Arkansas Judicial Retirement System

GASB Statement Nos. 67 and 68 Accounting and Financial Reporting for Pensions

June 30, 2017

GRS Retirement Consulting

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November 13, 2017

Board of Trustees
Arkansas Judicial Retirement System
Little Rock, Arkansas

Ladies and Gentlemen:

This report provides information required by the Retirement System in connection with the Governmental Accounting Standards Board (GASB) Statement No. 67 "Financial Reporting for Pension Plans" and Governmental Accounting Standards Board (GASB) Statement No. 68 "Accounting and Financial Reporting for Pensions."

Our actuarial calculations for this report were prepared for the purpose of complying with the requirements of GASB Statement Nos. 67 and 68. These calculations have been made on a basis that is consistent with our understanding of these accounting standards.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement Nos. 67 and 68. The Net Pension Liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The Net Pension Liability is not an appropriate measure for assessing the need for or amount of future employer contributions. The calculation of the plan's liability for this report may not be applicable for funding purposes of the plan. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement Nos. 67 and 68 may produce significantly different results. This report may be provided to parties other than the System only in its entirety and only with the permission of the Retirement Board. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by Retirement System staff, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not audited.

This information is presented in draft form for review by the plan's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the plan's financial statements.

Please see the actuarial valuation report as of June 30, 2017 for additional discussions of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.

To the best of our knowledge, this report is complete, accurate, and in accordance with generally recognized actuarial methods. Mita D. Drazilov is a Member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinions herein. The signing individuals are independent of the plan sponsor.

Respectfully submitted,

Mita D. Drazilov, ASA, FCA, MAAA

David L. Hoffman

MDD/DLH:rmn

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SECTION A

EXECUTIVE SUMMARY

Executive Summary
as of June 30, 2017

Actuarial Valuation Date		June 30, 2017
Measurement Date of the Net Pension Liability		June 30, 2017
Employer's Fiscal Year Ending Date (Reporting Date)		June 30, 2017
Membership		
Number of		
- Retirees and Beneficiaries		147
- Inactive, Nonretired Members		5
- Active Members		140
- Total		292
Covered Payroll	$	22,917,870
Net Pension Liability		
Total Pension Liability	$	270,381,518
Plan Fiduciary Net Position		240,819,648
Net Pension Liability	$	29,561,870
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		89.07%
Net Pension Liability as a Percentage of Covered Payroll		128.99%
Development of the Single Discount Rate		
Single Discount Rate		5.75%
Long-Term Expected Rate of Investment Return		5.75%
Long-Term Municipal Bond Rate*		3.56%
Last year ending June 30 in the 2018 to 2117 projection period for which projected benefit payments are fully funded		2117
Total Pension Expense	$	19,200,125

Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	$ 1,869,013	$ 4,690,827
Changes in assumptions	5,156,438	-
Net difference between projected and actual earnings on pension plan investments	11,563,419	11,721,478
Total	**$ 18,588,870**	**$ 16,412,305**

**Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2017. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax-exempt securities.*

Discussion

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67 establishes standards of financial reporting for separately issued financial reports and specifies the required approach for measuring the pension liability. Similarly, GASB Statement No. 68 establishes standards for state and local government employers (as well as non-employer contributing entities) to account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information, such as notes regarding accounting policies and investments, is not included in this report and the Retirement System and/or plan sponsor will be responsible for preparing and disclosing that information to comply with these accounting standards.

Financial Statements

GASB Statement No. 68 requires state or local governments to recognize the net pension liability and the pension expense on their financial statements. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Paragraph 57 of GASB Statement No. 68 states, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to the Arkansas Judicial Retirement System subsequent to the measurement date of June 30, 2017.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the liability and investment experience.

Pension plans that prepare their own, stand-alone financial statements are required to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position in accordance with GASB Statement No. 67. The *statement of fiduciary net position* presents the assets and liabilities of the pension plan at the end of the pension plan's reporting period. The *statement of changes in fiduciary net position* presents the additions, such as contributions and investment income, and deductions, such as benefit payments and expenses, and net increase or decrease in the fiduciary net position.

Notes to Financial Statements

GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows and inflows of resources related to pensions.

GASB Statement Nos. 67 and 68 require the notes of the financial statements for the employers and pension plans, to include certain additional information. The list of disclosure items should include:

- a description of benefits provided by the plan;
- the type of employees and number of members covered by the pension plan;
- a description of the plan's funding policy, which includes member and employer contribution requirements;
- the pension plan's investment policies;
- the pension plan's fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability;
- the net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes;
- significant assumptions and methods used to calculate the total pension liability;
- inputs to the discount rates; and
- certain information about mortality assumptions and the dates of experience studies.

Retirement systems that issue stand-alone financial statements are required to disclose additional information in accordance with GASB Statement No. 67. This information includes:

- the composition of the pension plan's board and the authority under which benefit terms may be amended;
- a description of how fair value is determined;
- information regarding certain reserves and investments, which include concentrations of investments greater than or equal to 5%, receivables, and insurance contracts excluded from plan assets; and
- annual money-weighted rate of return.

Required Supplementary Information

GASB Statement No. 67 requires a 10-year fiscal history of:

- sources of changes in the net pension liability;
- information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll; and
- a comparison of the actual employer contributions to the actuarially determined contributions based on the plan's funding policy.

Timing of the Valuation

An actuarial valuation to determine the total pension liability is required to be performed at least every two years. The net pension liability and pension expense should be measured as of the pension plan's fiscal year end (measurement date) on a date that is within the employer's prior fiscal year. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of June 30, 2017 and a measurement date of June 30, 2017.

Single Discount Rate

Projected benefit payments are required to be discounted to their actuarial present values using a Single Discount Rate that reflects (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating (which is published by the Federal Reserve) as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 5.75%; the municipal bond rate is 3.56% (based on the weekly rate closest to but not later than the measurement date of the "20-Year Municipal GO AA Index" rate from Fidelity; and the resulting Single Discount Rate is 5.75%.

