

April 18, 2019

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, 2018".

The valuation indicates that employer contributions at the rate of 8.38% 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,

Eduard J. Hockel

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

Ben Mobler

Ben Mobley, ASA, FCA, MAAA Senior Actuary

Enclosure

athy Turcot

Cathy Turcot Principal and Managing Director



The experience and dedication you deserve



GEORGIA JUDICIAL RETIREMENT SYSTEM

REPORT OF THE ACTUARY ON THE VALUATION PREPARED AS OF JUNE 30, 2018



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April 18, 2019

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, 2018. The report indicates that annual employer contributions at the rate of 8.38% of compensation for the fiscal year ending June 30, 2021 are sufficient to support the benefits of the System.

The results of the valuation reflect the two one-time payments to certain retirees and beneficiaries effective July 2018 and January 2019.

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 2018 session of the General Assembly. Effective with the June 30, 2017 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return for the year ending June 30, 2018 was greater than 7.40%, the assumed rate of return used in the current valuation was decreased from 7.40% to 7.30%.

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.

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Board of Trustees April 18, 2019 Page 2

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.

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 J. Hockel

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

Ben Mobley, ASA, FCA, MAAA Senior Actuary

Cathy Turcot Principal and Managing Director



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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, 2018	June 30, 2017
Active Members: Number Annual compensation	527 \$ 60,571,786	527 \$ 59,695,102
Retired Members and Beneficiaries: Number Annual allowances*	358 \$ 25,240,472	347 \$23,847,923
Deferred Vested Members: Number Annual allowances	27 \$ 1,192,010	25 \$ 1,023,978
Assets: Fair Value Actuarial Value	\$ 466,657,000 461,787,000	\$ 441,182,000 439,828,000
Valuation Interest Rate	7.30%	7.40%
Unfunded actuarial accrued liability	\$ (37,063,164)	\$ (32,220,566)
Blended Amortization period (years)	15.6	16.1
Funded Ratio based on Actuarial Value of Assets	108.7%	107.9%
For Fiscal Year Ending	June 30, 2021	June 30, 2020
Actuarially Determined Employer Contribution Rates (ADEC): Normal* Accrued liability	13.70% <u>(5.32)</u>	13.76% <u>(4.63)</u>
Total	8.38%	9.13%

* June 30, 2017 amount does not reflect the COLA granted by the Board on July 1, 2017.

** The normal contribution rate includes administrative expenses.

2. The major benefit and contribution provisions of the System as reflected in the valuation are summarized in Schedule H. The valuation takes into account the effect of amendments of the System enacted through the 2018 session of the General Assembly. The results of the valuation reflect two one-time 2% payments to certain retirees and beneficiaries effective July 2018 and January 2019.





Section I – Summary of Principal Results

- 3. Schedule D of this report outlines the full set of actuarial assumptions and methods used to prepare the current valuation. Effective with the June 30, 2017 valuation, the assumed rate of return will be reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation. The assumed rate of return may not decrease below 7.00% net of investment expenses. Since the actual rate of return for the year ending June 30, 2018 was greater than 7.40%, the assumed rate of return used in the current valuation was decreased from 7.40% to 7.30%. The Board Funding Policy is shown in Schedule F.
- 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, 2018 are given in Section IV and further discussion of the contributions is set out in Section V.
- 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.
- 7. The funded 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 fair value of assets. The funded ratio is an indication of progress in funding the promised benefits. This funded ratio does not have any relationship to measuring sufficiency if the plan had to settle its liabilities.





Section II – Membership

- 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 527 active members, with annual compensation of \$60,571,786.
- 2. Data was provided by the Retirement System for inactive members who are eligible for deferred vested benefits. The valuation included 27 deferred vested members with estimated annual allowances totaling \$1,192,010. In addition, there are 34 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, 2018, together with the amount of their annual allowances payable under the System as of that date.

