Alderman Adella Gray
Ward 1 Position 1

Alderman Sarah Marsh
Ward 1 Position 2

Alderman Mark Kinion
Ward 2 Position 1

Alderman Matthew Petty
Ward 2 Position 2

Alderman Justin Tennant
Ward 3 Position 1

Alderman Martin W. Schoppmeyer, Jr.
Ward 3 Position 2

Alderman John La Tour
Ward 4 Position 1

Alderman Alan T. Long
Ward 4 Position 2

Mayor Lioneld Jordan
City Attorney Kit Williams
City Clerk Sondra E. Smith

City of Fayetteville Arkansas
City Council Meeting
September 29, 2015

A special meeting of the Fayetteville City Council was held on September 29, 2015 at 5:30 p.m. in Room 219 of the City Administration Building located at 113 West Mountain Street, Fayetteville, Arkansas.

Call to Order

Pledge of Allegiance

Mayor's Announcements, Proclamations and Recognitions

City Council Meeting Presentations, Reports and Discussion Items:

1. Presentation - Old Firemen's Pension Plan Presentation by PRB Representatives.

Announcements

City Council Agenda Session Presentations

City Council Tour

Adjournment: 7:17 p.m.

City Council Meeting: **September 29, 2015** **Adjourn:** 7:17 pm

Subject:	**Roll**				
	Schoppmeyer	✓			
	La Tour	✓			
	Long	✓			
	Gray	✓			
	Marsh	✓			
	Kinion	✓			
	Petty	✓			
	Tennant	✓			
	Mayor Jordan	✓			

Subject:					
Motion To:					
Motion By:					
Seconded:					
	Schoppmeyer				
	La Tour				
	Long				
	Gray				
	Marsh				
	Kinion				
	Petty				
	Tennant				
	Mayor Jordan				

City of Fayetteville, Arkansas

113 West Mountain Street
Fayetteville, AR 72701
(479) 575-8323

Meeting Agenda - Final Agenda

Tuesday, September 29, 2015

5:30 PM

City Hall Room 219

City Council Special Meeting

Adella Gray Ward 1
Sarah Marsh Ward 1
Mark Kinion Ward 2
Matthew Petty Ward 2
Justin Tennant Ward 3
Martin W. Schoppmeyer, Jr. Ward 3
John S. La Tour Ward 4
Alan Long Ward 4

Call To Order

Roll Call

Pledge of Allegiance

Mayor's Announcements, Proclamations and Recognitions

City Council Meeting Presentations, Reports and Discussion Items:

2015-0333

PRESENTATION - OLD FIREMEN'S PENSION PLAN
PRESENTATION BY PRB REPRESENTATIVES

Attachments:
2015 LOPFI Consolidation Report 061715
2014 Fire Pension Actuarial Valuation
2010 Agenda Special Fire Pension Meeting 101810
2010 Firemen's Pension Fund Special Report Osborn, Carreiro, & Associates 1(
2010 Firemen's Pension Fund Special Actuarial Study 101810
2010 Firemen's Pension Fund Special Meeting Minutes 101810

Agenda Additions:

Announcements:

Adjournment

NOTICE TO MEMBERS OF THE AUDIENCE

All interested persons may address the City Council on agenda items of New and Old Business. Please wait for the Mayor to request public comment and then come to the podium, give your name, address, and comments about the agenda item. Please address only the Mayor. Questions are usually answered by the Mayor, Aldermen, or Staff after the public comment period is over. Please keep your comments brief and respectful. Each person is only allowed one turn at the microphone for discussion of an agenda item.

All cell phones must be silenced and may not be used within the City Council Chambers.

Below is a portion of the Rules of Order and Procedure of the Fayetteville City Council pertaining to City Council meetings:

Agenda additions: A new item which is requested to be added to the agenda at a City Council meeting should only be considered if it requires immediate City Council consideration and if the normal agenda setting process is not practical. The City Council may only place such new item on the City Council meeting's agenda by suspending the rules by two-thirds vote. Such agenda addition shall be heard prior to the Consent Agenda.

Consent Agenda: Consent Agenda items shall be read by the Mayor and voted upon as a group without discussion by the City Council. If an Alderman wishes to comment upon or discuss a Consent Agenda item that item shall be removed and considered immediately after the Consent Agenda has been voted upon.

Old business and new business:

Presentations by staff and applicants: Agenda items shall be introduced by the Mayor and, if an ordinance, read by the City Attorney. City staff shall then present a report. An agenda applicant (city contractor, rezoning or development applicant, etc.) may present its proposal only during this presentation period, but may be recalled by an alderman later to answer questions. Staff and applicants may use electronic visual aids in a City Council meeting as part of their presentation.

All interested persons may address the City Council on agenda items of New and Old Business. Please wait for the Mayor to request public comment and then come to the podium, give your name, address, and comments about the agenda item. Please address only the Mayor. Questions are usually answered by the Mayor, Aldermen or Staff after the public comment period is over. Please keep your comments brief and respectful. Each person is only allowed one turn at the microphone for discussion of an agenda item.

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Old business and new business.

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Public comments. Public comment shall be allowed for all members of the audience on all items of old and new business and subjects of public hearings. No electronic visual aid presentations shall be allowed, but the public may submit photos, petitions, etc. to be distributed to the City Council. If a member of the public wishes for the City Clerk to distribute materials to the City Council before its meeting, such materials should be supplied to the City Clerk office no later than 9:00 a.m. on the day of the City Council meeting. Any member of the public shall first state his or her name and address, followed by a concise statement of the person's position on the question under discussion. Repetitive comments should be avoided; this applies to comments made previously either to the City Council or to the Planning Commission when those Planning Commission minutes have been provided to the Aldermen. All remarks shall be addressed to the Mayor or the City Council as a whole and not to any particular member of the City Council. No person other than the Aldermen and the person having the floor shall be permitted to enter into any discussions without permission of the Mayor. No questions shall be directed to an Alderman or city staff member except through the Mayor.

Courtesy and respect.

All members of the public, all city staff and elected officials shall accord the utmost courtesy and respect to each other at all times. All shall refrain from rude or derogatory remarks, reflections as to integrity, abusive comments and statements about motives or personalities. Any member of the public who violates these standards shall be ruled out of order by the Mayor, must immediately cease speaking and shall leave the podium.

Interpreters or TDD for hearing impaired are available for all City Council meetings, a 72 hour advance notice is required. For further information or to request an interpreter, please call 479-575-8330.

A copy of the complete City Council agenda is available at www.fayetteville-ar.gov or in the office of the City Clerk, 113 W. Mountain, Fayetteville, Arkansas.

City of Fayetteville, Arkansas

113 West Mountain Street
Fayetteville, AR 72701
(479) 575-8323

Text File

File Number: 2015-0333

Agenda Date: 9/29/2015 **Version:** 1 **Status:** Agenda Ready

In Control: City Council Special Meeting **File Type:** Presentation

Agenda Number:

PRESENTATION - OLD FIREMEN'S PENSION PLAN PRESENTATION BY PRB REPRESENTATIVES

LOPFI

ARKANSAS LOCAL POLICE & FIRE RETIREMENT SYSTEM

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

June 11, 2015

Board of Trustees
Fayetteville Fire Pension Fund
113 West Mountain, Suite 308
Fayetteville, AR 72701

Dear Trustees:

Enclosed is the consolidation report that lists revised employer contribution rates to assign administration of the local fire pension fund to LOPFI. Pages four through seven, for paid service, and page 17, for volunteer service, provide the employer contribution rates for Local Plan <u>and</u> LOPFI benefits. The rates are:

<u>Paid Service:</u> Using a 15-year amortization results in 36.96% of payroll without a Cost Of Living Adjustment (COLA) for the Local Plan *or* 42.94% of payroll with a Local Plan COLA.

Using a 25-year amortization results in 33.37% of payroll without a Local Plan COLA *or* 37.63% of payroll with a Local Plan COLA.

<u>Volunteer Service*:</u> Using a 15-year amortization results in a monthly dollar employer contribution of $314.72 without a Local Plan COLA *or* $394.88 with a Local Plan COLA.

Using a 25-year amortization results in a monthly dollar employer contribution of $253.78 without a Local Plan COLA *or* $318.42 with a Local Plan COLA.

If the Local Plan has its administration assigned to LOPFI this year the above employer contribution rates will be used through the <u>2016</u> calendar year.

As stated earlier the valuation provides costs for a 15-year and 25-year amortization period for the Local Plan liabilities. Once the amortization period is properly completed (all actuarial assumptions met), the Local Plan portion of the employer contribution rate will be satisfied. This will then leave the ongoing LOPFI employer contribution costs. This report is valid until October 30, 2015, which means LOPFI must <u>receive</u> all documents discussed in the next paragraph by October 30, 2015 in order to use these results.

*-Since Fayetteville Fire does not currently have any active LOPFI volunteer firefighters, the employer contribution rates for volunteer service do not include a rate for LOPFI volunteer coverage. Should volunteer firefighters be enrolled in LOPFI, the applicable required employer contribution rate would be added to the volunteer rates in use at that time. For reference purposes, the required employer contribution rate for LOPFI volunteer coverage is currently $5.60 per member, per month.

Should your Board and city officials wish to proceed with consolidation, please execute the enclosed Resolution, Ordinance, and both *originals* of the Administrative Services Agreement. Do not alter or replace the Agreements. Both originals must be received by LOPFI. One will be returned to you after approval of the LOPFI Board of Trustees. Lastly, please be certain the Ordinance stipulates which amortization period was approved (15-year or 25-year) and if a COLA was approved for the Local Plan.

If you have questions, please feel free to contact me at your convenience.

Respectfully,

David B. Clark
Executive Director

Encl:

GRS

Gabriel Roeder Smith & Company
Consultants & Actuaries

One Towne Square
Suite 800
Southfield, MI 48076-3723

248.799.9000 phone
248.799.9020 fax
www.gabrielroeder.com

June 10, 2015

Mr. David B. Clark
Executive Director
Arkansas Local Police and Fire Retirement System
620 W. 3rd, Suite 200
Little Rock, Arkansas 72201-2212

Re: Actuarial Analysis of Proposed Combined Contribution Rates for the City of Fayetteville Paid and Volunteer Fire

Dear Mr. Clark:

As requested, enclosed are the results of actuarial valuations which determine the combined employer contribution rates which would result from having the City of Fayetteville Paid and Volunteer Firemen's "closed plan" (The Local Relief and Pension Fund for Employees Hired Before January 1, 1983) administered by the Arkansas Local Police and Fire Retirement System (LOPFI).

Please call if you have any questions or comments.

Respectfully submitted,

David L. Hoffman

Heidi G. Barry, ASA, MAAA

DLH/HGB:sc
Enclosure

Arkansas Local Police and Fire Retirement System
City of Fayetteville Paid and Volunteer Fire
Actuarial Valuation of Proposals Under Consideration
as of December 31, 2014

Requested By:	Mr. David B. Clark, Executive Director Arkansas Local Police and Fire Retirement System
Date:	June 10, 2015
Submitted By:	David L. Hoffman and Heidi G. Barry, ASA, MAAA Gabriel, Roeder, Smith & Company

Submitted in this report are the results of actuarial valuations which determine the combined employer contribution rates which would result from having the City of Fayetteville Paid and Volunteer Firemen's "closed plan" (The Local Relief and Pension Fund for Employees Hired Before January 1, 1983) administered by the Arkansas Local Police and Fire Retirement System (LOPFI).

The date of the study was as of December 31, 2014. This supplemental valuation does not predict the result of the December 31, 2015 valuation or of any other future actuarial valuation. (Future activities can affect future valuation results in an unpredictable manner.) Rather, the supplemental valuation gives an indication of the probable effect of the proposed changes on future valuations without comment on the complete end result of the future valuations.

In accordance with LOPFI Board policy, the employer contribution rates established by this valuation report are valid for purposes of joining the System until October 30, 2015.

This report is intended to describe the financial effect of the proposed plan changes. No statement in this report is intended to be interpreted as a recommendation in favor of the changes, or in opposition to them.

Heidi G. Barry is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries required to render the actuarial opinion contained herein.

The calculations are based upon assumptions regarding future events, which may or may not materialize. They are also based upon present and proposed plan provisions that are outlined in the report. If you have reason to believe that the assumptions that were used are unreasonable, that the plan provisions are incorrectly described, that important plan provisions relevant to this proposal are not described, or that conditions have changed since the calculations were made, you should contact the authors of this report prior to relying on information in the report.

If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the authors of the report prior to making such decision.

In the event that more than one plan change is being considered, it is very important to remember that the results of separate actuarial valuations cannot generally be added together to produce a correct estimate of the combined effect of all of the changes. The total can be considerably greater than the sum of the parts due to the interaction of various plan provisions with each other, and with the assumptions that must be used.

ARKANSAS LOCAL POLICE AND FIRE RETIREMENT SYSTEM
CITY OF FAYETTEVILLE PAID AND VOLUNTEER FIRE
ACTUARIAL VALUATION OF PROPOSALS UNDER CONSIDERATION
AS OF DECEMBER 31, 2014

The actuarial methods and assumptions were the same as those used in the regular valuation as of December 31, 2014. In particular, the economic assumptions used in the supplemental actuarial valuation were net investment return of 8.0% per year and wage inflation of 4.0% (price inflation of 3.0%) per year.

Member information is summarized in the following table:

	Valuation Data							
			Averages					Average
Group	Active Members	Payroll	Pay	Age (Yrs.)	Serv. (Yrs.)	Retired Members	Monthly Benefit	Age (Yrs.)
Paid								
LOPFI	106	$ 6,079,826	$ 57,357	37.7	16.0	57	$ 87,753	49.3
LOPFI DROP	2	72,893	36,447	58.3	14.0	2	3,523	58.3
Local	-	-	-	N/A	N/A	45	112,259	68.4
Total	108	6,152,719	56,970	38.1	16.0	104	203,535	57.7
Volunteer								
LOPFI	-	N/A	N/A	N/A	N/A	-	N/A	N/A
Local	-	N/A	N/A	N/A	N/A	6	$ 683	82.8
Total	-	N/A	N/A	N/A	N/A	6	683	82.8

Major Local Fund Benefit Provisions:

Voluntary Retirement - Eligibility at 20 years of service regardless of age.

Paid: Annual benefit is equal to 90% of the highest year's pay. If the member has acquired more than 20 years of service credit, the benefit is increased by $240 annually for each additional year of service credit (to a maximum annual addition of $1,200). If acquired more than 25 years of service credit, the benefit is increased at age 60 by 1.25 % of highest year's pay for service over 25 years. (Maximum benefit is 100% of final salary).

Volunteer: The minimum benefit for volunteer members is $1,200 per year. If the member has acquired more than 20 years of service credit, the benefit is increased by $120 annually for each additional year of service credit (to a maximum annual addition of $600).

Member Contributions – 6.0% of salary for paid members. $12 per year for volunteer members. Member contributions are refundable without interest if termination of employment occurs before monthly benefits are payable.

Automatic post-retirement benefit increases – None.

PAID FIRE RESULTS

Asset information:

Asset information or the Local Pension & Relief Fund was derived from the Fund's annual financial report provided to us. The date of the report was December 31, 2014. The reported market value of assets, $4,377,557, for the Local Fund, as of December 31, 2014 was used in computing the employer contribution rates. For purposes of our calculations, we assumed that the $4,377,557 Local Fund balance was $4,361,699 for paid members and $15,858 for volunteer members. The computed employer contribution rates are sensitive to changes in overall asset value. The actual amount transferred to LOPFI will depend on the market value of Local Fund assets when they are actually liquidated and may differ substantially from the value as of December 31, 2014. This will likely impact the actual rate computed in the next valuation of the combined plans.

Results:

	No COLA	3% COLA
Actuarial Accrued Liabilities (AAL)		
Active Members	-	-
Other Benefit Recipients	$13,727,400	$17,960,748
Total AAL	$13,727,400	$17,960,748
Assets		
Available to Fund AAL	$ 4,361,699	$ 4,361,699
Member DROP Balance	-	-
Total Assets	$ 4,361,699	$ 4,361,699
Unfunded AAL	$ 9,365,701	$13,599,049

15-YEAR AMORTIZATION, 0% COLA
ACTUARIAL STATEMENT

Proposed Provisions:

No post-retirement benefit increases for Local Plan members with unfunded liabilities amortized over a 15-year closed period.

Actuarial Information:

The following shows the computed employer contribution rate applicable to Local Plan unfunded liabilities:

Contributions for	FY 2015 & 2016 Computed Employer Contributions as Percent of Payroll Local Plan Only
Normal Cost	0.00%
Unfunded Accrued Liabilities	12.46
Total	12.46%

Comment A — The computed employer contribution for LOPFI only for calendar years 2015 and 2016 is 24.50% of active member payroll. The combined annual employer contribution, if the Local Plan comes under LOPFI administration, would be 36.96% for calendar years 2015 and 2016.

Comment B — The results shown above are based on the December 31, 2014 actuarial valuation. If the fund comes under LOPFI administration in 2015, the December 31, 2015 valuation will determine the calendar year 2017 employer rate. The 2017 employer rate and future employer rates are likely to differ from rates above reflecting actual investment return and mortality experience.

Comment C — As noted earlier, these calculations are based on future events that may or may not materialize. Readers of this report may have an expectation that the contribution shown above will be paid for 15 years and the employer will be relieved of all liability at that time. That is not the case. As long as benefits are payable there is a possibility that employer contributions will be needed.

25-YEAR AMORTIZATION, 0% COLA
ACTUARIAL STATEMENT

Proposed Provisions:

No post-retirement benefit increases for Local Plan members with unfunded liabilities amortized over a 25-year closed period.

Actuarial Information:

The following shows the computed employer contribution rate applicable to Local Plan unfunded liabilities:

Contributions for	FY 2015 & 2016 Computed Employer Contributions as Percent of Payroll Local Plan Only
Normal Cost	0.00%
Unfunded Accrued Liabilities	8.87
Total	8.87%

Comment A — The computed employer contribution for LOPFI only for calendar years 2015 and 2016 is 24.50% of active member payroll. The combined annual employer contribution, if the Local Plan comes under LOPFI administration, would be 33.37% for calendar years 2015 and 2016.

Comment B — The results shown above are based on the December 31, 2014 actuarial valuation. If the fund comes under LOPFI administration in 2015, the December 31, 2015 valuation will determine the calendar year 2017 employer rate. The 2017 employer rate and future employer rates are likely to differ from rates above reflecting actual investment return and mortality experience.

Comment C — As noted earlier, these calculations are based on future events that may or may not materialize. Readers of this report may have an expectation that the contribution shown above will be paid for 15 years and the employer will be relieved of all liability at that time. That is not the case. As long as benefits are payable there is a possibility that employer contributions will be needed.

Comment D — The reader should note that the cash flow projection on page 10 shows the group running out of money and therefore borrowing from LOPFI for a number of years. The financial reporting for this group will be affected significantly as a result.

15-YEAR AMORTIZATION, 3% COLA
ACTUARIAL STATEMENT

Proposed Provisions:

3% compounded post-retirement benefit increases for Local Plan members with unfunded liabilities amortized over a 15-year closed period.

Actuarial Information:

The following shows the computed employer contribution rate applicable to Local Plan unfunded liabilities:

Contributions for	FY 2015 & 2016 Computed Employer Contributions as Percent of Payroll Local Plan Only
Normal Cost	0.00%
Unfunded Accrued Liabilities	18.44
Total	18.44%

Comment A — The computed employer contribution for LOPFI only for calendar years 2015 and 2016 is 24.50% of active member payroll. The combined annual employer contribution, if the Local Plan comes under LOPFI administration, would be 42.94% for calendar years 2015 and 2016.

Comment B — The results shown above are based on the December 31, 2014 actuarial valuation. If the fund comes under LOPFI administration in 2015, the December 31, 2015 valuation will determine the calendar year 2017 employer rate. The 2017 employer rate and future employer rates are likely to differ from rates above reflecting actual investment return and mortality experience.

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Comment D — The reader should note that the cash flow projection on page 10 shows the group running out of money and therefore borrowing from LOPFI for a number of years. The financial reporting for this group will be affected significantly as a result.

25-YEAR AMORTIZATION, 3% COLA
ACTUARIAL STATEMENT

Proposed Provisions:

3% compounded post-retirement benefit increases for Local Plan members with unfunded liabilities amortized over a 25-year closed period.

Actuarial Information:

The following shows the computed employer contribution rate applicable to Local Plan unfunded liabilities:

Contributions for	FY 2015 & 2016 Computed Employer Contributions as Percent of Payroll Local Plan Only
Normal Cost	0.00%
Unfunded Accrued Liabilities	13.13
Total	13.13%

Comment A — The computed employer contribution for LOPFI only for calendar years 2015 and 2016 is 24.50% of active member payroll. The combined annual employer contribution, if the Local Plan comes under LOPFI administration, would be 37.63% for calendar years 2015 and 2016.

Comment B — The results shown above are based on the December 31, 2014 actuarial valuation. If the fund comes under LOPFI administration in 2015, the December 31, 2015 valuation will determine the calendar year 2017 employer rate. The 2017 employer rate and future employer rates are likely to differ from rates above reflecting actual investment return and mortality experience.

Comment C — As noted earlier, these calculations are based on future events that may or may not materialize. Readers of this report may have an expectation that the contribution shown above will be paid for 15 years and the employer will be relieved of all liability at that time. That is not the case. As long as benefits are payable there is a possibility that employer contributions will be needed.

0% COLA, 15-YEAR AMORTIZATION OF UAL IN LOPFI
PAID FIRE PROJECTED CASH FLOW

Year Ended December 31	Projected ($ in thousands)				
	Payroll[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2014					$ 4,362
2015	$ 6,399	$ 1,343	$ 765	$ 326	4,110
2016	6,655	1,334	829	309	3,914
2017	6,921	1,323	862	295	3,747
2018	7,198	1,311	897	284	3,617
2019	7,486	1,297	932	275	3,527
2020	7,785	1,282	970	270	3,485
2021	8,097	1,265	1,008	269	3,497
2022	8,420	1,246	1,049	272	3,571
2023	8,757	1,226	1,091	280	3,716
2024	9,108	1,205	1,134	295	3,940
2025	9,472	1,182	1,180	315	4,253
2026	9,851	1,157	1,227	343	4,665
2027	10,245	1,131	1,276	379	5,189
2028	10,655	1,104	1,327	424	5,836
2029	11,081	1,074	1,380	479	6,621
2030	11,524	1,043	1,435	545	7,559
2031	11,985	1,010	-	565	7,114
2032	12,464	975	-	531	6,669
2033	12,963	939	-	497	6,227
2034	13,481	901	-	463	5,789
2035	14,021	861	-	429	5,357
2036	14,581	819	-	396	4,934
2037	15,165	777	-	364	4,522
2038	15,771	733	-	333	4,122
2039	16,402	688	-	303	3,737
2040	17,058	642	-	274	3,369
2041	17,741	596	-	246	3,019
2042	18,450	551	-	220	2,688
2043	19,188	505	-	195	2,378
2044	19,956	460	-	172	2,090
2045	20,754	417	-	151	1,824
2046	21,584	375	-	131	1,581
2047	22,447	334	-	113	1,360
2048	23,345	296	-	97	1,161
2049	24,279	260	-	83	984
2050	25,250	226	-	70	828
2051	26,260	196	-	59	691
2052	27,311	168	-	49	572
2053	28,403	143	-	40	469
2054	29,539	120	-	33	381

0% COLA, 15-YEAR AMORTIZATION OF UAL IN LOPFI
PAID FIRE PROJECTED CASH FLOW
(CONCLUDED)

Year Ended December 31	Projected ($ in thousands) Payroll[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2055	$ 30,721	$ 101	$ -	$ 27	$ 307
2056	31,950	83	-	21	245
2057	33,228	68	-	17	194
2058	34,557	56	-	13	151
2059	35,939	45	-	10	117
2060	37,377	35	-	8	90
2061	38,872	28	-	6	68
2062	40,427	22	-	5	51
2063	42,044	17	-	3	38
2064	43,725	13	-	3	28
2065	45,474	10	-	2	20
2066	47,293	7	-	1	14
2067	49,185	5	-	1	10
2068	51,153	4	-	1	7
2069	53,199	3	-	0	5
2070	55,327	2	-	0	3
2071	57,540	1	-	0	2
2072	59,841	1	-	0	1
2073	62,235	1	-	0	1
2074	64,724	0	-	0	1
2075	67,313	0	-	0	0
2076	70,006	0	-	0	0
2077	72,806	0	-	0	0
2078	75,718	0	-	0	0
2079	78,747	0	-	0	0
2080	81,897	0	-	0	0
2081	85,173	0	-	0	0
2082	88,580	0	-	0	-
2083	92,123	-	-	-	-

1. *LOPFI Active member count is assumed to stay level in future years.*
2. *Local plan contributions only; 12.46% of pay in 2015 and thereafter in addition to the LOPFI rate. The first year contribution assumes that the City will be under LOPFI administration for the last six months of 2015. The last year contribution based on a 15-year amortization schedule would be applied to calendar year 2030.*
3. *Reported market value of assets. Assets are projected at the assumed rate of return of 8% per year.*

Note: The actual future contributions for this group are affected by investment return, number of active members and life expectancy. This projection does not show the effect on future employer contributions of differences between actual and assumed future experience. These differences can have a significant effect on these results.

0% COLA, 25-YEAR AMORTIZATION OF UAL IN LOPFI
PAID FIRE PROJECTED CASH FLOW

Year Ended December 31	Projected ($ in thousands) Payroll[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2014					$ 4,362
2015	$ 6,399	$ 1,343	$ 707	$ 324	4,050
2016	6,655	1,334	590	295	3,602
2017	6,921	1,323	614	260	3,153
2018	7,198	1,311	639	226	2,706
2019	7,486	1,297	664	192	2,265
2020	7,785	1,282	691	158	1,832
2021	8,097	1,265	718	125	1,410
2022	8,420	1,246	747	93	1,004
2023	8,757	1,226	777	63	617
2024	9,108	1,205	808	34	254
2025	9,472	1,182	840	7	(81)
2026	9,851	1,157	874	(18)	(382)
2027	10,245	1,131	909	(39)	(643)
2028	10,655	1,104	945	(58)	(859)
2029	11,081	1,074	983	(72)	(1,023)
2030	11,524	1,043	1,022	(83)	(1,126)
2031	11,985	1,010	1,063	(88)	(1,160)
2032	12,464	975	1,106	(88)	(1,118)
2033	12,963	939	1,150	(81)	(988)
2034	13,481	901	1,196	(67)	(760)
2035	14,021	861	1,244	(46)	(423)
2036	14,581	819	1,294	(15)	36
2037	15,165	777	1,345	25	630
2038	15,771	733	1,399	77	1,373
2039	16,402	688	1,455	140	2,281
2040	17,058	642	1,513	217	3,369
2041	17,741	596	-	246	3,019
2042	18,450	551	-	220	2,688
2043	19,188	505	-	195	2,378
2044	19,956	460	-	172	2,090
2045	20,754	417	-	151	1,824
2046	21,584	375	-	131	1,581
2047	22,447	334	-	113	1,360
2048	23,345	296	-	97	1,161
2049	24,279	260	-	83	984
2050	25,250	226	-	70	828
2051	26,260	196	-	59	691
2052	27,311	168	-	49	572
2053	28,403	143	-	40	469
2054	29,539	120	-	33	381

0% COLA, 25-YEAR AMORTIZATION OF UAL IN LOPFI
PAID FIRE PROJECTED CASH FLOW
(CONCLUDED)

Year Ended	Projected ($ in thousands)				
December 31	Payroll[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2055	$ 30,721	$ 101	-	$ 27	$ 307
2056	31,950	83	-	21	245
2057	33,228	68	-	17	194
2058	34,557	56	-	13	151
2059	35,939	45	-	10	117
2060	37,377	35	-	8	90
2061	38,872	28	-	6	68
2062	40,427	22	-	5	51
2063	42,044	17	-	3	38
2064	43,725	13	-	3	28
2065	45,474	10	-	2	20
2066	47,293	7	-	1	14
2067	49,185	5	-	1	10
2068	51,153	4	-	1	7
2069	53,199	3	-	0	5
2070	55,327	2	-	0	3
2071	57,540	1	-	0	2
2072	59,841	1	-	0	1
2073	62,235	1	-	0	1
2074	64,724	0	-	0	1
2075	67,313	0	-	0	0
2076	70,006	0	-	0	0
2077	72,806	0	-	0	0
2078	75,718	0	-	0	0
2079	78,747	0	-	0	0
2080	81,897	0	-	0	0
2081	85,173	0	-	0	0
2082	88,580	0	-	0	-
2083	92,123	-	-	-	-

1. *LOPFI Active member count is assumed to stay level in future years.*
2. *Local plan contributions only; 8.87% of pay in 2015 and thereafter in addition to the LOPFI rate. The first year contribution assumes that the City will be under LOPFI administration for the last six months of 2015. The last year contribution based on a 25-year amortization schedule would be applied to calendar year 2040.*
3. *Reported market value of assets. Assets are projected at the assumed rate of return of 8% per year.*

Note: The actual future contributions for this group are affected by investment return, number of active members and life expectancy. This projection does not show the effect on future employer contributions of differences between actual and assumed future experience. These differences can have a significant effect on these results.

3% COLA, 15-YEAR AMORTIZATION OF UAL IN LOPFI
PAID FIRE PROJECTED CASH FLOW

Year Ended December 31	Projected ($ in thousands)				
	Payroll[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2014					$ 4,362
2015	$ 6,399	$ 1,343	$ 860	$ 330	4,209
2016	6,655	1,374	1,227	331	4,393
2017	6,921	1,404	1,276	346	4,612
2018	7,198	1,433	1,327	365	4,871
2019	7,486	1,460	1,380	387	5,177
2020	7,785	1,486	1,435	412	5,539
2021	8,097	1,510	1,493	442	5,963
2022	8,420	1,533	1,552	478	6,461
2023	8,757	1,554	1,614	519	7,041
2024	9,108	1,572	1,679	567	7,715
2025	9,472	1,589	1,746	623	8,496
2026	9,851	1,602	1,816	688	9,398
2027	10,245	1,613	1,889	763	10,436
2028	10,655	1,621	1,964	848	11,628
2029	11,081	1,625	2,043	947	12,993
2030	11,524	1,625	2,125	1,059	14,552
2031	11,985	1,621	-	1,101	14,031
2032	12,464	1,612	-	1,059	13,478
2033	12,963	1,599	-	1,016	12,895
2034	13,481	1,580	-	970	12,285
2035	14,021	1,555	-	922	11,652
2036	14,581	1,525	-	872	11,000
2037	15,165	1,488	-	822	10,334
2038	15,771	1,446	-	770	9,658
2039	16,402	1,398	-	718	8,977
2040	17,058	1,344	-	665	8,298
2041	17,741	1,286	-	613	7,626
2042	18,450	1,223	-	562	6,965
2043	19,188	1,156	-	512	6,321
2044	19,956	1,085	-	463	5,699
2045	20,754	1,012	-	416	5,104
2046	21,584	937	-	372	4,539
2047	22,447	860	-	329	4,007
2048	23,345	784	-	290	3,513
2049	24,279	709	-	253	3,057
2050	25,250	637	-	220	2,639
2051	26,260	567	-	189	2,261
2052	27,311	501	-	161	1,921
2053	28,403	439	-	136	1,619
2054	29,539	382	-	115	1,352

3% COLA, 15-YEAR AMORTIZATION OF UAL IN LOPFI
PAID FIRE PROJECTED CASH FLOW
(CONCLUDED)

Year Ended December 31	Projected ($ in thousands)				
	Payroll[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2055	$ 30,721	$ 329	-	$ 95	$ 1,118
2056	31,950	280	-	78	916
2057	33,228	237	-	64	743
2058	34,557	198	-	52	597
2059	35,939	164	-	41	475
2060	37,377	134	-	33	374
2061	38,872	108	-	26	292
2062	40,427	87	-	20	225
2063	42,044	69	-	15	172
2064	43,725	54	-	12	129
2065	45,474	42	-	9	96
2066	47,293	32	-	6	70
2067	49,185	24	-	5	51
2068	51,153	18	-	3	36
2069	53,199	13	-	2	25
2070	55,327	10	-	2	17
2071	57,540	7	-	1	12
2072	59,841	5	-	1	8
2073	62,235	3	-	0	5
2074	64,724	2	-	0	3
2075	67,313	1	-	0	2
2076	70,006	1	-	0	1
2077	72,806	1	-	0	1
2078	75,718	0	-	0	0
2079	78,747	0	-	0	0
2080	81,897	0	-	0	0
2081	85,173	0	-	0	0
2082	88,580	0	-	0	0
2083	92,123	0	-	0	0
2084	95,808	0	-	0	0
2085	99,640	0	-	0	-
2086	103,626	-	-	-	-

1. *LOPFI Active member count is assumed to stay level in future years.*
2. *Local plan contributions only; 18.44% of pay in 2015 and thereafter in addition to the LOPFI rate. The first year contribution assumes that the City will be under LOPFI administration for the last six months of 2015. The last year contribution based on a 15-year amortization schedule would be applied to calendar year 2030.*
3. *Reported market value of assets. Assets are projected at the assumed rate of return of 8% per year.*

Note: The actual future contributions for this group are affected by investment return, number of active members and life expectancy. This projection does not show the effect on future employer contributions of differences between actual and assumed future experience. These differences can have a significant effect on these results.

