



Cavanaugh Macdonald
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Retirement Systems
of Alabama

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





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

May 3, 2024

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

Members of the Board:

In this report are submitted the results of the annual actuarial valuation of the assets and liabilities of the Employees' Retirement System of Alabama, prepared as of September 30, 2023 in accordance with Section 36-27-23(p) 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 an additional 2% salary increase granted to State employees and State police officer effective October 1, 2023. The valuation also reflects the provisions of Act 2023-73, which provides State Police benefits to employees of ALEA who perform law enforcement duties as well as to investigators employed by the AG's office and Ethics Commission. This act also modifies the State Police Tier II benefit.

On the basis of the valuation, it is recommended that the employer make contributions to the System for State employees (members other than State Police) at the rate of 17.34% of payroll for Tier I members and 17.08% for Tier II members for the fiscal year ending September 30, 2026. It is also recommended that the employer make contributions to the System for State Police at the rate of 60.35% of payroll for Tier I members and 57.94% for Tier II members for the fiscal year ending September 30, 2026.

The contribution rates for local employers for the fiscal year beginning October 1, 2025 will be submitted in a separate report and will include the impact of the employer-elected changes through September 30, 2023, and the impact of any employer elections of Act 2022-348 approved by the Board through September 30, 2023.



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 0.68% of payroll for Tier I members and 0.57% of payroll for Tier II members will be recognized in the employer contribution rates for State employees over the next two valuations; and 1.18% of payroll for Tier I members and 0.93% of payroll for Tier II members will be recognized in the employer contribution rates for State Police 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 for State employees; the UAAL for State Police began declining in FYE 2022.

In this report we provide 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 Statements No. 67 and 68 disclosure information is provided in separate supplemental reports. However, some accounting information is provided for informational purposes only.

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 amount 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,

A handwritten signature in blue ink, appearing to read 'LL'.

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

A handwritten signature in blue ink, appearing to read 'Cathy Turcot'.

Cathy Turcot
Principal and Managing Director

A handwritten signature in blue ink, appearing to read 'Edward J. Koebel'.

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

A handwritten signature in blue ink, appearing to read 'Jennifer Johnson'.

Jennifer Johnson
Senior Consultant



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Section I: Summary of Principal Results

For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results for State Employees, State Police, and Local Employees are summarized below:

SUMMARY OF PRINCIPAL RESULTS FOR STATE EMPLOYEES

VALUATION DATE	September 30, 2023	September 30, 2022
Active members		
Number	27,019	26,656
Annual compensation	\$ 1,588,688,342	\$ 1,502,382,664
Retired members and beneficiaries ²		
Number	25,179	25,112
Annual allowances	\$ 600,834,868	\$ 590,495,545
Deferred vested members		
Number	1,296	1,232
Estimated deferred annual allowances	\$ 19,184,511	\$ 17,317,584
Assets		
Actuarial value	\$ 5,191,170,764	\$ 5,256,065,623
Market value	4,978,868,889	4,682,982,735
Actuarial accrued liability	\$ 9,102,402,781	\$ 8,850,585,991
Unfunded actuarial accrued liability	\$ 3,911,232,017	\$ 3,594,520,368
Funded ratio based on actuarial value of assets	57.0%	59.4%
CONTRIBUTIONS FOR FISCAL YEAR ENDING¹	September 30, 2026	September 30, 2025
<u>Tier I (first hired prior to January 1, 2013)</u>		
Employer contribution rate		
Normal	1.32%	1.18%
Accrued liability	15.65	14.71
Death benefit	0.07	0.07
Administration	<u>0.30</u>	<u>0.30</u>
Total	17.34%	16.26%
<u>Tier II (first hired on or after January 1, 2013)</u>		
Employer contribution rate		
Normal	1.06%	0.94%
Accrued liability	15.65	14.71
Death benefit	0.07	0.07
Administration	<u>0.30</u>	<u>0.30</u>
Total	17.08%	16.02%
Blended Amortization period	24.9 years	25.9 years

¹Contribution 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 0.34% of payroll for Tier I members and 0.28% of payroll for Tier II members.

²Includes post-DROP members in suspended status who are also active with a second retirement account.





Section I: Summary of Principal Results

SUMMARY OF PRINCIPAL RESULTS FOR STATE POLICE

VALUATION DATE	September 30, 2023	September 30, 2022
Active members		
Number	739	724
Annual compensation	\$ 57,248,096	\$ 51,897,979
Retired members and beneficiaries		
Number	995	994
Annual allowances	\$ 50,054,286	\$ 49,690,895
Deferred vested members		
Number	25	24
Estimated deferred annual allowances	\$ 576,266	\$ 579,353
Assets:		
Actuarial value	\$ 391,154,352	\$ 379,553,710
Market value	375,931,713	338,355,676
Actuarial accrued liability	\$ 764,733,772	\$ 715,488,651
Unfunded actuarial accrued liability	\$ 373,579,420	\$ 335,934,941
Funded Ratio based on Actuarial Value of Assets	51.1%	53.0%
CONTRIBUTIONS FOR FISCAL YEAR ENDING¹	September 30, 2026	September 30, 2025
<u>Tier I (first hired prior to January 1, 2013)</u>		
Employer contribution rate		
Normal	10.87%	9.83%
Accrued liability	49.11	46.48
Death benefit	0.07	0.07
Administration	<u>0.30</u>	<u>0.30</u>
Total	60.35%	56.68%
<u>Tier II (first hired on or after January 1, 2013)</u>		
Employer contribution rate		
Normal	8.46%	1.35%
Accrued liability	49.11	46.48
Death benefit	0.07	0.07
Administration	<u>0.30</u>	<u>0.30</u>
Total	57.94%	48.20%
Blended Amortization Period	19.0 years	20.0 years

¹Contribution 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 0.59% of payroll for Tier I members and 0.47% of payroll for Tier II members.





Section I: Summary of Principal Results

SUMMARY OF PRINCIPAL RESULTS FOR LOCAL EMPLOYEES

VALUATION DATE	September 30, 2023	September 30, 2022
Active members		
Number	58,692	57,317
Annual compensation	\$ 3,028,428,877	\$ 2,823,642,750
Retired members and beneficiaries*		
Number	31,514	30,637
Annual allowances	\$ 707,149,316	\$ 671,570,859
Deferred vested members		
Number	2,354	2,286
Estimated deferred annual allowances	\$ 32,552,958	\$ 31,682,749
Assets:		
Actuarial value	\$ 9,070,856,172	\$ 8,869,193,720
Market value	8,717,047,404	7,917,735,508
Actuarial accrued liability	\$ 13,244,124,534	\$ 12,529,862,071
Unfunded actuarial accrued liability	\$ 4,173,268,362	\$ 3,660,668,351
Funded Ratio based on Actuarial Value of Assets	68.5%	70.8%
CONTRIBUTIONS FOR FISCAL YEAR ENDING	September 30, 2026	September 30, 2025
Employer contribution rate		
Normal	Varies	Varies
Accrued liability	Varies	Varies
Death benefit	0.07%	0.07%
Administration	<u>0.30</u>	<u>0.30</u>
Total	Varies	Varies
Amortization period	Varies	Varies

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





Section I: Summary of Principal Results

SUMMARY OF PRINCIPAL RESULTS FOR ALL GROUPS

VALUATION DATE	September 30, 2023	September 30, 2022
Active members		
Number	86,450	84,697
Annual compensation	\$ 4,674,365,315	\$ 4,377,923,393
Retired members and beneficiaries*		
Number	57,688	56,743
Annual allowances	\$ 1,358,038,470	\$ 1,311,757,299
Deferred vested members		
Number	3,675	3,542
Estimated deferred annual allowances	\$ 52,313,735	\$ 49,579,686
Assets:		
Actuarial value	\$ 14,653,181,288	\$ 14,504,813,053
Market value	14,071,848,006	12,939,073,919
Actuarial accrued liability	\$ 23,111,261,087	\$ 22,095,936,713
Unfunded actuarial accrued liability	\$ 8,458,079,799	\$ 7,591,123,660
Funded Ratio based on Actuarial Value of Assets	63.4%	65.6%

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

1. Comments on the valuation results as of September 30, 2023 are given in Section IV and further discussion of the contribution levels is set out in Section V. The valuation reflects the 2% salary increase granted to all state employees effective October 1, 2023.
2. Schedule B of this report shows the development of the actuarial value of assets.
3. The Board funding policy is shown in Schedule F.
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. 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.





Section I: Summary of Principal Results

5. Provisions of the System, as summarized in Schedule H, were taken into account in the current valuation. The valuation reflects the provisions of Act 2023-73, which provides State Police benefits to employees of ALEA who perform law enforcement duties as well as to investigators employed by the AG's office and Ethics Commission. In addition, the Act modified the following:
 - a. Modified the condition for allowance by allowing all members to retire who have completed 25 years of creditable service or who have attained age 52 and completed at least 10 years of creditable service. Previous to the act, Tier I members hired after January 1, 2015 had to have completed 25 years of creditable service or attain age 60 and at least 10 years of creditable service; Tier II members had to complete 30 years of creditable service or attain age 56 and completed at least 10 years of creditable service. The eligibility for benefits payable due to separation was reduced from age 56 to age 52 for Tier II members other than correctional officer, firefighter or law enforcement officer as defined in section 36-72-59.
 - b. Modified the amount of benefit for post January 1, 2015 hires by increasing the multiplier from 2.0125% to 2.875% for Tier I members and 1.65% to 2.375% for Tier II members.
 - c. Increased the member contribution for members hired after January 1, 2015 from 8.5% to 10% of salary.
6. The results shown in this report reflect all local employer elections approved by the Board through October 1, 2023. The contribution rates for local employers for the fiscal year beginning October 1, 2025 will be submitted in a separate report.
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 \$9,039,413,081 and the funded ratio based on the market value of assets as of September 30, 2023 was 60.9%. 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 Data

1. Data regarding the membership of the System for use as a basis of the valuation were furnished by the Retirement System office. 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
State Employees		
Tier 1, FLC	1,528	\$117,917,383
Tier 1, Non-FLC	12,371	\$846,906,818
Tier 2, FLC	796	\$48,678,642
Tier 2, Non-FLC	12,240	\$567,250,752
Post-DROP Members Still in		
Active Service	84	7,934,747
Total	<u>27,019</u>	<u>\$1,588,688,342</u>
State Police		
Tier 1, Group 1	522	43,545,921
Tier 2, Group 1	217	13,702,175
Post-DROP Members Still in		
Active Service	0	0
Total	<u>739</u>	<u>\$57,248,096</u>
Local Employees		
Tier 1, FLC	6,691	\$472,705,183
Tier 1, Non-FLC	19,210	\$1,129,564,953
Tier 2, FLC	6,613	\$346,431,835
Tier 2, Non-FLC	26,145	\$1,076,288,604
Post-DROP Members Still in		
Active Service	33	3,438,302
Total	<u>58,692</u>	<u>\$3,028,428,877</u>
All Groups		
Tier 1	40,322	\$2,610,640,258
Tier 2	46,011	\$2,052,352,008
Post-DROP Members Still in		
Active Service	117	11,373,049
Total	<u>86,450</u>	<u>\$4,674,365,315</u>

The table reflects the active membership for whom complete valuation data were submitted. The results of the valuation include an estimated liability for an additional 242 vested inactive members where complete data was not available (with liabilities equal to contribution balances multiplied by a factor of 3), contribution balances for an additional 26,830 non-vested inactive members who have contributed in the last 5 years, and 25,499 non-vested inactive members who have not contributed for more than 5 years.





Section II: Membership Data

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

TABLE 2
SCHEDULE OF ACTIVE MEMBER VALUATION DATA
STATE EMPLOYEES

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>% Increase in Total Pay*</u>	<u>Annual Average Pay</u>	<u>% Increase in Average Pay**</u>
9/30/2023	27,019	\$1,588,688,342	5.74%	\$ 58,799	4.32%
9/30/2022	26,656	1,502,382,664	5.62%	56,362	9.10%
9/30/2021	27,535	1,422,423,897	-0.09%	51,659	2.30%
9/30/2020	28,193	1,423,647,929	4.84%	50,497	6.11%
9/30/2019	28,533	1,357,895,545	4.84%	47,590	6.57%
9/30/2018	29,004	1,295,229,592	1.85%	44,657	1.58%

* 4.17% annual increase for total pay since 2018.

