

The experience and dedication you deserve



Alabama Judicial Retirement Fund Report of the Actuary on the Annual Valuation Prepared as of September 30, 2019



June 17, 2020

The experience and dedication you deserve

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, 2019 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, 2019 and to recommend rates of employer contribution for the fiscal year ending September 30, 2022. 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 42.10% of payroll for the fiscal year ending September 30, 2022 for Tier I members and of 37.47% 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, 2022.

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 3.00% 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 Comprehensive Annual Financial Report (CAFR):

- 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 CAFR 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, 2019
- Ten-Year History of Average Monthly Benefit Payments as of September 30



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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 the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Retirement 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.

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,

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

Principal and Managing Director



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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, 2019

 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	5	September 30, 2019	Se	eptember 30, 2018
Active members Number Annual compensation	\$	355 43,660,510*	\$	335 42,514,603
Retired members and beneficiaries Number Annual allowances	\$	452 38,478,346	\$	404 33,378,386
Deferred vested members Number Estimated deferred annual allowances	\$	19 1,718,064	\$	14 1,274,312
Assets Actuarial value Market value	\$	309,422,809 308,535,180	\$	304,733,361 314,170,940
Unfunded actuarial accrued liability	\$	164,519,431	\$	151,817,856
Funded ratio based on actuarial value of assets		65.3%		66.7%
CONTRIBUTIONS FOR FISCAL YEAR ENDING	5	September 30, 2022	Se	eptember 30, 2021
Tier I (Groups 1 and 2) Employer contribution rate Normal Accrued liability Administration Total		13.24% 27.63 <u>1.23</u> 42.10%		13.75% 25.82 <u>1.23</u> 40.80%
Tier II Judges' and Clerks' Plan (Group 3) Employer contribution rate Normal Accrued liability Administration Death Benefit Total		8.46% 27.63 1.23 <u>0.15</u> 37.47%		8.41% 25.82 1.23 <u>0.15</u> 35.61%
Blended Amortization period		21.7 years		22.3 years

^{*}RSA implemented a new pension administration system for contribution reporting within this year, which resulted in larger than expected payroll amounts. This will not occur in subsequent years.





Section I: Summary of Principal Results

Summary of Principal Results for District Attorneys' Plan

VALUATION DATE	Sep	otember 30, 2019	Sep	tember 30, 2018
Active members Number Annual compensation	\$	11 1,665,319*	\$	10 1,304,737
Retired members and beneficiaries Number Annual allowances	\$	0 0	\$	0 0
Deferred vested members Number Estimated deferred annual allowances	\$	0 0	\$	0 0
Assets Actuarial value Market value	\$	1,265,912 1,247,182	\$	663,194 630,200
Unfunded actuarial accrued liability	\$	621,335	\$	619,274
Funded ratio based on actuarial value of assets		67.1%		51.7%
CONTRIBUTIONS FOR FISCAL YEAR ENDING	September 30, 2022		September 30, 2021	
Employer contribution rate Normal Accrued liability Administration Death Benefit Total		4.29% 13.25 1.23 <u>1.00</u> 19.77%		4.66% 12.88 1.23 <u>1.00</u> 19.77%
Blended Amortization period		2.9 years		3.8 years

^{*}RSA implemented a new pension administration system for contribution reporting within this year, which resulted in larger than expected payroll amounts. This will not occur in subsequent years.





Section I: Summary of Principal Results

Summary of Principal Results - Total

VALUATION DATE	Se	eptember 30, 2019	Se	eptember 30, 2018
Active members Number Annual compensation	\$	366 45,325,830*	\$	345 43,819,340
Retired members and beneficiaries Number Annual allowances	\$	452 38,478,346	\$	404 33,378,386
Deferred vested members Number Estimated deferred annual allowances	\$	19 1,718,064	\$	14 1,274,312
Assets				
Actuarial value Market value	\$	310,688,721 309,782,362	\$	305,396,555 314,801,140
Unfunded actuarial accrued liability	\$	165,140,766	\$	152,437,130
Funded ratio based on actuarial value of assets		65.3%		66.7%

^{*}RSA implemented a new pension administration system for contribution reporting within this year, which resulted in larger than expected payroll amounts. This will not occur in subsequent years.

- Comments on the valuation results as of September 30, 2019 are given in Section IV and further discussion of the contribution levels is set out in Section V.
- Schedule B of this report shows the development of the actuarial value of assets. Schedule D outlines
 the full set of actuarial assumptions and methods employed in the current valuation.
- 4. The Board funding policy is shown in Schedule F.
- 5. 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.
- 6. 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

 The following table shows the number of active members and their annual compensation as of September 30, 2019 on the basis of which the valuation was prepared.

TABLE 1

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF SEPTEMBER 30, 2019

GROUP	NUMBER	COMPENSATION*	
Tier I (Groups 1 and 2)			
District Court Judges	77	\$	10,530,065
Probate Court Judges	40		3,902,864
Non District, Non Probate Judges	<u>118</u>		<u>16,644,635</u>
Total	<u>235</u>	\$	<u>31,077,564</u>
Tier II (Group 3)			
District Court Judges	35	\$	4,178,654
Probate Judges	28		2,164,354
Non District, Non Probate Judges	40		5,058,003
Clerks	<u>17</u>		<u>1,181,936</u>
Total	<u>120</u>	\$	<u>12,582,947</u>
District Attorneys' Plan	<u>11</u>	\$	<u>1,665,319</u>
Total	<u>366</u>	\$	<u>45,325,830</u>

^{*}RSA implemented a new pension administration system for contribution reporting within this year, which resulted in larger than expected payroll amounts. This will not occur in subsequent years.

The table reflects the active membership for whom complete valuation data were submitted. The results of the valuation include contribution balances for an additional 28 non-vested inactive members.



Prepared as of September 30, 2019



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 <u>Date</u>	Number	Annual <u>Payroll</u> *	% Increase in Annual Payroll	Annual Average Pay**	% Increase in Average Pay
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
9/30/2015	338	42,814,343	0.27	126,670	0.27
9/30/2014	338	42,698,909	1.94	126,328	1.94

^{* 1.2%} increase for total pay since 2014

 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, 2019

GROUP	NUMBER*	ANNUAL RETIREMENT ALLOWANCES
Service Retirements	332	\$ 33,793,351
Disability Retirements	9	564,632
Beneficiaries of Deceased Members	<u>111</u>	4,120,363
Total	452	\$ 38,478,346

^{*}In addition, there were 19 vested inactive members with estimated deferred annual allowances totaling \$1,718,064 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.