3% COLA, 25-YEAR AMORTIZATION OF UAL IN LOPFI
PAID FIRE PROJECTED CASH FLOW

Year Ended December 31	Projected ($ in thousands)				
	Payroll[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2014					$ 4,362
2015	$ 6,399	$ 1,343	$ 776	$ 327	4,121
2016	6,655	1,374	874	310	3,931
2017	6,921	1,404	909	295	3,731
2018	7,198	1,433	945	279	3,523
2019	7,486	1,460	983	263	3,309
2020	7,785	1,486	1,022	247	3,092
2021	8,097	1,510	1,063	230	2,875
2022	8,420	1,533	1,106	213	2,661
2023	8,757	1,554	1,150	197	2,454
2024	9,108	1,572	1,196	182	2,259
2025	9,472	1,589	1,244	167	2,082
2026	9,851	1,602	1,294	154	1,928
2027	10,245	1,613	1,345	144	1,804
2028	10,655	1,621	1,399	136	1,718
2029	11,081	1,625	1,455	131	1,679
2030	11,524	1,625	1,513	130	1,698
2031	11,985	1,621	1,574	134	1,785
2032	12,464	1,612	1,637	144	1,953
2033	12,963	1,599	1,702	160	2,217
2034	13,481	1,580	1,770	185	2,592
2035	14,021	1,555	1,841	219	3,097
2036	14,581	1,525	1,915	263	3,751
2037	15,165	1,488	1,991	320	4,574
2038	15,771	1,446	2,071	390	5,589
2039	16,402	1,398	2,154	477	6,822
2040	17,058	1,344	2,240	581	8,298
2041	17,741	1,286	-	613	7,626
2042	18,450	1,223	-	562	6,965
2043	19,188	1,156	-	512	6,321
2044	19,956	1,085	-	463	5,699
2045	20,754	1,012	-	416	5,104
2046	21,584	937	-	372	4,539
2047	22,447	860	-	329	4,007
2048	23,345	784	-	290	3,513
2049	24,279	709	-	253	3,057
2050	25,250	637	-	220	2,639
2051	26,260	567	-	189	2,261
2052	27,311	501	-	161	1,921
2053	28,403	439	-	136	1,619
2054	29,539	382	-	115	1,352

3% COLA, 25-YEAR AMORTIZATION OF UAL IN LOPFI
PAID FIRE PROJECTED CASH FLOW
(CONCLUDED)

Year Ended	Projected ($ in thousands)				
December 31	Payroll[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2055	$ 30,721	$ 329	-	$ 95	$ 1,118
2056	31,950	280	-	78	916
2057	33,228	237	-	64	743
2058	34,557	198	-	52	597
2059	35,939	164	-	41	475
2060	37,377	134	-	33	374
2061	38,872	108	-	26	292
2062	40,427	87	-	20	225
2063	42,044	69	-	15	172
2064	43,725	54	-	12	129
2065	45,474	42	-	9	96
2066	47,293	32	-	6	70
2067	49,185	24	-	5	51
2068	51,153	18	-	3	36
2069	53,199	13	-	2	25
2070	55,327	10	-	2	17
2071	57,540	7	-	1	12
2072	59,841	5	-	1	8
2073	62,235	3	-	0	5
2074	64,724	2	-	0	3
2075	67,313	1	-	0	2
2076	70,006	1	-	0	1
2077	72,806	1	-	0	1
2078	75,718	0	-	0	0
2079	78,747	0	-	0	0
2080	81,897	0	-	0	0
2081	85,173	0	-	0	0
2082	88,580	0	-	0	0
2083	92,123	0	-	0	0
2084	95,808	0	-	0	0
2085	99,640	0	-	0	-
2086	103,626	-	-	-	-

1. *LOPFI Active member count is assumed to stay level in future years.*
2. *Local plan contributions only; 13.13% of pay in 2015 and thereafter in addition to the LOPFI rate. The first year contribution assumes that the City will be under LOPFI administration for the last six months of 2015. The last year contribution based on a 25-year amortization schedule would be applied to calendar year 2040.*
3. *Reported market value of assets. Assets are projected at the assumed rate of return of 8% per year.*

Note: The actual future contributions for this group are affected by investment return, number of active members and life expectancy. This projection does not show the effect on future employer contributions of differences between actual and assumed future experience. These differences can have a significant effect on these results.

VOLUNTEER FIRE RESULTS

Asset information:

Asset information or the Local Pension & Relief Fund was derived from the Fund's annual financial report provided to us. The date of the report was December 31, 2014. The reported market value of assets, $4,377,557, for the Local Fund, as of December 31, 2014 was used in computing the employer contribution rates. For purposes of our calculations, we assumed that the $4,377,557 Local Fund balance was $4,361,699 for paid members and $15,858 for volunteer members. The computed employer contribution rates are sensitive to changes in overall asset value. The actual amount transferred to LOPFI will depend on the market value of Local Fund assets when they are actually liquidated and may differ substantially from the value as of December 31, 2014. This will likely impact the actual rate computed in the next valuation of the combined plans.

Results:

	No COLA	3% COLA
Actuarial Accrued Liabilities (AAL)		
Active Members	-	-
Other Benefit Recipients	$ 49,908	$ 58,068
Total AAL	$ 49,908	$ 58,068
Assets		
Available to Fund AAL	$ 15,858	$ 15,858
Member DROP Balance	-	-
Total Assets	$ 15,858	$ 15,858
Unfunded AAL	$ 34,050	$ 42,210

VOLUNTEER FIRE RESULTS

If the Local Fund becomes administered by LOPFI, the per month employer contribution* for calendar year 2015 and thereafter would be as follows:

	15-Year Amortization Period	25-Year Amortization Period
COLA	Computed Employer Contribution*	Computed Employer Contribution*
0.00%	$ 314.72	$ 253.78
3.00%	394.88	318.42

These contributions are <u>in addition to</u> the contribution determined for LOPFI members only. As of December 31, 2014 there are no LOPFI Volunteer Firemen. These are the estimated contributions needed to pay off the unfunded accrued liability associated with Closed Plan benefits and would be deposited in the Local Fund Employer Accumulation Account.

Readers of this report may have an expectation that the contribution shown above will be paid for 15 or 25 years and the employer will be relieved of all liability at that time. That is not the case, as long as benefits are payable there is a possibility that employer contributions will be needed.

* *Contributions were calculated on a dollars per month basis since there are no active volunteers in LOPFI and the Local Plan to calculate a per member per month rate.*

0% COLA, 15-YEAR AMORTIZATION OF UAL IN LOPFI
VOLUNTEER FIRE PROJECTED CASH FLOW

Year Ended December 31	Projected LOPFI Active Count[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2014					15,858
2015	NA	7,956	3,001	1,074	11,977
2016	NA	7,464	3,777	813	9,103
2017	NA	6,972	3,777	603	6,511
2018	NA	6,468	3,777	415	4,234
2019	NA	5,964	3,777	253	2,300
2020	NA	5,484	3,777	117	710
2021	NA	5,004	3,777	9	(509)
2022	NA	4,560	3,777	(71)	(1,364)
2023	NA	4,128	3,777	(123)	(1,838)
2024	NA	3,732	3,777	(145)	(1,939)
2025	NA	3,348	3,777	(138)	(1,649)
2026	NA	2,976	3,777	(100)	(948)
2027	NA	2,652	3,777	(32)	144
2028	NA	2,340	3,777	68	1,649
2029	NA	2,040	3,777	200	3,586
2030	NA	1,764	3,777	366	5,964
2031	NA	1,512	-	418	4,870
2032	NA	1,284	-	339	3,925
2033	NA	1,068	-	272	3,129
2034	NA	876	-	216	2,469
2035	NA	720	-	169	1,918
2036	NA	576	-	131	1,473
2037	NA	456	-	100	1,117
2038	NA	348	-	76	845
2039	NA	276	-	57	626
2040	NA	204	-	42	464
2041	NA	168	-	31	326
2042	NA	108	-	22	240
2043	NA	84	-	16	172
2044	NA	60	-	11	124
2045	NA	48	-	8	84
2046	NA	36	-	5	53
2047	NA	24	-	3	32
2048	NA	12	-	2	22
2049	NA	12	-	1	12
2050	NA	12	-	0	0
2051	NA	-	-	0	0

1. *As of December 31, 2014 there were no Active LOPFI Volunteer Firemen.*
2. *Local plan contributions only; $314.72 per month in 2015 and thereafter in addition to the LOPFI rate. The first year contribution assumes that the City will be under LOPFI administration for the last six months of 2015. The last year contribution based on a 15-year amortization schedule would be applied to calendar year 2030.*
3. *Reported market value of assets. Assets are projected at the assumed rate of return of 8% per year.*

Note: The actual future contributions for this group are affected by investment return, number of active members and life expectancy. This projection does not show the effect on future employer contributions of differences between actual and assumed future experience. These differences can have a significant effect on these results.

0% COLA, 25-YEAR AMORTIZATION OF UAL IN LOPFI
VOLUNTEER FIRE PROJECTED CASH FLOW

Year Ended December 31	Projected LOPFI Active Count[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2014					15,858.00
2015	NA	7,956	2,818	1,067	11,787
2016	NA	7,464	3,045	770	8,138
2017	NA	6,972	3,045	497	4,708
2018	NA	6,468	3,045	242	1,528
2019	NA	5,964	3,045	8	(1,383)
2020	NA	5,484	3,045	(206)	(4,028)
2021	NA	5,004	3,045	(399)	(6,385)
2022	NA	4,560	3,045	(570)	(8,470)
2023	NA	4,128	3,045	(720)	(10,273)
2024	NA	3,732	3,045	(849)	(11,808)
2025	NA	3,348	3,045	(957)	(13,068)
2026	NA	2,976	3,045	(1,043)	(14,041)
2027	NA	2,652	3,045	(1,108)	(14,755)
2028	NA	2,340	3,045	(1,153)	(15,203)
2029	NA	2,040	3,045	(1,177)	(15,374)
2030	NA	1,764	3,045	(1,180)	(15,272)
2031	NA	1,512	3,045	(1,162)	(14,901)
2032	NA	1,284	3,045	(1,123)	(14,262)
2033	NA	1,068	3,045	(1,063)	(13,348)
2034	NA	876	3,045	(983)	(12,162)
2035	NA	720	3,045	(882)	(10,718)
2036	NA	576	3,045	(761)	(9,009)
2037	NA	456	3,045	(619)	(7,039)
2038	NA	348	3,045	(457)	(4,799)
2039	NA	276	3,045	(275)	(2,305)
2040	NA	204	3,045	(73)	464
2041	NA	168	-	31	326
2042	NA	108	-	22	240
2043	NA	84	-	16	172
2044	NA	60	-	11	124
2045	NA	48	-	8	84
2046	NA	36	-	5	53
2047	NA	24	-	3	32
2048	NA	12	-	2	22
2049	NA	12	-	1	12
2050	NA	12	-	0	0
2051	NA	-	-	0	0

1. *As of December 31, 2014 there were no Active LOPFI Volunteer Firemen.*
2. *Local plan contributions only; $253.78 per month in 2015 and thereafter in addition to the LOPFI rate. The first year contribution assumes that the City will be under LOPFI administration for the last six months of 2015. The last year contribution based on a 25-year amortization schedule would be applied to calendar year 2040.*
3. *Reported market value of assets. Assets are projected at the assumed rate of return of 8% per year.*

Note: The actual future contributions for this group are affected by investment return, number of active members and life expectancy. This projection does not show the effect on future employer contributions of differences between actual and assumed future experience. These differences can have a significant effect on these results.

3% COLA, 15-YEAR AMORTIZATION OF UAL IN LOPFI VOLUNTEER FIRE PROJECTED CASH FLOW

	Projected				
Year Ended December 31	LOPFI Active Count[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2014					$15,858
2015	NA	$7,956	$3,241	$1,084	12,227
2016	NA	7,692	4,739	862	10,136
2017	NA	7,392	4,739	707	8,189
2018	NA	7,068	4,739	564	6,423
2019	NA	6,720	4,739	436	4,878
2020	NA	6,348	4,739	327	3,596
2021	NA	5,988	4,739	239	2,585
2022	NA	5,604	4,739	173	1,892
2023	NA	5,232	4,739	132	1,531
2024	NA	4,860	4,739	118	1,527
2025	NA	4,488	4,739	132	1,910
2026	NA	4,128	4,739	177	2,697
2027	NA	3,780	4,739	253	3,909
2028	NA	3,432	4,739	364	5,579
2029	NA	3,084	4,739	511	7,745
2030	NA	2,760	4,739	697	10,421
2031	NA	2,424	-	739	8,735
2032	NA	2,112	-	616	7,239
2033	NA	1,824	-	508	5,923
2034	NA	1,548	-	413	4,788
2035	NA	1,296	-	332	3,824
2036	NA	1,068	-	264	3,020
2037	NA	864	-	208	2,364
2038	NA	696	-	162	1,830
2039	NA	552	-	125	1,403
2040	NA	444	-	95	1,053
2041	NA	336	-	71	788
2042	NA	264	-	53	577
2043	NA	204	-	38	411
2044	NA	144	-	27	295
2045	NA	108	-	19	206
2046	NA	84	-	13	135
2047	NA	60	-	8	84
2048	NA	36	-	5	53
2049	NA	24	-	3	32
2050	NA	12	-	2	22
2051	NA	12	-	1	12
2052	NA	12	-	0	-
2053	NA	-	-	-	-

1. *As of December 31, 2014 there were no Active LOPFI Volunteer Firemen.*
2. *Local plan contributions only; $394.88 per month in 2015 and thereafter in addition to the LOPFI rate. The first year contribution assumes that the City will be under LOPFI administration for the last six months of 2015. The last year contribution based on a 15-year amortization schedule would be applied to calendar year 2030.*
3. *Reported market value of assets. Assets are projected at the assumed rate of return of 8% per year.*

Note: The actual future contributions for this group are affected by investment return, number of active members and life expectancy. This projection does not show the effect on future employer contributions of differences between actual and assumed future experience. These differences can have a significant effect on these results.

ARKANSAS LOCAL POLICE AND FIRE RETIREMENT SYSTEM
CITY OF FAYETTEVILLE PAID AND VOLUNTEER FIRE
ACTUARIAL VALUATION OF PROPOSALS UNDER CONSIDERATION
AS OF DECEMBER 31, 2014

3% COLA, 25-YEAR AMORTIZATION OF UAL IN LOPFI
VOLUNTEER FIRE PROJECTED CASH FLOW

	Projected				
Year Ended December 31	LOPFI Active Count[1]	Benefits	Contributions[2]	Investment Earnings	Assets (MV)[3]
2014					$15,858
2015	NA	$7,956	$3,012	$1,075	11,988
2016	NA	7,692	3,821	807	8,925
2017	NA	7,392	3,821	574	5,928
2018	NA	7,068	3,821	347	3,028
2019	NA	6,720	3,821	128	257
2020	NA	6,348	3,821	(79)	(2,348)
2021	NA	5,988	3,821	(273)	(4,788)
2022	NA	5,604	3,821	(453)	(7,024)
2023	NA	5,232	3,821	(617)	(9,052)
2024	NA	4,860	3,821	(765)	(10,856)
2025	NA	4,488	3,821	(895)	(12,418)
2026	NA	4,128	3,821	(1,005)	(13,730)
2027	NA	3,780	3,821	(1,097)	(14,786)
2028	NA	3,432	3,821	(1,168)	(15,565)
2029	NA	3,084	3,821	(1,216)	(16,044)
2030	NA	2,760	3,821	(1,242)	(16,225)
2031	NA	2,424	3,821	(1,243)	(16,071)
2032	NA	2,112	3,821	(1,219)	(15,580)
2033	NA	1,824	3,821	(1,168)	(14,751)
2034	NA	1,548	3,821	(1,091)	(13,569)
2035	NA	1,296	3,821	(986)	(12,031)
2036	NA	1,068	3,821	(854)	(10,132)
2037	NA	864	3,821	(695)	(7,870)
2038	NA	696	3,821	(507)	(5,251)
2039	NA	552	3,821	(292)	(2,274)
2040	NA	444	3,821	(49)	1,053
2041	NA	336	-	71	788
2042	NA	264	-	53	577
2043	NA	204	-	38	411
2044	NA	144	-	27	295
2045	NA	108	-	19	206
2046	NA	84	-	13	135
2047	NA	60	-	8	84
2048	NA	36	-	5	53
2049	NA	24	-	3	32
2050	NA	12	-	2	22
2051	NA	12	-	1	12
2052	NA	12	-	0	-
2053	NA	-	-	-	-

1. *As of December 31, 2014 there were no Active LOPFI Volunteer Firemen.*
2. *Local plan contributions only; $318.42 per month in 2015 and thereafter in addition to the LOPFI rate. The first year contribution assumes that the City will be under LOPFI administration for the last six months of 2015. The last year contribution based on a 25-year amortization schedule would be applied to calendar year 2040.*
3. *Reported market value of assets. Assets are projected at the assumed rate of return of 8% per year.*

Note: The actual future contributions for this group are affected by investment return, number of active members and life expectancy. This projection does not show the effect on future employer contributions of differences between actual and assumed future experience. These differences can have a significant effect on these results.

<u>Resolution to Assign Local Plan Administration to LOPFI</u>

Whereas, the Board of Trustees (the Board) of the FAYETTEVILLE FIRE Pension and Relief Fund (the Local Plan), desires to assign administration of the Local Plan to the Arkansas Local Police and Fire Retirement System (LOPFI) pursuant to Act 364 of 1981, as amended; and

Whereas, such action shall not change the benefit structure unless a benefit increase is approved by the governing body of FAYETTEVILLE, Arkansas; and

Whereas, the Board received and reviewed the latest actuarial report from LOPFI, which states the initial required employer contribution rate(s); and

Whereas, LOPFI will administer the Local Plan at an annual cost not to exceed ½ of 1% of active member payroll plus 1% of average annual assets of the Local Plan; and

Whereas, the Board finds it is in the best interest of the Local Plan and its participants to have LOPFI administer the Local Plan; therefore,

BE IT RESOLVED, the Board hereby elects to assign administration of the Local Plan to LOPFI.

BE IT FURTHER RESOLVED the Board requests the CITY OF FAYETTEVILLE, a political subdivision of the State of Arkansas, to act as its agent henceforth.

BE IT FURTHER RESOLVED the Board understands any agreement to administer the Local Plan by LOPFI shall be entered into by and with the governing body of FAYETTEVILLE, Arkansas, as the Board's agent, and that such agreement shall dissolve said Board of Trustees.

<u>CERTIFICATION</u>

We certify this Resolution accurately states the action of said Board of Trustees. Approved this ____ day of _____________, 2015.

Chair ______________________________

Sec/Treasurer ______________________________

Member ______________________________

Member ______________________________

Member ______________________________

Member ______________________________

Member ______________________________

ORDINANCE NO.__________

AN ORDINANCE TRANSFERRING ADMINISTRATION OF RETIREMENT COVERAGE FOR ELIGIBLE MEMBERS OF THE FAYETTEVILLE FIRE PENSION AND RELIEF FUND TO THE ARKANSAS LOCAL POLICE AND FIRE RETIREMENT SYSTEM (LOPFI) AND AUTHORIZING THE CHIEF ADMINISTRATIVE OFFICER TO ENTER INTO AN IRREVOCABLE AGREEMENT WITH LOPFI.

WHEREAS, the Board of Trustees of the FAYETTEVILLE Fire Pension and Relief Fund has elected to have its Pension Fund administered by LOPFI as stated by Resolution dated ___________, 2015, and that

WHEREAS, the Board of Trustees has requested by Resolution that the City of FAYETTEVILLE, Arkansas to act as its agent henceforth.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FAYETTEVILLE, ARKANSAS:

SECTION 1. If accepted by LOPFI, the administration of the FAYETTEVILLE Fire Pension and Relief Fund shall be transferred to LOPFI under authority of Act 364 of 1981, as amended. Such transfer shall mean the administration of the Pension Fund only and not a change in the Pension Fund's benefit program unless a benefit increase is approved by the City of FAYETTEVILLE, Arkansas.

SECTION 2. The Chief Administrative Officer is hereby authorized to enter into an irrevocable agreement, *using a fifteen (15) or twenty-five (25) year amortization schedule (drafter of Ordinance needs to select one amortization period),* with LOPFI to administer the FAYETTEVILLE Fire Pension and Relief Fund as stated in Section 1 hereof.

SECTION 3. It is the intent of the City Council and it is hereby ordained that the provisions of this Ordinance shall be codified into the Code of Ordinances of FAYETTEVILLE, Arkansas and the sections thereof may be re-numbered and re-lettered as necessary to accomplish such intention.

SECTION 4. Due to the need to consolidate administration of the FAYETTEVILLE Fire Pension and Relief Fund with LOPFI, an emergency is hereby declared to exist and this Ordinance shall be in full force from and after the date of its passage and approval.

PASSED:____________________
Date

APPROVED:______________________
Chief Administrative Officer

ATTEST:____________________
Witness

ADMINISTRATIVE SERVICES AGREEMENT

This Administrative Services Agreement (Agreement) is entered into by and between the ARKANSAS LOCAL POLICE AND FIRE RETIREMENT SYSTEM (LOPFI) and the CITY OF FAYETTEVILLE for the benefit of its FIRE Pension and Relief Fund (Fire Pension Fund).

PARTIES

The City of FAYETTEVILLE, a political subdivision, currently has and administers a Fire Pension Fund.

LOPFI is an agency created by statute (A.C.A. 24-10-101, et. seq.) for the purpose of providing a statewide retirement system with pooled administration.

The Mayor and City Council of FAYETTEVILLE desire to enter into an irrevocable Agreement with LOPFI to administer its Fire Pension Fund and in consideration of the mutual obligations hereinafter enumerated the parties agree as follows:

1. This Agreement is made pursuant to the authority of Act 364 of 1981, as amended, of the General Assembly of the State of Arkansas.

2. This Agreement shall be effective sixty (60) days from the date affixed hereto, provided, however, at any time during the sixty (60) day period the LOPFI Board of Trustees may reject this Agreement.

3. This Agreement is for the administration of the Fire Pension Fund and its benefit structure shall not change, unless a benefit increase is approved by the City of FAYETTEVILLE.

4. The actuaries for LOPFI have computed an initial employer contribution rate(s) to be paid by the City of FAYETTEVILLE to support the benefits paid by the Fire Pension Fund and will provide eligible participants with the benefits described in Act 397 of 1983 (applies to Fire plans). The City of FAYETTEVILLE agrees to always remit payment at the level established by the actuaries for LOPFI.

5. The annual fee paid to LOPFI for administration of the Fire Pension Fund shall not exceed one half (1/2) of one percent (1%) of the annual payroll of the Fire Pension Fund and one percent (1%) of the average annual Fire Pension Fund assets. However, this fee is subject to change by legislative action. The fiscal year shall be January 1 through December 31.

6. Benefits and member refunds shall be paid on the first business day of each month and in accordance with LOPFI procedures.

7. LOPFI covenants and agrees to provide the following services:
   a. investment of <u>Fire</u> Pension Fund assets and the award of annual interest to the employer reserve account at the end of each fiscal year in an amount consistent with the interest awarded to other LOPFI employer accounts;
   b. process retirement applications including determination of eligibility, calculation of service credit and benefit payment amounts, payment of benefits to eligible benefit recipients, and satisfaction of state and federal tax withholding requirements, all in accordance with LOPFI procedures and guidelines;
   c. disability determinations, provided the employer submits appropriate materials for said determinations. All disability determinations shall conform to LOPFI procedures;
   d. refund of member contributions to eligible terminating members; and

8. The City of FAYETTEVILLE covenants and agrees as follows:
   a. upon execution of this Agreement all <u>Fire</u> Pension Fund assets and records shall be transferred to LOPFI. In the sole discretion of LOPFI certain investments may be allowed to mature to avoid penalties;
   b. all employer and applicable employee contributions shall be remitted to LOPFI in time to be recorded by the tenth (10^{th}) day of each month following the month in which services were rendered. Remittance shall be made in the manner and amounts prescribed by LOPFI, which shall include the use of LOPFI's electronic reporting and LOPFI's e-Payment;
   c. the City of FAYETTEVILLE shall execute all documents required by LOPFI to aid in the administrative process;
   d. all active members and beneficiaries of the <u>Fire</u> Pension Fund have been deemed eligible pursuant to the standards prevailing at the time of the determination of eligibility. The parties agree that LOPFI is bound by any determination of eligibility or ineligibility made by the Board of Trustees of the <u>Fire</u> Pension Fund as long as such determination(s) conform to state law. The <u>Fire</u> Pension Fund and the City of FAYETTEVILLE indemnify and hold LOPFI harmless for any eligibility decisions made by the <u>Fire</u> Pension Fund.
   e. the City of FAYETTEVILLE has disclosed to LOPFI all pending claims, actions, suits, and threatened liabilities to the <u>Fire</u> Pension Fund.

9. Upon the passage of sixty (60) days following the execution of this document, unless rejected by the LOPFI Board of Trustees, this Agreement shall become permanent.

10. FAYETTEVILLE Fire Pension and Relief Fund Board of Trustees' Resolution dated __________________, 2015, and Ordinance No. _____________, dated ________________, 2015, of the City of FAYETTEVILLE, are incorporated by reference herein as though set forth word for word.

This Agreement executed in duplicate originals this ___ day of ____________, 2015.

FAYETTEVILLE, ARKANSAS

BY:_______________________
Chief Administrative Officer

ATTEST:____________________

LOPFI BOARD OF TRUSTEES

BY:_______________________
LOPFI Board Chairman

ATTEST:____________________

ADMINISTRATIVE SERVICES AGREEMENT

This Administrative Services Agreement (Agreement) is entered into by and between the ARKANSAS LOCAL POLICE AND FIRE RETIREMENT SYSTEM (LOPFI) and the CITY OF FAYETTEVILLE for the benefit of its FIRE Pension and Relief Fund (Fire Pension Fund).

PARTIES

The City of FAYETTEVILLE, a political subdivision, currently has and administers a Fire Pension Fund.

LOPFI is an agency created by statute (A.C.A. 24-10-101, et. seq.) for the purpose of providing a statewide retirement system with pooled administration.

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1. This Agreement is made pursuant to the authority of Act 364 of 1981, as amended, of the General Assembly of the State of Arkansas.

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3. This Agreement is for the administration of the Fire Pension Fund and its benefit structure shall not change, unless a benefit increase is approved by the City of FAYETTEVILLE.

4. The actuaries for LOPFI have computed an initial employer contribution rate(s) to be paid by the City of FAYETTEVILLE to support the benefits paid by the Fire Pension Fund and will provide eligible participants with the benefits described in Act 397 of 1983 (applies to Fire plans). The City of FAYETTEVILLE agrees to always remit payment at the level established by the actuaries for LOPFI.

5. The annual fee paid to LOPFI for administration of the Fire Pension Fund shall not exceed one half (1/2) of one percent (1%) of the annual payroll of the Fire Pension Fund and one percent (1%) of the average annual Fire Pension Fund assets. However, this fee is subject to change by legislative action. The fiscal year shall be January 1 through December 31.

6. Benefits and member refunds shall be paid on the first business day of each month and in accordance with LOPFI procedures.

7. LOPFI covenants and agrees to provide the following services:
   a. investment of Fire Pension Fund assets and the award of annual interest to the employer reserve account at the end of each fiscal year in an amount consistent with the interest awarded to other LOPFI employer accounts;
   b. process retirement applications including determination of eligibility, calculation of service credit and benefit payment amounts, payment of benefits to eligible benefit recipients, and satisfaction of state and federal tax withholding requirements, all in accordance with LOPFI procedures and guidelines;
   c. disability determinations, provided the employer submits appropriate materials for said determinations. All disability determinations shall conform to LOPFI procedures;
   d. refund of member contributions to eligible terminating members; and

8. The City of FAYETTEVILLE covenants and agrees as follows:
   a. upon execution of this Agreement all Fire Pension Fund assets and records shall be transferred to LOPFI. In the sole discretion of LOPFI certain investments may be allowed to mature to avoid penalties;
   b. all employer and applicable employee contributions shall be remitted to LOPFI in time to be recorded by the tenth (10^{th}) day of each month following the month in which services were rendered. Remittance shall be made in the manner and amounts prescribed by LOPFI, which shall include the use of LOPFI's electronic reporting and LOPFI's e-Payment;
   c. the City of FAYETTEVILLE shall execute all documents required by LOPFI to aid in the administrative process;
   d. all active members and beneficiaries of the Fire Pension Fund have been deemed eligible pursuant to the standards prevailing at the time of the determination of eligibility. The parties agree that LOPFI is bound by any determination of eligibility or ineligibility made by the Board of Trustees of the Fire Pension Fund as long as such determination(s) conform to state law. The Fire Pension Fund and the City of FAYETTEVILLE indemnify and hold LOPFI harmless for any eligibility decisions made by the Fire Pension Fund.
   e. the City of FAYETTEVILLE has disclosed to LOPFI all pending claims, actions, suits, and threatened liabilities to the Fire Pension Fund.

9. Upon the passage of sixty (60) days following the execution of this document, unless rejected by the LOPFI Board of Trustees, this Agreement shall become permanent.

10. FAYETTEVILLE Fire Pension and Relief Fund Board of Trustees' Resolution dated ___________________, 2015, and Ordinance No. ______________, dated _________________, 2015, of the City of FAYETTEVILLE, are incorporated by reference herein as though set forth word for word.

This Agreement executed in duplicate originals this ___ day of ____________, 2015.

FAYETTEVILLE, ARKANSAS

BY:________________________
Chief Administrative Officer

ATTEST:_____________________

LOPFI BOARD OF TRUSTEES

BY:________________________
LOPFI Board Chairman

ATTEST:_____________________

PRB

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
FAYETTEVILLE Fire Pension Fund

From: PRB Staff

Re: 2014 Annual Actuarial Valuation

Date: May 11, 2015

Under state law the actuary for the PRB tests each local fire and police pension fund for actuarial soundness. The PRB uses an annual valuation cycle to assist each Local Plan in monitoring the funding progress of their plan. The enclosed valuation for December 31, 2014, answers the following questions about your plan:

		YES	NO
1.	Does income meet or exceed the Necessary Employer Contribution (see page 4)?		XX
2.	Is the funded percentage at least 97% (see page 10), ***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 11)?		XX
3.	Is the Local Plan actuarially sound? (YES response to items 1 <u>and</u> 2)		XX

FAYETTEVILLE FIREFIGHTERS PENSION FUND

ACTUARIAL VALUATION

AS OF DECEMBER 31, 2014

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

May 8, 2015

Board of Trustees
Fayetteville Firefighters Pension Fund

Gentlemen:

This report presents the results of our actuarial valuation of the assets and liabilities of the Fayetteville Firefighters Pension Fund as of December 31, 2014.

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 on page 9 for disclosure under Governmental Accounting Standards. This report is not intended for any other purpose.

The Arkansas Fire & Police Pension Review Board reviewed the experience study we performed and a change in the assumed interest discount rate was made to 5%. If your plan assumed something other than 5% in previous valuations, the effect of this change in assumption is disclosed on page 5 of this report.

The implementation of Governmental Accounting Standards Board Statement No. 67 (GASB 67) is included in this report for the first time. GASB 68 will be added in the next valuation report. There are four Appendices added to this report to disclose the necessary items for GASB 67.

The member 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

Jody Carreiro, A.S.A., M.A.A.A.
Actuary

TABLE OF CONTENTS

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.

	Full Paid	Volunteer or Part-Paid	Total
2015 Necessary Annual Contribution to pay:			
1 Normal Cost, plus	$ 0	$ 0	$ 0
2 Pay off the Unfunded Actuarial Accrued Liability	3,214,908	11,271	3,226,179
3 Total necessary	$ 3,214,908	$ 11,271	$ 3,226,179
Less			
4 Expected Employee Contribution (6.00% of salary. $12 per active volunteer)	- 0	- 0	- 0
Necessary Employer Contribution (This is the amount needed in addition to investment income)	$ 3,214,908	$ 11,271	**$ 3,226,179**
Covered Payroll	$ 0	N/A	$ 0
Necessary Employer Rate	N/A	$ N/A	N/A

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 2014 contribution was $756,819 from the employer.

EXHIBIT 2

COSTS AND LIABILITIES

		December 31, 2014	
A	Normal Cost (Cost to fund current active members)	Dollar Amount	Percent of pay
	1 Regular Retirement Benefits	$ 0	N/A
	2 Voluntary Termination Benefits	0	N/A
	3 Survivors' Benefits	0	N/A
	4 Disability Benefits	0	N/A
	TOTAL	$ 0	N/A
B	Actuarial Accrued Liability		
	1 Active Lives		
	Regular Retirement Benefits	$ 0	
	Voluntary Termination Benefits	0	
	Survivors' Benefits	0	
	Disability Benefits	0	
	TOTAL ACTIVE LIVES	$ 0	
	2 Deferred Retirement Option		
	DROP Accounts	$ 0	
	Future DROP Payments & Pensions	0	
	TOTAL DROP	$ 0	
	3 Inactive Lives		
	Retirees	$ 16,113,941	
	Disability Retirees	537,648	
	Widows & Children	1,705,373	
	TOTAL INACTIVE LIVES	$ 18,356,962	
	4 Total Liability	$ 18,356,962	
C	Assets	$ 4,048,620	
D	Unfunded Actuarial Accrued Liability	$ 14,308,342	

EXHIBIT 3

SUMMARY OF FINANCIAL INFORMATION

(Items C, F-H, and J determined by Osborn, Carreiro and Associates, Inc.)