SECTION B

FINANCIAL STATEMENTS

Statement of Pension Expense Under GASB Statement No. 68
Fiscal Year Ended June 30, 2017

A. Expense

1. Service Cost	$ 7,221,153
2. Interest on the Total Pension Liability	16,121,127
3. Current-Period Benefit Changes	0
4. Employee Contributions (made negative for addition here)	(1,016,646)
5. Projected Earnings on Plan Investments (made negative for addition here)	(13,392,526)
6. Pension Plan Administrative Expense	168,701
7. Other Changes in Plan Fiduciary Net Position (made negative for addition here)	(45,832)
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	8,844,259
9. Recognition of Outflow (Inflow) of Resources due to Assets	1,299,889
10. Total Pension Expense	**$ 19,200,125**

Statement of Outflows and Inflows Arising from Current Reporting Period

Fiscal Year Ended June 30, 2017

A. Outflows (Inflows) of Resources due to Liabilities	
1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	$ (3,462,751)
2. Assumption Changes (gains) or losses	$ 2,369,244
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	3.3223
4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the difference between expected and actual experience of the Total Pension Liability	$ (1,042,275)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	$ 713,134
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities: 4. + 5.	$ (329,141)
7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the difference between expected and actual experience of the Total Pension Liability: 1. - 4.	$ (2,420,476)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes: 2. - 5.	$ 1,656,110
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities: 7. + 8.	$ (764,366)
B. Outflows (Inflows) of Resources due to Assets	
1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	$ (14,651,848)
2. Recognition period for Assets {in years}	5.0000
3. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Assets	$ (2,930,370)
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets: 1. - 3.	$ (11,721,478)

Statement of Outflows and Inflows Arising from Current and Prior Reporting Periods

Fiscal Year Ended June 30, 2017

A. Outflows and Inflows of Resources due to Liabilities and Assets to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Due to Liabilities	$ 11,343,381	$ 2,499,122	$ 8,844,259
2. Due to Assets	4,230,259	2,930,370	1,299,889
3. Total	**$ 15,573,640**	**$ 5,429,492**	**$ 10,144,148**

B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense

	Outflows of Resources	Inflows of Resources	Net Outflows of Resources
1. Differences between expected and actual experience	$ 3,700,280	$ 2,499,122	$ 1,201,158
2. Assumption Changes	7,643,101	-	7,643,101
3. Net Difference between projected and actual earnings on pension plan investments	4,230,259	2,930,370	1,299,889
4. Total	**$ 15,573,640**	**$ 5,429,492**	**$ 10,144,148**

C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net Deferred Outflows of Resources
1. Differences between expected and actual experience	$ 1,869,013	$ 4,690,827	$ (2,821,814)
2. Assumption Changes	5,156,438	-	5,156,438
3. Net Difference between projected and actual earnings on pension plan investments	11,563,419	11,721,478	(158,059)
4. Total	**$ 18,588,870**	**$ 16,412,305**	**$ 2,176,565**

D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

Year Ending June 30	Net Deferred Outflows of Resources
2018	$ 4,883,242
2019	157,245
2020	66,446
2021	(2,930,368)
2022	0
Thereafter	0
Total	**$ 2,176,565**

Statement of Fiduciary Net Position
as of June 30, 2017

To be provided by System

Assets	
Cash and Deposits	
Receivables	
Accounts Receivable - Sale of Investments	
Accrued Interest and Other Dividends	
Contributions	
Accounts Receivable - Other	
Total Receivables	
Investments	
Fixed Income	
Domestic Equities	
International Equities	
Real Estate	
Other	
Total Investments	
Total Assets	
Liabilities	
Payables	
Accounts Payable - Purchase of Investments	
Accrued Expenses	
Accounts Payable - Other	
Total Liabilities	
Net Position Restricted for Pensions	**$ 240,819,648**

Statement of Changes in Fiduciary Net Position for Year Ended June 30, 2017

Additions		
Contributions		
Employer	$	8,485,361
Employee		1,016,646
Other		45,832
Total Contributions	$	9,547,839
Investment Income		
Net Appreciation in Fair Value of Investments	$	29,157,400
Interest and Dividends		-
Less Investment Expense		(1,113,026)
Net Investment Income	$	28,044,374
Other	$	-
Total Additions	$	37,592,213
Deductions		
Benefit payments, including refunds of employee contributions	$	12,389,433
Pension Plan Administrative Expense		168,701
Other		-
Total Deductions	$	12,558,134
Net Increase in Net Position	$	25,034,079
Net Position Restricted for Pensions		
Beginning of Year	**$**	**215,785,569**
End of Year	**$**	**240,819,648**

SECTION C

REQUIRED SUPPLEMENTARY INFORMATION

Schedules of Required Supplementary Information
Schedule of Changes in Net Pension Liability and Related Ratios
Current Period
Fiscal Year Ended June 30, 2017

A. Total pension liability		
1. Service Cost	$	7,221,153
2. Interest on the Total Pension Liability		16,121,127
3. Changes of benefit terms		0
4. Difference between expected and actual experience of the Total Pension Liability		(3,462,751)
5. Changes of assumptions		2,369,244
6. Benefit payments, including refunds of employee contributions		(12,389,433)
7. Net change in total pension liability	$	9,859,340
8. Total pension liability – beginning		260,522,178
9. Total pension liability – ending	**$**	**270,381,518**
B. Plan fiduciary net position		
1. Contributions – employer	$	8,485,361
2. Contributions – employee		1,016,646
3. Net investment income		28,044,374
4. Benefit payments, including refunds of employee contributions		(12,389,433)
5. Pension Plan Administrative Expense		(168,701)
6. Other		45,832
7. Net change in plan fiduciary net position	$	25,034,079
8. Plan fiduciary net position – beginning		215,785,569
9. Plan fiduciary net position – ending	**$**	**240,819,648**
C. Net pension liability	**$**	**29,561,870**
D. Plan fiduciary net position as a percentage of the total pension liability		**89.07%**
E. Covered-employee payroll	**$**	**22,917,870**
F. Net pension liability as a percentage of covered-employee payroll		**128.99%**

Schedules of Required Supplementary Information
Schedule of Changes in Net Pension Liability and Related Ratios

