



ARKANSAS FIRE & POLICE PENSION REVIEW BOARD

620 W. 3rd, Suite 200
Little Rock, Arkansas 72201-2223
Telephone: 501.682.1745
Toll-Free: 866.859.1745
Fax: 501.682.1751
email: info@lopfi-prb.com
website: www.lopfi-prb.com

To: Board of Trustees and Governing Body*
LITTLE ROCK Fire Pension Fund

From: PRB Staff

Re: 2017 Annual Actuarial Valuation

Date: April 2, 2018

Under state law the actuary for the PRB tests each local fire and police pension fund (Local Plan) for actuarial soundness. The PRB uses an annual valuation cycle to assist each Local Plan in monitoring its funding progress. The enclosed valuation for December 31, 2017 provides important information for the board of trustees AND governing body (*city council or board of directors/commissioners). A brief summary of the valuation results answers the following questions about your Local Plan:

	<u>YES</u>	<u>NO</u>
1. Does income meet or exceed the Necessary Employer Contribution (see page 4)?		XX
2. Is the funded percentage at least 97% (see page 9), OR are there enough assets to cover: all active member contributions; all payments to current beneficiaries; and 100% of all future payments earned by active member (see page 10)?		XX
3. Is the Local Plan actuarially sound? (YES response to items 1 <u>and</u> 2)		XX

LITTLE ROCK FIREFIGHTERS PENSION FUND

ACTUARIAL VALUATION

AS OF DECEMBER 31, 2017

Osborn, Carreiro & Associates, Inc.
Actuaries • Consultants • Analysts
Little Rock, Arkansas

Osborn, Carreiro & Associates, Inc.

ACTUARIES • CONSULTANTS • ANALYSTS

124 West Capitol Avenue, Suite 1690

Little Rock, Arkansas 72201

(501) 376-8043

March 29, 2018

Board of Trustees and Governing Body
Little Rock Firefighters Pension Fund

Ladies and Gentlemen:

This report presents the results of our actuarial valuation of the assets and liabilities of the Little Rock Firefighters Pension Fund as of December 31, 2017. This report is intended for use by the trustees of the Pension Fund as well as the Governing Body (city council or board of directors) of the sponsoring city or district.

This valuation is required by Arkansas Code Annotated 24-11-205. The purpose of this report is to (1) evaluate the actuarial status of the Fund, (2) determine the level contribution requirement needed, (3) review the development of the Fund over the past several years, and (4) present certain actuarial items for disclosure under Governmental Accounting Standards. This report is not intended for any other purpose.

The implementation of Government Accounting Standards Board Statement No. 68 (GASB 68) is included in this report. The Appendices in this report disclose the necessary items for complying with GASB Standards. An additional table was added to Appendix B to assist Cities making these entries.

Note the second page of this cover letter, first added in the 2015 valuation reports, which shows four key valuation results that provide a snapshot of the health of this pension fund. Please review this information and compare to prior year results.

The participant and financial information used in this report was supplied by the Arkansas Fire & Police Pension Review Board. We did not audit this information, although we did review it for reasonableness and consistency.

I certify that this report has been prepared in accordance with generally accepted actuarial principles and practices. In my opinion, the actuarial methods used are appropriate and the actuarial assumptions produce results which, in the aggregate, are reasonable.

Sincerely,



Jody Carreiro, ASA, MAAA, EA
Actuary



Lawrence Watts, Jr., FSA, CFA, MAAA, EA
Actuary

Osborn, Carreiro & Associates, Inc.

ACTUARIES • CONSULTANTS • ANALYSTS

124 West Capitol Avenue, Suite 1690

Little Rock, Arkansas 72201

(501) 376-8043

In consultation with the Arkansas Fire and Police Pension Review Board, we have brought four key valuation metrics to the front of this report. These metrics were chosen in order to give a high-level, easy-to-understand snapshot of your plan's health. These numbers should be taken in context: no single metric gives a complete picture of the status of the plan, and the four of them together do not completely describe the plan's financial and demographic situation. We hope this information leads to constructive discussion about your plan and its health.

Indicator	Risk Level
5	Extreme Risk
4	High Risk
3	Moderate Risk
2	Low Risk
1	Very Low Risk

Funding Percentage

47.5%

5

The funding percentage measures how much of the plan's liabilities are covered by assets. It's similar to how much equity you might have in your home with a mortgage - if the funded percentage is 100%, then your pension plan is fully funded or "paid for," assuming that experience is as expected in the future.

10-Year Average Market Rate of Return

3.82%

4

This number is your investment rate of return, accounting for benefit payments and expenses which occur throughout the year. This valuation assumes that the plan will earn 5% over the long term; the risk indicated by this metric shows how your plan has performed relative to that assumption historically.

Ratio of Actual to Actuarially Recommended Contributions

41%

4

As your plan is closed to new entrants and most (if not all) participants are retired, the plan should be nearly fully funded. For that reason, it is advisable to pay off any unfunded liabilities quickly. The valuation report calculates the amount necessary to be paid for five years to fully fund the plan under certain assumptions (the recommended contribution). This metric measures last year's contributions relative to this year's recommended total.

Projected Number of Years until Crossover Point

No Crossover

2

New accounting standards have introduced the idea of a "Crossover Point." Basically, this is the number of years your current assets and income streams are projected to be able to pay promised benefits. If you don't have a "Crossover Point," then your current assets and income are projected to pay for all future benefits. Your plan will only receive a "1" here if it is also actuarially sound on a non-cash flow basis.

TABLE OF CONTENTS

EXHIBIT 1	CONTRIBUTIONS
EXHIBIT 2	COST AND LIABILITIES
EXHIBIT 3	SUMMARY OF FINANCIAL INFORMATION
EXHIBIT 4	COMPARISON WITH PRIOR YEARS
EXHIBIT 5	SHORT CONDITION TEST
EXHIBIT 6	EMPLOYEE AND RETIREE PROFILES
EXHIBIT 7	PRINCIPAL PROVISIONS OF THE PLAN
EXHIBIT 8	ACTUARIAL METHODS AND ASSUMPTIONS
APPENDIX A	DISCUSSION OF GASB DISCLOSURES
APPENDIX B	PENSION EXPENSE UNDER GASB 68
APPENDIX C	DETAIL OF INFLOWS AND OUTFLOWS
APPENDIX D	NOTES TO THE FINANCIAL STATEMENTS
APPENDIX E	REQUIRED SUPPLEMENTARY INFORMATION
APPENDIX F	CALCULATION OF SINGLE DISCOUNT RATE

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 Liability over a 5-year period. These costs DO NOT include the contributions due to the Local Police and Firefighters Retirement System ("LOPFI") for persons hired after 1982.

