



Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

April 18, 2024

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, 2023".

The valuation indicates that employer contributions at the rate of 8.89% of compensation for the fiscal year ending June 30, 2026 are sufficient to support the benefits of the System.

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

Sincerely yours,

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

Cathy Turcot
Principal and Managing Director

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary

Enclosure



Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve



EMPLOYEES'
RETIREMENT SYSTEM
OF GEORGIA

GEORGIA JUDICIAL RETIREMENT SYSTEM

**REPORT OF THE ACTUARY ON THE VALUATION
PREPARED AS OF JUNE 30, 2023**





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

April 18, 2024

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 (JRS) 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, 2023. The report indicates that annual employer contributions at the rate of 8.89% of compensation for the fiscal year ending June 30, 2026 are sufficient to support the benefits of the System.

In preparing the valuation, the actuary relied on data provided by the System. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. Our firm, as actuary, is responsible for all of the actuarial trend data in the financial section of the annual report and the supporting schedules in the actuarial section of the annual report.

In our opinion, the valuation is complete and accurate, and the methodology and assumptions are reasonable as a basis for the valuation. The valuation takes into account the effect of all amendments to the System enacted through the 2023 session of the General Assembly.

In addition, the results of the valuation reflect a cost-of-living adjustment (COLA) of 2.0% for certain retirees and beneficiaries effective July 1, 2023.

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, 2023 was greater than 7.20%, the assumed rate of return used in the current valuation was decreased from 7.20% to 7.10%.**



April 18, 2024
Board of Trustees
Page 2

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.

We have provided the following information and supporting schedules for the Actuarial Section of the Annual Comprehensive 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.



April 18, 2024
Board of Trustees
Page 3

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and develop actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

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,

A handwritten signature in blue ink that reads "Edward J. Koebel".

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

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

Cathy Turcot
Principal and Managing Director

A handwritten signature in blue ink that reads "Ben Mobley".

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary



Table of Contents

<u>Section</u>	<u>Item</u>	<u>Page No.</u>
I	Summary of Principal Results	1
II	Membership	3
III	Assets	4
IV	Comments on Valuation	5
V	Contributions Payable by Employers	8
VI	Accounting Information	9
VII	Experience	11
VIII	Risk Assessment	13
 <u>Schedule</u>		
A	Valuation Balance Sheet	18
B	Development of Actuarial Value of Assets	19
C	Summary of Receipts and Disbursements	20
D	Outline of Actuarial Assumptions and Methods	21
E	Actuarial Cost Method	24
F	Board Funding Policy	25
G	Amortization of UAAL	28
H	Summary of Main System Provisions	41
I	Tables of Membership Data	44
J	Annual Comprehensive Financial Report Schedules	47





Schedule 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, 2023	June 30, 2022
Active Members:		
Number	546	523
Annual compensation	\$ 67,225,150	\$ 62,265,293
Retired Members and Beneficiaries:		
Number	476	467
Annual allowances	\$ 35,379,009*	\$ 33,858,241**
Deferred Vested Members:		
Number	32	33
Annual allowances	\$ 1,693,576	\$ 1,703,243
Assets:		
Fair Value	\$ 547,867,000	\$ 516,554,000
Actuarial Value	558,834,000	547,168,000
Valuation Interest Rate	7.10%	7.20%
Unfunded actuarial accrued liability	\$ (27,317,552)	\$ (41,908,458)
Blended Amortization period (years)	10.4	13.0
Funded Ratio based on Actuarial Value of Assets	105.1%	108.3%
Contribution Rates for Fiscal Year Ending	June 30, 2026	June 30, 2025
Actuarially Determined Employer Contribution Rates (ADEC):		
Normal***	13.74%	13.22%
Accrued liability	<u>(4.85)</u>	<u>(6.79)</u>
Total	8.89%	6.43%

* Does not reflect COLA granted by the Board effective July 1, 2023.

** Does not reflect COLA granted by the Board effective July 1, 2022.

*** 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 2023 session of the General Assembly. The valuation reflects that the Board granted a 2.0% cost-of-living adjustment for certain retirees and beneficiaries effective June 30, 2023.





Schedule I – Summary of Principal Results

3. Schedule D of this report outlines the full set of actuarial assumptions 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, 2023 was greater than 7.20%, the assumed rate of return used in the current valuation was decreased from 7.20% to 7.10%.**
4. The Board Funding Policy as adopted by the Board on December 17, 2020 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, 2023 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 Annual Comprehensive Financial Report. These tables are shown in Schedule J.
8. 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

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 546 active members, with annual compensation of \$67,225,150.
2. Data was provided by the Retirement System for inactive members who are eligible for deferred vested benefits. The valuation included 32 deferred vested members with estimated annual allowances totaling \$1,693,576. In addition, there are 50 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, 2023, 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, 2023**

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES*
Service Retirements	377	\$ 32,164,395
Disability Retirements	1	59,511
Beneficiaries of Deceased Members	<u>98</u>	<u>3,155,103</u>
Total	476	\$ 35,379,009

* Does not reflect COLA granted by the Board effective July 1, 2023.





Section III – Assets

1. The retirement law provides for the maintenance of two funds for the purpose of recording the financial transactions of the System; namely, the Annuity Savings Fund and the Pension Accumulation Fund.

(a) Annuity Savings Fund

The Annuity Savings Fund is the fund to which are credited all contributions made by members together with regular interest thereon. When a member retires, or if a death benefit allowance becomes payable to his beneficiary, his accumulated contributions are transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The annuity which these contributions provide is then paid from the Pension Accumulation Fund. On June 30, 2023, the value of assets credited to the Annuity Savings Fund amounted to \$92,372,511.