Ultimately 10 Fiscal Years will be Displayed

Fiscal year ending June 30,	2017	2016	2015	2014
Total Pension Liability				
Service Cost	$ 7,221,153	$ 7,230,267	$ 5,342,168	$ 5,319,836
Interest on the Total Pension Liability	16,121,127	15,770,309	14,883,382	14,607,426
Benefit Changes	-	-	-	-
Difference between Expected and Actual Experience	(3,462,751)	(5,184,045)	12,969,853	(5,751,106)
Assumption Changes	2,369,244	-	24,290,229	-
Benefit Payments	(12,310,422)	(12,007,538)	(10,762,871)	(9,966,020)
Refunds	(79,011)	(800)	(14,320)	(18,836)
Net Change in Total Pension Liability	9,859,340	5,808,193	46,708,441	4,191,300
Total Pension Liability - Beginning	**$ 260,522,178**	**$ 254,713,985**	**$ 208,005,544**	**$ 203,814,244**
Total Pension Liability - Ending (a)	**$ 270,381,518**	**$ 260,522,178**	**$ 254,713,985**	**$ 208,005,544**
Plan Fiduciary Net Position				
Employer Contributions	$ 8,485,361	$ 5,561,289	$ 5,690,381	$ 6,117,327
Employee Contributions	1,016,646	1,011,372	946,149	925,324
Pension Plan Net Investment Income	28,044,374	(1,744,085)	9,971,823	29,793,113
Benefit Payments	(12,310,422)	(12,007,538)	(10,762,871)	(9,966,020)
Refunds	(79,011)	(800)	(14,320)	(18,836)
Pension Plan Administrative Expense	(168,701)	(158,420)	(137,951)	(130,529)
Other	45,832	-	-	-
Net Change in Plan Fiduciary Net Position	**$ 25,034,079**	**$ (7,338,182)**	**$ 5,693,211**	**$ 26,720,379**
Plan Fiduciary Net Position - Beginning	**$ 215,785,569**	**$ 223,123,751**	**$ 217,430,540**	**$ 190,710,161**
Plan Fiduciary Net Position - Ending (b)	**$ 240,819,648**	**$ 215,785,569**	**$ 223,123,751**	**$ 217,430,540**
Net Pension Liability - Ending (a) - (b)	**$ 29,561,870**	**$ 44,736,609**	**$ 31,590,234**	**$ (9,424,996)**
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	89.07 %	82.83 %	87.60 %	104.53 %
Covered-Employee Payroll	$ 22,917,870	$ 22,308,000	$ 22,308,000	$ 19,781,628
Net Pension Liability as a Percentage of Covered-Employee Payroll	128.99 %	200.54 %	141.61 %	(47.65)%

Notes to Schedule:

N/A

Schedules of Required Supplementary Information
Schedule of the Net Pension Liability

Ultimately 10 Fiscal Years will be Displayed

FY Ending June 30,	Total Pension Liability	Plan Net Position	Net Pension Liability	Plan Net Position as a % of Total Pension Liability	Covered Payroll	Net Pension Liability as a % of Covered Payroll
2014	$ 208,005,544	$ 217,430,540	$ (9,424,996)	104.53%	$ 19,781,628	(47.65)%
2015	254,713,985	223,123,751	31,590,234	87.60%	22,308,000	141.61%
2016	260,522,178	215,785,569	44,736,609	82.83%	22,308,000	200.54%
2017	270,381,518	240,819,648	29,561,870	89.07%	22,917,870	128.99%

Schedule of Contributions

Last 10 Fiscal Years

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Payroll*
2008	$ 5,144,958	$ 5,144,958	$ -	$ 18,074,314	29.36%
2009	4,466,571	4,466,571	-	18,874,986	24.20%
2010	4,667,612	4,667,612	-	18,629,861	24.59%
2011	5,220,623	5,220,623	-	19,337,991	27.43%
2012	5,465,079	5,465,079	-	19,201,734	29.08%
2013	5,672,291	5,672,291	-	19,585,755	29.93%
2014	6,117,327	6,117,327	-	19,781,628	31.46%
2015	5,690,381	5,690,381	-	22,308,000	29.12%
2016	5,561,289	5,561,289	-	22,308,000	25.09%
2017	8,485,361	8,485,361	-	22,917,870	37.99%

* *Actual contributions are based on covered payroll at the time of the contribution. This payroll is not reported to the actuary. The covered payroll shown on this page is the valuation payroll.*

Notes to Schedule of Contributions

Valuation Date:	June 30, 2015

Methods and Assumptions Used to Determine Contribution Rates for Fiscal Year Ending June 30, 2017:

Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed
Remaining Amortization Period	28 years
Asset Valuation Method	4-Year smoothed market; 25% corridor
Inflation	2.50% price inflation
Salary Increases	3.25%
Investment Rate of Return	6.25%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	RP-2000 mortality tables projected to 2020 using projection scale BB.

Other Information:

Notes	There were no benefit changes reflected in the June 30, 2015 valuation. The investment return assumption was reduced from 7.25% to 6.25% for the June 30, 2015 valuation. In addition, the wage inflation was reduced from 3.50% to 3.25%.

Schedule of Investment Returns Multiyear

To be provided by System

Last 10 Fiscal Years

FY Ending June 30,	Annual Return[1]
2008	
2009	
2010	
2011	
2012	
2013	
2014	
2015	
2016	
2017	

[1] *Annual money-weighted rate of return, net of investment expenses.*

SECTION D

NOTES TO FINANCIAL STATEMENTS

Long-Term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected price inflation. Best estimates of arithmetic real rates of return for the 10-year period from 2017 to 2026 were based upon capital market assumptions provided by plan's investment consultant(s). For each major asset class that is included in the pension plan's target asset allocation as of June 30, 2017, these best estimates are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Broad Domestic Equity	37%	6.05%
International Equity	15%	6.71%
Real Estate	8%	4.65%
Cash Equivalents	0%	0.02%
Domestic Fixed	40%	0.83%
Total	100%	
Total Real Rate of Return		3.95%
Plus: Price Inflation - Actuary's Assumption		2.50%
Less: Investment Expenses		0.00%
Net Expected Return		6.45%

Single Discount Rate

A single discount rate of 5.75% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 5.75%. The projection of cash flows used to determine this single discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 5.75%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher:

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

	1% Decrease 4.75%	Current Single Rate Assumption 5.75%	1% Increase 6.75%
Total Pension Liability (TPL)	$ 303,761,483	$ 270,381,518	$ 242,196,790
Net Position Restricted for Pensions	240,819,648	240,819,648	240,819,648
Net Pension Liability (NPL)	**$ 62,941,835**	**$ 29,561,870**	**$ 1,377,142**

Summary of Population Statistics
As of June 30, 2017

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	147
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	5
Active Plan Members	140
Total Plan Members	292

SECTION E

SUMMARY OF BENEFITS

Summary of Provisions Considered
(July 1, 2017)

Tier One	Tier Two
Description	
Elected or appointed prior to the effective date of Act 399 of 1999 and who do not elect to participate in Tier Two.	Elected or appointed after the effective date of Act 399 of 1999 or elected to participate in Tier Two.
Regular Retirement	
An active member may retire at age 65 with 10 or more years of credited service, or after 20 years of credited service regardless of age. Persons who become members after June 30, 1983 must also have at least 8 years of actual service as a justice of the Supreme Court, or as a judge of the Circuit or Chancery Courts or the Court of Appeals.	An active member or former member may retire at age 65 with 8 or more years of credited service, or after 20 years of credited service regardless of age.
Compulsory Retirement	
Any judge or justice who attains 70 years of age during a term of office to which he has been elected may complete the term without forfeiting rights to retirement benefits. Any judge or justice who is not eligible to retire at age 70 may continue to serve as judge until completion of the term in which there has accrued sufficient credited service to retire. Otherwise, judges or justices must retire by their 70th birthday or lose their retirement benefits.	Any judge or justice who attains 70 years of age during a term of office to which he has been elected may complete the term without forfeiting rights to retirement benefits. Any judge or justice who is not eligible to retire at age 70 may continue to serve as judge until completion of the term in which there has accrued sufficient credited service to retire. Otherwise, judges or justices must retire by their 70th birthday or lose their retirement benefits.
Final Salary	
The annual salary for the last judicial office held.	The annual salary for the last judicial office held.
Age & Service Annuity	
60% of the judge's final salary, for life. Each year of additional service after twenty (20) years of judicial service, the benefit shall be increased by two and one-half percent (2.5%) with a maximum benefit payable of seventy-five percent (75%) of the judge's final salary.	3.2% of the salary of the last judicial office held multiplied by the number of years of service not to exceed 80% of the salary of the last judicial office held.