	<u>Full Paid</u>
2018 Necessary Annual Contribution to pay:	
1 Normal Cost, plus	\$ 0
2 Pay off the Unfunded Actuarial Accrued Liability	<u>13,703,688</u>
3 Total Necessary	\$ 13,703,688
Less	
4 Expected Employee Contributions	<u>- 0</u>
5 Necessary Employer Contribution	<u><u>\$ 13,703,688</u></u>
(This is the amount needed in addition to investment income.)	
Covered Payroll	0
Necessary Employer Contribution Rate	<u><u>N/A</u></u>

These contributions assume that the dollar contribution grows at a rate of 4% per year. The contributions are assumed to be made continuously throughout the year.

The actual 2017 contribution was \$5,683,879 from the employer.

EXHIBIT 2

COSTS AND LIABILITIES

	<u>December 31, 2017</u>	
	<u>Dollar</u>	<u>Percentage</u>
A. <u>Normal Cost</u>	<u>Amount</u>	<u>of Payroll</u>
(Cost to fund current active members)		
1. Regular Retirement Benefits	\$ 0	0.00%
2. Voluntary Termination Benefits	0	0.00%
3. Survivors Benefits	0	0.00%
4. Disability Benefits	0	0.00%
	<hr/>	<hr/>
TOTAL	\$ 0	0.00%
B. <u>Actuarial Accrued Liability</u>		
1. <u>Active Lives</u>		
Regular Retirement Benefits	\$ 0	
Voluntary Termination Benefits	0	
Survivors Benefits	0	
Disability Benefits	0	
TOTAL ACTIVE LIVES	<hr/> \$ 0	
2. <u>Deferred Retirement Option Plan</u>		
DROP Accounts	7,328,949	
Future DROP Payments & Pensions	646,160	
TOTAL DROP	<hr/> \$ 7,975,109	
3. <u>Inactive Lives</u>		
Regular Retirees	88,722,350	
Disability Retirees	2,831,330	
Widows & Children	16,314,023	
TOTAL INACTIVE LIVES	<hr/> \$ 107,867,702	
4. Total Actuarial Accrued Liability	\$ 115,842,811	
C. Assets (See Exhibit 3.J.)	\$ 55,065,946	
D. Unfunded Actuarial Accrued Liability	\$ 60,776,866	

EXHIBIT 3
SUMMARY OF FINANCIAL INFORMATION
(Items C, F-H, and J determined by Osborn, Carreiro and Associates, Inc.)

A. INCOME	Year Ended 12/31/2017	Year Ended 12/31/2016	Year Ended 12/31/2015	Year Ended 12/31/2014	Year Ended 12/31/2013	Year Ended 12/31/2012	Year Ended 12/31/2011	Year Ended 12/31/2010	Year Ended 12/31/2009	Year Ended 12/31/2008
1 <u>Employee Contributions</u>	\$ 3,388	\$ 3,324	\$ 14,993	\$ 33,835	\$ 41,083	\$ 62,755	\$ 98,246	\$ 129,648	\$ 172,838	\$ 204,490
2 <u>Employer Contributions</u>										
Employer/Court Fines/Other	503,388	503,324	514,994	533,835	541,083	562,755	248,246	129,648	172,838	204,490
Local Millage	4,047,877	3,918,561	3,851,878	3,755,931	3,595,073	3,639,843	3,528,279	3,416,798	3,324,800	3,136,615
3 <u>State Insurance Premium Tax</u>										
Premium Tax Allocation	924,583	751,765	708,405	763,140	775,406	778,168	807,816	542,362	911,034	786,438
Additional Allocation	208,031	250,588	236,135	203,504	163,714	259,389	-	-	-	-
Guarantee Fund	-	-	-	-	-	-	-	-	-	-
4 <u>Other Income</u>										
LOPFI Subsidy	-	-	-	-	-	-	-	-	-	-
Police Supplement (Act 1452 of 1999)	-	-	-	-	-	-	-	-	-	-
Future Supplement (Act 1373 of 2003)	438,900	469,800	418,600	372,970	283,975	228,375	187,620	135,710	157,920	204,826
Other Income/Donations	-	256	1,443	-	2,345	332	50	4,914	8,678	-
Adjustment to prior year value	-	-	39,659	-	-	-	-	0	(1)	-
5 <u>Net Investment Income</u>	1,154,178	1,740,210	1,722,264	3,095,792	3,277,906	2,732,380	2,165,352	681,099	(286,910)	(1,596,872)
TOTAL INCOME	\$ 7,280,344	\$ 7,637,828	\$ 7,508,371	\$ 8,759,006	\$ 8,680,585	\$ 8,263,997	\$ 7,035,609	\$ 5,040,179	\$ 4,461,197	\$ 2,939,987
B. EXPENSES										
1 <u>Administrative</u>	\$ 9,558	\$ 194,321	\$ 9,491	\$ 9,903	\$ 11,804	\$ 11,444	\$ 8,749	\$ 12,900	\$ 36,053	\$ 34,738
2 <u>Benefits Paid</u>										
Monthly Benefits	9,677,926	9,751,618	9,755,588	9,799,304	9,687,410	9,563,364	9,298,153	8,978,998	8,530,305	7,746,946
Police Supplements	-	-	-	-	-	-	-	-	-	-
Future Supplements	434,280	463,320	407,400	360,620	273,600	215,325	172,280	117,670	136,800	170,688
DROP Payouts	2,336,551	1,419,984	1,008,303	887,009	847,791	1,426,216	1,173,542	1,744,064	1,867,545	1,138,766
Paid Current Year for Previous Year	-	-	-	-	-	-	-	-	-	-
3 <u>Refunds</u>	-	-	-	-	-	-	-	-	-	-
4 <u>Other Expenses</u>	30,399	30,820	-	28,364	28,652	27,747	26,048	-	-	-
TOTAL EXPENSES	\$ 12,488,713	\$ 11,860,062	\$ 11,180,782	\$ 11,085,199	\$ 10,849,257	\$ 11,244,096	\$ 10,678,773	\$ 10,853,632	\$ 10,570,703	\$ 9,091,138
C. NON-INVESTMENT CASH FLOW	(6,362,547)	(5,962,444)	(5,394,675)	(5,421,986)	(5,446,578)	(5,712,479)	(5,808,516)	(6,494,552)	(5,822,596)	(4,554,279)

