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April 20, 2017

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, 2016".

The valuation indicates that employer contributions at the rate of 7.83% 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

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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, 2016

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April 20, 2017

Board of Trustees
Georgia Judicial Retirement System
Two Northside 75, Suite 300
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, 2016. The report indicates that annual employer contributions at the rate of 7.83% of compensation for the fiscal year ending June 30, 2019 are sufficient to support the benefits of the System.

The results of the valuation reflect the 2% cost-of-living adjustment (COLA) granted to certain retirees and beneficiaries effective July 1, 2016.

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 2016 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 financial reporting purposes meet the parameters set by Actuarial Standards of Practice (ASOPs). 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.

The Plan and the employers are required to comply with the financial reporting requirements of GASB Statements No. 67 and 68. The necessary disclosure information is provided in separate supplemental reports.

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We have provided the following information and supporting schedules for the Actuarial Section of the Comprehensive Annual Financial Report:

- Summary of Actuarial Assumptions
- Schedule of Active Members
- Schedule of Funding Progress
- Schedule of Retirees Added to and Removed from Rolls
- Analysis of Change in Unfunded Accrued Liability
- Solvency Test Results

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.

The actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Use of these computations for purposes other than meeting these requirements may not be appropriate.

Sincerely yours,

Edward A. Macdonald, ASA, FCA, MAAA
President

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

Cathy Turcot
Principal and Managing Director

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GEORGIA JUDICIAL RETIREMENT SYSTEM
REPORT OF THE ACTUARY
ON THE VALUATION
PREPARED AS OF JUNE 30, 2016

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, 2016	June 30, 2015
Number of active members	526	516
Annual compensation	$ 57,401,313	$ 54,272,296
Retired members and beneficiaries:		
Number	295	287
Annual allowances*	$ 19,315,466	$ 18,665,436
Deferred Vested Members:		
Number	25	27
Annual allowances	$ 1,245,172	$ 1,383,211
Assets:		
Market Value	$ 403,011,000	$ 404,852,000
Actuarial Value	418,412,000	396,399,000
Unfunded actuarial accrued liability	$ (41,672,350)	$ (46,100,676)
Blended Amortization period (years)	17.8	19.0
Funded Ratio based on Actuarial Value of Assets	111.1%	113.2%
For Fiscal Year Ending	**June 30, 2019**	**June 30, 2018**
Actuarially Determined Employer Contribution Rates (ADEC):		
Normal**	13.67%	13.71%
Accrued liability	(5.84)	(6.54)
Total	7.83%	7.17%

* Does not reflect the COLA granted by the Board on July 1, 2016.
** The normal contribution rate includes administrative expenses.

2. The valuation takes into account the effect of amendments of the System enacted through the 2016 session of the General Assembly. The major benefit and contribution provisions of the System as reflected in the valuation are summarized in Schedule H.

3. The valuation reflects the 2% cost-of-living adjustment granted to certain retired members and beneficiaries effective July 1, 2016.

4. 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. The Board Funding Policy is shown in Schedule F.

5. The entry age actuarial cost method was used to prepare the valuation. Schedule E contains a brief description of this method.

6. Comments on the valuation results as of June 30, 2016 are given in Section IV and further discussion of the contributions is set out in Section V.

7. 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 J.

8. The funding ratio shown in the Summary of Principal Results is the ratio of the actuarial value of assets to the accrued liability and would be different if based on market value of assets. The funding ratio is an indication of progress in funding the promised benefits. This funding ratio does not have any relationship to measuring sufficiency if the plan had to settle its liabilities.

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 526 active members, with annual compensation of $57,401,313.

2. Data was provided by the Retirement System for inactive members who are eligible for deferred vested benefits. The valuation included 25 deferred vested members with annual allowances totaling $1,245,172. In addition, there are 36 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, 2016, 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, 2016

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES*
Service Retirements	227	$ 17,049,174
Disability Retirements	2	112,010
Beneficiaries of Deceased Members	66	2,154,282
Total	295	$ 19,315,466

* Does not reflect the COLA granted by the Board on July 1, 2016.

