Teachers' Retirement System of Alabama

Actuarial Valuation Report

Prepared as of September 30, 2024

CavMac
Actuarial Consulting Services

May 6, 2025

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, 2024 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, 2024 and to recommend rates of State contribution.

The findings in this report are based on data and other information through September 30, 2024. 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 results depend on the integrity of the data. If any of the information is inaccurate or incomplete, our results may be different and our calculations may need to be revised. The complete cooperation of the RSA staff in furnishing materials requested is hereby acknowledged with appreciation.

The valuation reflects the 2% salary increase granted to state employees effective October 1, 2024 in accordance with Act 2024-284.

On the basis of the valuation, we have determined employer contribution rates of 14.66% of payroll for Tier I members and 13.70% of payroll for Tier II members for the fiscal year ending September 30, 2027.

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 2027 fiscal year employer rates in this September 30, 2024 actuarial valuation reflect the fourth of five phase-in periods of 0.31% of Tier I member payroll and 0.29% of Tier II member payroll. The fiscal year 2028 employer rates in the upcoming September 30, 2025 actuarial valuation will have the final phase-in adjustment.

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 (UAAL) 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 continue to estimate that 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, 2024
- 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, Ed Koebel and Wendy Ludbrook 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,

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

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

Wendy T. Ludbrook, FSA, EA, FCA, MAAA
Consulting Actuary

Jennifer Johnson
Managing Director

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SECTION I - SUMMARY OF PRINCIPAL RESULTS

Results as of September 30,	2024	2023
Active Members		
Number	139,806	138,441
Annual Compensation	$ 8,840,497,519	$ 8,417,325,026
Retired members and beneficiaries		
Number	109,312	107,273
Annual Allowances	$ 2,691,456,486	$ 2,599,410,082
Deferred vested members		
Number	7,252	7,396
Estimated deferred allowances	$ 113,753,585	$ 114,153,078
Actuarial accrued liability (AAL)	$ 45,696,131,237	$ 44,175,326,722
Assets		
Actuarial value (AVA)	$ 30,186,645,440	$ 28,765,969,859
Market value (MVA)	32,329,939,895	27,685,480,995
UAAL based on AVA	$ 15,509,485,797	$ 15,409,356,863
Funded Ratio based on AVA	66.1 %	65.1 %
UAAL based on MVA	$ 13,366,191,342	$ 16,489,845,727
Funded Ratio based on MVA	70.7 %	62.7 %
Employer Rates for FYE September 30,	**2027**	**2026**
Tier I (first hired prior to January 1, 2013)		
Total Normal Cost	10.33 %	10.21 %
Member Contributions	(7.50)	(7.50)
Employer Normal Cost	2.83 %	2.71 %
Unfunded actuarial accrued liability	11.51	11.54
Death benefit	0.02	0.02
Term life	0.05	0.05
Administration	0.25	0.25
Total Tier I Employer Contribution Rate	14.66 %	14.57 %
Tier II (first hired on or after January 1, 2013)		
Total Normal Cost	8.07 %	7.95 %
Member Contributions	(6.20)	(6.20)
Employer Normal Cost	1.87 %	1.75 %
Unfunded actuarial accrued liability	11.51	11.54
Death benefit	0.02	0.02
Term life	0.05	0.05
Administration	0.25	0.25
Total Tier II Employer Contribution Rate	13.70 %	13.61 %
Blended Amortization Period	23.9 years	24.9 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, 2027 from the previous year due to this phase-in are 0.31% of payroll for Tier I members and 0.30% of payroll for Tier II members.*

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. Comments on the valuation results as of September 30, 2024 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, 2024.

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. The actuarial value return on assets is estimated at 8.8% for the fiscal year ending September 30, 2024, which is compared to the current expected return of 7.45%.

4. 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.

5. The Board's Funding Policy is provided in Schedule F.

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 Summary of Principal Results shows the funded ratio and UAAL (unfunded actuarial accrued liability) on both asset basis: the AVA (actuarial value of assets) and the MVA (market value of assets. The funded ratio is the ratio of the assets to the actuarial accrued liability. The UAAL is the AAL (actuarial accrued liability) less the assets. The funded ratio is an indication of progress in funding the promised benefits. The AVA basis is used to determine employer contribution rates and is the traditional measurement of the funded ratio and UAAL. References to funded ratio and UAAL throughout this report are the traditional amounts. Since the funded ratio is less than 100% and the UAAL is greater than zero, there is a need for additional contributions towards payment of the UAAL. 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, 2024 on the basis of which the valuation was prepared.

