



**Cavanaugh Macdonald**  
CONSULTING, LLC

*The experience and dedication you deserve*



**Retirement Systems**  
of Alabama

**Alabama Judicial Retirement Fund  
Report of the Actuary on the Annual Valuation  
Prepared as of September 30, 2013**





# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

July 18, 2014

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, prepared as of September 30, 2013 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, 2013, to recommend rates of contribution and to provide accounting information under Governmental Accounting Standards Board Statements No. 25 and 27 (GASB 25 and 27). While not verifying the data at source, the actuary performed tests for consistency and reasonability. Since the previous valuation, the Board has adopted a funding policy, which is shown in Schedule G of the report.

On the basis of the valuation, we have determined an employer contribution rate of 40.98% of payroll for the fiscal year ending September 30, 2016.

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 accrued liability that is being amortized by regular annual contributions as a level percentage of payroll, on the assumption that payroll will increase by 3.25% 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 and meet the parameters for the disclosures under GASB 25 and 27.

We have prepared the Schedule of Funding Progress and Trend Information shown in the financial section of the Annual Report, and all supporting schedules including the Schedule of Active Member Valuation Data, the Solvency Test and the Analysis of Financial Experience shown in the actuarial section of the Annual Report.

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July 18, 2014  
Board of Control  
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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.

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,

A handwritten signature in blue ink, appearing to read 'Edward Macdonald', written in a cursive style.

Edward A. Macdonald, ASA, FCA, MAAA  
President

A handwritten signature in blue ink, appearing to read 'Cathy Turcot', written in a cursive style.

Cathy Turcot  
Principal and Managing Director

A handwritten signature in blue ink, appearing to read 'John J. Garrett', written in a cursive style.

John J. Garrett, ASA, FCA, MAAA  
Principal and Consulting Actuary

EAM:dmw



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**REPORT OF THE ACTUARY ON THE ANNUAL VALUATION OF THE  
ALABAMA JUDICIAL RETIREMENT FUND  
PREPARED AS OF SEPTEMBER 30, 2013**

**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:

<b>VALUATION DATE</b>	<b>September 30, 2013</b>	<b>September 30, 2012</b>
Active members		
Number	338	337
Annual compensation	\$ 41,887,006	\$ 42,446,426
Retired members and beneficiaries		
Number	375	347
Annual allowances	\$ 29,908,045	\$ 27,153,088
Assets		
Actuarial value	\$ 243,321,741	\$ 234,299,529
Market value	254,502,415	234,299,529
Unfunded accrued liability	\$ 170,884,363	\$ 146,170,275
Funded Ratio	58.7%	61.6%
<b>CONTRIBUTIONS FOR FISCAL YEAR ENDING</b>	<b>September 30, 2016</b>	<b>September 30, 2015</b>
Employer contribution rate		
Normal	13.41%	11.46%
Accrued liability	26.31	22.82
Administration	<u>1.26</u>	<u>0.96</u>
Total	40.98%	35.24%
Blended Amortization period	26.5 years	27 years

2. Comments on the valuation results as of September 30, 2013 are given in Section IV and further discussion of the contribution levels is set out in Section V.



3. Schedule D of this report shows the development of the smoothed interest rate used for valuation purposes. Schedule B shows the development of the actuarial value of assets. Schedule E of this report outlines the full set of actuarial assumptions and methods employed in the current valuation. Since the previous valuation, the Board has adopted a funding policy, which is shown in Schedule G.
4. Provisions of the Fund, as summarized in Schedule I, were taken into account in the current valuation.

## **SECTION II – MEMBERSHIP DATA**

1. The following table shows the number of active members and their annual compensation as of September 30, 2013 on the basis of which the valuation was prepared.

**TABLE 1**

**THE NUMBER AND ANNUAL COMPENSATION OF  
ACTIVE MEMBERS AS OF SEPTEMBER 30, 2013**

<b>GROUP</b>	<b>NUMBER</b>	<b>COMPENSATION</b>
District Court Judges	108	\$ 13,853,568
Probate Court Judges	68	6,203,035
Non District, Non Probate Judges	<u>162</u>	<u>21,830,404</u>
Total	338	\$ 41,887,006

The table reflects the active membership for whom complete valuation data were submitted. The results of the valuation include an estimated liability for an additional 54 inactive members.



