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April 15, 2021

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

Dear Mr. Potvin:

Enclosed is the "Georgia Legislative Retirement System Report of the Actuary on the Valuation Prepared as of June 30, 2020".

The valuation indicates that no employer contribution for the fiscal year ending June 30, 2023 is required 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



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EMPLOYEES'
RETIREMENT SYSTEM
OF GEORGIA

GEORGIA LEGISLATIVE RETIREMENT SYSTEM

**REPORT OF THE ACTUARY ON THE VALUATION
PREPARED AS OF JUNE 30, 2020**





Cavanaugh Macdonald

CONSULTING, LLC

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April 15, 2021

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

Attention: Mr. James Potvin, Executive Director

Members of the Board:

Section 47-6-22 of the law governing the operation of the Georgia Legislative 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, 2020. The report indicates that no annual employer contributions for the fiscal year ending June 30, 2023 are required to support the benefits of the System.

Since the previous valuation, various economic and demographic assumptions and actuarial methods have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2019. A complete list of the changes is provided on page 2 of this report.

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 2020 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 may not decrease below 7.00% net of investment expenses. Since the actual rate of return for the year ending June 30, 2020 was less than 7.30%, the assumed rate of return used in the current valuation remained at 7.30%.



April 15, 2021
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 dollar per active member. 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 dollar per active member. Gains and losses are reflected in the total unfunded accrued liability which is negative and being amortized as a level dollar per active member 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 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.



April 15, 2021
Board of Trustees
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We note that as we are preparing this report, the world is in the midst of a pandemic. We have considered available information, but do not believe that there is yet sufficient data to warrant the modification of any of our assumptions prior to the upcoming experience study.

In order to prepare the results in this report, we have utilized appropriate actuarial models that were developed for this purpose. These models use 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



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Section I – Summary of Principal Results

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below:

Valuation Date	June 30, 2020	June 30, 2019
Number of active members:	219	221
Retired members and beneficiaries:		
Number	269	269
Annual allowances	\$ 1,690,414	\$ 1,717,772
Deferred Vested Members:		
Number	76	82
Annual allowances	\$ 365,435	\$ 396,502
Assets:		
Fair Value	\$ 34,568,000	\$ 34,540,000
Actuarial Value	34,661,000	34,153,000
Valuation Interest Rate	7.30%	7.30%
Unfunded actuarial accrued liability	\$ (9,118,413)	\$ (8,439,153)
Amortization period (years)	N/A*	N/A*
Funded Ratio based on Actuarial Value of Assets	135.7%	132.8%
Contributions for Fiscal Year Ending	June 30, 2023	June 30, 2022
Total Normal Cost**	\$ 657,589	\$ 736,798
Less Member Contributions	<u>322,815</u>	<u>325,762</u>
Employer Paid Normal Cost**	\$ 334,774	\$ 411,036
Actuarially Determined Employer Contribution Rates (ADEC):		
Normal**	\$ 334,774	\$ 411,036
Accrued liability	<u>(334,774)</u>	<u>(411,036)</u>
Total	\$ 0	\$ 0
Employer contribution rate per active member:		
Normal**	\$ 1,528.65	\$ 1,859.89
Accrued liability	<u>(1,528.65)</u>	<u>(1,859.89)</u>
Total	\$ 0.00	\$ 0

* If the unfunded actuarial accrued liability is amortized in accordance with the Board's funding policy, the ADEC is less than \$0, which is not allowed under the funding policy. Therefore, the accrued liability contribution has been set such that the total ADEC equals \$0.

** The normal contribution rate includes administrative expenses.





Section I – Summary of Principal Results

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 2020 session of the General Assembly. The valuation reflects that the Board did not grant the anticipated cost-of-living adjustments to retired members on July 1, 2020 and on January 1, 2021.
3. Schedule D of this report outlines the full set of actuarial assumptions used to prepare the current valuation. Since the previous valuation, various economic and demographic assumptions and actuarial methods have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2019. These revised assumptions were adopted by the Board on December 17, 2020 and are summarized below.

