

PINE BLUFF POLICE PENSION FUND

ACTUARIAL VALUATION

AS OF DECEMBER 31, 2015

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

June 27, 2016

Board of Trustees and Governing Body
Pine Bluff Police Pension Fund

Ladies and Gentlemen:

This report presents the results of our actuarial valuation of the assets and liabilities of the Pine Bluff Police Pension Fund as of December 31, 2015. 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 for the first time. The Appendices added to this report disclose the necessary items for GASB Standards.

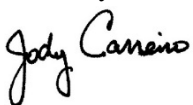
A second page has been added to this cover letter, beginning this year, showing four key valuation results that provide a snapshot of the health of this pension fund. Please review this information.

The computer programs were converted beginning with this valuation. This allows the funding and GASB liabilities to be calculated using same computer methods. There are some minor formatting changes from previous years. A small decrease in funding liabilities due to the application of spouse mortality rates is treated as an experience gain.

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

Osborn, Carreiro & Associates, Inc.

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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

49.5%

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

5.60%

2

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

16%

5

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

17

4

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.

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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 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>
2016 Necessary Annual Contribution to pay:	
1 Normal Cost, plus	\$ 0
2 Pay off the Unfunded Actuarial Accrued Liability	<u>3,099,571</u>
3 Total Necessary	\$ 3,099,571
Less	
4 Expected Employee Contributions	<u>- 0</u>
5 Necessary Employer Contribution	<u><u>\$ 3,099,571</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 2015 contribution was \$508,898 from the employer.

EXHIBIT 2

COSTS AND LIABILITIES

	<u>December 31, 2015</u>	
A. <u>Normal Cost</u> (Cost to fund current active members)	<u>Dollar</u> <u>Amount</u>	<u>Percentage</u> <u>of Payroll</u>
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	1,030,070	
Future DROP Payments & Pensions	0	
TOTAL DROP	<hr/> \$ 1,030,070	
3. <u>Inactive Lives</u>		
Regular Retirees	19,088,286	
Disability Retirees	1,644,814	
Widows & Children	5,468,127	
TOTAL INACTIVE LIVES	<hr/> \$ 26,201,227	
4. Total Actuarial Accrued Liability	\$ 27,231,297	
C. Assets (See Exhibit 3.J.)	\$ 13,484,473	
D. Unfunded Actuarial Accrued Liability	\$ 13,746,824	

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

A. INCOME	Year Ended 12/31/2015	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	Year Ended 12/31/2007	Year Ended 12/31/2006
1 <u>Employee Contributions</u>	\$ -	\$ 2,010	\$ 4,698	\$ 4,400	\$ 4,880	\$ 4,811	\$ 6,511	\$ 7,089	\$ 7,051	\$ 9,838
2 <u>Employer Contributions</u>										
Employer/Court Fines/Other	106,826	81,965	118,826	139,356	128,484	144,211	126,852	122,334	118,318	128,566
Local Millage	357,108	366,076	376,264	285,999	291,911	287,319	291,177	284,262	296,506	270,855
3 <u>State Insurance Premium Tax</u>										
Premium Tax Allocation	33,723	84,346	105,118	95,499	165,807	142,329	142,826	198,885	206,086	212,917
Additional Allocation	11,241	22,492	22,194	31,833	-	-	-	-	-	-
Guarantee Fund	-	-	-	-	-	-	-	-	-	-
4 <u>Other Income</u>										
LOPFI Subsidy	-	-	-	-	-	-	-	-	-	-
Police Supplement (Act 1452 of 1999)	43,800	45,600	46,200	48,000	48,600	49,800	49,200	52,200	52,200	52,200
Future Supplement (Act 1373 of 2003)	81,030	82,080	84,360	98,800	65,610	46,024	62,894	71,984	149,710	104,504
Other Income/Donations	-	-	-	-	18,314	2,192	5,108	6,672	-	-
Adjustment to prior year value	-	-	-	-	-	(118,246)	(1)	-	(3,888)	-
5 <u>Net Investment Income</u>	1,086,250	1,275,965	1,558,921	768,593	949,153	753,833	390,664	296,397	2,057,794	929,980
TOTAL INCOME	\$ 1,719,978	\$ 1,960,534	\$ 2,316,581	\$ 1,472,480	\$ 1,672,759	\$ 1,312,273	\$ 1,075,231	\$ 1,039,823	\$ 2,883,777	\$ 1,708,860
B. EXPENSES										
1 <u>Administrative</u>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,892	\$ 15,873	\$ 8,378	\$ 7,636
2 <u>Benefits Paid</u>										
Monthly Benefits	1,796,421	1,802,028	1,728,223	1,688,313	1,697,745	1,743,812	1,758,732	1,764,434	1,727,704	1,554,292
Police Supplements	43,400	45,600	44,500	45,900	46,600	49,650	81,874	120,801	52,200	40,761
Future Supplements	79,920	81,000	79,797	96,266	64,780	45,982	62,894	58,350	123,864	104,504
DROP Payouts	58,807	125,911	14,818	-	81,662	-	-	-	-	75,416
Paid Current Year for Previous Year	-	-	-	-	-	29,050	-	-	-	-
3 <u>Refunds</u>	-	-	-	-	-	-	81,489	-	-	-
4 <u>Other Expenses</u>	15,392	17,974	8,800	8,800	6,800	-	-	-	-	-
TOTAL EXPENSES	\$ 1,993,940	\$ 2,072,513	\$ 1,876,138	\$ 1,839,279	\$ 1,897,587	\$ 1,868,494	\$ 1,991,881	\$ 1,959,458	\$ 1,912,146	\$ 1,782,609
C. NON-INVESTMENT CASH FLOW	(1,360,212)	(1,387,944)	(1,118,478)	(1,135,392)	(1,173,982)	(1,310,054)	(1,307,314)	(1,216,032)	(1,086,163)	(1,003,729)