A. INCOME	Year Ended 12/31/2014	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	Year Ended 12/31/2005
1 Employee Contributions	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 1,356	$ 6,987	$ 11,863	$ 23,439
2 Employer Contributions										
Employer/Court Fines/Other	0	0	0	0	0	0	2,713	13,973	25,854	46,878
Local Millage	525,538	527,430	511,961	498,381	508,192	485,345	441,697	388,877	370,649	339,416
3 State Insurance Premium Tax										
Premium Tax Allocation	182,590	181,715	171,848	131,537	122,965	125,710	146,031	150,067	151,560	225,492
Additional Allocation	48,691	38,366	57,282	0	0	0	0	0	0	0
Guarantee Fund	0	0	0	0	0	0	0	0	0	0
4 Other Income										
LOPFI Subsidy	0	0	0	0	0	0	0	0	0	0
Police Supplement (Act 1452 of 199	0	0	0	0	0	0	0	0	0	0
Future Supplement (Act 1373 of 200	56,563	44,215	36,105	29,618	20,664	24,192	31,333	38,917	27,060	24,480
Other Income/Donations	365	11	6	34	973	390	0	1,044	540	176
Adjustment to prior year value	0	0	0	0	0	0	0	0	0	0
5 Net Investment Income	255,505	209,657	256,988	254,881	453,121	210,237	(530,711)	637,620	615,846	522,344
TOTAL INCOME	**$ 1,069,252**	**$ 1,001,393**	**$ 1,034,190**	**$ 914,451**	**$ 1,105,915**	**$ 845,874**	**$ 92,419**	**$ 1,237,485**	**$ 1,203,372**	**$ 1,182,225**
B. EXPENSES										
1 Administrative	$ 3,550	$ 3,454	$ 3,617	$ 3,595	$ 6,859	$ 3,750	$ 6,427	$ 3,855	$ 10,341	$ 5,886
2 Benefits Paid										
Monthly Benefits	1,358,341	1,388,309	1,420,659	1,432,673	1,434,269	1,434,487	1,436,083	1,430,646	1,281,954	1,097,427
Police Supplements	0	0	0	0	0	0	0	0	0	0
Future Supplements	56,316	44,215	35,960	29,618	20,664	24,192	31,333	38,766	26,749	24,390
DROP Payouts	0	0	0	0	0	2,973	553,503	4,589	838,944	458,082
Paid Current Year for Previous Year	0	0	0	0	0	0	0	0	0	0
3 Refunds	0	0	0	0	0	0	0	0	0	0
4 Other Expenses	250	250	225	357	0	0	0	0	0	0
TOTAL EXPENSES	**$ 1,418,457**	**$ 1,436,227**	**$ 1,460,461**	**$ 1,466,243**	**$ 1,461,792**	**$ 1,465,402**	**$ 2,027,346**	**$ 1,477,856**	**$ 2,157,988**	**$ 1,585,785**
C. Non-Investment Cash Flow	**$ (604,709)**	**$ (644,491)**	**$ (683,259)**	**$ (806,673)**	**$ (808,998)**	**$ (829,765)**	**$ (1,404,216)**	**$ (877,991)**	**$ (1,570,462)**	**$ (925,904)**

D. ASSETS (at book value)	12/31/2014	12/31/2013	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007	12/31/2006	12/31/2005
1 Cash & Checking Accounts	$ 86,520	$ 86,767	$ 120,981	$ 143,279	$ 30,891	$ 0	$ 0	$ 0	$ 0	$ 0
2 Bank Deposits	0	0	0	0	0	14,448	5,457	81,779	4,575	48,506
3 Savings and Loan Deposits	0	0	0	0	0	0	0	0	0	0
4 Other Cash Equivalents	238,957	295,726	163,396	256,499	275,104	117,108	573,102	181,873	288,565	234,940
5 US Govt. Securities	212,438	421,688	421,688	621,688	927,818	1,426,060	1,839,474	3,285,030	3,144,510	3,441,988
6 Non-US Govt Securities	0	0	0	0	0	0	0	0	0	0
7 Mortgages	0	0	0	0	0	0	0	0	0	0
8 Corporate Bonds	731,111	731,111	731,111	779,928	606,886	619,648	248,938	315,394	533,910	533,910
9 Common Stocks	2,044,158	2,121,259	2,642,932	2,718,778	3,225,906	3,219,060	3,337,250	4,136,988	4,185,381	4,873,882
10 Other	13,967	16,304	27,581	13,882	19,146	45,304	56,951	65,476	79,530	57,944
11 Payables	(3,500)	0	0	(95)	0	0	(16)	(70,457)	(17)	(100)
TOTAL ASSETS	**$ 3,323,650**	**$ 3,672,854**	**$ 4,107,688**	**$ 4,533,959**	**$ 5,085,751**	**$ 5,441,628**	**$ 6,061,156**	**$ 7,996,083**	**$ 8,236,454**	**$ 9,191,070**
E. TOTAL MARKET VALUE	**$ 4,377,557**	**$ 4,624,857**	**$ 4,682,930**	**$ 5,015,419**	**$ 5,573,909**	**$ 5,787,509**	**$ 5,823,185**	**$ 8,725,231**	**$ 8,961,980**	**$ 9,636,034**
F. RATIO OF ASSETS TO ANNUAL EXPENSES										
Book Value Basis	2.3	2.6	2.8	3.1	3.5	3.7	3.0	5.4	3.8	5.8
Market Value Basis	3.1	3.2	3.2	3.4	3.8	3.9	2.9	5.9	4.2	6.1
G. RATIO OF ASSETS TO NON-INVESTMENT CASH OUTFLOW										
Book Value Basis	5.5	5.7	6.0	5.6	6.3	6.6	4.3	9.1	5.2	9.9
Market Value Basis	7.2	7.2	6.9	6.2	6.9	7.0	4.1	9.9	5.7	10.4
H. SUMMARY OF NET INVESTMENT RETURNS										
Book Value Rate of Return	7.58%	5.54%	6.13%	5.44%	9.00%	3.72%	-7.28%	8.18%	7.33%	5.72%
10 Year Average Return	**5.04%**									
Market Value Rate of Return	8.27%	13.45%	7.51%	4.80%	11.06%	14.68%	-18.67%	7.52%	10.13%	1.91%
10 Year Average Return	**5.63%**									

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)

		12/31/2014	12/31/2013	12/31/2012	12/31/2011	12/31/2010
I.	**TOTAL MARKET VALUE**					
1.	Market Value, end of year	4,377,557	4,624,857	4,682,930	5,015,419	5,573,909
	(Used for GASB calculations, page 9)					
2.	Market Value, beginning of year	4,624,857	4,682,930	5,015,419	5,573,909	5,787,509
J.	**DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS**					
1.	Actuarial Value of Assets, beginning of year	4,280,264	4,514,274	5,244,338	6,054,749	6,764,712
2.	Non Investment Net Cash Flow	(604,709)	(644,491)	(683,259)	(806,673)	(808,998)
3.	Development of Investment Income					
(a)	Total Market Investment Income (I1-I2-J2)	357,409	586,418	350,770	248,183	595,398
(b)	Assumed Rate for Immediate Recognition	5%	5%	5%	5%	5%
(c)	Amount for Immediate Recognition (J1 x b)	214,013	225,714	262,217	302,737	338,236
(d)	Amount for Phased In Recognition (a-c)	143,396	360,704	88,553	(54,554)	257,162
(e)	Phased In Recognition					
	Current year : 20% of 3(d)	28,679	72,141	17,711	(10,911)	51,432
	First Prior Year	72,141	17,711	(10,911)	51,432	54,394
	Second Prior Year	17,711	(10,911)	51,432	54,394	(421,648)
	Third Prior Year	(10,911)	51,432	54,394	(421,648)	20,258
	Fourth Prior Year	51,432	54,394	(421,648)	20,258	56,363
	Total Phased In Recognition	159,052	184,767	(309,022)	(306,475)	(239,201)
(f)	Actuarial Value Investment Income (3(c) + 3(e))	373,065	410,481	(46,805)	(3,737)	99,035
4.	Actuarial Value of Assets, End of year (1 + 2 + 3(f))	4,048,620	4,280,264	4,514,274	5,244,338	6,054,749
5.	Net Investment Return on the Actuarial Value of Assets	9.4%	9.8%	-1.0%	-0.1%	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 3 (Continued)

ACCOUNTING INFORMATION

This page is included to provide the information required by the Governmental Accounting Standards Board Statement No. 25 and 27. The values below are based on the assumptions contained in Exhibit 8.

The Annual Pension Cost disclosed in this exhibit will almost always differ from the actual cash contribution to the fund. We must emphasize that these disclosures are shown in the city's financial statements; Sound actuarial projections should be used to determine the actual cash contribution requirements.

RECONCILIATION OF NET PENSION OBLIGATION (NPO)

		2012	2013	2014
1.	Actuarially Required Contribution	3,414,645	3,380,092	3,188,219
2.	Interest on NPO	479,197	528,788	567,628
3.	Adjustment to (1)	2,160,944	2,384,572	2,559,721
4.	Annual Pension Cost (1)+(2)-(3)	1,732,898	1,524,307	1,196,125
5.	Actual Contribution Made	741,091	747,511	756,819
6.	Increase in NPO (4)-(5)	991,807	776,796	439,306
7.	NPO Beginning of Year	9,583,948	10,575,755	11,352,552
8.	NPO End of Year	10,575,755	11,352,552	11,791,858

REQUIRED SUPPLEMENTARY INFORMATION

(a) Actuarial Valuation Date		(b) Market Value of Plan Assets	(c) Entry Age Actuarial Accrued Liability	(d) Unfunded Accrued Liability (UAL) (c)-(b)	(e) Funded Ratio (b)/(c)	(f) Annual Covered Payroll	(g) UAL as a % of Covered Payroll (d)/(f)
12/31/2003		10,625,689	19,833,848	9,208,159	53.6%	52,016	17702.7%
12/31/2005		9,636,034	20,119,597	10,483,563	47.9%	0	N/A
12/31/2007	a	8,725,231	18,566,993	9,841,762	47.0%	0	N/A
12/31/2008		5,823,185	17,521,460	11,698,275	33.2%	0	N/A
12/31/2009	b	5,787,509	20,849,028	15,061,519	27.8%	0	N/A
12/31/2010		5,573,909	20,511,098	14,937,189	27.2%	0	N/A
12/31/2011		5,015,419	20,159,623	15,144,204	24.9%	0	N/A
12/31/2012		4,682,930	19,673,887	14,990,957	23.8%	0	N/A
12/31/2013	c	4,624,857	18,764,842	14,139,985	24.6%	0	N/A
12/31/2014		4,377,557	18,356,962	13,979,405	23.8%	0	N/A

a Includes change in assumptions to 7% discount rate and 83GAM mortality.
b Includes change in assumptions to 5% discount rate and 83GAM mortality.
c Includes change in assumptions to 5% discount rate and 83GAM mortality.

EXHIBIT 4

COMPARISON WITH PRIOR YEARS

Valuation Date		Full Paid Active Members No.	Annual Payroll	Actuarial Computed Employer Contribution Percent of Pay	Dollar Amount	Total Plan Assets	Unfunded Actuarial Liability	Normal Cost Percent	Funded Percent
12/31/1984		45	807,438	27.7%	223,455	3,078,619	1,193,660	22.1%	72.1%
12/31/1986		37	723,894	29.6%	213,935	4,006,484	1,379,340	21.8%	74.4%
12/31/1987	*	38	788,348	31.3%	246,479	4,460,948	1,455,161	23.4%	75.4%
12/31/1989		27	639,962	36.0%	230,328	5,189,846	1,976,463	26.6%	72.4%
12/31/1991		23	585,898	33.3%	195,273	5,999,964	1,427,422	25.5%	80.8%
12/31/1993		22	620,116	25.2%	156,484	7,271,255	544,779	25.4%	93.0%
12/31/1995	*	21	676,847	25.6%	173,401	8,897,591	148,392	29.8%	98.4%
12/31/1997	*	17	608,602	55.9%	339,974	10,797,686	1,295,764	38.0%	89.3%
12/31/1999		10	367,188	53.7%	197,315	12,352,474	588,369	37.7%	95.5%
12/31/2001	*	6	234,765	405.5%	952,076	12,920,017	4,319,925	55.4%	74.9%
12/31/2003	*	1	52,016	3270.0%	1,700,905	11,936,657	7,897,191	54.6%	60.2%
12/31/2005	*	0	0	0.0%	2,095,694	10,243,228	9,876,369	0.0%	50.9%
12/31/2007	*	0	0	0.0%	2,140,648	8,720,172	9,846,821	0.0%	47.0%
12/31/2008		0	0	0.0%	2,187,385	7,458,831	10,062,629	0.0%	42.6%
12/31/2009	*	0	0	0.0%	3,155,357	6,764,710	14,084,318	0.0%	32.4%
12/31/2010		0	0	0.0%	3,240,353	6,055,027	14,456,071	0.0%	29.5%
12/31/2011		0	0	0.0%	3,346,655	5,244,338	14,915,285	0.0%	26.0%
12/31/2012		0	0	0.0%	3,402,323	4,514,274	15,159,613	0.0%	22.9%
12/31/2013		0	0	0.0%	3,250,675	4,280,264	14,484,578	0.0%	22.8%
12/31/2014		0	0	0.0%	3,214,908	4,048,621	14,308,341	0.0%	**22.1%**

*Benefits or assumptions changed

Valuation Date		Part-Paid/Volunteer Active Members	Actuarial Computed Employer Contribution
12/31/1999		0	0
12/31/2001	*	0	3,123
12/31/2003	*	0	14,807
12/31/2005	*	0	18,412
12/31/2007	*	0	16,368
12/31/2008		0	16,918
12/31/2009	*	0	20,310
12/31/2010		0	19,135
12/31/2011		0	16,374
12/31/2012		0	15,797
12/31/2013		0	15,241
12/31/2014		0	11,271

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;
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:

	Computed Actuarial Liabilities				Portion of Liabilities covered by Assets		
Valuation Date	(1) Active Members Contributions	(2) Retirees, Inactives, and DROPS	(3) Actives-Employer Financed	Valuation Assets	(1)	(2)	(3)
12/31/1984	236,541	1,464,696	2,571,042	3,078,619	100%	100%	54%
12/31/1986	263,129	2,753,772	2,368,923	4,006,484	100%	100%	42%
12/31/1987	308,829	2,754,276	2,853,004	4,460,948	100%	100%	49%
12/31/1989	274,405	4,560,672	2,331,232	5,189,846	100%	100%	15%
12/31/1991	292,477	5,072,169	2,062,740	5,999,964	100%	100%	31%
12/31/1993	353,891	5,005,131	2,457,012	7,271,255	100%	100%	78%
12/31/1995	418,412	5,101,995	3,525,576	8,897,591	100%	100%	96%
12/31/1997	401,937	7,315,705	4,375,808	10,797,686	100%	100%	70%
12/31/1999	267,239	10,017,182	2,656,421	12,352,474	100%	100%	78%
12/31/2001	171,157	14,565,274	250,351	12,920,017	100%	88%	0%
12/31/2003	33,201	19,228,546	57,210	11,936,657	100%	62%	0%
12/31/2005	0	20,119,597	0	10,243,228	100%	51%	0%
12/31/2007	0	18,566,993	0	8,720,172	100%	47%	0%
12/31/2008	0	17,521,460	0	7,458,831	100%	43%	0%
12/31/2009	0	20,849,028	0	6,764,710	100%	32%	0%
12/31/2010	0	20,511,098	0	6,055,027	100%	30%	0%
12/31/2011	0	20,159,623	0	5,244,338	100%	26%	0%
12/31/2012	0	19,673,887	0	4,514,274	100%	23%	0%
12/31/2013	0	18,764,842	0	4,280,264	100%	23%	0%
12/31/2014	0	18,356,962	0	4,048,621	100%	22%	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.

Actives

		Years of Service							
Age		0-5	5-10	10-15	15-20	20-25	25-30	30 and Over	Total
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**
Unknown Age	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

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.

Volunteers/Part-Paid Actives

		Years of Service							
Age		0-5	5-10	10-15	15-20	20-25	25-30	30 and Over	Total
Under 25	Count	0	0	0	0	0	0	0	**0**
25-29	Count	0	0	0	0	0	0	0	**0**
30-34	Count	0	0	0	0	0	0	0	**0**
35-39	Count	0	0	0	0	0	0	0	**0**
40-44	Count	0	0	0	0	0	0	0	**0**
45-49	Count	0	0	0	0	0	0	0	**0**
50-54	Count	0	0	0	0	0	0	0	**0**
55-59	Count	0	0	0	0	0	0	0	**0**
60-64	Count	0	0	0	0	0	0	0	**0**
65 & Over	Count	0	0	0	0	0	0	0	**0**
Unknown Age	Count	0	0	0	0	0	0	0	**0**
Total	Count	**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

		Years Since Retirement							
Age		0-1	1-2	2-3	3-4	4-5	5-10	10 and Over	Total
Under 40	Count	0	0	0	0	0	0	0	**0**
	Benefit	0	0	0	0	0	0	0	**0**
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	21,465	**21,465**
55-59	Count	0	0	0	0	0	6	3	**9**
	Benefit	0	0	0	0	0	271,496	86,069	**357,565**
60-64	Count	0	0	0	0	0	1	6	**7**
	Benefit	0	0	0	0	0	48,927	213,442	**262,369**
65-69	Count	0	0	0	0	0	0	9	**9**
	Benefit	0	0	0	0	0	0	251,749	**251,749**
70-74	Count	0	0	0	0	0	1	6	**7**
	Benefit	0	0	0	0	0	73,302	143,039	**216,341**
75-79	Count	0	0	0	0	0	0	9	**9**
	Benefit	0	0	0	0	0	0	158,933	**158,933**
80-84	Count	0	0	0	0	0	0	4	**4**
	Benefit	0	0	0	0	0	0	57,390	**57,390**
85 & Over	Count	0	0	0	0	0	0	6	**6**
	Benefit	0	0	0	0	0	0	30,997	**30,997**
Unknown Age	Count	0	0	0	0	0	0	0	**0**
	Benefit	0	0	0	0	0	0	0	**0**
Total	Count	**0**	**0**	**0**	**0**	**0**	**8**	**44**	**52**
	Benefit	**0**	**0**	**0**	**0**	**0**	**393,725**	**963,084**	**1,356,809**

This includes	36	retirees	with annual benefit of	$1,143,507	.
This includes	2	disableds	with annual benefit of	$40,110	.
This includes	14	survivors	with annual benefit of	$173,192	.

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

		Years Since Electing DROP						
Age		0-1	1-2	2-3	3-4	4-5	5-10	Total
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**
Unknown Age	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

PRINCIPLE PROVISIONS OF THE PLAN

EMPLOYEE	Member of Fire Department
EMPLOYER	Fayetteville Fire Department
MEMBERSHIP	Condition of Employment. Firefighters hired after 1982 must join the statewide Local Police and Firefighters Retirement System
CREDITABLE SERVICE	Determined on basis of service since employment
CONTRIBUTIONS	
Employee	6% of salary. Volunteers contribute $12/year. Refundable if member terminates before retirement eligibility.
Employer	1. Matching contribution equal to employee contribution 2. State Insurance Premium Tax turnback 3. Local Millage
FINAL SALARY	Salary attached to the rank of the member at time of retirement, based on regularly scheduled work-week.
DEFERRED RETIREMENT OPTION PLAN	This plan has elected to participate in the Deferred Retirement Option Plan effective 01/25/1996. Members who elect to participate have a DROP account that is increased by the monthly amount of their retirement as if they had retired as of the date DROP was elected. Has not elected coverage under Act 1457 of 1999.
RETIREMENT BENEFITS	
Eligibility	20 Years of Service regardless of age.
Benefit	90% of Final Salary, but not less than $4,200. ($1,200/year for volunteer/part-paid). If service exceeds 20 years, the annual benefit is increased by $240 for each year over 20, up to $1,200/year extra. ($120 for each year over 20 up to $600/year for volunteer/part-paid). 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 fire department, or death after 20 years.
Benefit	1. Widow receives same amount as member is receiving or eligible for. 2. Each child under age 19 receives $1,500/year. ($300/year for volunteer/part-paid). If no surviving spouse, child receives spouse's benefit to 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 $4,200/year. Full Paid Duty related disability Retirement benefit but not less than 65% of Final Salary and not less than $4,200/year. Volunteer/Part-Paid: Computed as voluntary retirement benefit

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:

Age	Mortality rate per 1,000
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:

Age	Males	Females
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 1971 Group Annuity Table for Males, set back five years for females was used before the 12/31/2007 Valuation.

VOLUNTARY TERMINATIONS

Annual termination rates at a few sample ages are:

Age	Termination rate per 1,000
20	40
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:

Age	Disability rate per 1,000
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:

	ANNUAL SALARY INCREASE		
Age	Base	Merit	Total
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:

	Retirement rate per 1,000	
Age	Retirement	DROP
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.

EXHIBIT 8 (continued)

RETIREMENT PATTERN AFTER ELECTION OF DROP

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

Years on DROP	Retirement rate per 1,000
1	100
2	200
3	200
4	300
5 or more	1,000

APPENDIX 1

Discussion of GASB 67

Accounting Standard

For pension plans that are administered through trusts or equivalent arrangements, Govermental Accounting Stands 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 in this report as noted. 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 pension 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 as Exhibits 7 and 8 in this report.

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

This report includes some notes that are actuarial in nature and are written in the format we understand is desired by GASB 67. These notes are included as Appendix 2 of this report. These are only selected notes and not intended to be a complete compilation of notes to the financial statements.

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 4 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 member and the long-term expected rate of return are not sufficient to pay benefits).

For the purpose of this valuation, the expected rate of return on pension plan investments is 5.0%; the municipal bond rate is 4.29%; and the resulting single discount rate is 4.4224%. The resulting demonstration of the single discount rate calculation is shown in Appendix 4.

Valuation Date, Effective Date and Transition

GASB 67 is effective for fiscal years beginning after June 15, 2013. Since the fiscal year under consideration for this report is 2014, the corresponding financial statement covers the fiscal year from January 1, 2014 to December 31, 2014. We understand that the plan fiscal year and the employer's fiscal year are the same. Therefore, the calculations included in this report are not projected and reflect the beginning and the end of the above stated fiscal year.

APPENDIX 2

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 rates of return are shown in the table below:

Asset Class	Target Allocation	Long-term Expected Rate of Return
Domestic Fixed Income	80%	5.0%
International Fixed Income		
Domestic Equity	10%	7.8%
Foreign Equity		
Cash	10%	2.0%
Total	100%	5.0%

Single Discount Rate

A single discount rate of 4.4224% 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 5.0%. The projection of cash flows, based on the assumptions made, found that the pension plan's net position was insufficient to make all projected future benefit payments of current plan members. Therefore, the single discount rate was applied to all periods of projected benefit payments to determine the Total Pension Liability.

Regarding the sensitivity of the Net Pension Liability to changes in the single discount rate, the follow presents the plan's net pension liability, calculated using a single discount rate of 4.42%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1-percentage point lower or 1-percentage point higher:

	1% Decrease 3.42%	Current Single Rate Assumed 4.42%	1% Increase 5.42%
Total Pension Liability	21,269,266	19,118,634	17,318,206
Net Pension Liability	16,891,709	14,741,077	12,940,649

APPENDIX 3

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, but we do not have the data sufficient to make that calculation.

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

The schedules follow this page.

City of Fayetteville, Arkansas Firefighters Pension Fund
Schedules of Required Supplementary Information
Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

Fiscal Year ending December 31,	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
Total Pension Liability										
Service Cost	0	0	0	0	0	0	0			
Interest	904,284	948,987	972,465	989,738	1,006,595	840,137	878,110			
Benefit Changes	0	0	0	0	0	0	0			
Difference between Actual & Expected Experience	46,177	-469,723	-37,542	91,460	89,744	79,739	75,943			
Assumption changes	761,664	0	0	0	0	3,845,153	0			
Benefit Payments	-1,358,341	-1,388,309	-1,420,659	-1,432,673	-1,434,269	-1,437,460	-1,989,586			
Net Change in Total Pension Liability	353,784	-909,045	-485,736	-351,475	-337,930	3,327,568	-1,035,533			
Total Pension Liability - Beginning	18,764,842	19,673,887	20,159,623	20,511,098	20,849,028	17,521,460	18,556,993			
Total Pension Liability - Ending	19,118,626	18,764,842	19,673,887	20,159,623	20,511,098	20,849,028	17,521,460			
Plan Fiduciary Net Position										
Contributions - Employee	0	0	0	0	0	0	1,356			
Contributions - Employer	525,903	527,441	511,967	498,415	509,165	485,735	590,441			
Net Investment Income	588,688	806,249	579,820	379,363	718,363	919,799	-1,497,830			
Benefit Payments	-1,358,341	-1,388,309	-1,420,659	-1,432,673	-1,434,269	-1,437,460	-1,989,586			
Administrative Expense	-3,550	-3,454	-3,617	-3,595	-6,859	-3,750	-6,427			
Reconciliation	0	0	0	0	0	0	0			
Net Change in Plan Net Position	-247,300	-58,073	-332,489	-558,490	-213,600	-35,676	-2,902,046			
Plan Fiduciary Net Position - Beginning	4,624,857	4,682,930	5,015,419	5,573,909	5,787,509	5,823,185	8,725,231			
Plan Fiduciary Net Position - Ending	4,377,557	4,624,857	4,682,930	5,015,419	5,573,909	5,787,509	5,823,185			
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	22.90%	24.65%	23.80%	24.88%	27.18%	27.76%	33.23%			
Covered Employee Payroll	0	0	0	0	0	0	0			
Net Pension Liability as a Percentage of Covered Employee Payroll	N/A	N/A	N/A	N/A	N/A	N/A	N/A			

Appendix 3 – Continued

City of Fayetteville, Arkansas Firefighters Pension Fund
Schedule of Required Supplementary Information
Schedule of Net Pension Liability

FY ending December 31,		(TPL) Total Pension Liability	Plan Net Position	(NPL) Net Pension Liability	Net Position as % of TPL	Covered Payroll	NPL as % of Payroll
12/31/2007	a	18,566,993	8,725,231	9,841,762	46.99%	0	N/A
12/31/2008	a	17,521,460	5,823,185	11,698,275	33.23%	0	N/A
12/31/2009	b	20,849,028	5,787,509	15,061,519	27.76%	0	N/A
12/31/2010	b	20,511,098	5,573,909	14,937,189	27.18%	0	N/A
12/31/2011	b	20,159,623	5,015,419	15,144,204	24.88%	0	N/A
12/31/2012	b	19,673,887	4,682,930	14,990,957	23.80%	0	N/A
12/31/2013	b	18,764,842	4,624,857	14,139,985	24.65%	0	N/A
12/31/2014	c	19,118,634	4,377,557	14,741,077	22.90%	0	N/A

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

a. 1983 GAM, 7.00%
b. 1983 GAM, 5.00%
c. 1983 GAM, 4.42%

Appendix 3 – Continued

City of Fayetteville, Arkansas Firefighters Pension Fund
Schedule of Required Supplementary Information
Schedule of Contributions

FY ending December 31,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as % of Payroll
2005					
2006					
2007					
2008					
2009					
2010					
2011					
2012	3,414,645	741,091	2,673,554	N/A	N/A
2013	3,380,092	747,511	2,632,581	N/A	N/A
2014	3,188,219	756,819	2,431,400	N/A	N/A

Key Assumptions for ADC:

Cost Method	Entry Age Normal
Amortization Method	Level dollar, open
Remaining amortization	5 years
Asset Valuation	Market Value
Investment rate of return	5.00%
Mortality	1983 Group Annuity Mortality

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

Appendix 3 – Continued

City of Fayetteville, Arkansas Firefighters Pension Fund
Schedule of Required Supplementary Information
Schedule of Investment Returns

FY ending December 31,	Annual Money-weighted Rate of Return
2005	1.91%
2006	10.13%
2007	7.52%
2008	-18.67%
2009	14.68%
2010	11.06%
2011	4.80%
2012	7.51%
2013	13.45%
2014	8.27%

The amounts shown are net of investment expenses.

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

APPENDIX 4

Calculation of the Single Discount Rate

GASB 67 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be projected and compared to the obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk-free" rate is required. The single discount rate is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods.

For the purpose of this valuation, the expected rate of return on pension plan investments if 5.0%; the municipal bond rate is 4.29%; and the resulting single discount rate is 4.4224%.

The following tables are shown in this exhibit to provide the background for the development of the single discount rate:

- Projection of Benefit Payments and Actuarially Determined Contributions
- Projection of Contributions. Since this plan is frozen with no new participants, there are no expected contributions projected for new participants
- Projection of Plan Fiduciary Net Position
- Present Values of Projected Benefit Payments

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.

City of Fayetteville, Arkansas Firefighters Pension Fund
Single Discount Rate Devleopment
Projection of Benefit Payments Beginning January 1, 2015

Year	Projected Benefit Payments: Current Retirees	DROP	Current Actives	Total	Projected Net Pension Liability at Beg of Year	Projected Actuarially Determined Contribution
1	1,343,422	0	0	1,343,422	13,663,428	3,080,767
2	1,335,052	0	0	1,335,052	13,565,988	3,058,796
3	1,325,172	0	0	1,325,172	13,460,019	3,034,903
4	1,313,820	0	0	1,313,820	13,345,196	3,009,013
5	1,301,050	0	0	1,301,050	13,221,179	2,981,051
6	1,286,874	0	0	1,286,874	13,087,621	2,950,937
7	1,271,232	0	0	1,271,232	12,944,160	2,918,590
8	1,254,038	0	0	1,254,038	12,790,422	2,883,925
9	1,235,235	0	0	1,235,235	12,626,021	2,846,857
10	1,214,725	0	0	1,214,725	13,232,757	2,983,661
11	1,192,387	0	0	1,192,387	12,644,602	2,851,047
12	1,168,123	0	0	1,168,123	12,050,021	2,716,983
13	1,141,852	0	0	1,141,852	11,450,675	2,581,846
14	1,113,545	0	0	1,113,545	10,848,393	2,446,046
15	1,083,087	0	0	1,083,087	10,245,119	2,310,022
16	1,050,438	0	0	1,050,438	9,643,019	2,174,264
17	1,015,723	0	0	1,015,723	9,044,406	2,039,291
18	978,968	0	0	978,968	8,451,580	1,905,623
19	940,281	0	0	940,281	7,866,928	1,773,799
20	899,867	0	0	899,867	7,292,848	1,644,358
21	857,923	0	0	857,923	6,731,644	1,517,820
22	814,728	0	0	814,728	6,185,535	1,394,686
23	770,492	0	0	770,492	5,656,562	1,275,416
24	725,426	0	0	725,426	5,146,654	1,160,444
25	679,845	0	0	679,845	4,657,617	1,050,178
26	633,971	0	0	633,971	4,191,026	944,973
27	588,015	0	0	588,015	3,748,304	845,150
28	542,261	0	0	542,261	3,330,728	750,997
29	497,010	0	0	497,010	2,939,349	662,751
30	452,514	0	0	452,514	2,574,958	580,590
31	409,017	0	0	409,017	2,238,128	504,643
32	366,807	0	0	366,807	1,929,210	434,989
33	326,183	0	0	326,183	1,648,273	371,645
34	287,340	0	0	287,340	1,395,086	314,558
35	250,498	0	0	250,498	1,169,206	263,627
36	216,016	0	0	216,016	969,936	218,697
37	184,200	0	0	184,200	796,181	179,519
38	155,170	0	0	155,170	646,471	145,763
39	129,051	0	0	129,051	519,145	117,055
40	106,001	0	0	106,001	412,326	92,969
41	85,988	0	0	85,988	323,881	73,027
42	68,850	0	0	68,850	251,604	56,730
43	54,406	0	0	54,406	193,346	43,595
44	42,480	0	0	42,480	147,037	33,153
45	32,806	0	0	32,806	110,682	24,956
46	25,052	0	0	25,052	82,463	18,593
47	18,915	0	0	18,915	60,811	13,711
48	14,146	0	0	14,146	44,391	10,009
49	10,486	0	0	10,486	32,055	7,228
50	7,690	0	0	7,690	22,869	5,156

City of Fayetteville, Arkansas Firefighters Pension Fund
Single Discount Rate Devleopment
Projection of Benefit Payments Beginning January 1, 2015

	Projected Benefit Payments				Projected Net Pension Liability at Beg of Year	Projected Actuarially Determined Contribution
Year	Current Retirees	DROP	Current Actives	Total		
51	5,569	0	0	5,569	16,101	3,630
52	3,980	0	0	3,980	11,176	2,520
53	2,803	0	0	2,803	7,640	1,723
54	1,941	0	0	1,941	5,139	1,159
55	1,321	0	0	1,321	3,398	766
56	882	0	0	882	2,209	498
57	578	0	0	578	1,412	318
58	372	0	0	372	887	200
59	235	0	0	235	549	124
60	146	0	0	146	334	75
61	89	0	0	89	201	45
62	54	0	0	54	119	27
63	32	0	0	32	69	16
64	19	0	0	19	40	9
65	11	0	0	11	22	5
66	6	0	0	6	11	3
67	3	0	0	3	6	1
68	2	0	0	2	2	1
69	1	0	0	1	1	0
70	0	0	0	0	0	0
71	0	0	0	0	0	0
72	0	0	0	0	0	0
73	0	0	0	0	0	0
74	0	0	0	0	0	0
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	0	0	0	0	0	0
78	0	0	0	0	0	0
79	0	0	0	0	0	0
80	0	0	0	0	0	0
81	0	0	0	0	0	0
82	0	0	0	0	0	0
83	0	0	0	0	0	0
84	0	0	0	0	0	0
85	0	0	0	0	0	0
86	0	0	0	0	0	0
87	0	0	0	0	0	0
88	0	0	0	0	0	0
89	0	0	0	0	0	0
90	0	0	0	0	0	0
91	0	0	0	0	0	0
92	0	0	0	0	0	0
93	0	0	0	0	0	0
94	0	0	0	0	0	0
95	0	0	0	0	0	0
96	0	0	0	0	0	0
97	0	0	0	0	0	0
98	0	0	0	0	0	0
99	0	0	0	0	0	0
100	0	0	0	0	0	0