Summary of Assumptions and Methods	
Economic Assumptions	
Price Inflation	Lowered assumption from 2.75% to 2.50%.
Investment Return	Lowered long-term assumption from 7.50% to 7.00%.
Wage Inflation	Lowered assumption from 3.25% to 3.00%.
Demographic Assumptions	
Withdrawal	Increased rates for ages 50 and below and decreased rates for ages 55 and over.
Pre-Retirement Mortality	Changed to the Pub-2010 General Employee table, with no adjustments, projected generationally with the MP-2019 scale.
Service Retirement	Changed assumed rates to better match experience and extended fixed retirement from age 75 to age 80.
Post-Retirement Mortality	Changed to the Pub-2010 family of mortality tables, with adjustments as outlined in Schedule D to better fit actual experience, projected generationally with the MP-2019 scale.
Other Actuarial Methods and Assumptions	
Administrative Expenses	Changed from budgeted administrative expenses to constant dollar amount of \$300,000.
Amortization Method	No change to current method.
Asset Smoothing	No change to current method.
Option Factors	Changed option factors to reflect change in mortality rate table.
Valuation Cost Method	No change to current method.





Section I – Summary of Principal Results

4. In addition, the Board amended the LRS Funding Policy on December 17, 2020. The LRS funding policy states that beginning with the June 30, 2017 valuation, the long-term annual expected return on assets assumption shall be reduced by 0.10% per year from the immediate prior valuation when the actual rate of return for the fiscal year exceeds the assumed rate. The minimum return assumption stated in the funding policy is 7.00%. The Board policy will continue to require a reduction in the rate of return used in future valuations until a 7.00% return, which is now the long-term annual expected rate of return assumption recommended in the latest experience study, is achieved. The asset return assumption used in the prior actuarial valuation was 7.30%. Since the actual rate of return for the year ending June 30, 2020 was less than 7.30%, the assumed rate of return used in the current valuation remained at 7.30%. The new Board Funding Policy is shown in Schedule F.
5. The entry age actuarial cost method was used to prepare the valuation. Schedule E contains a brief description of this method.
6. Comments on the valuation results as of June 30, 2020 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 Schedule of Retirants Added to and Removed from the Rolls for the System's Comprehensive Annual 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 219 active members.
2. Data was provided by the Retirement System for inactive members who are eligible for deferred vested benefits. The valuation included 76 deferred vested members with annual allowances totaling \$365,435. In addition, there are 94 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 on the roll as of June 30, 2020, 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 ON THE ROLL
AS OF JUNE 30, 2020**

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
Service Retirements	208	\$ 1,277,436
Beneficiaries of Deceased Members	<u>61</u>	<u>412,978</u>
Total	269	\$ 1,690,414





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 portion of the allowance which these contributions provide is then paid from the Pension Accumulation Fund. On June 30, 2020, the value of assets credited to the Annuity Savings Fund amounted to \$5,755,000.
 - (b) Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which all income from investments and all contributions made by employers of members of the System and by the State for members of local retirement funds are credited. All retirement allowance and death benefit allowance payments are disbursed from this fund. Upon the retirement of a member, or upon his death if a death benefit allowance is payable, his accumulated contributions are transferred from the Annuity Savings Fund to this fund to provide the member-contributed portion of the allowance. On June 30, 2020, the fair value of assets credited to the Pension Accumulation Fund amounted to \$28,813,000.
2. As of June 30, 2020, the total fair value of assets amounted to \$34,568,000 as reported by the Auditor of the System.
3. The actuarial value of assets used for the current valuation was determined to be \$34,661,000 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, 2020.
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, 2020. 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 \$27,546,244, of which \$18,936,198 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits, and \$8,610,046 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 \$34,661,000 as of June 30, 2020. The difference of (\$7,114,756) between the total liabilities and the total present assets represents the present value of contributions to be made in the future. Of this amount, \$1,806,822 is the present value of future contributions expected to be made by or on behalf of members, and the balance of (\$8,921,578) represents the present value of future contributions payable by the employers to the Pension Accumulation Fund.
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 \$158.79 per active member are required to provide the currently accruing benefits of the System.
4. Prospective normal contributions at the rate of \$158.79 have a present value of \$196,835. When this amount is subtracted from (\$8,921,578), 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 (\$9,118,413).
5. The funding policy adopted by the Board, as shown in Schedule F, provides that the unfunded actuarial accrued liability as of June 30, 2013 (Transitional UAAL) will be amortized as a level dollar amount over a closed 20-year period. In each subsequent valuation all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation will determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level dollar amount over a closed 20-year period from the date it is established.