EXHIBIT 3 (Continued)

	<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>	<u>12/31/2007</u>	<u>12/31/2006</u>
D. ASSETS (at book value)										
1 Cash & Checking Accounts	710,075	1,283,299	1,126,330	927,864	1,168,636	545,359	(1,818)	-	57,610	391,913
2 Bank Deposits	-	-	-	-	-	-	-	-	-	-
3 Savings and Loan Deposits	-	-	-	-	-	-	-	-	-	-
4 Other Cash Equivalents	-	-	-	-	-	-	1,622,303	1,441,837	664,726	314,224
5 US Govt. Securities	3,088,738	2,792,707	2,544,408	3,040,223	3,375,049	1,771,332	3,683,261	4,277,953	5,979,935	5,354,118
6 Non-US Govt Securities	127,826	296,855	273,736	78,372	149,772	-	-	-	-	-
7 Mortgages	-	-	-	-	-	1,618,518	169,141	297,063	395,694	522,691
8 Corporate Bonds	1,474,567	1,257,277	1,599,476	2,098,263	2,658,263	1,524,052	2,189,876	2,092,451	1,927,019	1,457,900
9 Common Stocks	8,367,962	8,412,597	8,625,541	7,495,211	6,625,488	7,840,854	7,133,196	7,650,689	7,703,738	7,998,215
10 Other	39,020	39,415	24,638	53,451	62,874	964,796	66,251	69,120	77,636	383,131
11 Payables	-	-	-	60,301	80,402	80,402	50,253	-	(57,610)	(645,075)
TOTAL ASSETS	\$ 13,808,188	\$ 14,082,150	\$ 14,194,129	\$ 13,753,685	\$ 14,120,484	\$ 14,345,313	\$ 14,912,463	\$ 15,829,113	\$ 16,748,748	\$ 15,777,117
E. TOTAL MARKET VALUE	\$ 15,196,328	\$ 16,910,661	\$ 16,909,707	\$ 15,698,214	\$ 15,614,352	\$ 15,929,173	\$ 15,791,344	\$ 14,839,385	\$ 19,595,971	\$ 19,364,319
F. RATIO OF ASSETS TO ANNUAL EXPENSES										
Book Value Basis	6.9	6.8	7.6	7.5	7.4	7.7	7.5	8.1	8.8	8.9
Market Value Basis	7.6	8.2	9.0	8.5	8.2	8.5	7.9	7.6	10.2	10.9
G. RATIO OF ASSETS TO NON-INVESTMENT CASH OUTFLOW										
Book Value Basis	10.2	10.1	12.7	12.1	12.0	11.0	11.4	13.0	15.4	15.7
Market Value Basis	11.2	12.2	15.1	13.8	13.3	12.2	12.1	12.2	18.0	19.3
H. SUMMARY OF NET INVESTMENT RETURNS										
Book Value Rate of Return	8.11%	9.45%	11.81%	5.67%	6.90%	5.29%	2.57%	1.84%	13.51%	6.06%
10 Year Average Return	7.06%									
Market Value Rate of Return	-2.18%	8.57%	15.39%	8.10%	5.60%	9.57%	15.93%	-18.65%	7.00%	11.49%
10 Year Average Return	5.60%									

