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Alabama Judicial Retirement Fund
Report of the Actuary on the Annual Valuation Prepared as of September 30, 2021

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April 21, 2022

Board of Control
Alabama Judicial Retirement Fund
Montgomery, Alabama

Members of the Board:

In this report are submitted the results of the annual valuation of the assets and liabilities of the Alabama Judicial Retirement Fund (Fund), prepared as of September 30, 2021 in accordance with Sections 12-18-2(a) and 36-27-23(p) of the act governing the operation of the Fund.

The purpose of this report is to provide a summary of the funded status of the Fund as of September 30, 2021 and to recommend rates of employer contribution for the fiscal year ending September 30, 2024. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

On the basis of the valuation, we have determined an employer contribution rate of 42.47% of payroll for the fiscal year ending September 30, 2024 for Tier I members and of 37.72% of payroll for members of the Judges' and Clerks' plan (Tier II). For the District Attorneys' plan we have determined an employer contribution rate of 19.77% of payroll for the fiscal year ending September 30, 2024.

Since the previous valuation, various assumptions and methods have been revised to reflect the results of the experience investigation of the System for the five-year period ending September 30, 2020. **The valuation liabilities fully reflect the impact of all assumption changes. The Board approved the full increase in the required contributions due to the assumption changes with a floor equal to the 2023 fiscal year employer contribution rates. The contribution rates shown in this report reflect this methodology.**

The promised benefits of the Fund 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 Fund and to reasonable expectations of anticipated experience under the Fund. The assumptions and methods used for funding purposes meet the parameters outlined in the Board's funding policy.

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, 2021
- Ten-Year History of Average Monthly Benefit Payments as of September 30

The necessary GASB Statement Nos. 67 and 68 disclosure information is provided in separate supplemental reports. 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 fund and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Fund.

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.

In order to prepare the results in this report we have utilized appropriate actuarial models that were developed for this purpose. These models use assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

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

In our opinion the Fund is operating on an actuarially sound basis. Assuming that contributions to the Fund 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 Fund may be safely anticipated.

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

Respectfully submitted,

Cathy Turcot

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

Cathy Turcot
Principal and Managing Director

Edward J. Koebel

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

Table of Contents

Section I: Summary of Principal Results

REPORT OF THE ACTUARY ON THE ANNUAL VALUATION OF THE ALABAMA JUDICIAL RETIREMENT FUND PREPARED AS OF SEPTEMBER 30, 2021

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

Summary of Principal Results for Judicial Retirement Fund (Other than District Attorneys' Plan)

VALUATION DATE	September 30, 2021	September 30, 2020
Active members		
Number	357	354
Annual compensation	$ 46,162,293	$ 45,362,753
Retired members and beneficiaries		
Number	452	456
Annual allowances	$ 39,119,157	$ 39,076,317
Deferred vested members		
Number	13	16
Estimated deferred annual allowances	$ 1,228,376	$ 1,407,549
Assets		
Actuarial value	$ 331,290,037	$ 316,853,131
Market value	359,333,040	313,723,961
Unfunded actuarial accrued liability	$ 166,022,505	$ 162,765,929
Funded ratio based on actuarial value of assets	66.6%	66.1%
CONTRIBUTIONS FOR FISCAL YEAR ENDING	**September 30, 2024**	**September 30, 2023**
Tier I (Groups 1 and 2)		
Employer contribution rate		
Normal	14.27%	13.35%
Accrued liability	27.45	27.52
Administration	0.75	1.23
Total	42.47%	42.10%
Tier II		
Judges' and Clerks' Plan (Group 3)		
Employer contribution rate		
Normal	9.37%	8.44%
Accrued liability	27.45	27.52
Administration	0.75	1.23
Death Benefit	0.15	0.15
Total	37.72%	37.34%
Blended Amortization period	19.0 years	20.2 years

Section I: Summary of Principal Results

Summary of Principal Results for District Attorneys' Plan

VALUATION DATE	**September 30, 2021**	**September 30, 2020**
Active members		
Number	11	11
Annual compensation	$ 1,729,410	$ 1,721,747
Retired members and beneficiaries		
Number	0	0
Annual allowances	$ 0	$ 0
Deferred vested members		
Number	0	0
Estimated deferred annual allowances	$ 0	$ 0
Assets		
Actuarial value	$ 2,489,219	$ 1,820,125
Market value	2,697,617	1,811,317
Unfunded actuarial accrued liability	$ 113,821	$ 423,691
Funded ratio based on actuarial value of assets	95.6%	81.1%
CONTRIBUTIONS FOR FISCAL YEAR ENDING	**September 30, 2024**	**September 30, 2023**
Employer contribution rate		
Normal	5.41%	4.37%
Accrued liability	12.61	13.17
Administration	0.75	1.23
Death Benefit	1.00	1.00
Total	19.77%	19.77%
Blended Amortization period	0.5 years	1.9 years

Section I: Summary of Principal Results

Summary of Principal Results - Total

VALUATION DATE	September 30, 2021	September 30, 2020
Active members		
Number	368	365
Annual compensation	$ 47,891,703	$ 47,084,500
Retired members and beneficiaries		
Number	452	456
Annual allowances	$ 39,119,157	$ 39,076,317
Deferred vested members		
Number	13	16
Estimated deferred annual allowances	$ 1,228,376	$ 1,407,549
Assets		
Actuarial value	$ 333,779,256	$ 318,673,256
Market value	362,030,657	315,535,278
Unfunded actuarial accrued liability	$ 166,136,326	$ 163,189,620
Funded ratio based on actuarial value of assets	66.8%	66.1%

2. Comments on the valuation results as of September 30, 2021 are given in Section IV and further discussion of the contribution levels is set out in Section V.

3. Schedule B of this report shows the development of the actuarial value of assets.

4. The Board's funding policy is provided in Schedule F.

5. Schedule D outlines the full set of actuarial assumptions and methods employed in the current valuation. Since the previous valuation, various assumptions and methods have been revised to reflect the results of the experience investigation for the five-year period ending September 30, 2020, dated July 12, 2021. **The valuation liabilities fully reflect the impact of all assumption changes. The Board approved the full increase in the required contributions due to the assumption changes with a floor equal to the 2023 fiscal year employer contribution rates. The contribution rates shown in this report reflect this methodology.** These revised assumptions, as summarized in the following table, were adopted by the Board on September 13, 2021.