** 5.66% annual increase for average pay since 2018.

STATE POLICE

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>% Increase in Total Pay*</u>	<u>Annual Average Pay</u>	<u>% Increase in Average Pay**</u>
9/30/2023	739	\$57,248,096	10.31%	\$ 77,467	8.07%
9/30/2022	724	51,897,979	2.12%	71,682	12.56%
9/30/2021	798	50,818,742	-1.68%	63,683	1.77%
9/30/2020	826	51,686,733	20.19%	62,575	-0.91%
9/30/2019	681	43,004,849	4.43%	63,150	1.21%
9/30/2018	660	41,180,794	2.02%	62,395	-3.86%

* 6.81% annual increase for total pay since 2018.

** 4.42% annual increase for average pay since 2018.

LOCAL EMPLOYEES

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>% Increase in Total Pay*</u>	<u>Annual Average Pay</u>	<u>% Increase in Average Pay**</u>
9/30/2023	58,692	\$3,028,428,877	7.25%	\$ 51,599	4.74%
9/30/2022	57,317	2,823,642,750	8.76%	49,264	6.72%
9/30/2021	56,238	2,596,107,201	2.37%	46,163	2.79%
9/30/2020	56,466	2,535,901,049	5.97%	44,910	3.82%
9/30/2019	55,320	2,393,056,664	2.15%	43,258	5.06%
9/30/2018	56,901	2,342,770,725	3.09%	41,173	1.65%

* 5.27% annual increase for total pay since 2018.

** 4.62% annual increase for average pay since 2018.





Section II: Membership Data

TOTAL EMPLOYEES

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll</u>	<u>% Increase in Total Pay*</u>	<u>Annual Average Pay</u>	<u>% Increase in Average Pay**</u>
9/30/2023	86,450	\$4,674,365,315	6.77%	\$ 54,070	4.61%
9/30/2022	84,697	4,377,923,393	7.58%	51,689	7.42%
9/30/2021	84,571	4,069,349,840	1.45%	48,118	2.55%
9/30/2020	85,485	4,011,235,711	5.73%	46,923	4.55%
9/30/2019	84,534	3,793,957,058	3.12%	44,881	5.60%
9/30/2018	86,565	3,679,181,111	2.64%	42,502	1.56%

* 4.90% annual increase for total pay since 2018.

** 4.93% annual increase for average pay since 2018.





Section II: Membership Data

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

TABLE 3
THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES
OF RETIRED MEMBERS AND BENEFICIARIES OF
DECEASED MEMBERS ON THE ROLLS AS OF SEPTEMBER 30, 2023

TYPE OF RETIREMENT	GROUP			
	STATE EMPLOYEES ¹	STATE POLICE ²	LOCAL EMPLOYEES ³	TOTAL
Service:				
Number ⁴	21,123	849	26,766	48,738
Annual Allowances ⁴	\$ 538,817,016	\$ 46,014,198	\$ 640,161,482	\$ 1,224,992,696
Disability:				
Number	2,148	42	1,958	4,148
Annual Allowances	\$ 32,262,959	\$ 1,374,944	\$ 29,739,673	\$ 63,377,576
Beneficiaries:				
Number	1,908	104	2,790	4,802
Annual Allowances	\$ 29,754,893	\$ 2,665,144	\$ 37,248,161	\$ 69,668,198
Total:				
Number	25,179	995	31,514	57,688
Annual Allowances	\$ 600,834,868	\$ 50,054,286	\$ 707,149,316	\$ 1,358,038,470

¹ In addition, there are 1,296 vested inactive members with estimated deferred annual allowances totaling \$19,184,511.

² In addition, there are 25 vested inactive members with estimated deferred annual allowances totaling \$576,266.

³ In addition, there are 2,354 vested inactive members with estimated deferred annual allowances totaling \$32,552,958.

⁴ Includes post-DROP members in suspended status who are also active with a second retirement account.

4. Tables in Schedule I show the distribution by age and service of the number and average annual compensation of active members included in the valuation. In addition, tables in Schedule I show the distribution by age and benefit type of the number, annual benefits, and average annual benefits of retired members included in the valuation.





Section III: Assets

1. The current retirement law provides for the maintenance of five 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, 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. On September 30, 2023, the market value of assets credited to this Fund amounted to \$3,571,120,783 which represent the contributions of members to this date.

(b) Pension Accumulation Fund

The Pension Accumulation Fund is the fund to which are credited all contributions made by the employers, except those contributions made to the Pre-Retirement Death Benefit Fund which was created October 1, 1983. When a member retires or when a survivor allowance becomes payable, the pension is paid from this fund. The market value of assets credited to this fund amounted to \$10,464,314,016 on September 30, 2023.

(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 \$36,413,207.

(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 \$14,301,533. These assets are not included in the valuation and the liabilities associated with these death benefits are not included in the valuation.





Section III: Assets

(e) 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 Code Section 36-27-16(c) 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 book value of assets credited to this fund amounted to \$9,348,363. These assets are not included in the valuation.

2. As of September 30, 2023 the total market value of assets exclusive of the Pre-Retirement Death Benefit Fund and the Expense Fund amounted to \$14,071,848,006 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	\$ 3,571,120,783
Pension Accumulation Fund	10,464,314,016
DROP Fund	<u>36,413,207</u>
Total Market Value of Assets	\$ 14,071,848,006

3. The five-year market related actuarial value of assets as of September 30, 2023 was \$14,653,181,288. The following table shows the actuarial value of assets used for the current valuation allocated among State employees, State Police and local employees.

TABLE 5

**COMPARISON OF ACTUARIAL VALUE OF ASSETS
AT SEPTEMBER 30, 2023 AND SEPTEMBER 30, 2022**

GROUP	SEPTEMBER 30, 2023 ACTUARIAL VALUE	SEPTEMBER 30, 2022 ACTUARIAL VALUE
State Employees	\$ 5,191,170,764	\$ 5,256,065,623
State Police	391,154,352	379,553,710
Local Employees	<u>9,070,856,172</u>	<u>8,869,193,720</u>
Total Assets	\$ 14,653,181,288	\$ 14,504,813,053





Section III: Assets

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	7.45%	12.89%	4.73%
2022	7.45	-13.02	5.32
2021	7.70	22.18	10.04
2020	7.70	5.83	7.72
2019	7.70	2.78	7.29
2018	7.75	9.29	9.09





Section III: Assets

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

Valuation Year Ending September 30	Beginning of Year Market Value of Assets (a)	Contributions (b)	Disbursements and Administrative Expenses (c)	Investment Income (d)	Change in Market Value of Asset Amounts (e) = (b) + (c) + (d)	End of Year Market Value of Assets (f) = (a) + (e)
<u>TOTAL ALL GROUPS</u>						
9/30/2023	\$12,939.1	\$910.5	(\$1,429.8)	\$1,652.0	\$1,132.7	\$14,071.8
9/30/2022	15,417.1	856.0	(1,388.7)	(1,945.3)	(2,478.0)	12,939.1
9/30/2021	13,090.3	787.4	(1,315.6)	2,855.0	2,326.8	15,417.1
9/30/2020*	12,506.7	1,119.9	(1,258.2)	721.9	583.6	13,090.3
9/30/2019	12,656.7	707.8	(1,177.6)	319.8	(150.0)	12,506.7
9/30/2018	12,052.2	654.5	(1,145.3)	1,095.3	604.5	12,656.7
<u>STATE EMPLOYEES</u>						
9/30/2023	\$4,683.0	\$338.9	(\$637.6)	\$594.6	\$295.9	\$4,978.9
9/30/2022	5,714.0	319.0	(631.5)	(718.5)	(1,031.0)	4,683.0
9/30/2021	4,931.9	314.4	(602.4)	1,070.1	782.1	5,714.0
9/30/2020	4,917.3	324.0	(584.3)	274.9	14.6	4,931.9
9/30/2019	5,059.4	297.5	(566.8)	127.3	(142.0)	4,917.4
9/30/2018	4,910.6	270.7	(565.4)	443.5	148.8	5,059.4
<u>STATE POLICE</u>						
9/30/2023	\$338.4	\$32.4	(\$38.4)	\$43.5	\$37.5	\$375.9
9/30/2022	410.1	30.6	(51.2)	(51.1)	(71.7)	338.4
9/30/2021	348.9	30.7	(45.3)	75.8	61.2	410.1
9/30/2020	342.7	29.6	(42.6)	19.2	6.2	348.9
9/30/2019	352.9	25.3	(44.3)	8.8	(10.2)	342.7
9/30/2018	343.9	22.0	(43.8)	30.8	9.0	352.9
<u>LOCAL EMPLOYEES</u>						
9/30/2023	\$7,917.7	\$539.2	(\$753.8)	\$1,013.9	\$799.3	\$8,717.0
9/30/2022	9,293.0	506.4	(706.0)	(1,175.7)	(1,375.3)	7,917.7
9/30/2021	7,809.5	442.3	(667.9)	1,709.1	1,483.5	9,293.0
9/30/2020*	7,246.7	766.3	(631.3)	427.8	562.8	7,809.5
9/30/2019	7,244.4	385.0	(566.5)	183.7	2.2	7,246.6
9/30/2018	6,797.7	361.8	(536.1)	621.0	446.7	7,244.4

*Includes \$344.4 M adjustment for City of Montgomery





Section IV: Comments on Valuation

1. Schedule A of this report contains the valuation balance sheets which show the present and prospective assets and liabilities of the System as of September 30, 2023. Separate balance sheets are shown for each employee group as well as in total for all groups.
2. The total valuation balance sheet shows that the System has total prospective liabilities of \$26,443,118,691. Of this amount, \$12,644,778,911 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and DROP participants, \$453,020,994 is for the prospective benefits payable on account of present inactive members and \$13,345,318,786 is for the prospective benefits payable on account of present active members. Against these liabilities the System has total actuarial value of assets of \$14,653,181,288 as of September 30, 2023. The difference of \$11,789,937,403 between the total liabilities and the total present actuarial value of assets represents the present value of contributions to be made in the future. Of this amount, \$2,238,640,251 is the present value of future contributions expected to be made by members to the Annuity Savings Fund, and the balance of \$9,551,297,152 represents the present value of future contributions payable by the employers.
3. The employers' contributions to the System consist of normal contributions and unfunded actuarial accrued liability (UAAL) contributions. Prospective employer normal contributions have a present value of \$1,093,217,353. When this amount is subtracted from \$9,551,297,152, which is the present value of the total future contributions to be made by the employers, there remains \$8,458,079,799 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 for state employees and a closed 21-year period for state police. 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. Each valuation beginning with the September 30, 2028 valuation for State employees, and the September 30, 2022 valuation for State





Section IV: Comments on Valuation

Police 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 and will be amortized over closed 20- year periods. All gains and losses occurring after the establishment of the initial total UAAL and before those dates, 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.