(b) Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which all income from investments and all contributions made by employers of members of the System and by the State for members of local retirement funds are credited. All retirement allowance and death benefit allowance payments are disbursed from this fund. Upon the retirement of a member, or upon his death if a death benefit allowance is payable, his accumulated contributions are transferred from the Annuity Savings Fund to this fund to provide the annuity portion of the allowance. On June 30, 2023, the fair value of assets credited to the Pension Accumulation Fund amounted to \$455,494,489.

2. As of June 30, 2023, the total fair value of assets amounted to \$547,867,000 as reported by the Auditor of the System.

3. The actuarial value of assets used for the current valuation was determined to be \$558,834,000 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, 2023.

4. 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

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, 2023. 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 \$643,649,999, of which \$337,923,401 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and \$305,726,598 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 \$558,834,000 as of June 30, 2023. The difference of \$84,815,999 between the total liabilities and the total present assets represents the present value of contributions to be made in the future. Of this amount, \$42,578,437 is the present value of future contributions expected to be made by or on behalf of members, and the balance of \$42,237,562 represents the present value of future contributions payable by the employers.
3. The employer's contributions to the System consist of normal contributions and accrued liability contributions. The valuation indicates that annual employer normal contributions at the rate of 12.39% of active members' compensation are required to provide the currently accruing benefits of the System.
4. Prospective normal contributions at the rate of 12.39% of active members' compensation have a present value of \$69,555,114. When this amount is subtracted from \$42,237,562, 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 (\$27,317,552).





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. Any new incremental UAAL attributable to the granting of any post-retirement benefit adjustment (PRBA) will be amortized over a closed 15-year period. 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 (4.85)% 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 3.00% each year.
7. Schedule G of this report shows the amortization schedules for the Transitional UAAL and New Incremental UAALs.





Section IV – Comments on Valuation

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	\$(13,243,746)	10	\$ (1,680,194)
New Incremental 6/30/2014	(12,021,403)	11	(1,411,919)
New Incremental 6/30/2015	(14,167,117)	12	(1,553,072)
New Incremental 6/30/2016	3,855,743	13	397,233
New Incremental 6/30/2017	8,529,305	14	830,619
New Incremental 6/30/2018	(5,064,861)	15	(468,569)
New Incremental 6/30/2019	3,005,133	16	265,257
New Incremental 6/30/2020	3,104,553	17	262,450
New Incremental 6/30/2021	(14,699,040)	18	(1,194,073)
New Incremental 6/30/2022	(4,063,454)	19	(318,142)
New Incremental 6/30/2022 (PRBA)	4,195,492	14	408,574
New Incremental 6/30/2023	7,465,565	20	564,836
<u>New Incremental 6/30/2023 (PRBA)</u>	<u>5,786,278</u>	<u>15</u>	<u>535,309</u>
Total UAAL	\$(27,317,552)		\$(3,361,691)
Blended Amortization Period (years)			10.4
Estimated payroll			\$ 69,241,905
UAAL Contribution Rate			(4.85)%





Section V – Contributions Payable by Employers

1. The contributions of employers consist of a normal contribution and an accrued liability contribution as determined by actuarial valuation.
2. The normal contribution rate is calculated as the level percentage rate which, if applied to the compensation of the average member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf. On the basis of the valuation, the normal contribution rate was determined to be 12.39% of active members' compensation.
3. An additional contribution of 1.35% of active members' compensation is required for administrative expenses for the fiscal year ending June 30, 2026
4. The total normal contribution rate including administrative expenses is, therefore, 13.74% of active members' compensation.
5. The accrued liability contribution on the basis of the Board's funding policy is (4.85)% of active members' compensation and was determined assuming that the total payroll of active members will increase by 3.00% each year.
6. The following table summarizes the employer contribution rates, which were determined by the June 30, 2023 valuation and are recommended for use.

**ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION RATES (ADEC)
FOR FISCAL YEAR ENDING JUNE 30, 2026**

CONTRIBUTION	PERCENTAGE OF ACTIVE MEMBERS' COMPENSATION
Normal	13.74%
Accrued Liability	<u>(4.85)</u>
Total	8.89%





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, 2023

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	476
Terminated employees entitled to benefits but not yet receiving benefits	82
Active plan members	<u>546</u>
Total	1,104

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)
6/30/2018*	\$461,787	\$424,724	\$(37,063)	108.7%	\$60,572	(61.2)%
6/30/2019	474,003	440,664	(33,339)	107.6	60,532	(55.1)
6/30/2020#	487,591	458,188	(29,403)	106.4	61,544	(47.8)
6/30/2021*	525,929	482,619	(43,310)	109.0	63,421	(68.3)
6/30/2022	547,168	505,260	(41,908)	108.3	62,265	(67.3)
6/30/2023*	558,834	531,516	(27,318)	105.1	67,225	(40.6)

* Reflects change in assumed rate of return

Reflects changes in actuarial assumptions





Section VI – Accounting Information

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

<u>Year Ending</u>	<u>Actuarially Determined Employer Contribution</u>	<u>Percentage Contributed</u>
6/30/2018	\$ 6,566	100%
6/30/2019	5,254	100
6/30/2020	6,464	100
6/30/2021	6,070	100
6/30/2022	9,962	100
6/30/2023	5,299	100

4. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2023. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2023
Actuarial cost method	Entry age
Amortization method	Level percent of pay, closed
Remaining amortization period	10.4 years
Asset valuation method	5-year smoothed fair
Actuarial assumptions:	
Investment rate of return*	7.10%
Projected salary increases*	3.75%
Cost-of-living adjustments	None