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
Service Retirements	283	\$ 22,647,526
Disability Retirements	2	116,535
Beneficiaries of Deceased Members	<u>_73</u>	2,476,411
Total	358	\$ 25,240,472

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES RECEIVING BENEFITS AS OF JUNE 30, 2018





Section III – Assets

- As of June 30, 2018, the total fair value of assets amounted to \$466,657,000 as reported by the Auditor of the System. The actuarial value of assets as of June 30, 2018 was determined to be \$461,787,000 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, 2018.
- 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 fair value.





Section IV – Comments on Valuation

- 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, 2018. 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 \$518,861,324, of which \$231,810,944 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and \$287,050,380 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 \$461,787,000 as of June 30, 2018. The difference of \$57,074,324 between the total liabilities and the total present assets represents the present value of contributions to be made in the future. Of this amount, \$37,440,844 is the present value of future contributions expected to be made by or on behalf of members, and the balance of \$19,633,480 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 11.86% of active members' compensation are required to provide the currently accruing benefits of the System.
- 4. Prospective normal contributions at the rate of 11.86% of active members' compensation have a present value of \$56,696,644. When this amount is subtracted from \$19,633,480, 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 (\$37,063,164).





Section IV – Comments on Valuation

- 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 (5.32)% 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.
- 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:

	Remaining Balance <u>UAAL</u>	Remaining Amortization <u>Period (years)</u>	Amortization <u>Payment</u>
Transitional	\$(15,573,131)	15	\$(1,438,362)
New Incremental 6/30/2014	(13,716,265)	16	(1,208,450)
New Incremental 6/30/2015	(15,753,665)	17	(1,328,991)
New Incremental 6/30/2016	4,193,224	18	339,852
New Incremental 6/30/2017	9,097,618	19	710,493
New Incremental 6/30/2018	<u>(5,310,945)</u>	20	<u>(400,726)</u>
Total UAAL	\$(37,063,164)		\$(3,326,184)
Blended Amortization Period (y Estimated payroll UAAL Contribution Rate	ears)		15.6 \$62,540,369 (5.32)%

TOTAL UAAL AND UAAL CONTRIBUTION RATE





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 11.86% of active members' compensation.
- 3. An additional contribution of 1.84% of active members' compensation is required for administrative expenses for the fiscal year ending June 30, 2021.
- 4. The total normal contribution rate including administrative expenses is, therefore, 13.70% of active members' compensation.
- 5. The accrued liability contribution on the basis of the Board's funding policy is (5.32)% 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, 2018 valuation and are recommended for use.

CONTRIBUTION	PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION
Normal	13.70%
Accrued Liability	(5.32)
Total	8.38%

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION RATES (ADEC) FOR FISCAL YEAR ENDING JUNE 30, 2021





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.

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	358
Terminated employees entitled to benefits but not yet receiving benefits	61
Active plan members	<u> 527 </u>
Total	946

NUMBER OF ACTIVE AND RETIRED MEMBERS AS OF JUNE 30, 2018

2. The schedule of funding progress is shown below.

SCHEDULE OF FUNDING PROGRESS

(Dollar amounts in thousands)

Actuarial Valuation <u>Date</u>	Actuarial Value of Assets <u>(a)</u>	Actuarial Accrued Liability (AAL) - Entry Age <u>(b)</u>	Unfunded AAL (UAAL) <u>(b-a)</u>	Funded Ratio <u>(a / b)</u>	Covered Payroll <u>(c)</u>	UAAL as a Percentage of Covered Payroll <u>((b – a)/c)</u>
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)
6/30/2017*	439,828	407,607	(32,221)	107.9	59,695	(54.0)
6/30/2018*	461,787	424,724	(37,063)	108.7	60,572	(61.2)

* Reflects change in assumed rate of return





Section VI – Accounting Information

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

are in thousands).