EXHIBIT 3 (Continued)

	12/31/2017	12/31/2016	12/31/2015	12/31/2014	12/31/2013	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008
D. ASSETS (at book value)										
1 Cash & Checking Accounts	-	-	-	-	-	-	-	-	197,754	1,050,431
2 Bank Deposits	592,399	650,031	622,222	1,082,072	195,754	937,205	606,189	832,826	-	14,250,000
3 Savings and Loan Deposits	-	-	-	-	-	-	-	-	-	-
4 Other Cash Equivalents	358,112	3,424,547	1,784,740	3,406,206	1,645,537	2,904,998	4,275,601	1,507,305	2,221,531	5,684,551
5 US Govt. Securities	-	-	-	-	-	-	-	4,594,290	6,103,997	3,603,537
6 Non-US Govt Securities	-	-	-	-	-	-	-	-	-	-
7 Mortgages	-	-	-	-	-	-	-	-	-	-
8 Corporate Bonds	-	-	-	-	2,253,153	2,668,236	2,668,236	6,235,676	10,012,266	13,999,616
9 Common Stocks	39,285,358	39,270,983	45,160,767	46,791,666	49,346,475	49,058,478	51,188,880	51,158,639	51,324,343	38,365,914
10 Other	2,720,625	4,820,625	4,820,623	4,780,966	4,943,570	4,984,340	4,806,268	2,878,270	3,182,189	2,228,190
11 Payables	(3,206)	(4,528)	(4,459)	(4,607)	(1,992)	(2,089)	(13,907)	(32,574)	(30,256)	(60,909)
TOTAL ASSETS	\$ 42,953,288	\$ 48,161,658	\$ 52,383,892	\$ 56,056,303	\$ 58,382,496	\$ 60,551,168	\$ 63,531,267	\$ 67,174,431	\$ 73,011,824	\$ 79,121,330
E. TOTAL MARKET VALUE	\$ 53,560,872	\$ 54,410,753	\$ 59,016,282	\$ 67,185,634	\$ 70,004,770	\$ 67,100,228	\$ 66,306,657	\$ 73,204,203	\$ 72,865,809	\$ 69,120,422

F. SUMMARY OF NET INVESTMENT RETURNS

Book Value Rate of Return	2.57%	3.52%	3.23%	5.56%	5.67%	4.50%	3.37%	0.98%	-0.38%	-1.92%
10 Year Average Return	2.68%									
Market Value Rate of Return	10.76%	2.42%	-4.30%	3.87%	12.97%	10.25%	-1.55%	9.81%	14.45%	-16.26%
10 Year Average Return	3.82%									

Note: The assumed liability discount rate is 5%. If the plan does not realize an investment return of 5% or more over the long term, the ultimate cost of the plan will be greater than the liabilities shown in this report. That is: the plan would need more money to meet its obligations. Please review the cover letter for a discussion of other risk factors.

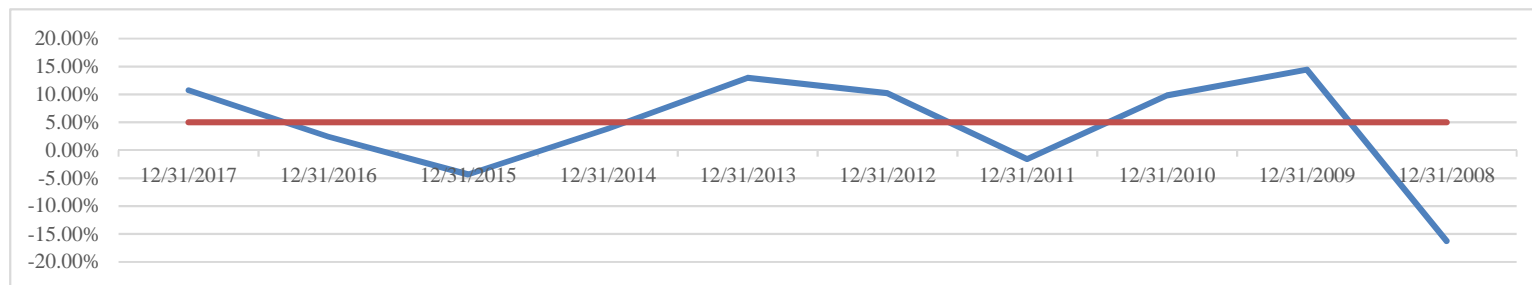


EXHIBIT 3 (Continued)

	<u>12/31/2017</u>	<u>12/31/2016</u>	<u>12/31/2015</u>	<u>12/31/2014</u>	<u>12/31/2013</u>
G. <u>TOTAL MARKET VALUE</u>					
1. Market Value, end of year (Used for GASB calculations)	53,560,872	54,410,753	59,016,282	67,185,634	70,004,770
2. Market Value, beginning of year	54,410,753	59,016,282	67,185,634	70,004,770	67,100,228
H. <u>DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS</u>					
1. Actuarial Value of Assets, beginning of year	58,648,222	61,608,082	64,494,769	65,598,286	65,842,124
2. Non Investment Net Cash Flow	(6,362,547)	(5,962,444)	(5,394,675)	(5,421,986)	(5,446,578)
3. Development of Investment Income					
(a) Total Market Investment Income (I1-I2-J2)	5,512,667	1,356,915	(2,774,677)	2,602,850	8,351,120
(b) Assumed Rate for Immediate Recognition	5%	5%	5%	5%	5%
(c) Amount for Immediate Recognition (J1 x b)	2,932,411	3,080,404	3,224,738	3,279,914	3,292,106
(d) Amount for Phased In Recognition (a-c)	2,580,255	(1,723,489)	(5,999,415)	(677,065)	5,059,013
(e) Phased In Recognition					
Current year : 20% of 3(d)	516,051	(344,698)	(1,199,883)	(135,413)	1,011,803
First Prior Year	(344,698)	(1,199,883)	(135,413)	1,011,803	590,371
Second Prior Year	(1,199,883)	(135,413)	1,011,803	590,371	(983,629)
Third Prior Year	(135,413)	1,011,803	590,371	(983,629)	555,422
Fourth Prior Year	1,011,803	590,371	(983,629)	555,422	736,666
Total Phased In Recognition	(152,140)	(77,820)	(716,751)	1,038,554	1,910,633
(f) Actuarial Value Investment Income (3(c) + 3(e))	2,780,271	3,002,584	2,507,988	4,318,468	5,202,739
4. Actuarial Value of Assets, End of year (1 + 2 + 3(f))	55,065,946	58,648,222	61,608,082	64,494,769	65,598,286
5. Net Investment Return on the Actuarial Value of Assets	5.0%	5.1%	4.1%	6.9%	8.2%

Note: The Pension Review Board's Board Rule #11 first applies this methodology to determine the Actuarial Value of Assets for the 12/31/99 actuarial valuation report. Different methods were used to determine the Actuarial Value of Assets for the 12/31/98 and earlier reports.