* Includes inflation at 2.50%





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 study was prepared for the five-year period ending June 30, 2019, and based on the results of the investigation, various new assumptions and methods were adopted by the Board on December 17, 2020. The next experience investigation will be prepared for the period July 1, 2019 through June 30, 2024.
2. The following table shows the estimated gain or loss from various factors that resulted in an increase of \$14,590,906 in the unfunded actuarial accrued liability (UAAL) from (\$41,908,458) to (\$27,317,552) during the fiscal year ending June 30, 2023.
3. The breakdown of the major reasons for the \$14.6 million increase in the UAAL are as follows:
 - The 2.0% COLA granted by the Board effective July 1, 2023 resulted in an increase in liability of \$5.8 million.
 - The assumed interest rate was decreased from 7.20% to 7.10% resulting in an increase in liability of \$4.7 million.
 - The return on the actuarial value of assets was less than the assumed rate of 7.20% resulting in an increase to the UAAL of \$1.9 million.
 - There was an increase in the UAAL totaling \$4.8 million for turnover and retirements, new entrants and other data changes.
 - Partially offsetting these losses was a decrease in the UAAL of \$2.1 million for pensioner mortality, due to more deaths than expected.





Section VII – Experience

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

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.20%) added to previous UAAL	\$ (3,017.4)
Accrued liability contribution	2,756.2
Experience:	
Valuation asset growth	1,870.5
Pensioners' mortality	(2,099.8)
Turnover and retirements	2,109.1
New entrants	1,614.2
Salary increases	(227.7)
Method changes	0.0
Amendments (2.0% COLA)	5,786.3
Assumption Change	4,736.6
Data changes	<u>1,062.9</u>
Total	\$ 14,590.9





Section VIII – Risk Assessment

Overview

Actuarial Standards of Practice (ASOP) No. 51, issued by the Actuarial Standards Board, provides guidance on assessing and disclosing risks related to pension plan funding. This guidance is binding on all credentialed actuaries practicing in the United States. This standard was issued as final in September 2017 with application to measurement dates on or after November 1, 2018.

The term “risk” frequently has a negative connotation, but from an actuarial perspective, it may be thought of as simply the fact that what actually happens in the real world will not always match what was expected, based on actuarial assumptions. Of course, when actual experience is better than expected, the favorable risk is easily absorbed. The risk of unfavorable experience will likely be unpleasant, and so there is an understandable focus on aspects of risk that are negative.

Risk usually can be reduced or eliminated at some cost. Consumers, for example, buy auto and home insurance to reduce the risk of accidents or catastrophes. Another way to express this concept, however, is that there is generally some reward for assuming risk. Thus, retirement plans invest not just in US Treasury bonds which have almost no risk, but also in equities which are considerably riskier – because they have an expected reward of a higher return that justifies the risk.

Under ASOP 51, the actuary is called on to identify the significant risks to the pension plan and provide information to help those sponsoring and administering the plan understand the implications of these risks. In this section, we identify some of the key risks for the System and provide information to help interested parties better understand these risks.





Section VIII – Risk Assessment

Investment Risk

The investment return on assets is the most obvious risk – and usually the largest risk – to funding a pension plan. To illustrate the magnitude of this risk, please review the following chart showing the Asset Volatility Ratio (AVR), defined as the fair value of assets divided by covered payroll.

(\$ in thousands)

Valuation	Fair Value of Assets	Covered Payroll	Asset Volatility Ratio
2018	\$466,657	\$60,572	7.70
2019	\$479,372	\$60,532	7.92
2020	\$485,930	\$61,544	7.90
2021	\$605,426	\$63,421	9.55
2022	\$516,554	\$62,265	8.30
2023	\$547,867	\$67,225	8.15

The asset volatility ratio is especially useful to compare across plans or through time. It is also frequently useful to consider how the AVR translates into changes in the Required Contribution Rate (actuarially determined employer contribution rate). For example, the following table demonstrates that with an AVR of 8.00, if the market value return is 10% below assumed, or negative 2.90% for the System, there will be an increase in the Required Contribution Rate of 1.17% of payroll in the first year. Without asset smoothing or without returns above the expected return in the next four years, the impact on the Required Contribution Rate would be 5.85%. A higher AVR would produce more volatility in the Required Contribution Rate.

AVR	Unsmoothed Amortization	Smoothed Amortization
7.0	5.12%	1.02%
8.0	5.85%	1.17%
9.0	6.58%	1.32%
10.0	7.31%	1.46%





Section VIII – Risk Assessment

Sensitivity Measures

Valuations are generally performed with a single set of assumptions that reflects the best estimate of future conditions, in the opinion of the actuary and typically the governing board. Note that under actuarial standards of practice, the set of economic assumptions used for funding must be consistent. To enhance the understanding of the importance of an assumption, a sensitivity test can be performed where the valuation results are recalculated using a different assumption or set of assumptions.

The following tables contains the key measures for the System using the valuation assumption for investment return of 7.10%, along with the results if the assumption were 6.10% or 8.10%. In this analysis, only the investment return assumption is changed. Consequently, there may be inconsistencies between the investment return and other economic assumptions such as inflation or payroll increases. In addition, simply because the valuation results under alternative assumptions are shown here, it should not be implied that CMC believes that either assumption (6.10% or 8.10%) would comply with actuarial standards of practice.

(\$ in thousands)

As of June 30, 2023	Current Discount Rate (7.1%)	-1% Discount Rate (6.1%)	+1% Discount Rate (8.1%)
Accrued Liability	\$531,516	\$582,736	\$487,303
Unfunded Liability	(\$27,318)	\$23,902	(\$71,531)
Funded Ratio (AVA)	105.1%	95.9%	114.7%
ADEC Rate*	8.89%	18.38%	0.53%

* Contribution rates are determined based on the Board's current Funding Policy





Section VIII – Risk Assessment

Mortality Risk

The mortality assumption is a significant assumption for valuation results, second only to the investment assumption in most situations. The System's mortality assumption utilizes a mortality table (with separate rates for males and females, as well as different rates by status) and a projection scale for how the mortality table is expected to improve through time.