SECTION III - ASSETS

1. As of June 30, 2016, the total market value of assets amounted to $403,011,000 as reported by the Auditor of the System. The actuarial value of assets as of June 30, 2016 was determined to be $418,412,000 based on a five year smoothing of investment gains and losses. Schedule B shows the development of the actuarial value of assets as of June 30, 2016.

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, 2016. 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 $461,912,437, of which $180,107,051 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and $281,805,386 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 $418,412,000 as of June 30, 2016. The difference of $43,500,437 between the total liabilities and the total present assets represents the present value of contributions to be made in the future. Of this amount, $34,470,210 is the present value of future contributions expected to be made by or on behalf of members, and the balance of $9,030,227 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 11.73% of active members' compensation are required to provide the currently accruing benefits of the System.

4. Prospective normal contributions at the rate of 11.73% of active members' compensation have a present value of $50,702,577. When this amount is subtracted from $9,030,227, 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 ($41,672,350).

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 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 over a closed 20-year period from the date it is established. The UAAL will be amortized as a level dollar amount if the Funded Ratio is less than 100% or as a level percentage of payroll if the Funded Ratio is greater than 100%, over a period not to exceed 20 years.

6. The total UAAL contribution rate is (5.84)% of payroll, determined in accordance with the Board's funding policy. The UAAL contribution rate has been calculated on the assumption that the aggregate amount of the accrued liability contribution will increase by 3.25% each year.

7. Schedule G of this report shows the amortization schedules for the Transitional UAAL and New Incremental UAALs.

8. The following table shows the components of the total UAAL and the derivation of the UAAL contribution rate in accordance with the funding policy:

TOTAL UAAL AND UAAL CONTRIBUTION RATE

	Remaining Balance UAAL	Remaining Amortization Period (years)	Amortization Payment
Transitional	$(15,975,978)	17	$(1,368,130)
New Incremental 6/30/2014	(13,971,238)	18	(1,150,293)
New Incremental 6/30/2015	(15,945,755)	19	(1,265,952)
New Incremental 6/30/2016	4,220,621	20	323,963
Total UAAL	$(41,672,350)		$(3,460,413)
Blended Amortization Period (years)			17.8
Estimated payroll			$59,266,856
UAAL Contribution Rate			(5.84)%

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 11.73% of active members' compensation.
3. An additional contribution of 1.94% of active members' compensation is required for administrative expenses for the fiscal year ending June 30, 2019.
4. The total normal contribution rate including administrative expenses is, therefore, 13.67% of active members' compensation.
5. The accrued liability contribution on the basis of the Board's funding policy is (5.84)% of active members' compensation and was determined assuming that the total payroll of active members will increase by 3.25% each year.
6. The following table summarizes the employer contribution rates, which were determined by the June 30, 2016 valuation and are recommended for use.

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION RATES (ADEC)
FOR FISCAL YEAR ENDING JUNE 30, 2019

CONTRIBUTION	PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION
Normal	13.67%
Accrued Liability	(5.84)
Total	7.83%

SECTION VI – ACCOUNTING INFORMATION

The information required under the Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 will be issued in separate reports. The following information is provided for informational purposes only.

1. The following is a distribution of the number of employees by type of membership.

NUMBER OF ACTIVE AND RETIRED MEMBERS
AS OF JUNE 30, 2016

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	295
Terminated employees entitled to benefits but not yet receiving benefits	61
Active plan members	526
Total	882

2. The schedule of funding progress is 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)
6/30/2011	$ 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)
6/30/2014	373,560	343,428	(30,132)	108.8	53,628	(56.2)
6/30/2015	396,399	350,298	(46,101)	113.2	54,272	(84.9)
6/30/2016	418,412	376,740	(41,672)	111.1	57,401	(72.6)