Year <u>Ending</u>	Annual Required <u>Contribution</u>	Percentage <u>Contributed</u>
6/30/2013	\$ 2,279	100%
6/30/2014	2,375	100
6/30/2015	4,260	100
6/30/2016	7,623	100
6/30/2017	6,684	100
6/30/2018	6,566	100

 The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2018. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2018		
Actuarial cost method	Entry age		
Amortization method	Level percent of pay, closed		
Remaining amortization period	15.6 years		
Asset valuation method	5-year smoothed fair		
Actuarial assumptions:			
Investment rate of return*	7.30%		
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 fiveyear 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.
- The following table shows the estimated gain or loss from various factors that resulted in a decrease of \$4,842,598 in the unfunded actuarial accrued liability (UAAL) from (\$32,220,566) to (\$37,063,164) during the fiscal year ending June 30, 2018.
- 3. The most significant items contributing to the \$4.8 million decrease in the UAAL was a \$5.8 million gain due to salary increases less than expected and a gain of \$4.3 million for valuation asset growth. These gains were partially offset by the \$1.0 million cost of the two one-time payments to certain retirees and beneficiaries effective July 2018 and January 2019, and a \$3.7 million loss due to the change in assumed interest rate. In addition, there were small gains and losses due to other items.





Section VII – Experience

ANALYSIS OF THE CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY (in thousands of dollars)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.40%) added to previous UAAL Accrued liability contribution	\$ (2,416.5) 2,005.4
Experience: Valuation asset growth Pensioners' mortality Turnover and retirements New entrants Salary increases Method changes Amendments Assumption changes Miscellaneous changes	(4,346.6) 543.1 (162.6) 338.7 (5,756.8) 0.0 993.1 3,696.0 <u>263.6</u>
Total	\$ (4,842.6)





Schedule A – Valuation Balance Sheet

VALUATION BALANCE SHEET SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE GEORGIA JUDICIAL RETIREMENT SYSTEM AS OF JUNE 30, 2018

	ACTUARIAL LIABILITIES	5			
(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 Death and survivor benefits Deferred vested benefits Total 	\$	202,314,298 16,762,145 <u>12,734,501</u>	\$	231,810,944
(2)	Present value of prospective benefits payable on account of present active members			•	287,050,380
(3)	TOTAL ACTUARIAL LIABILITIES			<u>\$</u>	518,861,324
	PRESENT AND PROSPECTIVE	ASS	<u>ETS</u>		
(4)	Actuarial value of assets			\$	461,787,000
(5)	Present value of total future contributions = (3) - (4)	\$	57,074,324		
(6)	Present value of future member contributions				37,440,844
(7)	Present value of future employer contributions = (5)-(6)	\$	19,633,480		
(8)	Employer normal contribution rate (net of expenses)		11.86%		
(9)	Present value of future payroll	\$	478,049,276		
(10)	Prospective normal contributions = $(8) \times (9)$				56,696,644
(11)	Prospective unfunded accrued liability contributions = (7)-(10)				(37,063,164)
(12)	TOTAL PRESENT AND PROSPECTIVE ASSETS			<u>\$</u>	518,861,324





Schedule B – Development of Actuarial Value of Assets

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

(1)	Actuarial Value Beginning of Year	\$	439,828,000
(2)	Fair Value End of Year	\$	466,657,000
(3)	Fair Value Beginning of Year	\$	441,182,000
(4)	Cash Flow		
	 (a) Contributions (b) Benefit Payments (c) Administrative Expenses (d) Investment Expenses (e) Net: (4)(a) + (4)(b) + (4)(c) + (4)(d) 	\$	11,476,000 (25,084,000) (794,000) (187,000) (14,589,000)
(5)	Investment Income		
	 (a) Fair Total: (2) – (3) – (4)(e) (b) Assumed Rate of Return for Current Year (c) Amount for Immediate Recognition: 	\$	40,064,000 7.40%
	(d) $ [(3) \times (5)(b)] + [\{(4)(a) + (4)(b) + (4)(c)\} \times (5)(b) \times 0.5] - (4)(d) $ Amount for Phased-In Recognition: (5)(a) - (5)(c)	\$	32,302,000 7,762,000
(6)	Phased-In Recognition of Investment Income		
	 (a) Current Year: (5)(d) / 5 (b) First Prior Year (c) Second Prior Year (d) Third Prior Year (e) Fourth Prior Year (f) Total Recognized Investment Gain 	\$	1,552,000 3,890,000 (5,010,000) (2,993,000) <u>6,807,000</u> 4,246,000
(7)	Actuarial Value End of Year: (1) + (4)(e) + (5)(c) + (6)(f)	\$	461,787,000
(8)	Difference Between Fair & Actuarial Values: (2) – (7)		4,870,000
(9)	Rate of Return on Actuarial Value		8.40%





