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Retirement Systems of Alabama

Teachers' Retirement System of Alabama
Report of the Actuary on the Annual Valuation
Prepared as of September 30, 2023

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The experience and dedication you deserve

March 29, 2024

Board of Control
Teachers' Retirement System of Alabama
Montgomery, Alabama

Members of the Board:

In this report are submitted the results of the annual valuation of the assets and liabilities of the Teachers' Retirement System of Alabama, prepared as of September 30, 2023 in accordance with Section 16-25-19(q) of the act governing the operation of the System.

The purpose of this report is to provide a summary of the funded status of the System as of September 30, 2023 and to recommend rates of State contribution.

The findings in this report are based on data and other information through September 30, 2023. The valuation was based upon information furnished by RSA Staff, concerning RSA benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency but did not audit the data.

The valuation reflects the 2% salary increase granted to teachers effective October 1, 2023.

On the basis of the valuation, we have determined employer contribution rates of 14.57% of payroll for Tier I members and 13.61% of payroll for Tier II members for the fiscal year ending September 30, 2026.

Effective with the September 30, 2021 Valuation, the Board approved a phase in of the increase in the required contributions due to the assumption changes made in the most recent experience investigation over a period not to exceed five years with a floor equal to the 2023 fiscal year employer contribution rates. The contribution rates shown in this report reflect the third year using this methodology. As of this valuation, it is estimated that 0.61% of payroll for Tier I members and 0.59% of payroll for Tier II members will be recognized in the employer contribution rates over the next two valuations.

The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the Entry Age Normal cost method. Five-year smoothed market value of assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded actuarial accrued liability that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by 2.75% annually. The 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 funding purposes meet the parameters outlined in the Board's funding policy. We estimate the employer contribution will begin to pay down the UAAL during FYE 2027.

In this report, we provided the following information and supporting schedules in the Actuarial and Statistical Sections of the Annual Comprehensive Financial Report:

- Summary of Actuarial Assumptions and Methods
- Actuarial Cost Method
- Summary of Plan Provisions as Interpreted for Valuation Purposes
- Schedule of Funding Progress
- Solvency Test
- Schedule of Active Member Valuation Data

We also provide the following schedules for the Annual Comprehensive Financial Report in a separate supplemental report:

- Analysis of Actuarial Gains and Losses
- Schedule of Retirants and Beneficiaries Added and Removed from Rolls
- Retired Members by Type of Benefit as of September 30, 2023
- Ten-Year History of Average Monthly Benefit Payments as of September 30

The necessary GASB Statement Nos. 67 and 68 disclosure information is provided in separate supplemental reports.

This is to certify that Larry Langer and Edward Koebel are members of the American Academy of Actuaries and have 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.

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

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

The actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System and appropriate for the determination of the employer contribution rates herein. The results contained herein are not appropriate for the settlement of liabilities. Use of these computations for purposes other than meeting these requirements may not be appropriate.

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.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,

Cathy Turcot

Larry Langer, ASA, EA, FCA, MAAA
Principal and Consulting Actuary

Cathy Turcot
Principal and Managing Director

Edward J. Koebel

Jennifer Johnson

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

Jennifer Johnson
Managing Director

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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	**September 30, 2023**	**September 30, 2022**
Active members		
Number	138,441	135,783
Annual compensation	$ 8,417,325,026	$ 7,982,339,732
Retired members and beneficiaries		
Number	107,273	105,549
Annual allowances	$ 2,599,410,082	$ 2,527,829,084
Deferred vested members		
Number	7,396	7,157
Estimated deferred annual allowances	$ 114,153,078	$ 108,072,938
Assets		
Actuarial value	$ 28,765,969,859	$ 28,518,291,664
Market value	27,685,480,995	25,415,982,609
Actuarial accrued liability	$ 44,175,326,722	$ 42,552,369,086
Unfunded actuarial accrued liability	$ 15,409,356,863	$ 14,034,077,422
Funded Ratio based on Actuarial Value of Assets	65.1%	67.0%
CONTRIBUTIONS FOR FISCAL YEAR ENDING*	**September 30, 2026**	**September 30, 2025**
Tier I (first hired prior to January 1, 2013)		
Employer contribution rate		
Normal	2.71%	2.61%
Unfunded actuarial accrued liability	11.54	10.64
Death benefit	0.02	0.02
Term life	0.05	0.05
Administration	0.25	0.25
Total	14.57%	13.57%
Tier II (first hired on or after January 1, 2013)		
Employer contribution rate		
Normal	1.75%	1.64%
Unfunded actuarial accrued liability	11.54	10.64
Death benefit	0.02	0.02
Term life	0.05	0.05
Administration	0.25	0.25
Total	13.61%	12.60%
Blended Amortization period	24.9 years	25.9 years

* *Contribution rates reflect a phase-in of the cost of assumption changes effective with the September 30, 2021 valuation over a period not to exceed five years with a floor equal to the 2023 fiscal year employer contribution rates. The increase in the employer contribution rates for fiscal year ending September 30, 2026 from the previous year due to this phase-in are 0.30% of payroll for Tier I members and 0.29% of payroll for Tier II members.*

Section I: Summary of Principal Results

1. Comments on the valuation results as of September 30, 2023 are shown in Section IV and further discussion of the contribution levels is set out in Section V. The valuation results reflect the 2% salary increase granted to teachers effective October 1, 2023.
2. Section VI of this report shows the certification of the liquidation period used to determine the actuarial accrued liability contribution rate.
3. Schedule B of this report shows the development of the actuarial value of assets.
4. The Board's Funding Policy is provided in Schedule F.
5. Schedule D of this report outlines the full set of actuarial assumptions and methods used in the current valuation. There have been no changes since the previous valuation. Effective with the September 30, 2021 Valuation, the Board approved a phase in of the increase in the required contributions due to the assumption changes made in the most recent experience investigation over a period not to exceed five-years with a floor equal to the 2023 fiscal year employer contribution rates.
6. Provisions of the System, as summarized in Schedule H, were taken into account in the current valuation. There have been no changes since the previous valuation.
7. The funded ratio shown in the Summary of Principal Results is the ratio of the actuarial value of assets to the actuarial accrued liability. The Unfunded Actuarial Accrued Liability (UAAL) based on the market value of assets would be $16,489,845,727 and the funded ratio based on the market value of assets as of September 30, 2023 was 62.7%. The funded ratio is an indication of progress in funding the promised benefits. Since the ratio is less than 100%, there is a need for additional contributions towards payment of the unfunded actuarial accrued liability. In addition, this funded ratio does not have any relationship to measuring sufficiency if the plan had to settle its liabilities.

Section II: Membership

1. The following table shows the number of active members and their annual compensation as of September 30, 2023 on the basis of which the valuation was prepared.

TABLE 1

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

GROUP	NUMBER	COMPENSATION
Tier I	69,518	$ 4,892,043,051
Tier II	68,923	3,525,281,975
Subtotal	138,441	$ 8,417,325,026

The table reflects the active membership for whom complete valuation data were submitted. The results of the valuation include an estimated liability equal to the contribution balances for 24,560 non-vested inactive members who have contributed in the last 5 years and 34,983 non-vested inactive members who have not contributed for more than 5 years.

2. The following table shows a six-year history of active member valuation data.

TABLE 2

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Number	Annual Payroll	% Increase in Annual Payroll*	Annual Average Pay	% Increase in Average Pay**
9/30/2023	138,441	$ 8,417,325,026	5.45%	$ 60,801	3.43%
9/30/2022	135,783	7,982,339,732	10.53	58,787	9.11
9/30/2021	134,034	7,221,790,242	2.89	53,880	1.87
9/30/2020	132,707	7,019,258,383	(2.43)	52,893	0.23
9/30/2019	136,325	7,193,832,116	6.47	52,770	7.13
9/30/2018	137,161	6,756,474,151	0.86	49,259	0.70

* 4.49% annual increase for Annual Payroll since 2018.
** 4.30% annual increase for Average Pay since 2018.

3. The following table shows the number and annual retirement allowances payable to retired members and their beneficiaries on the roll of the Retirement System as of the valuation date.

TABLE 3

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES ON THE ROLL AS OF SEPTEMBER 30, 2023

GROUP	NUMBER*	ANNUAL RETIREMENT ALLOWANCES*
Service Retirements	94,869	$ 2,415,327,860
Disability Retirements	5,862	72,312,752
Beneficiaries of Deceased Members	6,542	111,769,470
Total	107,273	$ 2,599,410,082

** In addition, there were 7,396 vested inactive members with estimated deferred annual allowances totaling $114,153,078 included in the valuation.*

4. Schedule I shows the distribution by age and service of the number and average annual compensation of active members included in the valuation and a distribution by age of the number and benefits of retired members and beneficiaries included in the valuation.