City of Fayetteville, Arkansas Firefighters Pension Fund
Single Discount Rate Devleopment
Projection of Benefit Payments Beginning January 1, 2015

Year	Payroll for Current Employees	Employee Contributions Current Emps.	Employer Contributions Millage	Employer Contributions Other	Employer Contributions Prem Tax	Employer Contributions Add Alloc	Total Contribuitons
1	0	0	525,000	0	182,500	49,000	756,500
2	0	0	530,250	0	181,199	48,651	760,099
3	0	0	535,553	0	179,783	48,271	763,606
4	0	0	540,908	0	178,249	47,859	767,016
5	0	0	546,317	0	176,593	47,414	770,324
6	0	0	551,780	0	174,809	46,935	773,524
7	0	0	557,298	0	172,893	46,421	776,612
8	0	0	562,871	0	170,839	45,869	779,580
9	0	0	568,500	0	168,644	45,280	782,423
10	0	0	574,185	0	176,748	47,456	798,388
11	0	0	579,927	0	168,892	45,346	794,165
12	0	0	585,726	0	160,950	43,214	789,890
13	0	0	591,583	0	152,945	41,065	785,592
14	0	0	597,499	0	144,900	38,905	781,304
15	0	0	603,474	0	136,842	36,741	777,057
16	0	0	609,509	0	128,800	34,582	772,891
17	0	0	615,604	0	120,805	32,435	768,844
18	0	0	621,760	0	112,886	30,309	764,955
19	0	0	627,977	0	105,077	28,213	761,267
20	0	0	634,257	0	97,409	26,154	757,820
21	0	0	640,600	0	89,913	24,141	754,654
22	0	0	647,006	0	82,619	22,183	751,808
23	0	0	653,476	0	75,554	20,286	749,315
24	0	0	660,011	0	68,743	18,457	747,211
25	0	0	666,611	0	62,211	16,703	745,525
26	0	0	673,277	0	55,979	15,030	744,286
27	0	0	680,010	0	50,065	13,442	743,517
28	0	0	686,810	0	44,488	11,945	743,242
29	0	0	693,678	0	39,260	10,541	743,479
30	0	0	700,615	0	34,393	9,234	744,242
31	0	0	707,621	0	29,894	8,026	745,541
32	0	0	714,697	0	25,768	6,919	747,384
33	0	0	721,844	0	22,016	5,911	749,771
34	0	0	729,062	0	18,634	5,003	752,699
35	0	0	736,353	0	15,617	4,193	756,163
36	0	0	743,716	0	12,955	3,478	760,150
37	0	0	751,154	0	10,634	2,855	764,643
38	0	0	758,665	0	8,635	2,318	769,618
39	0	0	766,252	0	6,934	1,862	775,048
40	0	0	773,914	0	5,507	1,479	780,900
41	0	0	781,653	0	4,326	1,162	787,141
42	0	0	789,470	0	3,361	902	793,733
43	0	0	797,365	0	2,582	693	800,641
44	0	0	805,338	0	1,964	527	807,830
45	0	0	813,392	0	1,478	397	815,267
46	0	0	821,526	0	1,101	296	822,923
47	0	0	829,741	0	812	218	830,771
48	0	0	838,038	0	593	159	838,790
49	0	0	846,419	0	428	115	846,962
50	0	0	854,883	0	305	82	855,270

City of Fayetteville, Arkansas Firefighters Pension Fund
Single Discount Rate Devleopment
Projection of Benefit Payments Beginning January 1, 2015

Year	Payroll for Current Employees	Employee Contributions Current Emps.	Employer Contributions Millage	Employer Contributions Other	Employer Contributions Prem Tax	Employer Contributions Add Alloc	Total Contribuitons
51	0	0	863,432	0	215	58	863,705
52	0	0	872,066	0	149	40	872,255
53	0	0	880,787	0	102	27	880,916
54	0	0	889,595	0	69	18	889,682
55	0	0	898,490	0	45	12	898,548
56	0	0	907,475	0	30	8	907,513
57	0	0	916,550	0	19	5	916,574
58	0	0	925,716	0	12	3	925,731
59	0	0	934,973	0	7	2	934,982
60	0	0	944,323	0	4	1	944,328
61	0	0	953,766	0	3	1	953,769
62	0	0	963,303	0	2	0	963,305
63	0	0	972,936	0	1	0	972,938
64	0	0	982,666	0	1	0	982,666
65	0	0	992,492	0	0	0	992,493
66	0	0	1,002,417	0	0	0	1,002,418
67	0	0	1,012,442	0	0	0	1,012,442
68	0	0	1,022,566	0	0	0	1,022,566
69	0	0	1,032,792	0	0	0	1,032,792
70	0	0	1,043,120	0	0	0	1,043,120
71	0	0	1,053,551	0	0	0	1,053,551
72	0	0	1,064,086	0	0	0	1,064,086
73	0	0	1,074,727	0	0	0	1,074,727
74	0	0	1,085,474	0	0	0	1,085,474
75	0	0	1,096,329	0	0	0	1,096,329
76	0	0	1,107,292	0	0	0	1,107,292
77	0	0	1,118,365	0	0	0	1,118,365
78	0	0	1,129,549	0	0	0	1,129,549
79	0	0	1,140,845	0	0	0	1,140,845
80	0	0	1,152,253	0	0	0	1,152,253
81	0	0	1,163,775	0	0	0	1,163,775
82	0	0	1,175,413	0	0	0	1,175,413
83	0	0	1,187,167	0	0	0	1,187,167
84	0	0	1,199,039	0	0	0	1,199,039
85	0	0	1,211,029	0	0	0	1,211,029
86	0	0	1,223,140	0	0	0	1,223,140
87	0	0	1,235,371	0	0	0	1,235,371
88	0	0	1,247,725	0	0	0	1,247,725
89	0	0	1,260,202	0	0	0	1,260,202
90	0	0	1,272,804	0	0	0	1,272,804
91	0	0	1,285,532	0	0	0	1,285,532
92	0	0	1,298,387	0	0	0	1,298,387
93	0	0	1,311,371	0	0	0	1,311,371
94	0	0	1,324,485	0	0	0	1,324,485
95	0	0	1,337,730	0	0	0	1,337,730
96	0	0	1,351,107	0	0	0	1,351,107
97	0	0	1,364,618	0	0	0	1,364,618
98	0	0	1,378,264	0	0	0	1,378,264
99	0	0	1,392,047	0	0	0	1,392,047
100	0	0	1,405,968	0	0	0	1,405,968

City of Fayetteville, Arkansas Firefighters Pension Fund
Single Discount Rate Devleopment
Projection of Benefit Payments Beginning January 1, 2015

Year	Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Admin Expenses	Projected Investment Earnings 5.00%	Projected Ending Plan Net Position
1	4,377,557	756,500	1,343,422	0	204,205	3,994,840
2	3,994,840	760,099	1,335,052	0	185,368	3,605,256
3	3,605,256	763,606	1,325,172	0	166,224	3,209,914
4	3,209,914	767,016	1,313,820	0	146,826	2,809,936
5	2,809,936	770,324	1,301,050	0	127,229	2,406,439
6	2,406,439	773,524	1,286,874	0	107,488	2,000,578
7	2,000,578	776,612	1,271,232	0	87,663	1,593,620
8	1,593,620	779,580	1,254,038	0	67,820	1,186,982
9	1,186,982	782,423	1,235,235	0	48,029	0
10	0	798,388	1,214,725	0	-10,408	0
11	0	794,165	1,192,387	0	-9,956	0
12	0	789,890	1,168,123	0	-9,456	0
13	0	785,592	1,141,852	0	-8,906	0
14	0	781,304	1,113,545	0	-8,306	0
15	0	777,057	1,083,087	0	-7,651	0
16	0	772,891	1,050,438	0	-6,939	0
17	0	768,844	1,015,723	0	-6,172	0
18	0	764,955	978,968	0	-5,350	0
19	0	761,267	940,281	0	-4,475	0
20	0	757,820	899,867	0	-3,551	0
21	0	754,654	857,923	0	-2,582	0
22	0	751,808	814,728	0	-1,573	0
23	0	749,315	770,492	0	-529	0
24	0	747,211	725,426	0	545	0
25	0	745,525	679,845	0	1,642	0
26	0	744,286	633,971	0	2,758	0
27	0	743,517	588,015	0	3,888	0
28	0	743,242	542,261	0	5,025	0
29	0	743,479	497,010	0	6,162	0
30	0	744,242	452,514	0	7,293	0
31	0	745,541	409,017	0	8,413	0
32	0	747,384	366,807	0	9,514	0
33	0	749,771	326,183	0	10,590	0
34	0	752,699	287,340	0	11,634	0
35	0	756,163	250,498	0	12,642	0
36	0	760,150	216,016	0	13,603	0
37	0	764,643	184,200	0	14,511	0
38	0	769,618	155,170	0	15,361	0
39	0	775,048	129,051	0	16,150	0
40	0	780,900	106,001	0	16,872	0
41	0	787,141	85,988	0	17,529	0
42	0	793,733	68,850	0	18,122	0
43	0	800,641	54,406	0	18,656	0
44	0	807,830	42,480	0	19,134	0
45	0	815,267	32,806	0	19,562	0
46	0	822,923	25,052	0	19,947	0
47	0	830,771	18,915	0	20,296	0
48	0	838,790	14,146	0	20,616	0
49	0	846,962	10,486	0	20,912	0
50	0	855,270	7,690	0	21,190	0

City of Fayetteville, Arkansas Firefighters Pension Fund
Single Discount Rate Devleopment
Projection of Benefit Payments Beginning January 1, 2015

Year	Beginning Plan Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Admin Expenses	Projected Investment Earnings 5.00%	Projected Ending Plan Net Position
51	0	863,705	5,569	0	21,453	0
52	0	872,255	3,980	0	21,707	0
53	0	880,916	2,803	0	21,953	0
54	0	889,682	1,941	0	22,194	0
55	0	898,548	1,321	0	22,431	0
56	0	907,513	882	0	22,666	0
57	0	916,574	578	0	22,900	0
58	0	925,731	372	0	23,134	0
59	0	934,982	235	0	23,369	0
60	0	944,328	146	0	23,605	0
61	0	953,769	89	0	23,842	0
62	0	963,305	54	0	24,081	0
63	0	972,938	32	0	24,323	0
64	0	982,666	19	0	24,566	0
65	0	992,493	11	0	24,812	0
66	0	1,002,418	6	0	25,060	0
67	0	1,012,442	3	0	25,311	0
68	0	1,022,566	2	0	25,564	0
69	0	1,032,792	1	0	25,820	0
70	0	1,043,120	0	0	26,078	0
71	0	1,053,551	0	0	26,339	0
72	0	1,064,086	0	0	26,602	0
73	0	1,074,727	0	0	26,868	0
74	0	1,085,474	0	0	27,137	0
75	0	1,096,329	0	0	27,408	0
76	0	1,107,292	0	0	27,682	0
77	0	1,118,365	0	0	27,959	0
78	0	1,129,549	0	0	28,239	0
79	0	1,140,845	0	0	28,521	0
80	0	1,152,253	0	0	28,806	0
81	0	1,163,775	0	0	29,094	0
82	0	1,175,413	0	0	29,385	0
83	0	1,187,167	0	0	29,679	0
84	0	1,199,039	0	0	29,976	0
85	0	1,211,029	0	0	30,276	0
86	0	1,223,140	0	0	30,578	0
87	0	1,235,371	0	0	30,884	0
88	0	1,247,725	0	0	31,193	0
89	0	1,260,202	0	0	31,505	0
90	0	1,272,804	0	0	31,820	0
91	0	1,285,532	0	0	32,138	0
92	0	1,298,387	0	0	32,460	0
93	0	1,311,371	0	0	32,784	0
94	0	1,324,485	0	0	33,112	0
95	0	1,337,730	0	0	33,443	0
96	0	1,351,107	0	0	33,778	0
97	0	1,364,618	0	0	34,115	0
98	0	1,378,264	0	0	34,457	0
99	0	1,392,047	0	0	34,801	0
100	0	1,405,968	0	0	35,149	0

City of Fayetteville, Arkansas Firefighters Pension Fund
Single Discount Rate Devleopment
Projection of Benefit Payments Beginning January 1, 2015

Year	Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Payments	Unfunded Portion of Payments	Present Value Funded Portion of Payments	Present Value Unfunded Portion of Payments	Present Value Projected Payments at Single Disc. Rate
1	4,377,557	1,343,422	1,343,422	0	1,316,387	0	1,319,416
2	3,994,840	1,335,052	1,335,052	0	1,245,891	0	1,255,665
3	3,605,256	1,325,172	1,325,172	0	1,177,781	0	1,193,587
4	3,209,914	1,313,820	1,313,820	0	1,112,088	0	1,133,245
5	2,809,936	1,301,050	1,301,050	0	1,048,836	0	1,074,702
6	2,406,439	1,286,874	1,286,874	0	988,008	0	1,017,974
7	2,000,578	1,271,232	1,271,232	0	929,523	0	963,012
8	1,593,620	1,254,038	1,254,038	0	873,286	0	909,754
9	1,186,982	1,235,235	1,186,982	48,253	787,228	33,883	858,161
10	0	1,214,725	0	1,214,725	0	817,886	808,172
11	0	1,192,387	0	1,192,387	0	769,821	759,713
12	0	1,168,123	0	1,168,123	0	723,133	712,733
13	0	1,141,852	0	1,141,852	0	677,792	667,197
14	0	1,113,545	0	1,113,545	0	633,800	623,102
15	0	1,083,087	0	1,083,087	0	591,106	580,391
16	0	1,050,438	0	1,050,438	0	549,705	539,056
17	0	1,015,723	0	1,015,723	0	509,673	499,166
18	0	978,968	0	978,968	0	471,023	460,728
19	0	940,281	0	940,281	0	433,799	423,779
20	0	899,867	0	899,867	0	398,077	388,389
21	0	857,923	0	857,923	0	363,910	354,604
22	0	814,728	0	814,728	0	331,372	322,488
23	0	770,492	0	770,492	0	300,489	292,062
24	0	725,426	0	725,426	0	271,276	263,334
25	0	679,845	0	679,845	0	243,772	236,336
26	0	633,971	0	633,971	0	217,972	211,055
27	0	588,015	0	588,015	0	193,856	187,465
28	0	542,261	0	542,261	0	171,417	165,557
29	0	497,010	0	497,010	0	150,650	145,315
30	0	452,514	0	452,514	0	131,520	126,702
31	0	409,017	0	409,017	0	113,988	109,673
32	0	366,807	0	366,807	0	98,020	94,189
33	0	326,183	0	326,183	0	83,579	80,211
34	0	287,340	0	287,340	0	70,597	67,666
35	0	250,498	0	250,498	0	59,014	56,492
36	0	216,016	0	216,016	0	48,797	46,652
37	0	184,200	0	184,200	0	39,898	38,097
38	0	155,170	0	155,170	0	32,228	30,733
39	0	129,051	0	129,051	0	25,700	24,478
40	0	106,001	0	106,001	0	20,242	19,254
41	0	85,988	0	85,988	0	15,745	14,958
42	0	68,850	0	68,850	0	12,088	11,469
43	0	54,406	0	54,406	0	9,159	8,679
44	0	42,480	0	42,480	0	6,857	6,490
45	0	32,806	0	32,806	0	5,078	4,800
46	0	25,052	0	25,052	0	3,718	3,510
47	0	18,915	0	18,915	0	2,692	2,538
48	0	14,146	0	14,146	0	1,930	1,818
49	0	10,486	0	10,486	0	1,372	1,290
50	0	7,690	0	7,690	0	965	906

City of Fayetteville, Arkansas Firefighters Pension Fund
Single Discount Rate Devleopment
Projection of Benefit Payments Beginning January 1, 2015

Year	Beginning Plan Net Position	Projected Benefit Payments	Funded Portion of Payments	Unfunded Portion of Payments	Present Value Funded Portion of Payments	Present Value Unfunded Portion of Payments	Present Value Projected Payments at Single Disc. Rate
51	0	5,569	0	5,569	0	670	628
52	0	3,980	0	3,980	0	459	430
53	0	2,803	0	2,803	0	310	290
54	0	1,941	0	1,941	0	206	192
55	0	1,321	0	1,321	0	134	125
56	0	882	0	882	0	86	80
57	0	578	0	578	0	54	50
58	0	372	0	372	0	33	31
59	0	235	0	235	0	20	19
60	0	146	0	146	0	12	11
61	0	89	0	89	0	7	7
62	0	54	0	54	0	4	4
63	0	32	0	32	0	2	2
64	0	19	0	19	0	1	1
65	0	11	0	11	0	1	1
66	0	6	0	6	0	0	0
67	0	3	0	3	0	0	0
68	0	2	0	2	0	0	0
69	0	1	0	1	0	0	0
70	0	0	0	0	0	0	0
71	0	0	0	0	0	0	0
72	0	0	0	0	0	0	0
73	0	0	0	0	0	0	0
74	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0
77	0	0	0	0	0	0	0
78	0	0	0	0	0	0	0
79	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0
81	0	0	0	0	0	0	0
82	0	0	0	0	0	0	0
83	0	0	0	0	0	0	0
84	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0
86	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0
88	0	0	0	0	0	0	0
89	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0
					9,479,029	9,639,597	19,118,634
						19,118,626	

Special Firemen's Pension and Relief Fund
Board of Trustees Meeting Agenda

October 18, 2010

A Special meeting of the Fayetteville Firemen's Pension and Relief Fund Board of Trustees, City Council, PRB, and Actuary Jody Carreiro will be held at 4:30 PM on October 18, 2010 in Room 326 of the City Administration Building.

A meeting to discuss the insolvency of the Fayetteville Firefighters Pension Fund

Special report from Jody Carreiro of the Osborn, Carreiro & Associates Inc. Actuaries Consultants Analysts

Fayetteville Firefighters Pension Fund Special Report

Presented October 18, 2010

Jody Carreiro

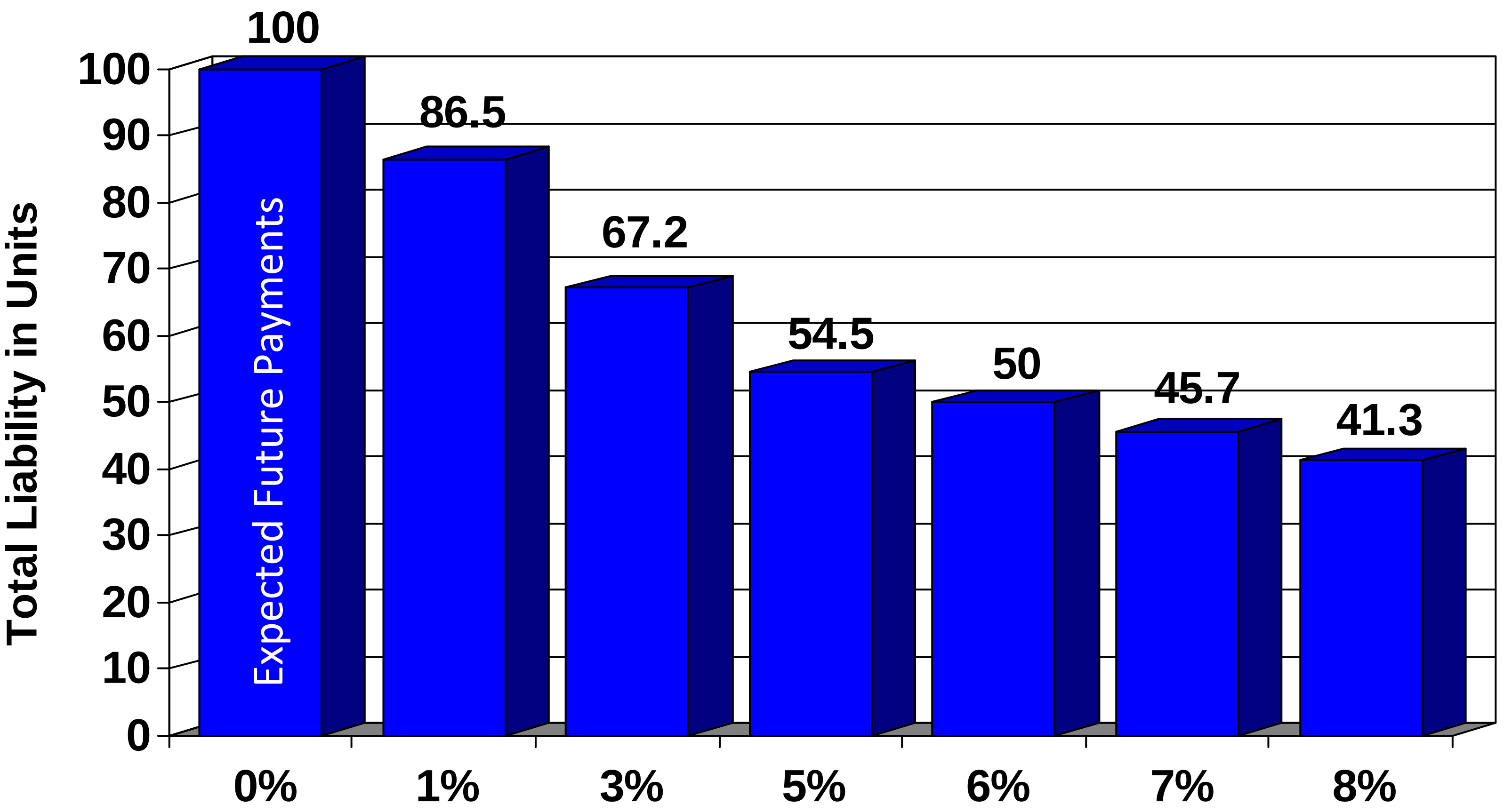
Osborn, Carreiro & Assoc.

Recent Valuation Results

	Accrued Liability
12/31/2007	$18,566,993
12/31/2008	$17,521,460
12/31/2009	$17,003,875
12/31/2009 Change in Assumptions From 7% to 5%	$20,849,028 3,845,153 (23%) increase due to Change

Example of Change in Interest Rate

Value of Liabilities under different Interest Assumptions



Cash Flow Simulation Process

- Valuation vs. Cash Flow
- Snapshot vs. Yearly Projection
- Liability assumptions vs. Added Asset assumptions
- Single Interest Assumption vs. Rate Simulations
- Guess vs. Assumption vs. Prediction

Assumptions and Duck Hunting Actuaries

Financial History – pages 10-11

- Note Non-Investment Cash Flow.
  - From about $0, 10 years ago.
  - To $800,000 outflow per year.
- Assets from over $12 million to under $6
- Brutal last 10 years, 2% return due to markets

Project Benefit Payments

Pages 13,14 & 16
Are all zero

Page 15
Current retirees
Includes 11
Volunteer retirees
& survivors

Exhibit 5

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

		Years Since Retirement							
Age		0-1	1-2	2-3	3-4	4-5	5-10	10 and Over	Total
Under 40	Count	0	0	0	0	0	0	0	**0**
	Benefit	0	0	0	0	0	0	0	**0**
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	1	0	**1**
	Benefit	0	0	0	0	0	21,465	0	**21,465**
50-54	Count	0	0	1	1	2	5	0	**9**
	Benefit	0	0	43,766	49,452	93,630	170,717	0	**357,565**
55-59	Count	0	0	1	0	0	6	1	**8**
	Benefit	0	0	48,927	0	0	193,784	35,865	**278,576**
60-64	Count	0	0	0	0	0	3	7	**10**
	Benefit	0	0	0	0	0	121,547	157,501	**279,048**
65-69	Count	0	0	0	0	1	0	6	**7**
	Benefit	0	0	0	0	73,302	0	143,039	**216,341**
70-74	Count	0	0	0	0	0	1	7	**8**
	Benefit	0	0	0	0	0	40,207	97,509	**137,716**
75-79	Count	0	0	0	0	0	0	6	**6**
	Benefit	0	0	0	0	0	0	79,918	**79,918**
80-84	Count	0	0	0	0	0	0	7	**7**
	Benefit	0	0	0	0	0	0	36,335	**36,335**
85 & Over	Count	0	0	0	0	0	0	6	**6**
	Benefit	0	0	0	0	0	0	27,521	**27,521**
Unknown Age	Count	0	0	0	0	0	0	0	**0**
	Benefit	0	0	0	0	0	0	0	**0**
Total	Count	**0**	**0**	**2**	**1**	**3**	**16**	**40**	**62**
	Benefit	**0**	**0**	**92,693**	**49,452**	**166,932**	**547,720**	**577,688**	**1,434,485**

This includes	45 retirees	with annual benefit of	$1,246,248 .
This includes	2 disableds	with annual benefit of	$40,110 .
This includes	15 survivors	with annual benefit of	$148,127 .

Page 19 – Benefit Increases

- 50% to 65% base benefit December 6, 1996
- 65% to 90% base benefit June 6, 2001
- 3 year temporary 3% compound COLA and 10 year DROP, November 20, 2003
- No Change Based on a January 4, 2007 cash flow study based on December 31, 2005 valuation results.

Liability Assumptions

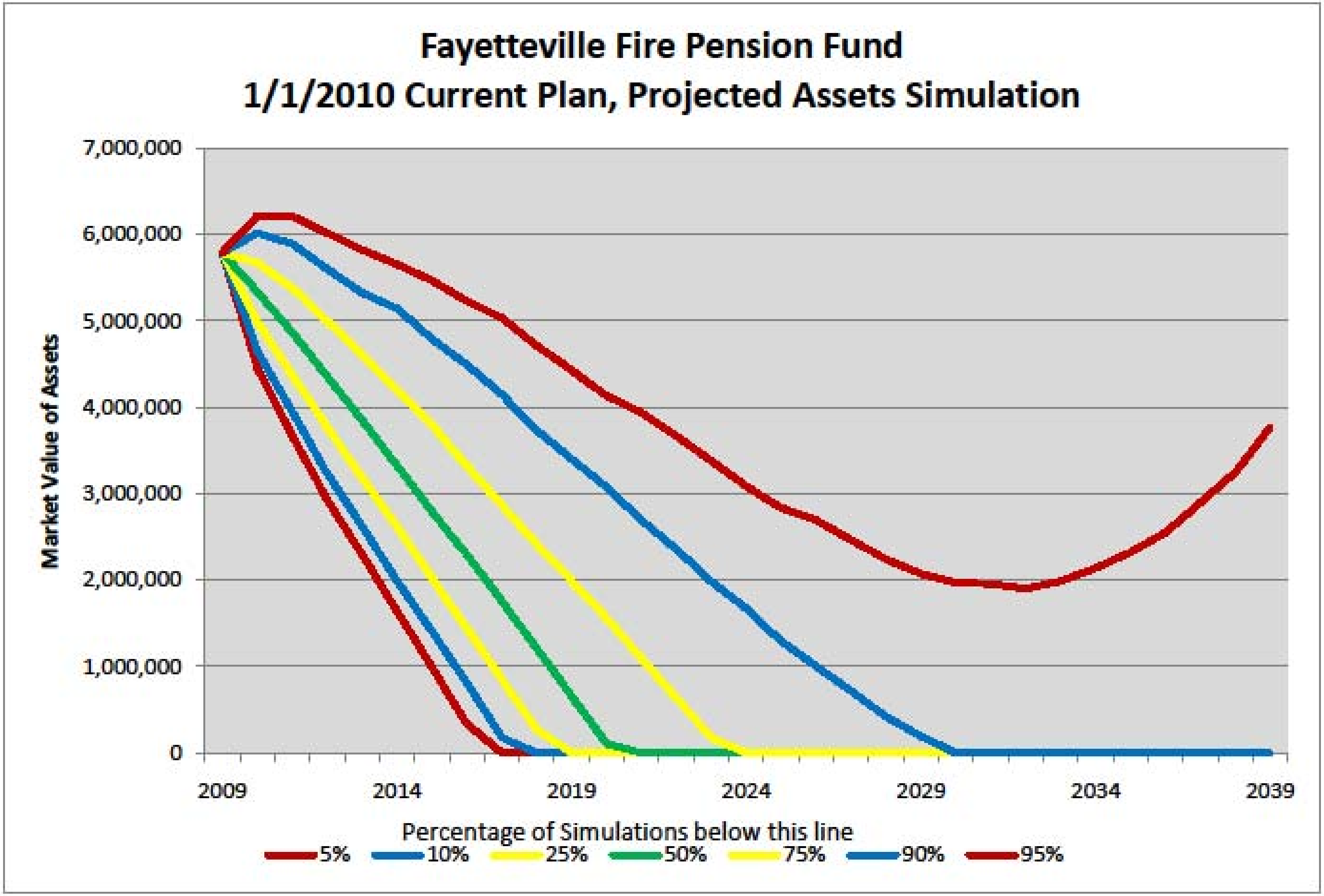
- Pages 20-22
- Mortality based on 83 GAM table based on study through end of 2007
- We also project based on the mortality of the retirees with spouses

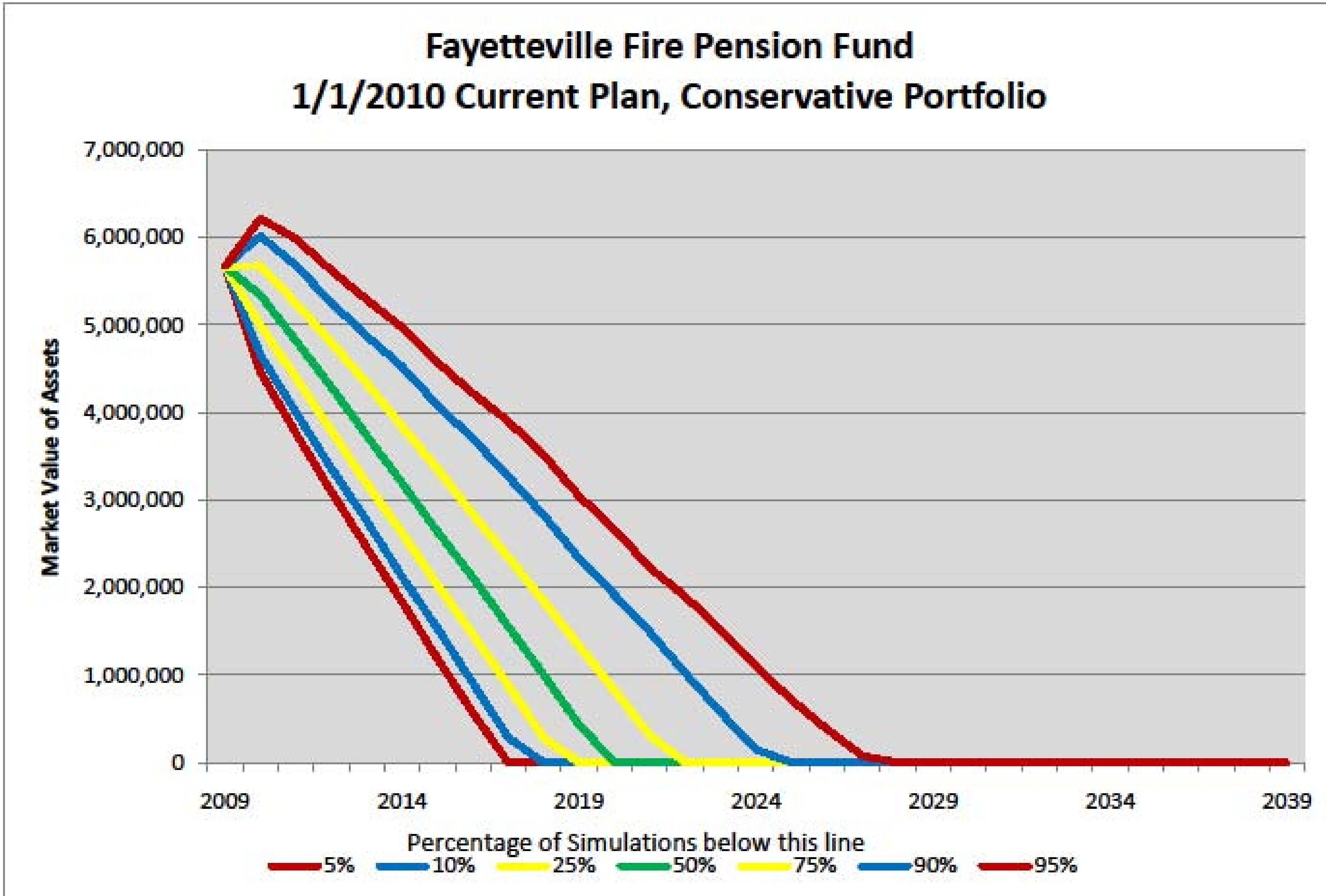
Asset Projection Assumptions

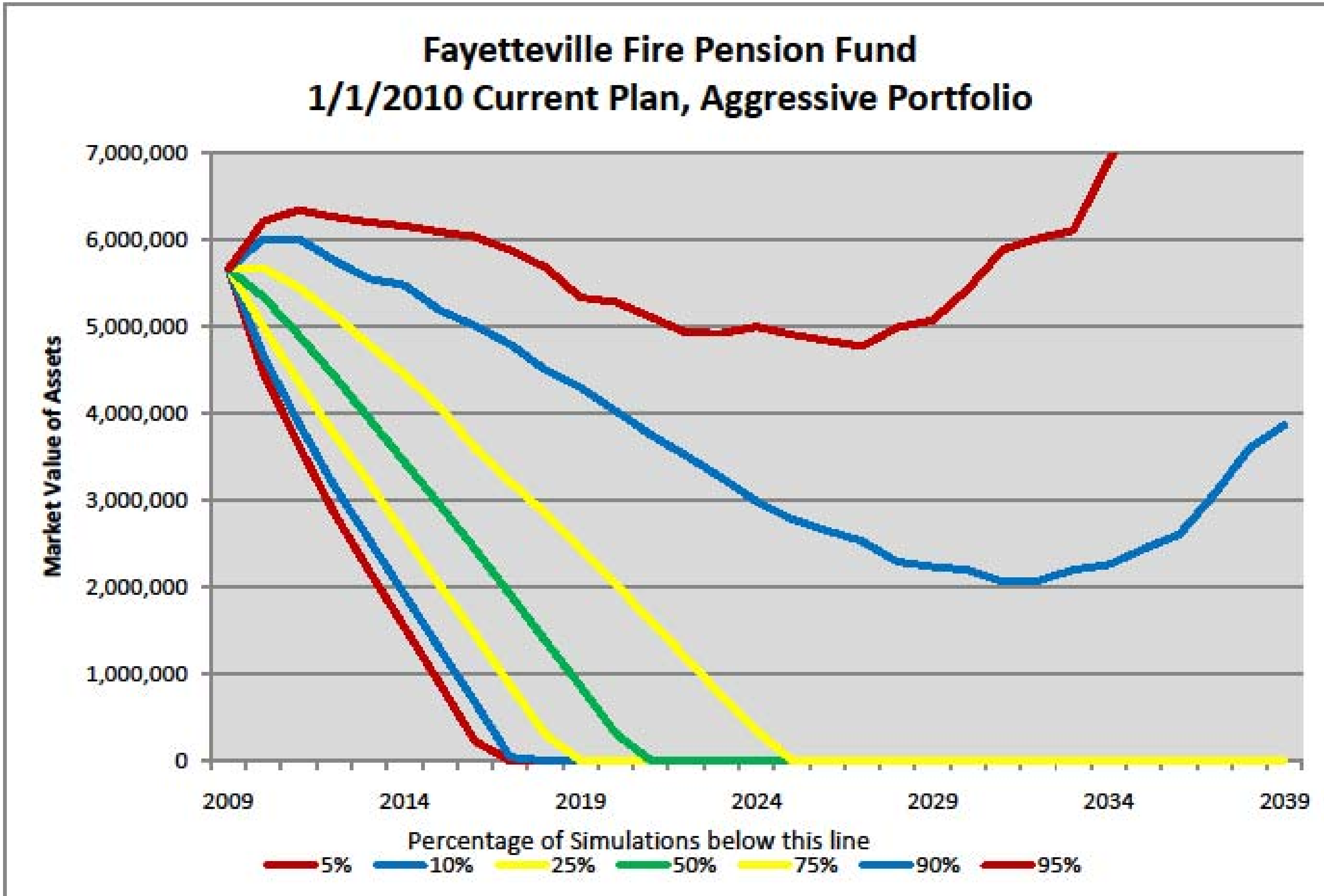
- Pages 23-24
- Local Millage, $500,000 per year with 2% annual increase
- Employer match, zero now
- Premium Tax, $123,000 in 2010
- 5.6% of calculated contribution, but used 3.9% since total premium tax flat
- We don’t assume a discount rate, we assume a portfolio.