Schedule C – Summary of Receipts and Disbursements

	YEAR ENDING		G	
Receipts for the Year	<u>Ju</u>	<u>ne 30, 2018</u>	<u>Ju</u>	ne 30, 2017
	(\$1,000's)	(\$1,000's)
Contributions: Members Non-employer Employer	\$	4,910 1,841 4,725	\$	4,906 2,603 <u>4,081</u>
Subtotal	\$	11,476	\$	11,590
Investment Earnings		39,877		49,259
TOTAL	\$	51,353	\$	60,849
Disbursements for the Year				
Benefit Payments	\$	24,934	\$	21,784
Refunds to Members		150		166
Administrative Expenses		794		728
TOTAL	\$	25,878	\$	22,678
Excess of Receipts over Disbursements	\$	25,475	\$	38,171
Reconciliation of Asset Balances				
Asset Balance as of the Beginning of Year	\$	441,182	\$	403,011
Excess of Receipts over Disbursements		25,475		<u>38,171</u>
Asset Balance as of the End of Year	<u>\$</u>	466,657	<u>\$</u>	441,182
Rate of Return		9.19%		12.39%

SUMMARY OF RECEIPTS AND DISBURSEMENTS (Fair Value)





Schedule D – Outline of Actuarial Assumptions and Methods

Actuarial assumptions and methods adopted by the Board December 17, 2015. Valuation interest rate adopted by the Board March 15, 2018.

VALUATION INTEREST RATE: 7.30% per annum, compounded annually, net of investment expenses, composed of a 2.75% inflation assumption and a 4.55% 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	Dea	Death	
		<u>Men</u>	<u>Women</u>	
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 <u>of Retirement</u>
60	15%
61	10
62	12
63 – 64	10
65 – 69	15
70 – 74	25
75	100





Schedule D – Outline of Actuarial Assumptions and Methods

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 forward 2 years 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 fair 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 fair value as of June 30, 2013. The amount recognized each year beginning June 30, 2014 is 20% of the difference between fair 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 7.30%), 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.
- 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 – Board Funding Policy

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 System'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.





Schedule F – Board Funding Policy

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.
- \circ $\,$ 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:
 - Effective with the June 30, 2013 valuation date, 7.50% net of investment expenses.
 - Effective with the June 30, 2017 valuation date, reduced by 0.10% (10 basis points) from the immediate prior actuarial valuation, as long as the following conditions are met:
 - The actual rate of return for the fiscal year ending with the current valuation date exceeds the assumed rate of return from the immediate prior actuarial valuation, and
 - The assumed rate of return does not decrease below 7.00% 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 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.





Schedule F – Board Funding 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: March 15, 2018





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)	(1,402,562)
6/30/2018	15	(15,573,131)	(1,438,362)
6/30/2019	14	(15,271,608)	(1,485,109)
6/30/2020	13	(14,901,326)	(1,533,375)
6/30/2021	12	(14,455,749)	(1,583,209)
6/30/2022	11	(13,927,809)	(1,634,664)
6/30/2023	10	(13,309,875)	(1,687,790)
6/30/2024	9	(12,593,706)	(1,742,643)
6/30/2025	8	(11,770,403)	(1,799,279)
6/30/2026	7	(10,830,363)	(1,857,756)
6/30/2027	6	(9,763,224)	(1,918,133)
6/30/2028	5	(8,557,806)	(1,980,472)
6/30/2029	4	(7,202,054)	(2,044,838)
6/30/2030	3	(5,682,966)	(2,111,295)
6/30/2031	2	(3,986,527)	(2,179,912)
6/30/2032	1	(2,097,632)	(2,250,759)
6/30/2033	0	0	0

