

**THE RETIREMENT SYSTEM OF  
THE CITY OF NORTH LITTLE  
ROCK, ARKANSAS**

ACTUARIAL VALUATION  
AS OF JANUARY 1, 2016

**Osborn, Carreiro & Associates, Inc.**

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June 3, 2016

North Little Rock Pension Plan Board  
City Services Building  
120 Main Street  
North Little Rock, AR 72119

RE: The Retirement System of the City of North Little Rock

Ladies and Gentlemen:

This report presents the results of our actuarial valuation of the assets and liabilities of the Retirement System of the City of North Little Rock, Arkansas as of January 1, 2016. This valuation determines the recommended contributions for the 2016 Plan Year.

A brief summary of the more important figures developed in this valuation, with comparable results from prior reports, follows:

	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
Number in Plan			
a) Active Members	473	464	468
b) Inactive Members	165	171	177
Salary of Actives in Plan	\$ 19,610,843	\$ 19,305,847	\$ 19,641,076
Assets	\$ 43,701,492	\$ 44,213,809	\$ 41,696,424
City Contribution Levels (in dollars and as a percentage of covered payroll):	<u>2014</u>	<u>2015</u>	<u>2015</u>
a) Pay UAAL in 30 years	\$ 2,503,555 (12.77%)	\$ 2,509,296 (13.00%)	\$ 2,784,705 (14.18%)
b) Pay UAAL in 15 years	\$ 2,920,852 (14.89%)	\$ 2,957,803 (15.32%)	\$ 3,399,657 (17.31%)
c) Actual Contributions	\$ 1,961,084 (10.00%)	\$ 1,930,585 (10.00%)	\$ 1,964,108 (10.00%)

### **Actuarial Status of Plan**

The Contribution level for the 2016 Plan Year is recommended to be \$3,399,657 (17.31% of covered payroll). The city and member contributions only total 10.00%. We continue to show the 30 year open amortization of unfunded (14.18% of payroll). The recent changes in GASB rules and actuarial “best practices” implores me to recommend an amount based on a fifteen year amortization. Please note that the 30 year percentage of payroll amortization does not cover the interest on the unfunded amount and leads to an unfunded that creeps upward even when assumptions are met.

This funded status had remained in the high 70 percentage range for the previous six years. This year, the funded status of the plan decreased from 76.49% to 69.11% due to lower than expected investment return. The plan earned -3.65% in 2015 compared to the assumed return of 7.00%.

The City continues to make contributions to the plan that are significantly lower than the recommended amounts. This is a long term problem, but needs to be addressed in the near future. As seen in the GASB disclosures for the plan, the City is having to expense much more than the contributions made on the accrual accounting basis (CAFR).

### **Changes Since Last Year**

There have been no changes to the plan benefits or the actuarial assumptions since last year. We will review with the board all assumptions compared to recent experience this year.

### **Accounting Information**

Exhibit 3 contains the accounting information needed in the financial statements of the Plan and the City. The new reporting standards of GASB Statement 67 became effective January 1, 2014 for the Plan’s financial statements, and GASB 68 is effective for all participating employers as of January 1, 2015. (These items have replaced the GASB 27 items and that information is no longer a part of this report.) These new standards include several disclosures as well as new tables of Required Supplementary Information. These calculations and disclosures are found in the Appendices at the end of this report.

**Scope of Report and Statement of Qualifications**

The calculations in this report are based on the data and assumptions as outlined in the attached Exhibits. This report is based on the participant and financial data supplied by the plan sponsor. We did not audit this data, although we did review it for reasonableness and consistency. We have relied on the data provided to us. If any of this data is incorrect or incomplete, the results of our calculations could be materially different.

The purpose of this report is to help the plan sponsor evaluate the plan status and funding requirements for an on-going plan and to present certain actuarial items required for disclosure purposes. This report is not intended for any other purpose or for use by persons who are not familiar with such matters.

This report has been prepared by actuaries who have experience valuing public employee retirement systems. To the best of our knowledge, this report is complete and accurate and was completed in accordance with standards of practice promulgated by the Actuarial Standards Board and in conformance with applicable Arkansas law. The actuaries know of no significant conflicts of interest with the plan sponsor. The actuaries are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report.