5. The total UAAL rate payable by the State is 15.65% of payroll for State employees and 49.11% of payroll for State Police 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 accrued liability contribution will increase by 2.75% each year. Schedule G of this report shows the amortization schedules for all bases as of September 30, 2023.
6. The following table shows the components of the total UAAL and the derivation of the accrued liability contribution rate in accordance with the funding policy for State employees and State Police:





Section IV: Comments on Valuation

TABLE 6

TOTAL UAAL AND UAAL CONTRIBUTION RATE

STATE EMPLOYEES

	<u>UAAL</u>	<u>Amortization Period</u>	<u>Amortization Payment</u>
Remaining Initial Total UAL	\$3,903,876,184	25	\$272,583,712
Benefit Improvements Effective 10/1/2021	10,012,936	13	1,067,352
Benefit Improvements Effective 10/1/2023*	<u>(2,657,103)</u>	15	<u>(255,515)</u>
Total	\$3,911,232,017		\$273,395,549
Total Amortization Payment Adjusted for Timing			<u>263,577,295</u>
Total Estimated Payroll**			\$1,648,029,154
UAAL Contribution Rate			15.99%
UAAL Contribution Rate Phase-in Methodology***			15.65%

STATE POLICE

	<u>UAAL</u>	<u>Amortization Period</u>	<u>Amortization Payment</u>
Remaining Initial Total UAL	\$306,646,280	19	\$25,174,311
New Incremental UAL 9/30/2022	27,352,236	19	2,245,498
New Incremental UAL 9/30/2023	17,739,021	20	1,410,234
Benefit Improvements Effective 10/1/2021	251,537	13	26,813
Benefit Improvements Effective 10/1/2023*	<u>21,590,346</u>	15	<u>2,076,196</u>
Total	\$373,579,420		\$30,933,052
Total Amortization Payment Adjusted for Timing			<u>29,822,176</u>
Total Estimated Payroll**			\$60,209,622
UAAL Contribution Rate			49.53%
UAAL Contribution Rate Phase-in Methodology***			49.11%

* Reflects the provisions of Act 2023-73

** 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 and maintain floor of FYE 2023 contribution rates.





Section IV: Comments on Valuation

7. The Pre-Retirement Death Benefit Program was established October 1, 1983 under Act No. 83-616. The liabilities and assets associated with the pre-retirement death 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. For all employers, an additional contribution of 0.07% of payroll will be required to meet the cost of the pre-retirement death benefit program this year.
8. For all employers, an additional contribution of 0.30% is required to cover the expenses of administering the System.
9. 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 and the objectives of the Funding Policy will continue to remain on track.





Section V: Contributions Payable by Employers

- The retirement act provides that the Board of Control shall certify to the Chief Fiscal Officer of each employer the rates of contribution required to be paid by the employer.
- On the basis of the actuarial valuation prepared as of September 30, 2023 it is recommended that the State make contributions at the following rates for the fiscal year beginning October 1, 2025:

TABLE 7

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION RATES

CONTRIBUTION RATE***	PERCENTAGE OF MEMBERS' COMPENSATION FOR FISCAL YEAR ENDING SEPTEMBER 20, 2026			
	STATE EMPLOYEES		STATE POLICE	
	<u>Tier I</u>	<u>Tier II</u>	<u>Tier I</u>	<u>Tier II</u>
Employer Normal Cost	1.32%*	1.06%*	10.87%**	8.46%**
Accrued liability	15.65	15.65	49.11	49.11
Death benefit	0.07	0.07	0.07	0.07
Administration	<u>0.30</u>	<u>0.30</u>	<u>0.30</u>	<u>0.30</u>
Total	17.34%	17.08%	60.35%	57.94%

* The total Normal Cost rate is 8.94% for Tier I and 7.14% for Tier II. Tier I members contribute 7.50% (8.50% for FLC members) and Tier II members contribute 6.00% (7.00% for FLC members).

** The total Normal Cost rate is 20.87% for Tier I and 18.46% for Tier II. All Police members contribute 10.00%.

*** 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 contribution rates.

- The total employer contribution rates without the phase-in would have been 18.02% of compensation for State employees Tier I, 17.65% of compensation for State employees Tier II, 61.52% of compensation for State Police Tier I, and 58.87% of compensation for State Police Tier II. Phasing in the increase in the required contributions over a period of time does slow the funding progress slightly.
- Contribution rates for Local Employers will be submitted in a separate report. The rates for the fiscal year beginning October 1, 2025 were determined as of September 30, 2023, and will reflect any elections made pursuant to Act 2011-676, and Act 2022-348 as of September 30, 2023.





Section VI: 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. For State employees, the UAAL increased \$316,711,649; for State Police, the UAAL increased \$37,644,479. The most significant items contributing to the increase for State Police were benefit improvements due to Act 2023-73, higher than expected salary increases and less than expected investment earnings on an actuarial value basis. The most significant items contributing to the increase for State employees were higher than expected salary increases and less than expected investment earnings on an actuarial value basis. 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 for State employees and State Police. These sources include the expected return on assets, salary increases, retirement, withdrawal, disability, and mortality.

Since the benefits, assumptions and accrued liability rates vary by location for the Local employees, we do not develop an analysis of financial experience by source for this group.





Section VI: Analysis of Financial Experience

RECONCILIATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR THE YEAR ENDING SEPTEMBER 30, 2023

(Dollar amounts in thousands)

	STATE EMPLOYEES	STATE POLICE
(1) UAAL at beginning of year	\$ 3,594,520	\$ 335,935
(2) Total normal cost beginning of the year	124,628	9,121
(3) Actual contributions	338,945	32,435
(4) Interest accrual: $[[(1) + (2)] - \frac{1}{2} [(3)]] \times .07450$	264,451	24,498
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	3,644,654	337,119
(6) Increase from benefit changes	(2,657)	21,590
(7) Changes from revised actuarial assumptions and methods	0	0
(8) Expected UAAL after changes: (5) + (6) + (7)	3,641,997	358,709
(9) Actual UAAL at end of year	3,911,232	373,579
(10) Total (Gain)/Loss: (9) - (8)	\$ 269,235	\$ 14,870





Section VI: Analysis of Financial Experience

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

	STATE EMPLOYEES	STATE POLICE
(1) Actuarial Value of Assets (BOY)	\$ 5,256,066	\$ 379,554
(2) Adjustment*	0	0
(3) Net Cash Flow	(298,629)	(5,964)
(4) Expected Return: [(1) + (2) + ½ [(3)]] x .07450	380,453	28,055
(5) Expected Actuarial Value of Assets: [(1) + (2) + (3) + (4)]	5,337,890	401,645
(6) Actual Actuarial Value of Assets (EOY)	5,191,171	391,154
(7) (Gain)/Loss: (5) – (6)	\$ 146,719	\$ 10,491

**Differences due to adjustments made to local units' assets after previous report was issued*





Section VI: Analysis of Financial Experience

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

Source	<u>STATE EMPLOYEES</u>		<u>STATE POLICEMEN</u>	
	Total	% of Actuarial Accrued Liability	Total	% of Actuarial Accrued Liability
Age and Service Retirements. Generally, earlier retirements cause losses and later retirements cause gains.	\$ (21,949)	(0.24%)	\$ (2,704)	(0.37%)
Withdrawal. More withdrawals than expected usually cause gains and less withdrawals than expected cause losses.	(15,616)	(0.17%)	(312)	(0.04%)
Disability Retirements. More disabilities than expected generally cause losses and less disabilities than expected cause gains.	(437)	0.00%	(47)	(0.01%)
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.	(719)	(0.01%)	218	0.03%
Salary Increases. If salaries increase more than expected, there is a loss. If salaries increase less than expected, there is a gain.	138,341	1.52%	5,478	0.75%
New Members/Rehires. Any past service causes losses.	25,578	0.28%	1,590	0.22%
Retiree Mortality. More deaths than expected cause gains, less than expected cause losses.	(9,320)	(0.10%)	(153)	(0.02%)
Investment Return. Investment income greater than expected causes gains while investment income less than expected cause losses.	146,719	1.61%	10,491	1.44%
Other. Miscellaneous gains and losses resulting from data corrections, timing of financial transactions, unit transfers, changes in valuation software, etc.	6,638	0.07%	309	0.04%
Total (Gain)/Loss	\$ 269,235	2.96%	\$ 14,870	2.04%





Section VI: Analysis of Financial Experience

(GAINS)/ LOSSES BY SOURCE

Historical Trends

(Dollar amounts in thousands)

STATE EMPLOYEES

SOURCE	September 30				
	2023	2022	2021	2020	2019
Age and Service Retirements	\$ (21,949)	\$ 2,159	\$ (15,321)	\$ (14,306)	(9,517)
Withdrawal	(15,616)	(21,391)	(14,843)	(7,618)	(4,000)
Disability Retirements	(437)	549	(45)	400	485
Death-In-Service Benefits	(719)	4,032	2,608	3,512	305
Salary Increases	138,341	195,670	(807)	87,419	99,221
New Members/Rehires	25,578	21,005	19,376	16,550	18,713
Retiree Mortality	(9,320)	(2,868)	(4,450)	(10,301)	27,728
Investment Return	146,719	109,260	(119,475)	(6,741)	19,518
Other	6,638	1,156	311	(1,853)	(6,256)
Total (Gain)/Loss	\$ 269,235	\$ 309,572	\$ (132,646)	\$ 67,062	146,197

STATE POLICE

SOURCE	September 30				
	2023	2022	2021	2020	2019
Age and Service Retirements	\$ (2,704)	\$ (581)	\$ (936)	\$ (1,136)	487
Withdrawal	(312)	(1,711)	(1,747)	(2,170)	(2,371)
Disability Retirements	(47)	(37)	(77)	57	244
Death-In-Service Benefits	218	205	207	197	187
Salary Increases	5,478	16,645	(4,162)	1,908	7,061
New Members/Rehires	1,590	1,203	2,804	6,144	1,226
Retiree Mortality	(153)	(907)	(2,519)	104	1,204
Investment Return	10,491	7,926	(8,289)	(242)	1,594
Other	309	2,880	(203)	228	308
Total (Gain)/Loss	\$ 14,870	\$ 25,623	\$ (14,922)	\$ 5,090	9,940





Section VII: Accounting Information

The information required under Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 is issued in separate reports. The following information is provided for informational purposes only.

- 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			
	State Employees	State Police	Local Employees	Total
Retirees and beneficiaries currently receiving benefits	25,179	995	31,514	57,688
Terminated employees entitled to benefits but not yet receiving benefits	7,775	62	22,910	30,747
Non-vested inactive members who have not contributed for more than 5 years	25,499	0	0	25,499
Active Members	<u>27,019</u>	<u>739</u>	<u>58,692</u>	<u>86,450</u>
Total	85,472	1,796	113,116	200,384





Section VII: Accounting Information

2. The schedule of funding progress is shown below. Please note amounts in this table may not add due to rounding differences.

SCHEDULE OF FUNDING PROGRESS (Dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Plan Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
TOTAL ALL GROUPS						
9/30/2018 ¹	\$12,240,597	\$17,829,735	\$5,589,138	68.7%	\$3,679,181	151.9%
9/30/2019	12,645,789	18,543,542	5,897,753	68.2	3,793,957	155.5
9/30/2020 ²	13,491,176	19,786,472	6,295,296	68.2	4,011,236	156.9
9/30/2021 ^{1,2,3}	14,291,093	21,104,942	6,813,849	67.7	4,069,350	167.4
9/30/2022	14,504,813	22,095,937	7,591,124	65.6	4,377,923	173.4
9/30/2023 ⁴	14,653,181	23,111,260	8,458,080	63.4	4,674,365	180.9
STATE EMPLOYEES						
9/30/2018 ¹	\$4,887,403	\$7,723,822	\$2,836,419	63.3%	\$1,295,230	219.0%
9/30/2019	4,964,556	7,964,131	2,999,575	62.3	1,357,896	220.9
9/30/2020	5,083,172	8,155,858	3,072,686	62.3	1,423,648	215.8
9/30/2021 ^{1,3}	5,294,885	8,540,543	3,245,658	62.0	1,422,424	228.2
9/30/2022	5,256,066	8,850,586	3,594,520	59.4	1,502,383	239.3
9/30/2023 ⁴	5,191,171	9,102,403	3,911,232	57.0	1,588,688	246.2
STATE POLICE						
9/30/2018 ¹	\$341,389	\$620,411	\$279,022	55.0%	\$41,181	677.6%
9/30/2019	346,309	639,187	292,878	54.2	43,005	681.0
9/30/2020	359,724	658,319	298,595	54.6	51,687	577.7
9/30/2021 ^{1,3}	380,496	689,771	309,275	55.2	50,819	608.6
9/30/2022	379,554	715,489	335,935	53.0	51,898	647.3
9/30/2023 ⁴	391,154	764,733	373,579	51.1	57,248	652.6
LOCAL EMPLOYEES						
9/30/2018 ¹	\$7,011,805	\$9,485,502	\$2,473,697	73.9%	\$2,432,771	105.6%
9/30/2019	7,334,924	9,940,224	2,605,299	73.8	2,393,057	108.9
9/30/2020 ²	8,048,280	10,972,295	2,924,016	73.4	2,535,901	115.3
9/30/2021 ^{1,2,3}	8,615,712	11,874,628	3,258,916	72.6	2,596,107	125.5
9/30/2022	8,869,194	12,529,862	3,660,668	70.8	2,823,643	129.6
9/30/2023	9,070,856	13,244,522	4,173,268	68.5	3,028,429	137.8

¹ Reflects changes in actuarial assumptions and methods.