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.

EXHIBIT 3 (Continued)

	<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>
I. <u>TOTAL MARKET VALUE</u>					
1. Market Value, end of year (Used for GASB calculations)	15,196,328	16,910,661	16,909,707	15,698,214	15,614,352
2. Market Value, beginning of year	16,910,661	16,909,707	15,698,214	15,614,352	15,929,173
J. <u>DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS</u>					
1. Actuarial Value of Assets, beginning of year	13,772,128	13,751,237	13,400,664	14,304,587	15,239,626
2. Non Investment Net Cash Flow	(1,360,212)	(1,387,944)	(1,118,478)	(1,135,392)	(1,173,982)
3. Development of Investment Income					
(a) Total Market Investment Income (I1-I2-J2)	(354,121)	1,388,898	2,329,971	1,219,254	859,161
(b) Assumed Rate for Immediate Recognition	5%	5%	5%	5%	5%
(c) Amount for Immediate Recognition (J1 x b)	688,606	687,562	670,033	715,229	761,981
(d) Amount for Phased In Recognition (a-c)	(1,042,728)	701,336	1,659,937	504,025	97,179
(e) Phased In Recognition					
Current year : 20% of 3(d)	(208,546)	140,267	331,987	100,805	19,436
First Prior Year	140,267	331,987	100,805	19,436	128,778
Second Prior Year	331,987	100,805	19,436	128,778	218,011
Third Prior Year	100,805	19,436	128,778	218,011	(950,790)
Fourth Prior Year	19,436	128,778	218,011	(950,790)	61,526
Total Phased In Recognition	383,950	721,273	799,017	(483,760)	(523,039)
(f) Actuarial Value Investment Income (3(c) + 3(e))	1,072,556	1,408,835	1,469,050	231,469	238,943
4. Actuarial Value of Assets, End of year (1 + 2 + 3(f))	13,484,473	13,772,128	13,751,237	13,400,664	14,304,587
5. Net Investment Return on the Actuarial Value of Assets	8.2%	10.8%	11.4%	1.7%	1.6%

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				
12/31/1986	0	62	1,319,804	499,709	4,772,391	4,386,838	52.1%
12/31/1987 *	0	64	1,350,848	521,551	5,467,513	4,262,708	56.2%
12/31/1989	0	56	1,432,326	537,978	6,859,095	4,338,507	61.3%
12/31/1991	0	49	1,352,129	550,362	8,151,980	4,277,263	65.6%
12/31/1993	0	41	1,162,314	500,808	9,652,771	3,555,596	73.1%
12/31/1995	0	38	1,242,674	502,503	11,716,012	2,701,802	81.3%
12/31/1997 *	0	22	789,681	687,166	15,049,548	3,974,684	79.1%
12/31/1999 *	0	17	619,628	785,371	15,664,268	4,024,357	79.6%
12/31/2001 *	0	7	282,546	1,656,034	17,454,042	7,641,681	69.5%
12/31/2003 *	0	4	154,036	2,215,168	17,079,677	10,129,780	62.8%
12/31/2005 *	0	2	71,427	2,428,567	16,761,755	11,251,874	59.8%
12/31/2007 *	0	2	71,427	1,828,304	17,334,218	8,265,695	67.7%
12/31/2008	0	2	71,427	1,987,511	16,703,110	8,992,461	65.0%
12/31/2009 *	0	0	0	3,495,707	16,079,879	15,503,717	50.9%
12/31/2010	0	0	0	3,307,454	15,239,626	14,668,803	51.0%
12/31/2011	0	0	0	3,433,951	14,304,587	15,229,825	48.4%
12/31/2012 *	0	0	0	3,372,394	13,400,664	14,956,819	47.3%
12/31/2013 *	0	0	0	3,446,584	13,751,237	15,285,853	47.4%
12/31/2014	0	0	0	3,294,134	13,772,128	14,609,726	48.5%
12/31/2015	0	0	0	3,099,571	13,484,473	13,746,824	49.5%

