

The experience and dedication you deserve



Alabama Judicial Retirement Fund Report of the Actuary on the Annual Valuation Prepared as of September 30, 2018





June 7, 2019

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, 2018 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, 2018 and to recommend rates of employer contribution for the fiscal year ending September 30, 2021. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

Since the previous valuation, the assumed rate of investment return has been changed from 7.75% as of September 30, 2017 to 7.65% as of September 30, 2018.

On the basis of the valuation, we have determined an employer contribution rate of 40.80% of payroll for the fiscal year ending September 30, 2021 for Tier I members and of 35.61% of payroll for members of the Judges' and Clerks' plan (Tier II). For the District Attorneys' plan we have determined an employee contribution rate of 19.77% of payroll for the fiscal year ending September 30, 2021.

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, 2018
- Ten-Year History of Average Monthly Benefit Payments as of September 30



June 7, 2019 Board of Control Page 2

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,

Edward A. Macdonald, ASA, FCA, MAAA

1 Muldes

President

Larry Langer, ASA. EA, FCA, MAAA

Principal and Consulting Actuary

Catny Turcot

Principal and Managing Director



## **TABLE OF CONTENTS**

<u>Section</u>	<u>ltem</u>	<u>Page No.</u>
1	Summary of Principal Results	1
II	Membership Data	4
III	Assets	6
IV	Comments on Valuation	7
V	Contributions Payable by Employer	10
VI	Analysis of Financial Experience	11
VII	Accounting Information	15
<u>Schedule</u>		
Α	Valuation Balance Sheet and Solvency Test	17
В	Development of the Actuarial Value of Assets	20
С	Summary of Receipts and Disbursements	23
D	Outline of Actuarial Assumptions and Methods	24
E	Actuarial Cost Method	27
F	Board Funding Policy	28
G	Amortization of UAAL	30
Н	Summary of Main Fund Provisions as Interpreted for Valuation Purposes	38
I	Schedule of Membership Data	45



# REPORT OF THE ACTUARY ON THE ANNUAL VALUATION OF THE ALABAMA JUDICIAL RETIREMENT FUND PREPARED AS OF SEPTEMBER 30, 2018

## **SECTION I - SUMMARY OF PRINCIPAL RESULTS**

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

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

VALUATION DATE	8	September 30, 2018		September 30, 2017	
Active members Number Annual compensation	\$	335 42,514,603	\$	342 42,935,994	
Retired members and beneficiaries Number Annual allowances	\$	404 33,378,386	\$	403 33,060,879	
Deferred vested members Number Estimated deferred annual allowances	\$	14 1,274,312	\$	15 1,125,000	
Assets Actuarial value Market value	\$	304,733,361 314,170,940	\$	292,840,475 300,023,990	
Unfunded actuarial accrued liability	\$	151,817,856	\$	154,756,088	
Funded ratio based on actuarial value of assets		66.7%		65.4%	
CONTRIBUTIONS FOR FISCAL YEAR ENDING	S	September 30, 2021	Se	eptember 30, 2020	
Tier I (Groups 1 and 2)  Employer contribution rate  Normal  Accrued liability  Administration  Total		13.75% 25.82 <u>1.23</u> 40.80%		13.71% 25.46 <u>1.23</u> 40.40%	
Tier II Judges' and Clerks' Plan (Group 3) Employer contribution rate Normal Accrued liability Administration Death Benefit Total		8.41% 25.82 1.23 <u>0.15</u> 35.61%		8.21% 25.46 1.23 <u>0.15</u> 35.05%	
Blended Amortization period		22.3 years		21.8 years	



## Summary of Principal Results for District Attorneys' Plan

VALUATION DATE	Sep	tember 30, 2018	Sep	tember 30, 2017
Active members Number Annual compensation	\$	10 1,304,737	\$	9 1,355,920
Retired members and beneficiaries Number Annual allowances	\$	0	\$	0
Deferred vested members Number Estimated deferred annual allowances	\$	0 0	\$	0 0
Assets Actuarial value Market value	\$	663,194 630,200	\$	249,384 241,886
Unfunded actuarial accrued liability	\$	619,274	\$	600,377
Funded ratio based on actuarial value of assets		51.7%		29.3%
CONTRIBUTIONS FOR FISCAL YEAR ENDING	September 30, 2021		September 30, 2020	
Employer contribution rate Normal Accrued liability Administration Death Benefit Total		4.66% 12.88 1.23 <u>1.00</u> 19.77%		5.28% 12.26 1.23 <u>1.00</u> 19.77%
Blended Amortization period		3.8 years		3.7 years