Sincerely,



Jody Carreiro, FCA, ASA, MAAA, EA  
Actuary

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**EXHIBIT 1**  
**CONTRIBUTIONS**

The following contribution level reflects the payment of the current year Normal Cost for benefits attributable to said year (see Exhibit 2) plus an amount sufficient to pay off the Unfunded Actuarial Accrued Liability ("UAAL") over a set number of years.

	<u>2014</u>	<u>2015</u>	<u>2016</u>
Annual Contribution necessary to:			
A. Covered Salary	\$ 19,610,843	\$ 19,305,847	\$ 19,641,076
B. Pay UAAL off in 30 years			
1. Normal Cost	\$ 1,864,257	\$ 1,822,186	\$ 1,842,603
2. 30-year amortization of UAAL	617,679	663,874	910,243
3. Interest adjustment	21,619	23,236	31,859
4. Total City Cost	\$ 2,503,555	\$ 2,509,296	\$ 2,784,705
As a Percentage of Pay	12.77%	13.00%	14.18%
B. Pay UAAL off in 15 years			
1. Normal Cost	\$ 1,864,257	\$ 1,822,186	\$ 1,842,603
2. 15-year amortization of UAAL	1,020,865	1,097,214	1,504,400
3. Interest adjustment	35,730	38,403	52,654
4. Total City Cost	\$ 2,920,852	\$ 2,957,803	\$ 3,399,657
As a Percentage of Pay	14.89%	15.32%	17.31%
C. Actual City Contribution			
1. City Contribution	6.00%	6.00%	6.00%
2. Member Contribution	4.00%	4.00%	4.00%
3. Total Contribution	10.00%	10.00%	10.00%

**EXHIBIT 2**  
**COSTS AND LIABILITIES**

	<u>1/1/2014</u>	<u>1/1/2015</u>	<u>1/1/2016</u>
A. <u>Normal Cost</u> (Cost to fund current active members)			
1. Total Normal Cost	\$ 1,864,257	\$ 1,822,186	\$ 1,842,603
2. Covered Payroll	\$ 19,610,843	\$ 19,305,847	\$ 19,641,076
3. Normal Cost as Percent of Covered Pay	9.51%	9.44%	9.38%
B. <u>Actuarial Accrued Liability</u>			
1. <u>Active Lives</u>	\$ 39,001,279	\$ 39,344,916	\$ 40,112,524
2. <u>Retired Lives</u>			
Regular/Early – Basic Benefit	7,887,984	8,623,979	9,395,812
Regular/Early – Joint and Survivor	7,677,796	7,600,377	8,164,595
Disableds	627,299	613,996	590,970
Widows	1,150,994	1,620,020	1,552,613
Total Inactive Lives	<u>17,344,072</u>	<u>18,458,371</u>	<u>19,703,990</u>
3. <u>Vested Terminated/Return of Contrib.</u>			512,553
4. <u>Total Accrued Liability</u>	\$ 56,345,351	\$ 57,803,287	\$ 60,329,067
C. <u>Assets</u>	\$ 43,701,492	\$ 44,213,809	\$ 41,696,424
D. <u>Unfunded Actuarial Accrued Liability</u>	\$ 12,643,859	\$ 13,589,478	\$ 18,632,643
E. <u>Funded Percentage</u>	77.56%	76.49%	69.11%

**EXHIBIT 3**

**SUMMARY OF FINANCIAL INFORMATION**

(Items D-E determined by Osborn, Carreiro and Associates, Inc.)

	<u>Plan Year Ended</u>		
	<u>12/31/2013</u>	<u>12/31/2014</u>	<u>12/31/2015</u>
<b>A. <u>INCOME</u></b>			
1. <u>Contributions</u>			
Employee	\$ 776,207	\$ 846,533	\$ 755,749
Employer	1,164,511	1,228,646	1,133,620
Other	0	0	0
2. <u>Investment Income</u>			
Interest/Dividends	473,817	472,102	1,811,857
Realized Gain	154,547	1,122,148	- 1,091,840
Unrealized Gain	4,054,233	- 311,318	- 2,112,191
Investment Expense	- 135,982	- 169,035	- 204,121
Net Investment Income	<u>4,546,615</u>	<u>1,113,897</u>	<u>- 1,596,295</u>
TOTAL INCOME	\$ 6,487,333	\$ 3,189,076	\$ 293,074
<b>B. <u>EXPENSES</u></b>			
1. <u>Administrative</u>			
Trustee Fees	\$ 44,696	\$ 46,241	\$ 39,410
Actuarial Fees	11,700	19,500	15,600
Legal Fees	2,120	6,405	200
2. <u>Lump Sums</u>	752,019	663,104	661,841
3. <u>Monthly Benefits</u>	<u>1,758,633</u>	<u>1,941,509</u>	<u>2,093,408</u>
TOTAL EXPENSES	\$ 2,569,168	\$ 2,676,759	\$ 2,810,459