Summary of Provisions Considered (Continued)

Tier One	Tier Two

Deferred Retirement

Tier One	Tier Two
An inactive member who has 14 or more years of credited service and left judicial service before attaining age 65 will be entitled to an age and service annuity beginning at age 65. Persons who become members after June 30, 1983 must also have at least 8 years of actual service as a justice of the Supreme Court, or as a judge of the Circuit or Chancery Courts or the Court of Appeals.	An inactive member who has 8 or more years of credited service and left judicial service before attaining age 65 will be entitled to an age and service annuity beginning at age 65.

Disability Retirement

Tier One	Tier Two
An active member with 3 or more consecutive years of credited service who becomes totally and permanently disabled may be retired and receive a disability annuity computed in the same manner as an age and service annuity. The 3 years of service is not required for persons who were members before July 1, 1983.	An active member with 3 or more consecutive years of credited service who becomes totally and permanently disabled may be retired and receive a disability annuity computed in the same manner as an age and service annuity, except that the benefit shall not be less than 25.6% of final salary.

Early Retirement

Tier One	Tier Two
A member who became a member before July 1, 1983 and who has 18 but less than 20 years credited service may retire, regardless of age, and receive an immediate annuity. The amount is the full age and service amount reduced proportionately for service less than 20 years. A member with 14 years of credited service may retire between ages 62 and 65 and receive an immediate annuity. The amount is the full age and service amount reduced 1/2 of 1% for each month that retirement age is younger than age 65. Persons who become members after June 30, 1983 must also have at least 8 years of actual service as a justice of the Supreme Court, or as a judge of the Circuit Court or Chancery Courts or the Court of Appeals.	A member with 8 years of credited service may retire between ages 62 and 65 and receive an immediate annuity. The amount is the full age and service amount reduced 1/2 of 1% for each month retirement age is younger than age 65.

Summary of Provisions Considered (Concluded)

Tier One	Tier Two

Survivor Benefits

Upon the death of a member with 3 or more years of service, before or after retirement, an annuity of 67% of the judge's benefit is payable to the following survivors (shared if there is more than one eligible survivor):

- A surviving spouse married to the judge more than 1 year at the time of death.
- A minor child of the judge.

The 3-year service requirement is not required of those who became members prior to July 1, 1983.

Upon the death of a member with 3 or more years of service, before or after retirement, an annuity of 67% of the judge's benefit, but not less than 17.152% of final salary, is payable to the following survivors (shared if there is more than one eligible survivor):

- A surviving spouse married to the judge more than 1 year at the time of death.
- A minor child of the judge.

The 3-year service requirement is not required of those who became members prior to July 1, 1983.

Increases After Retirement

For any person who was a member on or before June 30, 1983, the retirement benefits are increased or decreased from time to time as the salary for the particular judicial office is increased or decreased. For all judges or justices first elected after June 30, 1983, and who have received retirement benefits from the System for at least 12 full calendar months, the retirement benefits are increased each July 1st by 3%.

For all judges or justices who have received retirement benefits from the System for at least 12 full calendar months, the retirement benefits are increased each July 1st by 3%.

Member Contributions

Active members contribute 6% of their salaries. Members with 20 or more years of service and members age 65 or older with 10 or more years of service do not contribute to the Retirement System. At any time a member is accruing the additional 2.5% of final salary benefit, member contributions would be required. If a member leaves service before becoming eligible to retire, accumulated contributions may be refunded.

Active members contribute 5% of their salaries. Members with 25 or more years of service do not contribute to the Retirement System. If a member leaves service before becoming eligible to retire, accumulated contributions may be refunded.

SECTION F

ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

Summary of Assumptions Used for Arkansas Judicial Actuarial Valuations Assumptions Adopted by Board of Trustees After Consulting with the Actuary

The actuarial assumptions used in the valuation are shown in this Section. Assumptions were established based upon an Experience Study covering the period July 1, 2006 through June 30, 2011 (please see report dated April 30, 2012) and updated in conjunction with an Economic Assumption Review dated August 6, 2015. The actuarial assumptions represent estimates of future experience.

Economic Assumptions

The investment return rate used in making the valuation was 5.75% per year, compounded annually (net after investment expenses). The investment return assumption was revised for the June 30, 2017 valuation.

Pay increase assumptions for individual active members are shown on page 24. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.25% recognizes wage inflation. This wage inflation assumption consists of 2.50% for price inflation and 0.75% for real wage growth. The wage inflation assumption was revised for the June 30, 2017 valuation.

Total active member payroll is assumed to increase 3.25% a year, which is the portion of the individual pay increase assumptions recognizing inflation.

The number of active members is assumed to continue at the present number.

Non-Economic Assumptions

The mortality tables used to measure retired life mortality were the RP-2000 mortality tables projected to 2020 using projection scale BB. Related values are shown on page 26. The mortality rates used in evaluating disability allowances were the RP-2000 Combined Healthy mortality tables, set forward 10 years for males and set forward 10 years for females. Related values are shown on page 26. Based upon the experience observed in the most recent experience study for APERS, it appears that, at the time of the study, the current table provides for approximately 8 years of future mortality improvement. Adopted 2012.

(Concluded on the following page.)

Summary of Assumptions Used for Arkansas Judicial Actuarial Valuations Assumptions Adopted by Board of Trustees After Consulting with the Actuary (Concluded)

The probabilities of retirement for members eligible to retire are shown on page 25. Adopted 2012.

The probabilities of withdrawal from service, death-in-service and disability are shown for sample ages on page 24. Adopted 2012.

Normal Cost. Normal Cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an individual entry-age actuarial cost method having the following characteristics.

- The annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

The normal cost, the present value of future normal cost and the present value of benefits are based on the benefit levels available to each member. The accrued liability is the difference between the present value of benefits and the present value of future normal cost.

Funding value of assets (cash & investments) was determined by phasing-in differences between actual market return and the assumed rate of return over a four-year period.

The data about persons now covered and about present assets was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (MAAA).