TABLE 1
THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF SEPTEMBER 30, 2024

Group	Number	Compensation
Tier I	65,089	$ 4,801,643,258
Tier II	74,553	4,016,780,145
Post-DROP Members Still in Active Service	164	22,074,116
Total Active Members	139,806	$ 8,840,497,519

2. The table above 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 26,696 non-vested inactive members who have contributed in the last 5 years and 36,195 non-vested inactive members who have not contributed for more than 5 years.

3. 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 (Not Loaded)	% Increase in Average Pay**
9/30/2024	139,806	$ 8,840,497,519	5.03 %	$ 63,234	4.00 %
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

* 4.21% annual increase for Annual Payroll since 2019.
** 3.68% annual increase for Annual Average Pay since 2019.

4. 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, 2024

Group	Number*	Annual Retirement Allowances*
Service Retirements**	96,675	$ 2,499,370,196
Disability Retirements	5,802	72,625,655
Beneficiaries of Deceased Members	6,835	119,460,635
Total	109,312	$ 2,691,456,486

* In addition, there were 7,252 vested inactive members with estimated deferred annual allowances totaling $113,753,585 included in the valuation.

** Includes post-DROP members in suspended status who are also active with a second retirement account.

5. 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.

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, 2024, which represent the accumulated contributions of active members to that date, including interest, amounted to $7,573,432,326.

(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, 2024 the market value of assets credited to this fund amounted to $24,690,552,416.

(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, 2024, the market value of assets credited to this Fund amounted to $65,955,153.

(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, 2024, the market value of assets credited to this fund amounted to $54,712,671. 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, 2024, the market value of assets credited to this fund amounted to $2,268,233. 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, 2024, the market value of assets credited to this fund amounted to $21,493,864. These assets are not included in the valuation.

2. As of September 30, 2024, 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 $32,329,939,895 as shown in the following table.

TABLE 4A
MARKET VALUE OF ASSETS BY FUND
AS OF SEPTEMBER 30, 2024

Fund	Market Value of Assets
Annuity Savings Fund	$ 7,573,432,326
Pension Accumulation Fund	24,690,552,416
DROP Fund	65,955,153
Total Market Value of Assets	$ 32,329,939,895

3. The five-year market related actuarial value of assets as of September 30, 2024 was $30,186,645,440. Schedule B shows the development of the actuarial value of assets as of September 30, 2024.

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 expected and actual rates of investment returns.

TABLE 4B
HISTORICAL EXPECTED AND ACTUAL RETURNS

FYE September 30,	Expected Return	Market Return	Actuarial Return
2024	7.450 %	21.1 %	8.8 %
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
2017	7.875	11.8	9.8
2016	8.000	10.4	9.1
2015	8.000	0.1	9.3

6. The following table shows a historical reconciliation of the market value of assets by source.

TABLE 4C
HISTORICAL RECONCILIATION MARKET VALUE BY SOURCE
($ MILLIONS)

FYE 9/30	Beginning of Year Market Value of Assets (a)	Contribs (b)	Benefit Payments and Expenses (c)	Investment Income (d)	Change in Market Value of Assets (e)=(b)+(c)+(d)	End of Year Market Value of Assets (f)=(a)+(e)
2024	$ 27,685.5	$ 1,664.0	$ (2,743.5)	$ 5,723.9	$ 4,644.4	$ 32,329.9
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	24,467.6	1,296.6	(2,281.0)	2,273.3	1,288.9	25,756.5
2017	22,759.0	1,248.4	(2,184.6)	2,644.8	1,708.6	24,467.6
2016	21,574.7	1,204.9	(2,227.7)	2,207.1	1,184.3	22,759.0
2015	22,253.8	1,192.8	(2,139.8)	267.9	(679.1)	21,574.7

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, 2024.

2. The valuation balance sheet shows that the System has total prospective liabilities of $52,032,963,637. Of this amount, $25,298,756,963 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and DROP participants, $1,056,019,532 is for the prospective benefits payable on account of present inactive members and $25,678,187,142 is for the prospective benefits payable on account of present active members. Against these liabilities, the System has total actuarial value of assets of $30,186,645,440 as of September 30, 2024. The difference of $21,846,318,197 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, $4,674,233,733 is the present value of future contributions expected to be made by members to the Annuity Savings Fund, and the balance of $17,172,084,464 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 $1,662,598,667. When this amount is subtracted from $17,172,084,464, which is the present value of the total future contributions to be made by the employer, there remains $15,509,485,797 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 year’s valuation which shall be amortized over a closed 15-year period. All gains and losses occurring after the establishment of the initial total UAAL 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 11.51% 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, 2024.

