

**ARKANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM  
(INCLUDING DISTRICT JUDGES)**

**GASB STATEMENT NOS. 67 AND 68 ACCOUNTING AND  
FINANCIAL REPORTING FOR PENSIONS**

**JUNE 30, 2015**

November 10, 2015

The Board of Trustees  
Arkansas Public Employees Retirement System  
Little Rock, Arkansas

Ladies and Gentlemen:

This report provides information required by the Arkansas Public Employees Retirement System (APERS) 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. In accordance with the auditor's request, these calculations are made for all members of APERS (including all District Judges) as if APERS is one cost-sharing plan.

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 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 System only in its entirety and only with the permission of the Retirement Board.

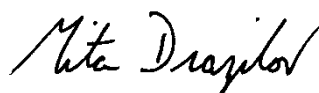
This report is based upon information, furnished to us by Retirement System staff, concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different, please let us know. This information was checked for internal consistency, but it was not otherwise 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, 2015 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 (MAAA) 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, MAAA



David L. Hoffman

MDD/DLH:dks:sc

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**SECTION A**  
EXECUTIVE SUMMARY

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## EXECUTIVE SUMMARY AS OF JUNE 30, 2015

Actuarial Valuation Date	June 30, 2015
Measurement Date of the Net Pension Liability and Pension Expense	June 30, 2015

### Membership

Number of	
- Retirees and Beneficiaries	33,247
- Inactive, Nonretired Members	13,762
- Active Members	45,765
- Total	92,774
Covered Payroll	\$1,757,056,813

### Net Pension Liability

Total Pension Liability	\$9,391,975,712
Plan Fiduciary Net Position	7,550,242,341
Net Pension Liability	\$1,841,733,371
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	80.39%
Net Pension Liability as a Percentage of Covered Payroll	104.82%

### Development of the Single Discount Rate

Single Discount Rate	7.50%
Long-Term Expected Rate of Investment Return	7.50%
Long-Term Municipal Bond Rate*	3.80%
Last year ending June 30 in the 2016 to 2115 projection period for which projected benefit payments are fully funded	2115

**Total Pension Expense** \$ 218,477,138

### 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	\$ -	\$ 120,741,193
Changes in assumptions	271,800,634	-
Net difference between projected and actual earnings on pension plan investments	327,154,810	418,532,251
<b>Total</b>	<b>\$ 598,955,444</b>	<b>\$ 539,273,444</b>

\*Based on the Bond Buyer 20-Bond Index of general obligation municipal bonds as of June 26, 2015  
(i.e., the weekly rate closest to but not later than the Measurement Date).

## 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 Public Employees Retirement System subsequent to the measurement date of June 30, 2015.

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;
- annual money-weighted rate of return; and a description of the terms of the plan's deferred retirement option program (DROP) and the total DROP balance for those members currently participating in the DROP.

## 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, 2015 and a measurement date of June 30, 2015.

## 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 7.50%; the municipal bond rate is 3.80% (based on the weekly rate closest to but not later than the measurement date of the "state & local bonds" rate from Federal Reserve statistical release (H.15)); and the resulting Single Discount Rate is 7.50%.



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**SECTION B**

FINANCIAL STATEMENTS

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**PENSION EXPENSE UNDER GASB STATEMENT NO. 68**  
**FISCAL YEAR ENDED JUNE 30, 2015**

1. Service Cost	\$ 168,811,990
2. Interest on the Total Pension Liability	682,217,546
3. Current-Period Benefit Changes	0
4. Employee Contributions (made negative for addition here)	(50,750,458)
5. Projected Earnings on Plan Investments (made negative for addition here)	(577,873,211)
6. Pension Plan Administrative Expense	6,949,282
7. Other Changes in Plan Fiduciary Net Position	(6,745,403)
8. Recognition of Outflow (Inflow) of Resources due to Liabilities	53,589,439
9. Recognition of Outflow (Inflow) of Resources due to Assets	<u>(57,722,047)</u>
<b>10. Total Pension Expense</b>	<b>\$ 218,477,138</b>

**STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT  
REPORTING PERIOD  
FISCAL YEAR ENDED JUNE 30, 2015**

**A. Outflows (Inflows) of Resources due to Liabilities**

1. Difference between expected and actual experience of the Total Pension Liability (gains) or losses	\$(137,672,890)
2. Assumption Changes (gains) or losses	\$ 192,273,597
3. Recognition period for Liabilities: Average of the expected remaining service lives of all employees {in years}	4.5972
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	\$ (29,947,118)
5. Outflow (Inflow) of Resources to be recognized in the current pension expense for Assumption Changes	\$ 41,824,066
6. Outflow (Inflow) of Resources to be recognized in the current pension expense due to Liabilities: 4. + 5.	<u>\$ 11,876,948</u>
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.	\$(107,725,772)
8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for Assumption Changes: 2. - 5.	\$ 150,449,531
9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Liabilities: 7. + 8.	<u>\$ 42,723,759</u>

**B. Outflows (Inflows) of Resources due to Assets**

1. Net difference between projected and actual earnings on pension plan investments (gains) or losses	\$ 408,943,513
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	\$ 81,788,703
4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses due to Assets: 1. - 3.	\$ 327,154,810

**STATEMENT OF OUTFLOWS AND INFLOWS ARISING FROM CURRENT AND  
PRIOR REPORTING PERIODS  
FISCAL YEAR ENDED JUNE 30, 2015**

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

	<u>Outflows of Resources</u>	<u>Inflows of Resources</u>	<u>Net Outflows of Resources</u>
1. Due to Liabilities	\$ 88,547,885	\$ 34,958,446	\$ 53,589,439
2. Due to Assets	81,788,703	139,510,750	(57,722,047)
<b>3. Total</b>	<b>\$ 170,336,588</b>	<b>\$ 174,469,196</b>	<b>\$ (4,132,608)</b>

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

	<u>Outflows of Resources</u>	<u>Inflows of Resources</u>	<u>Net Outflows of Resources</u>
1. Differences between expected and actual experience	\$ -	\$ 34,958,446	\$ (34,958,446)
2. Assumption Changes	88,547,885	-	88,547,885
3. Net Difference between projected and actual earnings on pension plan investments	81,788,703	139,510,750	(57,722,048)
<b>4. Total</b>	<b>\$ 170,336,588</b>	<b>\$ 174,469,196</b>	<b>\$ (4,132,608)</b>

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

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>	<u>Net Deferred Outflows of Resources</u>
1. Differences between expected and actual experience	\$ -	\$ 120,741,193	\$ (120,741,193)
2. Assumption Changes	271,800,634	-	271,800,634
3. Net Difference between projected and actual earnings on pension plan investments	327,154,810	418,532,251	(91,377,441)
<b>4. Total</b>	<b>\$ 598,955,444</b>	<b>\$ 539,273,444</b>	<b>\$ 59,682,000</b>

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

<u>Year Ending June 30</u>	<u>Net Deferred Outflows of Resources</u>
2016	\$ (4,132,608)
2017	(4,132,608)
2018	(20,934,399)
2019	88,881,615
2020	0
Thereafter	0
<b>Total</b>	<b>\$ 59,682,000</b>

**STATEMENT OF FIDUCIARY NET POSITION  
AS OF JUNE 30, 2015**

**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	<u>\$</u>	<u>-</u>
Investments		
Fixed Income	\$	-
Domestic Equities		-
International Equities		-
Real Estate		-
Other		-
Total Investments	<u>\$</u>	<u>-</u>
<b>Total Assets</b>	<u>\$</u>	<u>-</u>

**Liabilities**

Payables		
Accounts Payable - Purchase of Investments	\$	-
Accrued Expenses		-
Accounts Payable - Other		-
Total Liabilities	<u>\$</u>	<u>-</u>

<b>Net Position Restricted for Pensions</b>	<u>\$ 7,550,242,341</u>
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**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR YEAR ENDED JUNE 30, 2015**

**Additions**

## Contributions

Employer	\$ 263,332,831
Employee	50,750,458
Other	7,100,197
<b>Total Contributions</b>	<u>\$ 321,183,486</u>

## Investment Income

Net Appreciation in Fair Value of Investments	\$ 198,096,795
Interest and Dividends	-
Less Investment Expense	(29,167,097)
<b>Net Investment Income</b>	<u>\$ 168,929,698</u>