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

Year Ending	Annual Required Contribution	Percentage Contributed
6/30/2011	$ 1,932	100%
6/30/2012	2,083	100
6/30/2013	2,279	100
6/30/2014	2,375	100
6/30/2015	4,260	100
6/30/2016	7,623	100

4. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2016. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2016
Actuarial cost method	Entry age
Amortization method	Level percent of pay, closed
Remaining amortization period	17.8 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return*	7.50%
Projected salary increases*	4.50%
Cost-of-living adjustments	None

* Includes inflation at 2.75%

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 as least once in each five-year period. The last experience investigation was prepared for the five-year period ending June 30, 2014, and based on the results of the investigation, various assumptions and methods were adopted by the Board on December 17, 2015. The next experience investigation will be prepared for the period July 1, 2014 through June 30, 2019.
2. The following table shows the estimated gain or loss from various factors that resulted in an increase of $4,428,326 in the unfunded actuarial accrued liability (UAAL) from ($46,100,676) to ($41,672,350) during the fiscal year ending June 30, 2016.
3. The most significant item contributing to the $4.4 million increase in the UAAL was a $3.2 million loss due to the 2% cost-of-living adjustment granted to certain retirees and beneficiaries effective July 1, 2016. Although the market value return for the fiscal year ending June 30, 2016 was significantly less than the assumed rate of 7.50%, the return on the actuarial value of assets was 7.36% due to the smoothing of investment gains and losses over a 5-year period. Therefore, there was a small loss of $0.6 million for valuation asset growth. In addition, there were small losses due to pensioner mortality, turnover and retirement, salary growth and other items.

ANALYSIS OF THE CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY

(in thousands of dollars)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.50%) added to previous UAAL	$ (3,457.6)
Accrued liability contribution	(746.2)
Experience:	
Valuation asset growth	562.3
Pensioners' mortality	1,530.2
Turnover and retirements	872.4
New entrants	1,190.9
Salary increases	209.7
Method changes	0.0
Amendments	3,179.6
Assumption changes	0.0
Miscellaneous changes	1,086.9
Total	$ 4,428.2

SCHEDULE A

VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE GEORGIA JUDICIAL RETIREMENT SYSTEM
AS OF JUNE 30, 2016

	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	$ 153,090,274	
	- Death and survivor benefits	15,021,223	
	- Deferred vested benefits	11,995,554	
	Total		$ 180,107,051
(2)	Present value of prospective benefits payable on account of present active members		281,805,386
(3)	TOTAL ACTUARIAL LIABILITIES		$ 461,912,437
	PRESENT AND PROSPECTIVE ASSETS		
(4)	Actuarial value of assets		$ 418,412,000
(5)	Present value of total future contributions = (3)-(4)	$ 43,500,437	
(6)	Present value of future member contributions		34,470,210
(7)	Present value of future employer contributions = (5)-(6)	$ 9,030,227	
(8)	Employer normal contribution rate (net of expenses)	11.73%	
(9)	Present value of future payroll	$ 432,247,034	
(10)	Prospective normal contributions = (8) x (9)		50,702,577
(11)	Prospective unfunded accrued liability contributions = (7)-(10)		(41,672,350)
(12)	TOTAL PRESENT AND PROSPECTIVE ASSETS		$ 461,912,437