The future, however, is not known, and actual mortality improvements may occur at a faster rate than expected, or at a slower rate than expected (or even decline). Although changes in mortality will affect the benefits paid, this assumption is carefully studied during the regular experience studies that the System conducts so that incremental changes can be made to smoothly reflect unfolding experience. The last experience investigation was prepared for the five-year period ending June 30, 2019 and based on the results of the investigation, a new mortality table with generational approach to future improvements in mortality was adopted. The next experience investigation will be prepared for the period July 1, 2019 through June 30, 2024.

Contribution Risk

The System is primarily funded by member and employer contributions to the trust fund, together with the earnings on those accumulated contributions. Each year in the valuation, the Required Contribution Rate is determined, based on the System's funding policy. This rate is the sum of the rates for the normal cost for the plan, the amortization of the UAAL, and the administrative expenses. Since the Required Contribution Rate has always been made and that procedure is expected to continue, there is no Contribution Risk at this time.





Section VIII – Risk Assessment

Liquidation Risk

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we must now include a low-default-risk obligation measure of the System's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of this plan.

This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of June 30, 2023 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a liability of approximately \$629.1 million.

This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan.





Schedule A – Valuation Balance Sheet

THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE GEORGIA JUDICIAL RETIREMENT SYSTEM AS OF JUNE 30, 2023

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	\$ 298,190,843
-	Death and survivor benefits	22,978,928
-	Deferred vested benefits	<u>16,753,630</u>
	Total	\$ 337,923,401
(2)	Present value of prospective benefits payable on account of present active members	<u>305,726,598</u>
(3)	TOTAL ACTUARIAL LIABILITIES	<u>\$ 643,649,999</u>
PRESENT AND PROSPECTIVE ASSETS		
(4)	Actuarial value of assets	\$ 558,834,000
(5)	Present value of total future contributions = (3)-(4)	\$ 84,815,999
(6)	Present value of future member contributions	42,578,437
(7)	Present value of future employer contributions = (5)-(6)	\$ 42,237,562
(8)	Employer normal contribution rate (net of expenses)	12.39%
(9)	Present value of future payroll	\$ 561,381,065
(10)	Prospective normal contributions = (8) x (9)	69,555,114
(11)	Prospective unfunded accrued liability contributions = (7)-(10)	<u>(\$27,317,552)</u>
(12)	TOTAL PRESENT AND PROSPECTIVE ASSETS	<u>\$ 643,649,999</u>





Schedule B – Development of Actuarial Value of Assets

(1)	Actuarial Value Beginning of Year	\$ 547,168,000
(2)	Fair Value End of Year	\$ 547,867,000
(3)	Fair Value Beginning of Year	\$ 516,554,000
(4)	Cash Flow	
	(a) Contributions	\$ 11,317,000
	(b) Benefit Payments	(35,274,000)
	(c) Administrative Expenses	(1,004,000)
	(d) Investment Expenses	<u>(205,000)</u>
	(e) Net: (4)(a) + (4)(b) + (4)(c) + (4)(d)	\$ (25,166,000)
(5)	Investment Income	
	(a) Fair Total: (2) – (3) – (4)(e)	\$ 56,479,000
	(b) Assumed Rate of Return for Current Year	7.20%
	(c) Amount for Immediate Recognition: [(3) x (5)(b)] + [(4)(a) + (4)(b) + (4)(c)] x (5)(b) x 0.5] – (4)(d)	\$ 36,498,000
	(d) Amount for Phased-In Recognition: (5)(a) – (5)(c)	19,981,000
(6)	Phased-In Recognition of Investment Income	
	(a) Current Year: (5)(d) / 5	\$ 3,996,000
	(b) First Prior Year	(22,444,000)
	(c) Second Prior Year	21,076,000
	(d) Third Prior Year	(1,778,000)
	(e) Fourth Prior Year	<u>(516,000)</u>
	(f) Total Recognition of Investment Income	\$ 334,000
(7)	Actuarial Value End of Year: (1) + (4)(e) + (5)(c) + (6)(f)	\$ 558,834,000
(8)	Difference Between Fair & Actuarial Values: (2) – (7)	\$ (10,967,000)
(9)	Rate of Return on Actuarial Value*	6.85%

* Calculated assuming cash flow occurs in the middle of the year





Schedule C – Summary of Receipts and Disbursements

FAIR VALUE OF ASSETS

	YEAR ENDING	
	June 30, 2023	June 30, 2022
	(\$1,000's)	(\$1,000's)
<u>Receipts for the Year</u>		
Contributions:		
Members	\$ 6,018	\$ 5,466
Non-employer	2,355	2,377
Employer	<u>2,944</u>	<u>7,585</u>
Subtotal	\$ 11,317	\$ 15,428
Investment Earnings	<u>56,274</u>	<u>(69,334)</u>
TOTAL	\$ 67,591	\$ (53,906)
<u>Disbursements for the Year</u>		
Benefit Payments	\$ 34,959	\$ 34,050
Refunds to Members	315	23
Administrative Expenses	<u>(1,004)</u>	<u>893</u>
TOTAL	\$ 36,278	\$ 34,966
<u>Excess of Receipts over Disbursements</u>	\$ 31,313	\$ (88,872)
<u>Reconciliation of Asset Balances</u>		
Asset Balance as of the Beginning of Year	\$ 516,554	\$ 605,426
Excess of Receipts over Disbursements	<u>31,313</u>	<u>(88,872)</u>
Asset Balance as of the End of Year	<u>\$ 547,867</u>	<u>\$ 516,554</u>
Estimated Rate of Return*	11.16%	(11.64%)

* Calculated assuming cash flow occurs in the middle of the year





Schedule D – Outline of Actuarial Assumptions and Methods

Actuarial assumptions and methods adopted by the Board December 17, 2020. Valuation interest rate adopted by the Board March 15, 2018.