## Other

<b>Total Additions</b>	<u>\$ 490,113,184</u>
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**Deductions**

Benefit Payments, Including Refunds of Employee Contributions	\$ 464,111,187
Pension Plan Administrative Expense	6,949,282
Other	354,794
<b>Total Deductions</b>	<u>\$ 471,415,263</u>

<b>Net Increase in Net Position</b>	\$ 18,697,921
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**Net Position Restricted for Pensions**

Beginning of Year	<u>\$ 7,531,544,420</u>
End of Year	<u><u>\$ 7,550,242,341</u></u>

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## **SECTION C**

### REQUIRED SUPPLEMENTARY INFORMATION

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**SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS**  
**CURRENT PERIOD**  
**FISCAL YEAR ENDED JUNE 30, 2015**

<b>A. Total pension liability</b>	
1. Service Cost	\$ 168,811,990
2. Interest on the Total Pension Liability	682,217,546
3. Changes of benefit terms	0
4. Difference between expected and actual experience of the Total Pension Liability	(137,672,890)
5. Changes of assumptions	192,273,597
6. Benefit payments, including refunds of employee contributions	<u>(464,111,187)</u>
7. Net change in total pension liability	\$ 441,519,056
8. Total pension liability – beginning	<u>8,950,456,656</u>
9. Total pension liability – ending	<u><u><b>\$ 9,391,975,712</b></u></u>
<b>B. Plan fiduciary net position</b>	
1. Contributions – employer	\$ 263,332,831
2. Contributions – employee	50,750,458
3. Net investment income	168,929,698
4. Benefit payments, including refunds of employee contributions	(464,111,187)
5. Pension Plan Administrative Expense	(6,949,282)
6. Other	<u>6,745,403</u>
7. Net change in plan fiduciary net position	\$ 18,697,921
8. Plan fiduciary net position – beginning	<u>7,531,544,420</u>
9. Plan fiduciary net position – ending	<u><u><b>\$ 7,550,242,341</b></u></u>
<b>C. Net pension liability</b>	<u><u><b>\$ 1,841,733,371</b></u></u>
<b>D. Plan fiduciary net position as a percentage of the total pension liability</b>	<b>80.39%</b>
<b>E. Covered-employee payroll</b>	<b>\$ 1,757,056,813</b>
<b>F. Net pension liability as a percentage of covered-employee payroll</b>	<b>104.82%</b>



**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,	<u>2015</u>	<u>2014</u>
<b>Total Pension Liability</b>		
Service Cost	\$ 168,811,990	\$ 160,924,334
Interest on the Total Pension Liability	682,217,546	658,535,986
Benefit Changes	-	-
Difference between Expected and Actual Experience	(137,672,890)	(23,038,076)
Assumption Changes	192,273,597	214,798,742
Benefit Payments	(451,912,791)	(414,548,645)
Refunds	(12,198,396)	(9,455,347)
<b>Net Change in Total Pension Liability</b>	441,519,056	587,216,994
<b>Total Pension Liability - Beginning</b>	<u>8,950,456,656</u>	<u>8,363,239,662</u>
<b>Total Pension Liability - Ending (a)</b>	<u><u>9,391,975,712</u></u>	<u><u>8,950,456,656</u></u>
<b>Plan Fiduciary Net Position</b>		
Employer Contributions	\$ 263,332,831	\$ 264,050,160
Employee Contributions	50,750,458	47,215,843
Pension Plan Net Investment Income	168,929,698	1,207,897,156
Benefit Payments	(451,912,791)	(414,548,645)
Refunds	(12,198,396)	(9,455,347)
Pension Plan Administrative Expense	(6,949,282)	(6,854,975)
Other	6,745,403	8,302,355
<b>Net Change in Plan Fiduciary Net Position</b>	18,697,921	1,096,606,547
<b>Plan Fiduciary Net Position - Beginning</b>	<u>7,531,544,420</u>	<u>6,434,937,873</u>
<b>Plan Fiduciary Net Position - Ending (b)</b>	<u><u>7,550,242,341</u></u>	<u><u>7,531,544,420</u></u>
<b>Net Pension Liability - Ending (a) - (b)</b>	1,841,733,371	1,418,912,236
<b>Plan Fiduciary Net Position as a Percentage of Total Pension Liability</b>	80.39 %	84.15 %
<b>Covered Employee Payroll</b>	\$1,757,056,813	\$1,748,350,136
<b>Net Pension Liability as a Percentage of Covered Employee Payroll</b>	104.82 %	81.16 %
<b>Notes to Schedule:</b>	N/A	N/A

**SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF THE NET PENSION LIABILITY**

**Ultimately 10 Fiscal Years will be Displayed**

<b>FY Ending June 30,</b>	<b>Total Pension Liability</b>	<b>Plan Net Position</b>	<b>Net Pension Liability</b>	<b>Plan Net Position as a % of Total Pension Liability</b>	<b>Covered Payroll</b>	<b>Net Pension Liability as a % of Covered Payroll</b>
2014	\$8,950,456,656	\$7,531,544,420	\$ 1,418,912,236	84.15%	\$1,748,350,136	81.16%
2015	9,391,975,712	7,550,242,341	1,841,733,371	80.39%	1,757,056,813	104.82%

**SCHEDULE OF CONTRIBUTIONS**  
**(\$ IN MILLIONS)**

<b>FY Ending June 30,</b>	<b>Actuarially Determined Contribution</b>	<b>Actual Contribution*</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll</b>	<b>Actual Contribution as a % of Covered Payroll</b>
2006	\$ 160.0	\$ 160.0	\$ -	\$ 1,270	12.60%
2007	165.0	165.0	-	1,306	12.63%
2008	175.0	175.0	-	1,384	12.65%
2009	160.8	160.8	-	1,437	11.19%
2010	171.5	171.5	-	1,527	11.24%
2011	197.6	197.6	-	1,626	12.15%
2012	231.4	231.4	-	1,689	13.70%
2013	251.4	251.4	-	1,696	14.82%
2014	264.1	264.1	-	1,748	15.11%
2015	263.3	263.3	-	1,757	14.98%

\* 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. Based upon the limitations of this schedule, the final column cannot be compared to the contribution rates actually charged to APERS participating employers.

## NOTES TO SCHEDULE OF CONTRIBUTIONS

<b>Valuation Date:</b>	June 30, 2015
<b>Methods and Assumptions Used to Determine Contribution Rates:</b>	
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Payroll, Closed (Level Dollar, Closed for District Judges New Plan and Paid Off Old Plan and District Judges Still Paying Old Plan)
Remaining Amortization Period	25 years (13 years for District Judges New Plan/Paid Off Old Plan and 20 years for District Judges Still Paying Old Plan)
Asset Valuation Method	4-Year smoothed market; 25% corridor (Market Value for Still Paying Old Plan)
Inflation	3.25% wage inflation, 2.50% price inflation
Salary Increases	3.25% to 9.85% including inflation (3.25% to 6.96% including inflation for District Judges)
Investment Rate of Return	7.50%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition.
Mortality	Based on RP-2000 Combined Healthy mortality table, projected to 2020 using Projection Scale BB, set-forward 2 years for males and 1 year for females.
<b>Other Information:</b>	
Notes	There were no benefit changes during the year.

**SCHEDULE OF INVESTMENT RETURNS MULTIYEAR****To be provided by System**

<b>FY Ending June 30,</b>	<b>Annual Return<sup>1</sup></b>
2006	
2007	
2008	
2009	
2010	
2011	
2012	
2013	
2014	
2015	

<sup>1</sup> Annual money-weighted rate of return, net of investment expenses.