SCHEDULE B

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

(1)	Actuarial Value Beginning of Year		$	396,399,000
(2)	Market Value End of Year		$	403,011,000
(3)	Market Value Beginning of Year		$	404,852,000
(4)	Cash Flow			
	(a)	Contributions	$	13,130,000
	(b)	Benefit Payments		(19,272,000)
	(c)	Administrative Expenses		(754,000)
	(d)	Investment Expenses		(172,000)
	(e)	Net: (4)(a) + (4)(b) + (4)(c) + (4)(d)	$	(7,068,000)
(5)	Investment Income			
	(a)	Market Total: (2) – (3) – (4)(e)	$	5,227,000
	(b)	Assumed Rate		7.50%
	(c)	Amount for Immediate Recognition: [(3) x (5)(b)] + [{(4)(a) + (4)(b) + (4)(c)} x (5)(b) x 0.5] – (4)(d)	$	30,277,000
	(d)	Amount for Phased-In Recognition: (5)(a) – (5)(c)		(25,050,000)
(6)	Phased-In Recognition of Investment Income			
	(a)	Current Year: (5)(d) / 5	$	(5,010,000)
	(b)	First Prior Year		(2,993,000)
	(c)	Second Prior Year		6,807,000
	(d)	Third Prior Year		0
	(e)	Fourth Prior Year		0
	(f)	Total Recognized Investment Gain	$	(1,196,000)
(7)	Actuarial Value End of Year: (1) + (4)(e) + (5)(c) + (6)(f)		$	418,412,000
(8)	Difference Between Market & Actuarial Values: (2) – (7)		$	(15,401,000)
(9)	Rate of Return on Actuarial Value			7.36%

SCHEDULE C

SUMMARY OF RECEIPTS AND DISBURSEMENTS
(Market Value)

	YEAR ENDING	
Receipts for the Year	June 30, 2016 ($1,000's)	June 30, 2015 ($1,000's)
Contributions:		
Members	$ 5,507	$ 5,061
Non-employer	2,869	1,564
Employer	4,754	2,696
Subtotal	$ 13,130	$ 9,321
Investment Earnings	5,055	14,697
TOTAL	$ 18,185	$ 24,018
Disbursements for the Year		
Benefit Payments	$ 19,011	$ 18,365
Refunds to Members	261	772
Administrative Expenses	754	819
TOTAL	$ 20,026	$ 19,956
Excess of Receipts over Disbursements	$ (1,841)	$ 4,062
Reconciliation of Asset Balances		
Asset Balance as of the Beginning of Year	$ 404,852	$ 400,790
Excess of Receipts over Disbursements	(1,841)	4,062
Asset Balance as of the End of Year	$ 403,011	$ 404,852
Rate of Return	1.26%	3.72%

SCHEDULE D

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

Adopted by the Board December 17, 2015.

VALUATION INTEREST RATE: 7.50% per annum, compounded annually, net of investment expenses, composed of a 2.75% inflation assumption and a 4.75% real rate of investment return assumption.

SALARY INCREASES: 4.50% annually

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

	Annual Rates of			
Age	Withdrawal	Death		Disability
		Men	Women	
20	4.0%	.032%	.018%	.03%
25	4.0	.035	.019	.03
30	4.0	.041	.025	.05
35	4.0	.072	.044	.08
40	6.0	.100	.066	.10
45	4.0	.140	.104	.18
50	3.0	.198	.156	.25
55	2.5	.281	.223	.45
60	2.5	.409	.306	.73
65	2.5	.560	.430	1.18

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

Age	Annual Rates of Retirement
60	15%
61	10
62	12
63 – 64	10
65 – 69	15
70 – 74	25
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 projected to 2025 with projection scale BB and set forward 2 years for both males and females is used for the period after retirement and for dependent beneficiaries. For the period after disability retirement, the RP-2000 Disabled Mortality Table projected to 2025 with projection scale BB and set back 7 years for males and set forward 3 years for females 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 17, 2015, the numbers of expected future deaths are 9-12% less than the actual number of deaths that occurred during the study period for healthy retirees and 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	0.113%	0.079%	65	1.130%	0.899%
45	0.161	0.123	70	1.870	1.528
50	0.247	0.187	75	3.215	2.522
55	0.425	0.292	80	5.516	4.163
60	0.699	0.492	85	9.563	7.124

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 3.25% 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 is 20% of the difference between market value and expected actuarial value.