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

**TABLE 2**  
**SCHEDULE OF ACTIVE MEMBER VALUATION DATA**

<u>Valuation Date</u>	<u>Number</u>	<u>Annual Payroll*</u>	<u>Annual Average Pay</u>	<u>% Increase in Average Pay</u>
9/30/2013	338	\$ 41,887,006	\$ 123,926	(1.61)%
9/30/2012	337	42,446,426	125,954	0.58
9/30/2011	334	41,826,338	125,229	(1.70)
9/30/2010	338	43,060,614	127,398	0.78
9/30/2009	342	43,234,239	126,416	3.18
9/30/2008	336	41,167,248	122,522	3.19

\*Amounts shown do not include any salary increase effective after the valuation date.

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, 2013**

<b>GROUP</b>	<b>NUMBER</b>	<b>ANNUAL RETIREMENT ALLOWANCES</b>
Service Retirements	263	\$ 25,859,561
Disability Retirements	7	374,804
Beneficiaries of Deceased Members	105	3,673,680
Total	375	\$ 29,908,045

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



### **SECTION III - ASSETS**

1. The Judicial Retirement Fund assets are currently allocated to three funds for the purpose of recording the fiscal transactions of the System, namely, the Annuity Savings Fund, the Pension Accumulation Fund, and the Expense Fund.

(a) Annuity Savings Fund

The Annuity Savings Fund is the fund to which are credited all contributions made by members together with regular interest thereon. When a member retires or when a survivor allowance becomes payable the amount of the member's accumulated contributions are transferred from the Annuity Savings Fund to the Pension Accumulation Fund. The market value of assets credited to the Annuity Savings Fund on September 30, 2013, which represent the accumulated contributions of active members to that date, including interest, amounted to \$37,366,086.

(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, 2013 the market value of assets credited to this fund amounted to \$217,136,329.

(c) Expense Fund

The Expense Fund is the fund from which the expenses of the administration of the retirement system are paid. Any amounts credited to the accounts of members withdrawing before retirement and not returnable under the provisions of Sections 12-18-54 and 12-18-83 are credited to the Expense Fund. Additional contributions required to meet the expenses of the retirement system made by the employer are also credited to this fund. On September 30, 2013, the market value of assets credited to this fund amounted to \$1,857,890. These assets are not included in the valuation.

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

3. As of September 30, 2013, the total market value of assets exclusive of the Expense Fund amounted to \$254,502,415. The market related actuarial value of assets was \$243,321,741. Schedule B shows the development of the actuarial value of assets as of September 30, 2013.

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





#### **SECTION IV - COMMENTS ON VALUATION**

1. Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the Fund as of September 30, 2013.
2. The valuation balance sheet shows that the Fund has total accrued liabilities of \$414,199,859. Of this amount, \$270,430,097 is for the benefits payable on account of present retired members and beneficiaries of deceased members, \$11,422,696 is for the benefits payable on account of present inactive members and \$132,347,066 is for the benefits payable on account of present active members. Against these liabilities, the Fund has total present actuarial value of assets of \$243,321,741 as of September 30, 2013. The difference of \$170,884,363 between the total liabilities and the total present actuarial value of assets represents the present value of future actuarial accrued liability contributions to be made by the State.
3. The employer's regular contributions to the Fund consist of normal contributions, accrued liability contributions and contributions for administrative expenses. The valuation indicates that employer normal contributions at a rate of 13.41% of payroll are required to provide the benefits of the Fund.
4. The funding policy adopted by the Board, as shown in Schedule G, provides that the unfunded actuarial liability as of September 30, 2012 (Transitional UAAL) be amortized as a level percent 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 accrued liability contribution rate is 26.31% of payroll, determined in accordance with the Board's funding policy. The accrued liability contribution rate has been calculated on the assumption that the aggregate amount of accrued liability contribution will increase by 3.25% each year. Schedule H of this report shows the amortization schedules for the Transitional UAAL and the New Incremental UAAL as of September 30, 2013.