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**SECTION D**

NOTES TO FINANCIAL STATEMENTS

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### 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 current asset allocation percentage and by adding expected price inflation. Best estimates of arithmetic real rates of return for the 10-year period from 2015 to 2024 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 current asset allocation as of June 30, 2015, these best estimates are summarized in the following table:

<u>Asset Class</u>	<u>Current Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
Broad Domestic Equity	42%	6.82%
International Equity	25%	6.88%
Real Assets	12%	3.07%
Absolute Return	5%	3.35%
Domestic Fixed	16%	0.83%
Total	<u>100%</u>	
Total Real Rate of Return		5.25%
Plus: Price Inflation - Actuary's Assumption		2.50%
Less: Investment Expenses (Passive)		<u>0.10%</u>
Net Expected Return		7.65%

### Single Discount Rate

A single discount rate of 7.50% 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 7.50%. 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 7.50%, 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

<b>1% Decrease</b>	<b>Current Single Rate Assumption</b>	<b>1% Increase</b>
<b>6.50%</b>	<b>7.50%</b>	<b>8.50%</b>
\$3,033,810,017	\$1,841,733,371	\$850,344,790



**Disclosure Regarding the Deferred Retirement Option Program**

**To Be Provided by the System**

**SUMMARY OF POPULATION STATISTICS**

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	33,247
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	13,762
Active Plan Members	<u>45,765</u>
Total Plan Members	92,774

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## **SECTION E**

### **SUMMARY OF BENEFITS**

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**SUMMARY OF PROVISIONS EVALUATED  
(EXCLUDES SPECIAL PROVISIONS FOR GENERAL ASSEMBLY)  
(LAST CHANGED AS OF 7/1/2009)**

The Old Contributory Plan is available to persons who became members of APERS before January 1, 1978. The Non-Contributory Plan applies to all persons first hired after January 1, 1978 and before July 1, 2005 in APERS-covered employment. The New Contributory Plan applies to all persons hired after July 1, 2005 in APERS-covered employment or Non-Contributory members who elected to participate in the New Contributory Plan.

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**New Contributory Plan**

**Non-Contributory Plan**

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**Voluntary Retirement**

With a full benefit, after either (a) age 65 with 5 years of service, or (b) 28 years of actual service, regardless of age. For sheriff and public safety members, the age 65 requirement is reduced 1 month for each 2 months of actual service, but not below age 55 (age 52 for sheriff members with a minimum of 10 years of actual service).

With a full benefit, after either (a) age 65 with 5 years of service, or (b) 28 years of actual service, regardless of age. For sheriff and public safety members, the age 65 requirement is reduced 1 month for each 2 months of actual service, but not below age 55 (age 52 for sheriff members with a minimum of 10 years of actual service).

With a reduced benefit, after age 55 with 5 years of service or any age with 25 years of service. The reduction is equal to  $\frac{1}{2}$  of 1% for each month retirement proceeds normal retirement age or 1% for each month below 28 years of actual service, whichever is less.

With a reduced benefit, after age 55 with 5 years of service or any age with 25 years of service. The reduction is equal to  $\frac{1}{2}$  of 1% for each month retirement proceeds normal retirement age or 1% for each month below 28 years of actual service, whichever is less.

**Final Average Compensation (FAC)**

Average of highest 36 calendar months of covered compensation.

Average of highest 36 calendar months of covered compensation.

**Full Age & Service Retirement Benefit**

2.00% of FAC times years of service (2.03% for service prior to July 1, 2007), plus .5% of FAC times years of service over 28 years for service after July 1, 2009. The minimum monthly benefit is \$150 minus any age and beneficiary option reductions.

1.72% of FAC times years and months of credited service (1.75% for service prior to July 1, 2007), plus .5% of FAC times years of service over 28 years for service after July 1, 2009. If retirement is prior to age 62, an additional .33% of FAC times years of service will be paid until age 62. The portion of the APERS benefit based on service before 1978 cannot be less than the amount provided by contributory provisions in effect at the time of retirement. The minimum monthly benefit is \$150 minus any age and beneficiary option reductions.

## SUMMARY OF PROVISIONS EVALUATED

### New Contributory Plan

### Non-Contributory Plan

#### Benefit Increases After Retirement

Annually, there will be a cost-of-living adjustment equal to 3% of the current benefit.

Annually, there will be a cost-of-living adjustment equal to 3% of the current benefit.

#### Member Contribution Rates

5% of covered compensation (pre-tax). Member contributions are refundable if APERS-covered employment terminates before a monthly benefit is payable. Members will earn interest on the contributions at a rate of 4% annually.

No employee contributions for service after January 1, 1978. If there is service before January 1, 1978, contributions for that period are refundable later in the same manner as under the Contributory Plan.

#### Vested Retirement Benefits

5 years service, and leaving APERS-covered employment before full retirement age. Deferred full retirement benefit, based on service and pay at termination, begins at age 65. A death benefit is payable to surviving spouse of member who dies before benefit commencement.

5 years service and leaving APERS-covered employment before full retirement age. Deferred full retirement benefit, based on service and pay at termination, begins at age 65. A death benefit is payable to surviving spouse of member who dies before benefit commencement.

In place of deferred full benefit, at age 55 or older a qualifying member can elect an immediate reduced benefit.

In place of deferred full benefit, at age 55 or older a qualifying member can elect an immediate reduced benefit.

#### Total and Permanent Disability

Disabled after 5 years of service, including credit for 18 of the 24 months preceding disability.

Disabled after 5 years of service, including credit for 18 of the 24 months preceding disability.

Amount is computed as an age & service benefit, based on service and pay at disability.

Amount is computed as an age & service benefit, based on service and compensation at disability.

## SUMMARY OF PROVISIONS EVALUATED

### New Contributory Plan

### Non-Contributory Plan

#### Death After Retirement

If death occurs before total monthly benefit payments equal member's accumulated contributions, the difference is refunded.

Member contributions before 1978 are protected in the same manner as under the Contributory Plan.

A retiring member can also elect an optional form of benefit, which provides beneficiary protection paid for by reducing the retired member's benefit amount. Should the member elect a straight life benefit and die within 12 months of the date of retirement, a benefit may be payable to the surviving spouse under certain conditions.

A retiring member can also elect an optional form of benefit, which provides beneficiary protection paid for by reducing the retired member's benefit amount. Should the member elect a straight life benefit and die within 12 months of the date of retirement, a benefit may be payable to the surviving spouse under certain conditions.

#### Death While in APERS-Covered Employment

Member's accumulated contributions are refundable

Member's accumulated contributions before 1978 are refundable.

If the member had 5 years service, monthly benefits are payable instead. Surviving spouse receives a benefit computed as if member had retired and elected the Joint & 75% Survivor Option. Payment begins immediately.

If the member had 5 years service, monthly benefits are payable instead. Surviving spouse receives a benefit computed as if member had retired and elected the Joint & 75% Survivor Option. Payment begins immediately.

Each dependent child receives benefit of 10% of compensation (maximum of 25% for all children).

Each dependent child receives benefit of 10% of compensation (maximum of 25% for all children).

Dependent parents benefits are payable if neither spouse nor children's benefits are payable.

Dependent parents benefits are payable if neither spouse nor children's benefits are payable.

## SUMMARY OF PROVISIONS EVALUATED CREDITED SERVICE

Membership Group	Service Credits
Public Safety Members (including State Capitol Police and Wildlife Sub-Division members) hired before July 1, 1997	1-1/2 times regular rate with 5 years actual service required to meet benefit eligibility rules.
Governor (hired before July 1, 1999)	3 times regular rate with 5 years actual service required to meet death-in-service eligibility and 4 years actual service required for other benefit eligibility.
Elected State Constitutional Officers (hired before July 1, 1999)	2-1/2 times regular rate with 5 years actual service required to meet benefit eligibility.
General Assembly	Regular crediting rate with 5 years of actual service required to meet death-in-service eligibility and 10 years of actual service required for other benefit eligibility.
Other Elected Public Officials (municipal and county officials)	2 times regular rate with 5 years actual service required to meet benefit eligibility.
All Other Members	Regular rate.

### **ARKANSAS PUBLIC EMPLOYEES DEFERRED RETIREMENT OPTION PLAN**

Members with 28 years of actual service in APERS or in combination with a reciprocal system are eligible to participate.

Members, for a maximum of 7 years, may continue employment and have 75% of their accrued benefit (at date of participation with 30 or more years of service) paid into the Deferred Retirement Option Plan in lieu of any further benefit accruals.

The payments into the Deferred Retirement Option Plan accumulate with interest at a rate established by the Board. The interest is paid on the mean balance and is paid to the member at termination of active membership in either a lump sum or as an annuity.

Employer contributions continue for members participating in the DROP.

**SUMMARY OF PROVISIONS EVALUATED  
GENERAL ASSEMBLY DIVISION  
ADDITIONAL BENEFIT PROVISIONS**

**VOLUNTARY RETIREMENT ELIGIBILITY**

Age 65 with 10 or more years of credited service, 28 years of actual service regardless of age, or age 55 with 12 or more years of actual service, 10 of which must be as a member of the General Assembly. In addition, a member of the General Assembly who was a member of the General Assembly on July 1, 1979, or holding any other Arkansas elective office on July 1, 1979, is eligible to retire with 17.5 years of actual service regardless of age.