Section III: Assets

1. The current retirement law provides for the maintenance of six funds for the purpose of recording the fiscal transactions of the System, namely, the Annuity Savings Fund, the Pension Accumulation Fund, the Deferred Retirement Option Plan Fund, the Pre-Retirement Death Benefit Fund, the Life Insurance Fund, and the Expense 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 when a survivor allowance becomes payable the amount of the member's accumulated contributions are transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The market value of assets credited to the Annuity Savings Fund on September 30, 2023, which represent the accumulated contributions of active members to that date, including interest, amounted to $7,232,215,272.

   (b) ***Pension Accumulation Fund***

   The Pension Accumulation Fund is the fund to which are credited all contributions made by the employer, except those contributions made to the Pre-Retirement Death Benefit Fund, the Life Insurance Fund, or the Expense Fund. When a member retires or when a survivor allowance becomes payable, the pension is paid from this fund. In addition, the amount of the member's accumulated contributions is transferred from the Annuity Savings Fund to the Pension Accumulation Fund and the annuity is paid from this fund. On September 30, 2023 the market value of assets credited to this fund amounted to $20,379,363,948.

   (c) ***DROP Fund***

   The DROP Fund is the fund to which are credited deferred retirement benefits on behalf of members who elect to participate in the DROP, together with regular interest thereon. In addition, member contributions while participating in the DROP, together with regular interest therein, are credited to the Fund. At the end of the DROP deferral period, the member receives the amount of the deferred retirement benefits and contributions plus interest in the member's DROP account. The DROP is closed to new participants as of June 1, 2011. On September 30, 2023, the market value of assets credited to this Fund amounted to $73,901,775.

   (d) ***Pre-Retirement Death Benefit Fund***

   The Pre-Retirement Death Benefit Fund is the fund to which are credited contributions made by the employer for the special pre-retirement death benefit which became effective October 1, 1983. On September 30, 2023, the market value of assets credited to this fund amounted to $51,712,382. These assets are not included in the valuation and the liabilities associated with these death benefits are not included in the valuation.

(e) ***Life Insurance Fund***

The Life Insurance Fund is the fund to which are credited contributions made by the employer for life insurance benefits which became effective October 1, 1987. On September 30, 2023, the market value of assets credited to this fund amounted to $719,209. These assets are not included in the valuation and the liabilities associated with these life insurance benefits are not included in the valuation.

(f) ***Expense Fund***

The Expense Fund is the fund from which the expenses of the administration of the retirement system are paid. Any amounts credited to the accounts of members withdrawing before retirement and not returnable under the provisions of subsection (g) of Section 16-25-14 are credited to the Expense Fund. Additional contributions required to meet the expenses of the retirement system made by the employer are also credited to this fund. On September 30, 2023, the market value of assets credited to this fund amounted to $27,008,219. These assets are not included in the valuation.

2. As of September 30, 2023, the total market value of assets reported exclusive of the Pre-Retirement Death Benefit Fund, the Life Insurance Fund and the Expense Fund amounted to $27,685,480,995 as shown in the following table.

TABLE 4

MARKET VALUE OF ASSETS BY FUND
AS OF SEPTEMBER 30, 2023

FUND	MARKET VALUE OF ASSETS
Annuity Savings Fund	$ 7,232,215,272
Pension Accumulation Fund	20,379,363,948
DROP Fund	73,901,775
Total Market Value of Assets	$ 27,685,480,995

3. The five-year market related actuarial value of assets as of September 30, 2023 was $28,765,969,859. Schedule B shows the development of the actuarial value of assets as of September 30, 2023.

4. Schedule C shows the receipts and disbursements of the System for the year preceding the valuation date and a reconciliation of the fund balances at market value.

5. The following table shows the history of the assumed and actual rates of investment returns.

YEAR ENDING SEPTEMBER 30	EXPECTED RETURN	MARKET RETURN	ACTUARIAL RETURN
2023	7.450%	13.3%	4.7%
2022	7.450	-13.2	5.4
2021	7.700	22.6	9.9
2020	7.700	5.6	7.6
2019	7.700	2.6	7.2
2018	7.750	9.5	9.0

6. The following table shows a historical reconciliation of the market value of assets by source ($ thousand):

Valuation Year Ending September 30	Beginning of Year Market Value of Assets	Contributions	Disbursements and Administrative Expenses	Investment Income	Change in Market Value of Asset Amounts	End of Year Market Value of Assets
	(a)	(b)	(c)	(d)	(e) = (b) + (c) + (d)	(f) = (a) + (e)
2023	$25,416.0	$1,575.8	$(2,653.2)	$3,346.9	$2,269.5	$27,685.5
2022	30,390.2	1,526.3	(2,635.1)	(3,865.4)	(4,974.2)	25,416.0
2021	25,776.4	1,373.9	(2,499.1)	5,739.0	4,613.8	30,390.2
2020	25,444.0	1,351.8	(2,403.5)	1,384.1	332.4	25,776.4
2019	25,756.5	1,366.5	(2,302.6)	623.6	(312.5)	25,444.0
2018	24,467.5	1,296.6	(2,281.0)	2,273.4	1,289.0	25,756.5

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 September 30, 2023.

2. The valuation balance sheet shows that the System has total prospective liabilities of $50,287,978,961. Of this amount, $24,478,100,967 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and DROP participants, $1,026,697,234 is for the prospective benefits payable on account of present inactive members and $24,783,180,760 is for the prospective benefits payable on account of present active members. Against these liabilities, the System has total actuarial value of assets, exclusive of the Pre-Retirement Death Benefit Fund, the Life Insurance Fund, and the Expense Fund, of $28,765,969,859 as of September 30, 2023. The difference of $21,522,009,102 between the total liabilities and the total actuarial value of assets represents the present value of contributions to be made in the future. Of this amount, $4,500,414,824 is the present value of future contributions expected to be made by members to the Annuity Savings Fund, and the balance of $17,021,594,278 represents the present value of future contributions payable by the employer.

3. The employer's regular contributions to the System consist of normal contributions and unfunded actuarial accrued liability (UAAL) contributions. Prospective normal contributions have a present value of $1,612,237,415. When this amount is subtracted from $17,021,594,278, which is the present value of the total future contributions to be made by the employer, there remains $15,409,356,863 as the amount of future UAAL contributions.

4. The funding policy adopted by the Board, as shown in Schedule F, provides that the initial total UAAL established as of September 30, 2021, shall be amortized over a closed 27-year period. Each subsequent valuation may produce a New Incremental UAAL consisting of all benefit changes that have occurred since the previous valuation which shall be amortized over a closed 15-year period. All gains and losses occurring after the establishment of the initial total UAL and before September 30, 2028, except for those due to benefit improvements, shall be included in the remaining initial total UAAL each year and amortized over the remaining closed period. Each valuation beginning with the September 30, 2028 valuation will produce a New Incremental UAAL consisting of all assumption and method changes and experience gains and/or losses that have occurred since the previous valuation.
5. The total UAAL contribution rate is 11.54% of payroll determined in accordance with the Board's funding policy and the phase-in methodology adopted by the Board. The UAAL contribution rate has been calculated on the assumption that each incremental component of actuarial accrued liability contribution will increase by 2.75% each year. Schedule G of this report shows the amortization schedules for all bases on September 30, 2023.

Section IV: Comments on Valuation

6. The following table shows the components of the total unfunded actuarial accrued liability (UAAL) and the derivation of the actuarial accrued liability contribution rate in accordance with the funding policy.

TABLE 5
TOTAL UAAL AND UAAL CONTRIBUTION

	UAAL	Amortization Period	Amortization Payment
Remaining Initial Total UAAL	$15,355,779,012	25	$1,072,199,796
Benefit Improvements Effective 10/1/2021	53,577,851	13	5,711,254
Total	$15,409,356,863		$1,077,911,050
Total Amortized Payment Adjusted for Timing			$1,039,200,819
Total Estimated Payroll*			$8,723,572,602
UAAL Contribution Rate			11.91%
UAAL Contribution Rate Phase-in Methodology**			11.54%

* *Estimated payroll based on applying the assumed salary scale to current salaries.*

** *Phase in impact of assumption and method changes on employer contribution rates over a period not to exceed five years.*

7. The Pre-Retirement Death Benefit Program (PRDB) was established October 1, 1983 under Alabama Code Section 36-27B. The liabilities and assets associated with the PRDB are not included in the annual actuarial valuation of the System; however, the sufficiency of the Fund to provide the promised benefits is reviewed annually. The contribution requirements are determined every five years during our experience investigation. A contribution of 0.02% is required to meet the cost of the pre-retirement death benefit program this year.