#### **Summary of Principal Results - Total**

VALUATION DATE	Se	eptember 30, 2018	Se	ptember 30, 2017
Active members Number Annual compensation	\$	345 43,819,340	\$	351 44,291,914
Retired members and beneficiaries Number Annual allowances	\$	404 33,378,386	\$	403 33,060,879
Deferred vested members Number Estimated deferred annual allowances	\$	14 1,274,312	\$	15 1,125,000
Assets				
Actuarial value Market value	\$	305,396,555 314,801,140	\$	293,089,859 300,265,876
Unfunded actuarial accrued liability	\$	152,437,130	\$	155,356,465
Funded ratio based on actuarial value of assets		66.7%		65.4%

- Comments on the valuation results as of September 30, 2018 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. Schedule D outlines the full set of actuarial assumptions and methods employed in the current valuation. Since the previous valuation the assumed rate of investment return has been changed from 7.75% to 7.65%.
- 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, 2018 on the basis of which the valuation was prepared.

TABLE 1

THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF SEPTEMBER 30, 2018

GROUP	NUMBER	COMPENSATION	
Tier I (Groups 1 and 2)			
District Court Judges	94	\$	12,376,255
Probate Court Judges	65		6,340,296
Non District, Non Probate Judges	<u>142</u>		<u>19,754,533</u>
Total	<u>301</u>	\$	<u>38,471,084</u>
Tier II (Group 3)			
District Court Judges	14	\$	1,659,954
Probate Judges	2		221,814
Non District, Non Probate Judges	18		2,161,751
Clerks	_0		0
Total	<u>34</u>	\$	<u>4,043,519</u>
District Attorneys' Plan	<u>10</u>	\$	<u>1,304,737</u>
Total	<u>345</u>	\$	43,819,340

The table reflects the active membership for whom complete valuation data were submitted. The results of the valuation include contribution balances for an additional 26 non-vested inactive members.



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 <u>Average Pay</u>	% Increase in Average Pay
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
9/30/2013	338	41,887,006	(1.34)	123,926	(1.61)

<sup>\* 0.9%</sup> increase for total pay since 2013

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, 2018

GROUP	NUMBER*	ANNUAL RETIREMENT ALLOWANCES
Service Retirements	282	\$ 28,682,479
Disability Retirements	9	564,632
Beneficiaries of Deceased Members	<u>113</u>	<u>4,131,275</u>
Total	404	\$ 33,378,386

<sup>\*</sup>In addition, there were 14 vested inactive members with estimated deferred annual allowances totaling \$1,274,312 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.

<sup>\*\* 0.5%</sup> increase for average pay since 2013



#### **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, 2018, which represent the accumulated contributions of active members to that date, including interest, amounted to \$48,218,850 for members other than District Attorneys and \$389,904 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, 2018 the market value of assets credited to this fund is \$265,952,090 for members other than the District Attorneys and \$240,296 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, 2018, the market value of assets credited to this fund amounted to \$2,474,133. 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, 2018 the market value of assets credited to this fund amounted to \$18,153 for members of the Judges and Clerks Plan and \$22,888 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.



- The amount of assets taken into account in this valuation is based on information reported by the Retirement Fund.
- 3. As of September 30, 2018, the total market value of assets exclusive of the Expense Fund and the Pre-retirement Death Benefit Funds amounted to \$314,801,140, of which \$314,170,940 is for members other than District Attorneys and \$630,200 is for the District Attorneys' Plan. The market related actuarial value of assets was \$305,396,555, of which \$304,733,361 is for members other than the District Attorneys and \$663,194 is for the District Attorneys' Plan. Schedule B shows the development of the actuarial value of assets as of September 30, 2018
- 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, 2018.
- 2. The valuation balance sheet shows that the Fund has total accrued liabilities of \$457,833,685. Of this amount, \$296,549,996 is for the benefits payable on account of present retired members and beneficiaries of deceased members, \$9,778,843 is for the benefits payable on account of present inactive members and \$151,504,846 is for the benefits payable on account of present active members. Against these liabilities, the Fund has total present actuarial value of assets of \$305,396,555 as of September 30, 2018. The difference of \$152,437,130 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 13.75% of payroll for Tier I members 8.41% of payroll for Tier II members and 4.66% 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 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.
- 5. The total UAAL contribution rate for members other than District Attorneys is 25.82% of payroll, determined in accordance with the Board's funding policy. The UAAL contribution rate for the District Attorneys' Plan had been determined to be 12.88% 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. The UAAL contribution rates have been calculated on the assumption that the aggregate amount of accrued liability contribution will increase 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, 2018.