^{** 0.4%} decrease for average pay since 2014



Section III: Assets

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 are transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The market value of assets credited to the Annuity Savings Fund on September 30, 2019, which represent the accumulated contributions of active members to that date, including interest, amounted to \$40,329,758 for members other than District Attorneys and \$662,811 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, 2019 the market value of assets credited to this fund is \$268,205,422 for members other than the District Attorneys and \$584,371 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, 2019, the market value of assets credited to this fund amounted to \$2,697,661. These assets are not 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, 2019 the market value of assets credited to this fund amounted to \$21,683 for members of the Judges and Clerks Plan and \$39,696 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.





Section III: Assets

- The amount of assets taken into account in this valuation is based on information reported by the Retirement Fund.
- 3. As of September 30, 2019, the total market value of assets exclusive of the Expense Fund and the Pre-retirement Death Benefit Funds amounted to \$309,782,362, of which \$308,535,180 is for members other than District Attorneys and \$1,247,182 is for the District Attorneys' Plan. The market related actuarial value of assets was \$310,688,721, of which \$309,422,809 is for members other than the District Attorneys and \$1,265,912 is for the District Attorneys' Plan. Schedule B shows the development of the actuarial value of assets as of September 30, 2019
- 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

- 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, 2019.
- 2. The valuation balance sheet shows that the Fund has total accrued liabilities of \$475,829,487. Of this amount, \$338,734,389 is for the benefits payable on account of present retired members and beneficiaries of deceased members, \$13,552,907 is for the benefits payable on account of present inactive members and \$123,542,191 is for the benefits payable on account of present active members. Against these liabilities, the Fund has total present actuarial value of assets of \$310,688,721 as of September 30, 2019. The difference of \$165,140,766 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 13.24% of payroll for Tier I members 8.46% of payroll for Tier II members and 4.29% of payroll for District Attorneys' Plan members are required to provide the benefits of the Fund.
- 1. The funding policy adopted by the Board, as shown in Schedule F, provides that the unfunded actuarial accrued liability as of September 30, 2012 (Transitional UAAL) be amortized as a level percentage of payroll over a closed period. The closed period shall be the amortization period for the September 30, 2012 valuation, not to exceed 30 years. In each subsequent valuation all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation will determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level percent of payroll over a closed 30-year period from the date it is established.
- The total UAAL contribution rate for members other than District Attorneys is 27.63% 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





Section IV: Comments on Valuation

- by 3.00% each year. Schedule G of this report shows the amortization schedules for the Transitional UAAL and the New Incremental UAAL bases as of September 30, 2019.
- 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 RATEMembers other than District Attorney Plan Members

	<u>UAAL</u>	Amortization <u>Period</u>	Amortization Payment
Transitional	\$ 153,126,434	20	\$ 12,140,228
New Incremental 9/30/2013	24,544,555	24	1,746,589
New Incremental 9/30/2014	(7,941,612)	25	(552,469)
New Incremental 9/30/2015	(7,250,408)	26	(493,804)
New Incremental 9/30/2016	5,828,345	27	389,141
New Incremental 9/30/2017	(13,431,012)	28	(880,176)
New Incremental 9/30/2018	(3,232,127)	29	(208,131)
New Incremental 9/30/2019	12,875,255	30	815,540
Total	\$164,519,431		\$ 12,956,918
Total Amortization Payment Adj	justed for Timing		\$ 12,479,575
Total Estimated Payroll*	_		\$ 45,160,448
UAAL Contribution Rate			27.63%

^{*}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 13.25% 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 insure 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.
- 8. An additional contribution of 1.23% of payroll is required to cover expenses of administering the Fund.
- 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





Section IV: Comments on Valuation

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 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, 2019 it is recommended that the employer make contributions at the following rates beginning October 1, 2021:





Section V: Contributions Payable by Employer

TABLE 5

EMPLOYER REQUIRED CONTRIBUTION RATES AS A PERCENTAGE OF MEMBERS' COMPENSATION

EMPLOYER CONTRIBUTION	FISCAL YEAR ENDING SEPTEMBER 30, 2022
Tier I	
(Groups 1 and 2)	
Normal	13.24%
Accrued Liability	27.63
Administration	<u>1.23</u>
Total	42.10%
Tier II (Group 3)	
Normal	8.46%
Accrued Liability	27.63
Administration	1.23
Death Benefit	<u>0.15</u>
Total	37.47%
District Attorneys' Plan	
Normal	4.29%
Accrued Liability	13.25
Administration	1.23
Death Benefit	<u>1.00</u>
Total	19.77%

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 UAAL.





- 1. The UAAL increased from \$152,437,129 on September 30, 2018 to \$165,140,766 on September 30, 2019, an increase of \$12,703,637. The most significant items contributing to the increase in the UAAL were the losses due to greater than expected service retirements, losses due to fewer retiree deaths than expected and investment earnings less than expected. Other sources of gains and losses were relatively small and there appear to be no trends developing that would be of concern to the System.
- The following tables show the reconciliation of the UAAL of the 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.





RECONCILIATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY FOR THE YEAR ENDING SEPTEMBER 30, 2019

(Dollar amounts in thousands)

(1)	UAAL at beginning of year	\$ 1	52,437
(2)	Total normal cost at beginning of the year		8,881
(3)	Actual contributions		21,551
(4)	Interest accrual: [[(1) + (2)] - ½ [(3)]] x 0.0765		11,516
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	1	51,283
(6)	Increase from benefit changes		0
(7)	Changes from revised actuarial assumptions and methods		0
(8)	Expected UAAL after changes: (5) + (6) + (7)	1	51,283
(9)	Actual UAAL at end of year	1	65,141
(10)	Total (Gain)/Loss: (9) - (8)	\$	13,858

DEVELOPMENT OF (GAIN)/LOSS FROM INVESTMENT RETURN FOR THE YEAR ENDING SEPTEMBER 30, 2019

(Dollar amounts in thousands)

(1)	Actuarial Value of Assets (BOY)	\$ 305,397
(2)	Net Cash Flow	(16,033)
(3)	Expected Return [(1) + ½ [(2)]] x 0.0765	22,750
(4)	Expected Actuarial Value of Assets [(1) + (2) + (3)]	312,114
(5)	Actual Actuarial Value of Assets (EOY)	310,689
(6)	Investment (Gain)/Loss: (4) – (5)	\$ 1,425





