

The experience and dedication you deserve

April 18, 2024

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

Dear Mr. Potvin:

Enclosed is the "Georgia Employees' Group Term Life Insurance Plan for Pre-Retirement Benefits Report of the Actuary on the Valuation Prepared as of June 30, 2023".

The valuation indicates that no employer contribution is required for the fiscal year ending June 30, 2026 on account of life insurance benefits payable under the Plan for active members who die in service.

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

Sincerely yours,

Edward J. Koebel, EA, FCA, MAA

Edward J. Worbel

Chief Executive Officer

Cathy Turcot

Principal and Managing Director

athy Turcot

Ben Mobley, ASA, FCA, MAAA

Consulting Actuary



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GEORGIA EMPLOYEES' GROUP TERM LIFE INSURANCE PLAN FOR PRE-RETIREMENT BENEFITS

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





The experience and dedication you deserve

April 18, 2024

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

Attention: Mr. James A. Potvin, Executive Director

Members of the Board:

Chapters 47-2 and 47-19 of the Code of Georgia which govern the operation of the Georgia Employees' Group Term Life Insurance Plan provide that the actuary shall make periodic valuations of the contingent assets and liabilities of the Insurance Plan on the basis of regular interest and the tables last adopted by the Board of Trustees. In this report, we have determined liabilities for life insurance benefits payable upon death in active service (Pre-Retirement).

We have submitted the report giving the results of the valuation of the Plan prepared as of June 30, 2023. The report indicates that employee contributions at the rate of 0.05% of active payroll for Old Plan members of the Employees' Retirement System, and 0.02% of active payroll for New Plan members of the Employees' Retirement System, certain members of the Legislative Retirement System and certain members of the Judicial Retirement System are sufficient to support the pre-retirement benefits of the Plan. No employer contribution is required for the fiscal year ending June 30, 2026 for pre-retirement benefits.

In preparing the valuation, the actuary relied on data provided by the Plan. 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 Plan enacted through the 2023 session of the General Assembly.



Board of Trustees April 18, 2024 Page 2

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%.

The Plan 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 Plan and to reasonable expectations of anticipated experience under the Plan. The assumptions and methods used for funding and 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 being amortized on a level dollar basis in accordance with the funding policy adopted by the Board. In our opinion, the Plan is operating on an actuarially sound basis and the sufficiency of the funds to provide the benefits called for by the Plan 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 Plan.

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.



Board of Trustees April 18, 2024 Page 3

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

Sincerely yours,

Edward J. Koebel, EA, FCA, MAA

Ben Mobles

Edward J. Worbel

Chief Executive Officer

Cathy Turcot

Principal and Managing Director

Carry Turcot

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, 2023	June 30, 2022
Active members: Number Annual compensation	15,614 \$ 992,928,383	17,030 \$ 982,774,823
Retired members: Number Insurance amount	N/A N/A	N/A N/A
Actuarial Accrued Liability	\$ 7,821,773	\$ 7,739,860
Fair Value of Assets	\$ 394,600,000	\$ 357,452,000
Valuation Interest Rate	7.10%	7.20%
Unfunded Actuarial Accrued Liability	\$ (386,778,227)	\$ (349,712,140)
Funding Period	N/A*	N/A*
Funded Ratio based on Fair Value of Assets	5,044.9%	4,618.3%
Contributions for Fiscal Year Ending	June 30, 2026	June 30, 2025
Actuarially Determined Employer Contribution (ADEC) rates:		
Total Normal Rate	0.10%**	0.10%**
Employee Rates: Old Plan Members New Plan, LRS and JRS Members	0.05%*** 0.02%	0.05%*** 0.02%
Employer Normal Rate	0.07%	0.08%
Accrued Liability Rate	(0.07)%	(0.08)%
Total Employer Rate	0.00%	0.00%

^{*} 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 rate has been set to such that the total ADEC equals \$0.

^{*** 0.03%} paid by employer.



^{**} The normal contribution rate includes administrative expenses.



Section I – Summary of Principal Results

- We have determined liabilities separately for life insurance benefits payable upon death in active service (pre-retirement) and those payable upon death after retirement (post-retirement). Separate trusts for pre-retirement life insurance benefits and post-retirement life insurance benefits were established and assets were split during 2007.
- 3. The major benefit and contribution provisions of the Plan as reflected in the valuation are summarized in Schedule G. The valuation takes into account the effect of all amendments of the Plan enacted through the 2023 session of the General Assembly. There have been no changes since the previous valuation.
- 4. Schedule C of this report outlines the full set of actuarial assumptions and methods used in the 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%.
- 5. The Board Funding Policy as adopted by the Board on March 15, 2018 is shown in Schedule E.
- 6. Comments on the valuation results as of June 30, 2023 are given in Section IV and further discussion of the contribution levels is set out in Section V.
- 7. We have prepared the Solvency Test for the Plan's Annual Comprehensive Financial Report. This table is shown in Schedule H.