Section I: Summary of Principal Results

Summary of Recommended Assumptions	
Economic Assumptions	
Price Inflation	Lowered assumption from 2.75% to 2.50%
Real Rate of Investment Return	No Change in Assumption
Total Rate of Investment Return	Lowered assumption from 7.65% to 7.40%
Wage Inflation	Lowered assumption from 3.00% to 2.75%
Payroll Growth	Lowered assumption from 3.00% to 2.75%
Demographic Assumptions	
Withdrawal	Changed rates to a service-based table
Retirement	Changed assumed rates
Pre-Retirement Mortality	Changed to Pub-2010 Teacher Employee Below Median table, adjusted by 65% and projected generationally with adjusted MP-2020 improvement scale
Disability	No change to current rates
Post-Retirement Mortality	Changed to Pub-2010 family of mortality tables adjusted as outlined in Schedule D, projected generationally with adjusted MP-2020 improvement scale
Other Assumptions and Methods and Administrative Changes	
Asset Smoothing	No change in method.
Pre-retirement Death Benefit	No change in method
Administrative Expenses	Changed from 1.23% to 0.75% of payroll
Spouse's Benefit	No change in method
Amortization of Liabilities	• Amortize entire September 30, 2021 UAAL over a closed 19-year period • Implement 20-year layered amortization of future experience gains/losses beginning September 30, 2022

6. Provisions of the Fund, as summarized in Schedule H, were taken into account in the current valuation. There have been no changes since the previous valuation.

7. The funded ratio shown in the Summary of Principal Results is the ratio of the actuarial value of assets to the actuarial accrued liability. The funded status would be different based on market value of assets. 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. The following table shows the number of active members and their annual compensation as of September 30, 2021 on the basis of which the valuation was prepared.

TABLE 1

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF SEPTEMBER 30, 2021

GROUP	NUMBER		COMPENSATION
Tier I (Groups 1 and 2)			
District Court Judges	70	$	9,943,431
Probate Court Judges	36		3,564,240
Non District, Non Probate Judges	109		15,998,161
Total	215	$	29,505,832
Tier II (Group 3)			
District Court Judges	40	$	5,118,315
Probate Judges	32		3,222,681
Non District, Non Probate Judges	52		6,959,209
Clerks	18		1,356,256
Total	142	$	16,656,461
District Attorneys' Plan	11	$	1,729,410
Total	368	$	47,891,703

The table reflects the active membership for whom complete valuation data were submitted. The results of the valuation include contribution balances for an additional 27 non-vested inactive members.

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

Valuation Date	Number	Annual Payroll*	% Increase in Annual Payroll	Annual Average Pay**	% Increase in Average Pay
9/30/2021	368	$47,891,703	1.71 %	$ 130,140	0.88%
9/30/2020	365	47,084,500	3.88	128,999	4.17
9/30/2019	366	45,325,830	3.44	123,841	(2.50)
9/30/2018	345	43,819,340	(1.07)	127,013	0.65
9/30/2017	351	44,291,914	2.95	126,188	(1.45)
9/30/2016	336	43,022,891	0.49	128,044	1.08

* 2.2% increase for total pay since 2016
** 0.3% increase for average pay since 2016

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

TABLE 3

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS AND BENEFICIARIES ON THE ROLL AS OF SEPTEMBER 30, 2021

GROUP	NUMBER*	ANNUAL RETIREMENT ALLOWANCES
Service Retirements	333	$ 34,511,863
Disability Retirements	7	475,949
Beneficiaries of Deceased Members	112	4,131,345
Total	452	$ 39,119,157

*In addition, there were 13 vested inactive members with estimated deferred annual allowances totaling $1,228,376 included in the valuation.

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

Section III: Assets

1. The Judicial Retirement Fund assets are currently allocated to four funds for the purpose of recording the fiscal transactions of the Fund, namely, the Annuity Savings Fund, the Pension Accumulation Fund, the Expense Fund, and the Pre-Retirement Death Benefit 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 is transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The market value of assets credited to the Annuity Savings Fund on September 30, 2021, which represent the accumulated contributions of active members to that date, including interest, amounted to $46,255,818 for members other than District Attorneys and $1,048,271 for the District Attorneys' Plan members.

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

   The Pension Accumulation Fund is the fund to which are credited all contributions made by the employer, except those contributions made to the Expense Fund. When a member retires or when a survivor allowance becomes payable, the pension is paid from this fund. In addition, the amount of the member's accumulated contributions is transferred from the Annuity Savings Fund to the Pension Accumulation Fund and the annuity is paid from this fund. On September 30, 2021 the market value of assets credited to this fund is $313,077,222 for members other than the District Attorneys and $1,649,346 for the District Attorneys' Plan members.

   (c) ***Expense Fund***

   The Expense Fund is the fund from which the expenses of the administration of the retirement fund are paid. Any amounts credited to the accounts of members withdrawing before retirement and not returnable under the provisions of Sections 12-18-54 and 12-18-83 are credited to the Expense Fund. Additional contributions required to meet the expenses of the retirement fund made by the employer are also credited to this fund. On September 30, 2021, the market value of assets credited to this fund amounted to $3,138,160. These assets are <u>not</u> included in the valuation.

   (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 for members of the Judges and Clerks Plan and the District Attorneys' Plan. On September 30, 2021 the market value of assets credited to this fund amounted to $73,106 for members of the Judges and Clerks Plan and $86,415 for members of the District Attorneys' Plan. These assets are <u>not</u> included in the valuation and the liabilities associated with these death benefits are not included in the valuation.

2. The amount of assets taken into account in this valuation is based on information reported by the Retirement Fund.

3. As of September 30, 2021, the total market value of assets, exclusive of the Expense Fund and the Pre-retirement Death Benefit Funds, amounted to $362,030,657, of which $359,333,040 is for members other than District Attorneys and $2,697,617 is for the District Attorneys' Plan. The market related actuarial value of assets was $333,779,256, of which $331,290,037 is for members other than the District Attorneys and $2,489,219 is for the District Attorneys' Plan. Schedule B shows the development of the actuarial value of assets as of September 30, 2021.

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

Section IV: Comments on Valuation

1. Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the Fund as of September 30, 2021.

2. The valuation balance sheet shows that the Fund has total accrued liabilities of $499,915,582. Of this amount, $343,884,715 is for the benefits payable on account of present retired members and beneficiaries of deceased members, $10,380,083 is for the benefits payable on account of present inactive members and $145,650,784 is for the benefits payable on account of present active members. Against these liabilities, the Fund has total present actuarial value of assets of $333,779,256 as of September 30, 2021. The difference of $166,136,326 between the total accrued liabilities and the total present actuarial value of assets represents the present value of future unfunded actuarial accrued liability (UAAL) contributions to be made by the State.