(GAINS)/ LOSSES BY SOURCE FOR THE YEAR ENDING SEPTEMBER 30, 2019

(Dollar amounts in thousands)

		% of Actuarial Accrued
SOURCE	Total	Liability
Age and Service Retirements. Generally, earlier retirements cause losses and later retirements cause gains.	\$ 8,347	1.75%
Withdrawal. More withdrawals than expected usually cause gains and less withdrawals than expected cause losses.	(1,910)	(0.40)%
Disability Retirements. More disabilities than expected generally cause losses and less disabilities than expected cause gains.	(188)	(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.	258	0.05%
Salary Increases. If salaries increase more than expected, there is a loss. If salaries increase less than expected, there is a gain.	(1,806)	(0.38)%
New Members/Rehires. Any past service causes losses.	2,702	0.57%
Retiree Mortality. More deaths than expected cause gains, less than expected cause losses.	4,720	0.99%
Investment Return. Investment income greater than expected causes gains while investment income less than expected cause losses.	1,425	0.30%
Other. Miscellaneous gains and losses resulting from data corrections, timing of financial transactions, unit transfers, changes in valuation software, etc.	310	0.07%
Total (Gain)/Loss	\$ 13,858	2.91%





(GAINS)/ LOSSES BY SOURCE Historical Trends

(Dollar amounts in thousands)

SOURCE	September 30 2019 2018			2017		
Age and Service Retirements	\$	8,347	\$	(2,606)	\$	407
Withdrawal		(1,910)		581		(229)
Disability Retirements		(188)		(327)		(176)
Death-In-Service Benefits		258		106		257
Salary Increases		(1,806)		(4,037)		(9,532)
New Members/Rehires		2,702		498		1,875
Retiree Mortality		4,720		133		(1,951)
Investment Return		1,425		(3,187)		(4,468)
Other		310		1,498		898
Total (Gain)/Loss	\$	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, 2019

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	452
Terminated employees entitled to benefits but not yet receiving benefits Non-vested inactive members	19 28
Active members	<u>366</u>
Total	865

2. The schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation <u>Date</u>	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
9/30/2014	\$257,451,651	\$422,863,202	\$165,411,551	60.9%	\$42,698,909	387.4%
9/30/2015	267,414,404	427,591,122	160,176,718	62.5	42,814,343	374.1
9/30/2016 ¹	279,807,201	446,920,633	167,113,432	62.6	43,022,891	388.4
9/30/20172	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

¹Reflects changes in actuarial assumptions and methods.



²Reflects 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,

2019. Additional information as of the latest actuarial valuation follows.

Valuation date 9/30/2019

Actuarial cost method Entry Age Normal

Amortization method Level percent closed*

Single equivalent remaining

amortization period 19.8 years

Asset valuation method Five-year market related value

Actuarial assumptions:

Investment

Rate of return* 7.65%

Projected salary

Increases* 3.25 to 3.50%

Cost-of-living adjustments 3.00% 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





Overview

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

The term "risk" frequently has a negative connotation, but from an actuarial perspective, it can simply be considered that what actually happens in the real world will not always match what was expected, based on actuarial assumptions. Of course, when actual experience is better than expected, the favorable risk is easily absorbed. The risk of unfavorable experience will likely be unpleasant, and so understandably, there is a focus on aspects of risk that are negative.

Risk can usually be reduced or eliminated at some cost. Consumers, for example, buy auto and home insurance to reduce the risk of accidents or catastrophes. Another way to express this concept, however, is that there is generally some reward for assuming risk. Thus, retirement plans invest not just in US Treasury bonds, which have almost no risk, but also in equities, which are considerably riskier – because they have an expected reward of a higher return that justifies the risk.

Under ASOP 51, the actuary is called upon to identify the significant risks to the pension plan and provide information to help those sponsoring and administering the plan understand the implications of these risks. In this section, we identify some of the key risks for the System and provide information to help interested parties better understand these risks.





Investment Risk

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

(\$ in thousands)

Valuation	Fair Value of Assets	Covered Payroll	Asset Volatility Ratio
2014	\$274,976	\$42,699	6.44
2015	\$261,964	\$42,814	6.12
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

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, 2019 is 6.83. As shown in the table below, if the market value return is 5% below assumed, or 2.65% (7.65% minus 5.00%) for the System, the increase in the Required Contribution Rate is 0.42% 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 2.10%.

Investment Rate of Return 5% Less Than Assumed						
AVR	Unsmoothed Amortization	Smoothed Amortization				
6.00	1.84%	0.37%				
6.83	2.10%	0.42%				
8.00	2.46%	0.49%				





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 7.65% along with the results if the assumption were 6.65% or 8.65%. 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 (6.65% or 8.65%) would comply with actuarial standards of practice.

(\$ in thousands)

As of September 30, 2019	Current Discount	-1% Discount	+1% Discount
	Rate (7.65%)	Rate (6.65%)	Rate (8.65%)
Accrued Liability	\$475,829	\$518,582	\$438,793
Unfunded Liability	\$165,141	\$207,893	\$128,104
Funded Ratio (AVA)	65.3%	59.9%	70.8%



Prepared as of September 30, 2019



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 next actuarial experience study will be for the period from October 1, 2015 – September 30, 2020.

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 3.00% 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)

	Sep	tember 30, 2019
Actuarial Accrued Liabilities (a) Present active members		
 Service pensions Disability pensions Death benefits* Termination benefits Total 	\$ 	114,112,416 1,090,669 1,776,426 4,675,433 121,654,944
(b) Present inactive membersNon-vestedDeferred vestedTotal	\$	1,281,546 12,271,361 13,552,907
 (c) Present retired members and beneficiaries Service retirements Disability retirements Beneficiaries of deceased members Total 	\$	302,167,949 5,287,860 31,278,580 338,734,389
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	\$	473,942,240
2. Actuarial Value of Assets	\$	309,422,809
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	\$	164,519,431

^{*}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

	Sep	tember 30, 2019
Actuarial Accrued Liabilities (a) Present active members		
Service pensionsDisability pensionsDeath benefitsTermination benefitsTotal	\$ \$	1,632,026 17,669 42,523 195,029 1,887,247
(b) Present inactive membersNon-vestedDeferred vestedTotal	\$ 	0 0 0
 (c) Present retired members and beneficiaries Service retirements Disability retirements Beneficiaries of deceased members Total 	\$	0 0 0 0
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	\$	1,887,247
2. Actuarial Value of Assets	\$	1,265,912
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	\$	621,335