Section II – Membership Data

Data regarding the membership of the Plan for use as a basis for the valuation were furnished by the Retirement System office. The following table shows the number of active members and their annual compensation as of June 30, 2023 on the basis of which the valuation was prepared.

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF JUNE 30, 2023

GROUP	NUMBER	ANNUAL COMPENSATION
ERS Old Plan	13	\$ 1,536,133
ERS New Plan	15,423	973,331,066
Legislative Retirement System	41	711,009
Judicial Retirement System	<u>137</u>	<u>17,350,175</u>
Total	15,614	\$ 992,928,383
Total	15,614	\$ 992,928,





Section III - Assets

- In 2007, separate trusts were established for pre-retirement life insurance benefits and for postretirement life insurance benefits and assets were split based on actuarial accrued liabilities.
 Assets in excess of what were actuarially required were transferred to ERS Survivor Benefit Fund.
- 2. As of June 30, 2023, the total fair value of pre-retirement assets amounted to \$394,600,000 as reported by the independent auditor of the Plan. The fair value of assets is used for the June 30, 2023 valuation.
- 3. Schedule B shows receipts and disbursements of the Plan for the two years preceding the valuation date and a reconciliation of the fund balances at fair value.





Section IV – Comments of Valuation

- Schedule A of this report outlines the results of the actuarial valuation for pre-retirement life insurance benefits. The valuation was prepared in accordance with the actuarial assumptions set forth in Schedule C.
- 2. The valuation shows that the Plan has an actuarial accrued liability of \$7,821,773 for benefits expected to be paid on account of death while in active membership. Against these liabilities, the Plan has present assets for valuation purposes of \$394,600,000. Therefore, the unfunded actuarial accrued liability is equal to (\$386,778,227).
- 3. The funding policy adopted by the Board, as shown in Schedule E, provides that the unfunded actuarial accrued liability as of June 20, 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.
- 4. The total UAAL contribution rate is (4.62)% of payroll, 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 rate is determined to be (0.07)%.
- 5. Schedule F of this report shows the amortization schedules for the Transitional UAAL and the New Incremental UAALs.





Section IV – Comments of Valuation

6. 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 <u>UAAL</u>	Remaining Amortization Period (years)	Amortization Payment	
Transitional	\$(112,138,715)	10	\$(16,039,913)	
New Incremental 6/30/2014	(25,780,856)	11	(3,455,200)	
New Incremental 6/30/2015	(18,482,901)	12	(2,339,451)	
New Incremental 6/30/2016	(9,801,638)	13	(1,179,430)	
New Incremental 6/30/2017	(27,282,557)	14	(3,138,357)	
New Incremental 6/30/2018	(26,239,787)	15	(2,899,211)	
New Incremental 6/30/2019	(24,251,999)	16	(2,584,296)	
New Incremental 6/30/2020	(27,071,700)	17	(2,792,060)	
New Incremental 6/30/2021	(96,954,956)	18	(9,708,221)	
New Incremental 6/30/2022	34,149,722	19	3,328,908	
New Incremental 6/30/2023	(52,922,840)	20	(5,034,434)	
Total UAAL	\$(386,778,227)		\$(45,841,665)	
Estimated Payroll			\$992,928,383	
Calculated UAAL Contribution	(4.62)%			
Final UAAL Contribution Rate*	(0.07)%			
Blended Amortization Period*				

^{*} 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 rate has been set to such that the total ADEC equals \$0.





Section V – Contributions

- 1. The contribution rate of employers consists of a normal contribution rate and an accrued liability contribution rate.
- 2. The normal contribution rate is calculated as the level dollar which, if applied to each member during the entire period of anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on behalf of the member. The normal contribution rate is determined to be 0.08% of payroll for pre-retirement benefits.
- 3. An additional \$80,000 or 0.01% of payroll is required to fund the administrative expenses of the Plan.
- 4. The total normal contribution rate including administrative expenses is therefore, 0.09% of payroll.
- 5. The member contribution rate made by or on behalf of ERS Old Plan members is 0.05% of payroll and the member contribution rate made by ERS New Plan members, certain LRS members and certain JRS members is 0.02% of payroll. The employer normal contribution rate is determined to be 0.07% of payroll for pre-retirement benefits.
- 6. If the unfunded accrued liability is amortized in accordance with the funding policy the total employer contribution rate would be less than 0%. Since the funding policy also states that the total employer contribution rate cannot be less than 0%, the accrued liability contribution rate for pre-retirement benefits is set equal to (0.07%) of active members' payroll and there is no required contribution for the pre-retirement benefits.