**EXHIBIT 3 (Continued)**

	<u>12/31/2013</u>	<u>12/31/2014</u>	<u>12/31/2015</u>
C. <u>ASSETS</u> (Market)			
1. <u>Short Term</u>			
Cash and Money Market			
a) Trustee Cash Equivalents	\$ 972,154	\$ 356,534	\$ 163,502
b) SMC Cash Equivalents	1,020,018	933,712	2,723,183
c) Certificates of Deposit	2,774,004	300,886	202,194
2. <u>Mutual Funds</u>			
Equity	14,612,132	17,543,556	17,934,014
Fixed Income	15,813,894	18,203,805	16,594,704
3. <u>Equities</u>			
Common Stocks	0	0	0
Real Estate Investment Trust	750,510	941,625	1,343,295
Oil/Gas MLP	3,101,677	4,134,225	1,493,569
4. <u>Bonds</u>			
Government Bonds	515,874	223,582	218,818
Corporate Bonds	4,076,902	1,550,001	1,004,695
5. <u>Other</u>			
Contributions Receivable	0	0	0
Interest Receivable	64,326	25,883	18,450
Payables	0	0	0
Other	0	0	0
	<hr/>	<hr/>	<hr/>
TOTAL ASSETS	\$ 43,701,492	\$ 44,213,809	\$ 41,696,424
D. <u>RATIO OF ASSETS TO ANNUAL EXPENSES:</u>	17.0	16.5	14.8
E. <u>ANNUAL NET INVESTMENT RETURN</u>	11.52%	2.57%	- 3.65%

## EXHIBIT 4

### ACTIVE EMPLOYEE PROFILE

Employee data needed for the valuation was obtained from the records furnished by the administrator. The following table shows a detailed breakdown of the included participants and salaries by age and years of service.

Actives

<b>Age</b>		<b>Years of Service</b>							<b>Total</b>
		0-5	5-10	10-15	15-20	20-25	25-30	Over 30	
Under 25	Count	15	0	0	0	0	0	0	15
	Salary	434,122	0	0	0	0	0	0	434,122
25-29	Count	32	4	0	0	0	0	0	36
	Salary	1,045,319	185,542	0	0	0	0	0	1,230,861
30-34	Count	20	11	1	0	0	0	0	32
	Salary	628,992	503,252	62,265	0	0	0	0	1,194,509
35-39	Count	21	14	10	3	0	0	0	48
	Salary	766,750	617,023	481,657	144,925	0	0	0	2,010,354
40-44	Count	14	7	7	11	2	1	0	42
	Salary	402,078	302,162	321,000	471,952	108,788	48,759	0	1,654,738
45-49	Count	18	12	10	12	9	1	0	62
	Salary	595,459	441,792	559,592	503,299	424,584	32,898	0	2,557,624
50-54	Count	11	16	13	14	5	6	2	67
	Salary	416,416	555,644	665,769	711,976	208,425	301,023	105,472	2,964,726
55-59	Count	15	6	11	8	6	10	15	71
	Salary	473,012	254,504	491,677	322,616	311,317	537,800	787,796	3,178,722
60-64	Count	8	12	5	13	1	5	15	59
	Salary	309,764	512,804	243,374	606,297	39,906	222,169	758,957	2,693,271
65-69	Count	3	6	4	4	2	1	6	26
	Salary	93,433	223,533	213,884	230,019	83,970	64,570	376,240	1,285,649
70 & Over	Count	0	2	4	2	0	1	1	10
	Salary	0	85,184	167,228	95,521	0	44,083	44,483	436,499
Total	Count	157	90	65	67	25	25	39	468
	Salary	5,165,344	3,681,441	3,206,446	3,086,604	1,176,991	1,251,302	2,072,949	19,641,076

Average Attained Age: 47.98 years  
 Average Actual Service: 11.89 years  
 Average Salary: \$ 41,968