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

TABLE 4

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

	<u>UAAL</u>	Amortization <u>Period</u>	Amortization <u>Payment</u>
Transitional	\$153,193,742	21	\$11,786,629
New Incremental 9/30/2013	24,375,544	25	1,695,718
New Incremental 9/30/2014	(7,875,513)	26	(536,378)
New Incremental 9/30/2015	(7,180,519)	27	(479,421)
New Incremental 9/30/2016	5,765,119	28	377,806
New Incremental 9/30/2017	(13,270,368)	29	(856,540)
New Incremental 9/30/2018	(3,190,149)	30	(202,068)
Total	\$151,817,856		\$ 11,787,746
Total Amortization Payment Ad	justed for Timing		\$11,353,476
Total Estimated Payroll*	,		\$43,964,587
UAAL Contribution Rate			25.82%

<sup>\*</sup>Estimated payroll based on applying the assumed salary scale to current salaries.

- 7. An additional contribution of 1.23% of payroll is required to cover expenses of administering the Fund.
- 8. 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

- 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, 2018 it is recommended that the employer make contributions at the following rates beginning October 1, 2020:

TABLE 5

EMPLOYER REQUIRED CONTRIBUTION RATES
AS A PERCENTAGE OF MEMBERS' COMPENSATION

EMPLOYER CONTRIBUTION	FISCAL YEAR ENDING SEPTEMBER 30, 2021
Tier I	
(Groups 1 and 2)	
Normal	13.75%
Accrued Liability	25.82
Administration	<u>1.23</u>
Total	40.80%
Tier II (Group 3)	
Normal	8.41%
Accrued Liability	25.82
Administration	1.23
Death Benefit	<u>0.15</u>
Total	35.61%
District Attorneys' Plan	4.0004
Normal	4.66%
Accrued Liability	12.88
Administration	1.23
Death Benefit	<u>1.00</u>
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 UAAL.

The UAAL increased from \$155,356,465 on September 30, 2017 to \$152,437,130 on September 30, 2018, an increase of \$4,278,013. The most significant items contributing to the increase in the UAAL was the change in the discount rate from 7.75% to 7.65%. This increase was offset by gains due to salary increases less than anticipated, investment earnings in excess of expected and gains due to fewer retirements than expected. Additional sources of gains and losses were relatively small and there appear to be no trends developing that would be of concern to the Fund.

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, 2018

(Dollar amounts in thousands)

(1)	UAAL at beginning of year	\$ 155,356
(2)	Total normal cost at beginning of the year	9,095
(3)	Actual contributions	20,479
(4)	Interest accrual: [ [(1) + (2) ] - ½ [ (3)] ] x 0.0775	11,951
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	155,923
(6)	Increase from benefit changes	0
(7)	Changes from revised actuarial assumptions and methods	3,856
(8)	Expected UAAL after changes: (5) + (6) + (7)	159,778
(9)	Actual UAAL at end of year	152,437
(10)	Total (Gain)/Loss: (9) - (8)	\$ (7,341)

## DEVELOPMENT OF (GAIN)/LOSS FROM INVESTMENT RETURN FOR THE YEAR ENDING SEPTEMBER 30, 2018

(Dollar amounts in thousands)

(1)	Actuarial Value of Assets (BOY)	\$ 293,090
(2)	Net Cash Flow	(13,087)
(3)	Expected Return [(1) + ½ [ (2)] ] x 0.0775	22,207
(4)	Expected Actuarial Value of Assets [(1) + (2) + (3)]	302,210
(5)	Actual Actuarial Value of Assets (EOY)	305,397
(6)	Investment (Gain)/Loss: (4) – (5)	\$ (3,187)