Section VI – Accounting Information

The following is provided for informational purposes.

1. The schedule of funding progress is shown below.

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation <u>Date</u>	Fair Value of Assets <u>(a)</u>	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll <u>(c)</u>	UAAL as a Percentage of Covered Payroll ((b-a)/c)
6/30/2018*	\$ 289,207,000	\$ 15,172,626	\$ (274,034,374)	1,906.1%	\$ 1,323,540,523	(20.7)%
6/30/2019	305,877,000	14,083,413	(291,793,587)	2,171.9	1,213,173,877	(24.1)
6/30/2020#	319,340,000	8,913,647	(310,426,353)	3,582.6	1,138,881,646	(27.3)
6/30/2021*	408,323,000	8,055,636	(400,267,364)	5,068.8	1,032,218,675	(38.8)
6/30/2022	357,452,000	7,739,860	(349,712,140)	4,618.3	982,774,823	(35.6)
6/30/2023*	394,600,000	7,821,773	(386,778,227)	5,044.9	992,928,383	(39.0)

^{*} Reflects change in assumed rate of return

 The information presented in the required supplementary schedules was determined as part of the actuarial valuation on 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 dollar open
Remaining amortization period	N/A*
Asset valuation method	Fair Value of Assets
Actuarial assumptions:	
Investment Rate of Return**	7.10%
Projected Salary Increases	
ERS**	3.00 – 6.75%
JRS**	3.75%
LRS	N/A

^{*} The remaining amortization period is infinite.



[#] Reflects change in actuarial assumptions

^{**} Includes inflation at 2.50%.



Schedule A - Valuation Results

(1)	ACTUARIAL ACCRUED LIABILITY FOR:		
	Benefits payable on account of present retired members	\$	0
	Benefits payable on account of present active members	7	,821,773
	TOTAL ACTUARIAL ACCRUED LIABILITY	\$ 7	,821,773
(2)	PRESENT ASSETS FOR VALUATION PURPOSES:	\$ 394	,600,000
(3)	UNFUNDED ACTUARIAL ACCRUED LIABILITY: (1)-(2)	\$ (386	,778,227)
(4)	EMPLOYER NORMAL CONTRIBUTION RATE:		0.07%
(5)	ACCRUED LIABILITY CONTRIBUTION:		(0.07)
(6)	TOTAL EMPLOYER CONTRIBUTION: (4)+(5)		0.00%





Schedule B – Summary of Receipts and Disbursements

FAIR VALUE OF ASSETS

	YEAR ENDING		
Receipts for the Year	<u>June 30, 2023</u>	<u>June 30, 2022</u>	
Insurance Premiums	\$ 512,000	\$ 479,000	
Investment Earnings	40,148,000	(47,933,000)	
TOTAL	\$ 40,660,000	\$ (47,454,000)	
Disbursements for the Year			
Death Benefits	\$ 3,419,000	\$ 3,333,000	
Administration Expense	<u>93,000</u>	<u>84,000</u>	
TOTAL	\$ 3,512,000	\$ 3,417,000	
Excess of Receipts over Disbursements	\$ 37,148,000	\$ (50,871,000)	
Reconciliation of Asset Balances			
Asset Balance as of the Beginning of Year	\$ 357,452,000	\$ 408,323,000	
Excess of Receipts over Disbursements	<u>37,148,000</u>	<u>(50,871,000)</u>	
Asset Balance as of the End of Year	<u>\$ 394,600,000</u>	<u>\$ 357,452,000</u>	
Estimated Rate of Return*	11.3%	(11.8)%	

^{*} Calculated assuming cash flow occurs in the middle of the year





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: The assumed annual rates of salary increase are as follows:

Members of Employees' Retirement System (ERS)				
Service	Rate			
1	6.75%			
2	5.75			
3	5.25			
4	5.00			
5	4.75			
10	4.30			
15	4.05			
20	3.80			
25	3.55			
30	3.30			
35 & Over	3.00			

Members of Judicial Retirement System (JRS): 3.75%

No salary increases are assumed for members of the Legislative Retirement System (LRS).

SEPARATIONS BEFORE RETIREMENT: Representative values of the assumed annual rates of separation other than retirement are as follows.