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

**TABLE 4**  
**TOTAL UAAL AND UAAL CONTRIBUTION RATE**

	<u>UAAL</u>	<u>Amortization Period</u>	<u>Amortization Payment</u>
Transitional	\$147,989,123	26	\$10,195,704
New Incremental 9/30/2013	<u>22,895,240</u>	30	<u>1,468,459</u>
Total	\$170,884,363		\$11,664,163
Estimated payroll			\$44,329,543
UAAL Contribution Rate			26.31%

7. An additional contribution of 1.26% of payroll is required to cover expenses of administering the Fund.

**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.
- On the basis of the actuarial valuation prepared as of September 30, 2013 it is recommended that the employer make contributions at the following rates beginning October 1, 2015:

**TABLE 5**  
**EMPLOYER REQUIRED CONTRIBUTION RATES  
AS A PERCENTAGE OF MEMBERS' COMPENSATION**

<b>EMPLOYER CONTRIBUTION</b>	<b>FISCAL YEAR ENDING SEPTEMBER 30, 2016</b>
Normal	13.41%
Accrued Liability	26.31
Administration	<u>1.26</u>
Total	40.98%



## SECTION VI – ANALYSIS OF FINANCIAL EXPERIENCE

The following table shows the estimated gain or loss from various factors that resulted in an increase of \$24,714,088 in the unfunded accrued liability from \$146,170,275 to \$170,884,363 during the year ending September 30, 2013.

### ANALYSIS OF FINANCIAL EXPERIENCE (in millions of dollars)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (8.50%) added to previous unfunded accrued liability	\$ 12.4
Accrued liability contribution*	(9.1)
Experience:	
Valuation asset growth	(1.7)
Pensioners' mortality	2.7
Turnover and retirements	1.7
New entrants	2.7
Salary increases	(6.3)
Method changes	0.0
Amendments	0.0
Interest Smoothing	21.7
Miscellaneous changes	0.6
Total	\$ 24.7

\*The accrued liability contribution is equal to the total contributions made to the Fund during the fiscal year less the total normal cost, as of September 30, 2012, adjusted for interest to the end of the year,  $((17.3 \text{ million} * 1.0425) - (8.2 \text{ million} * 1.085))$ .



**SECTION VII - ACCOUNTING INFORMATION**

1. Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statements of the Fund and the employer.

One such item is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ACTIVE AND RETIRED MEMBERS  
AS OF SEPTEMBER 30, 2013**

<b>GROUP</b>	<b>NUMBER</b>
Retirees and beneficiaries currently receiving benefits	375
Terminated employees entitled to benefits but not yet receiving benefits	54
Active members	<u>338</u>
Total	767

2. Another such item is the schedule of funding progress as shown below.

**SCHEDULE OF FUNDING PROGRESS**

<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets (a)</b>	<b>Actuarial Accrued Liability (AAL) (b)</b>	<b>Unfunded AAL (UAAL) (b - a)</b>	<b>Funded Ratio (a / b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll ((b - a) / c)</b>
9/30/2008	\$259,071,291	\$323,428,100	\$64,356,809	80.1%	\$41,167,248	156.3%
9/30/2009	252,645,569	340,978,434	88,332,865	74.1	43,234,239	204.3
9/30/2010	246,196,836	358,459,018	112,262,182	68.7	43,060,614	260.7
9/30/2011	235,869,760	393,634,917	157,765,157	59.9	41,826,338	377.2
9/30/2012	234,299,529	380,469,804	146,170,275	61.6	42,446,426	344.4
9/30/2013 <sup>1</sup>	243,321,741	414,199,859	170,884,363	58.7	41,887,006	408.0

<sup>1</sup>Reflects changes in methods.



3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at September 30, 2013. Additional information as of the latest actuarial valuation follows.