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, 2019
Actuarial Accrued Liabilities (a) Present active members	
 Service pensions Disability pensions Death benefits* Termination benefits Total 	\$ 115,744,442 1,108,338 1,818,949 4,870,462 \$ 123,542,191
(b) Present inactive membersNon-vestedDeferred vestedTotal	\$ 1,281,546
 (c) Present retired members and beneficiaries - Service retirements - Disability retirements - Beneficiaries of deceased members - Total 	\$ 302,167,949 5,287,860 31,278,580 338,734,389
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	\$ 475,829,487
2. Actuarial Value of Assets	\$ 310,688,721
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	\$ 165,140,766

SOLVENCY TEST

(\$1000's)

	Aggre	gate Accrued Lia	bilities For			of Accrued I I by Report	
Valuation Date	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets	(1)	(2)	(3)
9/30/2019	\$40,993	\$338,734	\$96,102	\$310,689	100%	80%	0%
9/30/20181	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
9/30/20161	45,900	280,836	120,184	279,807	100	83	0
9/30/2015	42,745	272,624	112,222	267,414	100	82	0
9/30/2014	40,981	268,439	113,443	257,452	100	81	0

¹Reflects changes in actuarial assumptions and methods.





Schedule B: Development of the Actuarial Value of Assets

Judicial Retirement Fund (Other than District Attorneys' Plan)

		1
(1)	Actuarial Value of Assets on September 30, 2018	\$ 304,733,361
(2)	Market Value of Assets on September 30, 2019	308,535,180
(3)	Market Value of Assets on September 30, 2018	\$ 314,170,940
(4)	Cash Flow a. Contributions b. Benefit Payments c. Refund to Members d. Transfer to Expense Fund – Interest Forfeitures e. Investment Expenses f. Net Cash Flow: (a + b + c + d + e)	\$ 21,009,577 (36,909,073) (646,441) (28,339) 0 (16,574,276)
(5)	Actual Investment Return ((2) - (3) - (4)f)	10,938,516
(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	23,400,111
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))	(12,461,595)
(9)	Phased-In Recognition of Investment Gain/(Loss) a. Current Year: 0.2 * (8) b. First Prior Year c. Second Prior Year d. Third Prior Year e. Fourth Prior Year f. Total Recognized Investment Gain/(Loss)	\$ (2,492,319) 978,694 2,295,366 1,555,410 (4,473,538) (2,136,387)
(10)	Actuarial Value of Assets on September 30, 2019 (1) + (4)f + (7) + (9)f	\$ 309,422,809





Schedule B: Development of the Actuarial Value of Assets

District Attorneys' Plan

		1	
(1)	Actuarial Value of Assets on September 30, 2018	\$	663,194
(2)	Market Value of Assets on September 30, 2019		1,247,182
(3)	Market Value of Assets on September 30, 2018		630,200
(4)	Cash Flow a. Contributions b. Benefit Payments c. Refund to Members d. Transfer to Expense Fund – Interest Forfeitures e. Investment Expenses f. Net Cash Flow: (a + b + c + d + e)	\$	541,141 0 0 0 0 0 541,141
(5)	Actual Investment Return ((2) - (3) - (4)f)		75,841
(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		68,909
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))		6,932
(9)	Phased-In Recognition of Investment Gain/(Loss) a. Current Year: 0.2 * (8) b. First Prior Year c. Second Prior Year d. Third Prior Year e. Fourth Prior Year f. Total Recognized Investment Gain/(Loss)	\$	1,386 (6,843) (1,875) 0 0 (7,332)
(10)	Actuarial Value of Assets on September 30, 2019 (1) + (4)f + (7) + (9)f	\$	1,265,912





Schedule B: Development of the Actuarial Value of Assets

Total - All Plans

(1)	Actuarial Value of Assets on September 30, 2018	\$	305,396,555
(2)	Market Value of Assets on September 30, 2019		309,782,362
(3)	Market Value of Assets on September 30, 2018		314,801,140
(4)	Cash Flow a. Contributions b. Benefit Payments c. Refund to Members d. Transfer to Expense Fund – Interest Forfeitures e. Investment Expenses f. Net Cash Flow: (a + b + c + d + e)	\$ 	21,550,718 (36,909,073) (646,441) (28,339) 0 (16,033,135)
(5)	Actual Investment Return ((2) - (3) - (4)f)		11,014,357
(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		23,469,020
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))		(12,454,663)
(9)	Phased-In Recognition of Investment Gain/(Loss) a. Current Year: 0.2 * (8) b. First Prior Year c. Second Prior Year d. Third Prior Year e. Fourth Prior Year f. Total Recognized Investment Gain/(Loss)	\$ 	(2,490,933) 971,851 2,293,491 1,555,410 (4,473,538) (2,143,719)
(10)	Actuarial Value of Assets on September 30, 2019 (1) + (4)f + (7) + (9)f	\$	310,688,721





Schedule C: Summary of Receipts and Disbursements

SUMMARY OF RECEIPTS AND DISBURSEMENTS FOR THE PERIOD ENDING SEPTEMBER 30, 2019

Receipts for the Period				
Contributions: Members	\$	4,101,223		
Employer		17,449,49 <u>5</u>		
Total	\$	21,550,718		
Investment Income		11,014,357		
TOTAL	\$	32,565,075		
Disbursements for the Period				
Benefit Payments	\$	36,909,073		
Refunds to Members		646,441		
Transfer to Expense Fund		28,339		
TOTAL	\$	37,583,85 <u>3</u>		
Excess of Receipts over Disbursements	\$	(5,018,778)		
Reconciliation of Asset Balances				
Market Value of Assets as of September 30, 2018	\$	314,801,140		
Excess of Receipts over Disbursements		(5,018,778)		
Market Value of Assets as of September 30, 2019	\$	309,782,362		



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, 2015, submitted to and adopted by the Board on September 29, 2016. The discount rate of 7.65% was subsequently adopted by the Board on December 19, 2018.

Investment Rate of Return: 7.65% per annum, compounded annually, including inflation at 2.75%.

Salary Increases: 3.50% per annum for all ages with service less than 14 years, and 3.25% per annum for all ages with service of 14 years or more, compounded annually, including wage inflation at 3.00%.