Section IV – Comments on Valuation

6. The total UAAL contribution is \$(1,018,095) determined in accordance with the Board's funding policy. However, since this payment would cause the total employer contribution to be less than \$0, the final UAAL contribution is determined to be \$(334,774).
7. Schedule G of this report shows the amortization schedules for the Transitional UAAL and New Incremental UAALs.
8. The following table shows the components of the total UAAL and the derivation of the UAAL contribution rate in accordance with the funding policy:

TOTAL UAAL AND UAAL CONTRIBUTION RATE

	Remaining Balance UAAL	Amortization Period (years)	Amortization Payment
Transitional	\$(3,642,948)	13	\$(443,323)
New Incremental 6/30/2014	(958,649)	14	(111,597)
New Incremental 6/30/2015	(397,912)	15	(44,520)
New Incremental 6/30/2016	(765,127)	16	(82,612)
New Incremental 6/30/2017	(734,446)	17	(76,796)
New Incremental 6/30/2018	(907,914)	18	(92,222)
New Incremental 6/30/2019	(725,377)	19	(71,769)
New Incremental 6/30/2020	<u>(986,040)</u>	20	<u>(95,256)</u>
Total UAAL	\$(9,118,413)		\$(1,018,095)
Final Amortization Payment			\$(334,774)
Blended Amortization Period			N/A*

* If the unfunded actuarial accrued liability is amortized in accordance with the Board's funding policy, the ADEC is less than \$0, which is not allowed under the funding policy. Therefore, the accrued liability contribution has been set such that the total ADEC equals \$0.





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 dollar which, if applied to each 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 \$158.79 per active member, or \$34,774 based on 219 active members as of June 30, 2020.
3. An additional contribution of \$300,000, or \$1,369.86 per active member, is required for administrative expenses for the fiscal year ending June 30, 2023.
4. The total normal contribution including administrative expenses is, therefore, \$334,774, or \$1,528.65 per active member.
5. If the unfunded accrued liability is amortized in accordance with the funding policy, the employer contribution would be less than \$0. Since the funding policy also states that the employer contribution cannot be less than \$0, the accrued liability contribution has been adjusted accordingly. The annual accrued liability contribution determined by the June 30, 2020 valuation is, therefore, \$(334,774), or (\$1,528.65) per active member.
6. The following table summarizes the employer contribution rates, which were determined by the June 30, 2020 valuation and are recommended for use.

**ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION RATES (ADEC)
FOR FISCAL YEAR ENDING JUNE 30, 2023**

CONTRIBUTION	PER ACTIVE MEMBER	ANNUAL AMOUNT
Normal	\$ 1,528.65	\$ 334,774
Accrued Liability	<u>(1,528.65)</u>	<u>(334,774)</u>
Total	\$ 0.00	\$ 0





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, 2020

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	269
Terminated employees entitled to benefits but not yet receiving benefits	170
Active plan members	<u>219</u>
Total	658

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

SCHEDULE OF FUNDING PROGRESS

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)
6/30/2015	\$ 31,635,000	\$ 25,690,270	\$(5,944,730)	123.1%	\$ 3,763,866	(157.9)%
6/30/2016	32,171,000	25,533,206	(6,637,794)	126.0	3,874,858	(171.3)
6/30/2017*	32,913,000	25,673,707	(7,239,293)	128.2	3,829,884	(189.0)
6/30/2018*	33,871,000	25,905,194	(7,965,806)	130.7	3,844,283	(207.2)
6/30/2019	34,153,000	25,713,847	(8,439,153)	132.8	3,832,511	(220.2)
6/30/2020#	34,661,000	25,542,587	(9,118,413)	135.7	3,797,828	(240.1)

* Reflects change in assumed rate of return

Reflects changes in actuarial assumptions





Section VI – Accounting Information

3. The following shows the schedule of employer contributions.

<u>Year Ending</u>	<u>Annual Required Contribution</u>	<u>Amount Contributed</u>	<u>Percentage Contributed</u>
6/30/2015	\$ 0	\$ 0	N/A
6/30/2016	0	0	N/A
6/30/2017	0	0	N/A
6/30/2018	0	0	N/A
6/30/2019	0	0	N/A
6/30/2020	0	0	N/A

4. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2020. Additional information as of the latest actuarial valuation follows.

Valuation date	6/30/2020
Actuarial cost method	Entry age
Amortization method	Level dollar, closed
Remaining amortization period	N/A*
Asset valuation method	5-year smoothed fair
Actuarial assumptions:	
Investment rate of return**	7.30%
Projected salary increases	N/A
Cost-of-living adjustments	3.00% Annually

* The remaining amortization period is infinite.