# (GAINS)/ LOSSES BY SOURCE FOR THE YEAR ENDING SEPTEMBER 30, 2018

(Dollar amounts in thousands)

SOURCE	Total	% of Actuarial Accrued Liability
COCKCE	Total	Liability
<b>Age and Service Retirements.</b> Generally, earlier retirements cause losses and later retirements cause gains.	\$ (2,606)	(0.57)%
<b>Withdrawal.</b> More withdrawals than expected usually cause gains and less withdrawals than expected cause losses.	581	0.13%
<b>Disability Retirements.</b> More disabilities than expected generally cause losses and less disabilities than expected cause gains.	(327)	(0.07)%
<b>Death-In-Service Benefits.</b> If survivor claims are less than assumed, there is a gain. If claims are more than assumed, there is a loss.	106	0.02%
<b>Salary Increases.</b> If salaries increase more than expected, there is a loss. If salaries increase less than expected, there is a gain.	(4,037)	(0.88)%
<b>New Members/Rehires.</b> Any past service causes losses.	498	0.11%
<b>Retiree Mortality.</b> More deaths than expected cause gains, less than expected cause losses.	133	0.03%
<b>Investment Return.</b> Investment income greater than expected causes gains while investment income less than expected cause losses.	(3,187)	(0.70)%
Other. Miscellaneous gains and losses resulting from data corrections, timing of financial transactions, unit transfers, changes in valuation software, etc.	1,498	0.33%
Total (Gain)/Loss	\$ (7,341)	(1.60)%



## (GAINS)/ LOSSES BY SOURCE Historical Trends

(Dollar amounts in thousands)

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

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	404
Terminated employees entitled to benefits but not yet receiving benefits	14
Non-vested inactive members	26
Active members	<u>345</u>
Total	789

2. The schedule of funding progress as shown below.

#### **SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation <u>Date</u>	Actuarial Value of Assets <u>( a )</u>	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)
9/30/2013	\$243,315,496	\$414,199,859	\$170,884,363	58.7%	\$41,887,006	408.0%
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 <sup>1</sup>	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 <sup>1</sup>	305,396,555	457,833,685	152,437,130	66.7	43,819,340	347.9

<sup>&</sup>lt;sup>1</sup>Reflects changes in actuarial assumptions and methods.

<sup>&</sup>lt;sup>2</sup>Reflects changes in benefit structure beginning November 8, 2016



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

2018. Additional information as of the latest actuarial valuation follows.

Valuation date 9/30/2018

Actuarial cost method Entry Age Normal

Amortization method Level percent closed

Single equivalent remaining

amortization period 20.3 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%



## **SCHEDULE A**

# 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, 2018
Actuarial Accrued Liabilities     (a) Present active members		
<ul> <li>Service pensions</li> <li>Disability pensions</li> <li>Death benefits*</li> <li>Termination benefits</li> <li>Total</li> </ul>	\$ 	142,985,575 976,388 2,177,659 4,082,756 150,222,378
<ul><li>(b) Present inactive members</li><li>Non-vested</li><li>Deferred vested</li><li>Total</li></ul>	\$	1,160,539 8,618,304 9,778,843
<ul> <li>(c) Present retired members and beneficiaries</li> <li>Service retirements</li> <li>Disability retirements</li> <li>Beneficiaries of deceased members</li> <li>Total</li> </ul>	\$	258,792,895 5,374,908 32,382,193 296,549,996
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	\$	456,551,217
2. Actuarial Value of Assets	\$	304,733,361
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	\$	151,817,856

<sup>\*</sup>Liability for death benefits payable after retirement is included with liability for service and disability pensions.