Separations Before Retirement: Representative values of the assumed annual rates of withdrawal, death and disability are as follows:

	Annual Rate of			
	Withdrawal	Death*		Disability**
<u>Age</u>		<u>Male</u>	<u>Female</u>	
30 35 40 45 50	2.50% 2.50 2.50 2.50 2.50	0.0376% 0.0655 0.0914 0.1278 0.1812	0.0149% 0.0268 0.0399 0.0635 0.0947	0.020% 0.040 0.068 0.108 0.163
55 60 64	2.50 2.50 2.50 2.50	0.2567 0.3815 0.5070	0.1371 0.1929 0.2558	0.250 0.395 0.570

^{*} Rates of pre-retirement mortality are according to the sex distinct RP-2000 Employee Mortality Table (with the sex distinct RP-2000 Combined Mortality Table for ages over 70) projected with Scale BB to 2020 with an adjustment factor of 90% for males and 60% for females.



^{**}Disability rates turn off at retirement eligibility.

Schedule D: Outline of Actuarial Assumptions and Methods

Rates of Retirement:

Tier I (Groups 1 and 2): Between the ages of 55 and 59, 25% of members are assumed to retire in the year when first eligible and 10% in each year thereafter. Between the ages of 60 and 69, 30% of members are assumed to retire in the year when first eligible and 15% in each year thereafter. 30% of the remaining members are assumed to retire each year between age 70 and 74, and all remaining members are assumed to retire at age 75.

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

	Judges		Clerks and District Attorneys
<u>Age</u>	<18 years	≥18 years	
62-69	10%	15%*	10%**
70-74	30%	30%	30%
75	100%	100%	100%
	*An additional 1 to retire at 18 y	5% are assumed ears 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 service retirement are according to the sex distinct RP-2000 White Collar Mortality Table projected to 2020 using scale BB and adjusted 115% for males and 112% for females older than age 78. The sex distinct RP-2000 Disabled Mortality Table projected to 2020 using scale BB and adjusted 105% for males and 120% for females. Representative values of assumed mortality are as follows:

	Service Retirement		Disability Retirement	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
55	0.3575%	0.2339%	3.5044%	1.7959%
60	0.5579	0.3825	3.8359	2.1434
65	0.9991	0.6795	4.1382	2.6417
70	1.6384	1.1928	4.8570	3.5474
75	2.8589	2.0200	6.3692	4.9231
80	5.0501	3.7900	8.4883	6.8160
85	8.8966	6.5271	10.9897	9.4450
90	16.4327	11.3249	15.4359	13.4706

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. The amount recognized each year is 20% of the difference between market value and expected market value. In order to reduce short-term volatility in valuation results and because the market value and actuarial value of assets were close in value, the actuarial value of assets was set equal to the market value on September 30, 2012. 5-year smoothing commenced again beginning September 30, 2013.

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 3.00% 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 9/30/2019

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. An open amortization period is one for which the





Schedule F: Board Funding Policy

amortization period is recalculated on a yearly basis and the ending date of the amortization period is a variable with each recalculation. 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.

Unfunded Actuarial Accrued Liability (UAAL)

- ➤ **Transitional UAAL** The UAAL established as of the initial valuation date for which this funding policy is adopted shall be known as the Transitional UAAL.
- ➤ **New Incremental UAAL** Each subsequent valuation will produce a New Incremental UAAL consisting of all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation.

UAAL Amortization Period and Contribution Rates

- > The Transitional UAAL will be amortized over a closed period. The closed period shall be the amortization period for the valuation preceding the adoption of the funding policy not to exceed 30 years.
- > Each New Incremental UAAL shall be amortized over a closed 30 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 administrative expenses, the individual amortization rate for each of the New Incremental UAAL bases, the amortization rate for the Transitional 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 including the Interest Smoothing methodology. 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 which shall include the Interest Smoothing Methodology.





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 goal.





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	Balance of	Annual
	Transitional	Amortization
Valuation Date	<u>UAAL</u>	<u>Payment</u>
9/30/2012	\$146,170,275	\$9,874,774
9/30/2013	147,989,123	10,195,704
9/30/2014	149,632,550	10,527,064
9/30/2015	151,076,090	10,869,194
9/30/2016	152,292,983	11,207,290
9/30/2017	152,888,399	11,543,509
9/30/2018	153,193,742	11,786,629
9/30/2019	153,126,434	12,140,228
9/30/2020	152,700,377	12,504,435
9/30/2021	151,877,521	12,879,568
9/30/2022	150,616,583	13,265,955
9/30/2023	148,872,797	13,663,934
9/30/2024	146,597,632	14,073,852
9/30/2025	143,738,499	14,496,067
9/30/2026	140,238,426	14,930,949
9/30/2027	136,035,717	15,378,878
9/30/2028	131,063,571	15,840,244
9/30/2029	125,249,690	16,315,452
9/30/2030	118,515,839	16,804,915
9/30/2031	110,777,386	17,309,063
9/30/2032	101,942,793	17,828,335
9/30/2033	91,913,083	18,363,185
9/30/2034	80,581,249	18,914,080
9/30/2035	67,831,634	19,481,502
9/30/2036	53,539,252	20,065,948
9/30/2037	37,569,057	20,667,926
9/30/2038	19,775,164	21,287,964
9/30/2039	0	0





	Balance of	Annual
	New Incremental	Amortization
Valuation Date	<u>UAAL 9/30/2013</u>	<u>Payment</u>
9/30/2013	\$22,895,240	\$1,468,459
9/30/2014	23,258,400	1,516,184
9/30/2015	23,602,888	1,565,460
9/30/2016	23,925,660	1,614,376
9/30/2017	24,165,523	1,662,807
9/30/2018	24,375,544	1,695,718
9/30/2019	24,544,555	1,746,589
9/30/2020	24,675,624	1,798,987
9/30/2021	24,764,323	1,852,957
9/30/2022	24,805,837	1,908,545
9/30/2023	24,794,938	1,965,802
9/30/2024	24,725,949	2,024,776
9/30/2025	24,592,708	2,085,519
9/30/2026	24,388,531	2,148,085
9/30/2027	24,106,169	2,212,527
9/30/2028	23,737,764	2,278,903
9/30/2029	23,274,800	2,347,270
9/30/2030	22,708,052	2,417,688
9/30/2031	22,027,530	2,490,219
9/30/2032	21,222,417	2,564,925
9/30/2033	20,281,007	2,641,873
9/30/2034	19,190,631	2,721,129
9/30/2035	17,937,585	2,802,763
9/30/2036	16,507,047	2,886,846
9/30/2037	14,882,990	2,973,451
9/30/2038	13,048,087	3,062,655
9/30/2039	10,983,611	3,154,535
9/30/2040	8,669,322	3,249,171
9/30/2041	6,083,355	3,346,646
9/30/2042	3,202,086	3,447,045
9/30/2043	0	0