Section IV: Comments on Valuation

8. The Term Life Insurance fund was established under Alabama Code Section 16-25-33. The liabilities and assets associated with the term life insurance benefit are not included in the annual actuarial valuation of the System; however, the sufficiency of the Fund to provide the promised benefits is reviewed annually. The contribution requirements are determined every five years during our experience investigation. A contribution of 0.05% is required to meet the cost of life insurance premiums.
9. An additional contribution of 0.25% of payroll is required to cover the expenses of administering the System.
10. In our opinion, the current experience, assumptions, and methods adopted by the Board support the funding policy and generally accepted and emerging practice. Assuming that required contributions continue to be made each year, the funding of the System will continue to remain on track.

Section V: Contributions Payable By Employer

1. The retirement law provides that the employer contributions are to be paid from the same source from which employees' salaries are paid.

2. On the basis of the actuarial valuation prepared as of September 30, 2023 it is recommended that the employer make contributions at the following rates beginning October 1, 2025:

TABLE 6

EMPLOYER CONTRIBUTION RATES
AS A PERCENTAGE OF MEMBERS' COMPENSATION*

EMPLOYER CONTRIBUTION RATE**	FISCAL YEAR ENDING SEPTEMBER 30, 2026	
	Tier I	Tier II
Contribution Rates		
Employer Normal Cost***	2.71%	1.75%
Unfunded Actuarial Accrued Liability	11.54	11.54
Death Benefit	0.02	0.02
Term-Life	0.05	0.05
Administration	0.25	0.25
Total	14.57%	13.61%

* All members initially joining the System on and after January 1, 2013 are Tier II members.

** Contribution rates reflect a phase-in of the cost of assumption changes over a period not to exceed five years with a floor equal to the 2023 fiscal year employer contribution rates.

*** The Total Normal Cost rate is 10.21% for Tier I and 7.95% for Tier II. Tier I members contribute 7.50% (8.50% for FLC members) and Tier II members contribute 6.20% (7.20% for FLC members)

3. The total employer contribution rates without the phase-in would have been 15.18% of compensation for Tier I and 14.20% of compensation for Tier II. Phasing in the increase in the required contributions over a period of time does slow the funding progress slightly.

Section VI: Annual Actuarial Certification

The following is the annual actuarial certification to the Teachers' Retirement System of Alabama required by Act 2000-732.

We hereby certify that there has been a change since the previous valuation in the liquidation period used to determine the actuarial accrued liability contribution rate from 25.9 years to 24.9 years. The unfunded actuarial accrued liability rate of 11.54% to be paid by employers to the Teachers' Retirement System of Alabama has been determined in accordance with the Funding Policy shown in Schedule F of this report and the phase in methodology adopted by the Board.

Signed ___________________________________

Larry Langer, ASA, EA, FCA, MAAA
Principal and Consulting Actuary

Section VII: Analysis of Financial Experience

The calculation of the System's liabilities and actuarial value of assets requires the use of several assumptions concerning the future experience of the System and its members. In each annual actuarial valuation, the experience of the System is compared with what was expected based on the actuarial assumptions. The differences between the actual and expected experience are called actuarial gains or losses depending on whether the difference increases or decreases the UAAL. The UAAL increased from $14,034,077,422 on September 30, 2022 to 15,409,356,863 on September 30, 2023. The most significant items contributing to the increase in the UAAL were salary increases more than anticipated (including the 2% salary increase effective October 1, 2023) and investment earnings on an actuarial value basis less than expected. Other sources of gains and losses were relatively small and there appear to be no trends developing that would be of concern to the System. The following tables show the reconciliation of the UAAL of the System and a breakdown by source of the actuarial gains and losses. These sources include the expected return on assets, salary increases, retirement, withdrawal, disability, and mortality.

RECONCILIATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY
FOR THE YEAR ENDING SEPTEMBER 30, 2023
(Dollar amounts in thousands)

(1)	UAAL at beginning of year	$ 14,034,077
(2)	Total normal cost at beginning of the year	729,406
(3)	Actual contributions	1,575,783
(4)	Interest accrual: [[(1) + (2)] - ½ [(3)]] x 0.07450	1,041,182
(5)	Expected UAAL before changes: (1) + (2) – (3) + (4)	14,228,882
(6)	Increase from benefit changes	0
(7)	Changes from revised actuarial assumptions and methods	0
(8)	Expected UAAL after changes: (5) + (6) + (7)	14,228,882
(9)	Actual UAAL at end of year	15,409,357
(10)	(Gain)/Loss: (9) - (8)	$ 1,180,475

DEVELOPMENT OF (GAIN)/LOSS
FROM INVESTMENT RETURN
FOR THE YEAR ENDING SEPTEMBER 30, 2023
(Dollar amounts in thousands)

(1)	Actuarial Value of Assets (BOY)	$ 28,518,292
(2)	External Net Cash Flow	(1,059,405)
(3)	Expected Return [(1) + ½ [(2)]] x 0.07450	2,085,150
(4)	Expected Actuarial Value of Assets [(1) + (2) + (3)]	29,544,037
(5)	Actual Actuarial Value of Assets (EOY)	28,765,970
(6)	(Gain)/Loss: (4) – (5)	$ 778,067

Section VII: Analysis of Financial Experience

(GAINS)/LOSSES BY SOURCE
FOR THE YEAR ENDING SEPTEMBER 30, 2023
(Dollar amounts in thousands)

SOURCE	Total	% of Actuarial Accrued Liability
Age and Service Retirements. Generally, earlier retirements cause losses and later retirements cause gains.	$ (68,006)	(0.15)%
Withdrawal. More withdrawals than expected usually cause gains and fewer withdrawals than expected cause losses.	26,405	0.06%
Disability Retirements. More disabilities than expected generally cause losses and fewer disabilities than expected cause gains.	1,601	0.00%
Death-In-Service Benefits. If survivor claims are less than assumed, there is a gain. If claims are greater than assumed, there is a loss.	249	0.00%
Salary Increases. If salaries increase more than expected, there is a loss. If salaries increase less than expected, there is a gain.	438,618	0.99%
New Members/Rehires. Any past service causes losses.	35,768	0.08%
Retiree Mortality. More deaths than expected cause gains, fewer than expected cause losses.	(24,261)	(0.05)%
Investment Return. Investment income greater than expected causes gains while investment income less than expected cause losses.	778,067	1.76%
Other. Miscellaneous gains and losses resulting from data corrections, timing of financial transactions, unit transfers, changes in valuation software, etc.	(7,966)	(0.02)%
Total (Gain)/Loss	$ 1,180,475	2.67%

(GAINS)/LOSSES BY SOURCE
Historical Trends
(Dollar amounts in thousands)

SOURCE	September 30 2023	2022	2021	2020	2019
Age and Service Retirements	$ (68,006)	$ 52,932	$ 20,640	$ (39,224)	$ 5,637
Withdrawal	26,405	23,309	31,005	22,293	29,495
Disability Retirements	1,601	3,025	3,821	1,231	3,557
Death-In-Service Benefits	249	(19)	(530)	4,611	4,205
Salary Increases	438,618	1,306,038	41,499	(516,747)	592,855
New Members/Rehires	35,768	34,520	20,469	17,306	21,617
Retiree Mortality	(24,261)	(23,799)	(44,624)	179	9,712
Investment Return	778,067	595,225	(562,705)	49,582	149,503
Other	(7,966)	62,145	4,488	(3,554)	(80,098)
Total (Gain)/Loss	$ 1,180,475	$ 2,053,376	$ (485,937)	$ (464,323)	$ 736,483

Section VIII: Accounting Information

The information required under Governmental Accounting Standard 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 SEPTEMBER 30, 2023

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	107,273
Terminated employees entitled to benefits but not yet receiving benefits	31,956
Non-vested inactive members who have not contributed for more than 5 years	34,983
Active members	138,441
Total	312,653

2. The schedule of funding progress is shown below.

SCHEDULE OF FUNDING PROGRESS
(Dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
9/30/2018[1]	$25,006,419	$35,628,398	$10,621,979	70.2%	$6,756,474	157.2%
9/30/2019	25,821,326	37,215,470	11,394,144	69.4	7,193,832	158.4
9/30/2020	26,681,324	37,752,800	11,071,566	70.7	7,019,258	157.7
9/30/2021[2]	28,154,229	40,106,806	11,952,577	70.2	7,221,790	165.5
9/30/2022	28,518,292	42,552,369	14,034,077	67.0	7,982,340	175.8
9/30/2023	28,765,970	44,175,327	15,409,357	65.1	8,417,325	183.1

[1] Reflects changes in actuarial assumptions.