VALUATION INTEREST RATE: 7.10% per annum, compounded annually, net of investment expenses, composed of a 2.50% inflation assumption and a 4.60% real rate of investment return assumption.

SALARY INCREASES: 3.75% annually, for all years of service.

RATES OF WITHDRAWAL AND DISABILITY BEFORE SERVICE RETIREMENT: Representative values of the assumed annual rates of withdrawal and disability before service retirement are as follows:

Age	Annual Rates of	
	Withdrawal	Disability
25	5.00%	.0125%
30	5.00	.0250
35	5.00	.0375
40	4.00	.0500
45	3.50	.0875
50	2.75	.1250
55	2.75	.2250
60	2.50	.3625
65	2.50	.5875

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

Age	Annual Rates of Retirement
60	15%
61-64	10
65	13
66 – 67	15
68 – 69	18
70 – 77	25
78	100





Schedule D – Outline of Actuarial Assumptions and Methods

RATES OF DEATH BEFORE RETIREMENT: The Pub-2010 General Employee Table, with no adjustments, projected generationally with the MP-2019 scale is used for both males and females while in active service. Representative values of the assumed annual rates of mortality while in active service are as follows:

Age	Annual Rates of Death*				
	Males	Females	Males	Females	
20	0.0370%	0.0130%	45	0.0980%	0.0560%
25	0.0280	0.0090	50	0.1490	0.0830
30	0.0360	0.0150	55	0.2190	0.1230
35	0.0470	0.0230	60	0.3190	0.1860
40	0.0660	0.0360	65	0.4680	0.2960

* Base mortality rates as of 2010 before application of the improvement scale

RATES OF DEATHS AFTER RETIREMENT: The Pub-2010 Family of Tables projected generationally with MP-2019 Scale and with further adjustments are used for post-retirement mortality assumptions as follows:

Participant Type	Membership Table	Set Forward (+)/ Setback (-)	Adjustment to Rates
Service Retirees	General Healthy Annuitant	Male: +1; Female: +1	Male: 105%; Female: 108%
Disability Retirees	General Disabled	Male: -3; Female: 0	Male: 103%; Female: 106%
Beneficiaries	General Contingent Survivors	Male: +2; Female: +2	Male: 106%; Female: 105%

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

Age	Annual Rates of Death*					
	Service Retirement		Disability Retirement		Beneficiaries	
	Males	Females	Males	Females	Males	Females
50	0.3371%	0.2516%	1.2576%	1.5720%	0.7918%	0.3843%
55	0.4861	0.3251	1.8725	1.8465	0.9402	0.5334
60	0.6941	0.4493	2.3484	2.0734	1.1978	0.7529
65	1.0532	0.7366	2.7573	2.3914	1.7257	1.1057
70	1.7882	1.2863	3.4536	3.0337	2.7157	1.7000
75	3.1448	2.2799	4.4743	4.2432	4.3036	2.7500
80	5.6427	4.0900	6.0986	6.3674	6.8879	4.6778
85	10.0958	7.6043	8.8220	9.8909	11.3049	8.4315
90	16.9785	13.8596	12.9831	14.4849	18.6083	14.6496

* Base mortality rates as of 2010 before application of the improvement scale





Schedule D – Outline of Actuarial Assumptions and Methods

ADMINISTRATIVE EXPENSES: A rate of 1.35% of payroll is added to the normal contribution rate.

AMORTIZATION METHOD AND PAYROLL GROWTH ASSUMPTION: Level percentage of payroll, assuming payroll will increase 3.00% 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 amount recognized each year 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 7.10%), 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 – Board Funding Policy

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.





Schedule F – Board Funding Policy

- **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.
 - Effective with the June 30, 2020 valuation date, any New Incremental UAAL which is attributable to the granting of any post-retirement benefit adjustment (PRBA), including COLAs and one-time (non-compounded) payments, shall be amortized over a closed 15-year period. The amortization period shall begin with the year such PRBA is granted by the Board.
- **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.
 - Effective with the June 30, 2020 valuation date, the required employer contribution rate shall not be less than the Employer Normal Contribution Rate unless the funded ratio is greater than or equal to 105%, as determined by the actuarial valuation in which the employer contribution rate is set.
 - Effective with the June 30, 2020 valuation date, in no event shall the employer contribution rate decrease by more than 2% from one fiscal year to the next fiscal year.
 - 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.





Schedule F – Board Funding Policy

- 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.