3. The employer's regular contributions to the Fund consist of normal contributions, UAAL contributions and contributions for administrative expenses. The valuation indicates that employer normal contributions at a rate of 14.27% of payroll for Tier I members 9.37% of payroll for Tier II members and 5.41% of payroll for District Attorneys' Plan members are required to provide the benefits of the Fund.

4. The funding policy adopted by the Board, as shown in Schedule F, provides that the total UAAL as of September 30, 2021 (Initial Total UAAL), be amortized as a level percentage of payroll over a closed period 19-year period. In each subsequent valuation all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation will determine a New Incremental UAAL. Each New Incremental UAAL due to benefit changes will be amortized as a level percent of payroll over a closed 15-year period from the date it is established. Each New Incremental UAAL due to assumption and method changes and experience gains and/or losses will be amortized as a level percent of payroll over a closed 20-year period from the date it is established.

5. The total UAAL contribution rate for members other than District Attorneys is 27.45% of payroll, determined in accordance with the Board's funding policy. The UAAL contribution rates have been calculated on the assumption that the aggregate amount of accrued liability contribution will increase

by 2.75% each year. Schedule G of this report shows the amortization schedules for all UAAL bases as of September 30, 2021.

6. The following table shows the components of the total UAAL for members other than District Attorneys, and the derivation of the accrued liability contribution rate in accordance with the funding policy:

TABLE 4

TOTAL UAAL AND UAAL CONTRIBUTION RATE
Members other than District Attorney Plan Members

	UAAL	Amortization Period	Amortization Payment
Initial Total UAAL	$ 166,022,505	19.0	$ 13,574,759
Total UAAL	$ 166,022,505		$ 13,574,759
Total Amortization Payment Adjusted for Timing			$ 13,090,414
Total Estimated Payroll*			$ 47,687,100
UAAL Contribution Rate			27.45%

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

7. The UAAL contribution rate for the District Attorneys' Plan had been determined to be 12.61% of payroll, based on a total contribution rate of 19.77% of payroll, which is the rate determined during the legislative process and is the rate currently in effect. Since the District Attorneys' Plan is funded with segregated assets and members of the Plan may transfer in prior service, it is necessary to ensure that funds are available to pay all promised benefits, therefore, a total contribution rate of 19.77% will be used as long as the amortization period remains at ten years or less.

Section IV: Comments on Valuation

8. An additional contribution of 0.75% of payroll is required to cover expenses of administering the Fund.

9. Act 2015-498 requires members of the Judges' and Clerks' Plan and the District Attorneys' Plan to participate in the Pre-Retirement Death Benefit Program. 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 will be determined every five years during our experience investigation. For the Judges and Clerks' Plan an additional contribution of 0.15% of payroll will be required to meet the cost of the pre-retirement death benefit program this year. For the District Attorneys' Plan 1.00% of payroll will be required to meet the cost of the pre-retirement death benefit program this year.

Section V: Contributions Payable by Employer

1. Section 12-18-3 of the Retirement Fund Law provides that sufficient monies shall be appropriated to carry out the provisions of the Law.

2. On the basis of the actuarial valuation prepared as of September 30, 2021 it is recommended that the employer make contributions at the following rates beginning October 1, 2023:

TABLE 5

**EMPLOYER REQUIRED CONTRIBUTION RATES
AS A PERCENTAGE OF MEMBERS' COMPENSATION**

EMPLOYER CONTRIBUTION	FISCAL YEAR ENDING SEPTEMBER 30, 2024
Tier I	
(Groups 1 and 2)	
Normal	14.27%
Accrued Liability	27.45
Administration	0.75
Total	42.47%
Tier II (Group 3)	
Normal	9.37%
Accrued Liability	27.45
Administration	0.75
Death Benefit	0.15
Total	37.72%
District Attorneys' Plan	
Normal	5.41%
Accrued Liability	12.61
Administration	0.75
Death Benefit	1.00
Total	19.77%

Section VI: Analysis of Financial Experience

The calculation of the Fund's liabilities and actuarial value of assets requires the use of several assumptions concerning the future experience of the Fund and its members. In each annual actuarial valuation, the experience of the Fund 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 Unfunded Actuarial Accrued Liability (UAAL).

1. The UAAL increased from $163,189,620 on September 30, 2020 to $166,136,326 on September 30, 2021, an increase of $2,946,706. The most significant items contributing to the increase in the UAAL was due to the assumption changes from the experience study. The increase was partially offset by salary increases less than expected and gains due to investment earnings in excess of expected. Other sources of gains and losses were relatively small and there appear to be no trends developing that would be of concern to the System.
2. The following tables show the reconciliation of the UAAL of the Fund and a breakdown by source of the actuarial gains and losses. These sources include the expected return on assets, salary increases, retirement, withdrawal, disability, and mortality.

Section VI: Analysis of Financial Experience

RECONCILIATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY
FOR THE YEAR ENDING SEPTEMBER 30, 2021
(Dollar amounts in thousands)

(1)	UAAL at beginning of year	$	163,190
(2)	Total normal cost at beginning of the year		9,092
(3)	Actual contributions		21,906
(4)	Interest accrual: [[(1) + (2)] - ½ [(3)]] x 0.0765		12,342
(5)	Expected UAAL before changes: (1) + (2) – (3) + (4)		162,718
(6)	Increase from benefit changes		0
(7)	Changes from revised actuarial assumptions and methods		16,620
(8)	Expected UAAL after changes: (5) + (6) + (7)		179,338
(9)	Actual UAAL at end of year		166,136
(10)	Total (Gain)/Loss: (9) - (8)	$	(13,202)

DEVELOPMENT OF (GAIN)/LOSS
FROM INVESTMENT RETURN
FOR THE YEAR ENDING SEPTEMBER 30, 2021
(Dollar amounts in thousands)

(1)	Actuarial Value of Assets (BOY)	$	318,673
(2)	Net Cash Flow		(17,220)
(3)	Expected Return [(1) + ½ [(2)]] x 0.0765		23,720
(4)	Expected Actuarial Value of Assets [(1) + (2) + (3)]		325,173
(5)	Actual Actuarial Value of Assets (EOY)		333,779
(6)	Investment (Gain)/Loss: (4) – (5)	$	(8,606)

Section VI: Analysis of Financial Experience

(GAINS)/ LOSSES BY SOURCE
FOR THE YEAR ENDING SEPTEMBER 30, 2021
(Dollar amounts in thousands)