[2] Reflects changes in actuarial assumptions and methods.

3. The information presented above was determined as part of the actuarial valuation at September 30, 2023. Additional information as of the latest actuarial valuation follows.

Valuation date	09/30/2023
Actuarial cost method	Entry Age Normal
Amortization method	Level percent closed
Single equivalent remaining amortization period	24.9 years
Asset valuation method	Five-year market related value
Actuarial assumptions:	
Investment Rate of Return*	7.45%
Projected salary increases*	3.25 - 5.00%
Cost-of-living adjustments	None
*Includes price inflation at	2.50%

Section IX: 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 can simply be considered 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 understandably, there is a focus on aspects of risk that are negative.

Risk can usually 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 upon 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 IX: Risk Assessment

Investment Risk

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

($ in thousands)

Valuation	Fair Value of Assets	Covered Payroll	Asset Volatility Ratio
2018	$25,756,495	$6,756,474	3.81
2019	$25,443,975	$7,193,832	3.54
2020	$25,776,401	$7,019,258	3.67
2021	$30,390,239	$7,221,790	4.21
2022	$25,415,983	$7,982,340	3.18
2023	$27,685,481	$8,417,325	3.29

The asset volatility ratio is especially useful to compare across plans or through time. It is also frequently useful to consider how the AVR translates into changes in the Required Contribution Rate (actuarially determined employer contribution rate). The greater the AVR, the more volatility there is in the Required Contribution Rate. For plans with low AVRs, the impact of investment gains and losses on Required Contribution Rates is less than for plans with high AVRs. The AVR for TRS at September 30, 2023 is 3.29. As shown in the table below, if the market value return is 5% below assumed, or 2.45% (7.45% minus 5.00%) for the System, there will be an increase in the Required Contribution Rate of 0.22% of payroll in the first year. Without asset smoothing or without returns above the expected return in the next four years, the impact on the Required Contribution Rate would be 1.12%.

Investment Rate of Return 5% Less Than Assumed		
AVR	Unsmoothed Amortization	Smoothed Amortization
3.00	1.02%	0.20%
3.29	1.12%	0.22%
4.00	1.36%	0.27%

Section IX: Risk Assessment

Sensitivity Measures

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

The following tables contains the key measures for the System using the valuation assumption for investment return of 7.45%, along with the results if the assumption were 6.45% or 8.45%. 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 (6.45% or 8.45%) would comply with actuarial standards of practice. The contribution rates below represent the full ADEC with no phase in.

($ in thousands)

As of September 30, 2023	Current Discount Rate (7.45%)	-1% Discount Rate (6.45%)	+1% Discount Rate (8.45%)
Accrued Liability	$44,175,327	$49,170,349	$39,972,689
Unfunded Liability	$15,409,357	$20,404,379	$11,206,719
Funded Ratio (AVA)	65.1%	58.5%	72.0%
ADEC Rate*			
Tier I	15.18%	20.12%	10.84%
Tier II	14.20%	18.40%	10.42%

** Contribution rates are determined based on the Board's current Funding Policy and do not reflect phase in of contributions*

Section IX: 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 unknown, and actual mortality improvements may occur at a faster rate than expected, or at a slower rate than expected. Although changes in mortality will affect the benefits paid, this assumption is reviewed carefully during the regular experience studies that the System conducts so that incremental changes can be made to smoothly reflect emerging experience. The risk to the System due to mortality is significantly reduced due to the use of the generational improvement method. The next actuarial experience study will be for the period from October 1, 2020 to September 30, 2025.

Contribution Risk

The System is funded primarily by member and employer contributions to the trust fund, together with the earnings on those accumulated contributions. Each year in the valuation, the Actuarial Determined Employer Contribution (ADEC) 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 (which includes expected administrative expenses), and the rate necessary to amortize the UAAL. Since the level percentage of payroll method is used to determine the UAAL amortization amounts, there is an expectation that future payments will grow at the assumed 2.75% annual rate of increase in covered payroll. If payroll grows at a slower rate, under this amortization method, less than expected UAAL amortization payments would result in a greater UAAL in future years and may require increases to either the amortization rate or the amortization period. From a policy perspective, since the ADEC rate has always been made by the plan sponsors, and that procedure is expected to continue, there is minimal risk to the System associated with the contribution amounts being less than the ADEC.

Section IX: Risk Assessment

Liquidation Risk

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

This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of September 30, 2023 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a low-default-risk obligation measure liability of approximately $46.9 billion.

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

Schedule A: Valuation Balance Sheet & Solvency Test

VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE TEACHERS' RETIREMENT SYSTEM OF ALABAMA
AS OF SEPTEMBER 30, 2023

ASSETS		
Actuarial Value of Assets	$	28,765,969,859
Present value of future members' contributions to the Annuity Savings Fund	$	4,500,414,824
Present value of future employer contributions to the Pension Accumulation Fund		
Normal contributions	$	1,612,237,415
Unfunded actuarial accrued liability contributions		15,409,356,863
Total prospective employer contributions	$	17,021,594,278
Total Assets	$	50,287,978,961
LIABILITIES		
Present value of benefits payable on account of retired members, beneficiaries of deceased members now drawing retirement allowances, and DROP participants		
Service Retirements	$	22,919,599,355
Disability Retirements		624,978,637
Beneficiaries of Deceased Members		859,621,200
DROP Participant Accounts		73,901,775
Total	$	24,478,100,967
Inactive Members	$	940,162,272
Inactive T-Section Accounts	$	86,534,962
Present value of prospective benefits payable on account of present active members:		
Service retirement allowances	$	22,418,563,492
Disability retirement allowances		903,468,086
Death Benefits		113,320,676
Termination Benefits		1,347,828,506
Total	$	24,783,180,760
Total Liabilities	$	50,287,978,961

Schedule A: Valuation Balance Sheet & Solvency Test

SOLVENCY TEST
(Dollar amounts in thousands)

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
Valuation Date	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets	(1)	(2)	(3)
9/30/2023	$7,232,215	$24,478,101	$12,465,011	$28,765,970	100%	88%	0.0%
9/30/2022	6,865,652	23,899,984	11,786,733	28,518,292	100	91	0.0
9/30/2021[2]	6,589,860	23,111,616	10,405,330	28,154,229	100	93	0.0
9/30/2020	6,356,922	21,781,149	9,614,729	26,681,234	100	93	0.0
9/30/2019	6,100,489	21,093,665	10,021,316	25,821,326	100	93	0.0
9/30/2018[1]	5,788,187	20,511,811	9,328,400	25,006,419	100	94	0.0

[1] Reflects changes in actuarial assumptions.
[2] Reflects changes in actuarial assumptions and methods.

Schedule B: Actuarial Value of Assets

DEVELOPMENT OF SEPTEMBER 30, 2023 ACTUARIAL VALUE OF ASSETS

(1)	Actuarial Value of Assets on September 30, 2022	$ 28,518,291,664
(2)	Market Value of Assets on September 30, 2023	27,685,480,995
(3)	Market Value of Assets on September 30, 2022	25,415,982,609
(4)	Net Cash Flow During the Fiscal Year	
	a. Contributions	1,575,783,308
	b. Benefit Payments and DROP Distributions	2,566,994,149
	c. Refunds to Members	68,193,964
	d. Transfer to Expense Fund – Interest Forfeiture	0
	e. Investment Expenses	11,530,704
	f. Net Cash Flow: (a. - b. - c. - d. - e.)	(1,070,935,509)
(5)	Actual Investment Return ((2) - (3) - (4)f.)	3,340,433,895
(6)	Assumed Rate of Return on Assets	7.450%
(7)	Amount for Immediate Recognition ((3) * (6)) + (((4)a. - (4)b. - (4)c. - (4)d.) * 0.5 * (6)) + (4)e.	1,865,558,579
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))	1,474,875,316
(9)	Phased-In Recognition of Investment Gain/(Loss)	
	a. Current Fiscal Year: (0.2 * (8))	294,975,063
	b. Prior Fiscal Year	(1,220,025,268)
	c. Second Prior Fiscal Year	754,644,083
	d. Third Prior Fiscal Year	(109,601,480)
	e. Fourth Prior Fiscal Year	(266,937,273)
	f. Total Recognized Investment Gain/(Loss) for Fiscal Year	(546,944,875)
(10)	Actuarial Value of Assets on September 30, 2023 ((1) + (4)f. + (7) + (9)f.)	$ 28,765,969,859
(11)	Estimated Rate of Return on Actuarial Value	4.7%