EXHIBIT 4

COMPARISON WITH PRIOR YEARS

This exhibit compares the current valuation results with those of prior years.

Valuation Date	Active Members			Actuarially Computed Employer Contribution	Valuation Assets	Unfunded Actuarial Accrued Liability	Funded Percentage
	Part-Paid/ Volunteer	Full Paid	Full Paid Salary				
12/31/1989	0	227	6,984,680	2,062,111	28,590,000	18,730,000	60.4%
12/31/1991	0	210	6,992,608	1,994,457	33,620,000	16,550,000	67.0%
12/31/1993 *	0	191	6,813,155	3,482,725	40,213,736	29,466,060	57.7%
12/31/1995	0	149	5,756,728	3,665,888	47,364,321	28,995,526	62.0%
12/31/1997 *	0	117	4,973,319	3,544,582	61,541,957	22,032,696	73.6%
12/31/1999 *	0	88	4,050,671	2,953,799	77,434,021	15,036,521	83.7%
12/31/2001 *	0	63	3,162,756	3,635,690	88,976,274	16,536,395	84.3%
12/31/2003	0	44	2,363,860	4,262,235	88,975,164	17,744,246	83.4%
12/31/2005 *	0	5	278,939	7,925,747	85,232,491	36,769,498	69.9%
12/31/2007 *	0	1	51,914	9,177,570	86,470,585	41,871,994	67.4%
12/31/2008	0	1	50,640	7,933,199	84,066,463	36,188,835	69.9%
12/31/2009 *	0	0	0	14,836,074	81,116,764	65,799,085	55.2%
12/31/2010	0	0	0	15,782,588	76,563,099	69,996,948	52.2%
12/31/2011	0	0	0	16,659,021	71,068,737	73,883,990	49.0%
12/31/2012 *	0	0	0	16,707,938	65,842,124	74,100,942	47.0%
12/31/2013 *	0	0	0	16,369,471	65,598,286	72,599,814	47.5%
12/31/2014 *	0	0	0	16,655,562	64,494,768	73,868,649	46.6%
12/31/2015	0	0	0	14,823,559	61,608,082	65,743,574	48.4%
12/31/2016	0	0	0	14,317,650	58,648,222	63,499,833	48.0%
12/31/2017	0	0	0	13,703,688	55,065,946	60,776,866	47.5%

* Denotes that benefits or assumptions were changed relative to the prior valuation

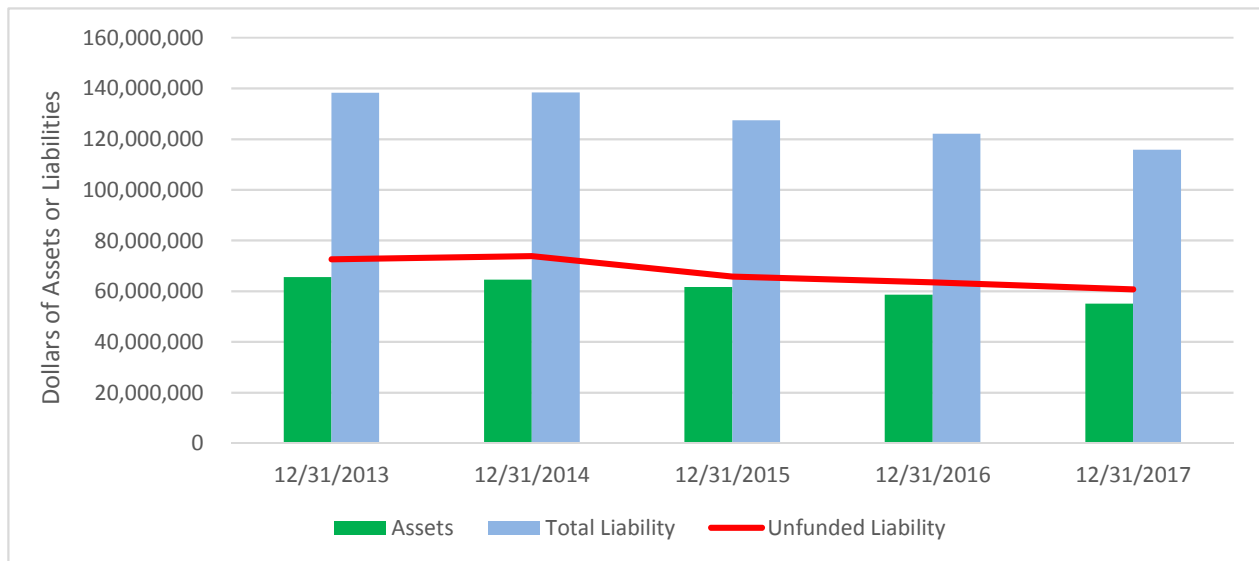


EXHIBIT 5

SHORT CONDITION TEST

The Arkansas General Assembly has stated that the funding objective for these plans is to pay for benefits with contributions that remain level as a percentage of employee payroll. Thus, the long-term condition test is met when the actual contributions are fairly level and are paid when due.

A short condition test can be used to measure a plan's progress. Under the short condition test, the fund's assets are compared with:

- 1) active member contributions,
- 2) the liabilities for future benefits to the present retirees and inactive members, and
- 3) the liabilities for service already rendered by active members.

If the plan has been following level cost funding, liability (1) and liability (2) above will almost always be fully covered by the rest of the present assets. In addition, liability (3) above will at least partially funded. The larger the funded portion of liability (3), the stronger the condition of the fund. For a closed fund (i.e. one like yours, where no new members are admitted), the funded portion of liability (3) should be steadily increasing.