Decrement and Pay Increase Assumptions
for Active Members
June 30, 2017

Sample Ages	Years of Service	Percent of Active Members Separating Within the Next Year					Pay Increase Assumptions for Individual Member		
		Male		Female			Merit &	Base	Increase
		Death	Disability	Death	Disability	Withdrawal	Seniority	(Economic)	Next Year
	0					6.00%			
	1					6.00%			
	2					6.00%			
	3					6.00%			
	4					6.00%			
30	5+	0.05%	0.04%	0.02%	0.05%	1.00%	0.00%	3.25%	3.25%
35		0.06%	0.04%	0.03%	0.05%	1.00%	0.00%	3.25%	3.25%
40		0.08%	0.10%	0.05%	0.18%	1.00%	0.00%	3.25%	3.25%
45		0.12%	0.13%	0.08%	0.20%	1.00%	0.00%	3.25%	3.25%
50		0.20%	0.25%	0.12%	0.28%	1.00%	0.00%	3.25%	3.25%
55		0.30%	0.45%	0.17%	0.38%	1.00%	0.00%	3.25%	3.25%
60		0.50%	0.71%	0.28%	0.51%	1.00%	0.00%	3.25%	3.25%
65		0.95%	0.83%	0.45%	0.62%	1.00%	0.00%	3.25%	3.25%

The pay increase assumptions are age based only, and not service based.

Probabilities of Retirement for Members Eligible to Retire
June 30, 2017

Retirement Ages	Percent of Eligible Active Members Electing Early Retirement Within Next Year
62	2%
63	2%
64	2%

Normal Retirement

1) For ages under 70, a 4% probability of retirement is used.
2) For ages 70 and over
    a. If the future year of consideration is an odd year, then a 4% probability of retirement is used.
    b. If the future year of consideration is an even year,
        i. For members under the age of 76, a 33% probability of retirement is used.
        ii. For members ages 76 or older, a 100% probability of retirement is used.

For Tier One, a member was assumed eligible to retire at age 50 with 20 years of service, or at age 65 with 10 years of service. A member was assumed eligible to retire early at age 62 with 14 years of service.

For Tier Two, a member was assumed eligible to retire at age 50 with 20 years of service, or at age 65 with 8 years of service. A member was assumed eligible to retire early at age 62 with 8 years of service.

Single Life Retirement Values
June 30, 2017

Attained Age in 2017	Percent Dying Next Year		Present Value of $1 Monthly for Life Increasing 3% Annually		Future Life Expectancy (Years)	
	Men	Women	Men	Women	Men	Women
50	0.4030%	0.2710%	$234.35	$244.59	34.48	37.09
55	0.5772%	0.3775%	216.15	227.11	29.73	32.15
60	0.8022%	0.5607%	195.65	207.08	25.18	27.39
65	1.1501%	0.8398%	172.90	184.57	20.86	22.85
70	1.7229%	1.3106%	148.05	159.50	16.78	18.51
75	2.7549%	2.1443%	121.61	132.56	13.00	14.48
80	4.6430%	3.6558%	95.06	105.11	9.64	10.86

Sample Attained Ages	$100 Benefit Increasing 3% Annually	Portion of Age 65 Lives in 2017 Still Alive	
		Men	Women
65	$100.00	100%	100%
70	115.93	93%	95%
75	134.39	85%	88%
80	155.80	73%	78%
85	180.61	56%	64%

Summary of Assumptions Used
June 30, 2017
Miscellaneous and Technical Assumptions

Marriage Assumption:	80% of males and 80% of females are assumed to be married for purposes of death-in-service benefits. 80% of members are assumed to be married at retirement. Male spouses are assumed to be six years older than female spouses for active member valuation purposes. Actual data is used for retired valuation purposes.
Pay Increase Timing:	Beginning of (Fiscal) year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and withdrawal do not operate during retirement eligibility.
Normal Form of Benefit:	The assumed normal form of benefit is the 67% joint and survivor benefit.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent-of-payroll shown in this report, and the actual payroll payable at the time contributions are made.
Tier 1 2.5% Benefit Multiplier Election:	For present value of future benefit purposes, it was assumed that all Tier 1 members will elect to accrue the additional 2.5% benefit multiplier (if they have not already done so). Member contribution rates are based upon those members that have elected to accrue the additional 2.5% benefit multiplier as of the valuation date.
Administrative Expenses:	The computed contribution rate was increased by 0.7% of payroll to fund for administrative expenses.
Additional Adjustments:	The actuarial accrued liabilities were increased by $3.6 million to reflect potential future salary/COLA increases in excess of the actuarial assumptions.

SECTION G

CALCULATION OF THE SINGLE DISCOUNT RATE

Calculation of the Single Discount Rate

GASB Statement No. 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk-free" rate is required, as described in the following paragraph.

The *Single Discount Rate* (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits) and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 5.75%; the municipal bond rate is 3.56%; and the resulting single discount rate is 5.75%.

The tables in this section provide background for the development of the single discount rate.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the Single Discount Rate (SDR). It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.

Single Discount Rate Development
Projection of Contributions

Year	Contributions from Current Employees	Normal Cost and Expense Contributions	UAL Contributions	Total Contributions
0				
1	$ 919,297	$ 6,170,313	$ 2,533,356	$ 9,622,966
2	883,383	5,948,877	2,732,025	9,564,285
3	834,166	5,732,224	2,834,888	9,401,278
4	770,152	5,464,454	2,511,595	8,746,201
5	715,341	5,178,408	2,582,982	8,476,731
6	659,017	4,909,985	2,656,949	8,225,951
7	605,301	4,623,190	2,743,300	7,971,791
8	513,174	4,360,465	2,832,457	7,706,096
9	478,911	4,022,002	2,924,512	7,425,425
10	447,975	3,742,600	3,019,559	7,210,134
11	372,940	3,493,911	3,117,694	6,984,546
12	339,894	3,264,679	3,219,020	6,823,592
13	288,067	3,042,246	3,323,638	6,653,951
14	262,926	2,836,442	3,431,656	6,531,024
15	218,270	2,639,427	3,543,185	6,400,882
16	206,808	2,435,100	231,254	2,873,163
17	174,899	2,240,402	238,770	2,654,071
18	147,494	2,111,482	246,530	2,505,506
19	131,641	1,964,074	254,543	2,350,257
20	126,867	1,826,641	262,815	2,216,323
21	96,376	1,706,620	-	1,802,997
22	82,261	1,553,408	-	1,635,669
23	69,474	1,393,099	-	1,462,573
24	65,591	1,262,561	-	1,328,152
25	1,539	1,187,298	-	1,188,837
26	-	1,053,423	-	1,053,423
27	-	912,732	-	912,732
28	-	765,589	-	765,589
29	-	613,152	-	613,152
30	-	516,578	-	516,578
31	-	416,369	-	416,369
32	-	332,233	-	332,233
33	-	244,921	-	244,921
34	-	193,053	-	193,053
35	-	139,313	-	139,313
36	-	107,002	-	107,002
37	-	73,510	-	73,510
38	-	56,350	-	56,350
39	-	38,611	-	38,611
40	-	19,600	-	19,600
41	-	-	-	-
42	-	-	-	-
43	-	-	-	-
44	-	-	-	-
45	-	-	-	-
46	-	-	-	-
47	-	-	-	-
48	-	-	-	-
49	-	-	-	-
50	-	-	-	-