Results

- Charts found in Exhibit 2, page 3
- 2,000 simulations over 30 years of 6 classes of assets
- Arrange results from worst to best
- The worst 5% of the results are below the first red line
- The worst 10% of the results are below the first blue line

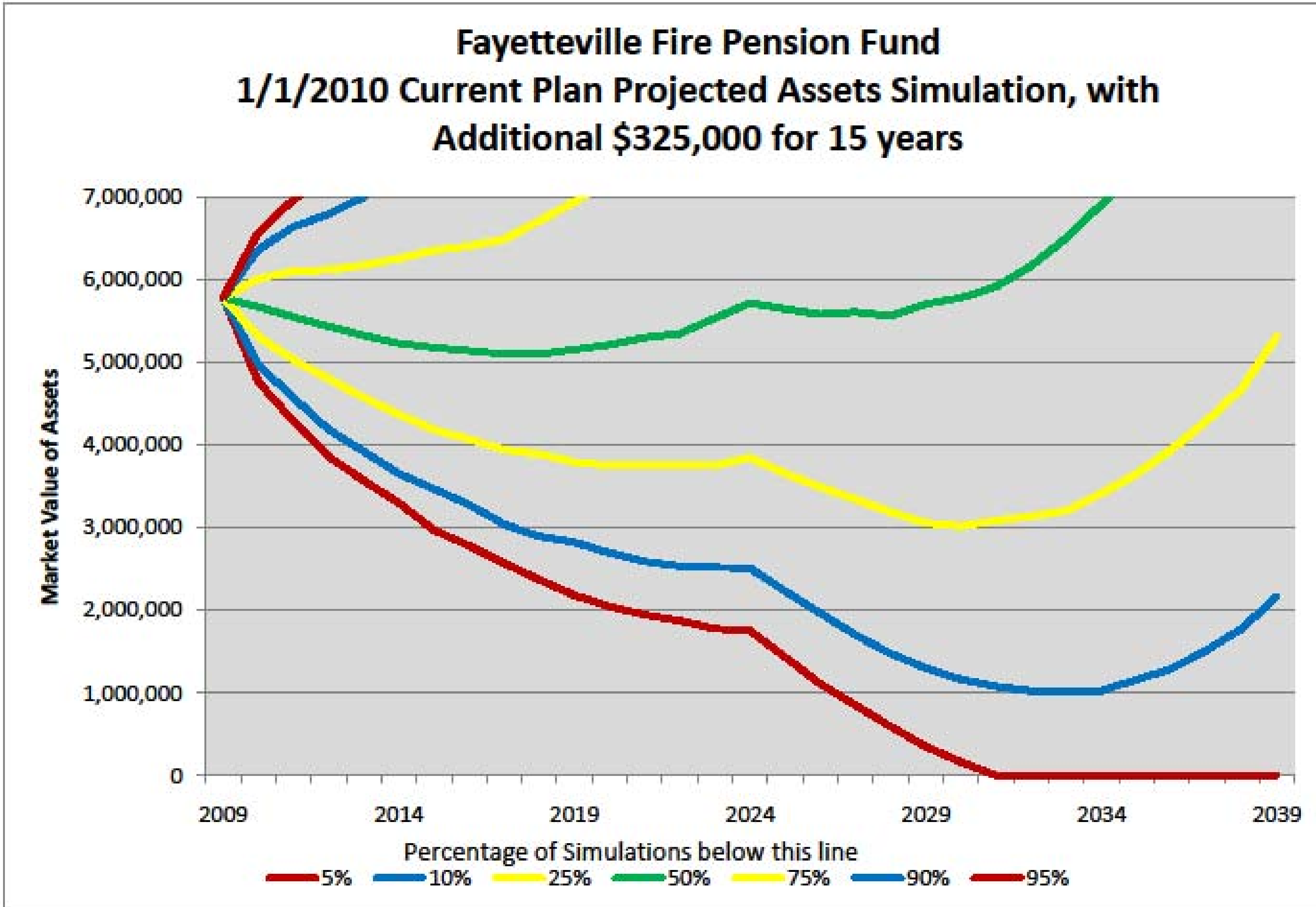

Fayetteville Fire Pension Fund
1/1/2010 Current Plan, Projected Assets Simulation
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
Market Value of Assets
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%


Fayetteville Fire Pension Fund
1/1/2010 Current Plan, Conservative Portfolio
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
Market Value of Assets
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%


Fayetteville Fire Pension Fund
1/1/2010 Current Plan, Aggressive Portfolio
Market Value of Assets
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%

What these graphs tell us

- 91% Risk of Ruin, Risk of depleting assets before all benefits are paid.
- Conservative portfolio actually increases risk of ruin.
- Aggressive portfolio slightly decreases risk of ruin, but any bad year in the next 10 is more dangerous.
- Can NOT earn our way out, need 15% every year



Fayetteville Fire Pension Fund
1/1/2010 Current Plan Projected Assets Simulation, with
Additional $325,000 for 15 years
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
Market Value of Assets
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
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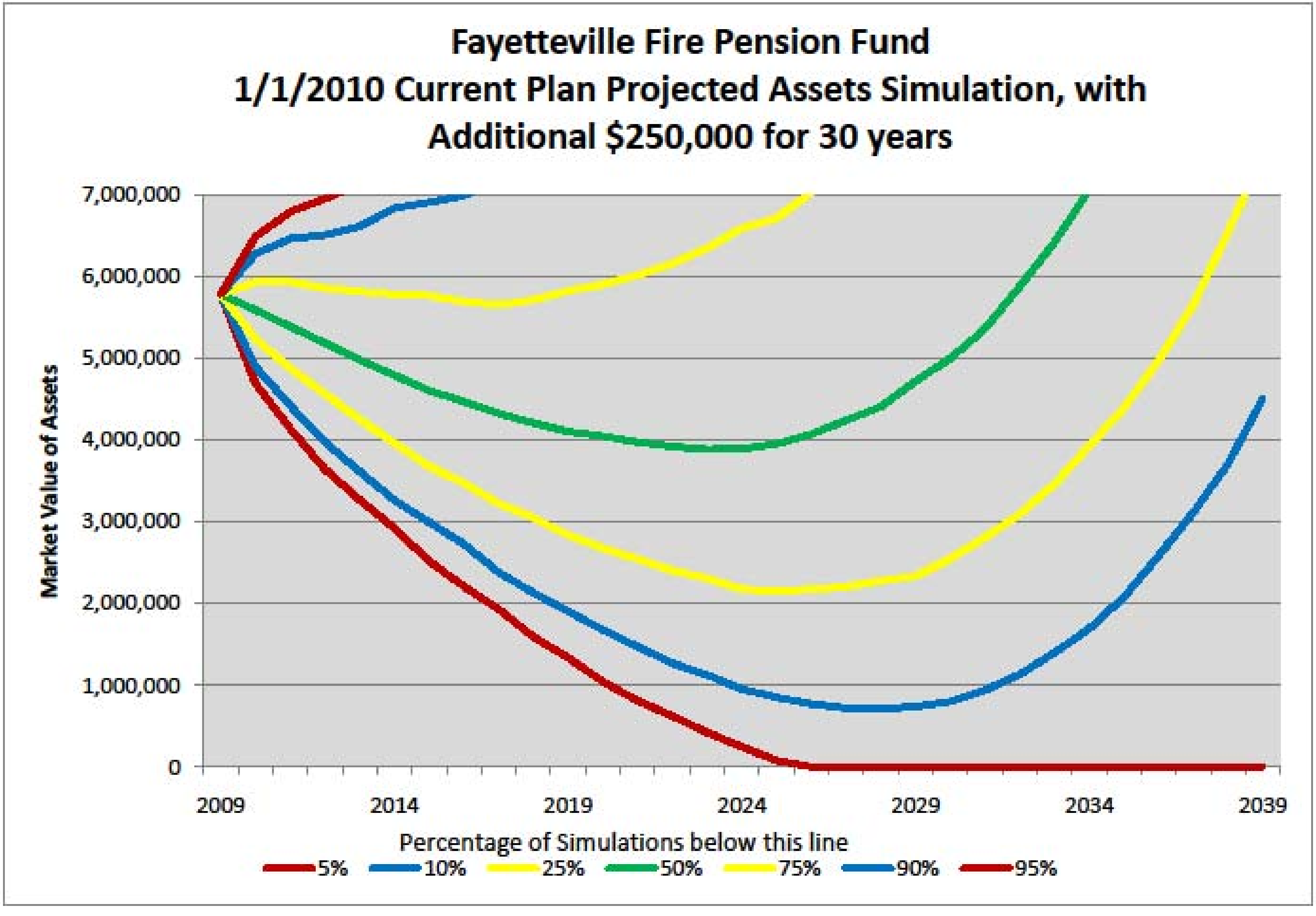
50%
75%
90%
95%


Fayetteville Fire Pension Fund
1/1/2010 Current Plan Projected Assets Simulation, with
Additional $250,000 for 30 years
Market Value of Assets
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%

Possible Actions – Exhibit 1

- Maintain Current Direction
- Additional Contributions
- LOPFI Consolidation
- Benefit Reductions
- Some Combination

Projected Cost of Possible Actions
Fayetteville Fire Pension Fund

Year	Projected Benefits	Millage	Premium Tax	Shortfall if Assets Depleted	Risk Reducing City Contribution over 30 years	Risk Reducing City Contribution over 15 years	Estimated LOPFI	Net Pay after other sources	Estimated LOPFI with COLA	Net Pay after other sources
2010	1,434,487	500,000	122,965	0	250,000	325,000	0	0	0	0
2011	1,427,399	510,000	120,179	0	250,000	325,000	793,191	163,012	1,209,012	578,833
2012	1,419,142	520,200	121,956	0	250,000	325,000	824,919	182,763	1,257,372	615,216
2013	1,409,695	530,604	124,678	0	250,000	325,000	857,915	202,633	1,307,667	652,385
2014	1,399,043	541,216	128,017	0	250,000	325,000	892,232	222,999	1,359,974	690,741
2015	1,387,162	552,040	128,181	0	250,000	325,000	927,921	247,700	1,414,373	734,152
2016	1,374,047	563,081	128,989	0	250,000	325,000	965,038	272,968	1,470,948	778,878
2017	1,359,666	574,343	129,677	0	250,000	325,000	1,003,640	299,620	1,529,786	825,766
2018	1,344,000	585,830	130,239	0	250,000	325,000	1,043,785	327,716	1,590,977	874,908
2019	1,327,001	597,546	130,694	0	250,000	325,000	1,085,537	357,297	1,654,616	926,376
2020	1,308,640	609,497	131,068	0	250,000	325,000	1,128,958	388,393	1,720,801	980,236
2021	1,288,876	621,687	131,350	441,598	250,000	325,000	1,174,116	421,079	1,789,633	1,036,596
2022	1,267,654	634,121	131,532	502,001	250,000	325,000	1,221,081	455,428	1,861,218	1,095,565
2023	1,244,932	646,803	131,611	466,518	250,000	325,000	1,269,924	491,510	1,935,667	1,157,253
2024	1,220,631	659,739	131,580	429,312	250,000	325,000	1,320,721	529,402	2,013,094	1,221,775
2025	1,194,722	672,934	131,431	390,357	250,000		1,373,550	569,185	2,093,618	1,289,253
2026	1,167,140	686,393	131,156	349,591	250,000		0	0	0	0
2027	1,137,858	700,121	130,748	306,989	250,000		0	0	0	0
2028	1,106,833	714,123	130,197	262,513	250,000		0	0	0	0
2029	1,074,075	728,406	129,496	216,173	250,000		0	0	0	0
2030	1,039,551	742,974	128,634	167,943	250,000		0	0	0	0
2031	1,003,335	757,833	127,601	117,901	250,000		0	0	0	0
2032	965,482	772,990	126,387	66,105	250,000		0	0	0	0
2033	926,035	788,450	124,981	12,604	250,000		0	0	0	0
2034	885,153	804,219	123,371	0	250,000		0	0	0	0
2035	842,950	820,303	121,545	0	250,000		0	0	0	0
2036	799,619	836,709	119,491	0	250,000		0	0	0	0
2037	755,361	853,443	117,195	0	250,000		0	0	0	0
2038	710,396	870,512	114,643	0	250,000		0	0	0	0
2039	665,012	887,922	111,820	0	250,000		0	0	0	0
Present Value at 5%				$1,724,537	$3,843,113	$3,373,389		$3,126,119		$8,421,516

Projected Cost of Possible Actions - Future LOPFI Costs
Fayetteville Fire Pension Fund

Year	Projected Benefits	Millage	Premium Tax	Projected AL-LOPFI Consolidation	Projected Assets Current CF	Projected LOPFI basis UAL	First Year Estimated LOPFI	FY Net Pay after other sources
2010	1,434,487	500,000	122,965	15,165,519	5,787,509	9,378,010	793,191	170,226
2011	1,427,399	510,000	120,179	14,905,377	5,317,728	9,587,649	810,922	180,743
2012	1,419,142	520,200	121,956	14,631,704	4,832,871	9,798,833	828,784	186,628
2013	1,409,695	530,604	124,678	14,344,617	4,337,975	10,006,642	846,360	191,078
2014	1,399,043	541,216	128,017	14,044,267	3,834,684	10,209,583	863,525	194,292
2015	1,387,162	552,040	128,181	13,730,831	3,324,431	10,406,400	880,172	199,951
2016	1,374,047	563,081	128,989	13,404,521	2,804,857	10,599,664	896,518	204,448
2017	1,359,666	574,343	129,677	13,065,578	2,277,410	10,788,168	912,462	208,442
2018	1,344,000	585,830	130,239	12,714,291	1,743,015	10,971,276	927,949	211,880
2019	1,327,001	597,546	130,694	12,350,991	1,202,688	11,148,303	942,922	214,682
2020	1,308,640	609,497	131,068	11,976,088	657,587	11,318,501	957,317	216,752
2021	1,288,876	621,687	131,350	11,590,050	109,016	11,481,034	971,064	218,027
2022	1,267,654	634,121	131,532	11,193,430	0	11,193,430	946,739	181,086
2023	1,244,932	646,803	131,611	10,786,877	0	10,786,877	912,352	133,938
2024	1,220,631	659,739	131,580	10,371,139	0	10,371,139	877,189	85,870
2025	1,194,722	672,934	131,431	9,947,100	0	9,947,100	841,324	36,959
2026	1,167,140	686,393	131,156	9,515,751	0	9,515,751	804,841	-12,708
2027	1,137,858	700,121	130,748	9,078,225	0	9,078,225	767,835	-63,034
2028	1,106,833	714,123	130,197	8,635,771	0	8,635,771	730,412	-113,908
2029	1,074,075	728,406	129,496	8,189,788	0	8,189,788	692,691	-165,211
2030	1,039,551	742,974	128,634	7,741,773	0	7,741,773	654,798	-216,810
2031	1,003,335	757,833	127,601	7,293,375	0	7,293,375	616,873	-268,561
2032	965,482	772,990	126,387	6,846,305	0	6,846,305	579,059	-320,318
2033	926,035	788,450	124,981	6,402,347	0	6,402,347	541,510	-371,921
2034	885,153	804,219	123,371	5,963,390	0	5,963,390	504,383	-423,207
2035	842,950	820,303	121,545	5,531,307	0	5,531,307	467,837	-474,011
2036	799,619	836,709	119,491	5,108,005	0	5,108,005	432,034	-524,166
2037	755,361	853,443	117,195	4,695,346	0	4,695,346	397,132	-573,506
2038	710,396	870,512	114,643	4,295,131	0	4,295,131	363,282	-621,873
2039	665,012	887,922	111,820	3,909,083	0	3,909,083	330,630	-669,112

FAYETTEVILLE FIREFIGHTERS PENSION FUND

SPECIAL REPORT

PRESENTED OCTOBER 18, 2010

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

Osborn, Carreiro & Associates, Inc.

ACTUARIES · CONSULTANTS · ANALYSTS

One Union National Plaza, Suite 1690
124 West Capitol Avenue
Little Rock, Arkansas 72201
(501) 376-8043
FAX (501) 376-7847

October 18, 2010

Fayetteville Fire Pension and Relief Fund
c/o City of Fayetteville
113 West Mountain
Fayetteville, AR 72701

RE: Fayetteville Fire Pension Fund

Ladies and Gentlemen:

This report presents the results of our January 1, 2010 actuarial study of the assets and liabilities of the Fayetteville Fire Pension and Relief Fund (the "Pension Fund"). This report goes beyond the present value of the liabilities calculated in the regular valuation to show the timing and development of the income and expense streams. These streams are then reviewed with various proposals to improve the long term security of the Pension Fund.

This report was completed according to the request of the Arkansas Fire and Police Pension Review Board (PRB). The PRB is providing this information to the Pension Fund to meet their obligation to provide options to improve funding as described in ACA §24-11-208.

PROCESS

We prepared a cash flow analysis. We first project out the benefit payments from the Pension Fund for the next 50 years. Next, the contribution income to the fund was projected. The contribution income includes the member contribution, the city match, local millage contributions, and insurance premium tax distributions. Exhibit 7 details the assumptions we made regarding these contributions. Note that in the 2003 legislative session, the methodology for allocating insurance premium taxes was changed. This report reflects that change.

Once the benefit payout and contribution income projections were prepared, investment income was added. Instead of assuming a single level rate of return, we have simulated the investment results based on your current and expected future asset allocation. Exhibit 2 shows the results.

CURRENT STATUS OF FUND

If no changes are made, the Pension Fund is expected to deplete its assets between 10 and 15 years from now. We calculated the risk of ruin is over 90%. That is, in 90% of the simulated results the Pension Fund spends all of its assets before all benefits are paid. The graph in Exhibit 2 shows the various percentage outcomes of the simulations. Therefore, we would conclude that without some significant change in the income or payout, the plan will run out of money.

The current portfolio of the Pension Fund is well diversified in keeping with the investment policy. Because of the added risk of a well diversified portfolio, we looked at moving to a "safe" portfolio of 70% cash and bonds and only 30% equities. This type of portfolio change does not add safety but, because of the reduced return, increases risk of ruin. We also compared this to an aggressive portfolio. See the graphs in Exhibit 2.

POSSIBLE ACTIONS

We were asked to look at possible actions that could be taken by the board of the Pension Fund or the city in an effort to ensure that all benefits are paid to all participants. Exhibit 1 addresses several of these changes as well as the pros and cons of each action. The purpose of the report is not to dictate a particular action, but to describe for the board and the city the effects of different actions. Exhibit 3 details the costs of each action to the city. Any change to help the plan must either increase income or reduce payouts.

The possible actions reviewed are:

1. No change in current plan, investment strategy or income.
2. Additional city money
3. LOPFI consolidation
4. Benefit Changes

Note that the results shown in this study are projections, and not predictions. The results of our projections depend, of course, upon the actuarial assumptions being met. The actual results WILL vary on a year-by-year basis from the projections. Because of the size of the group, some of the results may vary materially from these projections. This report is based on the participant and financial data you supplied to the Arkansas Fire and Police Pension Review Board. We did not audit this data, although we did review it for reasonableness and consistency. This report is not intended for any other purpose or for use by persons who are not familiar with such matters.

If you have any questions or comments, please let me know.

Sincerely,

Jody Carreiro

Jody Carreiro, A.S.A., M.A.A.A.
Actuary

TABLE OF CONTENTS

EXHIBIT 1

SUMMARY OF POSSIBLE ACTIONS

This report is to provide possible actions and the projected effects of those actions. This should provide the Pension Fund with the tools they need to make important decisions for the future of the Fund. The following is a discussion of possible changes in the Pension Fund along with positive and negative effects.

No Changes. The Pension Fund could continue on the same path that they are currently pursuing. The base benefit projection shows that the Pension Fund would deplete assets in 2020. If you assume the city would then be responsible for the benefit payments we have shown in Exhibit 3 the benefit payments in excess of millage and premium tax beginning at that time.

> **Positive.** The Fund nor the City have to take any additional action at this time.
>
> **Negative.** The projections show that the Fund cannot "earn" its way out of this in the long term. The projection shows that the Fund would need to earn about 15% every year to not deplete assets. A portfolio that could earn 15% would necessarily have a very high variance.
>
> **Negative.** If the Fund did deplete its assets, the City is assumed to be responsible for picking up the benefit payments. This would be difficult for the City and would be a public relations problem.
>
> **Negative.** The bond rating services do review the pension liabilities contained in the City's financial reports. If the unfunded liabilities continue to grow or the Fund is depleted, it could affect the City's ability to issue bonds.

Additional City Contribtuion. The City could find additional contributions to be made to the Pension Fund to reduce the risk of ruin to an acceptable level, that is, 5%. We ran various simulations to solve for the additional amount needed over 15 years ($325,000) and over 30 years ($250,000).

> **Positive.** The City significantly reduces the risk of having to pay benefits from general assets.
>
> **Positive.** The City improves its financial statement by reducing the unfunded liabilities and possibly their standing with bond underwriters.
>
> **Negative.** The current economic conditions make it difficult for cities to find any additional money for pension plans.

EXHIBIT 1 (continued)

LOPFI Consolidation. A consolidation would allow the City to use its current income streams of millage and premium tax along with other City funds to pay the unfunded liabilities over a 15 year period based on the LOPFI assumptions. We have made estimates of the current consolidation and future consolidations. The results are in Exhibit 3.

> **Positive.** After consolidation, the benefits are guaranteed by the LOPFI system. This removes the risk of ruin from the City and the Fund.
>
> **Positive.** The City improves its financial statement by removing the unfunded liabilities from the City's financial statement and improves their standing with bond underwriters.
>
> **Negative.** The City must agree to pay whatever the actuarially calculated costs are under LOPFI. This is projected in Exhibit 3. The dollar cost of consolidation increases 4% a year before recognition of other gains or losses. This is faster than premium tax and millage is projected to grow.
>
> **Negative.** The local board of the Pension Fund is dissolved. There can be benefit improvements (for example, COLAs) in the future, but they come with the City agreeing to pay whatever the actuarially calculated costs are under LOPFI.

Benefit Reductions. This option is included since several cities have asked about this possibility. The understanding of the PRB is that the law is clear that the base minimum benefit in law (i.e. 50% of pay) cannot be reduced. The PRB also understands based on the law and Attorney General Opinions that a reduction in previously granted benefit increases is not provided for in the code. Because of these issues, we did not provide any projections which include benefit reductions.

> **Positive.** A reduction in benefits would clearly reduce risk of ruin and reduce unfunded liabilities of the Fund.
>
> **Negative.** The PRB understanding of current law is that any reduction in benefits (including previously approve benefit increases) are not provided for in the code.
>
> **Negative.** There would be a local public relations issue to deal with if benefits were reduced.

EXHIBIT 2

SIMULATION RESULTS

Following this page there is a series of four graphs showing the projected assets and the probabilities based on the simulation of investment results. These results are based on the actuarial assumptions concerning income and benefits detailed in Exhibit 7. The simulation looked at 2,000 series of 30 year investment results. The graph is read that the worst 5% of the results fall below the first red line, the worst 10% fall below the first blue line. The green line is where half of the results were better and half were worse. The four graphs are as follows:

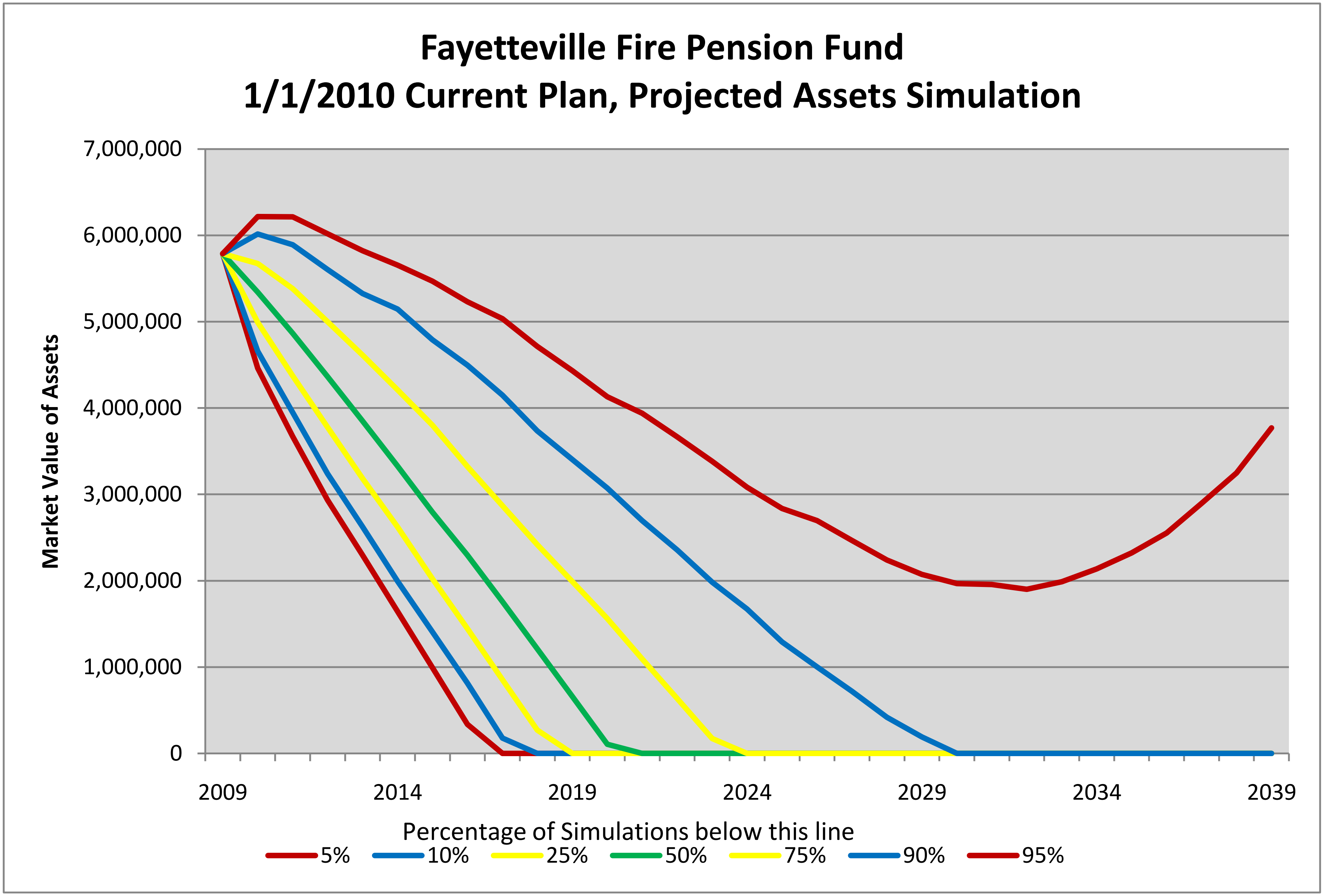
Current Plan. This is the plan as it is now with no additional income. Over 90% of the results depleted the fund, so even the median (green) line goes to zero. The other thing to notice about this graph is that simulations that deplete assets have losses in the first few years. In other words, the fund cannot afford another big loss in the next few years.

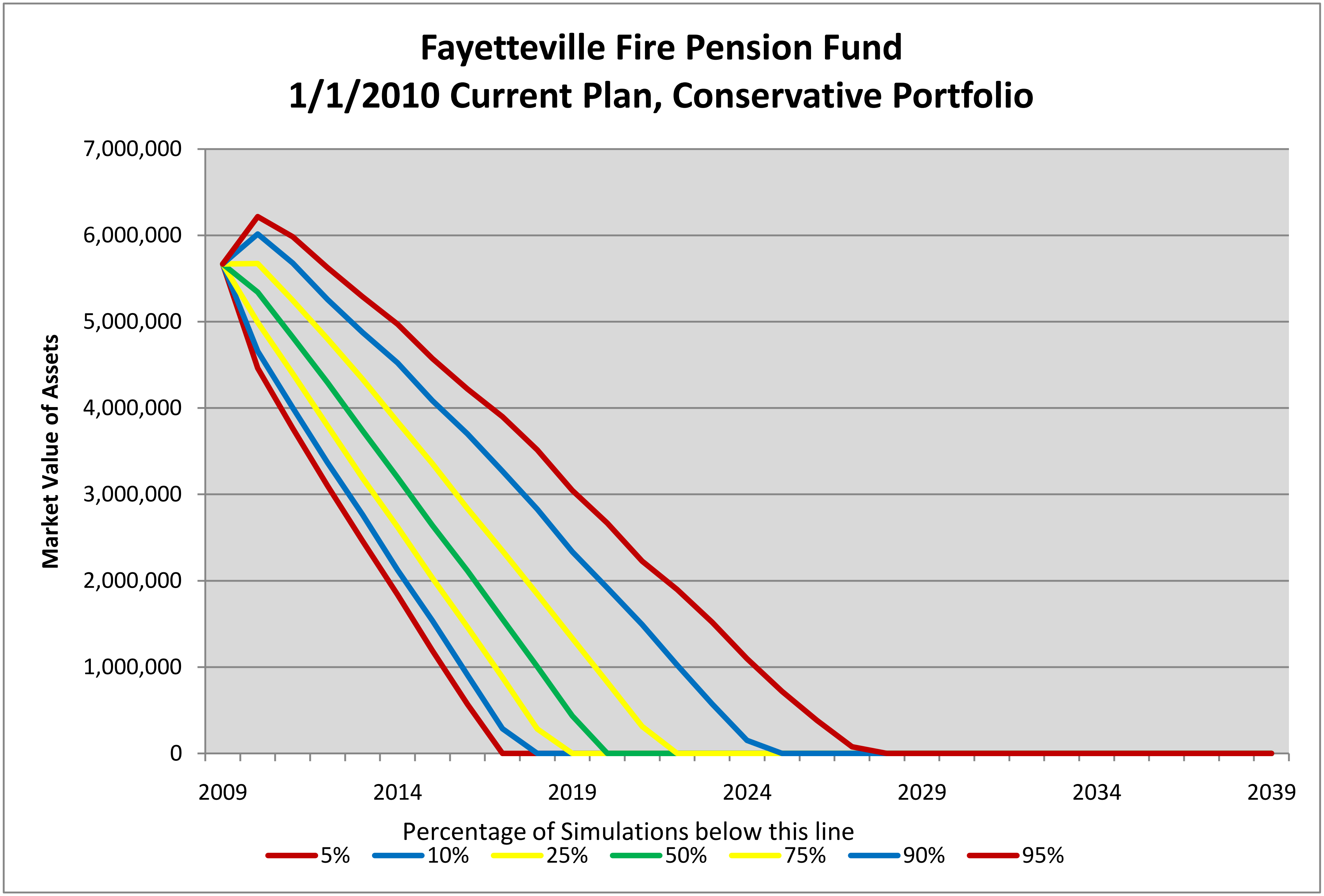
Conservative Portfolio. The natural question to ask after review of the current plan is should the fund be investing more conservatively. This graph reflects moving to a very conservative (70% bond, 30% stock) portfolio in the second year. The result is that the plan has a higher risk of ruin (97%). That is, the simulation shows that the balance of the current portfolio actually reduces overall risk.