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: December 17, 2020





Schedule G – Amortization of UAAL

AMORTIZATION OF TRANSITIONAL INCREMENTAL 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)	(1,402,562)
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)	(1,553,756)
6/30/2021	12	(14,435,366)	(1,591,411)
6/30/2022	11	(13,888,302)	(1,639,154)
6/30/2023	10	(13,243,746)	(1,680,194)
6/30/2024	9	(12,503,858)	(1,730,599)
6/30/2025	8	(11,661,033)	(1,782,518)
6/30/2026	7	(10,706,447)	(1,835,993)
6/30/2027	6	(9,630,612)	(1,891,072)
6/30/2028	5	(8,423,313)	(1,947,805)
6/30/2029	4	(7,073,563)	(2,006,239)
6/30/2030	3	(5,569,547)	(2,066,426)
6/30/2031	2	(3,898,559)	(2,128,419)
6/30/2032	1	(2,046,939)	(2,192,272)
6/30/2033	0	0	0





Schedule G – Amortization of UAAL

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)	(1,178,813)
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)	(1,306,702)
6/30/2021	13	(12,907,911)	(1,337,850)
6/30/2022	12	(12,499,430)	(1,377,986)
6/30/2023	11	(12,021,403)	(1,411,919)
6/30/2024	10	(11,463,003)	(1,454,276)
6/30/2025	9	(10,822,601)	(1,497,905)
6/30/2026	8	(10,093,100)	(1,542,842)
6/30/2027	7	(9,266,868)	(1,589,127)
6/30/2028	6	(8,335,689)	(1,636,801)
6/30/2029	5	(7,290,722)	(1,685,905)
6/30/2030	4	(6,122,458)	(1,736,482)
6/30/2031	3	(4,820,671)	(1,788,576)
6/30/2032	2	(3,374,363)	(1,842,234)
6/30/2033	1	(1,771,709)	(1,897,500)
6/30/2034	0	0	0





Schedule G – Amortization of UAAL

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)	(1,296,874)
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)	(1,438,457)
6/30/2021	14	(15,020,784)	(1,472,182)
6/30/2022	13	(14,630,098)	(1,516,348)
6/30/2023	12	(14,167,117)	(1,553,072)
6/30/2024	11	(13,619,910)	(1,599,664)
6/30/2025	10	(12,987,260)	(1,647,654)
6/30/2026	9	(12,261,701)	(1,697,084)
6/30/2027	8	(11,435,199)	(1,747,996)
6/30/2028	7	(10,499,102)	(1,800,436)
6/30/2029	6	(9,444,102)	(1,854,449)
6/30/2030	5	(8,260,184)	(1,910,083)
6/30/2031	4	(6,936,574)	(1,967,385)
6/30/2032	3	(5,461,686)	(2,026,407)
6/30/2033	2	(3,823,060)	(2,087,200)
6/30/2034	1	(2,007,297)	(2,149,814)
6/30/2035	0	0	0