Single Discount Rate Development
Projection of Plan Fiduciary Net Position

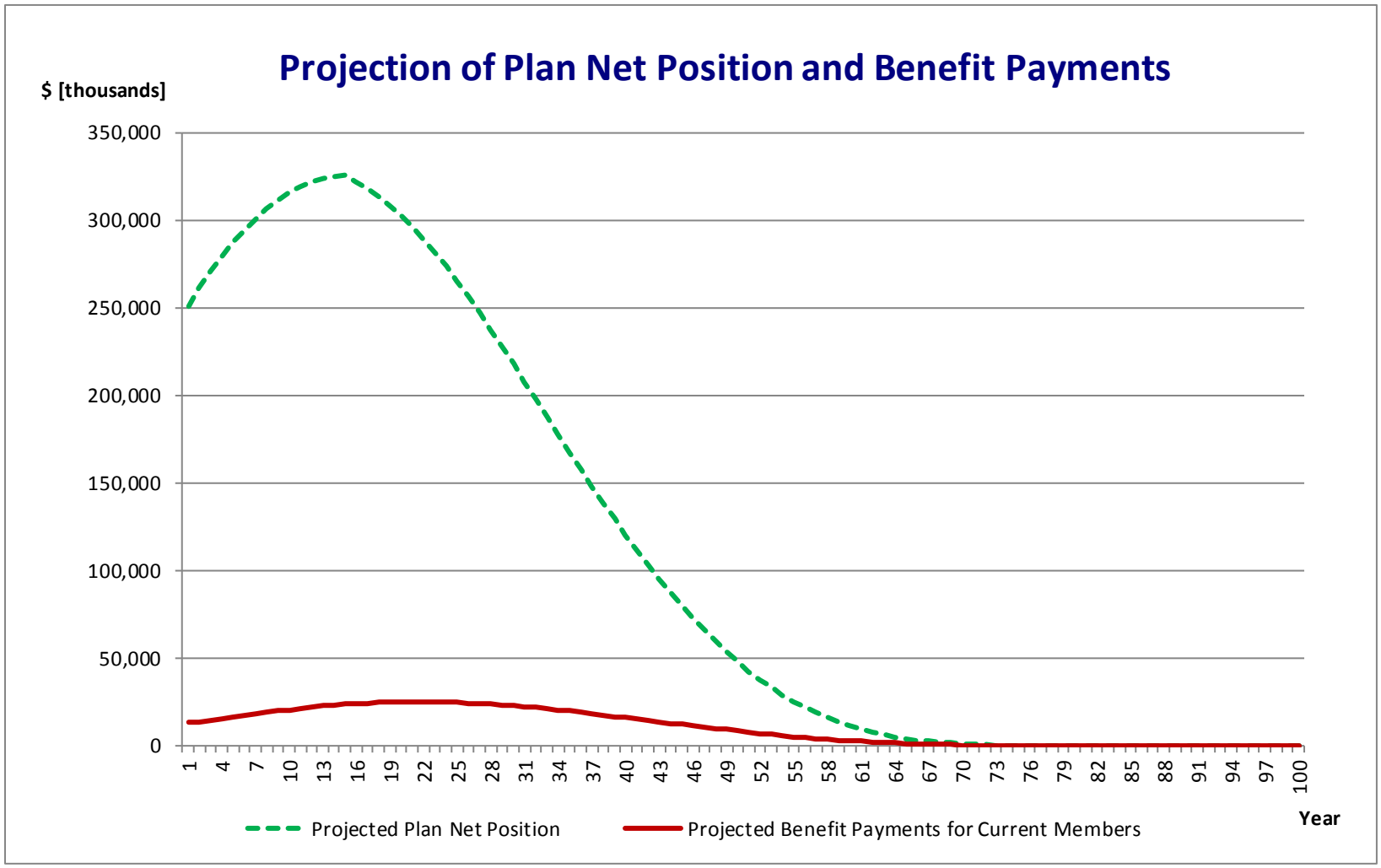
Year	Projected Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings at 5.75%	Projected Ending Plan Net Position
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	$ 240,819,648	$ 9,622,966	$ 13,112,964	$ 162,353	$ 13,743,592	$ 250,910,888
2	250,910,888	9,564,285	13,792,774	156,842	14,303,060	260,828,617
3	260,828,617	9,401,278	14,469,669	151,133	14,849,681	270,458,775
4	270,458,775	8,746,201	15,353,928	144,032	15,359,979	279,066,996
5	279,066,996	8,476,731	16,191,400	136,729	15,823,779	287,039,377
6	287,039,377	8,225,951	17,050,657	129,601	16,250,926	294,335,997
7	294,335,997	7,971,791	17,907,592	122,092	16,639,197	300,917,301
8	300,917,301	7,706,096	18,838,802	114,206	16,983,915	306,654,304
9	306,654,304	7,425,425	19,747,630	105,919	17,280,308	311,506,488
10	311,506,488	7,210,134	20,612,950	98,944	17,528,873	315,533,601
11	315,533,601	6,984,546	21,411,605	91,662	17,731,603	318,746,482
12	318,746,482	6,823,592	22,064,925	85,789	17,893,427	321,312,787
13	321,312,787	6,653,951	22,708,626	79,639	18,018,107	323,196,579
14	323,196,579	6,531,024	23,249,958	74,306	18,107,745	324,511,084
15	324,511,084	6,400,882	23,737,508	68,729	18,165,977	325,271,706
16	325,271,706	2,873,163	24,146,364	63,728	18,098,260	322,033,037
17	322,033,037	2,654,071	24,515,774	58,475	17,895,502	318,008,361
18	318,008,361	2,505,506	24,732,892	54,763	17,653,822	313,380,035
19	313,380,035	2,350,257	24,881,557	50,882	17,379,188	308,177,041
20	308,177,041	2,216,323	24,945,629	47,513	17,074,498	302,474,720
21	302,474,720	1,802,997	24,967,732	43,945	16,734,372	296,000,413
22	296,000,413	1,635,669	25,000,912	39,986	16,356,528	288,951,712
23	288,951,712	1,462,573	24,963,158	35,889	15,947,507	281,362,744
24	281,362,744	1,328,152	24,812,305	32,605	15,511,700	273,357,686
25	273,357,686	1,188,837	24,605,396	29,200	15,053,422	264,965,349
26	264,965,349	1,053,423	24,349,932	25,921	14,574,359	256,217,278
27	256,217,278	912,732	24,048,248	22,513	14,076,005	247,135,253
28	247,135,253	765,589	23,751,883	18,959	13,558,120	237,688,119
29	237,688,119	613,152	23,413,135	15,276	13,020,296	227,893,155
30	227,893,155	516,578	22,912,317	12,880	12,468,613	217,953,148
31	217,953,148	416,369	22,378,977	10,395	11,909,411	207,889,556
32	207,889,556	332,233	21,794,672	8,327	11,344,992	197,763,782
33	197,763,782	244,921	21,193,947	6,181	10,777,375	187,585,950
34	187,585,950	193,053	20,500,767	4,881	10,210,367	177,483,722
35	177,483,722	139,313	19,801,023	3,534	9,647,840	167,466,318
36	167,466,318	107,002	19,048,193	2,724	9,092,288	157,614,691
37	157,614,691	73,510	18,297,083	1,885	8,546,186	147,935,419
38	147,935,419	56,350	17,511,041	1,449	8,011,437	138,490,716
39	138,490,716	38,611	16,732,643	999	7,489,942	129,285,627
40	129,285,627	19,600	15,972,055	507	6,981,686	120,314,351
41	120,314,351	-	15,221,535	-	6,486,572	111,579,388
42	111,579,388	-	14,426,395	-	6,006,853	103,159,845
43	103,159,845	-	13,642,002	-	5,544,965	95,062,809
44	95,062,809	-	12,868,152	-	5,101,323	87,295,979
45	87,295,979	-	12,105,261	-	4,676,357	79,867,075
46	79,867,075	-	11,354,142	-	4,270,487	72,783,420
47	72,783,420	-	10,615,691	-	3,884,111	66,051,841
48	66,051,841	-	9,890,632	-	3,517,599	59,678,807
49	59,678,807	-	9,179,607	-	3,171,306	53,670,507
50	53,670,507	-	8,483,868	-	2,845,552	48,032,191