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

Base	Initial Amounts UAAL	Initial Amounts Date	Initial Amounts Yrs	Amounts as of September 30, 2024 UAAL	Amounts as of September 30, 2024 Yrs	Amounts as of September 30, 2024 Payment
Remaining Initial UAAL	$ 11,896,322,737	9/30/2021	27	$ 15,457,627,650	24	$ 1,103,830,657
Benefit Improvements	56,254,718	9/30/2021	15	51,858,147	12	5,868,313
				$ 15,509,485,797		$ 1,109,698,970
Amortization Payment Adjusted for Timing						$ 1,069,847,163
Total Estimated Payroll*						$ 9,140,474,254
UAAL Contribution Rate						11.70%
UAAL Contribution Rate Phase-In Methodology**						11.51%

* 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.

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.

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, 2024 it is recommended that the employer make contributions at the following rates beginning October 1, 2026:

TABLE 6
EMPLOYER CONTRIBUTION RATES
AS A PERCENTAGE OF MEMBERS' COMPENSATION*

Component	Employer Contribution Rates for FYE September 30, 2027 Tier I	Tier II*
Total Normal Cost	10.33 %	8.07 %
Member Contributions**	(7.50)	(6.20)
Employer Normal Cost	2.83 %	1.87 %
Unfunded Actuarial Accrued Liability	11.51	11.51
Death Benefit	0.02	0.02
Term-Life	0.05	0.05
Administration	0.25	0.25
Total Employer Contribution Rate***	14.66 %	13.70 %

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

** Tier I members contribute 7.50% (8.50% for FLC members) and Tier II members contribute 6.20% (7.20% for FLC 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.

3. The total employer contribution rates without the phase-in would have been 14.97% of compensation for Tier I and 14.00% 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 24.9 years to 23.9 years. The unfunded actuarial accrued liability rate of 11.51% 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 decreases or increases the UAAL, respectively. The UAAL was expected to increase from $15,409,356,863 on September 30, 2023 to $15,651,075,634 on September 30, 2024.

The actual UAAL as of September 30, 2024 was $15,509,485,797 which was lower than expected leading to an overall actuarial gain for the System. The most significant item contributing to the gain in the UAAL was investment return being more than expected. Other gains in the UAAL were retirement and mortality experience. These gains were offset somewhat by salary increases being more than anticipated (including the 2% salary increase effective October 1, 2024). 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 shows 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 UAAL, AVA AND AAL
FOR FYE SEPTEMBER 30, 2024
($ THOUSANDS)

UAAL (Unfunded Actuarial Accrued Liability)		
(1)	UAAL at beginning of year	$ 15,409,357
(2)	Total normal cost at beginning of year	762,883
(3)	Actual contributions	1,664,011
(4)	Interest accrual: [[(1) + (2)] - ½ [(3)]] x 7.45%	1,142,847
(5)	Expected UAAL at end of year before changes: (1) + (2) - (3) + (4)	$ 15,651,076
(6)	Changes in benefit provisions	-
(7)	Changes in actuarial assumptions and methods	-
(8)	Expected UAAL after changes: (5) + (6) + (7)	$ 15,651,076
(9)	Actual UAAL at end of year	15,509,486
(10)	**UAAL (Gain)/Loss: (9) - (8)**	**$ (141,590)**
AVA (Actuarial Value of Assets)		
(11)	AVA at beginning of year	$ 28,765,970
(12)	Actual contributions	1,664,011
(13)	Actual disbursements	(2,722,415)
(14)	Expected Return: [(11) + ½ [(12) + (13)]] x 7.45%	2,103,639
(15)	Expected AVA before changes: (11) + (12) + (13) + (14)	$ 29,811,205
(16)	Changes in benefit provisions	-
(17)	Changes in actuarial assumptions and methods	-
(18)	Expected AVA after changes: (15) + (16) + (17)	$ 29,811,205
(19)	AVA at end of year	30,186,645
(20)	**AVA (Gain)/Loss: (18) – (19)**	**$ (375,440)**
AAL (Actuarial Accrued Liability)		
(21)	AAL at beginning of year	$ 44,175,327
(22)	Total normal cost at beginning of year	762,883
(23)	Actual disbursements	(2,722,415)
(24)	Interest accrual: [[(1) + (2)] + ½ [(3)]] x 7.45%	3,246,486
(25)	Expected AAL before changes: (11) + (12) + (13) + (14)	$ 45,462,281
(26)	Changes in benefit provisions	-
(27)	Changes in actuarial assumptions and methods	-
(28)	Expected AAL after changes: (15) + (16) + (17)	$ 45,462,281
(29)	AAL at end of year	45,696,131
(30)	**AAL (Gain)/Loss: (4) – (5)**	**$ 233,850**