Annual Rates of Disability					
	Non-Law E	nforcement	Law	JRS	
<u>Age</u>	<u>Males</u>	<u>Females</u>	Enforcement	<u>Members</u>	
25	0.000	0.000	0.000	0.0125	
30	0.010	0.005	0.050	0.0250	
35	0.040	0.010	0.125	0.0375	
40	0.200	0.085	1.125	0.0500	
45	0.375	0.215	2.625	0.0875	
50	0.625	0.365	3.625	0.1250	
55	0.875	0.565	4.125	0.2250	
60				0.3625	
65				0.5875	





Annual Rates of Withdrawal				
ERS Members – Non-Law Enforcement				
	Years of Service			
<u>Age</u>	<u>0-4</u>	<u>5-9</u>	<u>10 & Over</u>	
		<u>Males</u>		
20	40.00%			
25	30.00	16.25%		
30	25.00	12.50	8.00%	
35	23.00	10.50	6.25	
40	20.00	9.50	4.75	
45	20.00	8.50	4.00	
50	17.00	7.25	4.50	
55	15.00	6.75	4.75	
60	14.50	5.50		
65	14.50	12.50		
		<u>Females</u>		
20	35.00%			
25	27.00	18.00%		
30	23.00	12.50	9.00%	
35	20.00	10.25	6.50	
40	18.00	9.00	5.25	
45	17.00	8.00	4.25	
50	16.00	7.50	4.25	
55	15.00	7.25	4.25	
60	15.50	7.00		
65	16.50	12.00		

Annual Rates of Withdrawal						
<u>Age</u>	ERS M Law Ent <u>0-9</u>	LRS <u>Members</u>	JRS <u>Members</u>			
20	11.00%		9.00%	5.00%		
25	6.50	3.00%	9.00	5.00		
30	5.25	3.00	9.00	5.00		
35	5.25	3.00	9.00	5.00		
40	5.25	2.50	10.00	4.00		
45	5.25	2.50	11.00	3.50		
50	5.25	2.50	9.25	2.75		
55			8.00	2.75		
60			8.00	2.50		
65			8.00	2.50		





RETIREMENT: Representative values of the assumed annual rates of service retirement are as follows.

ERS

	Non-Law Enforcement Old Plan								
Age	Early Ret	irement	Age 60 or	30 years	34 years		More tha	More than 34 years	
	Male	Female	Male	Female	Male	Female	Male	Female	
50 52 55 57 60 62 65 67 70 75	2.0% 2.0 3.0 3.0	2.0% 2.0 3.5 5.0	7.5% 7.5 7.5 10.5 15.0 32.0 35.0 35.0 100.0	6.0% 6.0 10.0 10.0 20.0 40.0 40.0 35.0 35.0	100.0% 100.0 100.0 100.0 97.5 97.5 35.0 35.0 35.0	100.0% 100.0 100.0 100.0 95.0 95.0 40.0 35.0 35.0	90.0% 90.0 75.0 70.0 40.0 40.0 35.0 35.0 35.0	100.0% 100.0 90.0 70.0 55.0 65.0 40.0 35.0 35.0	

		Law Enforcement			
Age	Early Re	tirement	Normal R	etirement	
	Male	Female	Male*	Female**	
50 52 55 57 60 62 65 67 70 75	5.0% 5.0 6.0 6.0	3.8% 3.8 5.8 7.3	60.0% 50.0 50.0 45.0 25.0 37.5 32.0 32.0 30.0 100.0	42.0% 42.0 40.0 37.0 28.0 37.5 33.0 32.0 30.0 100.0	75.0% 60.0 15.0 15.0 30.0 35.0 25.0 25.0

^{*} An additional 20% are assumed to retire in the first year eligible for unreduced retirement with 30 years of service before age 60.



^{**} An additional 25% for ages below 53 and 20% for ages 53 to 59 are assumed to retire in the first year eligible for unreduced retirement with 30 years of service before age 60.



Annual Rates of Retirement				
Age	LRS	JRS		
60	8%	15%		
61	8	10		
62	12	10		
63 – 64	8	10		
65	10	13		
66 – 67	10	15		
68	10	18		
69	15	18		
70 – 77	15	25		
78 – 79	15	100		
80	100	100		

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:

Annual Rates of Death*					
Age	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:

	Annual Rates of Death*					
	Service Re	etirement	Disability R	Retirement	Beneficiaries	
Age	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

ASSETS: Fair value of assets.

ACTUARIAL COST METHOD: Entry Age Normal Actuarial Cost Method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability (UAAL). See Schedule D for a brief description of this method.

ADMINISTRATIVE EXPENSES: Administrative expenses equal to \$80,000 are added to the normal cost contribution.





Schedule D - Actuarial Cost Method

- 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 death in active service is determined, based on age, service and sex. The calculations take into account the probability of a member's termination of employment, as well as the possibility of his terminating with a service, disability or survivor's benefit.
- The employer contributions required to support the benefits of the Plan 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 Plan.