SOURCE	Total	% of Actuarial Accrued Liability
Age and Service Retirements. Generally, earlier retirements cause losses and later retirements cause gains.	$ (1,598)	(0.32)%
Withdrawal. More withdrawals than expected usually cause gains and less withdrawals than expected cause losses.	(190)	(0.04)%
Disability Retirements. More disabilities than expected generally cause losses and less disabilities than expected cause gains.	(193)	(0.04)%
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.	169	0.03%
Salary Increases. If salaries increase more than expected, there is a loss. If salaries increase less than expected, there is a gain.	(5,605)	(1.12)%
New Members/Rehires. Any past service causes losses.	486	0.10%
Retiree Mortality. More deaths than expected cause gains, less than expected cause losses.	604	0.12%
Investment Return. Investment income greater than expected causes gains while investment income less than expected cause losses.	(8,606)	(1.72)%
Other. Miscellaneous gains and losses resulting from data corrections, timing of financial transactions, unit transfers, changes in valuation software, etc.	1,731	0.35%
Total (Gain)/Loss	$ (13,202)	(2.64)%

Section VI: Analysis of Financial Experience

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

SOURCE	2021	2020	September 30 2019	2018	2017
Age and Service Retirements	$ (1,598)	$ (813)	$ 8,347	$ (2,606)	$ 407
Withdrawal	(190)	529	(1,910)	581	(229)
Disability Retirements	(193)	(186)	(188)	(327)	(176)
Death-In-Service Benefits	169	(27)	258	106	257
Salary Increases	(5,605)	(1,610)	(1,806)	(4,037)	(9,532)
New Members/Rehires	486	129	2,702	498	1,875
Retiree Mortality	604	3,017	4,720	133	(1,951)
Investment Return	(8,606)	(2,285)	1,425	(3,187)	(4,468)
Other	1,731	(322)	310	1,498	898
Total (Gain)/Loss	$ (13,201)	$ (1,568)	$ 13,858	$ (7,341)	$ (12,919)

Section VII: Accounting Information

The information required under Governmental Accounting Standards Board (GASB) Statement Nos. 67 and 68 is issued in separate reports. The following information is provided for informational purposes only.

1. The following is a distribution of the number of employees by type of membership.

NUMBER OF ACTIVE AND RETIRED MEMBERS
AS OF SEPTEMBER 30, 2021

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	452
Terminated employees entitled to benefits but not yet receiving benefits	13
Non-vested inactive members	27
Active members	368
Total	860

2. The schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of 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)
9/30/2016[1]	$279,807,201	$446,920,633	$167,113,432	62.6%	$43,022,891	388.4%
9/30/2017[2]	293,089,859	448,446,324	155,356,465	65.4	44,291,914	350.8
9/30/2018[1]	305,396,555	457,833,685	152,437,130	66.7	43,819,340	347.9
9/30/2019	310,688,721	475,829,487	165,140,766	65.3	45,325,830	364.3
9/30/2020	318,673,256	481,862,876	163,189,620	66.1	47,084,500	346.6
9/30/2021[1]	333,779,256	499,915,582	166,136,326	66.8	47,891,703	346.9

[1]Reflects changes in actuarial assumptions and methods.
[2]Reflects changes in benefit structure beginning November 8, 2016

Section VII: Accounting Information

3. The information presented above was determined as part of the actuarial valuation at September 30, 2021. Additional information as of the latest actuarial valuation follows.

Valuation date	9/30/2021
Actuarial cost method	Entry Age Normal
Amortization method	Level percent closed*
Single equivalent remaining amortization period	19.0 years
Asset valuation method	Five-year market related value
Actuarial assumptions:	
Investment Rate of return*	7.40%
Projected salary Increases*	2.75%
Cost-of-living adjustments	2.75% per year for certain members hired prior to July 30, 1979 and for spouses benefits subject to increase
*Includes inflation at	2.75%

*For the District Attorneys' Plan, the amortization method is Level percent open.

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.

($ in thousands)

Valuation	Fair Value of Assets	Covered Payroll	Asset Volatility Ratio
2016	$279,971	$43,023	6.51
2017	$300,266	$44,292	6.78
2018	$314,801	$43,819	7.18
2019	$309,782	$45,326	6.83
2020	$315,535	$47,085	6.70
2021	$362,031	$47,892	7.56

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 JRF at September 30, 2021 is 7.56. As shown in the table below, if the market value return is 5% below assumed, or 2.40% (7.40% minus 5.00%) for the System, the increase in the Required Contribution Rate is 0.58% of payroll in the first year. Without asset smoothing or without returns above the expected return in the next four years, the impact on the Required Contribution Rate would be 2.91%.

Investment Rate of Return 5% Less Than Assumed		
AVR	Unsmoothed Amortization	Smoothed Amortization
6.00	2.31%	0.46%
7.56	2.91%	0.58%
8.00	3.08%	0.62%

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 table contains the key measures for the System using the valuation assumption for investment return of 7.40% along with the results if the assumption were 6.40% or 8.40%. 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 (6.40% or 8.40%) would comply with actuarial standards of practice.

($ in thousands)

As of September 30, 2021	Current Discount Rate (7.40%)	-1% Discount Rate (6.40%)	+1% Discount Rate (8.40%)
Accrued Liability	$499,916	$545,545	$460,464
Unfunded Liability	$166,136	$211,765	$126,685
Funded Ratio (AVA)	66.8%	61.2%	72.5%

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. Since the last valuation, an experience investigation was prepared for the five-year period ending September 30, 2020, and based on the results of the investigation, a new mortality table with generational approach to future improvements in mortality was adopted. 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.

Schedule A: Valuation Balance Sheet and Solvency Test

VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE ALABAMA JUDICIAL RETIREMENT FUND

Judicial Retirement Fund (Other than District Attorneys' Plan)

		September 30, 2021
1. Actuarial Accrued Liabilities		
(a) Present active members		
- Service pensions	$	138,395,878
- Disability pensions		1,078,442
- Death benefits*		1,119,141
- Termination benefits		2,454,283
- Total	$	143,047,744
(b) Present inactive members		
- Non-vested	$	1,529,771
- Deferred vested		8,850,312
- Total	$	10,380,083
(c) Present retired members and beneficiaries		
- Service retirements	$	309,400,624
- Disability retirements		4,510,442
- Beneficiaries of deceased members		29,973,649
- Total		343,884,715
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	$	497,312,542
2. Actuarial Value of Assets	$	331,290,037
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	$	166,022,505

*Liability for death benefits payable after retirement is included with liability for service and disability pensions.