PERCENT MARRIED: For members hired on and after July 1, 2012, 100% are assumed to be married. For these members and 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%.
- **Unfunded Actuarial Accrued Liability (UAAL)**
    - **Transitional UAAL** - The UAAL established as of the initial valuation date for which this funding policy is adopted shall be known as the Transitional UAAL.
    - **New Incremental UAAL** – Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuations.
- **UAAL Amortization Period**
    - The transitional UAAL will be amortized over a closed 20 year period beginning on the initial valuation date for which this funding policy is adopted.
    - Each New Incremental UAAL shall be amortized over a closed 20 year period beginning with the year it is incurred.
- **Employer Contribution Rates**
    - **Employer Normal Contribution Rate** – the contribution rate determined as of the valuation date each year to fund the employer portion of the annual normal cost based on the assumptions and methods approved by the Board.

- In each valuation subsequent to the adoption of this funding policy the required employer contribution rate will be determined as the summation of the employer Normal Contribution Rate, a contribution rate for administrative expenses, the amortization rate for the Transitional UAAL and the individual amortization rate for each of the New Incremental UAAL bases.
- In no event shall the employer contribution rate be less than 0%.
- The valuation methodology, including the amortization of the 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 investment 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 if the Funded Ratio is less than 100% or as a level percentage of payroll if the Funded Ratio is greater than 100%, over a period not to exceed 20 years. However in no event shall the employer contribution rate be less than 0%.

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.

Adopted by the Board of Trustees December 19, 2013

SCHEDULE G

AMORTIZATION OF TRANSITIONAL UAAL

Valuation Date	Amortization Period	Balance of Transitional UAAL	Expected UAAL Contribution
6/30/2013	20	$ (16,097,023)	$ (1,187,279)
6/30/2014	19	(16,117,020)	(1,231,802)
6/30/2015	18	(16,093,994)	(1,325,066)
6/30/2016	**17**	**(15,975,978)**	**(1,368,130)**
6/30/2017	16	(15,806,046)	(1,412,595)
6/30/2018	15	(15,578,905)	(1,458,504)
6/30/2019	14	(15,288,819)	(1,505,905)
6/30/2020	13	(14,929,575)	(1,554,847)
6/30/2021	12	(14,494,445)	(1,605,380)
6/30/2022	11	(13,976,149)	(1,657,555)
6/30/2023	10	(13,366,805)	(1,711,425)
6/30/2024	9	(12,657,890)	(1,767,047)
6/30/2025	8	(11,840,185)	(1,824,476)
6/30/2026	7	(10,903,724)	(1,883,771)
6/30/2027	6	(9,837,732)	(1,944,994)
6/30/2028	5	(8,630,568)	(2,008,206)
6/30/2029	4	(7,269,655)	(2,073,473)
6/30/2030	3	(5,741,406)	(2,140,860)
6/30/2031	2	(4,031,151)	(2,210,438)
6/30/2032	1	(2,123,049)	(2,282,278)
6/30/2033	0	0	0

SCHEDULE G
(Continued)

AMORTIZATION OF 2014 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2014	Expected UAAL Contribution
6/30/2014	20	$ (14,015,447)	$ (1,033,747)
6/30/2015	19	(14,032,859)	(1,114,085)
6/30/2016	**18**	**(13,971,238)**	**(1,150,293)**
6/30/2017	17	(13,868,788)	(1,187,678)
6/30/2018	16	(13,721,269)	(1,226,277)
6/30/2019	15	(13,524,087)	(1,266,131)
6/30/2020	14	(13,272,263)	(1,307,280)
6/30/2021	13	(12,960,402)	(1,349,767)
6/30/2022	12	(12,582,665)	(1,393,634)
6/30/2023	11	(12,132,731)	(1,438,928)
6/30/2024	10	(11,603,758)	(1,485,693)
6/30/2025	9	(10,988,347)	(1,533,978)
6/30/2026	8	(10,278,495)	(1,583,832)
6/30/2027	7	(9,465,550)	(1,635,307)
6/30/2028	6	(8,540,160)	(1,688,454)
6/30/2029	5	(7,492,218)	(1,743,329)
6/30/2030	4	(6,310,806)	(1,799,987)
6/30/2031	3	(4,984,129)	(1,858,486)
6/30/2032	2	(3,499,453)	(1,918,887)
6/30/2033	1	(1,843,024)	(1,981,251)
6/30/2034	0	0	0