** Includes inflation at 2.50%





Section VII – Experience

1. Section 47-6-22 of the act governing the operation of the System provides that as an aid to the Board in adopting service and mortality tables, the actuary will prepare an experience investigation at least once in each five-year period. Since the last valuation, an experience investigation was prepared for the five-year period ending June 30, 2019 and based on the results of the investigation, various new actuarial 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 a decrease of \$679,260 in the unfunded actuarial accrued liability (UAAL) from (\$8,439,153) to (\$9,118,413) during the fiscal year ending June 30, 2020.
3. The breakdown of the major reasons for the \$679.3 thousand decrease in the UAAL are as follows:
 - There was a gain of \$444.3 thousand due to the assumed COLAs not being granted on July 1, 2020 or January 1, 2021.
 - There was also a gain of \$119.1 thousand due to the difference between the actual and expected experience on turnover and retirements.
 - Offsetting these gains was the effect of the assumption changes, which resulted in an increase in the UAAL of approximately \$60.4 thousand.
 - In addition, the return on the actuarial value of assets was lower than the assumed rate of 7.30%, resulting in a loss of \$123.6 thousand due to valuation asset growth.





Section VII – Experience

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

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.30%) added to previous UAAL	\$ (616.1)
Accrued liability contribution	352.1
Experience:	
Valuation asset growth	123.6
Pensioners' mortality	(19.8)
Turnover and retirements	(119.1)
New entrants	3.7
Method changes	0.0
Amendments	0.0
No 7/1/20, 1/1/21 COLAs	(444.3)
Assumption changes	60.4
Data Changes	(19.8)
Miscellaneous changes	<u>0.0</u>
Total	\$ (679.3)





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. A market value return 10% below the assumed rate for any given year can result in significant contribution increases. However, since this System is well funded, even a negative 2.70% return in one year results in no contribution requirement. Therefore, there is little investment risk at this time.

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 7.30%, along with the results if the assumption were 6.30% or 8.30%. 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 (6.30% or 8.30%) would comply with actuarial standards of practice.

(\$ in thousands)

As of June 30, 2020	Current Discount Rate (7.3%)	-1% Discount Rate (6.3%)	+1% Discount Rate (8.3%)
Accrued Liability	\$25,543	\$28,158	\$23,347
Unfunded Liability	(\$9,118)	(\$6,503)	(\$11,314)
Funded Ratio (AVA)	135.7%	123.1%	148.5%
ADEC	\$0	\$0	\$0
Employer Contribution rate per active member	\$0.00	\$0.00	\$0.00





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. Since the last valuation, an 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.





Schedule A – Valuation Balance Sheet

THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE GEORGIA LEGISLATIVE RETIREMENT SYSTEM AS OF JUNE 30, 2020

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	\$ 12,145,783
-	Death and survivor benefits	2,856,225
-	Deferred vested benefits	<u>3,934,190</u>
	Total	\$ 18,936,198
(2)	Present value of prospective benefits payable on account of present active members	<u>8,610,046</u>
(3)	TOTAL ACTUARIAL LIABILITIES	<u>\$ 27,546,244</u>
PRESENT AND PROSPECTIVE ASSETS		
(4)	Actuarial value of assets	\$ 34,661,000
(5)	Present value of total future contributions = (3)-(4)	\$ (7,114,756)
(6)	Present value of future member contributions	1,806,822
(7)	Present value of future employer contributions = (5)-(6)	\$ (8,921,578)
(8)	Prospective normal contributions	196,835
(9)	Prospective unfunded actuarial accrued liability contributions = (7)-(8)	<u>(9,118,413)</u>
(10)	TOTAL PRESENT AND PROSPECTIVE ASSETS	<u>\$ 27,546,244</u>





Schedule B – Development of Actuarial Value of Assets

(1)	Actuarial Value Beginning of Year	\$	34,153,000
(2)	Fair Value End of Year	\$	34,568,000
(3)	Fair Value Beginning of Year	\$	34,540,000
(4)	Cash Flow		
	(a) Contributions	\$	325,000
	(b) Benefit Payments		(1,816,000)
	(c) Administrative Expenses		(305,000)
	(d) Investment Expenses		(16,000)
	(e) Net: (4)(a) + (4)(b) + (4)(c) + (4)(d)	\$	(1,812,000)
(5)	Investment Income		
	(a) Fair Total: (2) – (3) – (4)(e)	\$	1,840,000
	(b) Assumed Rate of Return for Current Year		7.30%
	(c) Amount for Immediate Recognition: [(3) x (5)(b)] + [(4)(a) + (4)(b) + (4)(c)] x (5)(b) x 0.5 – (4)(d)	\$	2,472,000
	(d) Amount for Phased-In Recognition: (5)(a) – (5)(c)		(632,000)
(6)	Phased-In Recognition of Investment Income		
	(a) Current Year: (5)(d) / 5	\$	(126,000)
	(b) First Prior Year		(40,000)
	(c) Second Prior Year		117,000
	(d) Third Prior Year		297,000
	(e) Fourth Prior Year		(400,000)
	(f) Total Recognized Investment Gain	\$	(152,000)
(7)	Actuarial Value End of Year: (1) + (4)(e) + (5)(c) + (6)(f)	\$	34,661,000
(8)	Difference Between Fair & Actuarial Values: (2) – (8)	\$	(93,000)
(9)	Rate of Return on Actuarial Value*		6.93%