**EXHIBIT 5**

**PRINCIPLE PROVISIONS OF THE PLAN**

<b><u>EFFECTIVE DATE:</u></b>	January 1, 1977. Plan restated effective January 1, 2008, adopted January 26, 2009. Plan restated effective January 1, 2013, adopted January 7, 2014.
<b><u>EMPLOYEE:</u></b>	Non-Uniformed employees of the City of North Little Rock and NLR Electric.
<b><u>EMPLOYER:</u></b>	City of North Little Rock and NLR Electric.
<b><u>PLAN YEAR:</u></b>	January 1 to December 31.
<b><u>PARTICIPATION:</u></b>	An Employee is eligible to enter the plan on the first of the month following employment.
<b><u>EMPLOYEE CONTRIBUTIONS:</u></b>	4% of Compensation.
<b><u>COMPENSATION:</u></b>	Base Salary of the Member.
<b><u>FINAL AVERAGE EARNINGS:</u></b>	Average compensation over five (5) calendar years.
<b><u>CREDITED SERVICE:</u></b>	Credited Service equals the actual period of continuous employment from the later of January 1, 1977 or the date of hire, to termination of employment. Partial service is credited for completed months.

**EXHIBIT 5 (Continued)**

**NORMAL RETIREMENT:**

<u>Eligibility:</u>	First of month after attaining age 65. Attainment of Age 62 with 5 Years of Service.
<u>Accrued Benefit:</u>	1.80% of Final Average Earnings times Credited Service.  Upon attainment of age 65 and 20 years of service the multiplier is increased from 1.80% to 2.00% for all service.
<u>Form:</u>	Life annuity with return of contributions.

**ACCRUED BENEFIT:**

All Eligible Service times 1.80% times Final Average Earnings, unless eligible for the increased multiplier.

**EARLY RETIREMENT:**

<u>Eligibility:</u>	Age 55 with at least 10 years of Credited Service.
<u>Benefit:</u>	Accrued Benefit, reduced 1/3 of 1% per month times the number of month until attainment of age 60.

**DISABILITY BENEFITS:**

<u>Eligibility:</u>	Age 50 with 10 years of Credited Service.
<u>Benefit:</u>	Accrued Benefit.

**EXHIBIT 5 (Continued)**

**DEATH BENEFITS:**

Eligibility:

Death of a Participant.

Benefits:

1. Unless otherwise eligible, return of contributions
2. Age 50 and 10 years of service, 50% of Accrued Benefit payable to eligible beneficiary.
3. Age 55, not less than 100% Joint and Survivor benefit payable to eligible beneficiary.

**VESTING:**

According to the following schedule:

<u>Years of Service</u>	<u>Vested Percentage</u>
Under 10	0%
10 +	100%

**ACTUARIAL  
EQUIVALENT:**

UP84 Table at 7.50%.

**EXHIBIT 6**

**ACTUARIAL COST METHODS AND ASSUMPTIONS**

**COST METHOD:** The "entry age normal cost method" has been used in determining retirement cost.

**PRE-RETIREMENT MORTALITY:** Deaths have been projected on the basis of the 1983 Group Annuity Mortality Table. Mortality rates at a few sample ages are:

<u>AGE</u>	<u>MORTALITY RATE PER 1,000</u>	
	<u>Males</u>	<u>Females</u>
25	0.464	0.253
30	0.607	0.342
35	0.860	0.476
40	1.238	0.665
45	2.183	1.010
50	3.909	1.647
55	6.131	2.541
60	9.158	4.241

**POST-RETIREMENT MORTALITY:** The 1983 Group Annuity Mortality Table was used. The life expectancy according to this table is as follows:

<u>AGE</u>	<u>MALES</u>	<u>FEMALES</u>
55	24.82 years	29.16 years
65	16.69 years	20.64 years
75	10.15 years	13.18 years

**VOLUNTARY TERMINATIONS:** We have assumed that voluntary terminations will be in accordance with Table T-1 of the Actuary's Pension Handbook. Annual termination rates at a few sample ages are:

<u>AGE</u>	<u>TERMINATION RATE PER 1,000</u>
25	48.95
30	37.02
35	23.49
40	11.28
45	2.65
50	0.00

**EXHIBIT 6 (Continued)**

**EXPECTED RETIREMENT  
PATTERN:**

Retirement was assumed to occur in the following pattern:

60-61	5%
62	20%
63-64	10%
65 & after	100%

**DISABILITIES:**

1952 Society of Actuaries Disability incidence study.

**ASSUMED INVESTMENT  
RETURN:**

7.00% annually, pre-retirement.  
7.00% annually, post-retirement.