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	Balance of	Annual
	New Incremental	Amortization
Valuation Date	UAAL 9/30/2014	<u>Payment</u>
9/30/2014	(\$7,479,398)	(\$479,715)
9/30/2015	(7,598,035)	(495,306)
9/30/2016	(7,710,572)	(510,799)
9/30/2017	(7,797,342)	(526,123)
9/30/2018	(7,875,513)	(536,378)
9/30/2019	(7,941,612)	(552,469)
9/30/2020	(7,996,677)	(569,043)
9/30/2021	(8,039,379)	(586,114)
9/30/2022	(8,068,278)	(603,698)
9/30/2023	(8,081,803)	(621,809)
9/30/2024	(8,078,252)	(640,463)
9/30/2025	(8,055,775)	(659,677)
9/30/2026	(8,012,365)	(679,467)
9/30/2027	(7,945,844)	(699,851)
9/30/2028	(7,853,850)	(720,847)
9/30/2029	(7,733,822)	(742,472)
9/30/2030	(7,582,987)	(764,746)
9/30/2031	(7,398,340)	(787,689)
9/30/2032	(7,176,624)	(811,319)
9/30/2033	(6,914,316)	(835,659)
9/30/2034	(6,607,602)	(860,729)
9/30/2035	(6,252,355)	(886,551)
9/30/2036	(5,844,109)	(913,147)
9/30/2037	(5,378,037)	(940,542)
9/30/2038	(4,848,915)	(968,758)
9/30/2039	(4,251,099)	(997,821)
9/30/2040	(3,578,488)	(1,027,755)
9/30/2041	(2,824,487)	(1,058,588)
9/30/2042	(1,981,972)	(1,090,345)
9/30/2043	(1,043,247)	(1,123,056)
9/30/2044	0	0





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	Balance of	Annual
	New Incremental	Amortization
Valuation Date	<u>UAAL 9/30/2015</u>	<u>Payment</u>
9/30/2015	(\$6,904,225)	(\$442,824)
9/30/2016	(7,013,739)	(456,691)
9/30/2017	(7,100,613)	(470,391)
9/30/2018	(7,180,519)	(479,421)
9/30/2019	(7,250,408)	(493,804)
9/30/2020	(7,311,260)	(508,618)
9/30/2021	(7,361,954)	(523,876)
9/30/2022	(7,401,267)	(539,593)
9/30/2023	(7,427,871)	(555,780)
9/30/2024	(7,440,323)	(572,454)
9/30/2025	(7,437,054)	(589,627)
9/30/2026	(7,416,362)	(607,316)
9/30/2027	(7,376,397)	(625,536)
9/30/2028	(7,315,156)	(644,302)
9/30/2029	(7,230,463)	(663,631)
9/30/2030	(7,119,963)	(683,540)
9/30/2031	(6,981,100)	(704,046)
9/30/2032	(6,811,109)	(725, 167)
9/30/2033	(6,606,991)	(746,922)
9/30/2034	(6,365,504)	(769,330)
9/30/2035	(6,083,135)	(792,410)
9/30/2036	(5,756,085)	(816,182)
9/30/2037	(5,380,243)	(840,668)
9/30/2038	(4,951,164)	(865,888)
9/30/2039	(4,464,040)	(891,864)
9/30/2040	(3,913,675)	(918,620)
9/30/2041	(3,294,451)	(946, 179)
9/30/2042	(2,600,298)	(974,564)
9/30/2043	(1,824,656)	(1,003,801)
9/30/2044	(960,441)	(1,033,915)
9/30/2045	0	0





Valuation Date Balance of New Incremental UAAL 9/30/2016 Annual Amortization Payment 9/30/2016 \$5,619,100 \$359,996 9/30/2017 5,694,585 370,796 9/30/2018 5,765,119 377,806 9/30/2019 5,828,345 389,141 9/30/2020 5,885,072 400,815 9/30/2021 5,934,466 412,839 9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2028 5,987,337 507,740 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2039 4,018,803 702,831 9/30	-		
Valuation Date UAAL 9/30/2016 Payment 9/30/2016 \$5,619,100 \$359,996 9/30/2017 5,694,585 370,796 9/30/2018 5,765,119 377,806 9/30/2019 5,828,345 389,141 9/30/2020 5,885,072 400,815 9/30/2021 5,934,466 412,839 9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2038 4,367,081 <		Balance of	Annual
9/30/2016 \$5,619,100 \$359,996 9/30/2017 5,694,585 370,796 9/30/2018 5,765,119 377,806 9/30/2019 5,828,345 389,141 9/30/2020 5,885,072 400,815 9/30/2021 5,934,466 412,839 9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774			Amortization
9/30/2017 5,694,585 370,796 9/30/2018 5,765,119 377,806 9/30/2019 5,828,345 389,141 9/30/2020 5,885,072 400,815 9/30/2021 5,934,466 412,839 9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	Valuation Date	<u>UAAL 9/30/2016</u>	<u>Payment</u>
9/30/2018 5,765,119 377,806 9/30/2019 5,828,345 389,141 9/30/2020 5,885,072 400,815 9/30/2021 5,934,466 412,839 9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 </td <td>9/30/2016</td> <td></td> <td>. ,</td>	9/30/2016		. ,
9/30/2019 5,828,345 389,141 9/30/2020 5,885,072 400,815 9/30/2021 5,934,466 412,839 9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 </td <td>9/30/2017</td> <td>5,694,585</td> <td>370,796</td>	9/30/2017	5,694,585	370,796
9/30/2020 5,885,072 400,815 9/30/2021 5,934,466 412,839 9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002	9/30/2018	5,765,119	377,806
9/30/2021 5,934,466 412,839 9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 1,481,053 814,774	9/30/2019	5,828,345	389,141
9/30/2022 5,975,613 425,224 9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 1,481,053 814,774	9/30/2020	5,885,072	400,815
9/30/2023 6,007,523 437,981 9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2021	5,934,466	412,839
9/30/2024 6,029,118 451,121 9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2022	5,975,613	425,224
9/30/2025 6,039,225 464,654 9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2023	6,007,523	437,981
9/30/2026 6,036,571 478,594 9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2024	6,029,118	451,121
9/30/2027 6,019,775 492,952 9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2025	6,039,225	464,654
9/30/2028 5,987,337 507,740 9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2026	6,036,571	478,594
9/30/2029 5,937,628 522,972 9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2027	6,019,775	492,952
9/30/2030 5,868,884 538,661 9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2028	5,987,337	507,740
9/30/2031 5,779,192 554,821 9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2029	5,937,628	522,972
9/30/2032 5,666,479 571,466 9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2030	5,868,884	538,661
9/30/2033 5,528,499 588,610 9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2031	5,779,192	554,821
9/30/2034 5,362,819 606,268 9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2032	5,666,479	571,466
9/30/2035 5,166,806 624,456 9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2033	5,528,499	588,610
9/30/2036 4,937,611 643,190 9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2034	5,362,819	606,268
9/30/2037 4,672,148 662,486 9/30/2038 4,367,081 682,360 9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2035	5,166,806	624,456
9/30/2038	9/30/2036	4,937,611	643,190
9/30/2039 4,018,803 702,831 9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2037	4,672,148	662,486
9/30/2040 3,623,410 723,916 9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2038	4,367,081	682,360
9/30/2041 3,176,685 745,633 9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2039	4,018,803	702,831
9/30/2042 2,674,068 768,002 9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2040	3,623,410	723,916
9/30/2043 2,110,632 791,043 9/30/2044 1,481,053 814,774	9/30/2041	3,176,685	745,633
9/30/2044 1,481,053 814,774	9/30/2042	2,674,068	768,002
	9/30/2043	2,110,632	791,043
9/30/2045 779,579 839,217	9/30/2044	1,481,053	814,774
	9/30/2045	779,579	839,217
9/30/2046 0 0	9/30/2046	0	0