(GAINS)/LOSSES BY SOURCE FOR FYE SEPTEMBER 30, 2024 AND FIVE-YEAR HISTORICAL TREND ($ THOUSANDS)

(Gains)/Losses by Source for FYE September 30, 2024		
Source	**Dollars**	**% of AAL**
Age & Service Retirements. Generally, earlier retirements cause losses and later retirements cause gains.	$ (71,423)	(0.16) %
Withdrawal. More withdrawals than expected usually cause gains and less withdrawals than expected cause losses.	31,004	0.07
Disability Retirements. More disabilities than expected generally cause losses and less disabilities than expected cause gains.	1,385	-
Death-In-Service Benefits. If survivor claims are less than assumed, there is a gain. If claims are more than assumed, there is a loss.	(378)	-
Salary Increases. If salaries increase more than expected, there is a loss. If salaries increase less than expected, there is a gain.	236,910	0.52
New Members/Rehires. Any past service causes losses.	53,852	0.12
Retiree Mortality. More deaths than expected cause gains, less than expected cause losses.	(11,221)	(0.02)
Investment Return. Investment income greater than expected causes gains while investment income less than expected cause losses.	(375,440)	(0.82)
Other. Miscellaneous gains and losses resulting from data corrections, timing of financial transactions, unit transfers, changes in valuation software, etc.	(6,279)	(0.01)
Total Actuarial (Gains)/Losses	$ (141,590)	(0.30) %

Five-year History of (Gains)/Losses by Source					
Source	**2024**	**2023**	**2022**	**2021**	**2020**
Age & Service Retirements	$ (71,423)	$ (68,006)	$ 52,932	$ 20,640	$ (39,224)
Withdrawal	31,004	26,405	23,309	31,005	22,293
Disability Retirements	1,385	1,601	3,025	3,821	1,231
Death-In-Service Benefits	(378)	249	(19)	(530)	4,611
Salary Increases	236,910	438,618	1,306,038	41,499	(516,747)
New Members/Rehires	53,852	35,768	34,520	20,469	17,306
Retiree Mortality	(11,221)	(24,261)	(23,799)	(44,624)	179
Investment Return	(375,440)	778,067	595,225	(562,705)	49,582
Other	(6,279)	(7,966)	62,145	4,488	(3,554)
Total (Gain)/Loss	$ (141,590)	$ 1,180,475	$ 2,053,376	$ (485,937)	$ (464,323)

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, 2024

Group	Number
Retirees and beneficiaries currently receiving benefits	109,312
Terminated employees entitled to benefits but not yet receiving benefits	33,948
Non-vested former members who have not contributed for more than 5 years	36,195
Active members	139,806
Total	319,261

2. The schedule of funding progress is shown below.

SCHEDULE OF FUNDING PROGRESS ($ MILLIONS)

Val Date 9/30	Actuarial Value of Assets (AVA) (a)	Actuarial Accrued Liability Entry Age (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b) - (a)	Funded Ratio (a) ÷ (b)	Covered Payroll (c)	UAAL as a Percentage Covered Payroll [(b) - (a)] ÷ (c)
2024	$ 30,187	$ 45,696	$ 15,509	66.1 %	$ 8,840	175.4 %
2023	28,766	44,175	15,409	65.1	8,417	183.1
2022	28,518	42,552	14,034	67.0	7,982	175.8
2021 *	28,154	40,107	11,953	70.2	7,222	165.5
2020	26,681	37,753	11,072	70.7	7,019	157.7
2019	25,821	37,215	11,394	69.4	7,194	158.4
2018 *	25,006	35,628	10,622	70.2	6,756	157.2
2017 *	23,887	34,688	10,801	68.9	6,699	161.2
2016 *	22,646	33,144	10,498	68.3	6,431	163.2
2015	21,740	31,845	10,105	68.3	6,351	159.1

* Reflects changes in actuarial assumptions or methods.

3. The information presented above was determined as part of the actuarial valuation at September 30, 2024. Additional information as of the latest actuarial valuation follows.

Valuation date	September 30, 2024
Actuarial cost method	Entry Age Normal
Amortization method	Level percent closed
Remaining amortization period	23.9 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
Price inflation	2.50%

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.

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.

Val Date 9/30	Fair Value of Assets (a)	Covered Payroll (b)	Asset Volatility Ratio (AVR) (a) ÷ (b)
2024	$ 32,329,940	$ 8,840,498	3.66
2023	27,685,481	8,417,325	3.29
2022	25,415,983	7,982,340	3.18
2021	30,390,239	7,221,790	4.21
2020	25,776,401	7,019,258	3.67
2019	25,443,975	7,193,832	3.54
2018	25,756,495	6,756,474	3.81
2017	24,467,518	6,698,835	3.65
2016	22,758,954	6,430,999	3.54
2015	21,574,653	6,350,786	3.40

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, 2024 is 3.66. 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 0.25% 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 1.27%.