Date	Investment Gain/(Loss)	Amount Recognized	Remaining Balance as of September 30, 2023
9/30/2019	$ (1,334,686,373)	$ (1,334,686,373)	$ 0
9/30/2020	(548,007,399)	(438,405,920)	(109,601,479)
9/30/2021	3,773,220,414	2,263,932,249	1,509,288,165
9/30/2022	(6,100,126,339)	(2,440,050,536)	(3,660,075,803)
9/30/2023	1,474,875,316	294,975,063	1,179,900,253

Schedule C: Summary of Receipts & Disbursements

FOR THE PERIOD ENDING SEPTEMBER 30, 2023

Receipts for the Period		
Contributions:		
Members	$ 596,832,515	
Employer	978,950,793	
Total		$ 1,575,783,308
Investment Income		3,346,939,564
TOTAL		$ 4,922,722,872
Disbursements for the Period		
Benefit Payments		$ 2,553,421,599
Refunds to Members		68,193,964
DROP Distributions		13,572,550
Miscellaneous:		
Transfers to Term-Life Insurance Fund	$ 88,937	
Transfers to Expense Fund –Interest Forfeiture	0	
Transfers to Expense Fund –Investment Expenses	11,530,704	
Transfers to Pre-retirement Death Benefit Fund	6,416,732	
Total		18,036,373
TOTAL		$ 2,653,224,486
Excess of Receipts over Disbursements		$ 2,269,498,386
Reconciliation of Asset Balances		
Market Value of Assets as of September 30, 2022		$ 25,415,982,609
Excess of Receipts over Disbursements		2,269,498,386
Market Value of Assets as of September 30, 2023		$ 27,685,480,995
Estimated Rate of Return on Market Value		13.3%

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Schedule D: Outline of Actuarial Assumptions & Methods

The assumptions and methods used in the valuation are based on the results of the Experience Investigation for the Five-Year Period Ending September 30, 2020, dated July 12, 2021, and adopted by the Board on September 13, 2021.

LONG-TERM INVESTMENT RATE OF RETURN: 7.45% per annum, compounded annually, including price inflation at 2.50%.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include wage inflation at 2.75% per annum:

Service	Annual Rate
0	5.00 %
1-5	4.00
6-10	3.75
11-15	3.50
16 & Over	3.25

SEPARATIONS BEFORE SERVICE RETIREMENT:

Representative values of the assumed annual rates of death and disability are as follows:

AGE	Annual Rates							
			Disability Retirement**					
	Death*		Tier 1				Tier 2	
			Males		Females			
	Males	Females	Years of Service		Years of Service		Males	Females
			<25	>=25	<25	>=25		
25	0.0143%	0.0072%	0.1000%		0.0700%		0.1000%	0.0700%
30	0.0195	0.0111	0.1000		0.0700		0.1000	0.0700
35	0.0267	0.0169	0.1000		0.0700		0.1000	0.0700
40	0.0371	0.0260	0.1300		0.1700		0.1300	0.1700
45	0.0585	0.0403	0.2500	0.2000%	0.3200	0.2000%	0.2500	0.3200
50	0.0969	0.0605	0.5000	0.2000	0.5800	0.2000	0.5000	0.5800
55	0.1508	0.0878	0.8000	0.2000	0.9000	0.2250	0.8000	0.9000
60	0.2321	0.1326	0.5000	0.2000	0.6500	0.3000	0.5000	0.6500
65	0.3809	0.2223	0.5000	0.2000	0.6500	0.3000	0.5000	0.6500

**Base mortality rates as of 2010 before application of the improvement scale.*
***No rates of disability are assumed for members with less than 10 years of creditable service.*

Values of the assumed annual rates of withdrawal are as follows:

Years of Service	Annual Rates of Withdrawal*	
	Males	Females
0-3	12.00%	11.00%
4	10.00	9.00
5	7.25	6.50
6	6.25	5.50
7	5.25	5.00
8	5.00	4.25
9	4.25	3.50
10	3.25	3.25
11	3.25	3.00
12	3.00	2.75
13	3.00	2.50
14	2.75	2.25
15	2.50	2.25
16	2.00	2.00
17	2.00	1.90
18	2.00	1.85
19	2.00	1.70
>=20	1.00	1.00

**No rates after eligibility for retirement.*

Schedule D: Outline of Actuarial Assumptions & Methods

Values of the assumed annual rates of service retirement for Tier 1 are as follows:

AGE	Annual Rates				
	Males		Females		
	Years of Service		Years of Service		
	<25	>=25	<25	25	>=25
40-47		25.00%		25.00%	25.00%
48		22.00		18.00	18.00
49		17.50		15.50	15.50
50		16.00		17.50	12.50
51		16.00		19.00	14.00
52		16.00		19.50	14.50
53		16.00		20.00	15.00
54		16.00		21.50	16.50
55		15.50		22.00	17.00
56		15.50		22.00	17.00
57		15.50		22.50	17.50
58		15.50		23.50	18.50
59		18.00		25.00	20.00
60	12.00%	18.00	15.00%	29.00	24.00
61	9.50	18.00	12.00	29.00	24.00
62	22.00	32.00	21.00	45.00	40.00
63	16.00	27.50	16.00	36.00	31.00
64	14.00	21.50	15.50	32.50	27.50
65	25.00	27.50	27.00	38.00	38.00
66	25.00	27.50	28.00	40.00	40.00
67	22.00	23.50	23.00	33.00	33.00
68	21.00	22.50	25.00	33.00	33.00
69	21.00	22.50	20.50	30.00	30.00
70	21.00	22.50	24.50	30.00	30.00
71-74	20.00	22.50	22.00	30.00	30.00
75-76	30.00	22.50	30.00	30.00	30.00
77-79	30.00	22.50	30.00	30.00	30.00
80	100.00	100.00	100.00	100.00	100.00

Schedule D: Outline of Actuarial Assumptions & Methods

Values of the assumed annual rates of service retirement for Tier 2 (Non-FLC) are as follows:

AGE	Annual Rates								
	Males				Females				
	Years of Service				Years of Service				
	<25	25-29	30	>=31	<25	25	26-29	30	>=31
40-47			10.00%	10.00%				10.00%	10.00%
48			10.00	10.00				10.00	10.00
49			10.00	10.00				10.00	10.00
50			10.00	10.00				10.00	10.00
51			10.00	10.00				10.00	10.00
52			10.00	10.00				10.00	10.00
53			10.00	10.00				10.00	10.00
54			10.00	10.00				10.00	10.00
55			20.00	10.00				20.00	10.00
56			20.00	10.00				20.00	10.00
57			20.00	10.00				20.00	10.00
58			20.00	10.00				20.00	10.00
59			20.00	10.00				20.00	10.00
60			40.00	40.00				45.00	45.00
61			40.00	40.00				45.00	45.00
62	50.00%	60.00%	60.00	60.00	50.00%	70.00%	70.00%	70.00	70.00
63	16.00	27.50	27.50	27.50	16.00	36.00	31.00	31.00	31.00
64	14.00	21.50	21.50	21.50	15.50	32.50	27.50	27.50	27.50
65	25.00	27.50	27.50	27.50	27.00	38.00	38.00	38.00	38.00
66	25.00	27.50	27.50	27.50	28.00	40.00	40.00	40.00	40.00
67	22.00	23.50	23.50	23.50	23.00	33.00	33.00	33.00	33.00
68	21.00	22.50	22.50	22.50	25.00	33.00	33.00	33.00	33.00
69	21.00	22.50	22.50	22.50	20.50	30.00	30.00	30.00	30.00
70	21.00	22.50	22.50	22.50	24.50	30.00	30.00	30.00	30.00
71-74	20.00	22.50	22.50	22.50	22.00	30.00	30.00	30.00	30.00
75-76	30.00	22.50	22.50	22.50	30.00	30.00	30.00	30.00	30.00
77-79	30.00	30.00	22.50	22.50	30.00	30.00	30.00	30.00	30.00
80	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Schedule D: Outline of Actuarial Assumptions & Methods

Values of the assumed annual rates of service retirement for Tier 2 (FLC) (for both males and females) are as follows:

