408	\$ 4,904
Employer	<u>2,279</u>	<u>2,083</u>
Subtotal	\$ 6,687	\$ 6,987
Investment Earnings	<u>42,104</u>	<u>6,571</u>
TOTAL	\$ 48,791	\$ 13,558
<u>Disbursements for the Year</u>		
Benefit Payments	\$ 16,250	\$ 14,416
Refunds to Members	105	146
Administrative Expenses	<u>313</u>	<u>310</u>
TOTAL	\$ 16,668	\$ 14,872
<u>Excess of Receipts over Disbursements</u>	\$ 32,123	\$ (1,314)
<u>Reconciliation of Asset Balances</u>		
Asset Balance as of the Beginning of Year	\$ 319,766	\$ 321,080
Excess of Receipts over Disbursements	<u>32,123</u>	<u>(1,314)</u>
Asset Balance as of the End of Year	<u>\$ 351,889</u>	<u>\$ 319,766</u>
Rate of Return	13.38%	2.07%



**SCHEDULE D**

**OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS**

Adopted by the Board December 16, 2010.

**VALUATION INTEREST RATE:** 7.50% per annum, compounded annually, net of investment expenses, composed of a 3.00% inflation assumption and a 4.50% real rate of investment return assumption.

**SALARY INCREASES:** 6.00% annually

**SEPARATIONS BEFORE SERVICE RETIREMENT:** Representative values of the assumed annual rates of separation before service retirement are as follows:

Age	Annual Rates of			
	Withdrawal	Death		Disability
		Men	Women	
20	8.0%	.035%	.019%	.05%
25	8.0	.038	.021	.05
30	8.0	.044	.026	.10
35	8.0	.077	.048	.15
40	8.0	.108	.071	.20
45	4.0	.151	.112	.35
50	3.0	.214	.168	.50
55	3.0	.362	.272	.90
60	3.0	.675	.506	1.45
65	3.0	1.274	.971	2.35

**RETIREMENT:** The assumed annual rates of retirement are shown below.

<u>Age</u>	<u>Annual Rates of Retirement</u>
60	12%
61 – 64	12
65 – 66	15
67 – 69	20
70 – 74	30
75	100



**DEATHS AFTER RETIREMENT:** Since the System has minimal post-retirement mortality experience, the System uses the same mortality tables used for the Employees' Retirement System of Georgia. The RP-2000 Combined Mortality Table is used for the period after retirement and for dependent beneficiaries. For the period after disability retirement, the RP-2000 Disabled Mortality Table set back 11 years for males is used. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on December 16, 2010, the numbers of expected future deaths are 7-9% less than the actual number of deaths that occurred during the study period for healthy retirees and 8-12% less than expected under the selected table for disabled retirees. Representative values of the assumed annual rates of mortality for service retirements and beneficiaries are as follows:

Age	Men	Women	Age	Men	Women
40	.108%	.071%	65	1.274%	.971%
45	.151	.112	70	2.221	1.674
50	.214	.168	75	3.783	2.811
55	.362	.272	80	6.437	4.588
60	.675	.506	85	11.076	7.745

**ADMINISTRATIVE EXPENSES:** Budgeted expenses for the fiscal year are added to the normal cost contribution.

**AMORTIZATION METHOD AND PAYROLL GROWTH ASSUMPTION:** Level percentage of payroll, assuming payroll will increase 3.75% per year.

**ASSET METHOD:** 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 actuarial value was set equal to the market value as of June 30, 2013. The amount recognized each year beginning June 30, 2014 will be 20% of the difference between market value and expected actuarial value.

**PERCENT MARRIED:** There is no implicit marriage assumption, since death benefits are paid only to those members who elect coverage. For members who have elected spouse coverage, husbands are assumed to be three years older than their wives.

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



## **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 member's expected benefits at retirement or death is determined, based on age, service and sex. 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 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, beneficiaries and members entitled to deferred vested benefits 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 unfunded actuarial accrued liability contribution.
3. The normal contribution is determined using the entry age actuarial cost method. Under this method, a calculation is made to determine the level amount which, if applied for the average 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 actuarial accrued liability contributions are determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets, from the present value of expected benefits to be paid from the System.