Impact of Investment Rate of Return of 5% Less Than Assumed based on AVR		
AVR	Unsmoothed Amortization	Smoothed Amortization
3.00	1.04%	0.21%
3.66	1.27%	0.25%
4.00	1.39%	0.28%

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.

SECTION IX - RISK ASSESSMENT

The following table 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 Millions	Based on a Discount Rate of: 7.45% (Current)	6.45% (Current less 1%)	8.45% (Current plus 1%)
Results as of September 30, 2024			
Actuarial accrued liability (AAL)	$ 45,696	$ 50,849	$ 41,360
Actuarial Value of Assets (AVA)	30,187	30,187	30,187
Unfunded Actuarial Accrued Liability (UAAL)	15,509	20,662	11,173
Funded Ratio (AVA ÷ AAL)	66.1 %	59.4 %	73.0 %
Employer Rates for FYE September 30, 2027*			
Tier I (first hired prior to January 1, 2013)	14.97 %	20.01 %	10.56 %
Tier II (first hired on or after January 1, 2013)	14.00	18.29	10.14

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

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.

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, 2024 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 $53.3 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 AND SOLVENCY TEST

VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES
AS OF SEPTEMBER 30, 2024

Assets	
Actuarial Value of Present Assets	$ 30,186,645,440
Present value of future members' contributions to the Annuity Savings Fund	$ 4,674,233,733
Present value of future employer contributions to the Pension Accumulation	
Normal cost contributions	$ 1,662,598,667
Unfunded accrued liability contributions	15,509,485,797
Total prospective employer contributions	$ 17,172,084,464
Total Assets	**$ 52,032,963,637**
Liabilities	
Present value of benefits in payment on account of:	
Service Retirements	$ 23,685,788,798
Disability Retirement	623,383,035
Beneficiaries of Deceased Members	923,629,977
DROP Members	65,955,153
Total In Payment Liabilities	$ 25,298,756,963
Present value of benefits payable to Inactives for:	
Future Benefit Liabilities	$ 961,811,855
T-Section Accounts	94,207,677
Total Inactive Liabilities	$ 1,056,019,532
Present value of prospective benefits payable on account of present active members:	
Service Retirement Allowances	$ 23,201,593,752
Disability Retirement Allowances	947,219,844
Death Benefits	118,070,107
Refunds of Members' Contributions	1,411,303,439
Total Active Liabilities	$ 25,678,187,142
Total Liabilities	**$ 52,032,963,637**

SOLVENCY TEST
AS OF SEPTEMBER 30, 2024
($ IN MILLIONS)

Val Date 9/30		Aggregate Accrued Liabilties for: Active Member Contribs (a)	Retirants and Beneficiaries (b)	Employer Financed Portion of Active Members (c)	Reported Assets	Portion of Accrued Liabilities Cover by Reported Assets (a)	(b)	(c)
2024		$ 7,573	$ 25,299	$ 12,824	$ 30,187	100 %	89 %	- %
2023		7,232	24,478	12,465	28,766	100	88	-
2022		6,866	23,900	11,787	28,518	100	91	-
2021	*	6,590	23,112	10,405	28,154	100	93	-
2020		6,357	21,781	9,615	26,681	100	93	-
2019		6,100	21,094	10,021	25,821	100	93	-
2018	*	5,788	20,512	9,328	25,006	100	94	-
2017	*	5,504	19,886	9,298	23,887	100	92	-
2016	*	5,197	19,257	8,689	22,646	100	91	-
2015		4,894	18,621	8,329	21,740	100	90	-

* Reflects changes in actuarial assumptions or methods.