Valuation date	9/30/2013
Actuarial cost method	Entry Age Normal
Amortization method	Level percent closed
Single equivalent remaining amortization period	26.5 years
Asset valuation method	Five-year smoothed market value
Actuarial assumptions:	
Ultimate Investment Rate of return**	8.00%
Projected salary Increases**	4.00%
Cost-of-living adjustments	3.25% per year for certain members hired prior to July 30, 1979 and for spouses benefits subject to increase.
**Includes inflation at	3.00%

#### TREND INFORMATION

<u>Period Ending</u>	<u>Annual Pension Cost (APC)</u>	<u>Percentage Of APC Contributed</u>	<u>Net Pension Obligation (NPO)</u>
September 30, 2011	\$10,366,451	100%	\$0
September 30, 2012	10,327,367	100	0
September 30, 2013	13,363,322	100	0



**SCHEDULE A**

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

	<b>September 30, 2013</b>
1. Actuarial Accrued Liabilities	
(a) Present active members	
- Service pensions	\$ 124,205,565
- Disability pensions	1,768,686
- Death benefits*	2,730,443
- Termination benefits	<u>3,642,372</u>
- Total	\$ 132,347,066
(b) Present inactive members	\$ 11,422,696
(c) Present retired members and beneficiaries	
- Service retirements	\$ 235,967,928
- Disability retirements	3,062,232
- Beneficiaries of deceased members	<u>31,399,937</u>
- Total	270,430,097
(d) Total actuarial accrued liabilities ((a) + (b) + (c))	\$ 414,199,859
2. Actuarial Value of Assets	\$ 243,321,741
3. Unfunded Actuarial Accrued Liability (1(d) - 2)	\$ 170,884,363

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

**SOLVENCY TEST**

(\$1000's)

Valuation Date	Aggregate Accrued Liabilities For			Reported Assets	Portion of Accrued Liabilities Covered by Reported Asset		
	(1) Active Member Contributions	(2) Retirants and Beneficiaries	(3) Active Members (Employer Financed Portion)		(1)	(2)	(3)
9/30/2013 <sup>1</sup>	\$37,366	\$270,430	\$106,404	243,315	100%	76%	0.0%
9/30/2012 <sup>1</sup>	38,341	237,197	104,932	234,300	100	83	0.0
9/30/2011	32,898	250,731	110,006	235,870	100	81	0.0
9/30/2010	33,950	218,969	105,540	246,197	100	97	0.0
9/30/2009	32,533	215,730	92,715	252,646	100	100	4.7
9/30/2008	32,585	203,062	87,781	259,071	100	100	26.7

<sup>1</sup> Reflects changes in methods



**SCHEDULE B**

**DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**

(1)	Actuarial Value Beginning of Year	\$	234,299,529
(2)	Market Value End of Year		254,502,415
(3)	Market Value Beginning of Year		234,299,529
(4)	Cash Flow		
	a. Contributions		17,282,084
	b. Benefit Payments		(29,113,114)
	c. Refund to Members		(195,155)
	d. Transfer to Expense Fund – Interest Forfeitures		(16,820)
	e. Investment Expenses		0
	f. Net Cash Flow: (a + b + c + d + e)	\$	(12,043,005)
(5)	Actual Investment Return ((2) - (3) - (4)f)		32,245,891
(6)	Assumed Rate of Return on Assets		8.00%
(7)	Amount for Immediate Recognition [(3) * (6)] + [(4)a + (4)b + (4)c + (4)d) * 0.5 * (6)] + (4)e		18,270,048
(8)	Investment Gain/(Loss) for the Fiscal Year ((5) - (7))		13,975,843
(9)	Phased-In Recognition of Investment Gain/(Loss)		
	a. Current Year: 0.2 * (5)d		2,795,169
	b. First Prior Year		0
	c. Second Prior Year		0
	d. Third Prior Year		0
	e. Fourth Prior Year		0
	f. Total Recognized Investment Gain	\$	2,795,169
(10)	Actuarial Value End of Year (1) + (4)f + (7) + (9)f	\$	243,321,741



**SCHEDULE C**

**SUMMARY OF RECEIPTS AND DISBURSEMENTS  
FOR THE PERIOD ENDING SEPTEMBER 30, 2013**

<u>Receipts for the Period</u>	
Contributions:	
Members	\$ 3,918,762
Employer	<u>13,363,322</u>
Total	\$ 17,282,084
Investment Income	<u>32,245,891</u>
TOTAL	\$ 49,527,975
<u>Disbursements for the Period</u>	
Benefit Payments	\$ 29,113,114
Refunds to Members	195,155
Transfer to Expense Fund	<u>16,820</u>
TOTAL	\$ <u>29,325,089</u>
<u>Excess of Receipts over Disbursements</u>	\$ 20,202,886
<u>Reconciliation of Asset Balances</u>	
Market Value of Assets as of September 30, 2012	\$ 234,299,529
Excess of Receipts over Disbursements	<u>20,202,886</u>
Market Value of Assets as of September 30, 2013	\$ <u>254,502,415</u>