The following table illustrates the history of the short condition test for this plan:

Valuation Date	Computed Actuarial Liabilities			Valuation Assets	Portion of Liabilities covered by Assets		
	(1) Active Member Contributions	(2) Retirees, Inactives, and DROP	(3) Actives- Employer Financed		(1)	(2)	(3)
12/31/1989	3,450,000	16,160,000	2,771,000	28,590,000	100%	100%	324%
12/31/1991	3,980,000	18,550,000	2,764,000	33,620,000	100%	100%	401%
12/31/1993	4,372,806	27,039,616	38,267,374	40,213,736	100%	100%	23%
12/31/1995	3,921,702	40,649,316	3,178,882	47,364,321	100%	100%	88%
12/31/1997	3,581,126	52,173,022	27,820,505	61,541,957	100%	100%	21%
12/31/1999	3,129,346	65,378,804	23,962,391	77,434,021	100%	100%	37%
12/31/2001	2,581,353	84,091,498	18,839,818	88,976,274	100%	100%	12%
12/31/2003	2,057,219	90,610,919	14,051,271	88,975,164	100%	96%	0%
12/31/2005	248,814	119,942,388	1,810,787	85,232,491	100%	71%	0%
12/31/2007	53,591	127,960,134	328,854	86,470,585	100%	68%	0%
12/31/2008	56,629	119,877,455	321,214	84,066,463	100%	70%	0%
12/31/2009	0	146,915,849	0	81,116,764	100%	55%	0%
12/31/2010	0	146,560,047	0	76,563,099	100%	52%	0%
12/31/2011	0	144,952,727	0	71,068,737	100%	49%	0%
12/31/2012	0	139,943,066	0	65,842,124	100%	47%	0%
12/31/2013	0	138,198,100	0	65,598,286	100%	47%	0%
12/31/2014	0	138,363,417	0	64,494,768	100%	47%	0%
12/31/2015	0	127,351,656	0	61,608,082	100%	48%	0%
12/31/2016	0	122,148,055	0	58,648,222	100%	48%	0%
12/31/2017	0	115,842,811	0	55,065,946	100%	48%	0%

EXHIBIT 6

EMPLOYEE PROFILE

Employee data needed for the valuation was obtained from the records furnished by the Arkansas Fire and Police Pension Review Board. The following table shows a detailed breakdown of the present participants by the number of participants and total salary.

Paid Actives

Age		<i>Years of Service</i>							Total
		0-5	5-10	10-15	15-20	20-25	25-30	30 or More	
Under 25	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
25-29	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
30-34	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
35-39	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
40-44	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
45-49	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
50-54	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
55-59	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
60-64	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
65 & Over	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0
Total	Count	0	0	0	0	0	0	0	0
	Salary	0	0	0	0	0	0	0	0

EXHIBIT 6

INACTIVE PROFILE

Employee data needed for the valuation was obtained from the records furnished by the Arkansas Fire and Police Pension Review Board. The following table shows a detailed breakdown of the present payees by the number of payees and total annual benefit.

Retirees and Survivors

Age		<i>Years since Retirement</i>						<i>10 or</i>	<i>Total</i>
		<i>0-1</i>	<i>1-2</i>	<i>2-3</i>	<i>3-4</i>	<i>4-5</i>	<i>5-10</i>	<i>More</i>	
Under 40	Count	0	0	0	0	0	0	2	2
	Benefit	0	0	0	0	0	0	39,681	39,681
40-44	Count	0	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0	0
45-49	Count	0	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0	0
50-54	Count	0	0	0	0	0	0	1	1
	Benefit	0	0	0	0	0	0	32,793	32,793
55-59	Count	0	0	0	0	0	4	6	10
	Benefit	0	0	0	0	0	142,000	186,201	328,202
60-64	Count	0	0	0	3	0	11	24	38
	Benefit	0	0	0	114,801	0	441,829	836,436	1,393,065
65-69	Count	0	0	1	0	1	10	67	79
	Benefit	0	0	39,604	0	46,060	411,007	2,353,325	2,849,996
70-74	Count	0	0	0	0	0	6	51	57
	Benefit	0	0	0	0	0	276,852	1,816,229	2,093,081
75-79	Count	0	0	0	0	0	0	45	45
	Benefit	0	0	0	0	0	0	1,329,218	1,329,218
80-84	Count	0	0	0	0	0	0	27	27
	Benefit	0	0	0	0	0	0	840,113	840,113
85 & Over	Count	0	0	0	0	0	0	27	27
	Benefit	0	0	0	0	0	0	709,635	709,635
Total	Count	0	0	1	3	1	31	250	286
	Benefit	0	0	39,604	114,801	46,060	1,271,687	8,143,631	9,615,783

This includes 209 retirees with annual benefits of \$7,551,410.

This includes 13 disableds with annual benefits of \$296,462.

This includes 64 survivors with annual benefits of \$1,767,911.

EXHIBIT 6

DEFERRED RETIREMENT OPTION PLAN PROFILE

Employee data needed for the valuation was obtained from the records furnished by the Arkansas Fire and Police Pension Review Board. The following table shows a detailed breakdown of the current participants on DROP by the number of participants and total annual DROP benefit.

DROP Participants

Age		<i>Years since Election of DROP</i>						Total
		0-1	1-2	2-3	3-4	4-5	5-10	
Under 40	Count	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0
40-44	Count	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0
45-49	Count	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0
50-54	Count	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0
55-59	Count	0	0	0	0	0	1	1
	Benefit	0	0	0	0	0	41,124	41,124
60-64	Count	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0
65-69	Count	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0
70-74	Count	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0
75 & Over	Count	0	0	0	0	0	0	0
	Benefit	0	0	0	0	0	0	0
Total	Count	0	0	0	0	0	1	1
	Benefit	0	0	0	0	0	41,124	41,124

EXHIBIT 7

PRINCIPAL PROVISIONS OF THE PLAN

<u>EMPLOYEE</u>	Member of Little Rock Fire Department
<u>EMPLOYER</u>	Little Rock Fire Department
<u>MEMBERSHIP</u>	Condition of Employment. Those hired after 1982 must join the statewide Local Police and Firefighters Retirement System
<u>CREDITABLE SERVICE</u>	Determined on basis of service since employment.
<u>CONTRIBUTIONS</u>	
<u>Employee</u>	6% of salary. Refundable if member terminates before retirement eligibility.
<u>Employer</u>	<ol style="list-style-type: none">1. Matching contribution equal to employee contribution2. State Insurance Premium Tax Turnback3. Local Millage
<u>FINAL SALARY</u>	Salary attached to the rank of the member at time of retirement, based on regularly scheduled workweek.
<u>DEFERRED RETIREMENT OPTION PLAN</u>	This plan has elected to participate in the Deferred Retirement Option Plan effective 01/26/1994. Members who elect to participate have a DROP account that is increased by the monthly amount of their retirement benefit as if they had retired as of the date DROP was individually elected. This plan has not elected coverage under Act 1457 of 1999.
<u>RETIREMENT BENEFITS</u>	
<u>Eligibility</u>	20 Years of Service, regardless of age.
<u>Benefit</u>	50% of final salary, but not less than \$10,500. If service exceeds 20 years, the annual benefit is increased by \$240 for each year over 20, up to \$1,200/year extra. If service is more than 25 years, member receives an extra 1.25% (for each year over 25) of Final Salary, payable once the retiree reaches age 60. The benefit cannot exceed 100% of Final Salary.