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

## District Attorneys' Plan

	Sept	tember 30, 2018
Actuarial Accrued Liabilities     (a) Present active members	•	,
<ul> <li>Service pensions</li> <li>Disability pensions</li> <li>Death benefits</li> <li>Termination benefits</li> <li>Total</li> </ul>	\$ \$	1,156,360 9,183 29,534 87,391 1,282,468
<ul><li>(b) Present inactive members</li><li>Non-vested</li><li>Deferred vested</li><li>Total</li></ul>	\$ \$	0 0 0
<ul> <li>(c) Present retired members and beneficiaries</li> <li>Service retirements</li> <li>Disability retirements</li> <li>Beneficiaries of deceased members</li> <li>Total</li> </ul>	\$	0 0 0 0
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	\$	1,282,468
2. Actuarial Value of Assets	\$	663,194
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	\$	619,274



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

Total - All Groups

Total – All Groups		
	Sept	tember 30, 2018
Actuarial Accrued Liabilities     (a) Present active members		
<ul> <li>Service pensions</li> <li>Disability pensions</li> <li>Death benefits*</li> <li>Termination benefits</li> <li>Total</li> </ul>	\$ 	144,141,935 985,571 2,207,193 4,170,147 151,504,846
<ul><li>(b) Present inactive members</li><li>Non-vested</li><li>Deferred vested</li><li>Total</li></ul>	\$ \$	1,160,539 8,618,304 9,778,843
<ul> <li>(c) Present retired members and beneficiaries</li> <li>Service retirements</li> <li>Disability retirements</li> <li>Beneficiaries of deceased members</li> <li>Total</li> </ul>	\$	258,792,895 5,374,908 32,382,193 296,549,996
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	\$	457,833,685
2. Actuarial Value of Assets	\$	305,396,555
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	\$	152,437,130

## SOLVENCY TEST

(\$1000's)

	Aggre	gate Accrued Lia	bilities For			of Accrued I	
Valuation Date	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)	Reported Assets	(1)	(2)	(3)
9/30/2018 <sup>1</sup>	\$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 <sup>1</sup>	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
9/30/2013	37,366	270,430	106,404	243,315	100	76	0

<sup>&</sup>lt;sup>1</sup>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, 2017	\$ 292,840,475
(2)	Market Value of Assets on September 30, 2018	314,170,940
(3)	Market Value of Assets on September 30, 2017	\$ 300,023,990
(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)	\$ 20,090,637 (33,419,168) (130,333) (17,312) 0 (13,476,176)
(5)	Actual Investment Return ((2) - (3) - (4)f)	27,623,126
(6)	Assumed Rate of Return on Assets	7.75%
(7)	Amount for Immediate Recognition [(3) * (6)] + [((4)a + (4)b + (4)c + (4)d) * 0.5 * (6)] + (4)e	22,729,657
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))	4,893,469
(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)	\$ 978,694 2,295,366 1,555,410 (4,473,538) 2,283,473 2,639,405
(10)	Actuarial Value of Assets on September 30, 2018 (1) + (4)f + (7) + (9)f	\$ 304,733,361



## **DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**

## District Attorneys' Plan

(1)	Actuarial Value of Assets on September 30, 2017	\$	249,384
(')	Actualian Value of Access of Coptomber 66, 2017	•	,
(2)	Market Value of Assets on September 30, 2018		630,200
(3)	Market Value of Assets on September 30, 2017		241,886
(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)	\$ 	388,719 0 0 0 0 0 388,719
(5)	Actual Investment Return ((2) - (3) - (4)f)		(405)
(6)	Assumed Rate of Return on Assets		7.75%
(7)	Amount for Immediate Recognition [(3) * (6)] + [((4)a + (4)b + (4)c + (4)d) * 0.5 * (6)] + (4)e		33,809
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))		(34,214)
(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)	\$ 	(6,843) (1,875) 0 0 0 (8718)
	<b>.</b> , ,	Ψ	(07 10)
(10)	Actuarial Value of Assets on September 30, 2018 (1) + (4)f + (7) + (9)f	\$	663,194



## **DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**

## Total - All Plans

(1)	Actuarial Value of Assets on September 30, 2017	\$ 293,089,859
(2)	Market Value of Assets on September 30, 2018	314,801,140
(3)	Market Value of Assets on September 30, 2017	300,265,876
(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)	\$ 20,479,356 (33,419,168) (130,333) (17,312) 0 (13,087,457)
(5)	Actual Investment Return ((2) - (3) - (4)f)	27,622,721
(6)	Assumed Rate of Return on Assets	7.75%
(7)	Amount for Immediate Recognition [(3) * (6)] + [((4)a + (4)b + (4)c + (4)d) * 0.5 * (6)] + (4)e	22,763,466
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))	4,859,255
(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)	\$ 971,851 2,293,491 1,555,410 (4,473,538) 2,283,473 2,630,687
(10)	Actuarial Value of Assets on September 30, 2018 (1) + (4)f + (7) + (9)f	\$ 305,396,555