**VESTING**

Termination of employment prior to normal retirement age after completing 10 or more years of credited service.

**RETIREMENT BENEFIT**

\$35.00 per month times years of General Assembly service. The amount is \$40.00 per month per year of service for any member who served as Speaker of the House of Representatives or President Pro Tempore of the Senate.

**DISABILITY**

Eligibility: 10 years of credited service.

Amount: Accrued retirement benefit.

**DEATH-IN-SERVICE**

Eligibility: 5 years of service.

Amount - Less than 10 years in General Assembly: Same as for regular members.

Amount - 10 or more years in General Assembly: 100% of the benefit the member would have been entitled to had he or she been at retirement age payable to an eligible surviving spouse.

**DEATH-AFTER-RETIREMENT**

100% of the benefit the member was receiving payable to an eligible surviving spouse.

**PARTICIPATION**

A member of the General Assembly may, at any time, elect either (i) to be covered by regular benefit provisions, or (ii) to discontinue an APERS membership.



## **DISTRICT JUDGES SUMMARY OF PROVISIONS EVALUATED**

<b>VOLUNTARY RETIREMENT</b>	With a full benefit, after either (a) age 50 with 20 years of eligibility service, (b) age 60 with 16 years of eligibility service, or (c) age 65 with 8 years of eligibility service.
<b>FINAL AVERAGE COMPENSATION (FAC)</b>	Average of the final three calendar years of employment.
<b>BENEFIT SERVICE</b>	Service performed on or after January 1, 2005.
<b>ELIGIBILITY SERVICE</b>	Benefit service plus service in Old Local District Judges Plan.
<b>FULL AGE &amp; SERVICE RETIREMENT BENEFIT</b>	2.50% of FAC times actual service.
<b>BENEFIT INCREASES AFTER RETIREMENT</b>	Annually, there will be a cost-of-living adjustment equal to 3% of the current benefit.
<b>MEMBER CONTRIBUTION RATES</b>	Active members contribute 5% of their salaries. If a member leaves service before becoming eligible to retire, accumulated contributions may be refunded.
<b>VESTED RETIREMENT BENEFITS</b>	8 years of eligibility service. Deferred full retirement benefit, based on benefit service and pay at termination, begins when member would have been eligible for voluntary retirement.
<b>TOTAL AND PERMANENT DISABILITY</b>	An active member with 3 or more consecutive years of eligibility 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.
<b>DEATH AFTER RETIREMENT</b>	If the member was eligible for normal retirement at the time of death, an eligible beneficiary will begin receiving a 50% joint and survivor pension computed in the same manner as a service retirement pension as if the member had retired the last day of his life.

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## **SECTION F**

### **ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS**

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**SUMMARY OF ASSUMPTIONS USED FOR  
APERS ACTUARIAL VALUATIONS  
ASSUMPTIONS ADOPTED BY BOARD OF TRUSTEES  
AFTER CONSULTING WITH ACTUARY**

In accordance with Section 24-4-105 of the Arkansas Code, the Board of Trustees adopts the actuarial assumptions used for actuarial valuation purposes.

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, 2007 through June 30, 2012 (please see report dated February 13, 2013). Economic assumptions have been subsequently updated based on the Experience Study and the results of the Economic Assumption Review performed for the Arkansas Judicial Retirement System (please see our report dated August 6, 2015). The actuarial assumptions represent estimates of future experience.

***ECONOMIC ASSUMPTIONS***

***The investment return rate*** used in making the valuation was 7.50% per year, compounded annually (net after investment and administrative expenses). This rate of return is not the assumed real rate of return. The real rate of return is the portion of investment return which is more than the wage inflation rate. Considering the assumed wage inflation rate of 3.25%, the 7.50% investment return rate translates to an assumed net real rate of return of 4.25%. This assumption was first used for the June 30, 2015 valuation and for the District Judges division for the June 30, 2015 valuation.

***Pay increase assumptions*** for individual active members are shown on pages 33 and 35. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.25% recognizes wage inflation. The wage inflation assumption consists of 2.50% for price inflation and 0.75% for real wage growth. These assumptions were first used for the June 30, 2015 valuation and for the District Judges division for the June 30, 2015 valuation.

***Total active member payroll*** is assumed to increase 3.25% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. This assumption was first used for the June 30, 2015 valuation and for the District Judges division for the June 30, 2015 valuation.

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

***NON-ECONOMIC ASSUMPTIONS***

The mortality table used to measure retired life mortality was the RP-2000 Combined Healthy mortality table, projected to 2020 using Projection Scale BB, set-forward 2 years for males and 1 year for females. Related values are shown on page 28. Based upon the experience observed during the most recent experience study, it appears that at the time of the study the current table provides for an approximate 15% margin for future mortality improvement. This assumption was first used for the June 30, 2013 valuation.

***The probabilities of retirement*** for members eligible to retire are shown on pages 29 through 32. These probabilities were first used for the June 30, 2013 valuation and for the June 30, 2007 valuation for the District Judges division.

***The probabilities of withdrawal*** from service, death-in-service and disability are shown for sample ages on pages 33 through 35. These probabilities were first used for the June 30, 2013 valuation and for the District Judges division for the June 30, 2013 valuation.

***The individual entry-age normal actuarial cost method of the valuation*** was used in determining liabilities and normal cost. For calculating actuarially determined contributions, for members who are assumed to enter the DROP, normal costs are assumed to be collected until the ultimate date of retirement. For GASB Statement No. 67 purposes for members who are assumed to enter the DROP, the date of entry into the DROP was considered to be the plan member's retirement date.

Differences in the past between assumed experience and actual experience (actuarial gains and losses) become part of actuarial accrued liabilities.

Unfunded actuarial accrued liabilities are amortized to produce contribution amounts (principal and interest) which are level percent-of-payroll contributions.

***Recognizing the special circumstances of the General Assembly division***, modifications of the above assumptions were made where appropriate.

***Present assets (cash & investments) were valued on a market related basis in which differences between actual and assumed returns are phased-in over a four-year period. The funding value of assets may not deviate from the market value of assets by more than 25%. District Judges Still Paying Old Plan present assets (cash & investments) were valued on a market value basis.***

***The data about persons now covered and about present assets*** were 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).

**SINGLE LIFE RETIREMENT VALUES**  
**BASED ON RP-2000 COMBINED, PROJECTED TO 2020**  
**7.50% INTEREST**  
**JUNE 30, 2015**

Sample Attained Ages	Present Value of \$1.00 Monthly for Life		Present Value of \$1.00 Monthly for Life Increasing 3% Annually		Future Life Expectancy (Years)	
	Men	Women	Men	Women	Men	Women
40	\$ 152.73	\$ 155.50	\$ 221.02	\$ 228.64	40.56	44.21
45	148.14	151.73	209.34	218.29	35.81	39.39
50	142.02	146.73	195.44	205.97	31.13	34.64
55	134.13	140.11	179.30	191.41	26.58	29.98
60	124.36	131.56	161.13	174.51	22.23	25.44
65	112.66	121.10	141.22	155.67	18.14	21.14
70	98.84	108.87	119.72	135.45	14.35	17.16
75	83.43	95.07	97.62	114.39	10.95	13.56
80	67.17	79.89	76.00	92.98	8.02	10.35
85	51.06	64.05	56.01	72.24	5.60	7.59

Sample Attained Ages	Benefit Increasing 3.0% Yearly	Portion of Age 60 Lives Still Alive	
		Men	Women
60	\$100	100 %	100 %
65	116	96	97
70	134	90	92
75	155	80	84
80	180	66	72

The mortality table was set forward 10 years for disabilities.

Based on RP-2000 Combined Healthy mortality table, projected to 2020 using Projection Scale BB, set-forward 2 years for males and 1 year for females.

**STATE AND LOCAL GOVERNMENT DIVISION  
AGE-BASED RETIREMENT  
JUNE 30, 2015**

Retirement Ages (with less than 28 years of service)	Percent of Eligible Active Members Retiring Within Next Year	
	Unreduced	Reduced
55		2 %
56		2
57		3
58		3
59		4
60		5
61		5
62		18
63		17
64		13
65	23 %	
66	23	
67	23	
68	15	
69	15	
70	17	
71	17	
72	17	
73	17	
74-77	20	
78	15	
79	20	
80-82	20	
83	20	
84	20	
85 & Over	100	

A member was assumed eligible for unreduced retirement after attaining age 65 with 5 years of service or 28 years regardless of age. A member was assumed eligible for reduced retirement after attaining age 55 with 10 or more years of service. These rates represent the point at which members ultimately terminate employment (after participating in the DROP, for those that do).