Schedule A: Valuation Balance Sheet and Solvency Test

VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF
THE ALABAMA JUDICIAL RETIREMENT FUND

District Attorneys' Plan

	September 30, 2021	
1. Actuarial Accrued Liabilities		
(a) Present active members		
- Service pensions	$	2,448,724
- Disability pensions		39,787
- Death benefits		35,479
- Termination benefits		79,050
- Total	$	2,603,040
(b) Present inactive members		
- Non-vested	$	0
- Deferred vested		0
- Total	$	0
(c) Present retired members and beneficiaries		
- Service retirements	$	0
- Disability retirements		0
- Beneficiaries of deceased members		0
- Total		0
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	$	2,603,040
2. Actuarial Value of Assets	$	2,489,219
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	$	113,821

Schedule A: Valuation Balance Sheet and Solvency Test

VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES OF THE ALABAMA JUDICIAL RETIREMENT FUND

Total – All Groups

	September 30, 2021
1. Actuarial Accrued Liabilities	
(a) Present active members	
- Service pensions	$ 140,844,602
- Disability pensions	1,118,229
- Death benefits*	1,154,620
- Termination benefits	2,533,333
- Total	$ 145,650,784
(b) Present inactive members	
- Non-vested	$ 1,529,771
- Deferred vested	8,850,312
- Total	$ 10,380,083
(c) Present retired members and beneficiaries	
- Service retirements	$ 309,400,624
- Disability retirements	4,510,442
- Beneficiaries of deceased members	29,973,649
- Total	343,884,715
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	$ 499,915,582
2. Actuarial Value of Assets	$ 333,779,256
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	$ 166,136,326

*Liability for death benefits payable after retirement is included with liability for service and disability pensions.

SOLVENCY TEST
($1000's)

	Aggregate Accrued Liabilities For				Portion of Accrued Liabilities Covered by Reported Asset		
Valuation Date	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets	(1)	(2)	(3)
9/30/2021[1]	$47,304	$343,885	$108,727	$333,779	100%	83%	0%
9/30/2020	43,899	338,492	99,472	318,673	100	81	0
9/30/2019	40,993	338,734	96,102	310,689	100	80	0
9/30/2018[1]	48,609	296,550	112,675	305,397	100	87	0
9/30/2017	44,792	296,231	107,423	293,090	100	84	0
9/30/2016[1]	45,900	280,836	120,184	279,807	100	83	0

[1]Reflects changes in actuarial assumptions and methods.

Schedule B: Development of the Actuarial Value of Assets

Judicial Retirement Fund (Other than District Attorneys' Plan)

(1)	Actuarial Value of Assets on September 30, 2020	$	316,853,131
(2)	Market Value of Assets on September 30, 2021		359,333,040
(3)	Market Value of Assets on September 30, 2020	$	313,723,961
(4)	Cash Flow		
	a. Contributions		21,439,234
	b. Benefit Payments		(39,089,204)
	c. Refund to Members		(27,748)
	d. Transfer to Expense Fund – Interest Forfeitures		(8,846)
	e. Investment Expenses		0
	f. Net Cash Flow: (a + b + c + d + e)	$	(17,686,564)
(5)	Actual Investment Return ((2) - (3) - (4)f)		63,295,643
(6)	Assumed Rate of Return on Assets		7.65%
(7)	Amount for Immediate Recognition [(3) * (6)] + [((4)a + (4)b + (4)c + (4)d) * 0.5 * (6)] + (4)e		23,323,372
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))		39,972,271
(9)	Phased-In Recognition of Investment Gain/(Loss)		
	a. Current Year: 0.2 * (8)	$	7,994,454
	b. First Prior Year		23,903
	c. Second Prior Year		(2,492,319)
	d. Third Prior Year		978,694
	e. Fourth Prior Year		2,295,366
	f. Total Recognized Investment Gain/(Loss)	$	8,800,098
(10)	Actuarial Value of Assets on September 30, 2021 (1) + (4)f + (7) + (9)f	$	331,290,037

Schedule B: Development of the Actuarial Value of Assets

District Attorneys' Plan

(1)	Actuarial Value of Assets on September 30, 2020	$	1,820,125
(2)	Market Value of Assets on September 30, 2021		2,697,617
(3)	Market Value of Assets on September 30, 2020		1,811,317
(4)	Cash Flow		
	a. Contributions	$	466,731
	b. Benefit Payments		0
	c. Refund to Members		0
	d. Transfer to Expense Fund – Interest Forfeitures		0
	e. Investment Expenses		0
	f. Net Cash Flow: (a + b + c + d + e)	$	466,731
(5)	Actual Investment Return ((2) - (3) - (4)f)		419,569
(6)	Assumed Rate of Return on Assets		7.65%
(7)	Amount for Immediate Recognition [(3) * (6)] + [((4)a + (4)b + (4)c + (4)d) * 0.5 * (6)] + (4)e		156,418
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))		263,151
(9)	Phased-In Recognition of Investment Gain/(Loss)		
	a. Current Year: 0.2 * (8)	$	52,630
	b. First Prior Year		647
	c. Second Prior Year		1,386
	d. Third Prior Year		(6,843)
	e. Fourth Prior Year		(1,875)
	f. Total Recognized Investment Gain/(Loss)	$	45,945
(10)	Actuarial Value of Assets on September 30, 2021 (1) + (4)f + (7) + (9)f	$	2,489,219

Schedule B: Development of the Actuarial Value of Assets

Total - All Plans

(1)	Actuarial Value of Assets on September 30, 2020	$	318,673,256
(2)	Market Value of Assets on September 30, 2021		362,030,657
(3)	Market Value of Assets on September 30, 2020		315,535,278
(4)	Cash Flow		
	a. Contributions	$	21,905,965
	b. Benefit Payments		(39,089,204)
	c. Refund to Members		(27,748)
	d. Transfer to Expense Fund – Interest Forfeitures		(8,846)
	e. Investment Expenses		0
	f. Net Cash Flow: (a + b + c + d + e)	$	(17,219,833)
(5)	Actual Investment Return ((2) - (3) - (4)f)		63,715,212
(6)	Assumed Rate of Return on Assets		7.65%
(7)	Amount for Immediate Recognition [(3) * (6)] + [((4)a + (4)b + (4)c + (4)d) * 0.5 * (6)] + (4)e		23,479,790
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))		40,235,422
(9)	Phased-In Recognition of Investment Gain/(Loss)		
	a. Current Year: 0.2 * (8)	$	8,047,084
	b. First Prior Year		24,550
	c. Second Prior Year		(2,490,933)
	d. Third Prior Year		971,851
	e. Fourth Prior Year		2,293,491
	f. Total Recognized Investment Gain/(Loss)	$	8,846,043
(10)	Actuarial Value of Assets on September 30, 2021 (1) + (4)f + (7) + (9)f	$	333,779,256

Schedule C: Summary of Receipts and Disbursements

FOR THE PERIOD ENDING SEPTEMBER 30, 2021

Receipts for the Period		
Contributions:		
Members	$	4,271,766
Employer		17,634,199
Total	$	21,905,965
Investment Income		63,715,212
TOTAL	$	85,621,177
Disbursements for the Period		
Benefit Payments	$	39,089,204
Refunds to Members		27,748
Transfer to Expense Fund		8,846
TOTAL	$	39,125,798
Excess of Receipts over Disbursements	$	46,495,379
Reconciliation of Asset Balances		
Market Value of Assets as of September 30, 2020	$	315,535,278
Excess of Receipts over Disbursements		46,495,379
Market Value of Assets as of September 30, 2021	$	362,030,657

Schedule D: Outline of Actuarial Assumptions and Methods

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of September 30, 2020, submitted to, and adopted by the Board on September 13, 2021.