EXHIBIT 7 (Continued)

DEATH BENEFITS

- Eligibility Death before 20 Years of Service not occurring while performing work in gainful employment outside the department, or death after 20 years.
- Benefit 1. Widow receives same amount as member is receiving or would be eligible for.
2. Each child under age 19 receives \$1,500/year. If there is no surviving spouse, the child receives the spouse's benefit until age 19.

DISABILITY BENEFITS

- Eligibility Permanent physical or mental disability not acquired while performing work in gainful employment outside the fire department.
- Benefit Full Paid Non-duty Disability
 Retirement benefit, but not less than \$10,500/year.
- Full Paid Duty-related Disability
 Retirement benefit, but not less than 65% of Final Salary or \$10,500/year.

EXHIBIT 8

ACTUARIAL METHODS AND ASSUMPTIONS

The assumptions for this valuation have been selected in accordance with Actuarial Standards of Practice No. 27. The asset valuation method is prescribed in Arkansas Code Annotated 24-11-207. This prescribed asset valuation method directly impacts the investment return assumption. The assumed salary growth is restricted by A.C.A. 24-11-205 in relation to the investment return assumption.

ACTUARIAL COST METHOD

The "entry age normal" cost method has been used.

PRE-RETIREMENT MORTALITY

Deaths have been projected on the basis of the 1983 Group Annuity Table for Males, set back five years for females. Mortality rates at a few sample ages are:

<u>Age</u>	<u>Mort. Rate per 1,000</u>
25	0.464
35	0.860
45	2.183
55	6.131

POST RETIREMENT MORTALITY

The 1983 Group Annuity Mortality Table was used. For females, the male table was used with a five-year setback. The life expectancy according to this table is as follows:

<u>Age</u>	<u>Males</u>	<u>Females</u>
55	24.87	29.23
65	16.74	20.68

MORTALITY BASIS AND PROJECTION

The mortality assumptions do not include a projection for mortality improvement. These rates were chosen after an experience study for 2007-2012. No projection was deemed necessary at this time since the recent experience study did not show significant improvement over an experience study for 2000-2006 deaths.

The computer programs were converted beginning with the December 31, 2015 valuation; funding and GASB liabilities calculated using same calculation methods.

VOLUNTARY TERMINATIONS

Annual termination rates at a few sample ages are:

<u>Age</u>	<u>Term. Rate per 1,000</u>
25	35
30	29
35	15
40	6
45	5
50	5
55	5

EXHIBIT 8 (continued)

When a person had less than 4 years of service, we assumed that his chances of voluntary termination were a multiple of thereafter rates, with the following multiples being used:

1st year	2.85
2nd year	2.00
3rd year	1.50
4th year	1.15

ASSUMED DISCOUNT RATE

5.0%

The reports for the valuations as of 12/31/2009 through 12/31/2012 were completed using an assumed discount rate of 5%.

A study of the returns of all fire and police plans was made of the 2006-2012 experience. The components and variations of appropriate portfolios were also reviewed. The Pension Review Board determined that for comparison with previous years and with other similar plans that a single discount assumption of 5% should be used.

DISABILITIES

We continued the disability rates used in prior reports. Disability rates at a few sample ages are:

<u>Age</u>	<u>Disability Rate per 1,000</u>
20	0.8
25	0.8
30	0.8
35	0.8
40	2.0
45	2.6
50	4.9
55	8.9
60	14.1

One third of the disabilities were assumed to be service related.

For mortality after disability, we assumed rates based on the Eleventh Actuarial Valuation of the Railroad Retirement System for occupational disabilities.

ASSET VALUATION

See Exhibit 3, Part J

EXHIBIT 8 (continued)

SALARY GROWTH

We have used the salary scale used in prior reports. Annual assumed growth at a few sample ages is:

<u>Age</u>	<u>ANNUAL SALARY INCREASE</u>		
	<u>Base</u>	<u>Merit</u>	<u>Total</u>
20	4.0%	4.0%	8.0%
25	4.0%	3.2%	7.2%
30	4.0%	2.8%	6.8%
35	4.0%	2.5%	6.5%
40	4.0%	2.2%	6.2%
45	4.0%	1.7%	5.7%
50	4.0%	1.2%	5.2%
55	4.0%	0.7%	4.7%
60	4.0%	0.2%	4.2%

EXPECTED RETIREMENT AND DROP PATTERN

Since the plan allows full benefits at ages younger than the traditional "65", an assumption that will have an important impact is what percentage of people who are eligible for this early retirement will actually take advantage of it.

This will depend on intangible things such as the economy, health, financial ability to retire, Social Security eligibility, and work patterns. Based on recent experience, we are using the following assumed rates:

<u>Age</u>	<u>Retirement Rate per 1,000</u>	
	<u>Retirement</u>	<u>DROP</u>
40-59	100	200
60+	1,000	0

Note: A member was assumed to be eligible for retirement or DROP after attaining age 40 with 20 years of service. It is also assumed that twice the normal number will retire or elect DROP in the first year of eligibility.

RETIREMENT PATTERN AFTER DROP ELECTION

Once a person is on DROP (Deferred Retirement Option Program), they were assumed to retire from the department as follows:

<u>Years on DROP</u>	<u>Retirement Rate per 1,000</u>
1	100
2	200
3	200
4	300
5 or more	1,000

APPENDIX A

DISCUSSION OF GASB DISCLOSURES

Accounting Standard

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 two 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.

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

Paragraphs 37 through 47 of GASB 68 contains a list of notes and schedules required for the sponsor's financial statements. The appendices include the notes that are actuarial in nature written in the format we understand is desired by GASB 68.

Required Supplementary Information

GASB 67 requires a 10-fiscal year history of various 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 E 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 S&P Muni Bond 20 Year High Grade Rate 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 plan is a "single-employer" plan under GASB 67/68.