**STATE AND LOCAL GOVERNMENT DIVISION  
SERVICE BASED RETIREMENT  
JUNE 30, 2015**

<b>Service</b>	<b>Percent of Eligible Active Members Retiring Within Next Year</b>
28	15 %
29	13
30	11
31	11
32	12
33	12
34	12
35	20
36	25
37	25
38	30
39	30
40 & Over	100

**GENERAL ASSEMBLY DIVISION  
PROBABILITIES OF RETIREMENT  
FOR MEMBERS ELIGIBLE TO RETIRE  
JUNE 30, 2015**

<b>Retirement Ages</b>	<b>Percent of Eligible Active Members Retiring Within Next Year</b>
50	30 %
51	30
52	30
53	30
54	30
55	30
56	30
57	30
58	30
59	30
60	30
61	30
62	50
63	30
64	30
65	50
66	30
67-79	20
80 & Over	100

Member may retire at age 50 with 20 or more years of service, age 60 with 16 or more years of service, or age 65 with 8 or more years of service.



**DISTRICT JUDGES DIVISION  
AGE-BASED RETIREMENT  
JUNE 30, 2015**

Retirement Ages	Percent of Eligible Active Members Retiring Within Next Year
50	10 %
51	10
52	10
53	10
54	10
55	12
56	12
57	14
58	14
59	14
60	18
61	18
62-73	30
74 & Over	100

Members may retire at age 50 with 20 or more years of service, age 60 with 16 or more years of service, or age 65 with 8 or more years of service.

**STATE AND LOCAL GOVERNMENT DIVISION  
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE SERVICE RETIREMENT  
JUNE 30, 2015**

Sample Ages	Years of Service	Percent of Active Members Separating within the Next Year						Pay Increase Assumptions For An Individual Employee		
		Withdrawal		Death		Disability		Merit & Seniority	Base (Economy)	Increase Next Year
		Men	Women	Men	Women	Men	Women			
	0	40.0 %	40.0 %							
	1	25.0	25.0							
	2	20.0	20.0							
	3	15.0	15.0							
	4	12.0	12.0							
20	5+	10.0	10.0	0.02 %	0.01 %	0.01 %	0.01 %	6.60 %	3.25 %	9.85 %
25		10.0	10.0	0.02	0.01	0.05	0.05	5.10	3.25	8.35
30		8.8	8.8	0.03	0.01	0.08	0.08	3.20	3.25	6.45
35		6.2	6.2	0.04	0.02	0.10	0.10	2.30	3.25	5.55
40		4.4	4.4	0.06	0.03	0.15	0.15	1.90	3.25	5.15
45		3.4	3.4	0.08	0.05	0.20	0.20	1.50	3.25	4.75
50		2.7	2.7	0.13	0.08	0.40	0.40	1.10	3.25	4.35
55		1.9	1.9	0.22	0.12	0.70	0.70	0.80	3.25	4.05
60		1.2	1.2	0.37	0.21	1.00	1.00	0.70	3.25	3.95

Pay increase rates are age based only, and not service based.

**GENERAL ASSEMBLY DIVISION  
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE  
SERVICE RETIREMENT  
JUNE 30, 2015**

		Percent of Active Members Separating within the Next Year					
Sample Ages	Years of Service	Withdrawal		Death		Disability	
		Men	Women	Men	Women	Men	Women
	0	30.0 %	30.0 %				
	1	25.0	25.0				
	2	20.0	20.0				
	3	15.0	15.0				
	4	12.0	12.0				
20	5+	9.0	9.0	0.02 %	0.01 %	0.06 %	0.06 %
25		8.3	8.3	0.02	0.01	0.06	0.06
30		5.3	5.3	0.03	0.01	0.06	0.06
35		3.0	3.0	0.04	0.02	0.06	0.06
40		2.6	2.6	0.06	0.04	0.16	0.16
45		2.4	2.4	0.08	0.06	0.22	0.22
50		1.1	1.1	0.13	0.09	0.39	0.39
55		0.8	0.8	0.22	0.14	0.71	0.71
60		0.8	0.8	0.37	0.23	1.13	1.13

**DISTRICT JUDGES  
SEPARATIONS FROM ACTIVE EMPLOYMENT BEFORE  
SERVICE RETIREMENT  
JUNE 30, 2015**

Sample Ages	Percent of Active Members Separating within the Next Year				Pay Increase Assumptions For An Individual Employee		
	Withdrawal		Disability		Merit & Seniority	Base (Economy)	Increase Next
	Men	Women	Men	Women			
20	2.0 %	2.0 %	0.08 %	0.08 %	2.70 %	3.25 %	5.95 %
25	2.0	2.0	0.08	0.08	2.60	3.25	5.85
30	2.0	2.0	0.08	0.08	2.20	3.25	5.45
35	2.0	2.0	0.08	0.08	1.90	3.25	5.15
40	2.0	2.0	0.20	0.20	1.40	3.25	4.65
45	2.0	2.0	0.27	0.27	1.20	3.25	4.45
50	2.0	2.0	0.49	0.49	0.70	3.25	3.95
55	2.0	2.0	0.89	0.89	0.70	3.25	3.95
60	2.0	2.0	1.41	1.41	0.00	3.25	3.25

**SUMMARY OF ASSUMPTIONS USED**  
**JUNE 30, 2015**  
**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. District Judges division - 100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. 80% of males and 80% of females are assumed to be married for purposes of death-after-retirement benefits for active member 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.

**Other Liability Adjustments.** Active member non-refund normal costs and actuarial accrued liabilities were increased by 1.5% to reflect non-reported reciprocal service.

**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.

**Normal Form of Benefit.** The assumed normal form of benefit is the straight life form.

**District Judges Division Old Plan Deferred Members.** For members that are eligible for a deferred benefit in the Old Plan and are currently active in the New Plan, it is assumed that the deferred benefit will commence at the first age at which the member is eligible to receive the 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. New entrant normal cost contributions are applied to the funding of new entrant benefits.

**DROP Duration.** We assume on average the total DROP duration is 4 years for those members currently participating in the DROP.

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**SUMMARY OF ASSUMPTIONS USED**  
**JUNE 30, 2015**  
**MISCELLANEOUS AND TECHNICAL ASSUMPTIONS (CONCLUDED)**

***DROP Interest Credit.*** The current interest rate credit for DROP accounts is assumed to be 3.0%.

***Payroll for DROP Participants and Retired Members Returned to Work.*** Employers now contribute on the pays of DROP participants and retired members returned to work. We estimated payroll subject to this provision. For the June 30, 2015 valuation, the reported payroll for these members was \$108,911,098.

***Pre-Retirement Mortality.*** The weighting of duty and ordinary deaths-in-service is 0%/100%.

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## **SECTION G**

### **CALCULATION OF THE SINGLE DISCOUNT RATE**

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## 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 (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 7.50%; the municipal bond rate is 3.80%; and the resulting single discount rate is 7.50%.