* 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, 2020 (\$1,000's)	June 30, 2019 (\$1,000's)
<u>Receipts for the Year</u>		
Contributions:		
Members	\$ 325	\$ 339
Nonemployer	0	0
Employer	0	0
Subtotal	\$ 325	\$ 339
Investment Earnings	1,824	2,228
TOTAL	\$ 2,149	\$ 2,567
<u>Disbursements for the Year</u>		
Benefit Payments	\$ 1,795	\$ 1,856
Refunds to Members	21	70
Administrative Expenses	305	290
TOTAL	\$ 2,121	\$ 2,216
<u>Excess of Receipts over Disbursements</u>	\$ 28	\$ 351
<u>Reconciliation of Asset Balances</u>		
Asset Balance as of the Beginning of Year	\$ 34,540	\$ 34,189
Excess of Receipts over Disbursements	28	351
Asset Balance as of the End of Year	\$ 34,568	\$ 34,540
Rate of Return*	5.42%	6.70%

* 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: 7.30% per annum, compounded annually, net of investment expenses, composed of a 2.50% inflation assumption and a 4.80% real rate of investment return assumption.

SALARY INCREASES: None.

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

Age	Annual Rates of
	Withdrawal
25	9.0%
30	9.0
35	9.0
40	10.0
45	11.0
50	9.0
55	8.0
60	8.0
65	8.0

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

Age	Annual Rate	Age	Annual Rate
60	8%	66	10%
61	8%	67	10%
62	12%	68	10%
63	8%	69	15%
64	8%	70-79	15%
65	10%	80	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	Age	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 constant dollar amount of \$300,000.

AMORTIZATION METHOD: Level dollar amortization.

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 fair 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 fair value.

COST-OF-LIVING ALLOWANCE (COLA): 1.5% semi-annually.

PERCENT MARRIED: 90% of active members are assumed to be married with the male three years older than his spouse.

VALUATION METHOD: Entry Age Normal 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. 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

Funding Policy of the LRS Board of Trustees

The purpose of this Funding Policy is to state the overall objectives for the Georgia Legislative 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 LRS 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 contributions expressed as both a total dollar amount and as a dollar amount per active member 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 fall 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

- 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 Contributions**
 - **Employer Normal Contributions** – the contribution determined as of the valuation date each year to fund the employer portion of the annual normal cost of the System based on the assumptions and methods adopted by the Board.
 - In each valuation subsequent to the adoption of this funding policy the required employer contributions will be determined as the summation of the employer Normal Contribution, a contribution for administrative expenses, the amortization cost for the Transitional UAAL and the individual amortization cost for each of the New Incremental UAAL bases.
 - Employer Contributions will be expressed as both a total dollar amount and as a dollar amount per active member. In no event shall the employer contributions be less than \$0.
 - The valuation methodology, including the amortization of the Unfunded Actuarial Accrued Liability (UAAL), would be expected to maintain reasonably stable contributions as a dollar per active member.
 - In no event will the employer contribution as determined above be less than \$0.

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.





Schedule F – Board Funding Policy

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 contributions 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 UAAL