**SCHEDULE D**

**SMOOTHED INTEREST RATE**

**Actual Rate of Return for 5 Year Look Back Period**

<b>Fiscal Year Ending 9/30</b>	<b>Actual Rate of Return for Fiscal Year</b>
2009	0.69
2010	10.73
2011	0.45
2012	19.01
2013	14.05

**SMOOTHED INTEREST RATE:** The assumed rate of return during the 25 year look forward period beginning on the valuation date. This is the investment rate of return expected to be earned during this period based on the actual rates earned during the five year look back period shown above such that the average rate of return over the combined 30 year period is equivalent to the ultimate investment rate of return (currently 8.00%). On this basis, for the September 30, 2012 valuation, the smoothed interest rate during the 25 year look forward period has been determined to be 7.85%.

**ULTIMATE INVESTMENT RATE OF RETURN:** The assumed investment rate of return used in determining the smoothed interest rate described above. This is also the assumed investment rate of return after the 25 year look forward period and is currently 8.00%.

**CORRIDOR AROUND SMOOTHED INTEREST RATE:** A corridor of 0.50% around the ultimate investment rate of return is applied in determining the smoothed interest rate.

**LIMITED SMOOTHED INTEREST RATE:** The assumed rate of return during the 25 year look forward period as limited based on the application of the corridor above and used for valuation purposes. Since the smoothed interest rate above is 7.85%, the assumed rate for the first 25 years after the valuation date is not limited by the corridor.



**SCHEDULE E**

**OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS**

The assumptions and methods used in the valuation are based on the actuarial experience study prepared as of September 30, 2010 and adopted by the Board on January 27, 2012.

**Ultimate Investment Rate of Return:** 8% per annum, compounded annually, including inflation at 3%.

**Salary Increases:** 4% per annum, compounded annually, including wage inflation at 3.25%.

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

<u>Age</u>	<u>Annual Rate of</u>			
	<u>Withdrawal</u>	<u>Death*</u>		<u>Disability**</u>
		<u>Male</u>	<u>Female</u>	
30	2.5%	0.0309%	0.0185%	0.040%
35	2.5	0.0538	0.0305	0.080
40	2.5	0.0717	0.0432	0.135
45	2.5	0.0929	0.0672	0.215
50	2.5	0.1221	0.1002	0.325
55	2.5	0.2038	0.1917	0.500
60	2.5	0.3973	0.3775	0.790
64	2.5	0.6847	0.6302	1.140

\* Rates of pre-retirement mortality are according to the sex distinct RP-2000 Combined Mortality Table Projected with Scale AA to 2015 set forward one year for females with an adjustment of factor of 0.75% for males and 0.70% for females.

\*\*Disability rates turn off at retirement eligibility.

**Rates of Retirement:** Before age 70, 30% of members are assumed to retire in the year when first eligible and 10% in each year thereafter. 50% 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.

**Deaths After Retirement:** Rates of mortality for the period after service retirement are according to the RP-2000 Mortality Table with projection scale AA to 2015 set forward one year for females. The RP-2000 Disabled Mortality Table adjusted for males by a factor of 0.85 is used for the period after disability retirement. Representative values of assumed mortality are as follows:

<u>Age</u>	<u>Service Retirement</u>		<u>Disability Retirement</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
55	0.2718%	0.2739%	3.0126%	1.6544%
60	0.5297	0.5393	3.5736	2.1839
65	1.0309	1.0161	4.2648	2.8026
70	1.7702	1.7233	5.3196	3.7635
75	3.0622	2.7451	6.9757	5.2230
80	5.5360	4.5702	9.2966	7.2312
85	9.9680	7.8920	12.0363	10.0203
90	17.2706	13.8232	15.5897	14.0049



**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.

**Assets:** Actuarial Value as developed in Schedule B. The actuarial value of assets recognizes 20% of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return.