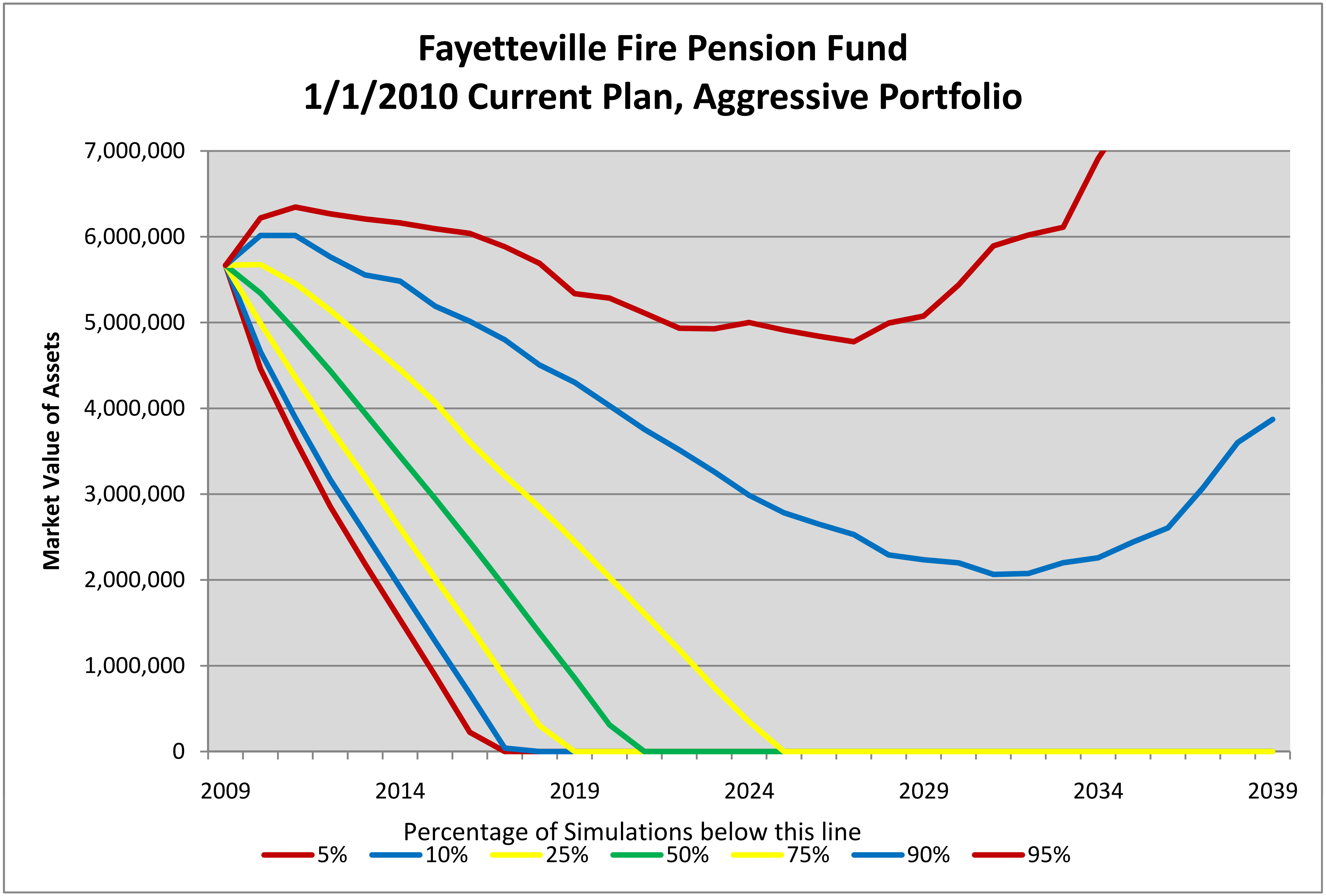
Aggressive Portfolio. We also tested an aggressive portfolio (30% bond, 70% stock) beginning in the second year. The result is that risk of ruin is reduced to just under 90%. This is not a significant improvement. The simulation reaches zero more quickly in the poor investment scenarios. The obvious conclusion is that portfolio changes **alone** are not going to improve the fund.

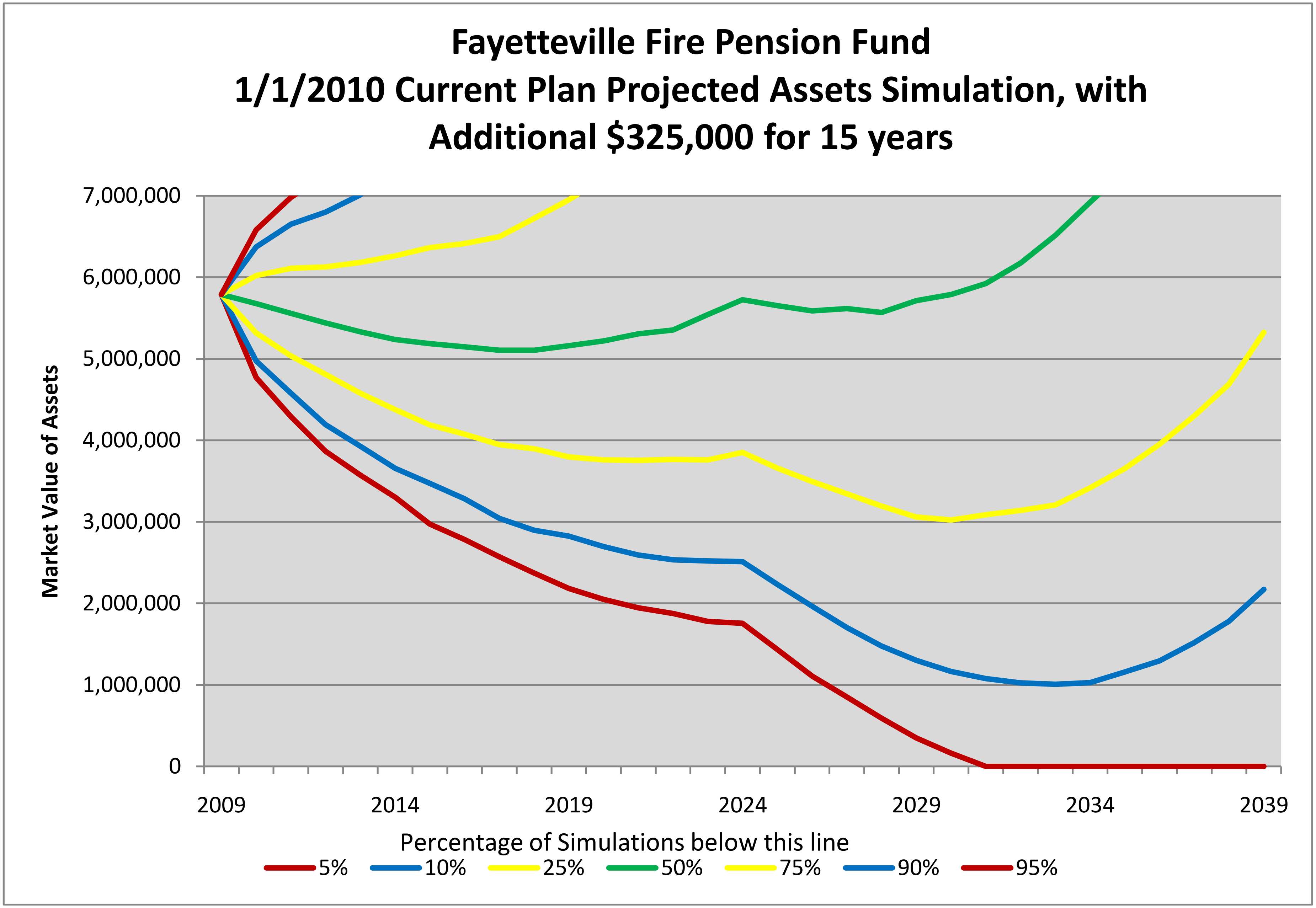
Additional Amount for 30 Years. We ran several simulations to find the additional city money that would be needed to reduce the risk of ruin to about 5%. This would be considered an acceptable level of risk. The graph shows that $250,000 additional every year for 30 years would reduce the risk to about 5%. We should also note that additional money and moving to a more conservative portfolio as the Fund becomes better funded further reduces risk.

Additional Amount for 15 Years. We also solved for an additional city contribution over the next 15 years to reduce the risk of ruin to about 5%. This amount was found to be $325,000. This is shown in the last graph.


Fayetteville Fire Pension Fund
1/1/2010 Current Plan, Projected Assets Simulation
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
Market Value of Assets
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%


Fayetteville Fire Pension Fund
1/1/2010 Current Plan, Conservative Portfolio
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
Market Value of Assets
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%


Fayetteville Fire Pension Fund
1/1/2010 Current Plan, Aggressive Portfolio
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
Market Value of Assets
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%



Fayetteville Fire Pension Fund
1/1/2010 Current Plan Projected Assets Simulation, with
Additional $325,000 for 15 years
Market Value of Assets
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%

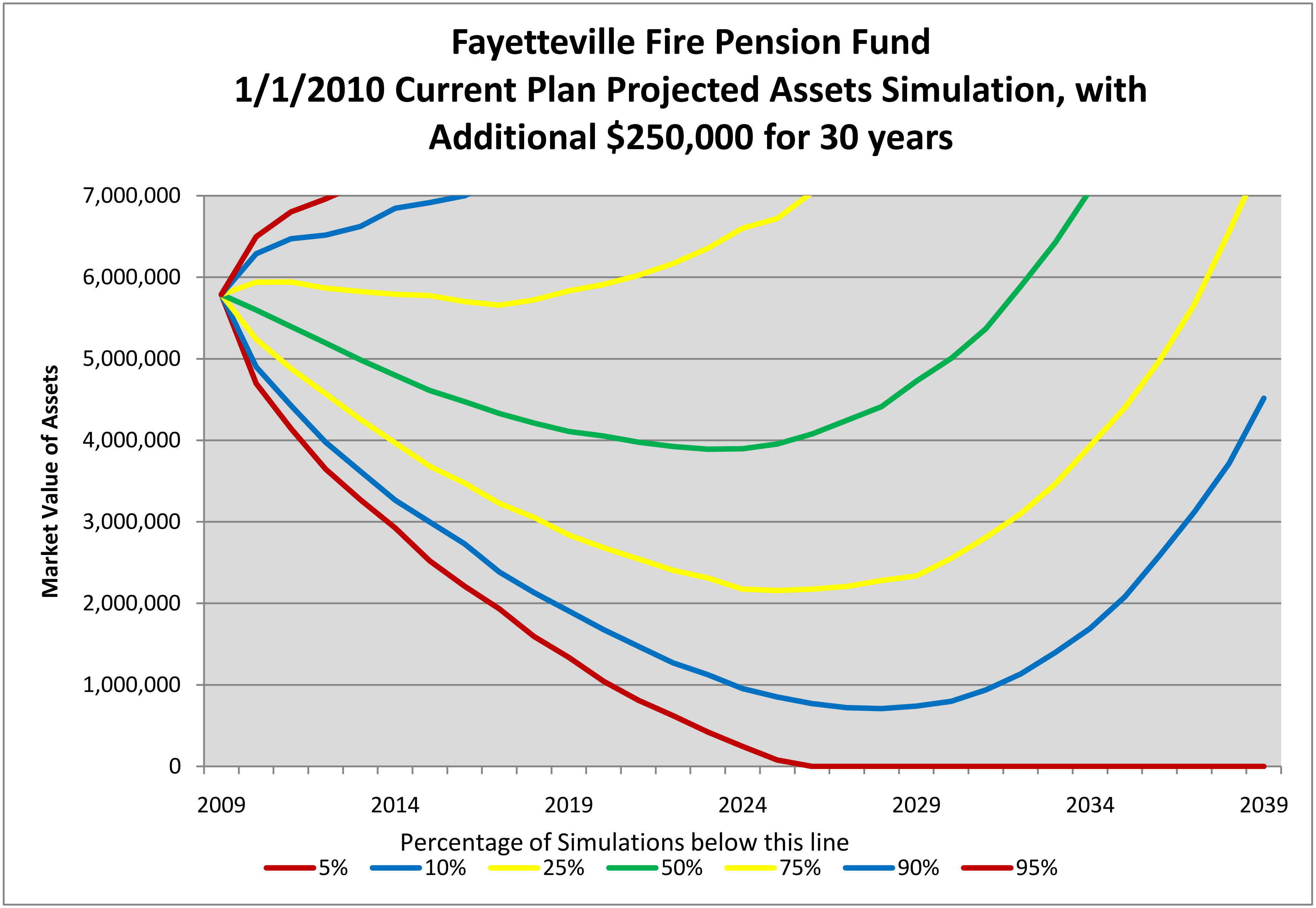

Fayetteville Fire Pension Fund
1/1/2010 Current Plan Projected Assets Simulation, with
Additional $250,000 for 30 years
Market Value of Assets
7,000,000
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
2009
2014
2019
2024
2029
2034
2039
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%

EXHIBIT 3

Projected Cost of Possible Actions
Fayetteville Fire Pension Fund

Year	Projected Benefits	Millage	Premium Tax	Shortfall if Assets Depleted	Risk Reducing City Contribution over 30 years	Risk Reducing City Contribution over 15 years	Estimated LOPFI	Net Pay after other sources	Estimated LOPFI with COLA	Net Pay after other sources
2010	1,434,487	500,000	122,965	0	250,000	325,000	0	0	0	0
2011	1,427,399	510,000	120,179	0	250,000	325,000	793,191	163,012	1,209,012	578,833
2012	1,419,142	520,200	121,956	0	250,000	325,000	824,919	182,763	1,257,372	615,216
2013	1,409,695	530,604	124,678	0	250,000	325,000	857,915	202,633	1,307,667	652,385
2014	1,399,043	541,216	128,017	0	250,000	325,000	892,232	222,999	1,359,974	690,741
2015	1,387,162	552,040	128,181	0	250,000	325,000	927,921	247,700	1,414,373	734,152
2016	1,374,047	563,081	128,989	0	250,000	325,000	965,038	272,968	1,470,948	778,878
2017	1,359,666	574,343	129,677	0	250,000	325,000	1,003,640	299,620	1,529,786	825,766
2018	1,344,000	585,830	130,239	0	250,000	325,000	1,043,785	327,716	1,590,977	874,908
2019	1,327,001	597,546	130,694	0	250,000	325,000	1,085,537	357,297	1,654,616	926,376
2020	1,308,640	609,497	131,068	0	250,000	325,000	1,128,958	388,393	1,720,801	980,236
2021	1,288,876	621,687	131,350	441,598	250,000	325,000	1,174,116	421,079	1,789,633	1,036,596
2022	1,267,654	634,121	131,532	502,001	250,000	325,000	1,221,081	455,428	1,861,218	1,095,565
2023	1,244,932	646,803	131,611	466,518	250,000	325,000	1,269,924	491,510	1,935,667	1,157,253
2024	1,220,631	659,739	131,580	429,312	250,000	325,000	1,320,721	529,402	2,013,094	1,221,775
2025	1,194,722	672,934	131,431	390,357	250,000		1,373,550	569,185	2,093,618	1,289,253
2026	1,167,140	686,393	131,156	349,591	250,000		0	0	0	0
2027	1,137,858	700,121	130,748	306,989	250,000		0	0	0	0
2028	1,106,833	714,123	130,197	262,513	250,000		0	0	0	0
2029	1,074,075	728,406	129,496	216,173	250,000		0	0	0	0
2030	1,039,551	742,974	128,634	167,943	250,000		0	0	0	0
2031	1,003,335	757,833	127,601	117,901	250,000		0	0	0	0
2032	965,482	772,990	126,387	66,105	250,000		0	0	0	0
2033	926,035	788,450	124,981	12,604	250,000		0	0	0	0
2034	885,153	804,219	123,371	0	250,000		0	0	0	0
2035	842,950	820,303	121,545	0	250,000		0	0	0	0
2036	799,619	836,709	119,491	0	250,000		0	0	0	0
2037	755,361	853,443	117,195	0	250,000		0	0	0	0
2038	710,396	870,512	114,643	0	250,000		0	0	0	0
2039	665,012	887,922	111,820	0	250,000		0	0	0	0
Present Value at 5%				**$1,724,537**	**$3,843,113**	**$3,373,389**		**$3,126,119**		**$8,421,516**

EXHIBIT 3

Projected Cost of Possible Actions - Future LOPFI Costs
Fayetteville Fire Pension Fund

Year	Projected Benefits	Millage	Premium Tax	Projected AL-LOPFI Consolidation	Projected Assets Current CF	Projected LOPFI basis UAL	First Year Estimated LOPFI	FY Net Pay after other sources
2010	1,434,487	500,000	122,965	15,165,519	5,787,509	9,378,010	793,191	170,226
2011	1,427,399	510,000	120,179	14,905,377	5,317,728	9,587,649	810,922	180,743
2012	1,419,142	520,200	121,956	14,631,704	4,832,871	9,798,833	828,784	186,628
2013	1,409,695	530,604	124,678	14,344,617	4,337,975	10,006,642	846,360	191,078
2014	1,399,043	541,216	128,017	14,044,267	3,834,684	10,209,583	863,525	194,292
2015	1,387,162	552,040	128,181	13,730,831	3,324,431	10,406,400	880,172	199,951
2016	1,374,047	563,081	128,989	13,404,521	2,804,857	10,599,664	896,518	204,448
2017	1,359,666	574,343	129,677	13,065,578	2,277,410	10,788,168	912,462	208,442
2018	1,344,000	585,830	130,239	12,714,291	1,743,015	10,971,276	927,949	211,880
2019	1,327,001	597,546	130,694	12,350,991	1,202,688	11,148,303	942,922	214,682
2020	1,308,640	609,497	131,068	11,976,088	657,587	11,318,501	957,317	216,752
2021	1,288,876	621,687	131,350	11,590,050	109,016	11,481,034	971,064	218,027
2022	1,267,654	634,121	131,532	11,193,430	0	11,193,430	946,739	181,086
2023	1,244,932	646,803	131,611	10,786,877	0	10,786,877	912,352	133,938
2024	1,220,631	659,739	131,580	10,371,139	0	10,371,139	877,189	85,870
2025	1,194,722	672,934	131,431	9,947,100	0	9,947,100	841,324	36,959
2026	1,167,140	686,393	131,156	9,515,751	0	9,515,751	804,841	-12,708
2027	1,137,858	700,121	130,748	9,078,225	0	9,078,225	767,835	-63,034
2028	1,106,833	714,123	130,197	8,635,771	0	8,635,771	730,412	-113,908
2029	1,074,075	728,406	129,496	8,189,788	0	8,189,788	692,691	-165,211
2030	1,039,551	742,974	128,634	7,741,773	0	7,741,773	654,798	-216,810
2031	1,003,335	757,833	127,601	7,293,375	0	7,293,375	616,873	-268,561
2032	965,482	772,990	126,387	6,846,305	0	6,846,305	579,059	-320,318
2033	926,035	788,450	124,981	6,402,347	0	6,402,347	541,510	-371,921
2034	885,153	804,219	123,371	5,963,390	0	5,963,390	504,383	-423,207
2035	842,950	820,303	121,545	5,531,307	0	5,531,307	467,837	-474,011
2036	799,619	836,709	119,491	5,108,005	0	5,108,005	432,034	-524,166
2037	755,361	853,443	117,195	4,695,346	0	4,695,346	397,132	-573,506
2038	710,396	870,512	114,643	4,295,131	0	4,295,131	363,282	-621,873
2039	665,012	887,922	111,820	3,909,083	0	3,909,083	330,630	-669,112

EXHIBIT 4

HISTORICAL FINANCIAL INFORMATION

FAYETTEVILLE FIRE PENSION FUND

	12/31/2009	12/31/2008	12/31/2007	12/31/2006	12/31/2005	12/31/2004	12/31/2003	12/31/2002	12/31/2001	12/31/2000
A. INCOME										
1 Employee Contributions	0	1,356	6,987	11,863	23,439	25,393	32,150	34,130	40,179	43,647
2 Employer Contributions										
Employer/ Court Fines/ Other	0	2,713	13,973	25,854	46,878	53,730	64,299	68,260	80,358	87,999
Insurance Tax	125,710	146,031	150,067	151,560	225,492	185,445	412,688	87,878	93,475	144,291
Local Millage	485,345	441,697	388,877	370,649	339,416	295,409	274,856	261,386	227,374	274,399
3 Other Income										
Guarantee Fund	0	0	0	0	0	0	0	0	0	0
LOPFI Subsidy	0	0	0	0	0	0	0	0	0	0
Police/Act 1452 Supplement	0	0	0	0	0	0	0	0	0	0
Future Supplement	24,192	31,333	38,917	27,060	24,480	16,661	11,488	0	0	0
Other Income/ Donations	390	0	1,044	540	176	121	600	0	479	0
Adjustment to prior year	0	0	0	0	0	0	0	0	0	0
4 Net Investment Income	210,237	-530,711	637,620	615,846	522,344	707,864	362,273	-1,069,440	-351,799	636,330
TOTAL INCOME	**845,874**	**92,419**	**1,237,485**	**1,203,372**	**1,182,225**	**1,284,623**	**1,158,354**	**-617,786**	**90,066**	**1,186,666**
B. EXPENSES										
1 Administrative	3,750	6,427	3,855	10,341	5,886	3,929	4,700	22,768	51,786	3,000
2 Benefits Paid										
Monthly Benefits	1,434,487	1,436,083	1,430,646	1,281,954	1,097,427	1,005,154	922,413	878,775	783,202	519,571
Police/1452 Supplements	0	0	0	0	0	0	0	0	0	0
Future Supplements	24,192	31,333	38,766	26,749	24,390	16,349	10,789	0	0	0
DROP Payouts	2,973	553,503	4,589	838,944	458,082	386,725	222,794	358,345	154,744	296,172
3 Refunds	0	0	0	0	0	0	0	0	0	0
TOTAL EXPENSES	**1,465,402**	**2,027,346**	**1,477,856**	**2,157,988**	**1,585,785**	**1,412,157**	**1,160,696**	**1,259,888**	**989,732**	**818,743**
C. NON-INVESTMENT CASH FLOW	**-829,765**	**-1,404,216**	**-877,991**	**-1,570,462**	**-925,904**	**-835,398**	**-364,615**	**-808,234**	**-547,867**	**-268,407**

(EXHIBIT 4 Continued)

	12/31/2009	12/31/2008	12/31/2007	12/31/2006	12/31/2005	12/31/2004	12/31/2003	12/31/2002	12/31/2001	12/31/2000
D. ASSETS (at book value)										
1 Cash & Checking Accounts	0	0	0	0	0	0	0	0	0	0
2 Bank Deposits	14,448	5,457	81,779	4,575	48,506	17,477	54,188	8,452	11,291	38,109
3 Savings and Loan Deposits	0	0	0	0	0	0	0	0	0	0
4 Other Cash Equivalents	117,108	573,102	181,873	288,565	234,940	226,072	624,821	677,964	1,186,185	697,319
5 US Govt. Securities	1,426,060	1,839,474	3,285,030	3,144,510	3,441,988	3,151,144	2,298,986	2,789,145	749,125	1,510,172
6 Non-US Govt Securities	0	0	0	0	0	0	0	0	0	0
7 Mortgages	0	0	0	0	0	0	0	0	0	0
8 Corporate Bonds	619,648	248,938	315,394	533,910	533,910	841,592	944,659	1,073,492	2,741,841	2,894,431
9 Common Stocks	3,219,060	3,337,250	4,136,988	4,185,381	4,873,882	5,306,194	5,754,311	5,112,232	6,846,654	7,193,026
10 Other	45,304	56,951	65,476	79,530	57,944	52,151	45,199	63,301	67,084	168,789
11 Payables	0	-16	-70,457	-17	-100	0	0	-80	0	0
TOTAL ASSETS (Book Value)	**5,441,628**	**6,061,156**	**7,996,083**	**8,236,454**	**9,191,070**	**9,594,630**	**9,722,164**	**9,724,506**	**11,602,180**	**12,501,846**
E. TOTAL MARKET VALUE	**5,787,509**	**5,823,185**	**8,725,231**	**8,961,980**	**9,636,034**	**10,373,147**	**10,625,689**	**9,735,746**	**11,403,332**	**12,612,911**
F. RATIO OF ASSETS TO EXPENSES										
Book Basis	3.71	2.99	5.41	3.82	5.80	6.79	8.38	7.72	11.72	15.27
Market Basis	3.95	2.87	5.90	4.15	6.08	7.35	9.15	7.73	11.52	15.41
G. SUMMARY OF RETURNS										
Book Value Beginning of Year	6,061,156	7,996,083	8,236,454	9,191,070	9,594,630	9,722,164	9,724,506	11,602,180	12,501,846	12,133,923
Book Value End of Year	5,441,628	6,061,156	7,996,083	8,236,454	9,191,070	9,594,630	9,722,164	9,724,506	11,602,180	12,501,846
Book Value Rate of Return	3.72%	-7.28%	8.18%	7.33%	5.72%	7.61%	3.80%	-9.55%	-2.88%	5.30%
10 Year Average Return	**2.01%**									
Net Market Investment Income	794,089	-1,497,830	641,242	896,408	188,791	582,856	1,254,558	-859,352	-661,712	1,018
Market Value Beginning of Year	5,823,185	8,725,231	8,961,980	9,636,034	10,373,147	10,625,689	9,735,746	11,403,332	12,612,911	12,880,300
Market Value End of Year	5,787,509	5,823,185	8,725,231	8,961,980	9,636,034	10,373,147	10,625,689	9,735,746	11,403,332	12,612,911
Market Value Rate of Return	14.68%	-18.67%	7.52%	10.13%	1.91%	5.71%	13.13%	-7.81%	-5.36%	0.01%
10 Year Average Return	**1.62%**									

Exhibit 5

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.

Actives

		Years of Service							
Age		0-5	5-10	10-15	15-20	20-25	25-30	30 and Over	Total
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**
Unknown Age	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 5

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.

Volunteers/Part-Paid Actives

		Years of Service							
Age		0-5	5-10	10-15	15-20	20-25	25-30	30 and Over	Total
Under 25	Count	0	0	0	0	0	0	0	**0**
25-29	Count	0	0	0	0	0	0	0	**0**
30-34	Count	0	0	0	0	0	0	0	**0**
35-39	Count	0	0	0	0	0	0	0	**0**
40-44	Count	0	0	0	0	0	0	0	**0**
45-49	Count	0	0	0	0	0	0	0	**0**
50-54	Count	0	0	0	0	0	0	0	**0**
55-59	Count	0	0	0	0	0	0	0	**0**
60-64	Count	0	0	0	0	0	0	0	**0**
65 & Over	Count	0	0	0	0	0	0	0	**0**
Unknown Age	Count	0	0	0	0	0	0	0	**0**
Total	Count	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Exhibit 5

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

		Years Since Retirement							
Age		0-1	1-2	2-3	3-4	4-5	5-10	10 and Over	Total
Under 40	Count	0	0	0	0	0	0	0	**0**
	Benefit	0	0	0	0	0	0	0	**0**
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	1	0	**1**
	Benefit	0	0	0	0	0	21,465	0	**21,465**
50-54	Count	0	0	1	1	2	5	0	**9**
	Benefit	0	0	43,766	49,452	93,630	170,717	0	**357,565**
55-59	Count	0	0	1	0	0	6	1	**8**
	Benefit	0	0	48,927	0	0	193,784	35,865	**278,576**
60-64	Count	0	0	0	0	0	3	7	**10**
	Benefit	0	0	0	0	0	121,547	157,501	**279,048**
65-69	Count	0	0	0	0	1	0	6	**7**
	Benefit	0	0	0	0	73,302	0	143,039	**216,341**
70-74	Count	0	0	0	0	0	1	7	**8**
	Benefit	0	0	0	0	0	40,207	97,509	**137,716**
75-79	Count	0	0	0	0	0	0	6	**6**
	Benefit	0	0	0	0	0	0	79,918	**79,918**
80-84	Count	0	0	0	0	0	0	7	**7**
	Benefit	0	0	0	0	0	0	36,335	**36,335**
85 & Over	Count	0	0	0	0	0	0	6	**6**
	Benefit	0	0	0	0	0	0	27,521	**27,521**
Unknown Age	Count	0	0	0	0	0	0	0	**0**
	Benefit	0	0	0	0	0	0	0	**0**
Total	Count	**0**	**0**	**2**	**1**	**3**	**16**	**40**	**62**
	Benefit	**0**	**0**	**92,693**	**49,452**	**166,932**	**547,720**	**577,688**	**1,434,485**

This includes	45	retirees	with annual benefit of	$1,246,248	.
This includes	2	disableds	with annual benefit of	$40,110	.
This includes	15	survivors	with annual benefit of	$148,127	.

Exhibit 5

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

		Years Since Electing DROP						
Age		0-1	1-2	2-3	3-4	4-5	5-10	Total
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**
Unknown Age	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 6

PRINCIPLE PROVISIONS OF THE PLAN

EMPLOYEE:	Member of Fire Department
EMPLOYER:	Fayetteville Fire Department
MEMBERSHIP:	Condition of Employment. Firefighters hired after 1982 must join the statewide Local Police and Firefighters Retirement System
CREDITABLE SERVICE:	Determined on basis of service since employment
CONTRIBUTIONS:	
Employee:	6% of salary. Volunteers contribute $12/year. Refundable if member terminates before retirement eligibility.
Employer:	1. Matching contribution equal to employee contribution 2. State Insurance Premium Tax turnback 3. Local Millage
FINAL SALARY:	Salary attached to the rank of the member at time of retirement, based on regularly scheduled work-week.
DEFERRED RETIREMENT OPTION PLAN:	This plan has elected to participate in the Deferred Retirement Option Plan effective 01/25/1996. Members who elect to participate have a DROP account that is increased by the monthly amount of their retirement as if they had retired as of the date DROP was elected. Has not elected coverage under Act 1457 of 1999.
RETIREMENT BENEFITS:	
Eligibility:	20 Years of Service regardless of age.
Benefit:	90% of Final Salary, but not less than $4,200. ($1,200/year for volunteer/part-paid). If service exceeds 20 years, the annual benefit is increased by $240 for each year over 20, up to $1,200/year extra. ($120 for each year over 20 up to $600/year for volunteer/part-paid). 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 6 (Continued)

DEATH BENEFITS:

Eligibility: Death before 20 Years of Service not occurring while performing work in gainful employment outside the fire department, or death after 20 years.

Benefit: 1. Widow receives same amount as member is receiving or eligible for.
2. Each child under age 19 receives $1,500/year. ($300/year for volunteer/part-paid). If no surviving spouse, child receives spouse's benefit to 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 $4,200/year.

Full Paid Duty related disability
Retirement benefit but not less than 65% of Final Salary and not less than $4,200/year.

Volunteer/Part-Paid:
Computed as voluntary retirement benefit

EXHIBIT 6 (Continued)

CHANGES IN BENEFITS

December 6, 1996	Based on Cash Flow Valuation, increase from 50% base to 65% base benefit. Volunteers to $55 base.
June 6, 2001	Based on Cash Flow Valuation, increase from 65% base to 90% base benefit.
November 20, 2003	Temporary 3% Compound COLA for 3 years. Extend DROP to 10 years.
January 4, 2007	NO benefit increases available based on Cash Flow Valuation.

EXHIBIT 7

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.

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

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

AGE	Mortality rate per 1,000
25	.464
30	.607
35	.860
40	1.238
45	2.183
50	3.909
55	6.131
60	9.158

The 1971 Group Annuity Table for Males, set back five years for females, was used before the 12/31/2007 Valuation.

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:

AGE	MALES	FEMALES
55	24.87 years	29.23 years
65	16.74 years	20.68 years

The 1971 Group Annuity Table for Males, set back five years for females was used before the 12/31/2007 Valuation.

EXHIBIT 7 (continued)

VOLUNTARY TERMINATIONS: Annual termination rates at a few sample ages are:

AGE	Termination rate per 1,000
20	40
25	35
30	29
35	15
40	6
45	5
50	5
55	5

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 INVESTMENT RETURN: 5.0% (was 7.0% for the 12/31/08 valuation)

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

Age	Disability rate per 1,000
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 post-disability mortality, we assumed rates based on the 11th Actuarial Valuation of the Railroad Retirement System (occupational).

EXHIBIT 7 (continued)

SALARY GROWTH:

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

Salary Increase

Age:	Base/Merit:	Total:
20	4.0%/4.0%	8.0%
25	4.0%/3.2%	7.2%
30	4.0%/2.8%	6.8%
40	4.0%/2.2%	6.2%
50	4.0%/1.2%	5.2%
60	4.0%/.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:

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

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

RETIREMENT PATTERN AFTER ELECTION OF DROP:

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

Years on DROP	Retirement rate per 1,000
1	100
2	200
3	200
4	300
5+	1,000

EXHIBIT 7 (continued)

INCOME RELATED ASSUMPTIONS

LOCAL MILLAGE	The local millage was assumed to produce $500,000 in income per year increasing 2% per year. This amount averaged about $440,000 over the past three years and has grown more than 10% per year the last five years. The 2% future assumption is based on long term real estate projections instead of recent results.
CITY CONTRIBUTION	The City's matching contribution was assumed to be 6% of covered payroll.
PREMIUM TAX	The actual insurance premium tax turnback of $122,965 was used for 2010. We typically assume that the same percentage of that calculated contribution, 3.9%, that was received for 2010 would be received in future years. We based this on 2010 contribution rate since many plans and all LOPFI plans had significant increases in cost this year; the premium tax turnback may fluctuate. There are outstanding proposals to change the premium tax formula which are not anticipated by this projection.
INVESTMENT SIMULATIONS	The investment simulations were based on the actual portfolio of the plan as of December 31, 2009 and the projected portfolio anticipated by the investment policy. The simulations are based on the American Academy of Actuaries 2006 paper, "Construction and Use of Pre-packaged Scenarios". The pre-packaged scenarios were in general categories that we used. Money Market (MM) includes cash and money market instruments. Government (Gov) and Corporate (Corp) are intermediate term high quality bonds. There is a category for Large capitalization (LCap) and small capitalization (SCap) US stocks. The Mid Cap stocks in the portfolio were equally split between LCap and SCap. The international (Intl) stocks are also included.