## SCHEDULE F

### FUNDING POLICY OF THE JRS BOARD OF TRUSTEES

The purpose of this Funding Policy is to state the overall objectives for the Georgia Judicial Retirement System (System), the benchmarks that will be used to measure progress in achieving those goals, and the methods and assumptions that will be employed to develop the benchmarks. It is the intent of the JRS Board of Trustees that the Funding Policy outlined herein will remain unchanged until the objectives below are met.

#### I. Funding Objectives

The goal in requiring employer and member contributions to the System is to accumulate sufficient assets during a member's employment to fully finance the benefits the member is expected to receive throughout retirement. In meeting this objective, the System will strive to meet the following funding objectives:

- To develop a pattern of contribution rates expressed as a percentage of employer payroll and measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board.
- To maintain a stable funded ratio (ratio of actuarial value of assets to actuarial accrued liabilities) that reflects a trend of strong actuarial condition. The long-term objective is to maintain a 100% funded ratio; in the event that the funded ratio falls below 100%, the objective will be to obtain a 100% funded ratio over a reasonable period of future years.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demand for liquidity.
- To promote intergenerational equity for taxpayers with respect to contributions required for the benefits provided by the System.

#### II. Measures of Funding Progress

To track progress in achieving the Board's funding objectives, the following measures will be determined annually as of the actuarial valuation date (with due recognition that a single year's results may not be indicative of long-term trends):

- **Funded Ratio** – The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should remain reasonably stable over time, before adjustments for changes in benefits, actuarial methods, and/or actuarial adjustments. The target funded ratio will be 100 percent. In the event that the funded ratio falls below 100%, the targeted funded ratio will be 100% within 20 years of the date the funded ratio first falls below 100%.
- **Future actuarial gains and losses** – The amortization period for actuarial gains and losses incurred in years following the June 30, 2013 valuation date shall not exceed 20 years beginning with the year after the gain or loss is incurred.
- **Stability of Employer Contribution Rates** – The valuation methodology, including the amortization of any Unfunded Actuarial Accrued Liability (UAAL), would be expected to maintain reasonably stable contribution rates.

#### III. Methods and Assumptions

The annual actuarial valuations providing the measures to assess funding progress will utilize the actuarial methods and assumptions last adopted by the Board based upon the advice and recommendations of the actuary. These include the following primary methods and assumptions:

- The actuarial cost method used to develop the benchmarks will be the Entry Age Normal (EAN) actuarial cost method.
- The long-term annual investment rate of return assumption will be 7.50% net of expenses.



- The actuarial value of assets will be determined by recognizing the annual differences between actual and expected market value of assets over a five-year period, beginning with the June 30, 2013 actuarial valuation.
  - Prior to the June 30, 2013 valuation, the differences between actual and expected market value of assets were recognized over a seven-year period. For the June 30, 2013 valuation, all then-current deferred gains and losses will be recognized immediately, and the initial new five-year period will begin immediately thereafter.

The employer contribution rates determined in an annual actuarial valuation will be at least sufficient to satisfy the annual normal cost of the System and amortize any UAAL as a level dollar amount over a period not to exceed 20 years.

The actuary shall conduct an investigation into the system's experience at least every five years and utilize the results of the investigation to form the basis for recommended assumptions and methods. Any changes to the recommended assumptions and methods that are approved by the Board will be reflected in this Policy.

#### **IV. Funding Policy Progress**

The Board will periodically have actuarial projections of the valuation results performed to assess the current and expected future progress towards the overall funding goals of the System. These periodic projections will provide the expected valuation results over at least a 30-year period. The projected measures of funding progress and the recent historical trend provided in valuations will provide important information for the Board's assessment of the System's funding progress.



## **SCHEDULE G**

### **SUMMARY OF MAIN SYSTEM PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES**

The Georgia Judicial Retirement System (JRS) is a cost-sharing multiple employer defined benefit pension plan established by the Georgia General Assembly for the purpose of providing retirement allowances and other benefits for trial judges and solicitors of certain courts in Georgia, and their survivors and other beneficiaries, superior court judges of the state of Georgia, and district attorneys of the state of Georgia.

#### Normal Retirement Benefit

Eligibility	Age 60 and 16 years of creditable service.
Benefit	Annual benefit is 66-2/3% of the annual salary plus 1% for each year of credited service over 16 years, not to exceed 24 years.