Schedule E – Funding Policy #1 of the SEAD Board of Directors

The purpose of this Funding Policy is to state the overall objectives for the Georgia Employees' Group Term Life Insurance Plan for Pre-Retirement Benefits (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 State Employees' Assurance Department Board of Directors 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's beneficiary is expected to receive in the event of the death of the member prior to the member's 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 at least 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 stable over time, before adjustments for changes in benefits, actuarial methods, and/or actuarial adjustments. The target funded ratio will be 100 percent. In the event that the funded ratio falls below 100%, the targeted funded ratio will be 100% within 20 years of the date the funded ratio first falls below 100%.
- Unfunded Actuarial Accrued Liability (UAAL)
 - Transitional UAAL The UAAL established as of the initial valuation date for which this funding policy is adopted shall be known as the Transitional UAAL.
 - New Incremental UAAL Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuations.

UAAL Amortization Period

- The transitional UAAL will be amortized over a closed 20 year period beginning on the initial valuation date for which this funding policy is adopted.
- Each New Incremental UAAL shall be amortized over a closed 20 year period beginning with the year it is incurred.

• Employer Contribution Rate

- 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 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 contribution rate will be determined as the summation of the employer Normal Contribution Rate, a contribution rate for administrative expenses, the amortization rate





Schedule E - Funding Policy #1 of the SEAD Board of Directors

for the Transitional UAAL and the individual amortization rate for each of the New Incremental UAAL bases.

- o 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 as a dollar per active member.

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 Projected Unit Credit (PUC) actuarial cost method.
- The long-term annual investment rate of return assumption will be:
 - o 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 equal to the market value of assets as of the valuation date.

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 the 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 10-year period. The projected measures of funding progress and the recent historical trend provided in valuations will provide important information for the Board's assessment of the System's funding progress.

Adopted: March 15, 2018





TRANSITIONAL UAAL

Valuation Date	Amortization Period	Balance of Transitional UAAL	Expected UAAL Contribution
6/30/2013	20	\$ (167,266,267)	\$ (16,407,515)
6/30/2014	19	(163,403,722)	(16,407,515)
6/30/2015	18	(159,251,487)	(16,407,515)
6/30/2016	17	(154,787,834)	(16,407,515)
6/30/2017	16	(149,989,406)	(16,300,885)
6/30/2018	15	(144,787,738)	(16,199,456)
6/30/2019	14	(139,157,787)	(16,199,456)
6/30/2020	13	(133,116,850)	(16,199,456)
6/30/2021	12	(126,634,925)	(16,113,955)
6/30/2022	11	(119,638,685)	(16,113,955)
6/30/2023	10	(112,138,715)	(16,039,913)
6/30/2024	9	(104,060,651)	(16,039,913)
6/30/2025	8	(95,409,044)	(16,039,913)
6/30/2026	7	(86,143,173)	(16,039,913)
6/30/2027	6	(76,219,426)	(16,039,913)
6/30/2028	5	(65,591,092)	(16,039,913)
6/30/2029	4	(54,208,147)	(16,039,913)
6/30/2030	3	(42,017,012)	(16,039,913)
6/30/2031	2	(28,960,307)	(16,039,913)
6/30/2032	1	(14,976,576)	(16,039,913)
6/30/2033	0	0	0



Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2014	Expected UAAL Contribution
6/30/2014	20	\$ (36,077,445)	\$ (3,538,916)
6/30/2015	19	(35,244,338)	(3,538,916)
6/30/2016	18	(34,348,747)	(3,538,916)
6/30/2017	17	(33,385,988)	(3,514,898)
6/30/2018	16	(32,341,652)	(3,491,974)
6/30/2019	15	(31,210,619)	(3,491,974)
6/30/2020	14	(29,997,020)	(3,491,974)
6/30/2021	13	(28,694,828)	(3,472,385)
6/30/2022	12	(27,288,471)	(3,472,385)
6/30/2023	11	(25,780,856)	(3,455,200)
6/30/2024	10	(24,156,097)	(3,455,200)
6/30/2025	9	(22,415,980)	(3,455,200)
6/30/2026	8	(20,552,314)	(3,455,200)
6/30/2027	7	(18,556,329)	(3,455,200)
6/30/2028	6	(16,418,628)	(3,455,200)
6/30/2029	5	(14,129,150)	(3,455,200)
6/30/2030	4	(11,677,120)	(3,455,200)
6/30/2031	3	(9,050,996)	(3,455,200)
6/30/2032	2	(6,238,416)	(3,455,200)
6/30/2033	1	(3,226,144)	(3,455,200)
6/30/2034	0	0	0