² Reflects impact of Act 2019-132.

³ Reflects impact of Act 2022-351 and Act 2022-184.

⁴ Reflects impact of Act 2023-73.





Section VII: Accounting Information

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

	<u>State Employees</u>	<u>State Police</u>	<u>Local Employees</u>
Valuation date	9/30/2023	9/30/2023	9/30/2023
Actuarial cost method	Entry age	Entry age	Entry age
Amortization method	Level percent Closed	Level percent Closed	Level percent Closed
Single equivalent remaining amortization period	24.9 years	18.7 years	Within 30 years - Varies by employer
Asset valuation method	Five-year market related value	Five-year market related value	Five-year market related value
Actuarial assumptions:			
Investment rate of return*	7.45%	7.45%	7.45%
Projected salary increases*	3.25 – 6.00%	4.00 – 7.75%	3.25 – 6.00%
Cost-of-living adjustment	None	None	None
*Includes price inflation at	2.50%	2.50%	2.50%





Section VIII: Risk Assessment

Overview

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

The term “risk” frequently has a negative connotation, but from an actuarial perspective, it 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 VIII: Risk Assessment

Investment Risk

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

STATE EMPLOYEES (\$ in thousands)

Valuation	Fair Value of Assets	Covered Payroll	Asset Volatility Ratio
2018	\$5,059,401	\$1,295,230	3.91
2019	\$4,917,295	\$1,357,896	3.62
2020	\$4,931,877	\$1,423,648	3.46
2021	\$5,714,043	\$1,422,424	4.02
2022	\$4,682,983	\$1,502,383	3.12
2023	\$4,978,869	\$1,588,688	3.13

STATE POLICE (\$ in thousands)

Valuation	Fair Value of Assets	Covered Payroll	Asset Volatility Ratio
2018	\$352,888	\$41,181	8.57
2019	\$342,665	\$43,005	7.97
2020	\$348,883	\$51,687	6.75
2021	\$410,079	\$50,819	8.07
2022	\$338,356	\$51,898	6.52
2023	\$375,932	\$57,248	6.57

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 State Employees as of September 30, 2023 is 3.13 and the AVR for State Police is 6.57.





Section VIII: Risk Assessment

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 0.42% of payroll in the first year for State Employees and 0.87% for State Police. Without asset smoothing or without returns above the expected return in the next four years, the impact on the Required Contribution Rate would be 2.08% for State Employees and 4.37% for State Police.

STATE EMPLOYEES

AVR	Unsmoothed Amortization	Smoothed Amortization
3.00	2.00%	0.40%
3.13	2.08%	0.42%
4.00	2.66%	0.53%

STATE POLICE

AVR	Unsmoothed Amortization	Smoothed Amortization
6.00	3.99%	0.80%
6.57	4.37%	0.87%
7.00	4.66%	0.93%





Section VIII: Risk Assessment

Sensitivity Measures

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

The following tables contain 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 phase in.





Section VIII: Risk Assessment

STATE EMPLOYEES (\$ in thousands)

As of September 30, 2023	Current Discount Rate (7.45%)	-1% Discount Rate (6.45%)	+1% Discount Rate (8.45%)
Accrued Liability	\$9,102,403	\$10,067,160	\$8,284,257
Unfunded Liability	\$3,911,232	\$4,875,989	\$3,093,087
Funded Ratio (AVA)	57.0%	51.6%	62.7%
ADEC Rate*			
Tier I	18.02%	22.32%	14.26%
Tier II	17.65%	21.34%	14.35%

STATE POLICE (\$ in thousands)

As of September 30, 2023	Current Discount Rate (7.45%)	-1% Discount Rate (6.45%)	+1% Discount Rate (8.45%)
Accrued Liability	\$764,734	\$846,017	\$695,897
Unfunded Liability	\$373,579	\$454,862	\$304,743
Funded Ratio (AVA)	51.1%	46.2%	56.2%
ADEC Rate*			
Tier I	61.52%	72.22%	51.06%
Tier II	58.87%	68.69%	49.09%

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





Section VIII: Risk Assessment

Mortality Risk

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

The future, however, is 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 no risk to the System associated with the contribution amounts being less than the ADEC.





Section VIII: Risk Assessment

Liquidation Risk

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

This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of September 30, 2023 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a liability of approximately \$24 billion for all plans.

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 EMPLOYEES' RETIREMENT SYSTEM OF ALABAMA

STATE EMPLOYEES

ASSETS	
Actuarial Value of Assets	\$ 5,191,170,764
Present value of future members' contributions to the Annuity Savings Fund	\$ 807,608,787
Present value of future employer contributions to the Pension Accumulation Fund	
Normal contributions	\$ 176,630,544
Unfunded accrued liability contributions	<u>3,911,232,017</u>
Total prospective employer contributions	\$ 4,087,862,561
Total Assets	<u>\$ 10,086,642,112</u>
LIABILITIES	
Present value of benefits payable on account of retired members and beneficiaries of deceased members now drawing retirement allowances	
Service Retirements	\$ 4,832,241,392
Disability Retirements	279,509,823
Beneficiaries of Deceased Members	222,152,831
DROP Participant Accounts	<u>26,646,351</u>
Total	\$ 5,360,550,397
Inactive Members	\$ 152,404,759
Inactive T-section accounts	\$ 24,606,808
Present value of prospective benefits payable on account of present active members:	
Service retirement allowances	\$ 4,002,267,845
Disability retirement allowances	226,950,163
Death Benefits	41,698,849
Termination Benefits	<u>278,163,291</u>
Total	\$ 4,549,080,148
Total Liabilities	<u>\$ 10,086,642,112</u>





Schedule A: Valuation Balance Sheet & Solvency Test

VALUATION BALANCE SHEET SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE EMPLOYEES' RETIREMENT SYSTEM OF ALABAMA

STATE POLICE

ASSETS	
Actuarial Value of Assets	\$ 391,154,352
Present value of future members' contributions to the Annuity Savings Fund	\$ 43,325,350
Present value of future employer contributions to the Pension Accumulation Fund	
Normal contributions	\$ 47,738,367
Unfunded accrued liability contributions	<u>373,579,420</u>
Total prospective employer contributions	\$ 421,317,787
Total Assets	<u>\$ 855,797,489</u>
LIABILITIES	
Present value of benefits payable on account of retired members and beneficiaries of deceased members now drawing retirement allowances	
Service Retirements	\$ 457,514,701
Disability Retirements	12,726,574
Beneficiaries of Deceased Members	19,061,126
DROP Participant Accounts	<u>0</u>
Total	\$ 489,302,401
Inactive Members	\$ 3,326,552
Present value of prospective benefits payable on account of present active members:	
Service retirement allowances	\$ 343,171,091
Disability retirement allowances	6,981,335
Death Benefits	1,177,684
Termination Benefits	<u>11,838,426</u>
Total	\$ 363,168,536
Total Liabilities	<u>\$ 855,797,489</u>





Schedule A: Valuation Balance Sheet & Solvency Test

VALUATION BALANCE SHEET SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE EMPLOYEES' RETIREMENT SYSTEM OF ALABAMA

LOCAL EMPLOYEES

ASSETS	
Actuarial Value of Assets	\$ 9,070,856,172
Present value of future members' contributions to the Annuity Savings Fund	\$ 1,387,706,114
Present value of future employer contributions to the Pension Accumulation Fund	
Normal contributions	\$ 868,848,442
Unfunded accrued liability contributions	<u>4,173,268,362</u>
Total prospective employer contributions	\$ 5,042,116,804
Total Assets	<u>\$ 15,500,679,090</u>
LIABILITIES	
Present value of benefits payable on account of retired members and beneficiaries of deceased members now drawing retirement allowances	
Service Retirements	\$ 6,215,511,684
Disability Retirements	265,221,610
Beneficiaries of Deceased Members	304,425,963
DROP Participant Accounts	<u>9,766,856</u>
Total	\$ 6,794,926,113
Inactive Members	\$ 272,682,875
Present value of prospective benefits payable on account of present active members:	
Service retirement allowances	\$ 7,421,231,860
Disability retirement allowances	356,350,174
Death Benefits	70,054,122
Termination Benefits	<u>585,433,946</u>
Total	\$ 8,433,070,102
Total Liabilities	<u>\$ 15,500,679,090</u>





Schedule A: Valuation Balance Sheet & Solvency Test

VALUATION BALANCE SHEET SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE EMPLOYEES' RETIREMENT SYSTEM OF ALABAMA

TOTAL - ALL GROUPS

ASSETS	
Actuarial Value of Assets	\$ 14,653,181,288
Present value of future members' contributions to the Annuity Savings Fund	\$ 2,238,640,251
Present value of future employer contributions to the Pension Accumulation Fund	
Normal contributions	\$ 1,093,217,353
Unfunded accrued liability contributions	<u>8,458,079,799</u>
Total prospective employer contributions	\$ 9,551,297,152
Total Assets	<u>\$ 26,443,118,691</u>
LIABILITIES	
Present value of benefits payable on account of retired members, beneficiaries of deceased members now drawing retirement allowances, and DROP participants	
Service Retirements	\$ 11,505,267,777
Disability Retirements	557,458,007
Beneficiaries of Deceased Members	545,639,920
DROP Participant Accounts	<u>36,413,207</u>
Total	\$ 12,644,778,911
Inactive Members	\$ 428,414,186
Inactive T-section accounts	\$ 24,606,808
Present value of prospective benefits payable on account of present active members:	
Service retirement allowances	\$ 11,766,670,796
Disability retirement allowances	590,281,672
Death Benefits	112,930,655
Termination Benefits	<u>875,435,663</u>
Total	\$ 13,345,318,786
Total Liabilities	<u>\$ 26,443,118,691</u>





Schedule A: Valuation Balance Sheet & Solvency Test

SOLVENCY TEST (\$1000's)

Valuation Date	Aggregate Accrued Liabilities For			Reported Assets	Portion of Accrued Liabilities Covered by Reported Asset		
	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)		(1)	(2)	(3)
9/30/2023 ⁴	\$3,571,121	\$12,644,779	\$6,894,963	\$14,653,181	100%	88%	0%
9/30/2022	3,406,262	12,265,708	6,423,967	14,504,813	100	90	0
9/30/2021 ^{1,2,3}	3,292,498	11,794,825	6,017,619	14,291,093	100	93	0
9/30/2020 ²	3,207,392	10,984,539	5,594,541	13,491,176	100	94	0
9/30/2019	3,038,594	10,300,063	5,204,885	12,645,789	100	93	0
9/30/2018 ¹	2,922,432	9,944,503	4,962,800	12,240,597	100	93	0

¹ Reflects changes in actuarial assumptions and methods.

² Reflects impact of Act 2019-132.

³ Reflects impact of Act 2022-351 and Act 2022-184.

⁴ Reflects impact of Act 2023-73.