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**

<b>Year</b>	<b>Payroll for Current Employees</b>	<b>Contributions from Current Employees</b>	<b>Normal Cost and Expense Contributions</b>	<b>UAL Contributions</b>	<b>Total Contributions</b>
1	1,622,451,136	\$ 50,460,873	\$ 126,175,836	\$ 125,975,267	\$ 302,611,975
2	1,512,390,568	46,277,535	117,505,666	116,938,530	280,721,731
3	1,439,647,758	43,997,333	111,478,154	114,042,769	269,518,256
4	1,382,342,003	42,488,041	106,512,502	125,668,625	274,669,168
5	1,333,175,602	41,378,159	102,116,582	129,713,580	273,208,320
6	1,287,344,048	40,429,654	97,931,381	133,889,993	272,251,028
7	1,241,655,212	39,486,622	93,749,370	138,202,141	271,438,132
8	1,194,587,094	38,500,201	89,463,229	142,654,433	270,617,862
9	1,146,599,166	37,484,991	85,128,074	147,251,424	269,864,489
10	1,098,136,944	36,463,374	80,794,141	151,997,817	269,255,331
11	1,049,445,151	35,444,376	76,465,060	156,898,468	268,807,904
12	1,001,207,815	34,436,155	72,219,708	161,958,390	268,614,253
13	953,514,092	33,439,951	68,062,622	167,182,761	268,685,334
14	906,505,792	32,451,448	64,007,098	172,235,497	268,694,042
15	860,298,412	31,454,396	60,067,662	177,804,970	269,327,028
16	814,750,909	30,436,939	56,228,808	183,555,449	270,221,196
17	769,916,072	29,407,146	52,500,835	189,492,821	271,400,801
18	725,189,931	28,345,966	48,845,049	195,623,156	272,814,170
19	679,876,815	27,181,760	45,225,246	201,952,728	274,359,734
20	634,228,576	25,893,144	41,688,353	208,488,009	276,069,506
21	588,751,143	24,532,375	38,245,718	214,368,567	277,146,659
22	543,589,404	23,124,586	34,893,618	221,335,545	279,353,750
23	498,851,774	21,677,793	31,627,887	228,528,952	281,834,632
24	454,752,028	20,190,081	28,476,683	235,956,142	284,622,906
25	410,897,650	18,647,897	25,401,489	243,624,718	287,674,104
26	367,140,355	17,029,082	22,407,032	49,318,618	88,754,732
27	324,000,382	15,322,213	19,541,941	0	34,864,154
28	281,663,155	13,548,996	16,812,664	0	30,361,661
29	242,112,534	11,830,891	14,309,115	0	26,140,006
30	206,611,688	10,239,584	12,100,795	0	22,340,379
31	173,999,748	8,689,580	10,128,603	0	18,818,184
32	143,785,016	7,183,745	8,352,480	0	15,536,225
33	115,774,582	5,785,219	6,710,549	0	12,495,767
34	90,145,321	4,505,525	5,212,683	0	9,718,208
35	67,119,861	3,355,227	3,874,137	0	7,229,363
36	47,187,319	2,358,837	2,717,877	0	5,076,715
37	30,955,280	1,547,432	1,779,124	0	3,326,557
38	18,337,481	916,681	1,051,351	0	1,968,032
39	8,919,288	445,881	507,692	0	953,572
40	2,514,537	125,691	145,097	0	270,787
41	-	-	-	0	0
42	-	-	-	0	0
43	-	-	-	0	0
44	-	-	-	0	0
45	-	-	-	0	0
46	-	-	-	0	0
47	-	-	-	0	0
48	-	-	-	0	0
49	-	-	-	0	0
50	-	-	-	0	0

## SINGLE DISCOUNT RATE DEVELOPMENT PROJECTION OF PLAN FIDUCIARY NET POSITION

Year	Projected	Projected Total	Projected Benefit	Projected	Projected	Projected Ending Plan
	Beginning Plan			Administrative	Investment	
	Net Position	Contributions	Payments	Expenses	Earnings at 7.50%	
	(a)	(b)	(c)	(d)	(e)	(f)=(a)+(b)-(c)-(d)+(e)
1	\$ 7,550,242,341	\$ 302,611,975	\$ 639,896,287	\$ 6,489,805	\$ 553,609,702	\$ 7,760,077,925
2	7,760,077,925	280,721,731	536,182,564	6,049,562	572,376,491	8,070,944,022
3	8,070,944,022	269,518,256	557,713,283	5,758,591	594,496,822	8,371,487,225
4	8,371,487,225	274,669,168	579,394,295	5,529,368	616,437,330	8,677,670,061
5	8,677,670,061	273,208,320	605,254,121	5,332,702	638,402,281	8,978,693,839
6	8,978,693,839	272,251,028	632,725,550	5,149,376	659,939,010	9,273,008,951
7	9,273,008,951	271,438,132	661,815,184	4,966,621	680,918,300	9,558,583,578
8	9,558,583,578	270,617,862	692,053,775	4,778,348	701,199,678	9,833,568,995
9	9,833,568,995	269,864,489	722,149,289	4,586,397	720,694,732	10,097,392,530
10	10,097,392,530	269,255,331	753,298,727	4,392,548	739,319,218	10,348,275,804
11	10,348,275,804	268,807,904	782,676,356	4,197,781	757,044,415	10,587,253,987
12	10,587,253,987	268,614,253	811,702,465	4,004,831	773,898,952	10,814,059,896
13	10,814,059,896	268,685,334	840,863,878	3,814,056	789,845,254	11,027,912,550
14	11,027,912,550	268,694,042	867,381,591	3,626,023	804,915,010	11,230,513,989
15	11,230,513,989	269,327,028	893,164,732	3,441,194	819,190,843	11,422,425,934
16	11,422,425,934	270,221,196	917,871,254	3,259,004	832,714,128	11,604,230,999
17	11,604,230,999	271,400,801	941,823,849	3,079,664	845,517,563	11,776,245,851
18	11,776,245,851	272,814,170	966,785,268	2,900,760	857,558,176	11,936,932,169
19	11,936,932,169	274,359,734	992,747,973	2,719,507	868,717,234	12,084,541,657
20	12,084,541,657	276,069,506	1,016,820,682	2,536,914	878,971,220	12,220,224,786
21	12,220,224,786	277,146,659	1,039,448,669	2,355,005	888,360,607	12,343,928,378
22	12,343,928,378	279,353,750	1,061,755,290	2,174,358	896,904,922	12,456,257,402
23	12,456,257,402	281,834,632	1,083,216,503	1,995,407	904,637,293	12,557,517,416
24	12,557,517,416	284,622,906	1,100,194,452	1,819,008	911,715,796	12,651,842,658
25	12,651,842,658	287,674,104	1,118,222,311	1,643,591	918,245,177	12,737,896,037
26	12,737,896,037	88,754,732	1,134,253,536	1,468,561	916,790,700	12,607,719,372
27	12,607,719,372	34,864,154	1,147,741,637	1,296,002	904,552,781	12,398,098,668
28	12,398,098,668	30,361,661	1,161,685,057	1,126,653	888,158,248	12,153,806,866
29	12,153,806,866	26,140,006	1,171,151,839	968,450	869,338,151	11,877,164,734
30	11,877,164,734	22,340,379	1,176,654,886	826,447	848,252,677	11,570,276,457
31	11,570,276,457	18,818,184	1,178,845,327	695,999	825,030,508	11,234,583,822
32	11,234,583,822	15,536,225	1,176,375,259	575,140	799,828,115	10,872,997,764
33	10,872,997,764	12,495,767	1,169,564,903	463,098	772,852,102	10,488,317,632
34	10,488,317,632	9,718,208	1,156,748,957	360,581	744,374,501	10,085,300,803
35	10,085,300,803	7,229,363	1,139,669,934	268,479	714,688,871	9,667,280,624
36	9,667,280,624	5,076,715	1,117,731,953	188,749	684,068,830	9,238,505,467
37	9,238,505,467	3,326,557	1,090,233,405	123,821	652,861,193	8,804,335,991
38	8,804,335,991	1,968,032	1,059,375,149	73,350	621,386,582	8,368,242,107
39	8,368,242,107	953,572	1,025,575,032	35,677	589,888,164	7,933,473,133
40	7,933,473,133	270,787	988,297,597	10,058	558,628,925	7,504,065,190
41	7,504,065,190	-	941,113,189	-	528,151,156	7,091,103,157
42	7,091,103,157	-	907,931,381	-	498,400,826	6,681,572,602
43	6,681,572,602	-	873,758,295	-	468,944,358	6,276,758,665
44	6,276,758,665	-	838,821,360	-	439,869,763	5,877,807,068
45	5,877,807,068	-	803,226,720	-	411,259,061	5,485,839,409
46	5,485,839,409	-	766,857,880	-	383,200,663	5,102,182,192
47	5,102,182,192	-	729,781,818	-	355,791,589	4,728,191,963
48	4,728,191,963	-	692,272,043	-	329,123,509	4,365,043,429
49	4,365,043,429	-	654,618,284	-	303,273,858	4,013,699,003
50	4,013,699,003	-	616,973,997	-	278,309,167	3,675,034,173