Investment Rate of Return: 7.40% per annum, compounded annually, including inflation at 2.50%.

Salary Increases: 7.30% per annum for all ages with service less than 14 years, and 5.00% per annum for all ages with service of 14 years or more, compounded annually, including wage inflation at 2.75%.

Rates of Withdrawal: 3.00% per annum for service less than 10 years, and 1.30% per annum for service between 10 and 24 years.

Death and Disability: Representative values of the assumed annual rates of pre-retirement death and disability are as follows:

Age	Death*		Disability**
	Males	Females	
30	0.0195	0.0111	0.020%
35	0.0267	0.0169	0.040
40	0.0371	0.0260	0.068
45	0.0585	0.0403	0.108
50	0.0969	0.0605	0.163
55	0.1508	0.0878	0.250
60	0.2321	0.1326	0.395
65	0.3809	0.2223	0.618

* Rates of pre-retirement mortality are according to the Pub-2010 Teacher Employee Below Median Mortality Table adjusted by 65%; projected with the MP-2020 with an adjustment factor of 66-2/3% beginning with the year 2019.

** Disability rates turn off at retirement eligibility.

Rates of Retirement:

Tier I (Groups 1 and 2):

Age	Rate of Retirement
Less than 60	7.5%
60-61	16.5
65-69*	20.0
70-74	30.0
75+	100.0

*Before age 70, an additional 15% are assumed to retire in the first year they reach retirement eligibility.

Tier II (Group 3) and District Attorneys' Plan:

	Judges		Clerks and District Attorneys
Age	<18 years	≥18 years	
62-69	10%	15%*	10%**
70-74	30%	30%	30%
75	100%	100%	100%

*An additional 15% are assumed to retire at 18 years of service

**An additional 20% are assumed to retire when first eligible for retirement and at 27 years of service.

Deaths After Retirement: Rates of mortality for the period after becoming a retiree are according to the Pub-2010 Family of Tables projected generationally with MP-2019 Scale adjusted by 66-2/3% beginning with year 2019, and with further adjustments are used for post-retirement mortality assumptions as follows:

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

Representative values of the assumed annual rates of mortality are as follows*:

	Service Retirement		Disability Retirement		Beneficiaries	
Age	Male	Female	Male	Female	Male	Female
55	0.4320%	0.3300%	2.7850%	1.8740%	1.1080%	0.7040%
60	0.6070	0.4290	3.5240	2.1100	1.3710	0.9210
65	0.8860	0.6270	4.5990	2.5690	1.9210	1.2430
70	1.5090	1.0940	6.3470	3.4640	2.9500	1.7840
75	2.7990	1.9140	9.2590	5.0750	4.5590	2.6990
80	5.1310	3.6810	13.6030	7.8110	7.1100	4.2580
85	9.3440	7.0020	20.5880	11.8780	11.3610	7.1270
90	16.2380	12.9240	28.7230	16.7400	18.3000	12.0640

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

Percent Married: 85% of active members are assumed to be married with the husband 4 years older than the wife.

Actuarial Method: Individual Entry age normal. Gains and losses are reflected in the unfunded accrued liability. See Schedule E for more details.

Schedule D: Outline of Actuarial Assumptions and Methods

Assets: 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.

Liability for Current Inactive Non-Vested Members: Member Contribution Balance is multiplied by a factor of 1.0.

Post Retirement Increases: Allowances of retired members and spouses who receive benefits based on the salaries prescribed by law for the position are assumed to increase by 2.75% per year. The members' actual salaries at retirement are assumed to be equal to the salary prescribed by law for their position.

Benefits Payable upon Separation from Service: Active members who terminated from service prior to becoming eligible for a benefit are assumed to receive a refund of contributions with interest assumed to be 4% per year.

Schedule E: Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (see Schedule D for a description of the interest rate used), of each member's expected benefit payable at retirement or death is determined, based on his age, service, sex, and compensation. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the probability of his terminating with a service, disability, or survivor's benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable from the Fund on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the Fund 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 contributions are determined by subtracting the present value of prospective employer normal contributions and member contributions together with the current assets held from the present value of expected benefits to be paid from the Fund.

Schedule F: Board Funding Policy

FUNDING POLICY OF THE

EMPLOYEES' RETIREMENT SYSTEM BOARD OF CONTROL FOR

THE ADMINISTRATION OF THE JUDICIAL RETIREMENT SYSTEM

Effective 9/30/2021

The purpose of the funding policy is to state the overall funding objectives for the Judicial Retirement Fund (Fund), the benchmarks that will be used to measure progress in achieving those goals, and the methods and assumptions that will be employed to develop the benchmarks.

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

I. Funding Objectives The goal in requiring employer and member contributions to the Fund 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 Fund will strive to meet the following funding objectives:

- To maintain an increasing funded ratio (ratio of fund 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 Fund.
- To maintain adequate asset levels to finance the benefits promised to members and monitor the future demands for liquidity.
- To develop a pattern of contribution rates expressed as a percentage of member payroll as measured by valuations prepared in accordance with applicable State laws and the principles of practice prescribed by the Actuarial Standards Board. In no event will the employer contribution rate be negative.
- To provide intergenerational equity for taxpayers with respect to Fund costs.

II. Benchmarks

To track progress in achieving the previously outlined funding objectives, the following benchmarks will be measured annually as of the valuation date. The valuation date is the date that the annual actuarial valuation of the Fund's assets and liabilities is prepared. This date is currently September 30th each year with due recognition that a single year's results may not be indicative of long-term trends:

- **Funded ratio** – The funded ratio, defined as the actuarial value of assets divided by the actuarial accrued liability, should increase over time, before adjustments for changes in benefits, actuarial methods, and/or actuarial assumptions.
- **Unfunded Actuarial Accrued Liability (UAAL)**
  - ➢ **Initial Total UAAL -** The initial total UAAL established as of the initial valuation date (September 30, 2021) for which this funding policy is adopted shall be amortized over a closed

period. (A closed amortization period is one which is calculated over a fixed period and at the end of that period, the amount is fully amortized).