* 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)
12/31/1986	485,494	4,284,360	4,389,375	4,772,391	100%	100%	0%
12/31/1987	578,896	4,230,660	4,920,665	5,467,513	100%	100%	13%
12/31/1989	670,886	4,856,078	5,670,638	6,859,095	100%	100%	23%
12/31/1991	699,684	6,267,736	5,461,823	8,151,980	100%	100%	22%
12/31/1993	700,201	7,670,234	4,837,932	9,652,771	100%	100%	27%
12/31/1995	795,526	7,980,409	5,641,879	11,716,012	100%	100%	52%
12/31/1997	500,017	14,989,709	3,534,506	15,049,548	100%	97%	0%
12/31/1999	470,328	16,152,601	3,065,696	15,664,268	100%	94%	0%
12/31/2001	216,184	22,931,909	1,947,630	17,454,042	100%	75%	0%
12/31/2003	126,722	26,151,127	931,608	17,079,677	100%	65%	0%
12/31/2005	66,489	27,586,118	361,022	16,761,755	100%	61%	0%
12/31/2007	75,660	25,155,740	368,513	17,334,218	100%	69%	0%
12/31/2008	80,021	25,217,091	398,459	16,703,110	100%	66%	0%
12/31/2009	0	31,583,596	0	16,079,879	100%	51%	0%
12/31/2010	0	29,908,429	0	15,239,626	100%	51%	0%
12/31/2011	0	29,534,412	0	14,304,587	100%	48%	0%
12/31/2012	0	28,357,483	0	13,400,664	100%	47%	0%
12/31/2013	0	29,037,090	0	13,751,237	100%	47%	0%
12/31/2014	0	28,381,854	0	13,772,128	100%	49%	0%
12/31/2015	0	27,231,297	0	13,484,473	100%	50%	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>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>10 or More</i>	
Under 40	Count	0	0	0	0	0	0	1	1
	Benefit	0	0	0	0	0	0	22,489	22,489
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	0	0
	Benefit	0	0	0	0	0	0	0	0
55-59	Count	0	0	0	0	0	0	8	8
	Benefit	0	0	0	0	0	0	252,791	252,791
60-64	Count	0	1	0	0	0	2	13	16
	Benefit	0	22,776	0	0	0	73,902	362,107	458,785
65-69	Count	0	1	0	0	0	0	17	18
	Benefit	0	21,802	0	0	0	0	417,883	439,685
70-74	Count	0	0	0	0	0	0	11	11
	Benefit	0	0	0	0	0	0	243,474	243,474
75-79	Count	0	0	0	0	0	0	11	11
	Benefit	0	0	0	0	0	0	253,846	253,846
80-84	Count	0	0	0	0	0	0	4	4
	Benefit	0	0	0	0	0	0	59,639	59,639
85 & Over	Count	0	0	0	0	0	0	4	4
	Benefit	0	0	0	0	0	0	55,667	55,667
Total	Count	0	2	0	0	0	2	69	73
	Benefit	0	44,578	0	0	0	73,902	1,667,895	1,786,375

This includes 49 retirees with annual benefits of \$1,283,327.

This includes 5 disableds with annual benefits of \$114,056.

This includes 19 survivors with annual benefits of \$388,992.

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	0	0
	Benefit	0	0	0	0	0	0	0
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	0	0
	Benefit	0	0	0	0	0	0	0

EXHIBIT 7

PRINCIPAL PROVISIONS OF THE PLAN

<u>EMPLOYEE</u>	Member of Pine Bluff Police Department
<u>EMPLOYER</u>	Pine Bluff Police 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 Millage4. 10% of all fines & forfeitures collected by the Police Department
<u>FINAL SALARY</u>	Highest salary for any continuous twelve-month period of time worked prior to retirement.
<u>DEFERRED RETIREMENT OPTION PLAN</u>	This plan has elected to participate in the Deferred Retirement Option Plan effective 05/19/1994. 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. Ten Year DROP is available. 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 \$7,800. 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 18 (23, if still in school) receives \$1,500/year. If there is no surviving spouse, the child receives spousal benefit until age 18.