SCHEDULE G
(Continued)

AMORTIZATION OF 2015 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2015	Expected UAAL Contribution
6/30/2015	20	$ (15,973,823)	$ (1,226,104)
6/30/2016	**19**	**(15,945,755)**	**(1,265,952)**
6/30/2017	18	(15,875,735)	(1,307,096)
6/30/2018	17	(15,759,319)	(1,349,577)
6/30/2019	16	(15,591,691)	(1,393,438)
6/30/2020	15	(15,367,630)	(1,438,724)
6/30/2021	14	(15,081,478)	(1,485,483)
6/30/2022	13	(14,727,106)	(1,533,761)
6/30/2023	12	(14,297,878)	(1,583,608)
6/30/2024	11	(13,786,610)	(1,635,076)
6/30/2025	10	(13,185,530)	(1,688,216)
6/30/2026	9	(12,486,229)	(1,743,083)
6/30/2027	8	(11,679,614)	(1,799,733)
6/30/2028	7	(10,755,852)	(1,858,224)
6/30/2029	6	(9,704,317)	(1,918,616)
6/30/2030	5	(8,513,524)	(1,980,972)
6/30/2031	4	(7,171,067)	(2,045,353)
6/30/2032	3	(5,663,544)	(2,111,827)
6/30/2033	2	(3,976,482)	(2,180,461)
6/30/2034	1	(2,094,257)	(2,251,326)
6/30/2035	0	0	0

SCHEDULE G
(Continued)

AMORTIZATION OF 2016 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2016	Expected UAAL Contribution
6/30/2016	**20**	**$ 4,220,621**	**$ 323,963**
6/30/2017	19	4,213,205	334,491
6/30/2018	18	4,194,704	345,362
6/30/2019	17	4,163,945	356,587
6/30/2020	16	4,119,654	368,176
6/30/2021	15	4,060,453	380,141
6/30/2022	14	3,984,845	392,496
6/30/2023	13	3,891,212	405,252
6/30/2024	12	3,777,801	418,423
6/30/2025	11	3,642,714	432,022
6/30/2026	10	3,483,896	446,062
6/30/2027	9	3,299,126	460,559
6/30/2028	8	3,086,001	475,527
6/30/2029	7	2,841,923	490,982
6/30/2030	6	2,564,085	506,939
6/30/2031	5	2,249,453	523,415
6/30/2032	4	1,894,747	540,425
6/30/2033	3	1,496,428	557,989
6/30/2034	2	1,050,671	576,124
6/30/2035	1	553,347	594,848
6/30/2036	0	0	0

SCHEDULE H

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 I

The Number and Average Annual Compensation of Active Members by Age and Service as of June 30, 2016

Age	Years of Service									
	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	Total
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	1	0	0	0	0	0	0	0	0	1
Avg. Pay	20,500	0	0	0	0	0	0	0	0	20,500
35 to 39	2	8	2	0	0	0	0	0	0	12
Avg. Pay	112,256	76,134	73,106	0	0	0	0	0	0	81,650
40 to 44	3	18	18	7	0	0	0	0	0	46
Avg. Pay	93,168	102,191	99,274	102,601	0	0	0	0	0	100,524
45 to 49	4	20	24	14	10	1	0	0	0	73
Avg. Pay	110,013	108,908	103,116	102,322	111,007	121,213	0	0	0	106,257
50 to 54	0	16	19	15	8	2	0	0	0	60
Avg. Pay	0	119,108	119,576	106,812	109,614	82,493	0	0	0	113,696
55 to 59	2	12	14	18	22	11	8	2	0	89
Avg. Pay	121,025	98,367	95,238	115,131	113,283	125,331	106,890	137,269	0	110,434
60 to 64	1	15	13	24	27	26	8	14	0	128
Avg. Pay	46,667	104,465	94,881	107,211	115,545	120,134	124,222	122,477	0	112,280
65 to 69	2	7	10	15	20	13	4	6	0	77
Avg. Pay	123,195	98,072	109,540	117,208	104,683	117,853	109,347	124,668	0	111,656
70 & Up	0	2	8	4	7	6	5	4	4	40
Avg. Pay	0	82,629	114,125	126,259	108,743	127,860	69,541	126,258	109,009	110,011
Total	15	98	108	97	94	59	25	26	4	526
Avg. Pay	99,978	103,383	104,213	109,912	111,210	120,128	105,360	124,702	109,009	109,128