Single Discount Rate Development
Present Values of Projected Benefits

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
1	$ 240,819,648	$ 13,112,964	$ 13,112,964	$ -	$ 12,751,483	$ -	$ 12,751,483
2	250,910,888	13,792,774	13,792,774	-	12,683,264	-	12,683,264
3	260,828,617	14,469,669	14,469,669	-	12,582,231	-	12,582,231
4	270,458,775	15,353,928	15,353,928	-	12,625,197	-	12,625,197
5	279,066,996	16,191,400	16,191,400	-	12,589,912	-	12,589,912
6	287,039,377	17,050,657	17,050,657	-	12,537,156	-	12,537,156
7	294,335,997	17,907,592	17,907,592	-	12,451,301	-	12,451,301
8	300,917,301	18,838,802	18,838,802	-	12,386,553	-	12,386,553
9	306,654,304	19,747,630	19,747,630	-	12,278,118	-	12,278,118
10	311,506,488	20,612,950	20,612,950	-	12,119,273	-	12,119,273
11	315,533,601	21,411,605	21,411,605	-	11,904,339	-	11,904,339
12	318,746,482	22,064,925	22,064,925	-	11,600,538	-	11,600,538
13	321,312,787	22,708,626	22,708,626	-	11,289,798	-	11,289,798
14	323,196,579	23,249,958	23,249,958	-	10,930,426	-	10,930,426
15	324,511,084	23,737,508	23,737,508	-	10,552,848	-	10,552,848
16	325,271,706	24,146,364	24,146,364	-	10,150,932	-	10,150,932
17	322,033,037	24,515,774	24,515,774	-	9,745,843	-	9,745,843
18	318,008,361	24,732,892	24,732,892	-	9,297,546	-	9,297,546
19	313,380,035	24,881,557	24,881,557	-	8,844,852	-	8,844,852
20	308,177,041	24,945,629	24,945,629	-	8,385,465	-	8,385,465
21	302,474,720	24,967,732	24,967,732	-	7,936,543	-	7,936,543
22	296,000,413	25,000,912	25,000,912	-	7,514,979	-	7,514,979
23	288,951,712	24,963,158	24,963,158	-	7,095,632	-	7,095,632
24	281,362,744	24,812,305	24,812,305	-	6,669,270	-	6,669,270
25	273,357,686	24,605,396	24,605,396	-	6,254,047	-	6,254,047
26	264,965,349	24,349,932	24,349,932	-	5,852,591	-	5,852,591
27	256,217,278	24,048,248	24,048,248	-	5,465,797	-	5,465,797
28	247,135,253	23,751,883	23,751,883	-	5,104,906	-	5,104,906
29	237,688,119	23,413,135	23,413,135	-	4,758,487	-	4,758,487
30	227,893,155	22,912,317	22,912,317	-	4,403,499	-	4,403,499
31	217,953,148	22,378,977	22,378,977	-	4,067,137	-	4,067,137
32	207,889,556	21,794,672	21,794,672	-	3,745,575	-	3,745,575
33	197,763,782	21,193,947	21,193,947	-	3,444,289	-	3,444,289
34	187,585,950	20,500,767	20,500,767	-	3,150,486	-	3,150,486
35	177,483,722	19,801,023	19,801,023	-	2,877,495	-	2,877,495
36	167,466,318	19,048,193	19,048,193	-	2,617,583	-	2,617,583
37	157,614,691	18,297,083	18,297,083	-	2,377,651	-	2,377,651
38	147,935,419	17,511,041	17,511,041	-	2,151,780	-	2,151,780
39	138,490,716	16,732,643	16,732,643	-	1,944,330	-	1,944,330
40	129,285,627	15,972,055	15,972,055	-	1,755,036	-	1,755,036
41	120,314,351	15,221,535	15,221,535	-	1,581,624	-	1,581,624
42	111,579,388	14,426,395	14,426,395	-	1,417,497	-	1,417,497
43	103,159,845	13,642,002	13,642,002	-	1,267,541	-	1,267,541
44	95,062,809	12,868,152	12,868,152	-	1,130,628	-	1,130,628
45	87,295,979	12,105,261	12,105,261	-	1,005,767	-	1,005,767
46	79,867,075	11,354,142	11,354,142	-	892,066	-	892,066
47	72,783,420	10,615,691	10,615,691	-	788,698	-	788,698
48	66,051,841	9,890,632	9,890,632	-	694,874	-	694,874
49	59,678,807	9,179,607	9,179,607	-	609,854	-	609,854
50	53,670,507	8,483,868	8,483,868	-	532,985	-	532,985

Single Discount Rate Development
Present Values of Projected Benefits
(Concluded)