AMORTIZATION OF TRANSITIONAL 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)	(1,178,813)
6/30/2018	16	(13,716,265)	(1,208,450)
6/30/2019	15	(13,509,103)	(1,247,725)
6/30/2020	14	(13,247,543)	(1,288,276)
6/30/2021	13	(12,926,338)	(1,330,145)
6/30/2022	12	(12,539,816)	(1,373,374)
6/30/2023	11	(12,081,848)	(1,418,009)
6/30/2024	10	(11,545,814)	(1,464,094)
6/30/2025	9	(10,924,564)	(1,511,677)
6/30/2026	8	(10,210,380)	(1,560,807)
6/30/2027	7	(9,394,931)	(1,611,533)
6/30/2028	6	(8,469,228)	(1,663,908)
6/30/2029	5	(7,423,573)	(1,717,985)
6/30/2030	4	(6,247,509)	(1,773,819)
6/30/2031	3	(4,929,758)	(1,831,469)
6/30/2032	2	(3,458,162)	(1,890,991)
6/30/2033	1	(1,819,616)	(1,952,448)
6/30/2034	0	0	0

AMORTIZATION OF 2014 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)	(1,296,874)
6/30/2018	17	(15,753,665)	(1,328,991)
6/30/2019	16	(15,574,691)	(1,372,184)
6/30/2020	15	(15,339,460)	(1,416,780)
6/30/2021	14	(15,042,461)	(1,462,825)
6/30/2022	13	(14,677,736)	(1,510,367)
6/30/2023	12	(14,238,843)	(1,559,454)
6/30/2024	11	(13,718,825)	(1,610,136)
6/30/2025	10	(13,110,164)	(1,662,465)
6/30/2026	9	(12,404,740)	(1,716,495)
6/30/2027	8	(11,593,791)	(1,772,282)
6/30/2028	7	(10,667,856)	(1,829,881)
6/30/2029	6	(9,616,729)	(1,889,352)
6/30/2030	5	(8,429,398)	(1,950,756)
6/30/2031	4	(7,093,988)	(2,014,155)
6/30/2032	3	(5,597,694)	(2,079,615)
6/30/2033	2	(3,926,711)	(2,147,203)
6/30/2034	1	(2,066,157)	(2,216,987)
6/30/2035	0	0	0

AMORTIZATION OF 2015 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	331,758
6/30/2018	18	4,193,224	339,852
6/30/2019	17	4,159,478	350,897
6/30/2020	16	4,112,223	362,301
6/30/2021	15	4,050,114	374,076
6/30/2022	14	3,971,697	386,233
6/30/2023	13	3,875,398	398,786
6/30/2024	12	3,759,516	411,746
6/30/2025	11	3,622,214	425,128
6/30/2026	10	3,461,508	438,945
6/30/2027	9	3,275,253	453,210
6/30/2028	8	3,061,136	467,940
6/30/2029	7	2,816,660	483,148
6/30/2030	6	2,539,128	498,850
6/30/2031	5	2,225,634	515,063
6/30/2032	4	1,873,043	531,802
6/30/2033	3	1,477,973	549,086
6/30/2034	2	1,036,779	566,931
6/30/2035	1	545,533	585,356
6/30/2036	0	0	0