Average Age: 57.1
Average Service: 13.4

SCHEDULE I
(Continued)

NUMBER OF RETIRED MEMBERS
AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	0	$ 0	$ 0
50 - 54	0	0	0
55 - 59	0	0	0
60 - 64	25	1,877,461	75,098
65 - 69	59	4,502,905	76,320
70 - 74	58	4,429,014	76,362
75 - 79	42	3,032,491	72,202
80 - 84	24	1,872,811	78,034
85 - 89	13	1,019,413	78,416
90 - 94	5	238,678	47,736
95 & Over	1	76,401	76,401
Total	227	$ 17,049,174	$ 75,106

NUMBER OF BENEFICIARIES
AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	0	$ 0	$ 0
50 - 54	1	6,436	6,436
55 - 59	1	26,196	26,196
60 - 64	3	95,968	31,989
65 - 69	9	243,723	27,080
70 - 74	8	281,979	35,247
75 - 79	11	419,717	38,156
80 - 84	13	437,178	33,629
85 - 89	11	361,297	32,845
90 - 94	9	281,788	31,310
95 & Over	0	0	0
Total	66	$ 2,154,282	$ 32,641

SCHEDULE I
(Continued)

NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
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

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 45	0	$ 0	$ 0
45-49	2	113,405	56,702
50-54	6	316,471	52,745
55-59	11	566,698	51,518
60-64	6	248,598	41,433
65 & Over	0	0	0
Total	25	$ 1,245,172	$ 49,807

SCHEDULE J

CAFR SCHEDULES

GA JRS: Solvency Test							
	Actuarial Accrued Liability for:						
Actuarial Valuation as of 6/30	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Funded Portion)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
	(1)	(2)	(3)		(1)	(2)	(3)
2016	$91,991	$180,107	$104,642	$418,412	100%	100.0%	100.0%
2015	84,170	174,147	$91,981	396,399	100%	100.0%	100.0%
2014	80,007	162,527	100,894	373,560	100%	100.0%	100.0%
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.

GA JRS: Schedule of Retirants Added to and Removed from Rolls								
	Added to Rolls		Removed from Rolls		Roll End of Year			
Year Ended	Number	Annual Allowances (in thousands)	Number	Annual Allowances (in thousands)	Number	Annual Allowances (in thousands)	% Increase in Annual Allowances	Average Annual Allowances
June 30, 2016	13	$919	5	$269	295	$19,315	3.5%	$65,475
June 30, 2015	21	1,416	11	561	287	18,665	4.8%	65,035
June 30, 2014	23	1,175	9	326	277	17,810	5.0%	64,296
June 30, 2013	42	2,763	13	629	263	16,961	14.4%	64,490
June 30, 2012	22	1,732	8	405	234	14,827	9.8%	63,363
June 30, 2011	15	1,168	2	105	220	13,500	8.5%	61,364
June 30, 2010	16	933	10	508	207	12,437	3.5%	60,082
June 30, 2009	29	2,238	6	191	201	12,012	20.5%	59,761
June 30, 2008	14	902	7	410	178	9,965	5.2%	55,983
June 30, 2007	13	853	7	297	171	9,473	6.2%	55,398
June 30, 2006	5	144	14	687	165	8,917	-5.7%	54,042