**SALARYGROWTH:**

4.0% annually.

## **APPENDIX A**

### **DISCUSSION OF GASB DISCLOSURES**

#### **Accounting Standards**

For pension plans that are administered through trusts or equivalent arrangements, Governmental Accounting Standards Board (GASB) Statement No. 67, "Financial Reporting for Pension Plans," (GASB 67) replaces Statements No. 25 and No. 50. GASB 67 establishes standards of financial reporting and specifies the required approach for measuring the pension liability of employers for benefits provided through the pension plan.

This discussion provides a summary of the information that is required to be disclosed under GASB 67. A number of these disclosure items are provided. However, certain information, such as notes regarding accounting policies and investments, is not included in this report, and your internal staff will be responsible for preparing that information to fully comply with this accounting standard.

#### **Financial Statements**

GASB 67 requires defined benefit plans to present to financial statements: a statement of fiduciary plan net position and a statement of changes in fiduciary plan net position. Based on the information that was provided to our firm, we compiled the Financial Statements that are included in this report as Exhibit 3.

#### **Notes to Financial Statements**

Paragraph 30 of GASB 67 is an extensive list of notes to the plan's financial statements that are required to provide additional disclosure. Many of these notes concern the plan provisions and the actuarial assumptions used in making the calculations under this standard. Those items are included in Exhibits 5 and 6 in this report.

Please note that several items mentioned in Paragraph 30 are beyond the scope of the included information. Your internal staff will be responsible for preparing those notes.

This report includes some notes that are actuarial in nature written in the format we understand is desired by GASB 67. These are only selected notes and not intended to be a complete compilation of notes to the financial statements.

## **Appendix A (continued)**

### **Required Supplementary Information**

GASB 67 requires a 10-fiscal year history of various types of information about the pension liability. These schedules may be built prospectively since the presentation is not the same as all previous years under previous standards. The four schedules are:

- Schedule of changes in the net pension liability.
- Schedule of the components of net pension liability along with related ratios.
- Comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy.
- Schedule of the annual money-weighted rate of return on pension plan investments.

These compilations can be found in Appendix C of this report. Please note that the money-weighted rate of return schedule is based on all transactions occurring at mid-year. The standard calls for a monthly calculation of the weighted, but we do not have the data sufficient to make that calculation.

### **Single Discount Rate**

Projected benefit payments are required to be discounted to 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) a 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 plan's net position with contributions associated with current plan members and the long-term expected rate of return are not sufficient to pay benefits). We used the Bond Buyer GO 20-Bond Municipal Bond Index to obtain the municipal bond rate. See Appendix F for the calculation of the single discount rate.

### **Valuation Date and Measurement Date**

GASB 67 is effective for fiscal years beginning after June 15, 2013. GASB 68 is effective for sponsor fiscal years beginning after June 15, 2014.

This report covers the employer fiscal year, which is also the plan fiscal year, ended December 31, 2015 (the measurement date). The corresponding financial statement covers the fiscal year from January 1, 2015 to December 31, 2015. The actuarial valuation date is as of December 31, 2015/January 1, 2016 (the valuation date). The calculations included in this report are not projected and there is no "roll forward" of a prior valuation.

Your plan is a "single-employer" plan under GASB 67/68 with the component units treated as "cost-sharing" employers (see paragraph 18 of GASB 67). The details of the cost-sharing are found in Appendix G.

**APPENDIX B**

**PENSION EXPENSE/(INCOME) UNDER GASB 68**

	<u>January 1,2015-</u> <u>December 31, 2015</u>	
1. Service Cost	\$ 2,432,932	
2. Interest on Total Pension Liability	3,885,117	
3. Current Period Benefit Changes	0	
4. Offset for Employee Contributions	(755,749)	
5. Projected Earnings on Plan Assets	(3,062,728)	
6. Other Changes in Plan Net Position	(55,210)	
7. Rec. of outflow (inflow) due to liabilities	667,416	
8. Rec. of outflow (inflow) due to assets	931,805	
9. Total Pension Expense/(Income)	\$ 4,043,583	