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2015	Expected UAAL Contribution
6/30/2015	20	\$ (24,457,703)	\$ (2,399,110)
6/30/2016	19	(23,892,921)	(2,399,110)
6/30/2017	18	(23,285,780)	(2,382,161)
6/30/2018	17	(22,626,767)	(2,365,933)
6/30/2019	16	(21,912,588)	(2,365,933)
6/30/2020	15	(21,146,274)	(2,365,933)
6/30/2021	14	(20,324,019)	(2,351,900)
6/30/2022	13	(19,435,448)	(2,351,900)
6/30/2023	12	(18,482,901)	(2,339,451)
6/30/2024	11	(17,455,736)	(2,339,451)
6/30/2025	10	(16,355,641)	(2,339,451)
6/30/2026	9	(15,177,441)	(2,339,451)
6/30/2027	8	(13,915,588)	(2,339,451)
6/30/2028	7	(12,564,143)	(2,339,451)
6/30/2029	6	(11,116,746)	(2,339,451)
6/30/2030	5	(9,566,584)	(2,339,451)
6/30/2031	4	(7,906,360)	(2,339,451)
6/30/2032	3	(6,128,260)	(2,339,451)
6/30/2033	2	(4,223,915)	(2,339,451)
6/30/2034	1	(2,184,362)	(2,339,451)
6/30/2035	0	0	0





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2016	Expected UAAL Contribution
6/30/2016	20	\$ (12,345,144)	\$ (1,210,962)
6/30/2017	19	(12,060,068)	(1,202,082)
6/30/2018	18	(11,750,431)	(1,193,556)
6/30/2019	17	(11,414,656)	(1,193,556)
6/30/2020	16	(11,054,370)	(1,193,556)
6/30/2021	15	(10,667,783)	(1,186,104)
6/30/2022	14	(10,249,759)	(1,186,104)
6/30/2023	13	(9,801,638)	(1,179,430)
6/30/2024	12	(9,318,123)	(1,179,430)
6/30/2025	11	(8,800,280)	(1,179,430)
6/30/2026	10	(8,245,669)	(1,179,430)
6/30/2027	9	(7,651,681)	(1,179,430)
6/30/2028	8	(7,015,520)	(1,179,430)
6/30/2029	7	(6,334,192)	(1,179,430)
6/30/2030	6	(5,604,489)	(1,179,430)
6/30/2031	5	(4,822,977)	(1,179,430)
6/30/2032	4	(3,985,978)	(1,179,430)
6/30/2033	3	(3,089,552)	(1,179,430)
6/30/2034	2	(2,129,480)	(1,179,430)
6/30/2035	1	(1,101,242)	(1,179,430)
6/30/2036	0	0	0





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2017	Expected UAAL Contribution
6/30/2017	20	\$ (32,887,559)	\$ (3,201,519)
6/30/2018	19	(32,119,720)	(3,177,944)
6/30/2019	18	(31,286,516)	(3,177,944)
6/30/2020	17	(30,392,488)	(3,177,944)
6/30/2021	16	(29,433,196)	(3,157,143)
6/30/2022	15	(28,395,243)	(3,157,143)
6/30/2023	14	(27,282,557)	(3,138,357)
6/30/2024	13	(26,081,262)	(3,138,357)
6/30/2025	12	(24,794,675)	(3,138,357)
6/30/2026	11	(23,416,740)	(3,138,357)
6/30/2027	10	(21,940,972)	(3,138,357)
6/30/2028	9	(20,360,424)	(3,138,357)
6/30/2029	8	(18,667,658)	(3,138,357)
6/30/2030	7	(16,854,705)	(3,138,357)
6/30/2031	6	(14,913,032)	(3,138,357)
6/30/2032	5	(12,833,501)	(3,138,357)
6/30/2033	4	(10,606,323)	(3,138,357)
6/30/2034	3	(8,221,015)	(3,138,357)
6/30/2035	2	(5,666,351)	(3,138,357)
6/30/2036	1	(2,930,305)	(3,138,357)
6/30/2037	0	0	0





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2018	Expected UAAL Contribution
6/30/2018	20	\$ (30,408,066)	\$ (2,937,574)
6/30/2019	19	(29,690,281)	(2,937,574)
6/30/2020	18	(28,920,098)	(2,937,574)
6/30/2021	17	(28,093,691)	(2,917,487)
6/30/2022	16	(27,198,950)	(2,917,487)
6/30/2023	15	(26,239,787)	(2,899,211)
6/30/2024	14	(25,203,601)	(2,899,211)
6/30/2025	13	(24,093,845)	(2,899,211)
6/30/2026	12	(22,905,297)	(2,899,211)
6/30/2027	11	(21,632,363)	(2,899,211)
6/30/2028	10	(20,269,049)	(2,899,211)
6/30/2029	9	(18,808,941)	(2,899,211)
6/30/2030	8	(17,245,165)	(2,899,211)
6/30/2031	7	(15,570,361)	(2,899,211)
6/30/2032	6	(13,776,645)	(2,899,211)
6/30/2033	5	(11,855,576)	(2,899,211)
6/30/2034	4	(9,798,111)	(2,899,211)
6/30/2035	3	(7,594,566)	(2,899,211)
6/30/2036	2	(5,234,569)	(2,899,211)
6/30/2037	1	(2,707,013)	(2,899,211)
6/30/2038	0	0	0