Schedule B: Actuarial Value of Assets

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS AS OF SEPTEMBER 30, 2023 STATE EMPLOYEES

(1) Actuarial Value of Assets on September 30, 2022	
a. Actuarial Value on September 30, 2022	\$5,256,065,623
b. Adjustment	0
c. Adjusted Actuarial Value on September 30, 2022	\$5,256,065,623
(2) Market Value of Assets on September 30, 2023	\$4,978,868,889
(3) Market Value of Assets on September 30, 2022	
a. Market Value on September 30, 2022	\$4,682,982,735
b. Adjustment	0
c. Adjusted Market Value on September 30, 2022	\$4,682,982,735
(4) Cash Flow	
a. Contributions	\$338,697,749
b. Benefit Payments and DROP Disbursements	(\$602,865,710)
c. Refunds to Members and Employers	(\$21,082,808)
d. Transfers to Expense Fund - Interest Forfeitures	(\$4,087,987)
e. Transfers to/from Police/Locals	(\$9,290,248)
f. Investment Expenses	(\$5,482,212)
g. Net	(\$304,111,216)
(5) Investment Income	
a. Market total: (2) – (3)c – (4)g	\$599,997,370
b. Assumed Rate	7.45%
c. Amount for Immediate Recognition [(3)c x (5)b] + [(4)a + (4)b + (4)c + (4)d + (4)e] * (5)b * 0.5 - (4)f	\$343,240,496
d. Amount for Phased-in Recognition (5)a – (5)c	\$256,756,874
(6) Phased-In Recognition of Investment Income	
a. Current Year: 0.20*(5)d	\$51,351,375
b. First Prior Year	(226,425,843)
c. Second Prior Year	140,437,302
d. Third Prior Year	(18,733,249)
e. Fourth Prior Year	(50,653,724)
f. Total Recognized Investment Gain	(\$104,024,139)
(7) Actuarial Value of Assets on September 30, 2023:	
(1)c + (4)g + (5)c + (6)f	\$5,191,170,764





Schedule B: Actuarial Value of Assets

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS AS OF SEPTEMBER 30, 2023 STATE POLICE

(1) Actuarial Value of Assets on September 30, 2022	
a. Actuarial Value on September 30, 2022	\$379,553,710
b. Adjustment	<u>0</u>
c. Adjusted Actuarial Value on September 30, 2022	\$379,553,710
(2) Market Value of Assets on September 30, 2023	\$375,931,713
(3) Market Value of Assets on September 30, 2022	
a. Market Value on September 30, 2022	\$338,355,676
b. Adjustment	<u>0</u>
c. Adjusted Market Value on September 30, 2022	\$338,355,676
(4) Cash Flow	
a. Contributions	\$32,434,524
b. Benefit Payments and DROP Disbursements	(50,053,671)
c. Refunds to Members and Employers	(251,362)
d. Transfers to Expense Fund - Interest Forfeitures	0
e. Transfers to/from Police/Locals	11,906,709
f. Investment Expenses	<u>0</u>
g. Net	(\$5,963,800)
(5) Investment Income	
a. Market total: (2) – (3)c – (4)g	\$43,539,837
b. Assumed Rate	7.45%
c. Amount for Immediate Recognition [(3)c x (5)b] + [(4)a + (4)b + (4)c + (4)d + (4)e] * (5)b * 0.5) - (4)f	\$24,985,346
d. Amount for Phased-in Recognition (5)a – (5)c	\$18,554,491
(6) Phased-In Recognition of Investment Income	
a. Current Year: 0.20*(5)d	\$3,710,898
b. First Prior Year	(16,182,272)
c. Second Prior Year	9,909,724
d. Third Prior Year	(1,334,858)
e. Fourth Prior Year	<u>(3,524,396)</u>
f. Total Recognized Investment Gain	(\$7,420,904)
(7) Actuarial Value of Assets on September 30, 2023:	
(1)c + (4)g + (5)c + (6)f	\$391,154,352





Schedule B: Actuarial Value of Assets

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS AS OF SEPTEMBER 30, 2023 LOCAL EMPLOYEES

(1) Actuarial Value of Assets on September 30, 2022	
a. Actuarial Value on September 30, 2022	\$8,869,193,720
b. Adjustment	<u>0</u>
c. Adjusted Actuarial Value on September 30, 2022	\$8,869,193,720
(2) Market Value of Assets on September 30, 2023	\$8,717,047,404
(3) Market Value of Assets on September 30, 2022	
a. Market Value on September 30, 2022	\$7,917,735,508
b. Adjustment	<u>0</u>
c. Adjusted Market Value on September 30, 2022	\$7,917,735,508
(4) Cash Flow	
a. Contributions	\$539,150,358
b. Benefit Payments and DROP Disbursements	(713,881,997)
c. Refunds to Members and Employers	(37,307,424)
d. Transfers to Expense Fund - Interest Forfeitures	0
e. Transfers to/from Police/Locals	(2,616,461)
f. Investment Expenses	<u>0</u>
g. Net	(\$214,655,524)
(5) Investment Income	
a. Market total: (2) – (3)c – (4)g	\$1,013,967,420
b. Assumed Rate	7.45%
c. Amount for Immediate Recognition	
$[(3)c \times (5)b] + \{[(4)a + (4)b + (4)c + (4)d + (4)e] \times (5)b \times 0.5\} - (4)f$	\$581,875,377
d. Adjustment for Employer Lump Sums	(\$9,272)
e. Adjusted Amount for Immediate Recognition (5)c + (5)d	\$581,866,105
f. Amount for Phased-in Recognition (5)a – (5)e	\$432,101,315
(6) Phased-In Recognition of Investment Income	
a. Current Year: $0.20 \times (5)f$	\$86,420,263
b. First Prior Year	(372,225,185)
c. Second Prior Year	223,171,545
d. Third Prior Year	(29,735,042)
e. Fourth Prior Year	<u>(73,179,710)</u>
f. Total Recognized Investment Gain	(\$165,548,129)
(7) Actuarial Value of Assets on September 30, 2023:	
(1)c + (4)g + (5)e + (6)f	\$9,070,856,172





Schedule B: Actuarial Value of Assets

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS AS OF SEPTEMBER 30, 2023 TOTAL - ALL GROUPS

(1) Actuarial Value of Assets on September 30, 2022	
a. Actuarial Value on September 30, 2022	\$14,504,813,053
b. Adjustment	0
c. Adjusted Actuarial Value on September 30, 2022	<u>\$14,504,813,053</u>
(2) Market Value of Assets on September 30, 2023	\$14,071,848,006
(3) Market Value of Assets on September 30, 2022	
a. Market Value on September 30, 2022	\$12,939,073,919
b. Adjustment	0
c. Adjusted Market Value on September 30, 2022	<u>\$12,939,073,919</u>
(4) Cash Flow	
a. Contributions	\$910,282,631
b. Benefit Payments and DROP Disbursements	(1,366,801,378)
c. Refunds to Members and Employers	(58,641,594)
d. Transfers to Expense Fund - Interest Forfeitures	(4,087,987)
e. Transfers to/from Police/Locals	0
f. Investment Expenses	<u>(5,482,212)</u>
g. Net	<u>(\$524,730,540)</u>
(5) Investment Income	
a. Market total: (2) – (3)c – (4)g	\$1,657,504,627
b. Assumed Rate	7.45%
c. Amount for Immediate Recognition	
$[(3)c \times (5)b] + [(4)a + (4)b + (4)c + (4)d + (4)e] \times (5)b \times 0.5 - (4)f$	\$950,101,219
d. Adjustment for Employer Lump Sums	(\$9,272)
e. Adjusted Amount for Immediate Recognition (5)c + (5)d	\$950,091,947
f. Amount for Phased-in Recognition (5)a – (5)e	\$707,412,680
(6) Phased-In Recognition of Investment Income	
a. Current Year: $0.20 \times (5)f$	\$141,482,536
b. First Prior Year	(614,833,300)
c. Second Prior Year	373,518,571
d. Third Prior Year	(49,803,149)
e. Fourth Prior Year	<u>(127,357,830)</u>
f. Total Recognized Investment Gain	<u>(\$276,993,172)</u>
(7) Actuarial Value of Assets on September 30, 2023:	
(1)c + (4)g + (5)e + (6)f	\$14,653,181,288





Schedule B: Actuarial Value of Assets

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS AS OF SEPTEMBER 30, 2023

Date	Investment Gain/(Loss)	Amount Recognized	Remaining Balance as of 9/30/2023
9/30/2019	(\$636,789,142)	(\$636,789,142)	\$0
9/30/2020	(249,015,747)	(199,212,596)	(49,803,151)
9/30/2021	1,867,592,852	1,120,555,713	747,037,139
9/30/2022	(3,074,166,500)	(1,229,666,600)	(1,844,499,900)
9/30/2023	707,412,680	141,482,536	565,930,144





Schedule C: Summary of Receipts & Disbursements

SUMMARY OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING SEPTEMBER 30, 2023

Receipts for the Period

Contributions:	
Members	\$334,456,058
Employers	575,826,573
Other	<u>247,500</u>
Total	\$910,530,131
Investment Income	<u>\$1,657,504,627</u>
TOTAL	\$2,568,034,758

Disbursements for the Period

Benefit Payments	(\$1,359,304,705)
Refunds to Members	(58,889,094)
DROP Distributions	(7,496,673)
Miscellaneous:	
Transfers to Plant Fund	\$0
Transfers to Expense Fund-Interest Forfeitures	(4,087,987)
Transfers to Expense Fund-Investment Expenses	(3,610,964)
Transfers to Pre-retirement Death Benefit Fund	(1,871,248)
Unit Withdrawal	<u>0</u>
TOTAL	<u>(9,570,199)</u>
TOTAL	(\$1,435,260,671)

Excess of Receipts Over Disbursements \$1,132,774,087

Reconciliation of Asset Balances

Market Value of Assets as of September 30, 2022	\$12,939,073,919
Adjustment	\$0
Excess of Receipts Over Disbursements	\$1,132,774,087
Market Value of Assets as of September 30, 2023	<u>\$14,071,848,006</u>





Schedule D: Outline of Actuarial Assumptions & Methods

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2020, adopted by the Board on September 14, 2021.

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:

STATE AND LOCAL EMPLOYEES

Service	Annual Rate *
0	6.00 %
1-5	4.25
6-10	4.00
11-15	3.75
16-19	3.50
20 & Over	3.25

STATE POLICE

Service	Annual Rate *
0-3	7.75 %
4-5	7.50
6	6.25
7-10	5.50
11-14	5.25
15-17	4.75
18-19	4.50
20 & Over	4.00

** Includes wage inflation at 2.75% per annum.*





Schedule D: Outline of Actuarial Assumptions & Methods

SEPARATIONS FROM ACTIVE SERVICE- STATE AND LOCAL EMPLOYEES

TERMINATION: Representative values of the assumed annual rates of withdrawal are shown in the following tables:

Years of Service	Annual Rate of Withdrawal*	
	Non-FLC Members	FLC Members
0-1	20.00%	16.50%
2	16.75	12.00
3	14.00	11.50
4	13.00	11.00
5	7.50	6.50
6	6.75	6.25
7	6.50	6.00
8	5.75	5.40
9	5.25	5.00
10-12	3.50	3.00
13-14	3.50	2.75
15	3.00	2.25
16-18	2.50	2.00
19	2.00	1.50
20+	1.50	1.50

There are no withdrawal decrements after eligibility for service retirement.

* For local employers with fewer than 25 employees the rates are multiplied by 50%.





Schedule D: Outline of Actuarial Assumptions & Methods

SERVICE RETIREMENT: The assumed annual rates of service retirement are as follows:

REGULAR MEMBERS

Age	Annual Rate ¹			
	TIER I ²		TIER II	
	1 ST Eligible	Subsequent	1 ST Eligible	Subsequent
49 & Under	16.50%	10.50%	2.50%	2.50%
50 to 54	20.00	10.50	2.50	2.50
55 to 56	20.00	10.50	10.00	10.00
57	20.00	10.50	20.00	20.00
58	25.00	12.50	20.00	20.00
59	23.00	12.50	20.00	20.00
60	12.00	15.00	50.00	50.00
61	13.00	12.00	50.00	50.00
62	23.00	23.00	50.00	50.00
63	23.00	20.00	23.00	20.00
64	23.00	17.00	23.00	17.00
65	32.00	25.00	32.00	25.00
66	35.00	28.50	35.00	28.50
67	35.00	24.00	35.00	24.00
68 to 79	35.00	21.00	35.00	21.00
80 & Above	100.00	100.00	100.00	100.00

¹For local employers with fewer than 25 employees we assume that all members retire upon first eligibility for a service retirement benefit.

²25% are assumed to retire at age 60 with 25 years of service.