## SCHEDULE C

# SUMMARY OF RECEIPTS AND DISBURSEMENTS FOR THE PERIOD ENDING SEPTEMBER 30, 2018

Receipts for the Period	
Contributions:	
Members	\$ 3,867,366
Employer	 16,611,990
Total	\$ 20,479,356
Investment Income	 27,622,721
TOTAL	\$ 48,102,077
Disbursements for the Period	
Benefit Payments	\$ 33,419,168
Refunds to Members	130,333
Transfer to Expense Fund	 17,312
TOTAL	\$ 33,566,813
Excess of Receipts over Disbursements	\$ 14,535,264
Reconciliation of Asset Balances	
Market Value of Assets as of September 30, 2017	\$ 300,265,876
Excess of Receipts over Disbursements	 14,535,264
Market Value of Assets as of September 30, 2018	\$ 314,801,140



#### **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	2.50%	0.0376%	0.0149%	0.020%	
35	2.50	0.0655	0.0268	0.040	
40	2.50	0.0914	0.0399	0.068	
45	2.50	0.1278	0.0635	0.108	
50	2.50	0.1812	0.0947	0.163	
55	2.50	0.2567	0.1371	0.250	
60	2.50	0.3815	0.1929	0.395	
64	2.50	0.5070	0.2558	0.570	

<sup>\*</sup> 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.

<sup>\*\*</sup>Disability rates turn off at retirement eligibility.



### **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 70-74 75	10% 30% 100%	15%* 30% 100%	10%** 30% 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 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 R	Disability Retirement	
<u>Age</u>	Male	<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.



**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**

# FUNDING POLICY OF THE ERS BOARD OF CONTROL FOR THE ADMINISTRATION OF THE JUDICIAL RETIREMENT FUND

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. For that reason, it is critical that this funding policy remain unchanged until its objectives are met.

### 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 30<sup>th</sup> 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 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.
- 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. 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 goals of the Fund.



SCHEDULE G

AMORTIZATION SCHEDULE FOR BASES CLOSED
ON SEPTEMBER 30, 2012

	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



# SCHEDULE G (Continued)

# AMORTIZATION SCHEDULE FOR BASES CLOSED ON SEPTEMBER 30, 2013

lr .		-
	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



	Balance of	Annual
	New Incremental	Amortization
Valuation Date	<u>UAAL 9/30/2014</u>	<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



	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



	Balance of	Annual
	New Incremental	Amortization
Valuation Date	<u>UAAL 9/30/2016</u>	<u>Payment</u>
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
9/30/2029	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
9/30/2045	779,579	839,217
9/30/2046	0	0



ir .		-
	Balance of	Annual
	New Incremental	Amortization
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



	D.1 .	
	Balance of	Annual
Valuation Data	New Incremental	Amortization
Valuation Date	UAAL 9/30/2018	Payment
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



### **AMORTIZATION SCHEDULE FOR ALL BASES ON SEPTEMBER 30, 2018**

		Payment for
Valuation Date	Projected UAAL	Year
9/30/2018	\$151,817,856	\$11,787,746
9/30/2019	\$151,644,175	\$12,141,378
9/30/2020	\$151,103,577	\$12,505,619
9/30/2021	\$150,157,381	\$12,880,788
9/30/2022	\$148,763,633	\$13,267,211
9/30/2023	\$146,876,840	\$13,665,228
9/30/2024	\$144,447,691	\$14,075,184
9/30/2025	\$141,422,755	\$14,497,440
9/30/2026	\$137,744,156	\$14,932,363
9/30/2027	\$133,349,220	\$15,380,334
9/30/2028	\$128,170,102	\$15,841,744
9/30/2029	\$122,133,370	\$16,316,996
9/30/2030	\$115,159,577	\$16,806,506
9/30/2031	\$107,162,778	\$17,310,701
9/30/2032	\$98,050,029	\$17,830,022
9/30/2033	\$87,720,834	\$18,364,923
9/30/2034	\$76,066,555	\$18,915,871
9/30/2035	\$62,969,775	\$19,483,347
9/30/2036	\$48,303,616	\$20,067,847
9/30/2037	\$31,930,995	\$20,669,883
9/30/2038	\$13,703,834	\$21,289,979
9/30/2039	(\$6,537,802)	\$2,076
9/30/2040	(\$7,040,020)	\$2,138
9/30/2041	(\$7,580,720)	\$2,202
9/30/2042	(\$8,162,847)	\$2,268
9/30/2043	(\$8,789,574)	(\$3,548,120)
9/30/2044	(\$5,913,856)	(\$2,497,816)
9/30/2045	(\$3,868,450)	(\$1,507,818)
9/30/2046	(\$2,656,569)	(\$2,417,446)
9/30/2047	(\$442,350)	(\$476,190)
9/30/2048	\$0	\$0