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS
AS OF SEPTEMBER 30, 2024

Development of Actuarial Value of Assets	
(1) Actuarial Value of Assets on September 30, 2023	$ 28,765,969,859
(2) Market Value of Assets on September 30, 2024	$ 32,329,939,895
(3) Market Value of Assets on September 30, 2023	$ 27,685,480,995
(4) Net Cash Flow for FYE September 30, 2024	
a. Contributions	$ 1,664,011,465
b. Benefit Payments and DROP Distributions	2,647,049,360
c. Refunds to Members	75,365,654
d. Transfer to Expense Fund	-
e. Transfer to Plant and Pre-retirement Death Fund	-
f. Investment Expenses	10,672,038
g. Net Cash Flow: a. - b. - c. - d. - e. - f.	$ (1,069,075,587)
(5) Actual Investment Return: (2) - (3) - (4)g.	$ 5,713,534,487
(6) Expected Investment Return:	
7.45% x ((3) + 0.50 x ((4)a. - (4)b. - (4)c. - (4)d. - (4)e.) + (4)f.	$ 2,033,814,840
(7) Investment Gain/(Loss) for the Fiscal Year: (5) - (6)	$ 3,679,719,647
(8) Phased-In Recognition of Investment Gain/(Loss) for FYE:	
a. September 30, 2024: 20% of (7)	735,943,929
b. September 30, 2023	294,975,063
c. September 30, 2022	(1,220,025,268)
d. September 30, 2021	754,644,083
e. September 30, 2020	(109,601,479)
f. Total Recognized Investment Gain/(Loss) for Fiscal Year	$ 455,936,328
(9) **Actuarial Value of Assets on September 30, 2024:**	
(1) + (4)g. + (6) + (8)f.	**$ 30,186,645,440**
Assumed Rate of Return on Assets	7.45%
Rate of Return on Actuarial Value of Assets*	8.82%

Five-year History of Investment Gain/(Loss) Recognition

FYE	Investment Gain/(Loss)	Amount Recognized	Remaining Balance as of September 30, 2024
September 30, 2024	$ 3,679,719,647	$ 735,943,929	$ 2,943,775,718
September 30, 2023	1,474,875,316	589,950,126	884,925,190
September 30, 2022	(6,100,126,339)	(3,660,075,804)	(2,440,050,535)
September 30, 2021	3,773,220,414	3,018,576,332	754,644,082
September 30, 2020	(548,007,399)	(548,007,399)	-

* Calculated assuming middle of year cash flow experience.

Schedule C - Receipts and Disbursements

Summary of Receipts and Disbursements for FYE September 30, 2024

Summary of Receipts and Disbursements for FYE September 30, 2024		
(1) Receipts for the Period		
a. Contributions:		
i Members	$ 625,335,580	
ii Employer	1,038,675,885	
iii Total		$ 1,664,011,465
b Investment Income		5,723,916,414
c. Total Receipts for the Period		$ 7,387,927,879
(2) Disbursements for the Period		
a. Benefit Payments		$ 2,636,752,358
b. Refunds to Members		75,365,654
c. DROP Distributions		10,297,002
d. Miscellaneous:		
i Transfers to Plant Fund	$ 0	
ii Transfers to Expense Fund - Interest Forfeiture	0	
iii Transfers to Expense Fund - Investment Expenses	10,672,038	
iv Transfers to Pre-Retirement Death Benefit Fund	10,139,344	
v Transfers to Term-Life Insurance	242,583	
vi Total Miscellaneous:		$ 21,053,965
e. Total Disbursements for the Period		$ 2,743,468,979
(3) Excess of Receipts over Disbursements: (1)c. - (2)e.		$ 4,644,458,900
(4) Reconciliation of Asset Balances		
a. Market Value of Assets as of September 30, 2023		$ 27,685,480,995
b. Excess of Receipts over Disbursements: (3)		4,644,458,900
c. **Market Value of Assets as of September 30, 2024: (4)a. + (4)c.**		**$ 32,329,939,895**
Estimated Rate of Return on Market Value of Assets*		21.1%

. * Calculated assuming middle of year cash flow experience.

SCHEDULE D - ACTUARIAL ASSUMPTIONS AND 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. The combined effect of the assumptions is expected to have no significant bias.

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:

	Annual Rates								
			Disability Retirement**						
	Death*		Tier I				Tier II		
			Males		Females				
			Years of Service		Years of Service				
AGE	Males	Females	<25	>=25	<25	>=25	Males	Females
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.*

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

	Annual Rates				
	Males		Females		
	Years of Service		Years of Service		
AGE	<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

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

	Annual Rates								
	Males				Females				
	Years of Service				Years of Service				
AGE	<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

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

	Annual Rates		
	Years of Service		
AGE	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 - ACTUARIAL ASSUMPTIONS AND 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 the member's 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.

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.

- **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.

- **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.