FLC MEMBERS

Age	Annual Rate ¹			
	TIER I ²		TIER II	
	1 ST Eligible	Subsequent	1 ST Eligible	Subsequent
48 & Under 49	35.00%	22.00%	2.50%	2.50%
50 to 51	35.00	22.00	10.00	10.00
52 to 55	35.00	22.00	10.00	10.00
56 to 59	35.00	22.00	20.00	20.00
60	35.00	18.00	20.00	20.00
61	40.00	18.00	15.00	15.00
62	17.00	21.00	17.00	17.00
63	40.00	18.50	40.00	18.50
64	40.00	30.00	40.00	30.00
65	40.00	25.00	40.00	25.00
66	40.00	22.00	40.00	22.00
67-69	40.00	27.00	40.00	27.00
70 to 74	40.00	38.00	40.00	38.00
75 & Above	40.00	30.00	40.00	30.00
	60.00	30.00	60.00	30.00
	100.00	100.00	100.00	100.00

¹For local employers with fewer than 25 employees we assume that all members retire upon first eligibility for a service retirement benefit.

²50% are assumed to retire at age 60 with 25 years of service.





Schedule D: Outline of Actuarial Assumptions & Methods

RATES OF DEATH: Representative values of the assumed annual rates of death are as follows:

Age	Annual Rate of Death*			
	Non FLC State & Local		FLC State & Local	
	Male	Female	Male	Female
20	0.040%	0.014%	0.042%	0.016%
25	0.040	0.011	0.049	0.025
30	0.050	0.017	0.054	0.034
35	0.065	0.027	0.060	0.046
40	0.089	0.043	0.074	0.062
45	0.132	0.066	0.101	0.085
50	0.201	0.099	0.147	0.115
55	0.297	0.145	0.216	0.157
60	0.432	0.218	0.323	0.213
65	0.631	0.344	0.499	0.290
69	0.866	0.512	0.793	0.466

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

RATES OF DISABILITY: Representative values of the assumed annual rates of disability are as follows:

STATE EMPLOYEES

Age	Annual Rate of Disability*				
	Tier I			Tier II	
	Service < 25		Service >=25	Male	Female
	Male	Female			
20	0.014%	0.013%		0.014%	0.013%
25	0.082	0.075		0.082	0.075
30	0.150	0.138		0.150	0.138
35	0.180	0.200		0.180	0.200
40	0.350	0.300		0.350	0.300
45	0.650	0.500	0.250%	0.650	0.500
50	1.000	0.800	0.250	1.000	0.800
55	1.350	1.100	0.250	1.350	1.100
60	1.200	1.450	0.250	1.200	1.450
65	0.600	0.750	0.250	0.600	0.750
69	0.200	0.270		0.200	0.270





Schedule D: Outline of Actuarial Assumptions & Methods

LOCAL EMPLOYEES

Age	Annual Rate of Disability*				
	Tier I			Tier II	
	Service < 25		Service >=25	Male	Female
	Male	Female			
20	0.006%	0.014%		0.006%	0.014%
25	0.033	0.082		0.033	0.082
30	0.060	0.150		0.060	0.150
35	0.120	0.080		0.120	0.080
40	0.290	0.230		0.290	0.230
45	0.470	0.350	0.250%	0.470	0.350
50	0.800	0.600	0.250	0.800	0.600
55	1.300	0.900	0.250	1.300	0.900
60	1.000	0.550	0.250	1.000	0.550
65	0.500	0.160	0.250	0.500	0.160
69	0.100	0.032		0.100	0.032

*There are no disability rates for members with less than 10 years of service.





Schedule D: Outline of Actuarial Assumptions & Methods

STATE POLICE

Withdrawal*			Death**		Disability		Retirement		
Years of Service	Rate	Age	Male	Female	Male	Female	10-19	20-24	25+
0	6.00%	20	0.042%	0.016%	0.050%	0.012%			
1-5	6.00	25	0.049	0.025	0.250	0.060			
6-10	1.50	30	0.054	0.034	0.500	0.120			
11-15	1.50	35	0.060	0.046	0.300	0.180			
20+	1.00	40	0.074	0.062	0.200	0.290	5.00%	33.00%	40.00%
		45	0.101	0.085	0.550	0.440	20.00	35.00	40.00
		50	0.147	0.115	0.500	0.500	20.00	35.00	40.00
		55	0.216	0.157			100.00	100.00	33.00
		60	0.323	0.213					35.00
		62	0.383	0.241					35.00
		65	0.499	0.290					100.00

*There are no withdrawal decrements after eligibility for service retirement.

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

DEATH AFTER RETIREMENT: Rates of mortality are according to the Pub-2010 Below-Median Tables, projected generationally using the MP-2020 scale, which is adjusted by 66-2/3% beginning with year 2019:

Group	Membership Table	Set Forward (+)/ Setback (-)	Adjustment to Rates
Non FLC Service Retirees	General Healthy Below Median	Male: +2, Female: +2	Male: 90% ages < 65, 96% ages >= 65 Female: 96% all ages
FLC/State Police Service Retirees	Public Safety Healthy Below Median	Male: +1, Female: none	None
Beneficiaries	Contingent Survivor Below Median	Male: +2, Female: +2	None
Non-FLC Disabled Retirees	General Disability	Male: +7, Female: +3	None
FLC/State Police Disabled Retirees	Public Safety Disability	Male: +7, Female: none	None





Schedule D: Outline of Actuarial Assumptions & Methods

DEATH IN ACTIVE SERVICE BENEFIT: For those eligible for service retirement who die in active service, it is assumed that 70% of beneficiaries will elect the lump sum death benefit, 20% will elect the Option 2 allowance, and 10% will elect the Option 3 allowance.

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 and the value of the deferred annuity.

UNUSED SICK LEAVE: 1.00% load on service retirement liabilities for active members (No load for Tier II members).

PERCENT MARRIED: 100% of employees are assumed to be married, with the wife 3 years younger than the husband.

ACTUARIAL METHOD: Individual entry age normal cost method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability.

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 3.0 for vested local employees with incomplete data and by a factor of 1.0 for all non-vested 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, which is used to determine the present value of each member's expected benefit payable at retirement or death. The calculations are based on the member's age, years of service, sex, compensation, expected future salary increases, and an assumed future interest earnings rate (currently 7.45%). The calculations consider the probability of a member's death or termination of employment prior to becoming eligible for a benefit and the probability of the member terminating with a service, disability, or survivor's benefit. The present value of the expected benefits payable to 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 to 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 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 accrued liability is determined by subtracting the current assets and the present value of prospective employer normal contributions and member contributions from the present value of expected benefits to be paid from the System. The accrued liability contribution amortizes the balance of the unfunded accrued liability over a period of years from the valuation date.





Schedule F: Board Funding Policy

FUNDING POLICY OF THE EMPLOYEES' RETIREMENT SYSTEM BOARD OF CONTROL

Effective September 30, 2021

The purpose of the funding policy is to state the overall funding objectives for the Employees' 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 Board's funding policy applies to all plans administered by the Board of Control. The funding policy reflects the Board's long-term strategy for stability in funding of the plans.

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 or as a dollar amount for employers with no active members 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.





Schedule F: Board Funding Policy

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) for State Employees and State Police**
 - **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 for State Employees, and September 30, 2021 for State Police, 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.
 - **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 for State Employees and the September 30, 2022 valuation for State Police, 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 for State Employees and State Police**
 - The Initial Total UAAL will be amortized over a 27-year closed period for State Employees and a 21-year closed period for State Police.
 - 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





Schedule F: Board Funding Policy

date each year based on the provisions of Alabama Code Section 36-27-24.

- 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, the individual amortization rate for each of the New Incremental UAAL bases, and the amortization rate for the remaining initial total UAAL.

- **UAAL and UAAL Amortization Period and Contribution Rates for Local Employers**

Local employers have assumptions and funding appropriate for their situations as deemed by Actuary and staff

- **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 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.

- **Special Consideration**--If the resulting contribution rate will not support the cash flow and projected benefit payment needs of a particular unit or employer, then the RSA staff may approve a more aggressive funding policy for these units or employers. In addition, If the resulting contribution rate is determined to be in excess of the cash flow and projected benefit payment needs of a particular unit or employer, then the RSA staff may approve a less aggressive funding policy for these units or employers.

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.





Schedule F: Board Funding Policy

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

STATE EMPLOYEES

<u>Valuation Date</u>	<u>Balance of Initial UAAL as of 9/30/2023</u>	<u>Amortization Period</u>	<u>Annual Amortization Payment</u>
9/30/2021	\$3,235,144,946	27	\$216,878,236
9/30/2022	3,584,234,913	26	245,059,718
9/30/2023	3,903,876,184	25	272,583,712
9/30/2024	3,922,131,248	24	280,079,765
9/30/2025	3,934,250,261	23	287,781,958
9/30/2026	3,939,569,947	22	295,695,962
9/30/2027	3,937,371,946	21	303,827,601
9/30/2028	3,926,878,555	20	312,182,860
9/30/2029	3,907,248,147	19	320,767,888
9/30/2030	3,877,570,246	18	329,589,005
9/30/2031	3,836,860,224	17	338,652,703
9/30/2032	3,784,053,608	16	347,965,652
9/30/2033	3,717,999,950	15	357,534,708
9/30/2034	3,637,456,238	14	367,366,912
9/30/2035	3,541,079,816	13	377,469,502
9/30/2036	3,427,420,760	12	387,849,914
9/30/2037	3,294,913,693	11	398,515,786
9/30/2038	3,141,868,977	10	409,474,970
9/30/2039	2,966,463,246	9	420,735,532
9/30/2040	2,766,729,226	8	432,305,759
9/30/2041	2,540,544,794	7	444,194,168
9/30/2042	2,285,621,213	6	456,409,507
9/30/2043	1,999,490,486	5	468,960,769
9/30/2044	1,679,491,758	4	481,857,190
9/30/2045	1,322,756,704	3	495,108,263
9/30/2046	926,193,815	2	508,723,740
9/30/2047	486,471,514	1	522,713,642
9/30/2048	0	0	0





Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR THE REMAINING INITIAL TOTAL UAAL ON SEPTEMBER 30, 2023

STATE POLICE

<u>Valuation Date</u>	<u>Balance of Initial UAAL as of 9/30/2023</u>	<u>Amortization Period</u>	<u>Annual Amortization Payment</u>
9/30/2021	\$309,010,437	21	\$23,844,813
9/30/2022	308,186,902	20	24,500,546
9/30/2023	306,646,280	19	25,174,311
9/30/2024	304,317,117	18	25,866,604
9/30/2025	301,122,138	17	26,577,936
9/30/2026	296,977,801	16	27,308,829
9/30/2027	291,793,818	15	28,059,822
9/30/2028	285,472,635	14	28,831,467
9/30/2029	277,908,879	13	29,624,333
9/30/2030	268,988,757	12	30,439,002
9/30/2031	258,589,417	11	31,276,074
9/30/2032	246,578,255	10	32,136,166
9/30/2033	232,812,169	9	33,019,911
9/30/2034	217,136,765	8	33,927,958
9/30/2035	199,385,496	7	34,860,977
9/30/2036	179,378,738	6	35,819,654
9/30/2037	156,922,800	5	36,804,695
9/30/2038	131,808,854	4	37,816,824
9/30/2039	103,811,790	3	38,856,787
9/30/2040	72,688,981	2	39,925,348
9/30/2041	38,178,962	1	41,023,295
9/30/2042	0	0	0
9/30/2043	0	0	0
9/30/2044	0	0	0
9/30/2045	0	0	0
9/30/2046	0	0	0
9/30/2047	0	0	0
9/30/2048	0	0	0





Schedule G: Amortization of Bases

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

STATE EMPLOYEES

<u>Valuation Date</u>	<u>Balance of UAAL Due to Benefit Improvements as of 9/30/2021</u>	<u>Amortization Period</u>	<u>Annual Amortization Payment</u>
9/30/2021	\$10,513,204	15	\$1,010,983
9/30/2022	10,285,455	14	1,038,785
9/30/2023	10,012,936	13	1,067,352
9/30/2024	9,691,548	12	1,096,704
9/30/2025	9,316,864	11	1,126,863
9/30/2026	8,884,107	10	1,157,852
9/30/2027	8,388,121	9	1,189,693
9/30/2028	7,823,343	8	1,222,410
9/30/2029	7,183,772	7	1,256,026
9/30/2030	6,462,937	6	1,290,566
9/30/2031	5,653,860	5	1,326,057
9/30/2032	4,749,016	4	1,362,524
9/30/2033	3,740,294	3	1,399,993
9/30/2034	2,618,953	2	1,438,493
9/30/2035	1,375,572	1	1,478,052
9/30/2036	0	0	0