EXHIBIT 7 (continued)

IMCOME RELATED ASSUMPTIONS

Portfolio makeup - current and projected - Fayetteville Fire from 12/31/2009

	MM	Gov	RE	Corp	LCap	SCap	Intl	tot check
12/31/2009	5.17%	25.46%	0.00%	12.82%	46.54%	2.71%	7.30%	100.00%
12/31/2010	5.00%	20.00%	0.00%	15.00%	50.00%	5.00%	5.00%	100.00%
12/31/2011	5.00%	20.00%	0.00%	15.00%	50.00%	5.00%	5.00%	100.00%
12/31/2012	5.00%	20.00%	0.00%	15.00%	50.00%	5.00%	5.00%	100.00%
12/31/2013	5.00%	20.00%	0.00%	15.00%	50.00%	5.00%	5.00%	100.00%
12/31/2014	5.00%	20.00%	0.00%	15.00%	50.00%	5.00%	5.00%	100.00%
12/31/2015	7.50%	20.00%	0.00%	20.00%	42.50%	5.00%	5.00%	100.00%
12/31/2016	7.50%	20.00%	0.00%	20.00%	42.50%	5.00%	5.00%	100.00%
12/31/2017	7.50%	20.00%	0.00%	20.00%	42.50%	5.00%	5.00%	100.00%
12/31/2018	7.50%	20.00%	0.00%	20.00%	42.50%	5.00%	5.00%	100.00%
12/31/2019	7.50%	20.00%	0.00%	20.00%	42.50%	5.00%	5.00%	100.00%
12/31/2020	10.00%	25.00%	0.00%	25.00%	30.00%	5.00%	5.00%	100.00%
12/31/2021	10.00%	25.00%	0.00%	25.00%	30.00%	5.00%	5.00%	100.00%
12/31/2022	10.00%	25.00%	0.00%	25.00%	30.00%	5.00%	5.00%	100.00%
12/31/2023	10.00%	25.00%	0.00%	25.00%	30.00%	5.00%	5.00%	100.00%
12/31/2024	10.00%	25.00%	0.00%	25.00%	30.00%	5.00%	5.00%	100.00%
12/31/2025	10.00%	25.00%	0.00%	25.00%	30.00%	5.00%	5.00%	100.00%
12/31/2026	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2027	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2028	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2029	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2030	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2031	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2032	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2033	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2034	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2035	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2036	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2037	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
12/31/2038	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
Conservative Portfolio	10.00%	30.00%	0.00%	30.00%	20.00%	5.00%	5.00%	100.00%
Aggressive Portfolio	5.00%	10.00%	0.00%	15.00%	35.00%	25.00%	10.00%	100.00%

Fayetteville ARKANSAS

Special Meeting Minutes
October 18, 2010
City Council
Firemen's Pension and Relief Fund Board of Trustees
Pension Review Board

A Special meeting of the Fayetteville Firemen's Pension and Relief Fund Board of Trustees, City Council, PRB, and Actuary Jody Carreiro was held at 4:30 PM on October 18, 2010 in Room 326 of the City Administration Building.

Mayor Jordan called the meeting to order.

Present:

Fire Pension: Ronnie Wood, Pete Reagan, Marion Doss, Gene Warford, Sondra Smith and Mayor Jordan.

City Council: Brenda Thiel, Adella Gray, Bobby Ferrell, Sarah Lewis, Kyle Cook, Shirley Lucas and Matthew Petty.

Other Attendees: Kit Williams, City Attorney, Paul Becker, Finance & Internal Services Director, Jody Carreiro, Osborn, Carreiro & Associates, David Clark, Pension Review Board, Audience, and Press.

A meeting to discuss the insolvency of the Fayetteville Firefighters Pension Fund.

Special report from Jody Carreiro of Osborn, Carreiro & Associates Inc. Actuaries Consultants Analysts.

Jody Carreiro, Osborn, Carreiro & Associates Inc.: We have been the actuaries for the Fire and Police Pension Review Board for 20 years. These analysis have been different, it's different because we have had to stretch our muscles to do some of these things. Some of the Pension Board members have seen this and some of it will be new.

Mr. Carreiro presented a PowerPoint presentation regarding the actuarial report. A copy of his report and graphs is attached.

Now that everyone has retired the liability should be trailing off. Between 2007 and 2008 you had the last big DROP payment out of the plan. The Pension Review Board decided they were going to review and adjust the discount assumption for the liabilities on a routine basis. They did that based on the returns of the previous five years. This created a $3.8 million increase in liabilities from that change in assumptions. The discount factor going from 7% to 5% really increased those liabilities. There was a 23% increase in this last evaluation.

What we are presenting to you is a cash flow simulation process. The evaluation is a snapshot in a particular year versus in this cash flow simulation it is year by year the expected income and expected benefits for every year during this projection period. With an evaluation we have liability assumptions, interest, discount, mortality, and other things like that. With this we have some added assumptions about what the asset income pieces are going to be.

These assumptions are not guesses but they are not predictions either. They are not going to be accurate but they are going to give us the best idea of the direction that things are in. We hope it is right.

Page 11 and page 12 of the report is 10 years of financial history. At the bottom of page 11 is a line called non investment cash flow. Ignoring investment income is the income minus the expenses. That is important because we are in the phase of life of this plan that our non investment cash flow is an out flow. It is no longer net income because everyone is retired now. Ten years ago it was a small number and now it is up to about $800,000 every year. That is our benefit payments, which the benefit payments have increased over the past ten years, the benefit payments less the income items is going to be over $800,000 out flow every year.

Page 12 shows where the assets were ten years ago they were over $12 million and now we are down to under $6 million. We want to be closer to ten years of benefits in our assets and we are down to right at four years, which is too low. The last ten years in the market have been brutal. Market returns have been around 2% over a ten year period. There has been ten years of under performance.

The next several pages are the profiles. Page 15 shows you the age of all the retirees, page 17 and page 18 lists the plan provisions. Page 19 lists the benefit increases that this plan has received over the years. The base benefit in the law is 50% of pay. In 1996 that was increased from 50% to 65%, in 2001 the plan went from 65% to 90% of pay as a base benefit. In 2003 there was a three year temporary 3% COLA that was approved. In January 2007 you asked us if you could afford any other benefit increases and you could not at that time.

The liability assumptions are on page 20 through page 22, mortality assumptions is the big thing here. We did a study on all the fire and police plans in the State and determined the table. The 1983 Group Annuity Mortality Table was closest to the mortality of the folks through the period that ended at the end of 2007. We will continue to review that every few years to see if it needs to be updated. We also project based on the mortality of the retirees with spouses.

Pages 23 and page 24 is the asset projections assumptions. For each income piece we had to project how much income was going to be produced with that. The millage in the last several years has increased more than 2% per year. The 2% a year is a national real estate average.

Since everyone is retired there is not any employer match any more. The premium tax is very difficult to understand. In 2010 the plan received about $123,000. It is based on a long complicated formula that allocates based on the cost of every old plan and every LOPFI plan and then a percent is applied to it, and then there is a second round to where hopefully you will get some more money. It has been hard to predict and it is not growing as fast as the needs of the pension plans. The pension plans on the LOPFI side and the old plan side both have growing cost. For this study we did not assume a discount rate, we assumed a portfolio. That portfolio is broken into six categories. Page 24 will show how much was allocated to those categories.

The first thing in the results to look at is on page 3. There are several charts that we are going to go through. With the portfolio we did 2000 simulations over 30 years in six different categories. We arranged the results from worst to best. What the graph tells us is that right now your fund has about 91% chance of using up assets before the liabilities. You have a risk of ruin of 91%. That is not very good. We do not want to ever run out of money. We would like a risk of ruin to be 5% and no more than 10%. That means we have a lot more risk than we want to have.

The next two graphs show what will happen if you are more conservative to take away some of the risk or more conservative to make more money. If you are more conservative it gets a little worse. Being more conservative does not give you enough earnings to increase anything. A more aggressive portfolio still has you running out of money in 12 years. It is fractionally better as far as the risk of ruin. It is just under 90%.

If you can find a 15% CD you could earn your way out of this hole. They do not exist. A 15% portfolio is not going to happen. It would have to be a 15% risk free portfolio to earn our way out.

If you add money to the plan over the next fifteen years you might make this plan solid or reduce our risk of ruin to 5%. It would take $325,000 per year for 15 years and $250,000 a year for 30 years. I don't think there is money to do that.

The following are possible actions you can take:

1. Maintain the current direction. There is a high probably of running out of money if we do not do anything.
2. Additional City contributions. City probably does not have the money.
3. Consolidation with LOPFI. City makes up any difference. The City pays the unfunded liability.
4. Benefit reductions. The opinion is that is not probably possible.

The benefits after 30 years are still $665,000. That is just less than half the benefits that are being paid out now. Some of your retirees are not very old and many of them have spouses. This plan pays benefits to the spouses as well.

If the plan consolidates with LOPFI the estimated costs go up every year. The LOPFI amortization when you consolidate is based on a 15 year amortization but it is a level percent of payroll so it grows by 4% per year.

Mayor Jordan: Any comments or questions from the pension board?

Pete Reagan thanked Jody Carreiro and David Clark for coming. You talked about the local millage on your report. I will direct this towards Paul. I don't know if our numbers are going to be up or down. I suspect that in my own personal piece of property the amount it was appraised for is down for 2010. Does that mean our part of the millage will be down?

Paul Becker: From the projections on the assessed valuation I've seen it will not be down but it will not be up compared to last year. Next year I don't see a big decrease but we are not going to see much of an increase.

Pete Reagan: Thank you. Jody on the fire insurance premium tax do you see any way to increase that solely for old funds that are in distress and then roll it over into LOPFI once they become able to stand on their own?

Jody Carreiro: The current frame work to present to the legislature is that the old plans would get a portion of their calculated similar to now. Then there would be an extra portion based on unfunded, so the bigger your unfunded the more your portion would be. This second portion would be assuming the City did everything it could, now defining that is still in negotiations. The thing was the 1 mill but it may be a combination of 1 mill or a percent of a pay off of the unfunded. It maybe a deal where the City has to come up with a little extra money to get more extra money. The idea is the cities that are in need would be able to get some more. To be honest the proposal is that calculation would be based on base benefits. That wouldn't cover all your liability because you guys have a significant benefit increase. There will be a calculation based on base benefits and then that's the calculation that people will get help on.

Pete Reagan: Do you think it is possible to pass an increase in the fire insurance premium tax? Do you think that is a viable alternative?

Jody Carreiro: The proposal that's out there right now is a better distribution of money and a way to increase that pot faster. It is probably one of our best bets on doing that but frankly the Governor and DF&A are going to fight it tooth and nail because they need every penny they've got right now. Does it have a great chance, I don't know. I think there is a lot of support from both boards and they are building support from the Municipal League. Sondra was at the meeting where that committee voted to endorse it. I was almost surprised. We are beginning to come together. The Legislative Committee, whenever they meet again, will hear the same presentation. If they get behind it too then we can sit down with the Governor and say there are a lot people behind this and here is a way to fix this problem long term. It's not going to bother your budget this year but it's going to cost more money in future years but this is a way you can fix this once and for all. That's the hope and direction. Whether it works I don't know.

Pete Reagan: Assuming this passes can you put a dollar figure to that piece?

Jody Carreiro: Not yet. Not until I know more of what some of these things mean and that's going to come from the discussion from other people.

Paul Becker: Jody I have seen your preliminary numbers. I think the thing we should let everybody know is that is not going to solve this problem. Changing the distribution of premium taxes is not going to be large enough to resolve this problem. I feel a responsibility to let you know where we are. You have to understand the Council, Mayor and Administration are looking at approximately a $1.4 million short fall in the General Fund alone that we are going to have to come to grips with. We are either going to have to use reserves, cut capital, or cut operating expenses. It's a rather difficult time to have a discussion of coming up with additional funding.

Jody Carreiro: I understand.

Paul Becker: Especially when we are talking about, if I recall the numbers correctly, if we sent it to LOPFI your estimate is $163,000 the first year graduating to roughly $600,000 after 15 years or putting in $250,000 over a 30 year period. You have to understand in these discussions the Council is already grappling with a problem beyond this.

City Attorney Kit Williams: I have attached an opinion letter to our budget every year for our auditors that says the City is not currently liable for any short fall in the pension fund. The pension fund is controlled by this Board. They are the ones that voted increases in it without the increase to 90% and a 3% COLA for five years we wouldn't have this kind of problem. The Mayor and City Clerk are also on the board but it's really the responsibility of the board and not the City, legally and in my opinion not even morally because there is nothing that the City Council can do to say you're spending to much money and you need to cut benefits. It's totally up to the board on that. This is their pension plan just like the police, they have their own independent board. It's not the City Council's responsibility legally or in my opinion morally. They have to decide as trustees. They have a fiduciary duty to every beneficiary out there to make sure this pension plan does not go bankrupt. We have a difference of opinion about some of the options. One option they did not discuss is an option I believe is the only true option available to this board and that is to reduce benefits. The benefits would not have to be reduced dramatically at this point in time. It would still be way over the 50% that the statute originally set this as but the Attorney General and this board disagrees with me. If the board decided to go forward like that someone or some pensioner might possibly sue the board and say no I am entitled to the full amount. A judge would then decide and basically we would have a true decision on it. My opinion is the board does have that inherent power. There are things within the statute that I believe give them the power and also there is the simple responsibility that they have a fiduciary duty to preserve this pension plan. That gives them inherent rights to take whatever action is necessary within their power to make the plan last and not to have a 95% chance of this plan going broke.

This is not a surprise. More than four years ago I told them I was concerned about the pension plan and that they needed to reduce benefits. They have heard this for more than four years from me and that was in August 2006 before any crash in the market. That is after a big run up in the stock market where our financial advisors for the pension plans had done wonderful. She earned them lots and lots of money and yet their fund was still going down and that's why I could see the hand writing on the wall. That's why I asked them to consider that.

Alderman Ferrell: Kit, we talked about on any kind of benefit change that the Attorney General says he doesn't think that would be allowed. Did the Attorney General have to opine on any of these votes to increase benefits from 50% to 65% and 65% to 90%?

City Attorney Kit Williams: No. Every time benefits were increased by this board it went through the State Pension Board and they had to approve it. To approve it they always used a cash flow method at least for the last few years because actuarially it would not have made it. They used those assumptions, it use to be 6% growth then it went up to 7% growth and now it is back down to 5% growth. They are using the assumptions that the investment portfolio would grow fairly aggressively and when that did not happen that is why things got in trouble. The pension board always followed the law. They only approved increases when they were approved to do so by the State.

Sondra Smith: We proposed in two separate meetings a benefit reduction that the Mayor and I supported. In one meeting one other board member supported it but we did not have a majority vote to reduce the benefits.

Alderman Ferrell: What kind of reduction did you propose?

Mayor Jordan: Twenty percent wasn't it?

Sondra Smith: Jody gave us a presentation at one of the meetings. In that presentation he stated it would take a 20% to 23% reduction. One motion was a 20% reduction. I believe the other one was 23% or what Jody thought it would take to gets us even.

Mayor Jordan: Both votes failed.

Paul Becker: Jody, people have asked me about the cash flow analysis. We could not pass the actuarial analysis test because that is based on a five years of actuarial soundness. Is the cash flow analysis a statutory analysis, or is that defined by statute?

Jody Carreiro: The statute says the Pension Review Board can define actuarial soundness. For many years they defined actuarial soundness as if your assets over liabilities were over a certain percent, whatever that was, and if your plan was making the calculated actuarial contributions. The calculated actuarial contributions, since everyone was eligible to retire in 2003 under these plans, they were quickly moving so that the amortization of any unfunded was over a fairly short period and rightfully so. The trouble with that is nobody can make that kind of a contribution. They weren't going to get it paid off in five years. The decision was made probably 15 years ago to use the cash flow method. The big thing about that was that millage and premium tax would continue after 2003. Those things would continue for quite some time and if we looked at the cash flows, what was coming in, and the expected benefit payments, and the plan was not expected to run out of money, then the board's definition of actuarial soundness was that the plan would then be sound. That is the method that was used for all of the benefit increases that this plan has had.

Paul Becker: That was an administrative decision by the PRB.

Jody Carreiro: That's correct.

Sondra Smith: There is one thing in the report on page 19 that I would like to point out. In the changes in benefits, on November 20, 2003 it says extend the DROP to 10 years, that was approved by the pension board to go to the City Council but the City Council voted against that and that motion failed. We did not extend the DROP to 10 years. We only had a five year DROP. That DROP is finished. I don't know if everyone here understands what the DROP was.

Alderman Ferrell: Would you explain that?

Sondra Smith: I don't know as much about it as some of these gentlemen here do. They were allowed to go ahead and work for an additional five years and money was set aside in a lump sum distribution for those pensioners during those five years because they weren't drawing from the pension fund during that time. The way I understand it their dollar amount was frozen that they could draw when they went on the DROP. So if they got any pay increases during those five years they would stay at the same level they were at when they went on the DROP.

Jody Carreiro: That's pretty good.

Sondra Smith: But in doing that there was an additional $3.3 million paid out to 19 pensioners on the DROP plan. That may have made a little bit of difference too but you don't know whether they would have gone ahead and retired or continued working.

Jody Carreiro: Sondra did call me to point that out. I took it off my slide but I couldn't take it out of the book. There are lots of issues here that we can talk about. The benefit increases and all that evidentially puts a huge weight on this but those were all approved with some type of interest rate assumption. The market has treated us poorly for 10 years which is not anyone in this rooms fault. You earn 2% for 10 years if your assumption is 5%, 6% or 7%, it doesn't matter you're way behind if you do that for 10 years. Whatever effect the DROP ultimately had its hard to quantify but again that was an affect that was in there. This was not intended to try to dissect all the affects of why we got here but maybe to throw out some ideas to spawn some discussion so that maybe we can find some solutions of how to get to where we need to be.

Alderman Petty: I looked back at the financial records provided for the fund and it seems that it's been obvious that this has not been actuarially sound for quit some time. I was wondering why benefits were raised so much in the first place? It doesn't seem like it was a responsible decision to begin with even when the market was gang buster the fund wasn't sound. Why has it taken so long to get to a point where we are talking about actions?

Mayor Jordan: That was before my time. I don't think I have voted for a benefit increase since I have been here. What were the circumstances that you all raised it from 50% to 90%?

Jody Carreiro: The fund was sound at the time every benefit increase was made or it would not have been made. It met the definition of soundness. Clearly since I did a lot of those actuarial reports I've sit around and said why, did we put in enough room for variance? Did we put in enough area that was there? I think based on what we knew at the time that each of those reports were done, what information we had, except for investment returns they have been pretty much been on track. I went back to some old cash flows and said where does it say we are in 2010. If I add what happened in the market from that point to 2010 it explains what the difference is. The plan was always sound and as your attorney has said they followed the proper steps each time the benefit was done.

Sondra Smith: If they had asked for the benefit increase on an actuarial soundness study would they have still gotten those benefit increases or was it because they asked for them on a cash flow basis?

Jody Carreiro: There were two definitions that were available, two ways to prove that you were actuarially sound. You could meet this assets over liabilities were over a certain percent or you could prove that this cash flow was going to meet my benefit out flows over the long term. Evidentially they didn't choose method number one, which says assets over liabilities had to meet a certain percentage, they chose method number two each time which said the income items as we knew them at that time were going to be greater than the benefit stream.

Alderman Petty: From my understanding what you just described and from the presentation it sounds like obliviously mistaken projections were made about investment income. To me the fact is the board counted their chickens before they were hatched. That was something that was not right to do. Speaking for myself as a council member, if responsible decisions were being made by the board and benefits were at a responsible level, then I would be willing to step in as a City and help it reach solvency. Until we've seen a willingness to demonstrate action on the part of the board I'm not willing to do that. I hope today we can get this discussion started on how we are going to get these benefits lowered. I know the Attorney General and the City Attorney have a disagreement of opinion. Attorneys aren't judges and their opinions are wrong sometimes and it's up to a judge to figure that out. The Attorney General has been wrong before. I think this is a case where we need to go forward and we need to have the courage to do this so we can all do our part. I'm not willing as a City Council member to take action on the part of the City until that is the case.

Alderman Thiel: I agree with Matthew. I feel like the board can vote to reduce their benefits and it may be challenged and it may not be challenged. I think the Council would like to help but the pensioners should help too.

Alderman Gray: I agree as well. The City does not have plenty of money. We've had to make some big cuts and we are going to make more cuts. I think we have to have everyone's help in making this balance and make it work.

Alderman Ferrell: On June 6, 2001 the market was on fire. Some of the returns coming in were incredible. I'm not an actuary and there's a lot more to it than looking at this year. Understanding that I still go back to the organizational function which says there are fiduciary obligations by a pension board. The fiduciary obligation means you are compelled to take a look at the solvency of this. That is where we are now and we need to figure out a way to get it back.

Alderman Lewis: Thank you for explaining some of this to me. I agree with Alderman Petty. I would have to ask myself, according to the probabilities in the current market, is this going to run out before I die. I have to ask myself if I would like for it to run out or if I would like it to last me longer. There is a chance that the market can turn around and if I leave some money in the market to come back up, then I can make more money. With the economy as slow as it is we are probably not going to see the bubble that we've seen in recent years that means I would want to stretch that out as long as I can. From a former grad students point of view I would want to be stretching every penny because across the board we are all trying to do that. We are all trying to squeeze out every bit of the City budget and our personal budgets. I would really like to see an effort to reduce those benefits and really look at the numbers, to see what that means for the individuals and how long would it be before there would be a reconsideration of that. It could be revisited if the market turns around. Even with this plan there are only three little bullet points that look at a reduction of benefits and it doesn't include all of the different reasons.

Alderman Lucas: I agree with what the Council members have said. When people retire from a company they usually have a choice of taking a big pay out that begins in 10 years or ends in 20 years or they take less and hope it lasts as long as they do. There is a board that decides this and decides how much you should get with your expected life expectancy. Like Bobby said it was the fiduciary duty of the board to make sure this lasted this long. I would like to see them work at doing that.

Alderman Cook: What is the LOPFI payout benefit? What is their percentage compared to this plans payout?

David Clark: LOPFI has a maximum benefit payout of 100% if the person works 34 years and one month under benefit program one. We don't have anyone there because this system is at year 28 in its existence. That was a legislative change that occurred in 2009. It use to be a max of 85% if you were under program two or 80% if you were under program one.

On the discussion about the fiduciary responsibilities of the local board and how the benefit increase works, I'm not sure everybody fully understands how the benefit increase process occurs. The local board has to pass a resolution to be able to enact any type of benefit increase proposal. That takes six of seven board members signatures and your benefit increases had six of seven signatures. Two of those were your City official representatives which would have been your Mayor at the time.

Mayor Jordan: David, I have not voted for an increase.

David Clark: I said Mayor at the time. I understand that Mayor. These increases occurred before your time. I think everyone heard me correctly but it was before this Mayor was in office. The point being is that there was an employer representation on these benefits increases that occurred. Six fiduciaries signed the resolutions and it was processed through PRB. PRB did a cash flow analysis and said whether or not the fund could afford the increases and then pushed it back with the approval letter that it was up to that same board to go ahead and act on the benefit increases at that time. That is the reason why the PRB has said that there is a statuary provision 24-11-102 that says a local board can do a benefit increase. There is not a 24-11-102 and a half that says you can decrease benefits. There is a section that talks about prorating benefits in the year that the pension fund runs out of assets. That's the reason the Attorney General has come back and said, and the PRB agrees, that there is not a statutory provision to reduce benefits. Clearly there is some wisdom behind that, because of where the pension fund is at, but wisdom and what the state law allows at this time are not necessarily in alignment. That's the reason why PRB has tried to be very cautious in this report to not spend time on reducing benefits. If we got on board and said you need to reduce benefits that is going to interject the PRB into possibly a lawsuit that we don't want to be a party to. If you guys go through the benefit reduction process you have to question yourself whether or not this board is following state law. That's up to board to make that decision that's not up to me or the actuary. There is not a provision to actually roll benefits back on the local plan. It only indicates where the fund runs out of assets in that one year.

City Attorney Kit Williams: Actually that's not what the statute says. It says *should the fund provided for in this subchapter be insufficient to make full payment of the amount of pensions to all persons entitled there to*, not in that year, *then the fund shall be prorated among those entitled by proper authority as made to be deemed just and equitable*. It does not say you have to wait for the fund to hit the ground and die. It says if it shall be insufficient to make full payment of all money to the pension of all persons entitled there to. We just heard from Jody Carreiro that's where the fund is now.

David Clark: No it's not. The fund is not there. He said the report shows that it is 10 years out or perhaps 11 years out. So no sir that is not correct.

Kit Williams: It does not say you have to wait until the last year. It says if it becomes insufficient and I think we have seen it is insufficient at this point in time. If it is not going to able to survive and pay full benefits the statute says they will be prorated. The difference between the Attorney General and myself is that they think the fund must be driven into the ground before this board can reduce benefits. My belief is they have a fiduciary duty and they can keep this fund from being driven into the ground.

Mayor Jordan: David we could end up in court by letting this thing run into the ground.

David Clark: Yes sir.

Mayor Jordan: I don't want this to go into the ground. I don't want these people without some kind of pension around here.

David Clark: I don't think they do either.

Mayor Jordan: We say we can't reduce benefits because we could end up in court but I can assure you when this thing runs into the ground some of these folks out here may take us to court and I don't blame them. It is our job to keep the thing a float. I agree with Shirley Lucas, you can take a big lump sum or you can reduce the benefits and keep it going and then reconsider it later and if things get better you can add back to it.

David Clark: I agree with that way of thinking. That common sense mind set, which is really what we are taking about here, is not in alignment with current state law. That is the position of PRB.

Alderman Gray: Jody, have you done any kind of calculation as to what kind of a reduction it would take? Can you give us an idea of what some of our pensioners and widows are getting and what it would mean to their monthly check?

Jody Carreiro: We did those calculations last year. They would be a little different now but there is a report that states what that reduction would mean. That's certainly calculations that are pretty straight forward to do. We have a profile page that we looked at earlier that showed how old everybody was and what their benefits were.

Kit Williams: Sondra do you have the monthly payment list?

Sondra Smith: Yes.

Alderman Ferrell: I worked for a big company and when you elected to retire you had options. You could elect to take an annuity or then in the case of your death you could elect to have a survivor's annuity which your survivor would get a discounted annuity. Is this the same deal?

Jody Carreiro: The state law in Arkansas, for the fire and police funds, is that their member gets a benefit and without having to take a reduction their spouse, that's defined in the law, keeps the same benefit. It is what's considered a very generous joint and survivor type annuity. Typically especially in the company setting you'll take $95 instead of $100 to get a 50% benefit for your wife. There is no reduction in state law and the spouse gets 100% of what the member was getting.

Kit Williams: That was the old plan but with the new plan in LOPFI they have to take a reduction if they want to cover their spouse.

David Clark: That's correct.

Kit Williams: How big of a reduction is that?

David Clark: If they do one of the "A" options there's hardly any reduction. If they do the "B" option, which is a continuing life time payment to the spouse its 50% of the life time benefit to the member or 75% of the value benefit goes to the survivor if they choose "B" 75. It is a pretty significant reduction but it also goes against the age difference of the member verses the surviving spouse.

Kit Williams: That is all of our current employees for police and fire that are working under this plan.

David Clark: That's right, yes.

Marion Doss: I think that is spousal benefits until they remarry. It's not forever.

Jody Carreiro: That's true it does have a remarriage provision.

Pete Reagan: Do you know what the current rate is for LOPFI employees for the Fayetteville Fire Department?

David Clark: Employer contribution?

Pete Reagan: Yes.

David Clark: I don't know off the top of my head.

Paul Becker: For fire?

Pete Reagan: Yes.

Paul Becker: I think it's a little over 23% if I remember correctly.

Pete Reagan: The City is paying 23% of payroll on every employee in the Fayetteville Fire Department for their pension fund.

Paul Becker: If my recollection is correct, yes.

Kit Williams: That is set by law, right?

David Clark: In effect it is because it's an annual evaluation process.

Pete Reagan: For the City Council members and the public that is watching the maximum that the City ever paid into the old fire pension fund and the old police fund was 6% of payroll. That did not start until 1983. Before that the City paid 1% of payroll into the fund. Also we talked about the minimum benefit that was set by state law was 50%, that's the minimum. Nothing can happen to that. I also want everyone to understand this fund has no COLA built into it. I think the LOPFI fund has a 3% compounded COLA built into it. The members of the old fund are not covered under social security. This is all that was offered to us when we hired on. We don't pay social security. We are not involved in the social security fund. This is our pension with no built in COLA.

Sondra Smith: Are the LOPFI benefits for the widows as generous as this plan?

David Clark: No, significantly different and it is because of the actuary reduction. If the member chooses one of the continuing lifetime benefits, it's not automatic that they have a lifetime benefit.

Sondra Smith: You're really comparing apples to oranges when you are comparing the old plan to the LOPFI plan.

David Clark: I tend to agree but you are still comparing fire fighters and police officers.

Paul Becker: We are talking about benefits for the current LOPFI. The salary is averaged over a five year period?

David Clark: Three years, the last ten years of employment we grab the highest 36 consecutive months within that 10 year period.

Paul Becker: If I recall the old plan did not average.

Pete Reagan: Base salary at retirement.

Paul Becker: If we are going to talk comparison about the plans we also have to consider that.

Sondra Smith: Does the LOPFI plan have the DROP?

David Clark: It does but it has a different DROP structure. It has a five year just like this plan does but if the person has 28 years of service 75% of their benefit goes into a DROP account as opposed to a 100% benefit. If they have something less than 28 years of service than it is 72% of their benefit goes into their DROP account.

Kit Williams: Would that have to be approved by the City Council?

David Clark: No, that is a product of state law. LOPFI already has the DROP so your current firefighters could go into DROP once they reach eligibility if they choose to do so.

Sondra Smith: I've been on this pension board since 2003 and I have been concerned ever since then. At one point in time I asked the question about if we raise benefits can we ever reduce them, it was my understanding we can. We can when the plan goes bankrupt basically. I did not vote for these two large increases because I wasn't here then, but I would not have voted for benefit increases knowing that you can never reduce them if you needed to. There was probably people that sat on that board at that point in time, other Mayors and City Clerk's that if they had know that benefits can not be reduced they probably wouldn't have voted for the benefit increases either. That's an assumption but I know I wouldn't have, knowing that in bad times we couldn't reduce the benefits.

Kit Williams: I think you can before it goes bankrupt.

Pete Reagan: I think that's the reason they have courts so lawyers can argue.

Kit Williams: So we can have decisions made.

Sondra Smith: We had a question about how much they are currently drawing and what a 20% reduction would be. We have several folks that are drawing under $150 a month if they were a volunteer or a spouse of a volunteer. The majority of the pensioners draw anywhere from around $1,600 a month to $5,000, there are a few that a drawing under a $1,000 per month but not very many. Most of them that are drawing under $150 a month are retired volunteers.

Carl Springston: You have a retired assistant chief drawing less than $500 a month.

Sondra Smith: There are a few drawing under $1000 but not very many. I can run those percentages if you would like them.

Mayor Jordan: What does the board want to do? Do you want to wait?

Pete Reagan: My opinion is we need to wait and see what the proposal is from Municipal League. They are going to endorse a proposal and see what the numbers look like before anything is done. I've said all along the courts are made for attorneys to argue in. We've got our attorney who says we can reduce benefits and the Attorney General of the State of Arkansas who says we can't. We have a session coming up. I've said all along I don't want to rush into this. We have been doing this for a year and a half now.

Mayor Jordan: So we will wait.

Pete Reagan: I would like to thank Jody and David for taking time out of their schedules to come up here and educate us on this.

Mayor Jordan: Is that the agreement of the board?

Marion Doss: How long are we talking about waiting for this change?

Pete Reagan: The session starts in January and runs until they get done.

Kit Williams: According to Paul it's still not going to be enough even if they pass it.

Pete Reagan: I understand but if there's more money coming into the fund we need to look at that.

Kit Williams: I will note that judges cannot make a decision unless there is a case in front of them. We can't bring a case in front of a judge at this point in time because there is no case in controversy. In order for there to be a case in controversy this board would have to take affirmative action to at least attempt to reduce the benefits. Then one of the beneficiaries out here could say, Attorney General they did something wrong and why don't you sue them for that. Then the Attorney General and I could go up in front of a judge and let the judge determine what the law is. If I am wrong there is not much down side for this. You have money in the pension fund to pay everyone back what they should have been getting because I was wrong and they should have got 100% instead of 70%. However if I'm right and you have figured out a way to fulfill your fiduciary duties and not let this fund go bankrupt, then you will have done that and a judge will say you have that power. If you continue to take no action then I don't know how it will ever get before a court until it is too late and all the money is gone.

Mayor Jordan: Again I will ask the board for a recommendation. Do you all want to wait?

Pete Reagan: Yes, that's my recommendation.