DISABILITY BENEFITS

- Eligibility Permanent physical or mental disability. Five year service requirement unless disability is incurred in the line of duty.
- Benefit Full Paid Non-duty Disability
Retirement benefit, but not less than \$7,800/year.
- Full Paid Duty-related Disability
Retirement benefit, but not less than 65% of Final Salary or \$7,800/year.

COST OF LIVING

Retirees receive a 2% compound cost of living adjustment (COLA) each 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. Decrease in funding liabilities due to spouse mortality treated as experience gain.

VOLUNTARY TERMINATIONS

Annual termination rates at a few sample ages are:

<u>Age</u>	<u>Term. Rate per 1,000</u>
25	45
30	39
35	23
40	9
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	133	267
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 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 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, 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.

APPENDIX B

PENSION EXPENSE / (INCOME) UNDER GASB 68

	January 1, 2015 - <u>December 31, 2015</u>
1. Service Cost	0
2. Interest on Total Pension Liability	1,372,712
3. Current Period Benefit Changes	0
4. Offset for Employee Contributions	0
5. Projected Earnings on Plan Assets	(811,490)
6. Other Changes in Plan Net Position	(1,510)
7. Recognition of outflow (inflow) due to liabilities	1,694,589
8. Recognition of outflow (inflow) due to assets	<u>233,122</u>
9. Total Pension Expense/(Income)	2,487,423

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) 12/31/2015</u>
1. Actual vs. Exp. Experience	2015	(668,041)	1	(668,041)	0
2. Assumption Change	2015	2,362,630	1	2,362,630	0
3. Benefit Changes	2015	0	1	0	0
4. Proj. vs. Actual Earnings	2015	1,165,611	5	233,122	932,489
Total				<u>1,927,711</u>	<u>932,489</u>
Due to Liabilities				1,694,589	0
Due to Assets				233,122	932,489

APPENDIX D

NOTES TO THE FINANCIAL STATEMENTS

Cost of Living Adjustment (COLA)

The board of trustees has adopted a permanent 2% cost of living adjustment (COLA) through a process that requires actuarial soundness and approval by the Pension Review Board. Therefore, in the opinion of the actuary, a 2% permanent compound 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		3.00%

Single Discount Rate

A single discount rate of 4.20% 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, 2015 were as follows:

Total Pension Liability	29,593,927
Plan's Fiduciary Net Position	15,196,328
Net Pension Liability	<u>14,397,599</u>
Plan's Fiduciary Net Position as a Percentage of Total Pension Liability	51.35%

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 4.20%, 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>	<u>Current Single Rate Assumed</u>	<u>One Percent Increase</u>
	3.20%	4.20%	5.20%
Total Pension Liability	33,078,213	29,593,927	26,709,093
Net Pension Liability	17,881,885	14,397,599	11,512,765

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, 2014	28,381,854	16,910,661	11,471,193
Changes for the Year			
a. Service Cost	0	0	0
b. Interest on NPL	1,372,712	0	1,372,712
* c. Differences between Expected and Actual Experience	(668,041)	0	(668,041)
d. Employee Contributions	0	0	0
e. Employer Contributions	0	508,898	(508,898)
f. Net Investment Income	0	(354,121)	354,121
g. Benefits and Refunds	(1,855,228)	(1,855,228)	0
h. Administrative Expenses	0	(15,392)	15,392
i. Benefit Changes	0	0	0
j. Assumption Changes	2,362,630	0	2,362,630
k. Other/Reconciliation		1,510	(1,510)
Net Changes	1,212,073	(1,714,333)	2,926,406
Balances at December 31, 2015	29,593,927	15,196,328	14,397,599

* Note: The 2015 experience includes the effects of a one-time adjustment to the spousal mortality in the cash flow valuation.