Year	Projected Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Benefit Payments	Unfunded Portion of Benefit Payments	Present Value of Funded Benefit Payments using Expected Return Rate (v)	Present Value of Unfunded Benefit Payments using Municipal Bond Rate (vf)	Present Value of Benefit Payments using Single Discount Rate (sdr)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*v^((a)-.5)	(g)=(e)*vf ^((a)-.5)	(h)=((c)/(1+sdr)^(a-.5)
51	$ 48,032,191	$ 7,805,511	$ 7,805,511	$ -	$ 463,706	$ -	$ 463,706
52	42,767,259	7,146,990	7,146,990	-	401,498	-	401,498
53	37,876,782	6,510,742	6,510,742	-	345,868	-	345,868
54	33,359,387	5,899,191	5,899,191	-	296,341	-	296,341
55	29,211,129	5,314,884	5,314,884	-	252,472	-	252,472
56	25,425,218	4,760,509	4,760,509	-	213,842	-	213,842
57	21,991,707	4,238,610	4,238,610	-	180,045	-	180,045
58	18,897,463	3,751,030	3,751,030	-	150,671	-	150,671
59	16,126,703	3,298,501	3,298,501	-	125,289	-	125,289
60	13,661,980	2,880,890	2,880,890	-	103,477	-	103,477
61	11,484,986	2,497,912	2,497,912	-	84,843	-	84,843
62	9,576,649	2,149,321	2,149,321	-	69,033	-	69,033
63	7,917,056	1,834,807	1,834,807	-	55,727	-	55,727
64	6,485,467	1,553,636	1,553,636	-	44,622	-	44,622
65	5,260,702	1,304,362	1,304,362	-	35,425	-	35,425
66	4,221,854	1,084,909	1,084,909	-	27,863	-	27,863
67	3,348,946	893,072	893,072	-	21,689	-	21,689
68	2,623,121	726,810	726,810	-	16,692	-	16,692
69	2,026,536	584,129	584,129	-	12,685	-	12,685
70	1,542,374	463,058	463,058	-	9,509	-	9,509
71	1,154,876	361,577	361,577	-	7,022	-	7,022
72	849,455	277,623	277,623	-	5,098	-	5,098
73	612,805	209,228	209,228	-	3,633	-	3,633
74	432,883	154,524	154,524	-	2,537	-	2,537
75	298,869	111,621	111,621	-	1,733	-	1,733
76	201,268	78,665	78,665	-	1,155	-	1,155
77	131,946	53,960	53,960	-	749	-	749
78	84,043	35,954	35,954	-	472	-	472
79	51,903	23,210	23,210	-	288	-	288
80	31,019	14,473	14,473	-	170	-	170
81	17,920	8,694	8,694	-	97	-	97
82	10,010	5,027	5,027	-	53	-	53
83	5,416	2,803	2,803	-	28	-	28
84	2,845	1,507	1,507	-	14	-	14
85	1,458	792	792	-	7	-	7
86	728	408	408	-	3	-	3
87	351	210	210	-	2	-	2
88	155	105	105	-	1	-	1
89	56	43	43	-	-	-	-
90	15	11	11	-	-	-	-
91	4	-	-	-	-	-	-
92	5	-	-	-	-	-	-
93	5	-	-	-	-	-	-
94	5	-	-	-	-	-	-
95	5	-	-	-	-	-	-
96	6	-	-	-	-	-	-
97	6	-	-	-	-	-	-
98	6	-	-	-	-	-	-
99	7	-	-	-	-	-	-
100	7	-	-	-	-	-	-
				Totals	**$ 329,750,084**	**$ -**	**$ 329,750,084**


Projection of Plan Net Position and Benefit Payments
$ [thousands]
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
1
4
7
10
13
16
19
22
25
28
31
34
37
40
43
46
49
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85
88
91
94
97
100
Year
Projected Plan Net Position
Projected Benefit Payments for Current Members

SECTION H

GLOSSARY OF TERMS

Glossary of Terms

Actuarial Accrued Liability (AAL)	The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.
Actuarial Gain (Loss)	The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.
Actuarial Present Value (APV)	The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.
Actuarial Valuation	The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.
Actuarial Valuation Date	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)	A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.

Glossary of Terms

Amortization Payment	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
Amortization Method	The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year).
Cost-of-Living Adjustments	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered-Employee Payroll	The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.
Deferred Retirement Option Program (DROP)	A program that permits a plan member to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The plan member continues to provide service to the employer and is paid for the service by the employer after the DROP entry date; however, the pensions that would have been paid to the plan member are credited to an individual member account within the defined benefit pension plan until the end of the DROP period. Other variations for DROP exist and will be more fully detailed in the plan provision section of the valuation report.
Deferred Inflows and Outflows	The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.
Discount Rate	For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically: 1. The benefit payments to be made while the pension plan's fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

Glossary of Terms

Entry Age Actuarial Cost Method (EAN)	The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit ages(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.
GASB	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
Fiduciary Net Position	The fiduciary net position is the value of the assets of the trust.
Long-Term Expected Rate of Return	The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.
Money-Weighted Rate of Return	The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 67, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.
Multiple-Employer Defined Benefit Pension Plan	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Municipal Bond Rate	The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.
Net Pension Liability (NPL)	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
Non-Employer Contribution Entities	Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting statement plan members are not considered non-employer contribution entities.
Normal Cost	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.

Glossary of Terms

Other Postemployment Benefits (OPEB)	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.
Real Rate of Return	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
Service Cost	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Expense	The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year: 1. Service Cost 2. Interest on the Total Pension Liability 3. Current-Period Benefit Changes 4. Employee Contributions (made negative for addition here) 5. Projected Earnings on Plan Investments (made negative for addition here) 6. Pension Plan Administrative Expense 7. Other Changes in Plan Fiduciary Net Position 8. Recognition of Outflow (Inflow) of Resources due to Liabilities 9. Recognition of Outflow (Inflow) of Resources due to Assets
Total Pension Liability (TPL)	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
Unfunded Actuarial Accrued Liability (UAAL)	The UAAL is the difference between actuarial accrued liability and valuation assets.
Valuation Assets	The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 67, the valuation asset is equal to the market value of assets.

GRS Retirement Consulting

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November 13, 2017

Ms. Gail H. Stone
Executive Director
Arkansas Judicial Retirement System
One Union National Plaza
124 West Capitol, Suite 400
Little Rock, Arkansas 72201

Dear Gail:

Please find enclosed fifteen copies of the June 30, 2017 GASB Statement Nos. 67 and 68 Accounting and Financial Reporting for Pensions report of the Arkansas Judicial Retirement System.

Sincerely,

Mita Drazilov

Mita D. Drazilov, ASA, FCA, MAAA

MDD:rmn
Enclosures

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