AMORTIZATION SCHEDULE FOR TOTAL UAAL
SPLIT BY REMAINING INITIAL AND BENEFIT IMPROVEMENT UAAL
AS OF SEPTEMBER 30, 2024

	Remaining Initial UAAL			Benefit Improvement UAAL			Total UAAL	
Val Date 9/30	Outstanding Balance as of Val Date	Yrs Left	Amortization Payment	Outstanding Balance as of Val Date	Yrs Left	Amortization Payment	Outstanding Balance as of Val Date	Amortization Payment
2021	$ 11,896,322,737	27	$ 797,507,849	$ 56,254,718	15	$ 5,409,633	$ 11,952,577,455	$ 802,917,482
2022	13,979,041,360	26	955,768,808	55,036,062	14	5,558,398	14,034,077,422	961,327,206
2023	15,355,779,012	25	1,072,199,796	53,577,851	13	5,711,254	15,409,356,863	1,077,911,050
2024	**15,457,627,650**	**24**	**1,103,830,657**	**51,858,147**	**12**	**5,868,313**	15,509,485,797	1,109,698,970
2025	15,505,390,253	23	1,134,186,000	49,853,266	11	6,029,692	15,555,243,519	1,140,215,692
2026	15,526,355,827	22	1,165,376,115	47,537,643	10	6,195,508	15,573,893,469	1,171,571,623
2027	15,517,693,221	21	1,197,423,958	44,883,689	9	6,365,885	15,562,576,910	1,203,789,843
2028	15,476,337,407	20	1,230,353,117	41,861,639	8	6,540,946	15,518,199,047	1,236,894,064
2029	15,398,971,427	19	1,264,187,828	38,439,385	7	6,720,822	15,437,410,812	1,270,908,650
2030	15,282,006,971	18	1,298,952,993	34,582,297	6	6,905,645	15,316,589,267	1,305,858,638
2031	15,121,563,497	17	1,334,674,200	30,253,033	5	7,095,550	15,151,816,529	1,341,769,751
2032	14,913,445,777	16	1,371,377,741	25,411,333	4	7,290,678	14,938,857,110	1,378,668,419
2033	14,653,119,747	15	1,409,090,629	20,013,799	3	7,491,172	14,673,133,546	1,416,581,800
2034	14,335,686,539	14	1,447,840,621	14,013,656	2	7,697,179	14,349,700,195	1,455,537,800
2035	13,955,854,565	13	1,487,656,238	7,360,494	1	7,908,851	13,963,215,060	1,495,565,089
2036	13,507,909,492	12	1,528,566,785	0	0	0	13,507,909,492	1,528,566,785
2037	12,985,681,965	11	1,570,602,371				12,985,681,965	1,570,602,371
2038	12,382,512,900	10	1,613,793,936				12,382,512,900	1,613,793,936
2039	11,691,216,174	9	1,658,173,270				11,691,216,174	1,658,173,270
2040	10,904,038,510	8	1,703,773,035				10,904,038,510	1,703,773,035
2041	10,012,616,344	7	1,750,626,793				10,012,616,344	1,750,626,793
2042	9,007,929,468	6	1,798,769,030				9,007,929,468	1,798,769,030
2043	7,880,251,184	5	1,848,235,178				7,880,251,184	1,848,235,178
2044	6,619,094,719	4	1,899,061,646				6,619,094,719	1,899,061,646
2045	5,213,155,630	3	1,951,285,841				5,213,155,630	1,951,285,841
2046	3,650,249,883	2	2,004,946,201				3,650,249,883	2,004,946,201
2047	1,917,247,298	1	2,060,082,222				1,917,247,298	2,060,082,222
2048	-	-	-				-	-

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).

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).

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.

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).
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 - MEMBERSHIP DATA

NUMBER OF ACTIVE MEMBERS AND THEIR AVERAGE COMPENSATION
BY AGE AND YEARS OF SERVICE
AS OF SEPTEMBER 30, 2024

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 & up	Total
Under 25	1,595	2,241	8	0	0	0	0	0	0	0	3,844
Avg Pay	44,994	39,984	33,954	0	0	0	0	0	0	0	42,051
25 to 29	1,567	7,996	1,756	2	0	0	0	0	0	0	11,321
Avg Pay	46,250	47,140	57,004	53,172	0	0	0	0	0	0	48,548
30 to 34	1,159	5,709	5,679	1,203	2	0	0	0	0	0	13,752
Avg Pay	46,681	49,968	59,374	66,959	49,503	0	0	0	0	0	55,062
35 to 39	1,095	5,215	4,426	4,896	1,144	9	0	0	0	0	16,785
Avg Pay	46,927	50,393	63,314	70,386	75,615	54,981	0	0	0	0	61,127
40 to 44	868	4,658	4,070	3,275	4,778	1,520	9	0	0	0	19,178
Avg Pay	45,566	50,900	63,591	73,432	77,742	79,798	57,873	0	0	0	66,181
45 to 49	652	3,620	3,437	2,870	3,345	4,820	1,052	4	0	0	19,800
Avg Pay	46,571	51,056	61,186	72,124	78,417	83,010	85,744	85,802	0	0	69,972
50 to 54	636	3,241	3,132	2,648	2,960	3,246	3,230	517	3	0	19,613
Avg Pay	47,918	50,769	60,641	65,664	75,004	81,444	88,464	91,192	59,347	0	70,273
55 to 59	457	2,488	2,337	2,158	2,649	2,755	2,001	1,267	228	4	16,344
Avg Pay	45,146	50,786	57,853	63,006	68,676	73,084	82,990	94,511	97,391	60,866	67,895
60 to 64	291	1,730	1,855	1,517	1,682	1,901	1,446	739	418	83	11,662
Avg Pay	41,565	46,470	52,823	58,440	65,504	66,114	78,245	89,126	90,121	87,774	63,364
65 to 69	132	801	976	677	605	620	523	331	192	142	4,999
Avg Pay	35,197	39,628	50,211	62,777	65,302	66,216	81,597	94,388	102,418	89,054	62,949
70 & up	75	423	547	467	312	236	186	127	98	37	2,508
Avg Pay	27,557	34,152	49,777	63,479	71,862	70,232	69,209	87,517	88,567	127,817	59,720
Total	8,527	38,122	28,223	19,713	17,477	15,107	8,447	2,985	939	266	139,806
Avg Pay	45,685	48,633	59,747	68,148	74,177	77,509	84,197	92,280	94,140	93,623	63,234