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	Balance of	Annual Amortization
	New Incremental	
Valuation Date	UAAL 9/30/2017	<u>Payment</u>
9/30/2017	(\$13,094,463)	(\$838,915)
9/30/2018	(\$13,270,368)	(854,540)
9/30/2019	(\$13,431,012)	(880,176)
9/30/2020	(\$13,578,308)	(906,582)
9/30/2021	(\$13,710,467)	(933,779)
9/30/2022	(\$13,825,538)	(961,792)
9/30/2023	(\$13,921,400)	(990,646)
9/30/2024	(\$13,995,741)	(1,020,366)
9/30/2025	(\$14,046,049)	(1,050,976)
9/30/2026	(\$14,069,596)	(1,082,506)
9/30/2027	(\$14,063,414)	(1,114,981)
9/30/2028	(\$14,024,284)	(1,148,430)
9/30/2029	(\$13,948,711)	(1,182,883)
9/30/2030	(\$13,832,905)	(1,218,370)
9/30/2031	(\$13,672,752)	(1,254,921)
9/30/2032	(\$13,463,797)	(1,292,569)
9/30/2033	(\$13,201,209)	(1,331,346)
9/30/2034	(\$12,879,756)	(1,371,286)
9/30/2035	(\$12,493,771)	(1,412,424)
9/30/2036	(\$12,037,120)	(1,454,797)
9/30/2037	(\$11,503,162)	(1,498,441)
9/30/2038	(\$10,884,713)	(1,543,394)
9/30/2039	(\$10,173,999)	(1,589,696)
9/30/2040	(\$9,362,614)	(1,637,387)
9/30/2041	(\$8,441,467)	(1,686,509)
9/30/2042	(\$7,400,730)	(1,737,104)
9/30/2043	(\$6,229,782)	(1,789,217)
9/30/2044	(\$4,917,144)	(1,842,894)
9/30/2045	(\$3,450,411)	(1,898,180)
9/30/2046	(\$1,816,187)	(1,955,126)
9/30/2047	\$0	0





	Balance of	Annual
	New Incremental	Amortization
Valuation Date	<u>UAAL 9/30/2018</u>	<u>Payment</u>
9/30/2018	(\$3,190,149)	(\$202,068)
9/30/2019	(\$3,232,127)	(\$208,131)
9/30/2020	(\$3,271,253)	(\$214,375)
9/30/2021	(\$3,307,128)	(\$220,807)
9/30/2022	(\$3,339,317)	(\$227,431)
9/30/2023	(\$3,367,344)	(\$234,254)
9/30/2024	(\$3,390,692)	(\$241,281)
9/30/2025	(\$3,408,798)	(\$248,520)
9/30/2026	(\$3,421,051)	(\$255,975)
9/30/2027	(\$3,426,786)	(\$263,655)
9/30/2028	(\$3,425,280)	(\$271,564)
9/30/2029	(\$3,415,750)	(\$279,711)
9/30/2030	(\$3,397,344)	(\$288,103)
9/30/2031	(\$3,369,138)	(\$296,746)
9/30/2032	(\$3,330,131)	(\$305,648)
9/30/2033	(\$3,279,238)	(\$314,818)
9/30/2034	(\$3,215,282)	(\$324,262)
9/30/2035	(\$3,136,989)	(\$333,990)
9/30/2036	(\$3,042,979)	(\$344,010)
9/30/2037	(\$2,931,757)	(\$354,330)
9/30/2038	(\$2,801,706)	(\$364,960)
9/30/2039	(\$2,651,077)	(\$375,909)
9/30/2040	(\$2,477,976)	(\$387,186)
9/30/2041	(\$2,280,355)	(\$398,801)
9/30/2042	(\$2,056,001)	(\$410,766)
9/30/2043	(\$1,802,519)	(\$423,088)
9/30/2044	(\$1,517,324)	(\$435,781)
9/30/2045	(\$1,197,618)	(\$448,855)
9/30/2046	(\$840,381)	(\$462,320)
9/30/2047	(\$442,350)	(\$476,190)
9/30/2048	\$0	\$0