#### Early Retirement Benefit

Eligibility	Age 60 and 10 years of creditable service.
Benefit	A pro-rata portion of the normal retirement benefit, based on service not to exceed 16 years.

#### Disability Retirement Benefit

Eligibility	4 years of creditable service.
Benefit	For members with less than 10 years of creditable service: 1/2 of projected normal retirement benefit. For members with 10 or more years of creditable service: 2/3 of projected normal retirement benefit.

Involuntary Retirement Benefit N/A

#### Deferred Vested Retirement Benefit

Eligibility	10 years of creditable service.
Benefit	Accrued benefit deferred to age 60.

#### Death Benefit

Eligibility	
Members prior to July 1, 2012	10 years of creditable service during which the member has contributed for spouse coverage.
Members on and after July 1, 2012	10 years of creditable service.



## Benefit

Members prior to July 1, 2012

50% of benefit which member was receiving if retired, or would have received had he retired on the date of his death. If under age 60, and the member was a member of a Predecessor Retirement System, an immediate benefit equal to 50% of the benefit which member would have received had he remained employed and retired at age 60. If under age 60 and not a member of a Predecessor Retirement System, an immediate benefit equal to 50% of the benefit which the member would have received if the member were age 60 on the date of death.

Members on and after July 1, 2012

Spouse receives a benefit as if member retired on his or her date of death and elected option three.

If less than 10 years of service or member rejects spouse coverage or dies before contributing for spouse's coverage for at least 10 years, death benefit is return of member's contributions with interest.

## Termination Benefit

Eligibility

Termination with less than 10 years of creditable service.

Benefit

Return of the member's accumulated contributions with interest.

## Payment Options

Members prior to July 1, 2012

Monthly Life Annuity with Death Benefit payable as described above with guaranteed payment of accumulated contributions.

Members on and after July 1, 2012

Monthly Life Annuity with guaranteed payment of accumulated contributions.

Option 1 – 100% Joint & Survivor

Option 2 – 66-2/3% Joint & Survivor

Option 3 – 50% Joint & Survivor

Pop-Up Option – Election of Options 1, 2, or 3 with added provision that if survivor predeceases the member the benefit reverts to the amount the member would have received had no option been chosen.

## Post-Retirement Adjustments

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

For members with retirement dates prior to July 1, 2013, a one time 1.75% increase on the first \$37,500 was made at the time of retirement.





Contributions

By Members

Members prior to July 1, 2012 contribute 7-1/2% of salary, plus 2-1/2% of salary for up to 16 years if spouse benefit is not rejected.

Members on and after July 1, 2012 contribute 7-1/2% of salary.

By Employers

Employer contributions are actuarially determined and approved and certified by the Board.



**SCHEDULE H**

**The Number and Average Annual Compensation of Active Members  
by Age and Service as of June 30, 2013**

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 & Up	
Under 25	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
Avg. Pay	0	0	0	0	0	0	0	0	0	0
30 to 34	2	2	0	0	0	0	0	0	0	4
Avg. Pay	45,450	70,656	0	0	0	0	0	0	0	58,053
35 to 39	10	9	4	0	0	0	0	0	0	23
Avg. Pay	96,125	105,689	81,127	0	0	0	0	0	0	97,259
40 to 44	6	24	11	9	1	0	0	0	0	51
Avg. Pay	94,715	98,166	89,843	87,450	92,453	0	0	0	0	93,962
45 to 49	11	15	18	8	1	0	0	0	0	53
Avg. Pay	113,322	111,502	111,393	92,334	121,552	0	0	0	0	109,139
50 to 54	4	17	9	24	14	6	2	0	0	76
Avg. Pay	98,757	103,128	107,165	102,717	109,821	114,931	128,532	0	0	106,080
55 to 59	5	16	8	30	22	18	9	5	0	113
Avg. Pay	105,845	97,772	94,423	112,430	118,098	107,407	118,093	119,241	0	109,844
60 to 64	4	7	18	28	25	11	10	3	0	106
Avg. Pay	60,297	106,682	107,276	103,407	106,223	110,737	118,913	68,350	0	104,549
65 to 69	2	6	9	10	15	7	5	3	2	59
Avg. Pay	77,571	104,533	111,567	108,925	107,096	87,302	101,614	120,252	62,048	103,156
70 & Up	0	1	2	4	7	1	0	5	1	21
Avg. Pay	0	55,000	73,881	103,881	118,823	19,594	0	105,822	120,252	100,905
Total	44	97	79	113	85	43	26	16	3	506
Avg. Pay	95,172	101,727	102,792	104,106	111,099	103,994	116,042	105,695	81,449	104,362