Valuation Date	Amortization Period	Balance of Transitional UAAL	Expected UAAL Contribution
6/30/2013	20	\$ (4,577,499)	\$ (449,017)
6/30/2014	19	(4,471,795)	(449,017)
6/30/2015	18	(4,358,162)	(449,017)
6/30/2016	17	(4,236,007)	(449,017)
6/30/2017	16	(4,104,691)	(446,099)
6/30/2018	15	(3,962,339)	(443,323)
6/30/2019	14	(3,808,267)	(443,323)
6/30/2020	13	(3,642,948)	(443,323)
6/30/2021	12	(3,465,560)	(443,323)
6/30/2022	11	(3,275,223)	(443,323)
6/30/2023	10	(3,070,991)	(443,323)
6/30/2024	9	(2,851,850)	(443,323)
6/30/2025	8	(2,616,712)	(443,323)
6/30/2026	7	(2,364,409)	(443,323)
6/30/2027	6	(2,093,688)	(443,323)
6/30/2028	5	(1,803,204)	(443,323)
6/30/2029	4	(1,491,515)	(443,323)
6/30/2030	3	(1,157,072)	(443,323)
6/30/2031	2	(798,216)	(443,323)
6/30/2032	1	(413,162)	(443,323)
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	\$ (1,152,968)	\$ (113,097)
6/30/2015	19	(1,126,343)	(113,097)
6/30/2016	18	(1,097,722)	(113,097)
6/30/2017	17	(1,066,954)	(112,330)
6/30/2018	16	(1,033,579)	(111,597)
6/30/2019	15	(997,433)	(111,597)
6/30/2020	14	(958,649)	(111,597)
6/30/2021	13	(917,033)	(111,597)
6/30/2022	12	(872,380)	(111,597)
6/30/2023	11	(824,466)	(111,597)
6/30/2024	10	(773,056)	(111,597)
6/30/2025	9	(717,892)	(111,597)
6/30/2026	8	(658,701)	(111,597)
6/30/2027	7	(595,189)	(111,597)
6/30/2028	6	(527,041)	(111,597)
6/30/2029	5	(453,918)	(111,597)
6/30/2030	4	(375,457)	(111,597)
6/30/2031	3	(291,268)	(111,597)
6/30/2032	2	(200,934)	(111,597)
6/30/2033	1	(104,005)	(111,597)
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	\$ (460,224)	\$ (45,144)
6/30/2016	19	(449,597)	(45,144)
6/30/2017	18	(438,172)	(44,825)
6/30/2018	17	(425,771)	(44,520)
6/30/2019	16	(412,332)	(44,520)
6/30/2020	15	(397,912)	(44,520)
6/30/2021	14	(382,440)	(44,520)
6/30/2022	13	(365,838)	(44,520)
6/30/2023	12	(348,024)	(44,520)
6/30/2024	11	(328,910)	(44,520)
6/30/2025	10	(308,400)	(44,520)
6/30/2026	9	(286,393)	(44,520)
6/30/2027	8	(262,780)	(44,520)
6/30/2028	7	(237,442)	(44,520)
6/30/2029	6	(210,256)	(44,520)
6/30/2030	5	(181,084)	(44,520)
6/30/2031	4	(149,783)	(44,520)
6/30/2032	3	(116,197)	(44,520)
6/30/2033	2	(80,160)	(44,520)
6/30/2034	1	(41,491)	(44,520)
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	\$ (854,468)	\$ (83,816)
6/30/2017	19	(834,736)	(83,202)
6/30/2018	18	(813,305)	(82,612)
6/30/2019	17	(790,064)	(82,612)
6/30/2020	16	(765,127)	(82,612)
6/30/2021	15	(738,370)	(82,612)
6/30/2022	14	(709,659)	(82,612)
6/30/2023	13	(678,852)	(82,612)
6/30/2024	12	(645,796)	(82,612)
6/30/2025	11	(610,328)	(82,612)
6/30/2026	10	(572,270)	(82,612)
6/30/2027	9	(531,433)	(82,612)
6/30/2028	8	(487,616)	(82,612)
6/30/2029	7	(440,600)	(82,612)
6/30/2030	6	(390,152)	(82,612)
6/30/2031	5	(336,021)	(82,612)
6/30/2032	4	(277,939)	(82,612)
6/30/2033	3	(215,617)	(82,612)
6/30/2034	2	(148,745)	(82,612)
6/30/2035	1	(76,991)	(82,612)
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	\$ (794,740)	\$ (77,366)
6/30/2018	19	(776,185)	(76,796)
6/30/2019	18	(756,050)	(76,796)
6/30/2020	17	(734,446)	(76,796)
6/30/2021	16	(711,264)	(76,796)
6/30/2022	15	(686,390)	(76,796)
6/30/2023	14	(659,700)	(76,796)
6/30/2024	13	(631,062)	(76,796)
6/30/2025	12	(600,334)	(76,796)
6/30/2026	11	(567,362)	(76,796)
6/30/2027	10	(531,983)	(76,796)
6/30/2028	9	(494,022)	(76,796)
6/30/2029	8	(453,289)	(76,796)
6/30/2030	7	(409,583)	(76,796)
6/30/2031	6	(362,686)	(76,796)
6/30/2032	5	(312,366)	(76,796)
6/30/2033	4	(258,373)	(76,796)
6/30/2034	3	(200,438)	(76,796)
6/30/2035	2	(138,274)	(76,796)
6/30/2036	1	(71,571)	(76,796)
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	\$ (954,627)	\$ (92,222)
6/30/2019	19	(932,093)	(92,222)
6/30/2020	18	(907,914)	(92,222)
6/30/2021	17	(881,970)	(92,222)
6/30/2022	16	(854,132)	(92,222)
6/30/2023	15	(824,262)	(92,222)
6/30/2024	14	(792,211)	(92,222)
6/30/2025	13	(757,820)	(92,222)
6/30/2026	12	(720,919)	(92,222)
6/30/2027	11	(681,325)	(92,222)
6/30/2028	10	(638,840)	(92,222)
6/30/2029	9	(593,253)	(92,222)
6/30/2030	8	(544,339)	(92,222)
6/30/2031	7	(491,854)	(92,222)
6/30/2032	6	(435,537)	(92,222)
6/30/2033	5	(375,110)	(92,222)
6/30/2034	4	(310,271)	(92,222)
6/30/2035	3	(240,699)	(92,222)
6/30/2036	2	(166,048)	(92,222)
6/30/2037	1	(85,948)	(92,222)
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	\$ (742,914)	\$ (71,769)
6/30/2020	19	(725,377)	(71,769)
6/30/2021	18	(706,561)	(71,769)
6/30/2022	17	(686,370)	(71,769)
6/30/2023	16	(664,706)	(71,769)
6/30/2024	15	(641,460)	(71,769)
6/30/2025	14	(616,518)	(71,769)
6/30/2026	13	(589,754)	(71,769)
6/30/2027	12	(561,037)	(71,769)
6/30/2028	11	(530,224)	(71,769)
6/30/2029	10	(497,161)	(71,769)
6/30/2030	9	(461,684)	(71,769)
6/30/2031	8	(423,618)	(71,769)
6/30/2032	7	(382,773)	(71,769)
6/30/2033	6	(338,946)	(71,769)
6/30/2034	5	(291,919)	(71,769)
6/30/2035	4	(241,460)	(71,769)
6/30/2036	3	(187,318)	(71,769)
6/30/2037	2	(129,223)	(71,769)
6/30/2038	1	(66,887)	(71,769)
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	\$ (986,040)	\$ (95,256)
6/30/2021	19	(962,764)	(95,256)
6/30/2022	18	(937,790)	(95,256)
6/30/2023	17	(910,992)	(95,256)
6/30/2024	16	(882,238)	(95,256)
6/30/2025	15	(851,385)	(95,256)
6/30/2026	14	(818,279)	(95,256)
6/30/2027	13	(782,757)	(95,256)
6/30/2028	12	(744,642)	(95,256)
6/30/2029	11	(703,745)	(95,256)
6/30/2030	10	(659,861)	(95,256)
6/30/2031	9	(612,775)	(95,256)
6/30/2032	8	(562,251)	(95,256)
6/30/2033	7	(508,039)	(95,256)
6/30/2034	6	(449,869)	(95,256)
6/30/2035	5	(387,453)	(95,256)
6/30/2036	4	(320,481)	(95,256)
6/30/2037	3	(248,619)	(95,256)
6/30/2038	2	(171,512)	(95,256)
6/30/2039	1	(88,776)	(95,256)
6/30/2040	0	0	0