This report covers the employer fiscal year, which is also the plan fiscal year, ending December 31, 2017 (the measurement date). The corresponding financial statement covers the fiscal year from January 1, 2017 to December 31, 2017. The actuarial valuation date is as of December 31, 2017/January 1, 2018 (the valuation date). The calculations included in this report are not projected and there is no "roll forward" of a prior valuation.

APPENDIX B

PENSION EXPENSE / (INCOME) UNDER GASB 68

	January 1, 2017 - <u>December 31, 2017</u>
1. Service Cost	0
2. Interest on Total Pension Liability	5,807,041
3. Current Period Benefit Changes	0
4. Offset for Employee Contributions	(3,388)
5. Projected Earnings on Plan Assets	(2,561,358)
6. Administrative Expenses	39,957
7. Other Changes in Plan Net Position	(4,620)
8. Recognition of outflow (inflow) due to liabilities	(97,808)
9. Recognition of outflow (inflow) due to assets	898,238
	<hr/>
10. Total Pension Expense/(Income)	<u>4,078,062</u>

Summary of the City's Balance Sheet Items:

	(A) Net Pension Asset / <u>(Liability)</u>	(B) Deferred Outflow of <u>Resources</u>	(C) Deferred (Inflow) of <u>Resources</u>	(D) Total Assets <u>(A)+(B)+(C)</u>
1. Balance 1/1/2017	(67,737,302)	4,754,433	0	(62,982,869)
2. Contributions during measurement period	5,683,879	0	0	5,683,879
3. Pension Expense	(3,277,632)	(1,488,499)	688,069	(4,078,062)
4. Addition to Deferred Outflows	0	0		0
5. Addition to Deferred Inflows	3,049,116		(3,049,116)	0
	<hr/>		<hr/>	<hr/>
6. Balance 12/31/2017	<u>(62,281,939)</u>	<u>3,265,934</u>	<u>(2,361,046)</u>	<u>(61,377,052)</u>

APPENDIX C

GASB 68 PENSION EXPENSE / (INCOME)
DETAIL OF OUTFLOW / INFLOW OF RESOURCES

<u>Description</u>	<u>Year</u>	<u>Original Amount</u>	<u>Recog- nition Period</u>	<u>Outflow (Inflow) In Current Expense</u>	<u>Deferred Outflow (Inflow) 12/31/2017</u>
1. Actual vs. Exp. Experience	2017	(97,808)	1	(97,808)	0
2. Assumption Change	2017	0	1	0	0
4. Proj. vs. Actual Earnings	2017	(2,951,308)	5	(590,262)	(2,361,046)
5. Proj. vs. Actual Earnings	2016	1,444,676	5	288,935	866,806
6. Proj. vs. Actual Earnings	2015	5,997,820	5	1,199,564	2,399,128
7. Proj. vs. Actual Earnings	2014	0	5	0	0
8. Proj. vs. Actual Earnings	2013	0	5	0	0
				<hr/>	<hr/>
Total				<u>800,430</u>	<u>904,887</u>
Due to Liabilities				(97,808)	0
Due to Assets				898,238	904,887

APPENDIX C (Continued)

GASB 68 Pension Expense and Deferred Outflow/Inflows

For the year ending 12/31/2017, the City of Little Rock recognized pension expense of \$4,078,062. At 12/31/2017, the City of Little Rock reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows Of Resources</u>	<u>Deferred Inflows Of Resources</u>
Difference between expected and actual experience	0	0
Changes of assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	<u>3,265,934</u>	<u>-2,361,046</u>
Subtotal	3,265,934	-2,361,046
Contributions subsequent to measurement date	<u>0</u>	<u>0</u>
Total	<u><u>3,265,934</u></u>	<u><u>-2,361,046</u></u>

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to

<u>Year Ending December 31</u>	<u>Net Deferred Outflow of Resources</u>
2018	898,238
2019	898,238
2020	-301,326
2021	-590,262
2022	0
Total thereafter	<u>0</u>
Total	<u><u>904,887</u></u>

APPENDIX D

NOTES TO THE FINANCIAL STATEMENTS

Cost of Living Adjustment (COLA)

The board of trustees has the ability to make ad hoc cost of living adjustments (COLA) and other benefit improvements through a process that requires actuarial soundness and approval by the Pension Review Board. Therefore, in the opinion of the actuary, any increases are not substantively automatic, and no COLA is included in the determination of the Total Pension Liability.

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 rates were built on a target allocation for all local police and fire pension funds; the target for an individual fund will vary within the guidelines of Arkansas law and regulation. The target allocation and the long-term expected real rates of return are shown in the table below:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-term Expected Real Rate of Return</u>
Domestic Fixed Income	80%	2.25%
Domestic Equity	10%	4.75%
Foreign Equity	0%	6.25%
Cash & Equivalents	10%	0.25%
Total	100%	
Expected Inflation		2.50%

Single Discount Rate

A single discount rate of 5.00% was used to measure the Total Pension Liability. This single discount rate was based on the expected rate of return on pension plan investments of 5.00%, the projection of cash flows based on the assumptions, and the pension plan's net position as of the valuation date. The projection was generated as described in described in Appendix F. The resulting single discount rate was applied to all periods of projected benefit payments to determine the Total Pension Liability.

Components of the Net Pension Liability

The components of the net pension liability at December 31, 2017 were as follows:

Total Pension Liability	115,842,811
Plan's Fiduciary Net Position	53,560,872
Net Pension Liability	<u>62,281,939</u>
Plan's Fiduciary Net Position as a Percentage of Total Pension Liability	46.24%

APPENDIX D (Continued)

Regarding the sensitivity of the Net Pension Liability to changes in the single discount rate, the following presents the plan's Net Pension Liability calculated using a single discount rate of 5.00%, 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:

	<u>One Percent Decrease</u> 4.00%	<u>Current Single Rate Assumed</u> 5.00%	<u>One Percent Increase</u> 6.00%
Total Pension Liability	125,777,813	115,842,811	107,275,566
Net Pension Liability	72,216,940	62,281,939	53,714,694

Changes in the Net Pension Liability

	<u>Total Pension Liability</u>	<u>Plan Fiduciary Net Position</u>	<u>Net Pension Liability</u>
Balances at December 31, 2016	122,148,055	54,410,753	67,737,302
Changes for the Year			
a. Service Cost	0	0	0
b. Interest on TPL	5,807,041	0	5,807,041
c. Differences between Expected and Actual Experience	(97,808)	0	(97,808)
d. Employee Contributions	0	3,388	(3,388)
e. Employer Contributions	0	5,683,879	(5,683,879)
f. Net Investment Income	0	5,512,667	(5,512,667)
g. Benefits and Refunds	(12,014,477)	(12,014,477)	0
h. Administrative Expenses	0	(39,957)	39,957
i. Benefit Changes	0	0	0
j. Assumption Changes	0	0	0
k. Other/Reconciliation		4,620	(4,620)
Net Changes	<u>(6,305,243)</u>	<u>(849,881)</u>	<u>(5,455,363)</u>
Balances at December 31, 2017	<u>115,842,811</u>	<u>53,560,872</u>	<u>62,281,939</u>

APPENDIX E

REQUIRED SUPPLEMENTARY INFORMATION

GASB 67 requires a 10-fiscal year history of various 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 return, but we were not provided data sufficient to make that calculation.