**APPENDIX C**

**GASB 68 PENSION EXPENSE – DETAIL OF OUTFLOW/INFLOW OF RESOURCES**

	Description	Year	Original Amount	Recognition Period	Outflow (Inflow) In Current Expense	Deferred Outflow (Inflow) 12/31/2015
(1)	Actual vs Expected	2015	(1,495,386)	9.0	(166,154)	(1,329,232)
(2)	Assumption change	2015	7,502,132	9.0	833,570	6,668,562
(3)	Proj vs Actual earnings	2015	4,659,023	5.0	931,805	3,727,218
	TOTAL				1,599,221	9,066,548
	Due to Liabilities				667,416	5,339,330
	Due to Assets				931,805	3,727,218

**APPENDIX D**

**GASB 67 NOTES TO THE FINANCIAL STATEMENTS**

**Cost of Living Adjustment (COLA)**

The plan does not provide cost of living adjustments (COLA), and none are anticipated or included in these calculations.

**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. The target allocation of the plan as discussed in the Investment note and the long-term expected real rates of return are shown in the table below:

Asset Class	Target Allocation	Long-term Expected Rate Of Return
Fixed Income	40%	2.25%
Domestic Equity	40%	4.75%
Foreign Equity	12%	6.25%
Alternatives	4%	4.50%
Cash	4%	0.25%
Total	100%	
Expected Inflation		3.00%

**Single Discount Rate**

A single discount rate of 4.90% 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 7.0%. The projection of cash flows, based on the assumptions made, found that the pension plan's net position was not available to make all projected future benefit payments of current plan members. Therefore, the single discount rate calculated in Appendix F was applied to all periods of projected benefit payments to determine the Total Pension Liability.

### **Components of Net Pension Liability**

The components of the net pension liability at December 31, 2015 were as follows:

Total Pension Liability	\$77,063,763
Plan's Fiduciary Net Position	41,696,424
Net Pension Liability	<u>\$35,367,339</u>

Plan Fiduciary Net Position as a Percentage of Total Pension Liability	54.11%
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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 4.90%, as well as what the plan's Net Pension Liability would be if it were calculated using a single discount rate one percentage point lower and one percentage point higher:

	1% Decrease 3.90%	Current Single Rate Assumed	1% Increase 5.90%
Total Pension Liability	85,943,906	77,063,763	68,456,333
Net Pension Liability	44,247,482	35,367,339	26,759,909

### **Changes in the Net Pension Liability**

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balances at 12/31/2014	\$ 67,494,217	\$ 44,213,809	\$ 23,280,408
Changes for the year:			
a) Service Cost	2,432,932		2,432,932
b) Interest on NPL	3,885,117		3,885,117
c) Differences between expected and actual experience	(1,495,386)		(1,495,386)
d) Employer contributions		1,133,620	(1,133,620)
e) Employee contributions		755,749	(755,749)
f) Service Purchases			0
g) Net investment income		(1,596,295)	1,596,295
h) Benefits and refunds	(2,755,249)	(2,755,249)	0
i) Administrative expenses		(55,210)	55,210
j) Assumption change	7,502,132		7,502,132
k) Other		0	0
Net changes	9,569,545	(2,517,385)	12,086,931
Balances at 12/31/2015	\$ 77,063,763	\$ 41,696,424	\$ 35,367,339

**Appendix D (continued)**

**GASB 68 Pension Expense and Deferred Outflows/Inflows**

For the year ended December 31, 2015, the City of North Little Rock (and agency employers) recognized pension expense of \$4,043,583. At December 31, 2015, the City of North Little Rock reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows Of Resources	Deferred Inflows Of Resources
Difference between expected and actual experience	0	1,329,232
Changes of assumptions	6,668,561	0
Net difference between projected and actual earnings on pension plan investments	3,727,218	0
Subtotal	10,395,779	1,329,232
Contributions subsequent to measurement date	0	
Total	<u>10,395,779</u>	<u>1,329,232</u>

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ending December 31:	Net Deferred Outflow of Resources
2016	1,599,221
2017	1,599,221
2018	1,599,221
2019	1,599,221
2020	667,416
Total thereafter	2,002,248
Total	9,066,548

## APPENDIX E

### REQUIRED SUPPLEMENTARY INFORMATION

GASB 67 requires a 10-fiscal year history of various types of information about the pension liability. These schedules may be built prospectively since the presentation is not the same as all previous years under previous standards. The four schedules are:

- Schedule of changes in the net pension liability.
- Schedule of the components of net pension liability along with related ratios.
- Comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy.
- Schedule of the annual money-weighted rate of return on pension plan investments.