Schedule H – Summary of Main System Provisions

AS INTERPRETED FOR VALUATION PURPOSES

The Georgia Legislative Retirement System (LRS) is a cost-sharing multiple employer defined benefit pension plan established by the Georgia General Assembly in 1979 for the purpose of providing retirement allowances and other benefits for all members of the Georgia General Assembly.

Normal Retirement Benefit

Eligibility	Age 65 and 8 years of creditable service or age 62 and 8 years of membership service (for eligible purposes, 4 legislative terms are equivalent to 8 years of membership service).
Benefit	Monthly benefit is \$36 multiplied by years of creditable service. For members with retirement dates prior to July 1, 2013, a one-time 1.75% increase is made at time of retirement.

Early Retirement Benefit

Eligibility	Age 60 and 8 years of membership service.
Benefit	Accrued benefit reduced by 5% for each year member is under age 62.

Disability Retirement Benefit

No special benefit. Benefit is same as early or normal retirement.

Involuntary Retirement Benefit

N/A

Deferred Vested Retirement Benefit

Eligibility	8 years of creditable service. Member contributions not withdrawn.
Benefit	Accrued benefit deferred to age 65 or reduced benefit payable at age 60.

Death Benefit

Eligibility	If less than 15 years of creditable service, a refund of accumulated contributions. If at least 15 years of creditable service or eligible for retirement, the benefit below.
Benefit	Benefit equal to retirement benefit immediately prior to death under 100% joint and survivorship option.