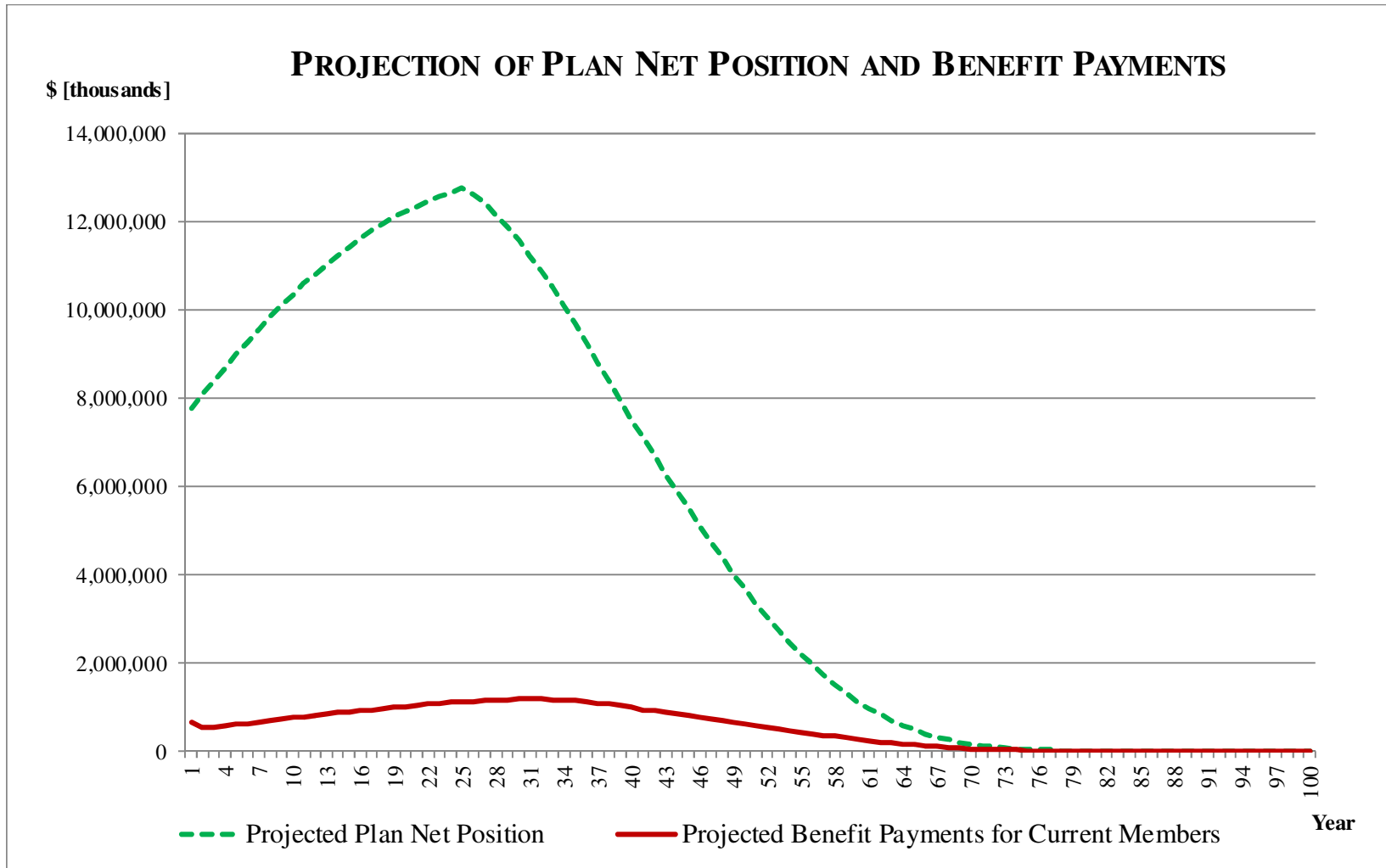
First year's benefit payments include distribution of the DROP reserve.

## 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 <sup>^(a)-.5</sup>	(g)=(e)*vf <sup>^(a)-.5</sup>	(h)=(c)/(1+sdr) <sup>^(a)-.5</sup>
1	\$ 7,550,242,341	\$ 639,896,287	\$ 639,896,287	\$ -	\$ 617,170,783	\$ -	\$ 617,170,783
2	7,760,077,925	536,182,564	536,182,564	-	481,060,824	-	481,060,824
3	8,070,944,022	557,713,283	557,713,283	-	465,467,998	-	465,467,998
4	8,371,487,225	579,394,295	579,394,295	-	449,826,037	-	449,826,037
5	8,677,670,061	605,254,121	605,254,121	-	437,118,982	-	437,118,982
6	8,978,693,839	632,725,550	632,725,550	-	425,078,186	-	425,078,186
7	9,273,008,951	661,815,184	661,815,184	-	413,601,123	-	413,601,123
8	9,558,583,578	692,053,775	692,053,775	-	402,324,389	-	402,324,389
9	9,833,568,995	722,149,289	722,149,289	-	390,530,576	-	390,530,576
10	10,097,392,530	753,298,727	753,298,727	-	378,954,286	-	378,954,286
11	10,348,275,804	782,676,356	782,676,356	-	366,263,246	-	366,263,246
12	10,587,253,987	811,702,465	811,702,465	-	353,345,469	-	353,345,469
13	10,814,059,896	840,863,878	840,863,878	-	340,502,177	-	340,502,177
14	11,027,912,550	867,381,591	867,381,591	-	326,735,206	-	326,735,206
15	11,230,513,989	893,164,732	893,164,732	-	312,974,413	-	312,974,413
16	11,422,425,934	917,871,254	917,871,254	-	299,192,411	-	299,192,411
17	11,604,230,999	941,823,849	941,823,849	-	285,581,469	-	285,581,469
18	11,776,245,851	966,785,268	966,785,268	-	272,697,967	-	272,697,967
19	11,936,932,169	992,747,973	992,747,973	-	260,484,821	-	260,484,821
20	12,084,541,657	1,016,820,682	1,016,820,682	-	248,187,165	-	248,187,165
21	12,220,224,786	1,039,448,669	1,039,448,669	-	236,009,525	-	236,009,525
22	12,343,928,378	1,061,755,290	1,061,755,290	-	224,255,164	-	224,255,164
23	12,456,257,402	1,083,216,503	1,083,216,503	-	212,826,068	-	212,826,068
24	12,557,517,416	1,100,194,452	1,100,194,452	-	201,080,771	-	201,080,771
25	12,651,842,658	1,118,222,311	1,118,222,311	-	190,116,924	-	190,116,924
26	12,737,896,037	1,134,253,536	1,134,253,536	-	179,388,378	-	179,388,378
27	12,607,719,372	1,147,741,637	1,147,741,637	-	168,857,298	-	168,857,298
28	12,398,098,668	1,161,685,057	1,161,685,057	-	158,984,811	-	158,984,811
29	12,153,806,866	1,171,151,839	1,171,151,839	-	149,098,053	-	149,098,053
30	11,877,164,734	1,176,654,886	1,176,654,886	-	139,347,572	-	139,347,572
31	11,570,276,457	1,178,845,327	1,178,845,327	-	129,866,958	-	129,866,958
32	11,234,583,822	1,176,375,259	1,176,375,259	-	120,553,343	-	120,553,343
33	10,872,997,764	1,169,564,903	1,169,564,903	-	111,493,420	-	111,493,420
34	10,488,317,632	1,156,748,957	1,156,748,957	-	102,578,316	-	102,578,316
35	10,085,300,803	1,139,669,934	1,139,669,934	-	94,012,819	-	94,012,819
36	9,667,280,624	1,117,731,953	1,117,731,953	-	85,770,351	-	85,770,351
37	9,238,505,467	1,090,233,405	1,090,233,405	-	77,823,461	-	77,823,461
38	8,804,335,991	1,059,375,149	1,059,375,149	-	70,344,860	-	70,344,860
39	8,368,242,107	1,025,575,032	1,025,575,032	-	63,349,263	-	63,349,263
40	7,933,473,133	988,297,597	988,297,597	-	56,787,585	-	56,787,585
41	7,504,065,190	941,113,189	941,113,189	-	50,303,599	-	50,303,599
42	7,091,103,157	907,931,381	907,931,381	-	45,144,179	-	45,144,179
43	6,681,572,602	873,758,295	873,758,295	-	40,413,976	-	40,413,976
44	6,276,758,665	838,821,360	838,821,360	-	36,091,197	-	36,091,197
45	5,877,807,068	803,226,720	803,226,720	-	32,148,557	-	32,148,557
46	5,485,839,409	766,857,880	766,857,880	-	28,551,555	-	28,551,555
47	5,102,182,192	729,781,818	729,781,818	-	25,275,482	-	25,275,482
48	4,728,191,963	692,272,043	692,272,043	-	22,303,588	-	22,303,588
49	4,365,043,429	654,618,284	654,618,284	-	19,619,034	-	19,619,034
50	4,013,699,003	616,973,997	616,973,997	-	17,200,770	-	17,200,770