AGE	Annual Rates		
	Years of Service		
	10	11-29	30
40-47			2.50%
48			2.50
49			5.00
50			5.00
51			10.00
52			10.00
53			10.00
54			10.00
55			10.00
56	15.00%	15.00%	15.00
57	15.00	15.00	15.00
58	15.00	15.00	15.00
59	15.00	15.00	15.00
60	17.00	17.00	17.00
61	40.00	18.50	18.50
62	40.00	30.00	30.00
63	40.00	25.00	25.00
64	40.00	22.00	22.00
65	40.00	27.00	27.00
66	40.00	38.00	38.00
67	40.00	30.00	30.00
68	40.00	30.00	30.00
69	40.00	30.00	30.00
70-74	60.00	30.00	30.00
75	100.00	100.00	100.00

Schedule D: Outline of Actuarial Assumptions & Methods

DEATHS AFTER RETIREMENT: Mortality rates were based on the Pub-2010 Teacher tables with the following adjustments, projected generationally using scale MP-2020 through 2018 and scale MP-2020 adjusted by 66-2/3% beginning with year 2019:

Group	Membership Table	SetForward(+)/ Setback (-)	Adjustment to Rates
Service Retirees	Teacher Retiree - Below Median	Male: +2, Female: +2	Male: 108% ages < 63, 96% ages > 67; Phasing down 63 -67 Female: 112% ages < 69 98% > age 74 Phasing down 69-74
Beneficiaries	Contingent Survivor Below Median	Male: +2, Female: None	None
Disabled Retirees	Teacher Disability	Male: +8, Female: +3	None

PRE-RETIREMENT DEATH BENEFITS: For those eligible for pre-retirement death benefits, it is assumed that 70% will elect the lump sum death benefit payable from the death benefit fund and 30% will elect the monthly benefit payable from the pension accumulation fund (20% spouses and 10% non-spouse beneficiaries).

BENEFITS PAYABLE UPON SEPARATION FROM SERVICE: For active members who separate from service prior to eligibility for a service retirement allowance, the liability is assumed to be the greater of the value of the refund of contributions or the value of the deferred annuity.

UNUSED SICK LEAVE: 2.5% load on service retirement liabilities for active members.

PERCENTAGE MARRIED: 100% of active members are assumed to be married with the husband 3 years older than the wife.

VALUATION METHOD: Individual entry age normal cost method.

ASSET METHOD: Actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value.

LIABILITY FOR CURRENT INACTIVE MEMBERS: Member Contribution Balance is multiplied by a factor of 2.0. for vested members with incomplete data and 1.0 for other inactive members.

LIABILITY FOR POST-DROP ACTIVE MEMBERS: Members are assumed to retire immediately and receive their accrued benefit.

COLA: No future ad hoc cost of living adjustments (COLAs) are assumed.

FUTURE SERVICE CREDIT: One year of creditable service per year of employment.

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 7.45%), of each member's expected benefit payable at retirement or death is determined, based on his age, service, sex, and compensation. 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 probability of his terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries 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 actuarial accrued liability contribution.

3. The normal contribution is determined using the "individual entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new 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 assets held from the present value of expected benefits to be paid from the System.

Schedule F: Board Funding Policy

FUNDING POLICY OF THE
TEACHERS' RETIREMENT SYSTEM BOARD OF CONTROL
EFFECTIVE SEPTEMEBER 30, 2021

The purpose of the funding policy is to state the overall funding objectives for the Teachers' Retirement System of Alabama (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.

The funding policy reflects the Board's long-term strategy for stability in funding of the plan.

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 maintain an increasing funded ratio (ratio of system actuarial value of assets to actuarial accrued liabilities) that reflects a trend of improved actuarial condition. The long-term objective is to attain a funded ratio which is consistent with the fiscal health and long-term stability of the System.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demands for liquidity.
- To develop a pattern of contribution rates expressed as a percentage of member payroll as measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board. In no event will the employer contribution rate be negative.
- To provide intergenerational equity for taxpayers with respect to System costs.

II. Benchmarks

To track progress in achieving the previously outlined funding objectives, the following benchmarks will be measured annually as of the valuation date. The valuation date is the date that the annual actuarial valuation of the System's assets and liabilities is prepared. This date is currently September 30th each year 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 increase over time, before adjustments for changes in benefits, actuarial methods, and or actuarial assumptions.

Schedule F: Board Funding Policy

- **Unfunded Actuarial Accrued Liability (UAAL)**
  - **Initial Total UAAL -** The initial total UAAL established as of the initial valuation date (September 30, 2021) for which this funding policy is adopted shall be amortized over a closed period. (A closed amortization period is one which is calculated over a fixed period and at the end of that period, the amount is fully amortized). All gains and losses occurring after the initial valuation date and before September 30, 2028, with the exception of those due to benefit improvements, shall be included in the remaining initial total UAAL each year and amortized over the remaining closed period. (applicable only to employers participating in the System as of the adoption date of the funding policy).
  - **New Incremental UAAL -** Each valuation after the initial valuation date will produce a New Incremental UAAL consisting of all benefit changes that have occurred since the previous valuation. Each valuation beginning with the September 30, 2028 valuation will produce a New Incremental UAAL consisting of all assumption and method changes and experience gains and/or losses that have occurred since the previous valuation.
- **UAAL Amortization Period and Contribution Rates**
  - The Initial Total UAAL will be amortized over a 27-year closed period as of September 30, 2021.
  - Except as noted later, each New Incremental UAAL shall be amortized over a closed 20-year period.
  - Incremental UAAL resulting from plan changes that grant benefit improvements shall be amortized over a period not to exceed 15 years.
  - Employer Normal Contribution Rate – the contribution rate determined as of the valuation date each year based on the provisions of Alabama Code Section 16-25-21.
  - In each valuation subsequent to the adoption of this funding policy the required employer contribution rate will be determined by the summation of the employer Normal Contribution Rate, a contribution rate for administrative expenses, a contribution rate for the pre-retirement death benefit fund, a contribution rate for the term life insurance fund, the individual amortization rate for each of the New Incremental UAAL bases, and the amortization rate of the remaining initial UAAL.

Schedule F: Board Funding Policy

- **UAAL Amortization Period for Employers joining the System after the Implementation of this Funding Policy**
  - For Employers joining the System after the implementation of this Funding Policy, the employer contribution rate shall be computed as the sum of the employer Normal Contribution rate, a contribution rate for administrative expenses, a contribution rate for the pre-retirement death benefit fund, a contribution rate for the term life insurance fund, and the initial UAAL contribution rate. The initial UAAL contribution rate shall be determined by amortizing the initial UAAL over a closed period equal to the expected future working lifetime of the active membership. This initial amortization period shall not be less than 10 years nor greater than 20 years.
  - In subsequent years the UAAL and employer contribution rate shall be determined in accordance with the rules of the Funding Policy described in the previous section.

III. Methods and Assumptions

The actuarial funding method used to develop the benchmarks will be the Entry Age Normal (EAN) actuarial cost method. The actuarial methods and assumptions used will be those last adopted by the Board based upon the advice and recommendation of the actuary. 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 those recommendations.

IV. Funding Policy Progress

The Board will periodically have projections of funded status performed to assess the current and expected future progress towards the overall funding goals of the System.

Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR THE REMAINING INITIAL UAAL INCLUDING GAINS AND LOSSES NOT DUE TO BENEFIT IMPROVEMENTS AFTER SEPTEMBER 30, 2021

Valuation Date	Initial Balance of UAAL	Amortization Period	Annual Amortization Payment
9/30/2021	$11,896,322,737	27	$797,507,849
9/30/2022	13,979,041,360	26	955,768,808
9/30/2023	**15,355,779,012**	**25**	**1,072,199,796**
9/30/2024	15,427,584,752	24	1,101,685,291
9/30/2025	15,475,254,525	23	1,131,981,636
9/30/2026	15,496,179,351	22	1,163,111,131
9/30/2027	15,487,533,582	21	1,195,096,687
9/30/2028	15,446,258,146	20	1,227,961,846
9/30/2029	15,369,042,532	19	1,261,730,797
9/30/2030	15,252,305,403	18	1,296,428,394
9/30/2031	15,092,173,762	17	1,332,080,175
9/30/2032	14,884,460,532	16	1,368,712,380
9/30/2033	14,624,640,462	15	1,406,351,970
9/30/2034	14,307,824,206	14	1,445,026,649
9/30/2035	13,928,730,460	13	1,484,764,882
9/30/2036	13,481,655,998	12	1,525,595,916
9/30/2037	12,960,443,453	11	1,567,549,804
9/30/2038	12,358,446,686	10	1,610,657,424
9/30/2039	11,668,493,541	9	1,654,950,503
9/30/2040	10,882,845,806	8	1,700,461,642
9/30/2041	9,993,156,177	7	1,747,224,337
9/30/2042	8,990,421,976	6	1,795,273,006
9/30/2043	7,864,935,407	5	1,844,643,014
9/30/2044	6,606,230,081	4	1,895,370,697
9/30/2045	5,203,023,525	3	1,947,493,391
9/30/2046	3,643,155,387	2	2,001,049,459
9/30/2047	1,913,521,004	1	2,056,078,319
9/30/2048	0	0	0

Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR BASE
CLOSED ON SEPTEMBER 30, 2021
DUE TO BENEFIT IMPROVEMENTS

Valuation Date	Balance of UAAL Due to Benefit Improvements	Amortization Period	Annual Amortization Payment
9/30/2021	$56,254,718	15	$5,409,633
9/30/2022	55,036,062	14	5,558,398
9/30/2023	**53,577,851**	**13**	**5,711,254**
9/30/2024	51,858,147	12	5,868,313
9/30/2025	49,853,266	11	6,029,692
9/30/2026	47,537,643	10	6,195,508
9/30/2027	44,883,689	9	6,365,885
9/30/2028	41,861,639	8	6,540,946
9/30/2029	38,439,385	7	6,720,822
9/30/2030	34,582,297	6	6,905,645
9/30/2031	30,253,033	5	7,095,550
9/30/2032	25,411,333	4	7,290,678
9/30/2033	20,013,799	3	7,491,172
9/30/2034	14,013,656	2	7,697,179
9/30/2035	7,360,494	1	7,908,851
9/30/2036	0	0	0

Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR TOTAL UAAL
AS OF SEPTEMBER 30, 2023

Year	Projected UAAL	Payment for year Beginning September 30,
2021	$11,952,577,455	$802,917,482
2022	14,034,077,422	961,327,206
2023	**15,409,356,863**	**1,077,911,050**
2024	15,479,442,899	1,107,553,604
2025	15,525,107,791	1,138,011,328
2026	15,543,716,994	1,169,306,639
2027	15,532,417,271	1,201,462,572
2028	15,488,119,785	1,234,502,792
2029	15,407,481,917	1,268,451,619
2030	15,286,887,700	1,303,334,039
2031	15,122,426,795	1,339,175,725
2032	14,909,871,865	1,376,003,058
2033	14,644,654,261	1,413,843,142
2034	14,321,837,862	1,452,723,828
2035	13,936,090,954	1,492,673,733
2036	13,481,655,998	1,525,595,916
2037	12,960,443,453	1,567,549,804
2038	12,358,446,686	1,610,657,424
2039	11,668,493,541	1,654,950,503
2040	10,882,845,806	1,700,461,642
2041	9,993,156,177	1,747,224,337
2042	8,990,421,976	1,795,273,006
2043	7,864,935,407	1,844,643,014
2044	6,606,230,081	1,895,370,697
2045	5,203,023,525	1,947,493,391
2046	3,643,155,387	2,001,049,459
2047	1,913,521,004	2,056,078,319
2048	0	0

Schedule H: Summary of Main Plan Provisions

AS INTERPRETED FOR VALUATION PURPOSES

The Teachers' Retirement System of Alabama was established on September 15, 1939, and went into effect September 30, 1941. The valuation took into account amendments to the System through the valuation date. There is a new tier (Tier II) of benefits for all members initially joining the System on and after January 1, 2013. The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

1 – DEFINITIONS

Average Final Compensation - the average compensation of a member for:

Tier I – the 3 highest years in the last 10 years of Creditable Service
Tier II – the 5 highest years in the last 10 years of Creditable Service

Membership Service – all creditable service rendered while a member of the retirement system and for which contributions are made.

Creditable Service – the sum of membership service, prior service, and any other service established as creditable in accordance with the provisions of the retirement law.

Annuity – payments for life derived from accumulated contributions of a member.

Pension – payments for life derived from employer contributions.

Retirement Allowance – the sum of the annuity and pension.

2 - BENEFITS

Service Retirement Allowance

Condition for Allowance

Tier I	A retirement allowance is payable upon the request of any member who has completed 25 years of creditable service or who has attained age 60 and completed at least 10 years of creditable service.
Tier II	A retirement allowance is payable upon the request of any member who has completed 30 years of creditable service or who has attained age 62 and completed at least 10 years of creditable service (age 56 with 10 years of creditable service for a full-time certified firefighter, police officer, or correctional officer).

Schedule H: Summary of Main Plan Provisions

Amount of Allowance	
Tier I	Upon service retirement, a member receives a retirement allowance equal to 2.0125% of the member's average final compensation multiplied by the number of years of creditable service. At retirement, a member receives one additional year of creditable service in determining the retirement allowance for each five years of creditable service as a full-time certified firefighter, police officer, or correctional officer.
Tier II	Upon service retirement, a member receives a retirement allowance equal to 1.65% of the member's average final compensation multiplied by the number of years of creditable service. The benefit is capped at 80% of the member's average final compensation. For a member whose age at retirement is less than age 62 (age 56 for a full-time certified firefighter, police officer, or correctional officer), the amount of the allowance will be reduced by 2% for each year that the member's age is less than age 62 (age 56 for a full-time certified firefighter, police officer, or correctional officer).
Both	The member may elect to receive a reduced retirement allowance in order to provide an allowance to a designated beneficiary after the member's death (see "Special Privileges at Retirement" below).
Disability Retirement Allowance	
Condition for Allowance	A disability retirement allowance may be granted to a member who has 10 years or more of creditable service and becomes totally and permanently incapacitated for duty before reaching eligibility for a service retirement allowance.
Amount of Allowance	
Tier I	On retirement for disability, a member receives a retirement allowance equal to 2.0125% of the member's average final compensation multiplied by the number of years of creditable service. At retirement, a member receives one additional year of creditable service in determining the retirement allowance for each five years of creditable service as a full-time certified firefighter, police officer, or correctional officer.
Tier II	Upon disability retirement, a member receives a retirement allowance equal to 1.65% of the member's average final compensation multiplied by the number of years of creditable service. The benefit is capped at 80% of the member's average final compensation.
Both	The member may elect to receive a reduced retirement allowance in order to provide an allowance to a designated beneficiary after the member's death (see "Special Privileges at Retirement" below).

Schedule H: Summary of Main Plan Provisions

Benefits Payable on Separation from Service	Any member who withdraws from service is entitled to receive his or her contributions with allowable interest. A member who has completed 10 years of creditable service may, after separation from service, continue in the membership of the System and file for service retirement after reaching age 60 (age 62 for Tier II members).
Benefits Payable upon Death in Active Service	In the event of the death of a member eligible for service retirement, the designated beneficiary may elect (1) to exercise Option 2 (spouse) or Option 3 (non-spouse beneficiary) as defined below under "Special Privileges at Retirement" or (2) to receive a return of member contributions and total earned interest plus a death benefit payable from the preretirement death benefit fund equal to the salary on which the member made retirement contributions for the previous scholastic year (July 1-June 30).* In the event of the death of a member with more than one year of creditable service who is not eligible to retire, the designated beneficiary shall receive the return of member contributions and total earned interest. Also, the designated beneficiary shall receive an additional death benefit payable from the preretirement death benefit fund equal to the salary on which retirement contributions were made for the previous scholastic year (July 1-June 30).* In the event of a job-related death of a member with less than one year of creditable service, the designated beneficiary shall receive the return of member contributions and total earned interest plus a death benefit payable from the preretirement death benefit fund equal to the annual earnable compensation of the member at the time of death.* In the event of the death of a member with less than one year of creditable service that is not job-related, the designated beneficiary shall receive the return of member contributions and total earned interest plus a matching death benefit which is limited to a $5,000 maximum. *However, if the death occurred more than 180 calendar days after the member's last day in pay status or if the deceased had applied for a refund of contributions or terminated employment, the lump sum will be the same as if the member had less than one year of creditable service and the death was not job-related.