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2019	Expected UAAL Contribution	
6/30/2019	20	\$ (27,121,140)	\$ (2,620,040)	
6/30/2020	19	(26,480,943)	(2,620,040)	
6/30/2021	18	(25,794,012)	(2,601,384)	
6/30/2022	17	(25,049,797)	(2,601,384)	
6/30/2023	16	(24,251,999)	(2,584,296)	
6/30/2024	15	(23,389,595)	(2,584,296)	
6/30/2025	14	(22,465,961)	(2,584,296)	
6/30/2026	13	(21,476,748)	(2,584,296)	
6/30/2027	12	(20,417,302)	(2,584,296)	
6/30/2028	11	(19,282,634)	(2,584,296)	
6/30/2029	10	(18,067,405)	(2,584,296)	
6/30/2030	9	(16,765,895)	(2,584,296)	
6/30/2031	8	(15,371,978)	(2,584,296)	
6/30/2032	7	(13,879,093)	(2,584,296)	
6/30/2033	6	(12,280,213)	(2,584,296)	
6/30/2034	5	(10,567,812)	(2,584,296)	
6/30/2035	4	(8,733,831)	(2,584,296)	
6/30/2036	3	(6,769,637)	(2,584,296)	
6/30/2037	2	(4,665,985)	(2,584,296)	
6/30/2038	1	(2,412,975)	(2,584,296)	
6/30/2039	0	0	0	





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2020	Expected UAAL Contribution	
6/30/2020	20	\$ (29,318,311)	\$ (2,832,298)	
6/30/2021	19	(28,626,250)	(2,811,355)	
6/30/2022	18	(27,875,985)	(2,811,355)	
6/30/2023	17	(27,071,700)	(2,792,060)	
6/30/2024	16	(26,201,732)	(2,792,060)	
6/30/2025	15	(25,269,995)	(2,792,060)	
6/30/2026	14	(24,272,105)	(2,792,060)	
6/30/2027	13	(23,203,365)	(2,792,060)	
6/30/2028	12	(22,058,745)	(2,792,060)	
6/30/2029	11	(20,832,856)	(2,792,060)	
6/30/2030	10	(19,519,929)	(2,792,060)	
6/30/2031	9	(18,113,785)	(2,792,060)	
6/30/2032	8	(16,607,804)	(2,792,060)	
6/30/2033	7	(14,994,898)	(2,792,060)	
6/30/2034	6	(13,267,477)	(2,792,060)	
6/30/2035	5	(11,417,408)	(2,792,060)	
6/30/2036	4	(9,435,985)	(2,792,060)	
6/30/2037	3	(7,313,880)	(2,792,060)	
6/30/2038	2	(5,041,106)	(2,792,060)	
6/30/2039	1	(2,606,965)	(2,792,060)	
6/30/2040	0	0	0	





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2021	Expected UAAL Contribution		
6/30/2021	20	\$ (101,998,660)	\$ (9,778,123)		
6/30/2022	19	(99,564,440)	(9,778,123)		
6/30/2023	18	(96,954,956)	(9,708,221)		
6/30/2024	17	(94,130,537)	(9,708,221)		
6/30/2025	16	(91,105,584)	(9,708,221)		
6/30/2026	15	(87,865,859)	(9,708,221)		
6/30/2027	14	(84,396,113)	(9,708,221)		
6/30/2028	13	(80,680,016)	(9,708,221)		
6/30/2029	12	(76,700,076)	(9,708,221)		
6/30/2030	11	(72,437,560)	(9,708,221)		
6/30/2031	10	(67,872,405)	(9,708,221)		
6/30/2032	9	(62,983,125)	(9,708,221)		
6/30/2033	8	(57,746,705)	(9,708,221)		
6/30/2034	7	(52,138,500)	(9,708,221)		
6/30/2035	6	(46,132,112)	(9,708,221)		
6/30/2036	5	(39,699,270)	(9,708,221)		
6/30/2037	4	(32,809,697)	(9,708,221)		
6/30/2038	3	(25,430,964)	(9,708,221)		
6/30/2039	2	(17,528,342)	(9,708,221)		
6/30/2040	1	(9,064,632)	(9,708,221)		
6/30/2041	0	0	0		