Schedule G: Amortization of Bases

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

STATE POLICE

<u>Valuation Date</u>	<u>Balance of UAAL Due to Benefit Improvements as of 9/30/2021</u>	<u>Amortization Period</u>	<u>Annual Amortization Payment</u>
9/30/2021	\$264,104	15	\$25,397
9/30/2022	258,383	14	26,096
9/30/2023	251,537	13	26,813
9/30/2024	243,464	12	27,551
9/30/2025	234,051	11	28,308
9/30/2026	223,180	10	29,087
9/30/2027	210,720	9	29,887
9/30/2028	196,532	8	30,708
9/30/2029	180,466	7	31,553
9/30/2030	162,358	6	32,421
9/30/2031	142,033	5	33,312
9/30/2032	119,302	4	34,229
9/30/2033	93,961	3	35,170
9/30/2034	65,791	2	36,137
9/30/2035	34,555	1	37,129
9/30/2036	0	0	0





Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR BASE
CLOSED ON SEPTEMBER 30, 2023
DUE TO BENEFIT IMPROVEMENTS

STATE EMPLOYEES

<u>Valuation Date</u>	<u>Balance of UAAL Due to Benefit Improvements as of 9/30/2023</u>	<u>Amortization Period</u>	<u>Annual Amortization Payment</u>
9/30/2023	(\$2,657,103)	15	(\$255,515)
9/30/2024	(2,599,542)	14	(262,542)
9/30/2025	(2,530,666)	13	(269,762)
9/30/2026	(2,449,439)	12	(277,181)
9/30/2027	(2,354,741)	11	(284,803)
9/30/2028	(2,245,366)	10	(292,635)
9/30/2029	(2,120,011)	9	(300,683)
9/30/2030	(1,977,269)	8	(308,951)
9/30/2031	(1,815,625)	7	(317,448)
9/30/2032	(1,633,441)	6	(326,177)
9/30/2033	(1,428,955)	5	(335,147)
9/30/2034	(1,200,265)	4	(344,364)
9/30/2035	(945,321)	3	(353,834)
9/30/2036	(661,913)	2	(363,564)
9/30/2037	(347,662)	1	(373,563)
9/30/2038	0	0	0





Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR BASE
CLOSED ON SEPTEMBER 30, 2023
DUE TO BENEFIT IMPROVEMENTS

STATE POLICE

<u>Valuation Date</u>	<u>Balance of UAAL Due to Benefit Improvements as of 9/30/2023</u>	<u>Amortization Period</u>	<u>Annual Amortization Payment</u>
9/30/2023	\$21,590,346	15	\$2,076,196
9/30/2024	21,122,631	14	2,133,292
9/30/2025	20,562,975	13	2,191,957
9/30/2026	19,902,960	12	2,252,236
9/30/2027	19,133,495	11	2,314,173
9/30/2028	18,244,767	10	2,377,813
9/30/2029	17,226,189	9	2,443,202
9/30/2030	16,066,338	8	2,510,390
9/30/2031	14,752,890	7	2,579,426
9/30/2032	13,272,554	6	2,650,360
9/30/2033	11,610,999	5	2,723,245
9/30/2034	9,752,773	4	2,798,134
9/30/2035	7,681,221	3	2,875,084
9/30/2036	5,378,388	2	2,954,148
9/30/2037	2,824,930	1	3,035,387
9/30/2038	0	0	0





Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR THE NEW INCREMENTAL UAL ON SEPTEMBER 30, 2022

STATE POLICE

<u>Valuation Date</u>	<u>Balance of Incremental UAAL as of 9/30/2023</u>	<u>Amortization Period</u>	<u>Annual Amortization Payment</u>
9/30/2022	\$27,489,656	20	\$2,185,400
9/30/2023	27,352,236	19	2,245,498
9/30/2024	27,144,479	18	2,307,250
9/30/2025	26,859,493	17	2,370,699
9/30/2026	26,489,827	16	2,435,893
9/30/2027	26,027,426	15	2,502,880
9/30/2028	25,463,590	14	2,571,710
9/30/2029	24,788,918	13	2,642,431
9/30/2030	23,993,262	12	2,715,098
9/30/2031	23,065,662	11	2,789,764
9/30/2032	21,994,289	10	2,866,482
9/30/2033	20,766,382	9	2,945,310
9/30/2034	19,368,167	8	3,026,307
9/30/2035	17,784,788	7	3,109,530
9/30/2036	16,000,225	6	3,195,042
9/30/2037	13,997,200	5	3,282,905
9/30/2038	11,757,086	4	3,373,185
9/30/2039	9,259,804	3	3,465,947
9/30/2040	6,483,713	2	3,561,262
9/30/2041	3,405,488	1	3,659,197
9/30/2042	0	0	0





Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR THE NEW INCREMENTAL UAL ON SEPTEMBER 30, 2023

STATE POLICE

<u>Valuation Date</u>	<u>Balance of Incremental UAAL as of 9/30/2023</u>	<u>Amortization Period</u>	<u>Annual Amortization Payment</u>
9/30/2023	\$17,739,021	20	\$1,410,234
9/30/2024	17,650,344	19	1,449,016
9/30/2025	17,516,279	18	1,488,864
9/30/2026	17,332,378	17	1,529,807
9/30/2027	17,093,833	16	1,571,877
9/30/2028	16,795,447	15	1,615,104
9/30/2029	16,431,604	14	1,659,519
9/30/2030	15,996,239	13	1,705,156
9/30/2031	15,482,803	12	1,752,047
9/30/2032	14,884,225	11	1,800,229
9/30/2033	14,192,871	10	1,849,735
9/30/2034	13,400,505	9	1,900,603
9/30/2035	12,498,240	8	1,952,870
9/30/2036	11,476,489	7	2,006,573
9/30/2037	10,324,914	6	2,061,754
9/30/2038	9,032,366	5	2,118,452
9/30/2039	7,586,825	4	2,176,710
9/30/2040	5,975,333	3	2,236,569
9/30/2041	4,183,926	2	2,298,075
9/30/2042	2,197,553	1	2,361,271
9/30/2043	0	0	0





Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR TOTAL UAAL AS OF SEPTEMBER 30, 2023

STATE EMPLOYEES

Year	Projected UAAL	Payment for year Beginning September 30,
2021	\$3,245,658,150	\$217,889,219
2022	3,594,520,368	246,098,503
2023	3,911,232,017	273,395,549
2024	3,929,223,254	280,913,927
2025	3,941,036,459	288,639,059
2026	3,946,004,615	296,576,633
2027	3,943,405,326	304,732,491
2028	3,932,456,532	313,112,635
2029	3,912,311,908	321,723,231
2030	3,882,055,914	330,570,620
2031	3,840,698,459	339,661,312
2032	3,787,169,183	349,001,999
2033	3,720,311,289	358,599,554
2034	3,638,874,926	368,461,041
2035	3,541,510,067	378,593,720
2036	3,426,758,847	387,486,350
2037	3,294,566,031	398,142,223
2038	3,141,868,977	409,474,970
2039	2,966,463,246	420,735,532
2040	2,766,729,226	432,305,759
2041	2,540,544,794	444,194,168
2042	2,285,621,213	456,409,507
2043	1,999,490,486	468,960,769
2044	1,679,491,758	481,857,190
2045	1,322,756,704	495,108,263
2046	926,193,815	508,723,740
2047	486,471,514	522,713,642
2048	0	0

STATE POLICE

Year	Projected UAAL	Payment for year Beginning September 30,
2021	\$309,274,541	\$23,870,210
2022	335,934,941	26,712,042
2023	373,579,420	30,933,052
2024	370,478,036	31,783,713
2025	366,294,937	32,657,764
2026	360,926,146	33,555,852
2027	354,259,292	34,478,639
2028	346,172,970	35,426,801
2029	336,536,055	36,401,038
2030	325,206,952	37,402,067
2031	312,032,803	38,430,622
2032	296,848,625	39,487,466
2033	279,476,382	40,573,371
2034	259,724,001	41,689,138
2035	237,384,301	42,835,590
2036	212,233,841	43,975,417
2037	184,069,845	45,184,741
2038	152,598,307	43,308,461
2039	120,658,420	44,499,445
2040	85,148,026	45,723,178
2041	45,768,376	46,980,567
2042	2,197,553	2,361,271
2043	0	0
2044	0	0
2045	0	0
2046	0	0
2047	0	0
2048	0	0





Schedule H: Summary of Main System Provisions

AS INTERPRETED FOR VALUATION PURPOSES

The Employees' Retirement System of Alabama was established on October 1, 1945. The valuation took into account amendments to the System effective through the valuation date. Act 2019-132 allows local employers that participate in the System to elect to provide Tier I retirement benefits to their Tier II employees, upon approval by the Board of Control, until May 8, 2021, and will be reflected in the valuations prepared for the individual employers. Act 2022-138 removes the deadline for this election effective April 13, 2022. There is a new tier (Tier II) of benefits for all members initially joining the System on and after January 1, 2013. Act 2023-73 revised the definition of "state police" to include all employees of the Alabama State Law Enforcement Agency who are certified by the Alabama Peace Officers' Standards and Training Commission and perform law enforcement duties, as well as investigators employed by the AG's office and Ethics Commission. These members pay the same employee contribution rate and receive the same benefits as State Police. 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 1 - the 3 highest years in the last 10 years of creditable service
- Tier 2 - 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 previous 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 the accumulated contributions of an employer.

Retirement Allowance – the sum of the annuity and pension payments.





Schedule H: Summary of Main System Provisions

2 – BENEFITS

MEMBERS CLASSIFIED AS STATE EMPLOYEES

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, (except for employees of local employers who did not elect 25-year retirement), 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 his 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).





Schedule H: Summary of Main System Provisions

Disability Retirement Allowance

Condition for Allowance

A disability retirement allowance may be granted to a member who has 10 or more years of creditable service and becomes permanently incapacitated for duty before reaching eligibility for service retirement.

Amount of Allowance

Tier I

Upon 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 his 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.

Benefits Payable on Separation from Service

Any member who withdraws from service is entitled to receive a return of member 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 – All Employees" or (2) to receive a return of member contributions and total interest earned 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 fiscal year (October 1 – September 30).*





Schedule H: Summary of Main System Provisions

In the event of the death of a member with more than one year of creditable service who is not eligible for retirement, the designated beneficiary shall receive a return of member contributions and total interest earned. Also, the designated beneficiary shall receive an additional death benefit payable from the preretirement death benefit fund equal to the salary on which their retirement contributions were made for the previous fiscal year (October 1 – September 30).*

In the event of a job-related death of a member at any age with less than 1 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 pre-retirement death benefit fund equal to the annual earnable compensation of the member at the time death occurs.*

In the event of a non-job-related death of a member with less than 1 year of service, the beneficiary shall receive the return of member contributions and total interest earned plus a matching death benefit which is limited to a maximum of \$5,000.

* 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.

Deferred Retirement Option Plan (DROP)

A member could elect to participate in the Deferred Retirement Option Plan (DROP) upon completion of at least 25 years of service (at least 30 years for employers that did not elect 25 year retirement) 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 based on his or her years of service credit 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 DROP with an effective participation date after June 1, 2011.





Schedule H: Summary of Main System Provisions

Member Contributions

Tier I	<p>Prior to October 1, 2011, regular members contributed 5.0% of salary. Full-time 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.</p> <p>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, for all State employees and for local employees whose employers elect to do so.</p> <p>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, for all State employees and for local employees whose employers elect to do so.</p>
Tier II	<p>Regular members contribute 6% of salary and full-time certified firefighters, police officers, and correctional officers, contribute 7% of salary.</p>
Both	<p>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.</p> <p>“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 36-27-16.3(c)(1)).</p>

MEMBERS OF LOCAL EMPLOYERS

Members of local employers generally receive the same benefit structure as State employees, however some benefits must be elected by individual employers. Members whose employers have not yet elected to grant retirement upon completion of 25 years of service must have 30 years of service for retirement before age 60 (For Tier I). These employers have the option of electing 25-year retirement for their Tier I members. Employers may also elect to increase Tier I member contribution rates to 7.5% of payroll for regular members and 8.5% of payroll for FLC members. Employers who have not elected to allow sick leave conversion may still elect to do so. Employers may elect to provide Tier I benefits to their Tier II members, provided the members pay the increased members rates shown above.