Schedule G – Amortization of UAAL

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	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	368,200
6/30/2021	15	4,044,215	376,691
6/30/2022	14	3,958,708	387,992
6/30/2023	13	3,855,743	397,233
6/30/2024	12	3,732,268	409,150
6/30/2025	11	3,588,109	421,425
6/30/2026	10	3,421,440	434,068
6/30/2027	9	3,230,294	447,090
6/30/2028	8	3,012,555	460,502
6/30/2029	7	2,765,944	474,317
6/30/2030	6	2,488,009	488,547
6/30/2031	5	2,176,110	503,203
6/30/2032	4	1,827,411	518,299
6/30/2033	3	1,438,857	533,848
6/30/2034	2	1,007,168	549,863
6/30/2035	1	528,813	566,359
6/30/2036	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2017 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	770,491
6/30/2021	16	8,863,343	787,967
6/30/2022	15	8,713,537	811,606
6/30/2023	14	8,529,305	830,619
6/30/2024	13	8,304,267	855,537
6/30/2025	12	8,038,333	881,203
6/30/2026	11	7,727,852	907,639
6/30/2027	10	7,368,890	934,869
6/30/2028	9	6,957,212	962,915
6/30/2029	8	6,488,259	991,802
6/30/2030	7	5,957,122	1,021,556
6/30/2031	6	5,358,522	1,052,202
6/30/2032	5	4,686,776	1,083,769
6/30/2033	4	3,935,768	1,116,282
6/30/2034	3	3,098,926	1,149,770
6/30/2035	2	2,169,180	1,184,264
6/30/2036	1	1,138,928	1,219,791
6/30/2037	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2018 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)	(434,972)
6/30/2021	17	(5,220,723)	(444,676)
6/30/2022	16	(5,151,938)	(458,017)
6/30/2023	15	(5,064,861)	(468,569)
6/30/2024	14	(4,955,897)	(482,626)
6/30/2025	13	(4,825,140)	(497,104)
6/30/2026	12	(4,670,621)	(512,017)
6/30/2027	11	(4,490,218)	(527,378)
6/30/2028	10	(4,281,645)	(543,199)
6/30/2029	9	(4,042,443)	(559,495)
6/30/2030	8	(3,769,962)	(576,280)
6/30/2031	7	(3,461,348)	(593,569)
6/30/2032	6	(3,113,535)	(611,376)
6/30/2033	5	(2,723,221)	(629,717)
6/30/2034	4	(2,286,852)	(648,608)
6/30/2035	3	(1,800,610)	(668,066)
6/30/2036	2	(1,260,387)	(688,108)
6/30/2037	1	(661,766)	(708,751)
6/30/2038	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2019 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2019	Expected UAAL Contribution
6/30/2019	20	\$ 3,103,655	\$ 234,180
6/30/2020	19	3,096,042	246,418
6/30/2021	18	3,075,635	251,826
6/30/2022	17	3,045,255	259,380
6/30/2023	16	3,005,133	265,257
6/30/2024	15	2,953,240	273,215
6/30/2025	14	2,889,705	281,411
6/30/2026	13	2,813,463	289,854
6/30/2027	12	2,723,365	298,549
6/30/2028	11	2,618,174	307,506
6/30/2029	10	2,496,559	316,731
6/30/2030	9	2,357,084	326,233
6/30/2031	8	2,198,203	336,020
6/30/2032	7	2,018,255	346,100
6/30/2033	6	1,815,452	356,483
6/30/2034	5	1,587,865	367,177
6/30/2035	4	1,333,426	378,193
6/30/2036	3	1,049,906	389,538
6/30/2037	2	734,911	401,225
6/30/2038	1	385,865	413,260
6/30/2039	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2020 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2020	Expected UAAL Contribution
6/30/2020	20	\$ 3,170,015	\$ 243,985
6/30/2021	19	3,157,441	249,252
6/30/2022	18	3,135,525	256,729
6/30/2023	17	3,104,553	262,450
6/30/2024	16	3,062,526	270,323
6/30/2025	15	3,009,642	278,433
6/30/2026	14	2,944,893	286,786
6/30/2027	13	2,867,194	295,389
6/30/2028	12	2,775,376	304,251
6/30/2029	11	2,668,176	313,378
6/30/2030	10	2,544,239	322,780
6/30/2031	9	2,402,100	332,463
6/30/2032	8	2,240,186	342,437
6/30/2033	7	2,056,803	352,710
6/30/2034	6	1,850,125	363,293
6/30/2035	5	1,618,192	374,191
6/30/2036	4	1,358,894	385,416
6/30/2037	3	1,069,958	396,977
6/30/2038	2	748,947	408,888
6/30/2039	1	393,234	421,154
6/30/2040	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2021 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2021	Expected UAAL Contribution
6/30/2021	20	\$ (14,865,872)	(1,134,435)
6/30/2022	19	(14,801,780)	(1,168,468)
6/30/2023	18	(14,699,040)	(1,194,073)
6/30/2024	17	(14,548,599)	(1,229,895)
6/30/2025	16	(14,351,655)	(1,266,792)
6/30/2026	15	(14,103,831)	(1,304,796)
6/30/2027	14	(13,800,408)	(1,343,940)
6/30/2028	13	(13,436,297)	(1,384,258)
6/30/2029	12	(13,006,017)	(1,425,786)
6/30/2030	11	(12,503,657)	(1,468,560)
6/30/2031	10	(11,922,856)	(1,512,616)
6/30/2032	9	(11,256,763)	(1,557,995)
6/30/2033	8	(10,497,998)	(1,604,735)
6/30/2034	7	(9,638,620)	(1,652,877)
6/30/2035	6	(8,670,086)	(1,702,463)
6/30/2036	5	(7,583,199)	(1,753,537)
6/30/2037	4	(6,368,069)	(1,806,143)
6/30/2038	3	(5,014,059)	(1,860,327)
6/30/2039	2	(3,509,731)	(1,916,138)
6/30/2040	1	(1,842,784)	(1,973,622)
6/30/2041	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2022 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2022	Expected UAAL Contribution
6/30/2022	20	\$ (4,081,049)	(311,430)
6/30/2023	19	(4,063,454)	(318,142)
6/30/2024	18	(4,033,817)	(327,686)
6/30/2025	17	(3,992,532)	(337,517)
6/30/2026	16	(3,938,485)	(347,642)
6/30/2027	15	(3,870,475)	(358,072)
6/30/2028	14	(3,787,207)	(368,814)
6/30/2029	13	(3,687,285)	(379,878)
6/30/2030	12	(3,569,204)	(391,274)
6/30/2031	11	(3,431,343)	(403,013)
6/30/2032	10	(3,271,955)	(415,103)
6/30/2033	9	(3,089,161)	(427,556)
6/30/2034	8	(2,880,935)	(440,383)
6/30/2035	7	(2,645,098)	(453,594)
6/30/2036	6	(2,379,306)	(467,202)
6/30/2037	5	(2,081,035)	(481,218)
6/30/2038	4	(1,747,570)	(495,654)
6/30/2039	3	(1,375,993)	(510,524)
6/30/2040	2	(963,165)	(525,840)
6/30/2041	1	(505,710)	(541,615)
6/30/2042	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2022 INCREMENTAL UAAL (PRBA)

Valuation Date	Amortization Period	Balance of New Incremental UAAL (PRBA) 6/30/2022	Expected UAAL Contribution
6/30/2022	15	\$ 4,286,114	399,222
6/30/2023	14	4,195,492	408,574
6/30/2024	13	4,084,798	420,831
6/30/2025	12	3,953,988	433,456
6/30/2026	11	3,801,265	446,460
6/30/2027	10	3,624,695	459,854
6/30/2028	9	3,422,194	473,650
6/30/2029	8	3,191,520	487,859
6/30/2030	7	2,930,259	502,495
6/30/2031	6	2,635,812	517,570
6/30/2032	5	2,305,385	533,097
6/30/2033	4	1,935,970	549,089
6/30/2034	3	1,524,335	565,562
6/30/2035	2	1,067,001	582,529
6/30/2036	1	560,229	600,005
6/30/2037	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2023 INCREMENTAL UAAL

Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2023	Expected UAAL Contribution
6/30/2023	20	\$ 7,465,565	564,836
6/30/2024	19	7,430,784	581,782
6/30/2025	18	7,376,587	599,235
6/30/2026	17	7,301,090	617,213
6/30/2027	16	7,202,254	635,728
6/30/2028	15	7,077,886	654,801
6/30/2029	14	6,925,614	674,445
6/30/2030	13	6,742,887	694,678
6/30/2031	12	6,526,954	715,518
6/30/2032	11	6,274,850	736,983
6/30/2033	10	5,983,382	759,093
6/30/2034	9	5,649,109	781,866
6/30/2035	8	5,268,330	805,322
6/30/2036	7	4,837,059	829,482
6/30/2037	6	4,351,008	854,366
6/30/2038	5	3,805,563	879,997
6/30/2039	4	3,195,761	906,397
6/30/2040	3	2,516,263	933,589
6/30/2041	2	1,761,329	961,598
6/30/2042	1	924,786	990,445
6/30/2043	0	0	0