Please note that the money-weighted rate of return schedule is based on all transactions occurring at mid-year. The standard calls for a monthly calculation of the weighted, but we do not have the data sufficient to make that calculation.

The actuarially determined contribution rate was not calculated in the fashion described historically. Therefore, that schedule will be completed prospectively.

**Appendix E (continued)**

**The Retirement System of the City of North Little Rock, Arkansas**  
**Schedule of Required Supplementary Information**  
Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

Fiscal Year ending December 31,	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>	<u>2008</u>	<u>2007</u>	<u>2006</u>
<b>Total Pension Liability</b>										
Service Cost	2,432,932	1,864,257	1,817,824							
Interest	3,885,117	3,918,262	3,719,151							
Benefit Changes	0	0	0							
Difference between Actual & Expected Experience	-1,495,386	-1,694,088	-158,110							
Assumption changes	7,502,132	9,665,047	0							
Benefit Payments	-2,755,249	-2,604,613	-2,510,652							
Net Change in Total Pension Liability	9,569,546	11,148,866	2,868,213							
Total Pension Liability - Beginning	67,494,217	56,345,351	53,477,138							
Total Pension Liability - Ending	77,063,763	67,494,217	56,345,351							
<b>Plan Fiduciary Net Position</b>										
Contributions - Employee Mandatory	755,749	846,533	776,207							
Contributions - Employer	1,133,620	1,228,646	1,164,511							
Net Investment Income	-1,596,295	1,113,897	4,546,615							
Benefit Payments	-2,755,249	-2,604,613	-2,510,652							
Administrative Expense	-55,210	-72,146	-58,516							
Reconciliation	0	0	0							
Net Change in Plan Net Position	-2,517,385	512,317	3,918,165							
Plan Fiduciary N P - Beginning	44,213,809	43,701,492	39,783,327							
Plan Fiduciary N P - Ending	41,696,424	44,213,809	43,701,492							
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	54.11%	65.51%	77.56%							
Covered Employee Payroll	19,641,076	19,305,847	19,610,843							
Net Pension Liability as a Percentage of Covered Employee Payroll	180.07%	120.59%	64.47%							

**Appendix E (continued)**

**The Retirement System of the City of North Little Rock, Arkansas  
Schedule of Required Supplementary Information**

**Schedule of Net Pension Liability**

FY ending December 31,	Discount Rate	(TPL) Total Pension Liability	Plan Net Position	(NPL) Net Pension Liability	Net Position as % of TPL	Covered Payroll	NPL as % of Payroll
2008	7.00%	42,591,315	31,285,983	11,305,332	73.46%	17,951,501	63%
2009	7.00%	46,151,778	34,731,961	11,419,817	75.26%	18,318,954	62%
2010	7.00%	47,964,598	37,772,958	10,191,640	78.75%	18,361,969	55%
2011	7.00%	50,918,897	37,213,435	13,705,463	73.08%	18,665,836	73%
2012	7.00%	53,477,138	39,783,327	13,693,811	74.39%	19,361,786	71%
2013	7.00%	56,345,351	43,701,492	12,643,859	77.56%	19,610,843	64%
2014	5.77%	67,494,217	44,213,809	23,280,408	65.51%	19,305,847	121%
2015	4.90%	77,063,763	41,696,424	35,367,339	54.11%	19,641,076	180%

**Appendix E (continued)**

**The Retirement System of the City of North Little Rock, Arkansas  
Schedule of Required Supplementary Information**

**Schedule of Contributions**

FY ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as % of Payroll
2006					
2007					
2008					
2009					
2010					
2011					
2012					
2013					
2014	2,136,418	1,228,646	907,772	19,610,843	6.27%
2015	2,185,569	1,133,620	1,051,949	19,305,847	5.87%

Key Assumptions for ADC:

Cost Method	Entry Age Normal
Amortization Method	Level Percentage of Pay
Remaining amortization	15 years
Asset Valuation	Market Value
Investment rate of return	7.0%
Mortality	1983 Group Annuity Mortality Table

Note: a full 10 year schedule will be completed as information is available.