**Liability for Current Inactive Members:** Member Contribution Balance is multiplied by a factor of 3.0.

**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 3.25% per year. The members' actual salaries at retirement are assumed to be equal to the salary prescribed by law for their position.

For district judges, a factor of 1.5% is applied to the liability for prospective spouses benefits to account for salary increases expected to occur between the member's retirement and death.

**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.

**Valuation Interest Rate Smoothing:** The valuation liabilities are calculated using a smoothed interest rate method. The interest rate assumed during the look forward period (currently 25 years from the valuation date) is the investment rate of return expected to be earned during the look forward period based on the actual rate of return earned during the look back period (currently 5 years) such that the average assumed rate of return over the combined 30 year period is equivalent to the assumed ultimate investment rate of return (currently 8.00%). The interest rate after the 25 year look forward period is the ultimate investment rate of return of 8.00%.

**Corridor Limit on Interest Smoothing:** The smoothed interest rate used during the 25 year look forward period is limited to a corridor of 0.50% around the ultimate investment rate of return.



## **SCHEDULE F**

### **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 Schedules D and E 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 System on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the System are determined following a level funding approach, and consist of a normal contribution and an 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 System.



## **SCHEDULE G**

### **FUNDING POLICY OF THE ERS BOARD OF CONTROL**

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 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.

### **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 H**

**AMORTIZATION OF UAAL**

**AMORTIZATION SCHEDULE FOR CLOSED BASES  
AS OF SEPTEMBER 30, 2012**

<u>Valuation Date</u>	<u>Balance of Transitional UAAL</u>	<u>Annual Amortization 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	11,222,442
9/30/2017	153,253,979	11,587,172
9/30/2018	153,927,126	11,963,755
9/30/2019	154,277,541	12,352,577
9/30/2020	154,267,167	12,754,036
9/30/2021	153,854,505	13,168,542
9/30/2022	152,994,324	13,596,519
9/30/2023	151,637,350	14,038,406
9/30/2024	149,729,932	14,494,655
9/30/2025	147,213,672	14,965,731
9/30/2026	144,025,035	15,452,117
9/30/2027	140,094,921	15,954,311
9/30/2028	135,348,204	16,472,826
9/30/2029	129,703,234	17,008,193
9/30/2030	123,071,300	17,560,959
9/30/2031	115,356,045	18,131,690
9/30/2032	106,452,838	18,720,970
9/30/2033	96,248,095	19,329,402
9/30/2034	84,618,541	19,957,607
9/30/2035	71,430,417	20,606,229
9/30/2036	56,538,621	21,275,932
9/30/2037	39,785,778	21,967,400
9/30/2038	21,001,241	22,681,340
9/30/2039	0	0



**SCHEDULE H**  
(Continued)

**AMORTIZATION SCHEDULE FOR CLOSED BASES  
AS OF SEPTEMBER 30, 2013**

<u>Valuation Date</u>	<u>Balance of New Incremental UAAL 9/30/2013</u>	<u>Annual Amortization 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	1,616,337
9/30/2017	24,223,375	1,668,868
9/30/2018	24,492,377	1,723,106
9/30/2019	24,728,660	1,779,107
9/30/2020	24,927,846	1,836,928
9/30/2021	25,085,145	1,896,629
9/30/2022	25,195,328	1,958,269
9/30/2023	25,252,685	2,021,913
9/30/2024	25,250,987	2,087,625
9/30/2025	25,183,441	2,155,473
9/30/2026	25,042,644	2,225,526
9/30/2027	24,820,529	2,297,855
9/30/2028	24,508,317	2,372,536
9/30/2029	24,096,446	2,449,643
9/30/2030	23,574,519	2,529,256
9/30/2031	22,931,224	2,611,457
9/30/2032	22,154,265	2,696,330
9/30/2033	21,230,277	2,783,960
9/30/2034	20,144,739	2,874,439
9/30/2035	18,881,879	2,967,858
9/30/2036	17,424,571	3,064,314
9/30/2037	15,754,223	3,163,904
9/30/2038	13,850,657	3,266,731
9/30/2039	11,691,979	3,372,899
9/30/2040	9,254,438	3,482,519
9/30/2041	6,512,275	3,595,700
9/30/2042	3,437,556	3,712,561
9/30/2043	0	0





## **SCHEDULE I**

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

The Judicial Retirement Fund was established September 18, 1973. The valuation took into account amendments to the Fund effective through the valuation date. 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. 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.