Schedule H: Summary of Main Plan Provisions

Special Privileges at Retirement	In lieu of the full retirement allowance, any member may, at retirement, elect to receive a reduced retirement allowance equal in value to the full allowance, with the provision that: Option 1 - If the member dies before annuity payments have equaled the present value of the annuity at the date of retirement, the balance is paid to a designated beneficiary or to his/her estate, or Option 2 - After the member's death, the member's allowance is continued throughout the life of the designated beneficiary, or Option 3 - After the member's death, one-half of the member's allowance is continued throughout the life of the designated beneficiary, or Option 4 - Some other benefit is paid either to the member or to such other person as the member shall designate provided such benefit, together with the reduced retirement allowance, is of equivalent actuarial value to his retirement allowance and is approved by the Board of Control. Partial Lump Sum Option Plan (PLOP). For members retiring on or after October 1, 2019, in addition to selecting Options 1, 2, 3, or 4, the member may also elect to receive a one-time lump-sum distribution in addition to the monthly retirement benefit. The PLOP distribution will be made as a single payment at the time the first monthly benefit is paid. Based on the amount of the PLOP and the member's age, the monthly retirement benefit is actuarially reduced.
Deferred Retirement Option Plan (DROP)	Prior to March 25, 2011, a member could elect to participate in the Deferred Retirement Option Plan (DROP) upon completion of at least 25 years of creditable service (excluding sick leave) and attainment of at least 55 years of age. Under the DROP, the member deferred receipt of a retirement allowance and continued employment for a period not to exceed five years, nor to be less than three years. At the end of this period, the member withdrew from active service and received the retirement benefit calculated at the time of enrollment in the DROP, and also received a payment for the deferred retirement benefits, employee contributions while participating in the DROP, and interest earned on DROP deposits. The effect of Act 2011-27 was that no new participants were allowed to enter the DROP with an effective participation date after June 1, 2011.
Term Life Insurance	Upon the death of a contributing member, there is paid a term life insurance benefit of $15,000 (pro-rated for part-time members).

Schedule H: Summary of Main Plan Provisions

Member Contributions

Tier I	Prior to October 1, 2011, regular members contributed 5.0% of salary and certified police officers, firefighters, and correctional officers contributed 6.0% of salary. DROP participants continued to contribute during the DROP period but received a refund of these contributions and regular interest upon retirement.
	Beginning October 1, 2011, the contribution rates were increased to 7.25% of salary for regular members and 8.25% of salary for full-time, certified police officers, firefighters, and correctional officers.
	Beginning October 1, 2012, the contribution rates were increased to 7.50% of salary for regular members and 8.50% of salary for full-time certified police officers, firefighters, and correctional officers.
Tier II	Prior to October 1, 2021, regular members contributed 6% of salary and full-time certified firefighters, police officers, and correctional officers contributed 7% of salary.
	Beginning October 1, 2021, the contribution rates were increased to 6.20% of salary for regular members and 7.20% of salary for full-time certified police officers, firefighters, and correctional officers.
Both	If positive investment performance results in a decrease in the total contribution rate paid by employers and employees participating in the System, the Retirement Systems of Alabama shall first reduce the employee contribution rate.
	"Regular Interest" is 4% which is the rate adopted by the Board and applied to the balance in each member's account every year; however, if a member receives a refund of contributions, the interest rate applied to the refund is lower than the 4% regular rate (Based on Section 16-25-14-(g)(1)).

Schedule I: Schedule of Membership Data

NUMBER OF ACTIVE MEMBERS AND THEIR AVERAGE COMPENSATION
BY AGE AND YEARS OF SERVICE
AS OF SEPTEMBER 30, 2023

Attained Age	**Years of Service**										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	≥ 40	Total
Under 25	1,720	2,074	3								3,797
Avg. Pay	40,933	38,943	43,719								39,848
25 to 29	1,607	7,610	1,727	4							10,948
Avg. Pay	42,973	45,899	54,848	47,138							46,882
30 to 34	1,285	5,481	5,770	1,210	3						13,749
Avg. Pay	43,767	47,965	57,673	65,359	62,581						53,181
35 to 39	1,224	5,020	4,446	4,625	1,300	10					16,625
Avg. Pay	43,242	49,200	61,380	68,857	73,277	62,019					59,377
40 to 44	949	4,305	4,039	3,126	5,283	1,349	9				19,060
Avg. Pay	43,958	48,495	60,994	70,901	74,906	78,588	67,067				64,052
45 to 49	782	3,415	3,402	2,741	3,590	4,714	1,055	5			19,704
Avg. Pay	46,718	47,241	59,498	68,532	75,911	80,498	84,700	59,875			67,487
50 to 54	662	3,159	3,092	2,515	3,260	3,361	3,191	493	9		19,742
Avg. Pay	45,532	48,237	57,372	62,067	70,421	78,401	85,121	90,674	59,608		67,164
55 to 59	506	2,298	2,273	2,010	2,808	2,785	1,951	1,177	220	5	16,033
Avg. Pay	41,187	49,249	54,402	60,291	64,105	70,021	79,259	89,306	88,529	58,303	64,454
60 to 64	318	1,715	1,790	1,424	1,837	1,942	1,382	741	409	72	11,630
Avg. Pay	39,915	44,465	49,891	56,466	61,118	63,857	72,688	82,382	84,907	78,386	59,916
65 to 69	151	743	936	671	654	591	473	297	175	125	4,816
Avg. Pay	41,588	35,315	53,504	61,958	64,069	66,038	73,303	88,757	96,255	84,804	60,959
70 & up	83	349	518	424	323	221	179	132	72	36	2,337
Avg. Pay	31,956	31,080	50,099	57,774	63,182	70,201	61,516	91,621	91,765	125,271	57,378
Total	9,287	36,169	27,996	18,750	19,058	14,973	8,240	2,845	885	238	138,441
Avg. Pay	43,016	46,696	57,711	65,652	70,724	75,013	80,383	87,738	88,352	88,427	**60,801**

Average Age: 45.64 Average Service: 10.82

Schedule I: Schedule of Membership Data

NUMBER OF SERVICE RETIREMENTS AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	280	$ 9,893,062	$ 35,332
50 – 54	2,481	87,698,986	35,348
55 – 59	4,756	167,873,222	35,297
60 – 64	10,950	313,759,013	28,654
65 – 69	19,403	510,315,095	26,301
70 – 74	21,727	529,655,957	24,378
75 – 79	17,358	403,659,340	23,255
80 – 84	9,952	226,499,415	22,759
85 – 89	5,130	110,141,378	21,470
90 – 94	2,164	44,018,019	20,341
95 & Over	668	11,814,373	17,686
Total	94,869	$ 2,415,327,860	$ 25,460

Average Age: 71.9

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	454	$ 5,702,140	$ 12,560
50 – 54	244	3,517,445	14,416
55 – 59	305	3,790,726	12,429
60 – 64	492	7,963,090	16,185
65 – 69	743	12,287,760	16,538
70 – 74	1,005	17,673,875	17,586
75 – 79	1,147	21,659,937	18,884
80 – 84	965	18,462,157	19,132
85 – 89	710	13,117,334	18,475
90 – 94	352	5,706,512	16,212
95 & Over	125	1,888,494	15,108
Total	6,542	$ 111,769,470	$ 17,085

Average Age: 72.6

Schedule I: Schedule of Membership Data

NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	229	$ 3,498,437	$ 15,277
50 – 54	446	6,678,908	14,975
55 – 59	700	9,207,661	13,154
60 – 64	1,133	14,030,203	12,383
65 – 69	1,268	15,596,571	12,300
70 – 74	1,001	11,129,225	11,118
75 – 79	659	7,512,941	11,401
80 – 84	301	3,243,746	10,777
85 – 89	93	1,021,035	10,979
90 – 94	28	353,237	12,616
95 & Over	4	40,788	10,197
Total	5,862	$ 72,312,752	$ 12,336

Average Age: 66.0

STATUS RECONCILIATION FROM 2022 TO 2023

Reconciliation of Data from Last Year to This Year	Active	Retired	Disabled	Survivor	Vested	Total
Total as of September 30, 2022	135,783	93,393	5,904	6,252	7,157	248,489
Service Retirements	(3,638)	4,056			(418)	0
Disability Retirements	(173)		177		(4)	0
Termination (Re-Retirement)	(38)					(38)
Deceased	(96)	(2,052)	(186)	(292)	(26)	(2,652)
Deceased with Beneficiary	(22)	(487)	(31)	544	(4)	0
Deferred Vested Termination	(1,137)				1,137	0
Refunds	(1,758)	(2)	(1)		(177)	(1,938)
Transfer Out	(65)	(4)				(69)
Inactive	(6,028)				(8)	(6,036)
Return to Active Status	312	(37)	(1)		(274)	0
Pick-up/Status Change		2		38	13	53
New	15,301					15,301
Total as of September 30, 2023	138,441	94,869	5,862	6,542	7,396	253,110