APPENDIX E (Continued)

LITTLE ROCK FIREFIGHTERS PENSION FUND
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS

Fiscal Year ending	<u>12/31/2017</u>	<u>12/31/2016</u>	<u>12/31/2015</u>	<u>12/31/2014</u>	<u>12/31/2013</u>	<u>12/31/2012</u>	<u>12/31/2011</u>	<u>12/31/2010</u>	<u>12/31/2009</u>	<u>12/31/2008</u>
Total Pension Liability										
Service Cost	0	0	0	0						
Interest	5,807,041	6,088,293	6,649,074	6,642,747						
Benefit Changes	0	0	0	8,000,000						
Difference between Actual & Expected Experience	(97,808)	(120,292)	(6,896,944)	(3,791,118)						
Assumption changes	0	0	0	0						
Benefit Payments	(12,014,477)	(11,171,602)	(10,763,891)	(10,686,313)						
Net Change in Total Pension Liability	(6,305,243)	(5,203,601)	(11,011,761)	165,317						
Total Pension Liability - Beginning	122,148,055	127,351,656	138,363,417	138,198,100						
Total Pension Liability - Ending	115,842,811	122,148,055	127,351,656	138,363,417						
Plan Fiduciary Net Position										
Contributions - Employee	3,388	3,324	14,993	33,835						
Contributions - Employer	5,683,879	5,424,494	5,312,855	5,256,409						
Net Investment Income	5,512,667	1,356,915	(2,774,677)	2,602,850						
Benefit Payments	(12,014,477)	(11,171,602)	(10,763,891)	(10,686,313)						
Administrative Expense	(39,957)	(225,141)	(9,491)	(38,267)						
Other/Reconciliation	4,620	6,480	50,859	12,350						
Net Change in Plan Net Position	(849,881)	(4,605,529)	(8,169,352)	(2,819,136)						
Plan Fiduciary Net Position - Beginning	54,410,753	59,016,282	67,185,634	70,004,770						
Plan Fiduciary Net Position - Ending	53,560,872	54,410,753	59,016,282	67,185,634						
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	46.24%	44.54%	46.34%	48.56%						
Covered Employee Payroll	0	0	0	0						
Net Pension Liability as a Percentage of Covered Employee Payroll	N/A	N/A	N/A	N/A						

APPENDIX E (Continued)

LITTLE ROCK FIREFIGHTERS PENSION FUND

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

Fiscal Year Ending	Discount Rate	(TPL) Total Pension Liability	Plan Net Position	(NPL) Net Pension Liability	Net Position as % of TPL	Covered Payroll	NPL as % of Payroll
12/31/2008							
12/31/2009							
12/31/2010	5.00%	146,560,047	73,204,203	73,355,844	49.95%	0	N/A
12/31/2011	5.00%	144,952,727	66,306,657	78,646,070	45.74%	0	N/A
12/31/2012	5.00%	139,943,066	67,100,228	72,842,838	47.95%	0	N/A
12/31/2013	5.00%	138,198,100	70,004,770	68,193,330	50.66%	0	N/A
12/31/2014	5.00%	138,363,417	67,185,634	71,177,783	48.56%	0	N/A
12/31/2015	5.00%	127,351,656	59,016,282	68,335,373	46.34%	0	N/A
12/31/2016	5.00%	122,148,055	54,410,753	67,737,302	44.54%	0	N/A
12/31/2017	5.00%	115,842,811	53,560,872	62,281,939	46.24%	0	N/A

LITTLE ROCK FIREFIGHTERS PENSION FUND
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CONTRIBUTIONS

Fiscal Year Ending	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as % of Payroll
12/31/2008					
12/31/2009					
12/31/2010					
12/31/2011					
12/31/2012					
12/31/2013	16,424,267	1,873,449	14,550,818	0	N/A
12/31/2014	15,375,917	5,256,409	10,119,508	0	N/A
12/31/2015	16,048,838	5,312,855	10,735,983	0	N/A
12/31/2016	15,407,946	5,424,494	9,983,451	0	N/A
12/31/2017	15,273,095	5,683,879	9,589,217	0	N/A

Key Assumptions:

Cost Method	Entry Age Normal
Amortization Method	Level dollar, open
Remaining Amortization	Five years
Asset Valuation	Market Value of Assets
Investment Return/Discount	5.00%
Mortality	1983 GAM

LITTLE ROCK FIREFIGHTERS PENSION FUND
 REQUIRED SUPPLEMENTARY INFORMATION
 SCHEDULE OF INVESTMENT RETURNS

Fiscal Year Ending	Annual Money-weighted Rate of Return
12/31/2008	-16.26%
12/31/2009	14.45%
12/31/2010	9.81%
12/31/2011	-1.55%
12/31/2012	10.25%
12/31/2013	12.97%
12/31/2014	3.87%
12/31/2015	-4.30%
12/31/2016	2.42%
12/31/2017	10.76%

The amounts shown are net of investment expenses.

The actuary calculated these rates using the provided information; therefore, these are annual money-weighted rates. Monthly money-weighted returns were not available.

APPENDIX F

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 sufficient 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.

The Local Police and Fire Pension Funds do not have formal funding policies. They typically contribute the amounts required by law as outlined in Exhibit 7. For purposes of this projection, any millage amount is assumed to increase by 1% annually; the premium tax and additional allocation revenues, if any, are changed in proportion to the Net Pension Liability; all other sources are assumed to remain level.

These projections are generated under the guidelines of GASB 67 and the related implementation guide. They should be used solely to determine the single discount rate as defined in the GASB statements. Any implication beyond that determination is beyond the scope of this report.

For the purpose of this valuation, the expected rate of return on pension plan investments is 5.00%; the municipal bond rate is 3.16%; since the Net Position as projected with future income is sufficient to meet benefit payments, the resulting single discount rate is 5.00%.