	Balance of	Annual
	New Incremental	Amortization
Valuation Date	UAAL 9/30/2019	<u>Payment</u>
9/30/2019	\$12,875,255	\$815,540
9/30/2020	\$13,044,672	\$840,006
9/30/2021	\$13,202,583	\$865,207
9/30/2022	\$13,347,374	\$891,163
9/30/2023	\$13,477,286	\$917,898
9/30/2024	\$13,590,400	\$945,435
9/30/2025	\$13,684,631	\$973,798
9/30/2026	\$13,757,708	\$1,003,012
9/30/2027	\$13,807,161	\$1,033,102
9/30/2028	\$13,830,307	\$1,064,095
9/30/2029	\$13,824,230	\$1,096,018
9/30/2030	\$13,785,766	\$1,128,898
9/30/2031	\$13,711,478	\$1,162,765
9/30/2032	\$13,597,641	\$1,197,648
9/30/2033	\$13,440,212	\$1,233,578
9/30/2034	\$13,234,811	\$1,270,585
9/30/2035	\$12,976,689	\$1,308,703
9/30/2036	\$12,660,703	\$1,347,964
9/30/2037	\$12,281,283	\$1,388,403
9/30/2038	\$11,832,398	\$1,430,055
9/30/2039	\$11,307,522	\$1,472,956
9/30/2040	\$10,699,591	\$1,517,145
9/30/2041	\$10,000,965	\$1,562,659
9/30/2042	\$9,203,379	\$1,609,539
9/30/2043	\$8,297,898	\$1,657,825
9/30/2044	\$7,274,862	\$1,707,560
9/30/2045	\$6,123,829	\$1,758,787
9/30/2046	\$4,833,515	\$1,811,551
9/30/2047	\$3,391,728	\$1,865,897
9/30/2048	\$1,785,299	\$1,921,874
9/30/2049	\$0	\$0





AMORTIZATION SCHEDULE FOR ALL BASES ON SEPTEMBER 30, 2019

		Payment for
Valuation Date	Projected UAAL	<u>Year</u>
9/30/2019	\$164,519,431	\$12,956,918
9/30/2020	\$164,148,249	\$13,345,625
9/30/2021	\$163,359,965	\$13,745,994
9/30/2022	\$162,111,008	\$14,158,374
9/30/2023	\$160,354,126	\$14,583,125
9/30/2024	\$158,038,091	\$15,020,619
9/30/2025	\$155,107,386	\$15,471,238
9/30/2026	\$151,501,863	\$15,935,375
9/30/2027	\$147,156,381	\$16,413,436
9/30/2028	\$142,000,408	\$16,905,839
9/30/2029	\$135,957,600	\$17,413,014
9/30/2030	\$128,945,343	\$17,935,405
9/30/2031	\$120,874,257	\$18,473,467
9/30/2032	\$111,647,670	\$19,027,671
9/30/2033	\$101,161,046	\$19,598,501
9/30/2034	\$89,301,366	\$20,186,456
9/30/2035	\$75,946,464	\$20,792,050
9/30/2036	\$60,964,319	\$21,415,811
9/30/2037	\$44,212,278	\$22,058,285
9/30/2038	\$25,536,232	\$22,720,034
9/30/2039	\$4,769,720	\$1,475,032
9/30/2040	\$3,659,571	\$1,519,283
9/30/2041	\$2,420,245	\$1,564,862
9/30/2042	\$1,040,532	\$1,611,808
9/30/2043	(\$491,675)	(\$1,890,295)
9/30/2044	\$1,361,006	(\$790,256)
9/30/2045	\$2,255,379	\$250,969
9/30/2046	\$2,176,947	(\$605,895)
9/30/2047	\$2,949,378	\$1,389,707
9/30/2048	\$1,785,299	\$1,921,874
9/30/2049	\$0	\$0





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.





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.





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.





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)





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 I: Schedule of Membership Data

SCHEDULE OF MEMBERSHIP DATA AS OF SEPTEMBER 30, 2019

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	<u>≥</u> 40	Total
Under 25 Avg. Pay											
25 to 29 Avg. Pay											
30 to 34 Avg. Pay	3 81,073	1 124,079	1 124,079								5 98,275
35 to 39 Avg. Pay	9 103,021	5 107,407	4 121,699	2 130,750							20 110,626
40 to 44 Avg. Pay	16 99,921	10 128,702	8 125,609	7 124,952	2 145,256						43 117,577
45 to 49 Avg. Pay	21 96,120	17 127,117	14 116,140	5 109,931	4 128,408	1 154,433					62 113,277
50 to 54 Avg. Pay	20 112,394	10 111,231	12 127,394	18 133,837	5 118,712	1 111,881	3 159,783				69 122,939
55 to 59 Avg. Pay	2 88,035	6 128,947	12 114,721	22 138,028	7 140,947	9 154,576		1 154,433			59 133,818
60 to 64 Avg. Pay	9 94,127	9 120,110	15 129,898	12 138,871	9 130,938	6 144,662	4 150,362	3 130,433	3 133,686		70 128,332
65 to 69 Avg. Pay	1 67,482	6 126,037	5 133,611	2 135,130	8 143,862	4 153,352	2 118,907	2 143,123	1 154,433		31 135,639
70 & up Avg. Pay			2 122,464	3 137,547			1 154,433	1 164,803			7 139,544
Total Avg. Pay	81 100,324	64 122,380	73 123,405	71 133,533	35 134,676	21 149,470	10 147,305	7 142,397	4 138,873		366 123,841

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: 53.3

Average Years of Service: 9.5





Schedule I: Schedule of Membership Data

NUMBER OF SERVICE RETIREMENTS AND THEIR BENEFITS BY AGE

	Number of	Total	Average
Age	Members	Annual Benefits	Annual Benefits
Under 50	0	\$ 0	\$ 0
50-54	1	69,312	69,312
55-59	1	37,244	37,244
60-64	30	3,377,632	112,588
65-69	63	6,715,544	106,596
70-74	112	11,304,492	100,933
75-79	65	6,629,451	101,992
80-84	35	3,319,902	94,854
85-89	16	1,596,499	99,781
90-94	5	422,997	84,599
95 & Over	4	320,278	80,070
Total	332	\$ 33,793,351	\$ 101,787

Average Age: 73.3

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

	Number of	Total	Average
Age	Members	Annual Benefits	Annual Benefits
Under 50	0	\$ 0	\$ 0
50-54	0	0	0
55-59	4	150,757	37,689
60-64	5	156,873	31,375
65-69	7	325,404	46,486
70-74	15	632,868	42,191
75-79	16	572,320	35,770
80-84	22	728,666	33,121
85-89	21	753,216	35,867
90-94	16	671,540	41,971
95 & Over	5	128,719	25,744
Total	111	\$ 4,120,363	\$ 37,120

Average Age: 80.5





Schedule I: Schedule of Membership Data

NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

	Number of	Total	Average
Age	Members	Annual Benefits	Annual Benefits
Under 50	0	\$ 0	\$ 0
50-54	1	105,704	105,704
55-59	0	0	0
60-64	2	204,877	102,439
65-69	1	37,469	37,469
70-74	4	180,286	45,072
75-79	0	0	0
80-84	1	36,296	36,296
85-89	0	0	0
90-94	0	0	0
95 & Over	0	0	0
Total	9	\$ 564,632	\$ 62,737

Average Age: 68.6