Schedule H – Summary of Main System Provisions

Termination Benefit

Eligibility

Termination with less than 8 years of creditable service.

Benefit

Return of the member's accumulated contributions.

Payment Options

(1) Life annuity. Guaranteed payment of accumulated member contributions.

(2) 100% joint and survivorship annuity.

(3) 50% joint and survivorship annuity.

Post-Retirement Adjustments

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

Contributions

By Members

Members contribute 8 ½ % of salary.

By Employers

Employer contributions are actuarially determined and approved and certified by the Board to the legislative fiscal officer.





Schedule I – Tables of Membership Data

NUMBER OF ACTIVE MEMBERS BY AGE AND SERVICE AS OF JUNE 30, 2020

Attained 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										
25 to 29		4								4
30 to 34		3	5							8
35 to 39	1	6	4							11
40 to 44		15	7	1	1					24
45 to 49		12	11							23
50 to 54		9	10		3					22
55 to 59		10	15	1	2	1				29
60 to 64	1	5	10	5	7	3	3			34
65 to 69		7	10	7	5	3	2			34
70 & Up		3	5	2	7	4	4	1	4	30
Total	2	74	77	16	25	11	9	1	4	219

Average Age: 56.2
Average Service: 10.0





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	11	62,488	5,681
65 - 69	28	132,933	4,748
70 - 74	48	278,754	5,807
75 - 79	52	322,203	6,196
80 - 84	34	206,241	6,066
85 - 89	21	141,990	6,761
90 - 94	12	114,399	9,533
95 & Over	2	18,428	9,214
Total	208	\$ 1,277,436	\$ 6,142

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	2	\$ 6,323	\$ 3,161
50 - 54	0	0	0
55 - 59	2	12,410	6,205
60 - 64	1	5,100	5,100
65 - 69	5	21,858	4,372
70 - 74	11	55,050	5,005
75 - 79	12	76,791	6,399
80 - 84	8	44,301	5,538
85 - 89	7	51,570	7,367
90 - 94	10	97,947	9,795
95 & Over	3	41,628	13,876
Total	61	\$ 412,978	\$ 6,770





Schedule I – Tables of Membership Data

NUMBER OF DEFERRED VESTED MEMBERS AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 45	3	\$ 12,096	\$ 4,032
45-49	10	44,568	4,457
50-54	19	87,912	4,627
55-59	19	100,008	5,264
60-64	22	104,903	4,768
65-69	3	15,948	5,316
70 & Over	0	0	0
Total	76	\$ 365,435	\$ 4,808





Schedule J – Comprehensive Annual Financial Report Schedules

GA LRS: Solvency Test							
Actuarial Valuation as of 6/30	Actuarial Accrued Liability for:			Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Funded Portion)		(1)	(2)	(3)
	(1)	(2)	(3)				
2020	\$4,007	\$18,936	\$2,600	\$34,661	100.0%	100.0%	100.0%
2019	3,664	19,204	2,846	34,153	100.0%	100.0%	100.0%
2018	3,862	19,048	2,995	33,871	100.0%	100.0%	100.0%
2017	3,543	19,382	2,749	32,913	100.0%	100.0%	100.0%
2016	3,630	19,202	2,701	32,171	100.0%	100.0%	100.0%
2015	3,287	19,873	2,530	31,635	100.0%	100.0%	100.0%
2014	3,430	19,006	2,477	30,538	100.0%	100.0%	100.0%
2013	2,951	19,623	2,330	29,481	100.0%	100.0%	100.0%
2012	3,185	19,200	2,581	28,990	100.0%	100.0%	100.0%
2011	2,921	19,759	2,564	29,278	100.0%	100.0%	100.0%

All dollar amounts are in thousands.

GA LRS: 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, 2020	14	\$ 95	14	\$ 123	269	\$ 1,690	-1.6%	\$6,283	
June 30, 2019	14	82	12	96	269	1,718	-0.8%	6,386	
June 30, 2018	11	57	7	56	267	1,732	0.4%	6,489	
June 30, 2017	13	80	6	74	263	1,731	0.3%	6,582	
June 30, 2016	9	58	13	111	256	1,725	-3.0%	6,738	
June 30, 2015	13	87	12	112	260	1,778	-1.4%	6,838	
June 30, 2014	6	30	7	61	259	1,803	-1.7%	6,961	
June 30, 2013	32	200	15	140	260	1,834	3.4%	7,054	
June 30, 2012	10	66	11	82	243	1,774	-0.9%	7,300	
June 30, 2011	18	104	10	86	244	1,790	1.0%	7,336	