AMORTIZATION OF 2016 INCREMENTAL UAAL





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2017	Expected UAAL Contribution
6/30/2017	20	\$ 9,116,797	\$ 693,820
6/30/2018	19	9,097,618	710,493
6/30/2019	18	9,051,253	733,584
6/30/2020	17	8,978,410	757,426
6/30/2021	16	8,876,408	782,042
6/30/2022	15	8,742,344	807,458
6/30/2023	14	8,573,077	833,701
6/30/2024	13	8,365,211	860,796
6/30/2025	12	8,115,075	888,772
6/30/2026	11	7,818,704	917,657
6/30/2027	10	7,471,812	947,481
6/30/2028	9	7,069,774	978,274
6/30/2029	8	6,607,593	1,010,068
6/30/2030	7	6,079,879	1,042,895
6/30/2031	6	5,480,816	1,076,789
6/30/2032	5	4,804,126	1,111,785
6/30/2033	4	4,043,042	1,147,918
6/30/2034	3	3,190,267	1,185,225
6/30/2035	2	2,237,931	1,223,745
6/30/2036	1	1,177,555	1,263,517
6/30/2037	0	0	0

AMORTIZATION OF 2017 INCREMENTAL UAAL





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2018	Expected UAAL Contribution
6/30/2018	20	\$ (5,310,945)	\$ (400,726)
6/30/2019	19	(5,297,919)	(413,749)
6/30/2020	18	(5,270,918)	(427,196)
6/30/2021	17	(5,228,498)	(441,080)
6/30/2022	16	(5,169,098)	(455,415)
6/30/2023	15	(5,091,027)	(470,216)
6/30/2024	14	(4,992,456)	(485,498)
6/30/2025	13	(4,871,407)	(501,277)
6/30/2026	12	(4,725,743)	(517,569)
6/30/2027	11	(4,553,154)	(534,389)
6/30/2028	10	(4,351,144)	(551,757)
6/30/2029	9	(4,117,021)	(569,689)
6/30/2030	8	(3,847,874)	(588,204)
6/30/2031	7	(3,540,565)	(607,321)
6/30/2032	6	(3,191,705)	(627,059)
6/30/2033	5	(2,797,641)	(647,438)
6/30/2034	4	(2,354,430)	(668,480)
6/30/2035	3	(1,857,824)	(690,205)
6/30/2036	2	(1,303,240)	(712,637)
6/30/2037	1	(685,739)	(735,798)
6/30/2038	0	0	0

AMORTIZATION OF 2018 INCREMENTAL UAAL





Schedule H – Summary of Main System Provisions

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.
Disat	ility 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.
Involu	untary Retirement Benefit	N/A
Defei	rred Vested Retirement Benefit	
	Eligibility	10 years of creditable service.
	Benefit	Accrued benefit deferred to age 60.
Death	n 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.





Schedule H – Summary of Main System Provisions

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.





Schedule H – Summary of Main System Provisions

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 – Tables of Membership Data

The Number and Average Annual Compensation of Active Members	
by Age and Service as of June 30, 2018	

	Years of Service									
Age	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	2	1	0	0	0	0	0	0	4
Avg. Pay	123,843	85,827	127,069	0	0	0	0	0	0	105,641
35 to 39	3	8	5	0	0	0	0	0	0	16
Avg. Pay	91,533	80,055	74,241	0	0	0	0	0	0	80,391
40 to 44	2	24	17	5	1	0	0	0	0	49
Avg. Pay	127,617	108,926	114,667	103,464	126,072	0	0	0	0	111,473
45 to 49	6	20	28	16	7	2	0	0	0	79
Avg. Pay	92,262	113,896	106,948	113,094	94,485	119,765	0	0	0	108,056
50 to 54	3	12	23	18	9	2	0	0	0	67
Avg. Pay	122,116	127,744	125,761	124,123	105,212	127,668	0	0	0	122,809
55 to 59	1	13	20	14	22	14	5	1	0	90
Avg. Pay	22,227	119,537	115,425	128,796	116,431	122,596	123,604	120,834	0	118,939
60 to 64	1	12	17	9	24	15	10	6	4	98
Avg. Pay	123,168	103,120	117,669	102,036	125,538	130,068	126,370	126,437	134,862	120,459
		_						_		
65 to 69	3	7	12	16	18	15	6	7	2	86
Avg. Pay	88,995	113,090	106,952	117,464	115,459	124,873	129,855	126,613	95,871	116,628
	_	-	_	_	_	_		-	_	
70 & Up	0	2	9	7	5	5	4	0	6	38
Avg. Pay	0	78,712	100,634	130,588	120,279	104,982	60,387	0	125,243	107,804
Iotal	20	100	132	85	86	53	25	14	12	527
Avg. Pay	99,299	109,776	112,369	118,542	116,145	123,778	116,096	126,125	123,554	114,937