#### SCHEDULE H

### SUMMARY OF MAIN FUND PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

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 AS OF SEPTEMBER 30, 2018

### 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>&gt;</u> 40	Total
Under 25											
Avg. Pay											
25 to 29		1									1
Avg. Pay		118,950									118,950
30 to 34		2	1								3
Avg. Pay		119,055	121,923								120,011
35 to 39		6	6	2							14
Avg. Pay		119,598	126,241	128,407							123,704
, g,		,	.20,2	.20, .0.							.20,.0.
40 to 44		13	11	4	2						30
Avg. Pay		121,169	120,653	134,142	99,721						121,280
	_				_						
45 to 49	3	11	18	8	3	140 420					44
Avg. Pay	117,155	116,164	112,720	131,108	132,193	148,436					119,366
50 to 54	2	8	16	17	7	3	2				55
Avg. Pay	114,187	110,648	119,398	131,878	119,767	154,788	134,192				124,309
55 to 59		4	14	18	10	10		3			59
Avg. Pay		130,088	121,469	134,963	136,558	145,043		126,824			132,996
60 to 64	2	13	13	9	18	3	6	6	2		72
Avg. Pay	130,877	119,331	124,080	125,133	136,755	124,141	161,390	-	112,789		130,943
	,	,	_ :,:30	,		,	,	,	, . 50		22,2.0
65 to 69		4	4	8	8	4	4	2	2	1	37
Avg. Pay		120,193	128,398	130,310	133,849	129,962	130,563	138,690	174,344	148,684	133,094
70.0				_			_				60
70 & up		92 701	120.740	7 112 270	122 520		126 215	140.025		149 470	30 122 731
Avg. Pay		83,701	120,740	112,279	122,529		126,215	149,935		148,479	122,731
Total	7	63	89	73	54	21	18	12	4	4	345
Avg. Pay	120,227	118,237	120,197	129,700	130,880	140,738		137,955	143,567	148,530	

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: 56.4

Average Years of Service: 12.7



### 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	2	149,696	74,848
60-64	35	3,904,670	111,562
65-69	60	6,140,890	102,348
70-74	87	9,038,765	103,894
75-79	53	5,363,213	101,193
80-84	21	1,851,366	88,160
85-89	15	1,480,262	98,684
90-94	6	530,334	88,389
95 & Over	2	153,971	76,986
Total	282	\$ 28,682,479	\$ 101,711

Average Age: 73.1

### **NUMBER OF BENEFICIARIES** AND THEIR BENEFITS BY AGE

A	Number of	Total	Average
Age	Members	Annual Benefits	Annual Benefits
Under 50	0	\$ 0	\$ 0
50-54	2	85,757	42,879
55-59	4	135,422	33,856
60-64	6	235,058	39,176
65-69	7	302,560	43,223
70-74	15	624,942	41,663
75-79	19	637,724	33,564
80-84	21	693,780	33,037
85-89	23	823,895	35,822
90-94	14	530,056	37,861
95 & Over	2	62,081	31,041
Total	113	\$ 4,131,275	\$ 36,560

Average Age: 79.6



## NUMBER OF DISABLED RETIREES AND THEIR BENEFITS BY AGE

A	Number of	Total	Average Annual Benefits
Age	Members	Annual Benefits	Annual benefits
Under 50	0	\$ 0	\$ 0
50-54	1	105,704	105,704
55-59	1	110,203	110,203
60-64	1	94,674	94,674
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: 67.6