- **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 after the initial valuation date will produce a New Incremental UAAL consisting of all assumption and method changes and experience gains and/or losses that have occurred since the previous valuation.

- **UAAL Amortization Period and Contribution Rates**
  - The Initial Total UAAL will be amortized over a closed 19-year period.
  - Except as noted later, each New Incremental UAAL shall be amortized over a closed 20 year period.
  - Incremental UAAL resulting from plan changes that grant benefit improvements shall be amortized over a period not to exceed 15 years.
  - Employer Normal Contribution Rate – the contribution rate determined as of the valuation date each year based on the provisions of Alabama Code Sections 36-27-24 and 12-18-2.
  - 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 the pre-retirement death benefit fund, a contribution rate for administrative expenses, the individual amortization rate for each of the New Incremental UAAL bases, and the amortization rate for the remaining initial UAAL.

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 Fund's experience at least every five years and utilize the results of the investigation to form the basis for those recommendations.

IV. Funding Policy Progress

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

Schedule G: Amortization of Bases

AMORTIZATION SCHEDULE FOR INITIAL UAAL
ON SEPTEMBER 30, 2021

Valuation Date	Projected UAAL	Payment for Year
9/30/2021	**$166,022,506**	**$13,574,759**
9/30/2022	$164,733,412	$13,948,065
9/30/2023	$162,975,620	$14,331,636
9/30/2024	$160,704,179	$14,725,756
9/30/2025	$157,870,532	$15,130,715
9/30/2026	$154,422,237	$15,546,809
9/30/2027	$150,302,673	$15,974,347
9/30/2028	$145,450,724	$16,413,641
9/30/2029	$139,800,437	$16,865,016
9/30/2030	$133,280,653	$17,328,804
9/30/2031	$125,814,617	$17,805,346
9/30/2032	$117,319,552	$18,294,993
9/30/2033	$107,706,206	$18,798,106
9/30/2034	$96,878,359	$19,315,054
9/30/2035	$84,732,304	$19,846,217
9/30/2036	$71,156,278	$20,391,988
9/30/2037	$56,029,854	$20,952,768
9/30/2038	$39,223,295	$21,528,969
9/30/2039	$20,596,849	$22,121,016
9/30/2040	$0	$0

Schedule H: Summary of Main Plan Provisions

The Judicial Retirement Fund was established September 18, 1973. This valuation included amendments to the Fund effective through the valuation date. There is a new tier of benefits (Tier II) for all justices, judges and circuit clerks elected or appointed on or after November 8, 2016. In addition, there is a new tier of benefits (District Attorneys' Plan) for all District Attorneys elected or appointed on or after November 8, 2016. The following summary describes the main benefit and contribution provisions of the Fund as interpreted for the valuation.

Membership

Any justice of the Supreme Court, judge of the Court of Civil Appeals, judge of the Court of Criminal Appeals, judge of the Circuit Court or officeholder of any newly created judicial office receiving compensation from the State treasury became a member of the fund if he was holding office on the effective date of the Act and elected to come under its provisions. Any such justice or judge elected or appointed to office after the effective date of the Act or any district or probate judge elected or appointed to office after October 10, 1975 or October 1, 1976, respectively, automatically becomes a member. Any circuit clerk or district attorney elected or appointed on or after November 8, 2016 automatically becomes a member. Certain other district and probate judges as well as certain former county court judges, district attorneys or assistant district attorneys serving as circuit judges and certain supernumerary judges and justices could also elect to become members.

Average Final Compensation

The average compensation of a member for the 5 highest years in the last 10 years of credited service.

Credited Service

Credited service is service as a member plus certain periods of previous service credited in accordance with the provisions of the Act.

Schedule H: Summary of Main Plan Provisions

Benefits

Service Retirement Benefit

Condition for Benefit

Tier I (Groups 1 and 2):

A retirement benefit is payable upon the request of any member who has:

- Completed 12 years of credited service and attained age 65, or
- Completed 15 years of credited service and whose age plus service equals or exceeds 77, or
- Completed at least 18 years of credited service or three full terms as a judge or justice, or
- Completed 10 years of credited service and attained age 70

However, a judge who became a member on or after July 30, 1979 or who is a district or probate judge must meet the following age and service requirement combinations in order to be eligible to retire:

- Completed 12 years of credited service and attained age 65, or
- Completed at least 15 years of credited service and attained age 60, and whose age plus service equals or exceeds 77, or
- Completed 10 years of credited service and attained age 70, or
- Completed 25 years of credited service (or completed 24 years of credited service provided the member purchases one year of service prior to retirement) regardless of age

Tier II (Group 3) and District Attorneys:

Completed 10 years of service and attained age 62.

Amount of Benefit

Tier I (Groups 1 and 2):

The service retirement benefit for a member is equal to:

(a) For a circuit or appellate judge, who was a member prior to July 30, 1979, 75% of the salary prescribed by law for the position from which the member retires.

(b) For a circuit or appellate judge who became a member on or after July 30, 1979, 75% of the member's salary at the time of separation from service.

(c) For a district judge, 75% of the position's salary immediately prior to retirement.

(d) For a probate judge, 75% of the member's salary at the time of separation from service.

Schedule H: Summary of Main Plan Provisions

Tier II (Group 3) and District Attorneys:

The service retirement benefit for a member is equal to:

(a) For a member who is a judge with years of service less than 18 years, 4% of average final compensation multiplied by years of credited service; for a member who is a judge with 18 or more years of service, 75% of average final compensation, not to exceed 75% of average final compensation.
(b) For a member who is a clerk or district attorney, 3% of average final compensation multiplied by years of credited service, not to exceed 80% of average final compensation.

Disability Retirement Benefit

Condition for Benefit — A disability retirement benefit is payable to any member who becomes permanently, physically or mentally, unable to carry out his duties on a full-time basis, provided the member has completed five or more years of credited service. (ten years for new tier members)

Amount of Benefit

Tier I (Groups 1 and 2):

(a) The disability retirement benefit for a member other than a district or probate judge who was a member prior to July 30, 1979 is equal to 25% of the salary prescribed by law for the position from which the member retires on disability plus 10% of such salary for each year of credited service in excess of five years. The disability retirement benefit is subject to a minimum of 30% and a maximum of 75% of such salary.

(b) The disability retirement benefit for a judge who became a member on or after July 30, 1979 or who is a district or probate judge is equal to 25% of his salary immediately prior to retirement plus 10% of such salary for each year of credited service in excess of five years. The disability retirement benefit is subject to a minimum of 30% and a maximum of 75% of such salary.