Schedule H: Summary of Main System Provisions

Members of the City of Montgomery who elected to remain under the City's retirement plan structure are subject to the conditions and benefit structure of that plan. A brief description of this structure is as follows:

Condition for Allowance

Group I For general municipal employees hired before October 1, 2013, a retirement allowance is payable upon the request of any member who has completed 20 years of creditable service, or who has attained age 65 (25 years or age 62 if hired after October 1, 2005 or elected)

Group II For members of the fire department or police department of the City, a retirement allowance is payable upon the request of any member who has completed 20 years of creditable service or attained age 62 (25 years or age 55 if hired after October 1, 2005, or 25 years or age 55 with 10 years of creditable service if hired after October 1, 2013)

Amount of Allowance

Group I **20-year retirement plan:** Upon service retirement a member receives a retirement allowance equal to 2.0% of the member's average final compensation multiplied by the number of years of his creditable service (up to 20 years), and 1% of the member's average final compensation multiplied by the number of years of his creditable service over 20 years. Maximum benefit is 60% of average final compensation.

25-year retirement plan: Upon service retirement a member receives a retirement allowance equal to 2.0% of the member's average final compensation multiplied by the number of years of his creditable service. Maximum benefit is 100% of average final compensation.

Group II **20-year retirement plan:** Upon service retirement a member receives a retirement allowance equal to 2.5% of the member's average final compensation multiplied by the number of years of his creditable service (up to 20 years), and 1% of the member's average final compensation multiplied by the number of years of his creditable service over 20 years. Maximum benefit is 60% of average final compensation.





Schedule H: Summary of Main System Provisions

25-year retirement plan: Upon service retirement a member receives a retirement allowance equal to 2.5% of the member's average final compensation multiplied by the number of years of his creditable service. Maximum benefit is 100% of average final compensation.

Age 62 retirement plan: Upon service retirement a member receives a retirement allowance equal to 2.5% of the member's average final compensation multiplied by the number of years of his creditable service. Maximum benefit is 100% of average final compensation. Benefit is reduced by early retirement factor (5/9% for each month annuity start date precedes age 62 but not earlier than age 55).

Employee Retention Incentive Program (ERIP)

An employee is eligible to enter the ERIP plan if he or she is an active employee and has at least 20 years of service (25 years for a 25-year retirement plan participant). The participant can effectively elect to retire up to three years prior to termination, and receive the payments that would have been made as a lump sum (accumulated with 5% interest). Subsequent monthly benefits are based on the benefit used to determine the lump sum.

Preretirement Death Benefits

If the member is eligible for a service retirement, 50% of the accrued benefit, reduced for a 50% joint and survivor annuity. If the member is not eligible for a service retirement benefit, a lump sum of member contributions is payable.

Disability Benefits

If a participant has 10 years of service and becomes permanently disabled he is entitled to immediately receive his monthly accrued benefit, based on his current years of service and current final average earnings.

Separation Benefits

Group I

Return of contributions if less than 10 years of service. If more than 10 years of service, member is entitled to his accrued benefit payable at age 62 (age 65 for 20-year plan).

Group II

Return of contributions if less than 10 years of service. If more than 10 years of service, member is entitled to his accrued benefit payable at age 55 (age 62 for 20-year plan and Age 62 plan).





Schedule H: Summary of Main System Provisions

MEMBERS CLASSIFIED AS STATE POLICE

Service Retirement Allowance

Condition for Allowance

A retirement allowance is payable upon the request of any member who has completed 25 years of creditable service or who has attained age 52 and completed at least 10 years of creditable service.

Amount of Allowance

Tier I

Upon service retirement a member receives a retirement allowance equal to 2.875% of the member's average final compensation multiplied by the number of years of his creditable service.

A member who has attained 20 or more years of creditable service and retires prior to age 60 is eligible to receive a "bonus service credit" up to 4 years as follows:

- Age 56 or older – bonus service of 4 years reduced by 1 month for each month over the age of 56.
- Age 52 to 56 – bonus service of 4 years.
- Age 52 or less (disability retirement only) – bonus service of 4 years.
- Age 52 or less with 25 or more years of service – bonus service of 4 years.

Tier II

Upon service retirement a member receives a retirement allowance equal to 2.375% of the member's average final compensation multiplied by the number of years of his 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 state police officer. The benefit is capped at 80% of the member's average final compensation.





Schedule H: Summary of Main System Provisions

Disability Retirement Allowance

Condition for Allowance

A disability retirement allowance may be granted to a member who has 10 or more years of creditable service or who becomes disabled as a result of his employment in line of duty without regard to his years of creditable service, and who becomes permanently incapacitated, mentally or physically, for the further performance of duty before reaching the minimum age for service retirement.

Amount of Allowance

Tier I

Upon retirement for disability, a member receives a retirement allowance equal to 2.875% of the member's average final compensation multiplied by the number of years of his creditable service.

Tier II

Upon retirement for disability, a member receives a retirement allowance equal to 2.375% of the member's average final compensation multiplied by the number of years of his 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 state police officer. The benefit is capped at 80% of the member's average final compensation.

Benefits Payable on Separation from Service

Any member who withdraws from service is entitled to receive a return of member 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 52.

Benefits Payable upon Death in Active Service

In the event of the death of a member who is 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 – All Employees" or (2) to receive a return of member contributions and total interest earned 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 fiscal year (October 1 – September 30).*

In the event of the death of a member with more than one year of creditable service who is not eligible for retirement, the





Schedule H: Summary of Main System Provisions

designated beneficiary shall receive a return of member contributions and total interest earned. Also, the designated beneficiary shall receive an additional death benefit payable from the preretirement death benefit fund equal to the salary on which their retirement contributions were made for the previous fiscal year (October 1 – September 30).*

In the event of a job-related death of a member at any age with less than 1 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 death occurs.*

In the event of a non-job-related death of a member with less than 1 year of creditable service, the beneficiary shall receive the return of member contributions and total interest earned plus a matching death benefit which is limited to a maximum of \$5,000.

- * 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.

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 52 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 based on his or her years of service credit 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.

Member Contributions

Each member contributes 10% of salary.





Schedule H: Summary of Main System Provisions

3 - SPECIAL PRIVILEGES AT RETIREMENT – ALL MEMBERS

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 the annuity payments equal or exceed the present value of the member's 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 the designated beneficiary 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.





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

STATE EMPLOYEES

Attained Age	Completed Years of Service										Total	Payroll
	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		
Under 25	532	356	8								896	\$30,537,732
25 to 29	532	1,219	227	2							1,980	83,772,652
30 to 34	423	1,057	1,035	163	9						2,687	132,501,371
35 to 39	284	845	929	627	250	5					2,940	163,045,315
40 to 44	321	687	728	551	967	270	1				3,525	210,490,334
45 to 49	240	650	629	395	825	795	127	1			3,662	233,707,339
50 to 54	253	615	592	403	651	703	420	124			3,761	240,068,537
55 to 59	155	445	503	344	498	569	344	428	102	3	3,391	220,426,597
60 to 64	90	293	421	289	410	374	240	310	203	27	2,657	172,268,030
65 to 69	40	88	199	133	173	149	83	87	64	51	1,067	70,732,198
70 & up	20	47	95	79	73	54	32	37	8	8	453	31,138,237
Total	2,890	6,302	5,366	2,986	3,856	2,919	1,247	987	377	89	27,019	\$1,588,688,342

Average Age: 46.13 Average Service: 11.51





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**

STATE POLICE

Attained Age	Completed Years of Service										Total	Payroll	
	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			
Under 25													\$0
25 to 29	1	42	19								62	3,676,394	
30 to 34		31	38	26							95	6,046,499	
35 to 39		15	18	36	28	1					98	6,911,726	
40 to 44	1	15	7	29	75	33					160	12,684,100	
45 to 49	1	4	9	15	45	46	20				140	12,092,511	
50 to 54	1	10	3	7	27	38	29	2			117	10,111,610	
55 to 59		3	6	4	15	10	7	2	2		49	4,139,289	
60 & up			3	6	7		1	1			18	1,585,965	
Total	4	120	103	123	197	128	57	5	2		739	\$57,248,096	

Average Age: 42.88 Average Service: 14.61





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

LOCAL EMPLOYEES

Attained Age	Completed Years of Service										Total	Payroll
	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		
Under 25	2,028	2,113	52								4,193	\$145,313,908
25 to 29	1,275	3,263	1,256	23							5,817	251,574,372
30 to 34	1,109	2,556	2,243	760	28						6,696	318,326,702
35 to 39	866	1,929	1,691	1,417	912	13					6,827	356,232,382
40 to 44	743	1,573	1,223	1,055	1,485	648	20				6,747	372,828,695
45 to 49	601	1,358	1,117	834	1,222	1,255	384	5			6,776	389,482,786
50 to 54	593	1,461	1,152	927	1,158	1,214	770	189	5		7,469	430,375,054
55 to 59	447	1,090	954	818	960	964	645	325	95	5	6,303	352,598,581
60 to 64	325	796	809	629	729	699	438	257	144	49	4,875	265,356,146
65 to 69	143	293	364	279	245	227	140	84	49	64	1,888	98,610,448
70 & up	113	287	192	138	127	99	65	40	24	16	1,101	47,729,803
Total	8,243	16,719	11,053	6,880	6,866	5,118	2,462	900	317	134	58,692	\$3,028,428,877

Average Age: 43.86 Average Service: 9.52





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	416	\$ 13,517,472	\$ 32,494
50 – 54	1,657	59,183,075	35,717
55 – 59	3,228	114,201,403	35,378
60 – 64	6,829	205,076,090	30,030
65 – 69	10,609	275,078,144	25,929
70 – 74	10,724	248,721,009	23,193
75 – 79	7,730	165,137,333	21,363
80 – 84	4,291	86,733,334	20,213
85 – 89	2,211	40,816,015	18,460
90 – 94	826	13,298,165	16,099
95 & Over	217	3,230,656	14,888
Total	48,738	\$ 1,224,992,696	\$ 25,134

Average Age: 70.41

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





Schedule I: Schedule of Membership Data

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	274	\$ 3,397,740	\$ 12,401
50 – 54	137	1,975,364	14,419
55 – 59	220	4,123,695	18,744
60 – 64	381	6,631,069	17,404
65 – 69	563	9,297,052	16,513
70 – 74	818	12,178,511	14,888
75 – 79	819	11,921,655	14,556
80 – 84	720	9,374,505	13,020
85 – 89	542	7,231,356	13,342
90 – 94	231	2,485,729	10,761
95 & Over	97	1,051,522	10,840
Total	4,802	\$ 69,668,198	\$ 14,508

Average Age: 73.03





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	247	\$ 4,082,108	\$ 16,527
50 – 54	386	6,980,542	18,084
55 – 59	618	10,869,685	17,588
60 – 64	838	13,662,639	16,304
65 – 69	812	11,489,075	14,149
70 – 74	645	8,962,465	13,895
75 – 79	380	4,787,944	12,600
80 – 84	147	1,693,428	11,520
85 – 89	54	638,869	11,831
90 – 94	17	173,042	10,179
95 & Over	4	37,779	9,445
Total	4,148	\$ 63,377,576	\$ 15,279

Average Age: 64.45





Schedule I: Schedule of Membership Data

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	84,697	47,908	4,184	4,651	3,542	144,982
Service Retirements	(2,148)	2,404			(256)	
Disability Retirements	(126)		131		(5)	
Termination (Re-Retirement)	(20)	20				
Deceased	(118)	(1,291)	(146)	(249)		(1,804)
Deceased with Beneficiary	(17)	(312)	(23)	354	(2)	
Deferred Vested Termination	(522)				522	
Refunds	(3,178)				(3)	(3,181)
Transfer Out	(36)					(36)
Inactive	(4,396)					(4,396)
Return to Active Status	77	(9)			(68)	
Pick-up/Status Change	885	18	2	46	(55)	896
New	11,352					11,352
Total as of September 30, 2023	86,450	48,738	4,148	4,802	3,675	147,813