**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 <sup>a</sup> ((a)-.5)	(g)=(e)*vf <sup>a</sup> ((a)-.5)	(h)=(c)/(1+sdr) <sup>a</sup> ((a)-.5)
51	\$ 3,675,034,173	\$ 579,443,071	\$ 579,443,071	\$ -	\$ 15,027,382	\$ -	\$ 15,027,382
52	3,349,882,373	542,133,095	542,133,095	-	13,078,864	-	13,078,864
53	3,039,027,995	505,155,837	505,155,837	-	11,336,552	-	11,336,552
54	2,743,198,375	468,634,376	468,634,376	-	9,783,208	-	9,783,208
55	2,463,047,790	432,700,924	432,700,924	-	8,402,848	-	8,402,848
56	2,199,142,507	397,498,235	397,498,235	-	7,180,678	-	7,180,678
57	1,951,943,254	363,179,598	363,179,598	-	6,102,998	-	6,102,998
58	1,721,786,377	329,903,220	329,903,220	-	5,157,032	-	5,157,032
59	1,508,869,417	297,829,264	297,829,264	-	4,330,841	-	4,330,841
60	1,313,238,669	267,114,128	267,114,128	-	3,613,210	-	3,613,210
61	1,134,781,747	237,903,923	237,903,923	-	2,993,571	-	2,993,571
62	973,226,341	210,332,231	210,332,231	-	2,461,984	-	2,461,984
63	828,141,219	184,515,411	184,515,411	-	2,009,110	-	2,009,110
64	698,942,160	160,546,972	160,546,972	-	1,626,165	-	1,626,165
65	584,904,179	138,493,586	138,493,586	-	1,304,919	-	1,304,919
66	485,178,786	118,394,470	118,394,470	-	1,037,712	-	1,037,712
67	398,813,195	100,260,035	100,260,035	-	817,457	-	817,457
68	324,772,368	84,072,481	84,072,481	-	637,650	-	637,650
69	261,962,092	69,786,145	69,786,145	-	492,368	-	492,368
70	209,253,434	57,327,432	57,327,432	-	376,248	-	376,248
71	165,509,094	46,596,591	46,596,591	-	284,484	-	284,484
72	129,609,903	37,470,546	37,470,546	-	212,806	-	212,806
73	100,480,356	29,808,444	29,808,444	-	157,480	-	157,480
74	77,110,330	23,457,512	23,457,512	-	115,282	-	115,282
75	58,572,339	18,260,431	18,260,431	-	83,480	-	83,480
76	44,032,446	14,061,303	14,061,303	-	59,798	-	59,798
77	32,755,811	10,710,690	10,710,690	-	42,371	-	42,371
78	24,107,416	8,069,667	8,069,667	-	29,696	-	29,696
79	17,548,664	6,012,592	6,012,592	-	20,582	-	20,582
80	12,630,826	4,429,178	4,429,178	-	14,104	-	14,104
81	8,985,868	3,224,717	3,224,717	-	9,552	-	9,552
82	6,316,351	2,319,464	2,319,464	-	6,391	-	6,391
83	4,385,206	1,647,445	1,647,445	-	4,223	-	4,223
84	3,005,989	1,154,995	1,154,995	-	2,754	-	2,754
85	2,033,913	798,965	798,965	-	1,772	-	1,772
86	1,358,073	545,156	545,156	-	1,125	-	1,125
87	894,698	366,859	366,859	-	704	-	704
88	581,432	243,468	243,468	-	435	-	435
89	372,607	159,341	159,341	-	265	-	265
90	235,344	102,815	102,815	-	159	-	159
91	146,393	65,393	65,393	-	94	-	94
92	89,572	40,974	40,974	-	55	-	55
93	53,807	25,256	25,256	-	31	-	31
94	31,656	15,297	15,297	-	18	-	18
95	18,170	9,086	9,086	-	10	-	10
96	10,111	5,275	5,275	-	5	-	5
97	5,400	2,971	2,971	-	3	-	3
98	2,725	1,604	1,604	-	1	-	1
99	1,267	823	823	-	1	-	1
100	508	508	508	-	-	-	-
<b>Totals</b>					<b>\$ 10,715,512,883</b>	<b>\$ -</b>	<b>\$ 10,715,512,883</b>



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## **SECTION H**

### **GLOSSARY OF TERMS**

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## GLOSSARY OF TERMS

<b><i>Actuarial Accrued Liability (AAL)</i></b>	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."
<b><i>Actuarial Assumptions</i></b>	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.
<b><i>Accrued Service</i></b>	Service credited under the system which was rendered before the date of the actuarial valuation.
<b><i>Actuarial Equivalent</i></b>	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.
<b><i>Actuarial Cost Method</i></b>	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.
<b><i>Actuarial Gain (Loss)</i></b>	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.
<b><i>Actuarial Present Value (APV)</i></b>	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.
<b><i>Actuarial Valuation</i></b>	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.
<b><i>Actuarial Valuation Date</i></b>	The date as of which an actuarial valuation is performed.
<b><i>Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)</i></b>	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

<b><i>Amortization Payment</i></b>	The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.
<b><i>Amortization Method</i></b>	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).
<b><i>Cost-of-Living Adjustments</i></b>	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
<b><i>Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan)</i></b>	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.
<b><i>Covered-Employee Payroll</i></b>	The payroll of covered employees, which is typically only the pensionable pay and does not include pay above any pay cap.
<b><i>Deferred Retirement Option Program (DROP)</i></b>	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.
<b><i>Deferred Inflows and Outflows</i></b>	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.
<b><i>Discount Rate</i></b>	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: <ol style="list-style-type: none"> <li>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</li> <li>2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.</li> </ol>



## GLOSSARY OF TERMS

<b><i>Entry Age Actuarial Cost Method (EAN)</i></b>	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.
<b><i>GASB</i></b>	The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.
<b><i>Fiduciary Net Position</i></b>	The fiduciary net position is the value of the assets of the trust.
<b><i>Long-Term Expected Rate of Return</i></b>	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.
<b><i>Money-Weighted Rate of Return</i></b>	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.
<b><i>Multiple-Employer Defined Benefit Pension Plan</i></b>	A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
<b><i>Municipal Bond Rate</i></b>	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.
<b><i>Net Pension Liability (NPL)</i></b>	The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.
<b><i>Non-Employer Contribution Entities</i></b>	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.
<b><i>Normal Cost</i></b>	The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.

## GLOSSARY OF TERMS

<b><i>Other Postemployment Benefits (OPEB)</i></b>	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.
<b><i>Real Rate of Return</i></b>	The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.
<b><i>Service Cost</i></b>	The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
<b><i>Total Pension Expense</i></b>	The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year: <ol style="list-style-type: none"> <li>1. Service Cost</li> <li>2. Interest on the Total Pension Liability</li> <li>3. Current-Period Benefit Changes</li> <li>4. Employee Contributions (made negative for addition here)</li> <li>5. Projected Earnings on Plan Investments (made negative for addition here)</li> <li>6. Pension Plan Administrative Expense</li> <li>7. Other Changes in Plan Fiduciary Net Position</li> <li>8. Recognition of Outflow (Inflow) of Resources due to Liabilities</li> <li>9. Recognition of Outflow (Inflow) of Resources due to Assets</li> </ol>
<b><i>Total Pension Liability (TPL)</i></b>	The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.
<b><i>Unfunded Actuarial Accrued Liability (UAAL)</i></b>	The UAAL is the difference between actuarial accrued liability and valuation assets.
<b><i>Valuation Assets</i></b>	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.



November 10, 2015

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

Dear Gail:

Please find the enclosed copies of the June 30, 2015 GASB Statement Nos. 67 and 68 Accounting and Financial Reporting for Pensions report of the Arkansas Public Employees Retirement System (Including District Judges).

Sincerely,

Mita D. Drazilov, ASA, MAAA

MDD:dks:sc

Enclosures