Tier II (Group 3) and District Attorneys:

(a) For a member who is a judge with years of service less than 18 years, 4% of average final compensation multiplied by years of credited service; for a member who is a judge with 18 or more years of service, 75% of average final compensation, not to exceed 75% of average final compensation. .
(b) For a member who is a clerk or district attorney, 3% of average final compensation multiplied by years of credited service, not to exceed 80% of average final compensation.

Schedule H: Summary of Main Plan Provisions

Spouse's Benefit

Tier I (Groups 1 and 2):

Condition for Benefit

Upon the death of an active, inactive or retired member with at least 5 years of credited service, a death benefit is payable to the member's spouse.

Amount of Benefit

(a) The death benefit payable to the spouse of a judge other than a district or probate judge consists of a yearly benefit equal to 3% of the salary prescribed by law for the position of the former member for each year of service, not to exceed 30% of such salary.

(b) The death benefit payable to the spouse of a district judge consists of a yearly benefit equal to 3% of the position's salary prescribed by law at the time of death for each year of service not to exceed 30% of such salary.

(c) The death benefit payable to the spouse of a probate judge is a yearly benefit equal to the greater of $480 for each year of credited service to a maximum of 10 years, or 3% of the member's salary at the time of separation from service for each year of credited service not to exceed 30% of such salary.

The benefit is payable for the spouse's life or until his or her remarriage.

Death in Active Service Benefit

Tier II (Group 3) and District Attorneys:

Amount of Benefit

(a) In the event of the death of a member who is eligible for service retirement, the designated beneficiary may elect: (1) to exercise option 3 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 pre-retirement death benefit fund equal to the salary on which the member made retirement contributions for the previous fiscal year (October 1 – September 30).

(b) In the event of the death of a member who is not eligible for retirement, the designated beneficiary shall receive the accumulated contributions not to exceed $5,000 or the accumulated contributions of the member plus an additional death benefit payable from the pre-retirement death benefit payable from the pre- retirement death benefit fund equal to the salary on which their retirement contributions were made for the previous fiscal year. (October 1-September 30)

Schedule H: Summary of Main Plan Provisions

Benefit Payable on Separation from Service

If a member terminates service and elects not to withdraw his contributions and accrued interest from the Fund, he is eligible to receive any of the benefits for which he has sufficient credited service upon reaching an eligible retirement age.

A member terminating service before reaching eligibility for retirement benefits may elect to receive a return of contributions and accrued interest. “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)

Contributions

By Members

Tier I (Groups 1 and 2):

Prior to October 1, 2011, each member contributed 6.00% of salary.

Beginning October 1, 2011, each member contributed 8.25% of salary.

Beginning October 1, 2012, each member contributes 8.50% of salary.

Tier II (Group 3) and District Attorneys:

Each Tier II member and District Attorney member contributes 8.50% of salary.

If positive investment performance results in a decrease in the total contribution rate paid by employers and employees participating in the Fund, the Retirement Systems of Alabama shall first reduce the employee contribution rate.

By State — The State makes contributions which, in addition to the members' contributions, are sufficient to carry out the provisions of the Act.

Special Privileges at Retirement

Tier II (Group 3) and District Attorneys:

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 the 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.

SCHEDULE OF MEMBERSHIP DATA
AS OF SEPTEMBER 30, 2021

NUMBER OF ACTIVE MEMBERS AND THEIR AVERAGE COMPENSATION BY AGE AND YEARS OF SERVICE

Attained Age	Completed Years of Service										
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	≥ 40	Total
Under 25											
Avg. Pay											
25 to 29											
Avg. Pay											
30 to 34		2	1								3
Avg. Pay		99,553	125,018								108,041
35 to 39		11	3	1							15
Avg. Pay		110,753	114,813	167,048							115,318
40 to 44	7	21	7	8	2						45
Avg. Pay	136,355	117,017	126,466	129,258	142,777						124,816
45 to 49	3	23	8	14	3	1					52
Avg. Pay	146,789	120,000	120,925	131,914	146,459	110,113					126,232
50 to 54		32	15	13	7	3	2				72
Avg. Pay		121,287	125,007	140,785	118,490	135,506	177,521				127,465
55 to 59	1	10	10	22	9	7	1				60
Avg. Pay	123,218	114,577	110,852	138,616	158,716	143,730	140,195				133,363
60 to 64	1	15	10	16	8	11	2	1	2		66
Avg. Pay	140,020	113,935	137,721	145,068	149,793	148,099	152,009	156,272	118,229		137,447
65 to 69		8	10	7	4	3	2	4	3	1	42
Avg. Pay		114,557	127,798	137,707	141,740	156,689	157,523	132,945	166,674	157,523	135,709
70 & up		3	1	3	1	2	2	1			13
Avg. Pay		112,085	120,373	142,445	137,045	137,442	121,230	168,099			131,265
Total	12	125	65	84	34	27	9	6	5	1	368
Avg. Pay	138,174	116,987	124,328	138,572	143,681	144,325	150,751	142,692	147,296	157,523	130,140

The top number in each box is the count of actives for that age and service combination. The bottom amount is the average compensation for the group.

Average Age: 54.4
Average Years of Service: 10.5

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	0	$ 0	$ 0
50-54	1	115,558	115,558
55-59	4	338,619	84,655
60-64	20	2,222,824	111,141
65-69	59	6,441,456	109,177
70-74	100	10,169,440	101,694
75-79	87	8,959,315	102,981
80-84	44	4,466,359	101,508
85-89	10	950,884	95,088
90-94	6	679,583	113,264
95 & Over	2	167,825	83,913
Total	333	$ 34,511,863	$ 103,639

Average Age: 73.9

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

Age	Number of Members	Total Annual Benefits	Average Annual Benefits
Under 50	0	$ 0	$ 0
50-54	0	0	0
55-59	3	131,096	43,699
60-64	5	164,265	32,853
65-69	7	280,253	40,036
70-74	9	422,774	46,975
75-79	22	794,383	36,108
80-84	21	713,158	33,960
85-89	15	607,923	40,528
90-94	23	757,252	32,924
95 & Over	7	260,241	37,177
Total	112	$ 4,131,345	$ 36,887

Average Age: 81.2

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	0	$ 0	$ 0
50-54	0	0	0
55-59	1	105,705	105,705
60-64	1	110,203	110,203
65-69	1	94,674	94,674
70-74	3	89,765	29,922
75-79	1	75,602	75,602
80-84	0	0	0
85-89	0	0	0
90-94	0	0	0
95 & Over	0	0	0
Total	7	$ 475,949	$ 67,993

Average Age: 68.2