**Appendix E (continued)**

**The Retirement System of the City of North Little Rock, Arkansas  
Schedule of Required Supplementary Information**

**Schedule of Investment Returns**

FY ending December 31,	Annual Money-weighted Rate of Return
2013	11.52%
2014	2.57%
2015	- 3.65%

The amounts shown are net of investment expenses.

The actuary calculated these rates with the information that was provided, therefore, these rates are annual money-weighted. Monthly money-weighted returns are not available.

## **APPENDIX F**

### **GASB 67 CALCULATION OF THE SINGLE DISCOUNT RATE**

GASB 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 projected and compared to the 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. The single discount rate is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods.

Our projections show that Plan Net Position (assets) together with employer contributions and projected investment returns will be sufficient to meet benefit payments and expenses in all future years. Therefore, for the purpose of this valuation, the expected rate of return on pension plan investments is 7.00%, the municipal bond rate is 3.57%, and the resulting single discount rate is 4.90%.

**APPENDIX G**

**ALLOCATION OF PENSION EXPENSE TO COMPONENT UNITS**

The Retirement System of the City of North Little Rock is a “single-employer” plan as defined under GASB 67/68 with the component units treated as “cost-sharing” employers (see paragraph 18 of GASB 67). Paragraph 48 of GASB 68 defines the proportionate share to be allocated to each participating employer. In part, “The basis for the employer’s proportion should be consistent with the manner in which contributions to the pension plan are determined.” Therefore, based on discussions with the plan sponsor, the proportion is based on the actual contributions by the employers in the measurement period. The proportionate share is rounded to the nearest 0.1%.

Some totals may not match previous schedules due to rounding.

**Calculation of Proportionate Share and Allocation of Net Pension Liability**

<u>Employer</u>	2015 Employer Contribution	Proportionate Share	Net Pension Liability – 4.9%	NPL 1% Lower Discount – 3.9%	NPL 1% Higher Discount – 5.9%
City	743,592	63.0%	22,281,423	27,875,913	16,858,742
Electric	305,374	25.9%	9,160,141	11,460,098	6,930,816
UAD	79,783	6.8%	2,404,979	3,008,829	1,819,674
Library	50,798	4.3%	1,520,796	1,902,642	1,150,676
Total	<u>1,179,547</u>	<u>100.0%</u>	<u>35,367,339</u>	<u>44,247,482</u>	<u>26,759,909</u>

**Allocation of Employer Pension Expense**

<u>Employer</u>	Proportionate Share	Proportionate Share of Plan Pension Expense	Net Amortization Of Deferred Amounts from Changes in Proportion	Total Employer Pension Expense
City	63.0%	2,547,457	0	2,547,457
Electric	25.9%	1,047,288	0	1,047,288
UAD	6.8%	274,964	0	274,964
Library	4.3%	173,874	0	173,874
Total	<u>100.0%</u>	<u>4,043,583</u>	<u>0</u>	<u>4,043,583</u>

**Appendix G (continued)**

**Deferred Outflows of Resources**

<u>Employer</u>	Differences Between Expected and Actual Experience	Changes Of <u>Assumptions</u>	Changes In <u>Proportion</u>	Difference Between Projected and Actual Investment <u>Earnings</u>	Total Deferred Outflows of <u>Resources</u>
City	0	4,201,193	0	2,348,147	6,549,341
Electric	0	1,727,157	0	965,349	2,692,507
UAD	0	453,462	0	253,451	706,913
Library	0	286,748	0	160,270	447,018
Total	0	6,668,561	0	3,727,218	10,395,779

**Deferred Inflows of Resources**

<u>Employer</u>	Differences Between Expected and Actual Experience	Changes Of <u>Assumptions</u>	Changes In <u>Proportion</u>	Difference Between Projected and Actual Investment <u>Earnings</u>	Total Deferred Outflows of <u>Resources</u>
City	-837,416	0	0	0	-837,416
Electric	-344,271	0	0	0	-344,271
UAD	-90,388	0	0	0	-90,388
Library	-57,157	0	0	0	-57,157
Total	-1,329,232	0	0	0	-1,329,232

**Schedule of Amortization of Deferred Inflows and Outflows**

<u>Employer</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
City	1,007,509	1,007,509	1,007,509	1,007,509	420,472
Electric	414,198	414,198	414,198	414,198	172,861
UAD	108,747	108,747	108,747	108,747	45,384
Library	68,766	68,766	68,766	68,766	28,699
Total	1,599,221	1,599,221	1,599,221	1,599,221	667,416