Average Age: 55.6  
Average Service: 12.2



**SCHEDULE H**  
**(Continued)**

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

<b>Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
Under 50	0	\$ 0	\$ 0
50 - 54	0	0	0
55 - 59	0	0	0
60 - 64	33	2,586,724	78,386
65 - 69	52	4,015,637	77,224
70 - 74	52	3,832,324	73,699
75 - 79	28	2,198,222	78,508
80 - 84	16	1,194,629	74,664
85 - 89	11	809,261	73,569
90 - 94	6	264,722	44,120
95 & Over	0	0	0
Total	198	\$ 14,901,519	\$ 75,260

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

<b>Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
Under 50	0	\$ 0	\$ 0
50 - 54	1	6,436	6,436
55 - 59	2	27,088	13,544
60 - 64	4	100,764	25,191
65 - 69	6	212,650	35,442
70 - 74	8	338,093	42,262
75 - 79	16	540,732	33,796
80 - 84	9	251,974	27,997
85 - 89	12	401,614	33,468
90 - 94	3	40,323	13,441
95 & Over	2	27,570	13,785
Total	63	\$ 1,947,244	\$ 30,909



**SCHEDULE H**  
**(Continued)**

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

<b>Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
Under 50	0	\$ 0	\$ 0
50 - 54	0	0	0
55 - 59	1	56,355	56,355
60 - 64	0	0	0
65 - 69	0	0	0
70 - 74	1	55,655	55,655
75 - 79	0	0	0
80 - 84	0	0	0
85 - 89	0	0	0
90 - 94	0	0	0
95 & Over	0	0	0
Total	2	\$ 112,010	\$ 56,005

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

<b>Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
Under 45	2	\$ 111,751	\$ 55,876
45-49	3	158,986	52,995
50-54	8	398,534	49,817
55-59	14	748,526	53,466
60-64	4	122,310	30,578
65 & Over	2	28,504	14,252
Total	33	\$ 1,568,611	\$ 47,534



**SCHEDULE I**

**CAFR SCHEDULES**

<b>GA JRS: Solvency Test</b>							
Actuarial Valuation as of 7/1	Actuarial Accrued Liability for:				Portion of Aggregate Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Funded Portion)	Valuation Assets	(1)	(2)	(3)
	(1)	(2)	(3)				
2013	\$73,949	\$162,364	\$99,479	\$351,889	100%	100.0%	100.0%
2012	73,998	141,880	92,984	335,225	100%	100.0%	100.0%
2011	71,047	128,991	90,440	327,483	100%	100.0%	100.0%
2010	67,293	117,730	96,473	320,050	100%	100.0%	100.0%
2009	61,188	108,923	112,363	317,624	100%	100.0%	100.0%
2008	59,838	90,601	118,077	313,315	100%	100.0%	100.0%
2007	52,707	87,333	109,238	297,090	100%	100.0%	100.0%
2006	48,896	86,194	94,747	279,564	100%	100.0%	100.0%

*All dollar amounts are in thousands.*

<b>GA JRS: Schedule of Retirants Added to and Removed from Rolls</b>								
Year Ended	Added to Rolls		Removed from Rolls		Roll End of Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances (in thousands)	Number	Annual Allowances (in thousands)	Number	Annual Allowances (in thousands)		
July 1, 2013	42	\$2,763	13	\$629	263	\$16,961	14.4%	\$64,490
July 1, 2012	22	1,732	8	405	234	14,827	9.8%	63,363
July 1, 2011	15	1,168	2	105	220	13,500	8.5%	61,364
July 1, 2010	16	933	10	508	207	12,437	3.5%	60,082
July 1, 2009	29	2,238	6	191	201	12,012	20.5%	59,761
July 1, 2008	14	902	7	410	178	9,965	5.2%	55,983
July 1, 2007	13	853	7	297	171	9,473	6.2%	55,398
July 1, 2006	5	144	14	687	165	8,917	-5.7%	54,042