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2022	Expected UAAL Contribution	
6/30/2022	20	\$ 34,984,638	\$ 3,353,810	
6/30/2023	19	34,149,722	3,328,908	
6/30/2024	18	33,245,444	3,328,908	
6/30/2025	17	32,276,963	3,328,908	
6/30/2026	16	31,239,719	3,328,908	
6/30/2027	15	30,128,831	3,328,908	
6/30/2028	14	28,939,070	3,328,908	
6/30/2029	13	27,664,836	3,328,908	
6/30/2030	12	26,300,131	3,328,908	
6/30/2031	11	24,838,533	3,328,908	
6/30/2032	10	23,273,161	3,328,908	
6/30/2033	9	21,596,647	3,328,908	
6/30/2034	8	19,801,101	3,328,908	
6/30/2035	7	17,878,071	3,328,908	
6/30/2036	6	15,818,506	3,328,908	
6/30/2037	5	13,612,712	3,328,908	
6/30/2038	4	11,250,306	3,328,908	
6/30/2039	3	8,720,170	3,328,908	
6/30/2040	2	6,010,394	3,328,908	
6/30/2041	1	3,108,224	3,328,908	
6/30/2042	0	0	0	





Valuation Date	Amortization Period	Balance of New Incremental UAAL 6/30/2023	Expected UAAL Contribution	
6/30/2023	20	\$ (52,922,840)	\$ (5,034,434)	
6/30/2024	19	(51,645,927)	(5,034,434)	
6/30/2025	18	(50,278,353)	(5,034,434)	
6/30/2026	17	(48,813,681)	(5,034,434)	
6/30/2027	16	(47,245,018)	(5,034,434)	
6/30/2028	15	(45,564,980)	(5,034,434)	
6/30/2029	14	(43,765,659)	(5,034,434)	
6/30/2030	13	(41,838,586)	(5,034,434)	
6/30/2031	12	(39,774,691)	(5,034,434)	
6/30/2032	11	(37,564,260)	(5,034,434)	
6/30/2033	10	(35,196,888)	(5,034,434)	
6/30/2034	9	(32,661,432)	(5,034,434)	
6/30/2035	8	(29,945,960)	(5,034,434)	
6/30/2036	7	(27,037,688)	(5,034,434)	
6/30/2037	6	(23,922,930)	(5,034,434)	
6/30/2038	5	(20,587,023)	(5,034,434)	
6/30/2039	4	(17,014,267)	(5,034,434)	
6/30/2040	3	(13,187,846)	(5,034,434)	
6/30/2041	2	(9,089,748)	(5,034,434)	
6/30/2042	1	(4,700,686)	(5,034,434)	
6/30/2043	0	0	0	





Schedule G - Summary of Main Plan Provisions

AS INTERPRETED FOR VALUATION PURPOSES

Eligibility for Coverage

Establishment of membership in the Employees' Retirement System of Georgia (ERS), the Georgia Legislative Retirement System (LRS) or the Judicial Retirement System (JRS). ERS new entrants on and after January 1, 2009 and LRS and JRS new entrants on and after July 1, 2009 are excluded from membership.

Premiums

ERS Old Plan Members (Hired before July 1, 1982)

Member pays 0.05% of monthly salary. State picks up 0.03% of the member premium.

ERS New Plan Members (Hired on or after July 1, 1982 and before January 1, 2009), LRS Members and JRS Members Member pays 0.02% of monthly salary.

All ERS and LRS members pay the above premiums. If the member is not covered under the Group Term Life Insurance (GTLI) Plan, employee contributions with interest are refunded upon termination of State employment. Otherwise, no premiums are refundable. Participation is voluntary for JRS Members.

Coverage

The amount of insurance is 18 times current monthly earnable compensation (frozen at age 60). For a member with no creditable service prior to April 1, 1964, the amount decreases from age 60 by $\frac{1}{2}$ of 1% per month until age 65, at which point the member will be covered for 70% of the age 60 coverage.





Schedule H – Annual Comprehensive Financial Report Schedule

		GA SEAD	Pre-retirement:	Solvency	Test		
Actuarial Accrued Liability for:							
Actuarial Valuation as of 6/30	Active Member Contributions	Retirants & Beneficiaries	Active Members (Employer Funded Portion)	Valuation Assets		of Aggregat es Covered	
us 01 0700	(1)	(2)	(3)	7100010	(1)	(2)	(3)
2023	\$0	\$0	\$ 7,822	\$394,600	N/A	N/A	100.0%
2022	0	0	7,740	357,452	N/A	N/A	100.0%
2021	0	0	8,056	408,323	N/A	N/A	100.0%
2020	0	0	8,913	319,340	N/A	N/A	100.0%
2019	0	0	14,083	305,877	N/A	N/A	100.0%
2018	0	0	15,173	289,207	N/A	N/A	100.0%
2017	0	0	15,677	267,286	N/A	N/A	100.0%
2016	0	0	15,610	240,985	N/A	N/A	100.0%
2015	0	0	21,723	240,677	N/A	N/A	100.0%
2014	0	0	35,877	235,358	N/A	N/A	100.0%
All dollar	All dollar amounts are in thousands.						