Average Age: 56.5 Average Service: 12.6



Schedule I – Tables of Membership Data

Age	Number of Members	Ann	Total Annual Benefits		verage Ial Benefits
Under 50	0	\$	0	\$	0
50 - 54	0		0		0
55 - 59	0		0		0
60 - 64	35		2,995,331		85,581
65 - 69	64	4,878,060			76,220
70 - 74	80		6,487,051		81,088
75 - 79	61		4,841,528		79,369
80 - 84	27		2,225,043		82,409
85 - 89	10		697,374		69,737
90 - 94	5		443,651		88,730
95 & Over	1		79,488		79,488
Total	283	\$ 2	22,647,526	\$	80,027

NUMBER OF RETIRED MEMBERS AND THEIR BENEFITS BY AGE

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

Age	Number of Members	Number Total of Members Annual Benefits		Ann	Average ual Benefits
Under 50	2	\$	23,236	\$	11,618
50 - 54	0		0		0
55 - 59	3		30,575		10,192
60 - 64	5		92,461		18,492
65 - 69	9	301,961			33,551
70 - 74	8		261,354		32,669
75 - 79	10		434,170		43,417
80 - 84	18		664,523		36,918
85 - 89	8		270,712		33,839
90 & Over	10		397,419		39,742
Total	73	\$	2,476,411	\$	33,923





Schedule I – Tables of Membership Data

Age	Number of Members	Number Total of Members Annual Benefits		ہ Annu	Average ual Benefits
Under 50	0	\$	0	\$	0
50 - 54	0		0		0
55 - 59	0		0		0
60 - 64	1		58,631		58,631
65 - 69	0		0		0
70 - 74	0		0		0
75 - 79	1		57,904		57,904
80 - 84	0		0		0
85 - 89	0		0		0
90 - 94	0		0		0
95 & Over	0		0		0
Total	2	¢	116 525	¢	59 269
Totai	Ζ	Ð	110,000	Φ	JÖ,∠DÖ

NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

NUMBER OF DEFERRED VESTED MEMBERS AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits		Ann	Average ual Benefits
Under 45	0	\$	0	\$	0
45-49	5		268,098		53,620
50-54	3		133,966		44,655
55-59	11		510,684		46,426
60-64	6		188,169		31,362
65 & Over	2		91,093		45,546
Total	27	\$	1,192,010	\$	44,149





Schedule J – CAFR Schedules

	GA JRS: Solvency Test									
	Actual	rial Accrued Liat	oility for:							
Actuarial Active Members Valuation Active Member Retirants & (Employer Portion of Aggregate Accrued										
as of 6/30	(1)	(2)	(3)	valuation Assets	(1)	(2)	y Assels (3)			
2018	\$88,890	\$231,811	\$104,023	\$461,787	100%	100.0%	100.0%			
2017	84,841	220,738	102,028	439,828	100%	100.0%	100.0%			
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%			
All dollar	amounts are in th	nousands.								

GA JRS: Schedule of Retirants Added to and Removed from Rolls										
	Added to Rolls		Removed from Rolls		Ro	II End of Year				
							% Increase	Average		
		Annual Allowances		Annual Allowances		Annual Allowances	in Annual	Annual		
Year Ended	Number	(in thousands)	Number	(in thousands)	Number	(in thousands)	Allowances	Allowances		
June 30, 2018	23	\$1,950	12	\$558	358	\$25,240	5.8%	\$70,503		
June 30, 2017	62	5,304	10	771	347	23,848	23.5%	68,726		
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		