Average Age: 45.66 Average Service: 10.77

NUMBER OF SERVICE RETIREMENTS AND THEIR BENEFITS BY AGE
AS OF SEPTEMBER 30, 2024

Age	Count	Total Annual Benefits	Average Annual Benefits
Under 50	338	$ 12,910,078	$ 38,195
50 – 54	2,457	90,955,399	37,019
55 – 59	4,970	182,548,623	36,730
60 – 64	10,856	318,098,192	29,302
65 – 69	18,808	502,331,910	26,708
70 – 74	21,699	536,521,700	24,726
75 – 79	18,525	436,013,151	23,536
80 – 84	10,553	240,422,610	22,782
85 – 89	5,461	119,712,542	21,921
90 – 94	2,296	46,313,403	20,171
95 & Over	712	13,542,588	19,020
Total	96,675	$ 2,499,370,196	$ 25,853

Average Age: 72.1

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE
AS OF SEPTEMBER 30, 2024

Age	Count	Total Annual Benefits	Average Annual Benefits
Under 50	466	$ 5,786,631	$ 12,418
50 – 54	235	3,147,923	13,395
55 – 59	305	4,320,143	14,164
60 – 64	475	7,575,753	15,949
65 – 69	734	12,296,239	16,752
70 – 74	1,042	18,611,864	17,862
75 – 79	1,246	23,493,910	18,855
80 – 84	1,059	21,180,482	20,000
85 – 89	750	14,651,808	19,536
90 – 94	384	6,284,065	16,365
95 & Over	139	2,111,817	15,193
Total	6,835	$ 119,460,635	$ 17,478

Average Age: 73.0

NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE
AS OF SEPTEMBER 30, 2024

Age	Count	Total Annual Benefits	Average Annual Benefits
Under 50	203	$ 3,165,579	$ 15,594
50 – 54	400	6,162,263	15,406
55 – 59	679	9,337,646	13,752
60 – 64	1,073	13,506,872	12,588
65 – 69	1,249	15,499,730	12,410
70 – 74	1,047	11,937,200	11,401
75 – 79	705	7,982,652	11,323
80 – 84	314	3,488,391	11,110
85 – 89	99	1,143,102	11,546
90 – 94	29	362,517	12,501
95 & Over	4	39,703	9,926
Total	5,802	$ 72,625,655	$ 12,517

Average Age: 66.6

STATUS RECONCILIATION
FOR FYE SEPTEMBER 30, 2024

Reconciliation of Data from Last Year to This Year	Active	Retired	Disabled	Survivor	Vested	Total
Total as of September 30, 2023	138,441	94,869	5,862	6,542	7,396	253,110
Service Retirements	(3,938)	4,395			(457)	0
Disability Retirements	(146)	(3)	152		(3)	0
Termination (Re-Retirement)	(28)					(28)
Deceased	(112)	(2,073)	(176)	(299)	(49)	(2,709)
Deceased with Beneficiary	(24)	(483)	(35)	545	(3)	0
Deferred Vested Termination	(895)				895	0
Refunds	(1,760)		(1)		(183)	(1,944)
Transfer Out						0
Inactive	(6,278)				(98)	(6,376)
Return to Active Status	289	(39)	(1)		(249)	0
Pick-up/Status Change		9	1	47	3	60
New	14,257					14,257
Total as of September 30, 2024	139,806	96,675	5,802	6,835	7,252	256,370