Schedule G – Amortization of UAAL

AMORTIZATION OF 2023 INCREMENTAL UAAL (PRBA)

Valuation Date	Amortization Period	Balance of New Incremental UAAL (PRBA) 6/30/2023	Expected UAAL Contribution
6/30/2023	15	\$ 5,786,278	535,309
6/30/2024	14	5,661,795	551,369
6/30/2025	13	5,512,413	567,910
6/30/2026	12	5,335,884	584,947
6/30/2027	11	5,129,785	602,495
6/30/2028	10	4,891,505	620,570
6/30/2029	9	4,618,232	639,187
6/30/2030	8	4,306,939	658,363
6/30/2031	7	3,954,369	678,114
6/30/2032	6	3,557,015	698,458
6/30/2033	5	3,111,105	719,411
6/30/2034	4	2,612,582	740,993
6/30/2035	3	2,057,082	763,223
6/30/2036	2	1,439,912	786,120
6/30/2037	1	756,026	809,704
6/30/2038	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.





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, 2023

Age	Years of Service									Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up		
Under 25 Avg. Pay	-	-	-	-	-	-	-	-	-	-	-
25 to 29 Avg. Pay	-	-	-	-	-	-	-	-	-	-	-
30 to 34 Avg. Pay	2	2	-	-	-	-	-	-	-	-	4 \$79,537
35 to 39 Avg. Pay	4	11	5	3	-	-	-	-	-	-	23 \$115,036
40 to 44 Avg. Pay	9	26	10	5	1	-	-	-	-	-	51 \$113,318
45 to 49 Avg. Pay	8	19	26	16	5	1	-	-	-	-	75 \$126,582
50 to 54 Avg. Pay	5	27	27	23	17	7	2	-	-	-	108 \$125,282
55 to 59 Avg. Pay	3	24	15	17	18	8	3	-	-	-	88 \$132,687
60 to 64 Avg. Pay	1	13	13	17	9	15	6	3	1	1	78 \$125,889
65 to 69 Avg. Pay	-	7	12	13	5	10	7	3	1	1	58 \$122,474
70 & Up Avg. Pay	1	1	9	13	12	9	6	5	5	5	61 \$112,436
Total Avg. Pay	33 \$124,106	130 \$124,105	117 \$119,326	107 \$122,924	67 \$126,114	50 \$124,014	24 \$124,300	11 \$124,716	7 \$125,221	546 \$123,123	

Average Age: 55.9
Average Service: 11.5





Schedule I – Tables of Membership Data

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	31	2,720,543	87,759
65 - 69	83	7,395,314	89,100
70 - 74	99	8,400,314	84,852
75 - 79	88	7,510,806	85,350
80 - 84	56	4,529,523	80,884
85 - 89	17	1,401,913	82,465
90 - 94	3	205,982	68,661
95 & Over	0	0	0
Total	377	\$ 32,164,395	\$ 85,317

* Does not reflect the COLA granted by the Board effective July 1, 2023.

Average Age: 73.7

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits*	Average Annual Benefits
Under 50	3	\$ 46,046	\$ 15,349
50 - 54	1	17,711	17,711
55 - 59	7	203,183	29,026
60 - 64	8	126,353	15,794
65 - 69	8	157,831	19,729
70 - 74	22	733,604	33,346
75 - 79	12	461,326	38,444
80 - 84	12	507,619	42,302
85 - 89	14	559,385	39,956
90 & Over	11	342,045	61,713
Total	98	\$ 3,155,103	\$ 32,195

* Does not reflect the COLA granted by the Board effective July 1, 2023.

Average Age: 74.7





Schedule I – Tables of Membership Data

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	0	0	0
60 - 64	0	0	0
65 - 69	1	59,511	59,511
70 - 74	0	0	0
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	1	\$ 59,511	\$ 59,511

* Does not reflect the COLA granted by the Board effective July 1, 2023.

Average Age: 65.0

NUMBER OF DEFERRED VESTED MEMBERS AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 45	2	\$ 142,690	\$ 71,345
45-49	3	59,480	19,827
50-54	12	632,978	52,748
55-59	10	607,342	60,734
60-64	3	192,117	64,039
65 & Over	2	58,969	29,484
Total	32	\$ 1,693,576	\$ 52,924

Average Age: 54.2





Schedule J – Annual Comprehensive Financial Report 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)
2023	\$83,084	\$337,923	\$110,509	\$558,834	100%	100.0%	100.0%
2022	82,515	320,643	102,102	547,168	100%	100.0%	100.0%
2021	82,116	303,301	97,202	525,929	100%	100.0%	100.0%
2020	89,842	267,433	100,913	487,591	100%	100.0%	100.0%
2019	85,722	256,060	98,882	474,003	100%	100.0%	100.0%
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%

All dollar amounts are in thousands.

GA JRS: Schedule of Retirants Added to and Removed from Rolls								
Year Ended	Added to Rolls		Removed from Rolls		Roll End of Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances* (in thousands)	Number	Annual Allowances* (in thousands)	Number	Annual Allowances* (in thousands)		
June 30, 2023	31	\$3,060	22	\$1,539	476	\$35,379	4.5%	\$74,326
June 30, 2022	30	2,170	10	694	467	33,858	4.6%	72,501
June 30, 2021	43	3,669	9	402	447	32,382	11.2%	72,443
June 30, 2020	34	2,060	19	1,058	413	29,115	3.6%	70,496
June 30, 2019	52	3,435	12	562	398	28,113	11.4%	70,636
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

* Does not reflect any increases after the valuation date.