#### **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     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

Amount of Benefit

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.

*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.

Amount of Benefit

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.

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.



### *Spouse's Benefit*

**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** 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.

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.

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.

### *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** Prior to October 1, 2011, each member contributed 6.0% of salary.

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

Beginning October 1, 2012, each 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 System, 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.



**SCHEDULE J**

**SCHEDULE OF MEMBERSHIP DATA  
AS OF SEPTEMBER 30, 2013**

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

Attained Age	Completed Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	≥ 40	
Under 25 Avg. Pay											
25 to 29 Avg. Pay											
30 to 34 Avg. Pay	2 112,782	2 121,921	2 120,942								
35 to 39 Avg. Pay	4 108,189	7 121,430	3 110,705	1 105,014							
40 to 44 Avg. Pay	10 88,089	8 104,599	5 103,346	3 127,712	1 140,939						
45 to 49 Avg. Pay	9 99,107	10 116,747	17 102,566	7 117,702	3 140,838	4 130,919					
50 to 54 Avg. Pay	5 87,612	10 122,631	17 127,949	12 124,118	9 143,747	1 148,436	3 121,233				
55 to 59 Avg. Pay	7 95,153	10 116,725	12 120,439	23 125,708	11 106,536	11 154,369	9 142,522	1 71,883			
60 to 64 Avg. Pay	3 113,887	3 123,259	10 110,332	19 122,678	9 136,596	5 121,721	7 134,676	3 164,709	1 148,684		
65 to 69 Avg. Pay	4 109,069	5 70,046	9 103,122	11 131,269		11 129,888	2 149,935		2 147,946	1 146,574	
70 & up Avg. Pay		1 122,948	3 75,797	4 120,255				1 149,935	1 149,935		
Total Avg. Pay	44 98,028	56 113,118	78 111,712	80 124,358	33 129,044	32 137,736	21 137,571	5 143,189	4 148,628	1 146,574	

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

Average Age: 54.8

Average Years of Service: 11.6



**SCHEDULE J**  
(Continued)

**NUMBER OF SERVICE RETIREMENTS  
AND THEIR BENEFITS BY AGE**

<b>Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
Under 50	0	\$ 0	\$ 0
50-54	1	37,244	37,244
55-59	6	741,607	123,601
60-64	34	3,605,448	106,043
65-69	79	8,010,838	101,403
70-74	59	6,040,931	102,389
75-79	30	2,726,641	90,888
80-84	25	2,415,240	96,610
85-89	18	1,423,909	79,106
90-94	9	699,568	77,730
95 & Over	2	158,135	79,068
Total	263	\$ 25,859,561	\$ 98,325

Average Age: 72.2

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

<b>Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
Under 50	0	\$ 0	\$ 0
50-54	5	177,363	35,473
55-59	4	128,825	32,206
60-64	7	312,990	44,713
65-69	15	609,771	40,651
70-74	10	323,970	32,397
75-79	20	649,161	32,458
80-84	20	654,094	32,705
85-89	16	554,636	34,665
90-94	6	180,555	30,093
95 & Over	2	82,315	41,158
Total	105	\$ 3,673,680	\$ 34,987

Average Age: 75.7



**SCHEDULE J**  
(Continued)

**NUMBER OF DISABLED RETIREES  
AND THEIR BENEFITS BY AGE**

<b>Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
Under 50	0	\$ 0	\$ 0
50-54	0	0	0
55-59	1	94,674	94,674
60-64	0	0	0
65-69	2	130,082	65,041
70-74	1	56,311	56,311
75-79	3	93,737	31,246
80-84	0	0	0
85-89	0	0	0
90-94	0	0	0
95 & Over	0	0	0
Total	7	\$ 374,804	\$ 53,543

Average Age: 70.6