APPENDIX D (Continued)

GASB 68 Pension Expense and Deferred Outflow/Inflows

For the year ending 12/31/2015, the City of Pine Bluff recognized pension expense of \$2,487,423. At 12/31/2015, the City of Pine Bluff reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows <u>Of Resources</u>	Deferred Inflows <u>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>932,489</u>	<u>0</u>
Subtotal	932,489	0
Contributions subsequent to measurement date	<u>0</u>	<u>0</u>
Total	<u><u>932,489</u></u>	<u><u>0</u></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:

<u>Year Ending December 31:</u>	<u>Net Deferred Outflow of Resources</u>
2016	233,122
2017	233,122
2018	233,122
2019	233,122
2020	0
Total thereafter	<u>0</u>
Total	<u><u>932,489</u></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)

PINE BLUFF POLICE PENSION FUND
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY AND RELATED RATIOS

Fiscal Year ending	<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>	<u>12/31/2007</u>	<u>12/31/2006</u>
Total Pension Liability										
Service Cost	0	1	0							
Interest	1,372,712	1,403,656	1,374,298							
Benefit Changes	0	0	0							
Difference between Actual & Expected Experience	(668,041)	(130,954)	1,048,350							
Assumption changes	2,362,630	0	0							
Benefit Payments	(1,855,228)	(1,927,939)	(1,743,041)							
Net Change in Total Pension Liability	1,212,073	(655,236)	679,607							
Total Pension Liability - Beginning	28,381,854	29,037,090	28,357,483							
Total Pension Liability - Ending	29,593,927	28,381,854	29,037,090							
Plan Fiduciary Net Position										
Contributions - Employee	0	2,010	4,698							
Contributions - Employer	508,898	554,879	622,402							
Net Investment Income	(354,121)	1,388,898	2,329,971							
Benefit Payments	(1,855,228)	(1,927,939)	(1,743,041)							
Administrative Expense	(15,392)	(17,974)	(8,800)							
Other/Reconciliation	1,510	1,080	6,263							
Net Change in Plan Net Position	(1,714,333)	954	1,211,493							
Plan Fiduciary Net Position - Beginning	16,910,661	16,909,707	15,698,214							
Plan Fiduciary Net Position - Ending	15,196,328	16,910,661	16,909,707							
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	51.35%	59.58%	58.23%							
Covered Employee Payroll	0	0	0							
Net Pension Liability as a Percentage of Covered Employee Payroll	N/A	N/A	N/A							

APPENDIX E (Continued)

PINE BLUFF POLICE 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
12/31/2006							
12/31/2007							
12/31/2008							
12/31/2009	5.00%	31,583,596	15,791,344	15,792,252	50.00%	0	N/A
12/31/2010	5.00%	29,908,429	15,929,173	13,979,256	53.26%	0	N/A
12/31/2011	5.00%	29,534,412	15,614,352	13,920,060	52.87%	0	N/A
12/31/2012	5.00%	28,357,483	15,698,214	12,659,269	55.36%	0	N/A
12/31/2013	5.00%	29,037,090	16,909,707	12,127,383	58.23%	0	N/A
12/31/2014	5.00%	28,381,854	16,910,661	11,471,193	59.58%	0	N/A
12/31/2015	4.20%	29,593,927	15,196,328	14,397,599	51.35%	0	N/A

APPENDIX E (Continued)

PINE BLUFF POLICE 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
12/31/2006					
12/31/2007					
12/31/2008					
12/31/2009					
12/31/2010					
12/31/2011					
12/31/2012	3,138,631	552,687	2,585,944	0	N/A
12/31/2013	2,854,354	622,402	2,231,951	0	N/A
12/31/2014	2,734,426	554,879	2,179,547	0	N/A
12/31/2015	2,586,473	508,898	2,077,574	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

APPENDIX E (Continued)

PINE BLUFF POLICE PENSION FUND
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF INVESTMENT RETURNS

Fiscal Year Ending	Annual Money-weighted Rate of Return
12/31/2006	11.49%
12/31/2007	7.00%
12/31/2008	-18.65%
12/31/2009	15.93%
12/31/2010	9.57%
12/31/2011	5.60%
12/31/2012	8.10%
12/31/2013	15.39%
12/31/2014	8.57%
12/31/2015	-2.18%

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 3.57%; since the Net Position as projected with future income are NOT sufficient to meet benefit payments, the resulting single discount rate is 4.20%.