Gene Warford: I second it.

Marion Doss: I will say I am in favor. I would like to see when we find out about this some kind of a compromise. I would like to see consolidation. I don't know how the other board members feel about that, this is my personal opinion. I think that's the only hope to get this problem away from the City.

Mayor Jordan: My opinion would be if that is what you want to do we can wait until after April, it's your pension. I will go along with that if you want to do that.

Mayor Jordan thanked the City Council members, board members, retires, and Jody and David for coming.

Meeting Adjourned at 6:00 PM

FAYETTEVILLE FIREFIGHTERS PENSION FUND

SPECIAL REPORT

PRESENTED SEPTEMBER 29, 2015

Osborn, Carreiro & Associates, Inc.
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September 28, 2015

Fayetteville Fire Pension and Relief Fund
c/o City of Fayetteville
113 West Mountain
Fayetteville, AR 72701

RE: Fayetteville Fire Pension Fund

Ladies and Gentlemen:

This report presents the results of our January 1, 2015 actuarial study of the assets and liabilities of the Fayetteville Fire Pension and Relief Fund (the "Pension Fund"). This report goes beyond the present value of the liabilities calculated in the regular valuation to show the timing and development of the income and expense streams. These streams are then reviewed with various proposals to improve the long term security of the Pension Fund.

This report was completed according to the request of the Arkansas Fire and Police Pension Review Board (PRB). The PRB is providing this information to the Pension Fund to meet their obligation to provide options to improve funding as described in ACA §24-11-208.

PROCESS

We prepared a cash flow analysis. We first project out the benefit payments from the Pension Fund for the next 50 years. Next, the contribution income to the fund was projected. The contribution income includes the member contribution, the city match, local millage contributions, and insurance premium tax distributions. Exhibit 7 details the assumptions we made regarding these contributions. Note that in the 2011 legislative session, the methodology for allocating insurance premium taxes was changed and was first implemented in 2012. This report reflects that change.

Once the benefit payout and contribution income projections were prepared, investment income was added. Instead of assuming a single level rate of return, we have simulated the investment results based on your current and expected future asset allocation. Exhibit 2 shows the results.

CURRENT STATUS OF FUND

If no changes are made, the Pension Fund is expected to deplete its assets between 10 and 15 years from now. We calculated the risk of ruin to be over 80%. That is, in 80% of the simulated results the Pension Fund spends all of its assets before all benefits are paid. The graph in Exhibit 2 shows the various outcomes of the simulations. Therefore, we would conclude that without some significant change in the plan's cash flows, the Fund will run out of money.

This risk of ruin is slightly lower than projections showed five years ago due to a number of factors, but the risk is still at an unacceptable level. The plan's position was better than projected primarily due to stellar investment returns, favorable mortality experience, and large increases in premium tax revenues due to legislation enacted in 2011.

The report completed as of January 1, 2010 (five years ago) projected that the Unfunded Accrued Liability would be about $15.4 million by 12/31/2014. The actual UAL at 12/31/2014 was about $13.9 million. This $1.5 million difference is comprised primarily of investment earnings above the assumed amount ($940,000), the large increases in premium tax revenues due to the new formula ($317,000), and mortality experience gains ($280,000).

POSSIBLE ACTIONS

We were asked to look at possible actions that could be taken by the board of the Pension Fund or the city in an effort to ensure that all benefits are paid to all participants. Several of these changes as well as the pros and cons of each action are discussed in Exhibits 1 and 3. Exhibit 1 describes the options available as a locally administered fund. Exhibit 3 discusses the options available under a LOPFI consolidation. The purpose of the report is not to dictate a particular action, but to describe for the board and the city the effects of different actions.

The possible actions reviewed are:

1. No change in current plan, investment strategy or income.
2. Additional city contributions
3. LOPFI consolidation – 25-year amortization
4. LOPFI consolidation – 15-year amortization

PROJECTION DETAILS

In order the aid the city with its decision regarding LOPFI consolidation, we have added two appendices which include several charts projecting the status of the plan under several different assumptions. The key results of these projections are discussed in Exhibit 1 (Appendix A) and Exhibit 3 (Appendix B).

CONCLUSIONS

Generally, we would conclude that the plan's position is likely to deteriorate without additional revenue and that LOPFI consolidation will become more expensive the longer the board waits to act. We would expect the plan to earn higher investment returns under LOPFI administration, partially due to the removal of liquidity constraints, although the city would be required to make the calculated contributions every year.

Note that the results shown in this study are projections, and not predictions. The results of our projections depend, of course, upon the actuarial assumptions being met. The actual results WILL vary on a year-by-year basis from the projections. Because of the size of the group, some of the results may vary materially from these projections. This report is based on the participant and financial data you supplied to the Arkansas Fire and Police Pension Review Board. We did not audit this data, although we did review it for reasonableness and consistency. This report is not intended for any other purpose or for use by persons who are not familiar with such matters.

If you have any questions or comments, please let me know.

Sincerely,

Jody Carreiro

Jody Carreiro, A.S.A., M.A.A.A.
Actuary

TABLE OF CONTENTS

EXHIBIT 1

POSSIBLE ACTIONS – LOCAL PLAN

This report is to provide possible actions and the projected effects of those actions. This should provide the Board with the tools it needs to make important decisions for the future of the Fund. The following is a discussion of possible changes in the Pension Fund, along with positive and negative effects, if the plan remains under local control. We also make reference to projections we have made, included in Appendix A, which model the potential impact of each action. The discussion of various forms of LOPFI consolidation are included as Exhibit 3.

No Changes. The Pension Fund could continue on the same path that they are currently pursuing. The base benefit projection shows that the Pension Fund would deplete assets in 2020. If you assume the city would then be responsible for the benefit payments, then the additional contributions needed would be benefit payments in excess of millage and premium tax.

> **Positive.** The Fund nor the City have to take any additional action at this time.
>
> **Negative.** The projections show that the Fund cannot "earn" its way out of this in the long term. The projection shows that the Fund would need to earn about 10% every year to not deplete assets. A portfolio that could earn 10% would necessarily have a very high variance.
>
> **Negative.** If the Fund did deplete its assets, the City is assumed to be responsible for picking up the benefit payments. This would be difficult for the City and would be a public relations problem.
>
> **Negative.** The bond rating services do review the pension liabilities contained in the City's financial reports. If the unfunded liabilities continue to grow or the Fund is depleted, it could affect the City's ability to issue bonds. Please note that GASB67/68 moves the unfunded liability up to be a balance sheet item.

Scenario A of Appendix A illustrates a projection of the Fund's position, assuming no changes, using the PRB's 5% investment return assumption with 1% millage growth. The plan projects to deplete assets in 9-10 years, with additional contributions required to make up the shortfall until approximately 2034. The expected first year LOPFI contribution continues to rise until assets are depleted.

Scenario B also models the Fund's position with no changes, but under the assumption of 2% annual millage growth. Under this scenario, the Fund would deplete its assets approximately 1 year later than in Scenario A, but the Fund would still require additional contributions for seven years in order to cover benefit payments.

EXHIBIT 1 (continued)

<u>Additional City Contribution.</u> The City could find additional contributions to be made to the Pension Fund to reduce the risk of ruin to an acceptable level, that is, 5%. We ran various simulations to solve for the additional amount needed over 15 years ($200,000) and over 30 years ($150,000).

> **Positive.** The City significantly reduces the risk of having to pay benefits from general assets.
>
> **Positive.** The City improves its financial statement by reducing the unfunded liabilities and possibly their standing with bond underwriters.
>
> **Negative.** The current economic conditions make it difficult for cities to find any additional money for pension plans.

Scenarios C and D of Appendix A show projections under circumstances where the city board started making such additional contributions to the Fund. How these amounts were determined is discussed in further detail in Exhibit 2.

Scenario C illustrates the impact of an additional $150,000 per year in contributions over the projection period (at 5% investment return and 1% millage growth). The assets would decline to about $1.3 million before stabilizing somewhere around 2029, and revenues would cover benefit payments in approximately 2031.

Scenario D uses the same assumptions to show the impact of an additional $200,000 per year over the next 15 years. The plan's unfunded liability would steadily be paid off, although the Fund would still not be fully funded by 2039. Assets would decline until approximately 2026 before stabilizing just above $2.3 million.

Under both of these scenarios, future LOPFI consolidation costs are lower than in Scenarios A and B, as the unfunded liability is lower—the earlier the contributions are made, the better.

EXHIBIT 2

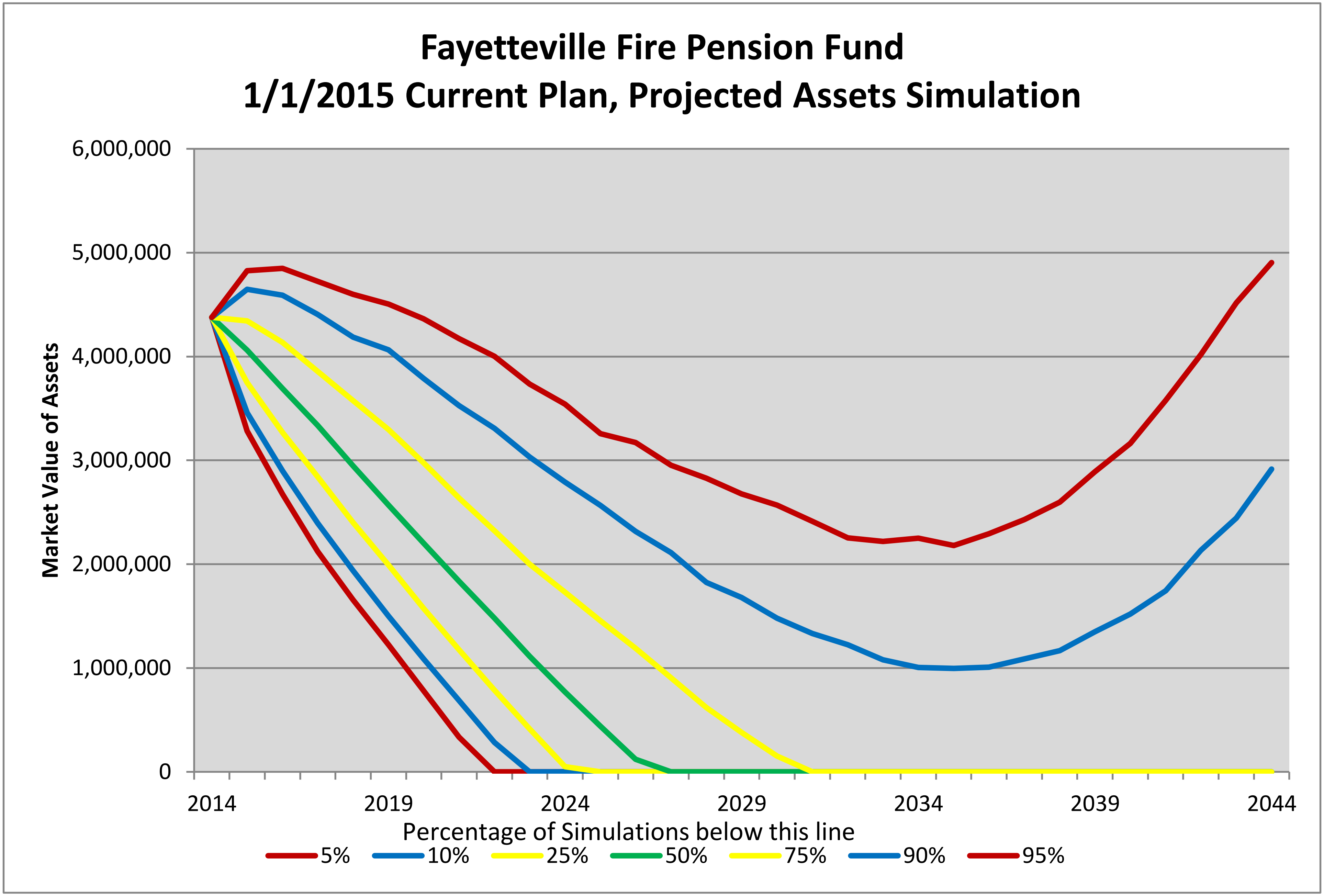
SIMULATION RESULTS

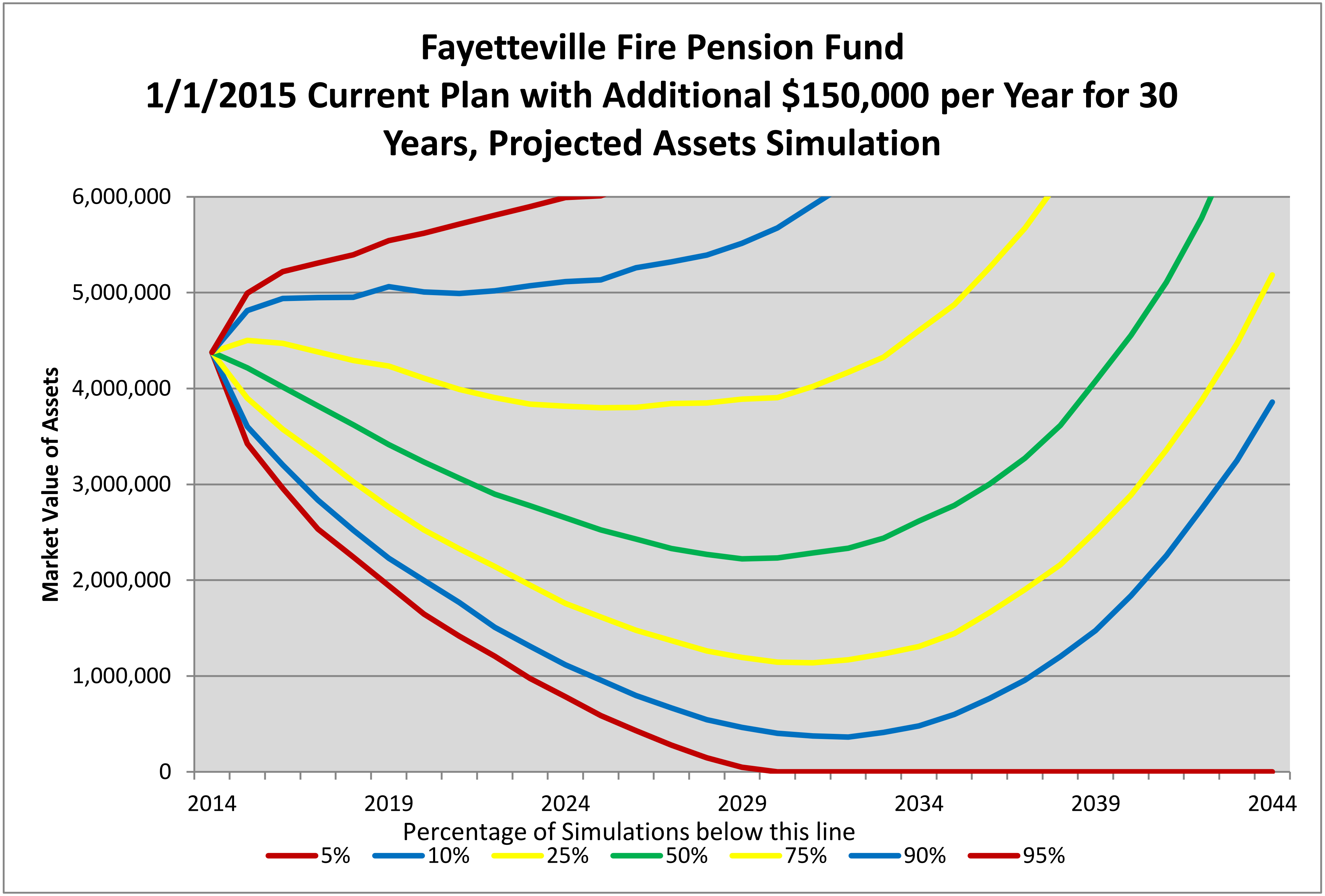
Following this page there is a series of three graphs showing the projected assets and the probabilities based on the simulation of investment results. These results are based on the actuarial assumptions concerning income and benefits detailed in Exhibit 7. The simulation looked at 2,000 series of 30 year investment results. The graph is read that the worst 5% of the results fall below the first red line, the worst 10% fall below the first blue line. The green line is where half of the results were better and half were worse. The three graphs are as follows:

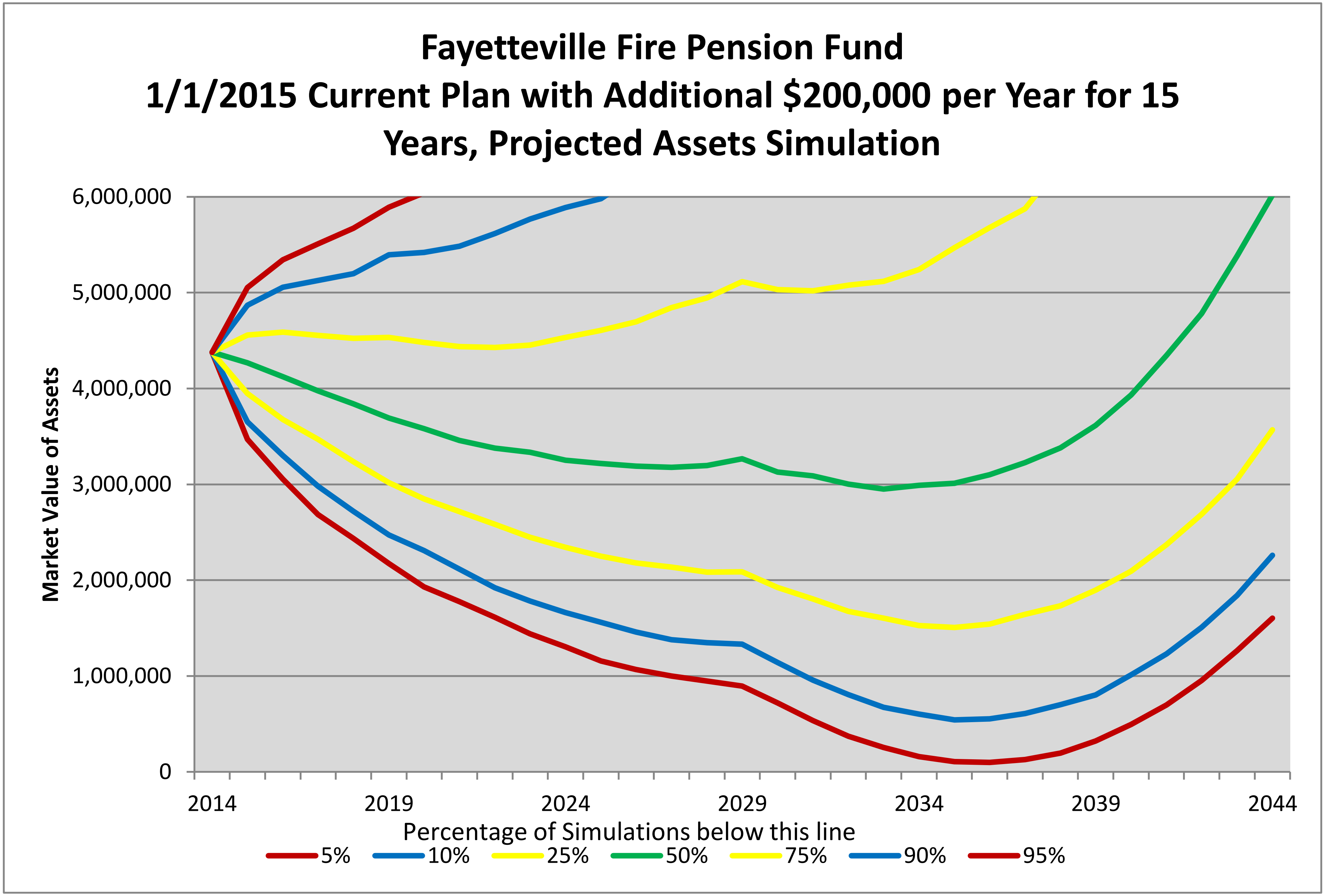
Current Plan. This is the plan as it is now with no additional income. Over 80% of the results depleted the fund, so even the median (green) line goes to zero. Another thing to note is that many simulations which deplete assets have losses in the first few years. In other words, the fund cannot afford another big loss in the near term.

Additional Amount for 30 Years. We ran several simulations to find the additional city money that would be needed to reduce the risk of ruin to about 5%. This would be considered an acceptable level of risk. The graph shows that $150,000 additional every year for 30 years would reduce the risk to about 5%. We should also note that additional money and moving to a more conservative portfolio as the Fund becomes better funded further reduces risk.

Additional Amount for 15 Years. We also solved for an additional city contribution over the next 15 years to reduce the risk of ruin to about 5%. This amount was found to be $200,000. This is shown in the last graph.


Fayetteville Fire Pension Fund
1/1/2015 Current Plan, Projected Assets Simulation
Market Value of Assets
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
2014
2019
2024
2029
2034
2039
2044
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%


Fayetteville Fire Pension Fund
1/1/2015 Current Plan with Additional $150,000 per Year for 30 Years, Projected Assets Simulation
Market Value of Assets
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
2014
2019
2024
2029
2034
2039
2044
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%



Fayetteville Fire Pension Fund
1/1/2015 Current Plan with Additional $200,000 per Year for 15 Years, Projected Assets Simulation
Market Value of Assets
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
0
2014
2019
2024
2029
2034
2039
2044
Percentage of Simulations below this line
5%
10%
25%
50%
75%
90%
95%

EXHIBIT 3

POSSIBLE ACTIONS – LOPFI ADMINISTRATION

This report is to provide possible actions and the projected effects of those actions. This should provide the Pension Fund with the tools they need to make important decisions for the future of the Fund. The following is a discussion of possible changes in the Pension Fund, along with positive and negative effects, under possible LOPFI consolidation options. We also make reference to projections we have made, included in Appendix B, which model the potential impact of each action.

LOPFI Consolidation. A consolidation would allow the City to use its current income streams of millage and premium tax along with other City funds to pay the unfunded liabilities over a 15 or 25 year period based on the LOPFI assumptions. Our projections considered both 15- and 25-year amortizations, but we believe that the 15-year option would be far too expensive for the city's budget given current revenue streams.

> **Positive.** After consolidation, the benefits are guaranteed by the LOPFI system. This removes the risk of ruin from the City and the Fund.
>
> **Positive.** GASB 67/68 will move the unfunded liability from the footnotes to the balance sheet of the City. Consolidation will allow the use of higher investment assumptions and therefore improve the City's financial statement and also improve its standing with bond underwriters.
>
> **Negative.** The City must agree to pay whatever the actuarially calculated costs are under LOPFI. The dollar cost of consolidation increases 4% a year before recognition of other gains or losses. This is faster than premium tax and millage is projected to grow.
>
> **Negative.** The local board of the Pension Fund is dissolved. There can be benefit improvements (for example, COLAs) in the future, but they come with the City agreeing to pay whatever the actuarially calculated costs are under LOPFI.

LOPFI 25-year Closed Amortization. Scenarios E through I all use LOPFI's 8% investment income and discount rate assumptions. For this reason, the projected investment income is higher and the calculated accrued liability is lower than in the non-consolidation scenarios. Scenarios E - I project 25-year amortizations, while Scenarios J - L look at a 15-year amortizations. Each of these projections assumes that any Fund revenue in excess of the required LOPFI consolidation payment would be used to pay down the unfunded liability.

Scenario E uses the assumptions described above (25-year amortization, 8% discount), with a millage assumed to increase 3% per year. The city could currently afford the LOPFI payment without any additional contributions if all other assumptions are met. The rate of increase over the period shown in Exhibit 4 is just over 3% per year. However, we reviewed other scenarios with lower millage growth, since the past five years has only shown 1.5% per year growth.

EXHIBIT 3 (continued)

Scenarios F and G show a 2% millage growth per year. The LOPFI payments are covered in the first several years using current revenues. However, because the LOPFI payment increases 4% per year, current revenues streams are projected to be insufficient in about 18 years. At that point, the city would need to come up with additional contributions. Scenario G shows that this shortfall is equivalent to about 30,000 per year in additional contributions over the period.

Scenarios H and I show a 1% millage growth per year. The LOPFI payments are covered in the first several years using current revenues. However, because the LOPFI payment increases 4% per year, current revenues streams are projected to be insufficient in about 12 years. At that point, the city would need to come up with additional contributions. Scenario I shows that this shortfall is equivalent to about 90,000 per year in additional contributions over the period.

These Scenarios (F - I) were generated to illustrate the risk involved with different levels of growth in future millage income.

LOPFI 15-year Closed Amortization, Scenarios J - L show projections of the Fund under a 15-year consolidation. This was the only option that LOPFI had available when discussed five years ago. Scenario J projects the Fund's position under a 15-year amortization using a 3% annual millage growth assumption. Scenario K shows 2% millage growth and Scenario L shows 1% millage growth. All scenarios show that even though the initial LOPFI payment could be afforded using current resources, additional resources would be needed in the second and remaining years.

In conclusion, we don't believe that the city could currently afford 15-year amortization option consolidation with current fund revenue streams. However a 25-year amortization consolidation plan, using current millage and premium tax sources as payment, may be feasible without additional contributions. As the differences among these scenarios suggest, future projections are sensitive to variation in future investment returns, mortality experience, and millage growth—any deviation from what we have projected could have a significant impact (to the city's benefit or to its detriment) when considering the plan's future financial position.

EXHIBIT 4

SUMMARY OF FINANCIAL INFORMATION

(Items C, F-H, and J determined by Osborn, Carreiro and Associates, Inc.)

A. INCOME	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	Year Ended 12/31/2005
1 Employee Contributions	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 1,356	$ 6,987	$ 11,863	$ 23,439
2 Employer Contributions										
Employer/Court Fines/Other	0	0	0	0	0	0	2,713	13,973	25,854	46,878
Local Millage	525,538	527,430	511,961	498,381	508,192	485,345	441,697	388,877	370,649	339,416
3 State Insurance Premium Tax										
Premium Tax Allocation	182,590	181,715	171,848	131,537	122,965	125,710	146,031	150,067	151,560	225,492
Additional Allocation	48,691	38,366	57,282	0	0	0	0	0	0	0
Guarantee Fund	0	0	0	0	0	0	0	0	0	0
4 Other Income										
LOPFI Subsidy	0	0	0	0	0	0	0	0	0	0
Police Supplement (Act 1452 of 1999)	0	0	0	0	0	0	0	0	0	0
Future Supplement (Act 1373 of 2003)	56,563	44,215	36,105	29,618	20,664	24,192	31,333	38,917	27,060	24,480
Other Income/Donations	365	11	6	34	973	390	0	1,044	540	176
Adjustment to prior year value	0	0	0	0	0	0	0	0	0	0
5 Net Investment Income	255,505	209,657	256,988	254,881	453,121	210,237	(530,711)	637,620	615,846	522,344
TOTAL INCOME	**$ 1,069,252**	**$ 1,001,393**	**$ 1,034,190**	**$ 914,451**	**$ 1,105,915**	**$ 845,874**	**$ 92,419**	**$ 1,237,485**	**$ 1,203,372**	**$ 1,182,225**
B. EXPENSES										
1 Administrative	$ 3,550	$ 3,454	$ 3,617	$ 3,595	$ 6,859	$ 3,750	$ 6,427	$ 3,855	$ 10,341	$ 5,886
2 Benefits Paid										
Monthly Benefits	1,358,341	1,388,309	1,420,659	1,432,673	1,434,269	1,434,487	1,436,083	1,430,646	1,281,954	1,097,427
Police Supplements	0	0	0	0	0	0	0	0	0	0
Future Supplements	56,316	44,215	35,960	29,618	20,664	24,192	31,333	38,766	26,749	24,390
DROP Payouts	0	0	0	0	0	2,973	553,503	4,589	838,944	458,082
Paid Current Year for Previous Year	0	0	0	0	0	0	0	0	0	0
3 Refunds	0	0	0	0	0	0	0	0	0	0
4 Other Expenses	250	250	225	357	0	0	0	0	0	0
TOTAL EXPENSES	**$ 1,418,457**	**$ 1,436,227**	**$ 1,460,461**	**$ 1,466,243**	**$ 1,461,792**	**$ 1,465,402**	**$ 2,027,346**	**$ 1,477,856**	**$ 2,157,988**	**$ 1,585,785**
C. Non-Investment Cash Flow	**$ (604,709)**	**$ (644,491)**	**$ (683,259)**	**$ (806,673)**	**$ (808,998)**	**$ (829,765)**	**$ (1,404,216)**	**$ (877,991)**	**$ (1,570,462)**	**$ (925,904)**

EXHIBIT 4 (Continued)

D. ASSETS (at book value)	12/31/2014	12/31/2013	12/31/2012	12/31/2011	12/31/2010	12/31/2009	12/31/2008	12/31/2007	12/31/2006	12/31/2005
1 Cash & Checking Accounts	$ 86,520	$ 86,767	$ 120,981	$ 143,279	$ 30,891	$ 0	$ 0	$ 0	$ 0	$ 0
2 Bank Deposits	0	0	0	0	0	14,448	5,457	81,779	4,575	48,506
3 Savings and Loan Deposits	0	0	0	0	0	0	0	0	0	0
4 Other Cash Equivalents	238,957	295,726	163,396	256,499	275,104	117,108	573,102	181,873	288,565	234,940
5 US Govt. Securities	212,438	421,688	421,688	621,688	927,818	1,426,060	1,839,474	3,285,030	3,144,510	3,441,988
6 Non-US Govt Securities	0	0	0	0	0	0	0	0	0	0
7 Mortgages	0	0	0	0	0	0	0	0	0	0
8 Corporate Bonds	731,111	731,111	731,111	779,928	606,886	619,648	248,938	315,394	533,910	533,910
9 Common Stocks	2,044,158	2,121,259	2,642,932	2,718,778	3,225,906	3,219,060	3,337,250	4,136,988	4,185,381	4,873,882
10 Other	13,967	16,304	27,581	13,882	19,146	45,304	56,951	65,476	79,530	57,944
11 Payables	(3,500)	0	0	(95)	0	0	(16)	(70,457)	(17)	(100)
TOTAL ASSETS	**$ 3,323,650**	**$ 3,672,854**	**$ 4,107,688**	**$ 4,533,959**	**$ 5,085,751**	**$ 5,441,628**	**$ 6,061,156**	**$ 7,996,083**	**$ 8,236,454**	**$ 9,191,070**
E. TOTAL MARKET VALUE	**$ 4,377,557**	**$ 4,624,857**	**$ 4,682,930**	**$ 5,015,419**	**$ 5,573,909**	**$ 5,787,509**	**$ 5,823,185**	**$ 8,725,231**	**$ 8,961,980**	**$ 9,636,034**
F. RATIO OF ASSETS TO ANNUAL EXPENSES										
Book Value Basis	2.3	2.6	2.8	3.1	3.5	3.7	3.0	5.4	3.8	5.8
Market Value Basis	3.1	3.2	3.2	3.4	3.8	3.9	2.9	5.9	4.2	6.1
G. RATIO OF ASSETS TO NON-INVESTMENT CASH OUTFLOW										
Book Value Basis	5.5	5.7	6.0	5.6	6.3	6.6	4.3	9.1	5.2	9.9
Market Value Basis	7.2	7.2	6.9	6.2	6.9	7.0	4.1	9.9	5.7	10.4
H. SUMMARY OF NET INVESTMENT RETURNS										
Book Value Rate of Return	7.58%	5.54%	6.13%	5.44%	9.00%	3.72%	-7.28%	8.18%	7.33%	5.72%
10 Year Average Return	**5.04%**									
Market Value Rate of Return	8.27%	13.45%	7.51%	4.80%	11.06%	14.68%	-18.67%	7.52%	10.13%	1.91%
10 Year Average Return	**5.63%**									

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 5

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.

Actives

		Years of Service							
Age		0-5	5-10	10-15	15-20	20-25	25-30	30 and Over	Total
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**
Unknown Age	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 5

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.

Volunteers/Part-Paid Actives

		Years of Service							
Age		0-5	5-10	10-15	15-20	20-25	25-30	30 and Over	Total
Under 25	Count	0	0	0	0	0	0	0	**0**
25-29	Count	0	0	0	0	0	0	0	**0**
30-34	Count	0	0	0	0	0	0	0	**0**
35-39	Count	0	0	0	0	0	0	0	**0**
40-44	Count	0	0	0	0	0	0	0	**0**
45-49	Count	0	0	0	0	0	0	0	**0**
50-54	Count	0	0	0	0	0	0	0	**0**
55-59	Count	0	0	0	0	0	0	0	**0**
60-64	Count	0	0	0	0	0	0	0	**0**
65 & Over	Count	0	0	0	0	0	0	0	**0**
Unknown Age	Count	0	0	0	0	0	0	0	**0**
Total	Count	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Exhibit 5

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		*Years Since Retirement* 0-1	1-2	2-3	3-4	4-5	5-10	10 and Over	Total
Under 40	Count	0	0	0	0	0	0	0	**0**
	Benefit	0	0	0	0	0	0	0	**0**
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	21,465	**21,465**
55-59	Count	0	0	0	0	0	6	3	**9**
	Benefit	0	0	0	0	0	271,496	86,069	**357,565**
60-64	Count	0	0	0	0	0	1	6	**7**
	Benefit	0	0	0	0	0	48,927	213,442	**262,369**
65-69	Count	0	0	0	0	0	0	9	**9**
	Benefit	0	0	0	0	0	0	251,749	**251,749**
70-74	Count	0	0	0	0	0	1	6	**7**
	Benefit	0	0	0	0	0	73,302	143,039	**216,341**
75-79	Count	0	0	0	0	0	0	9	**9**
	Benefit	0	0	0	0	0	0	158,933	**158,933**
80-84	Count	0	0	0	0	0	0	4	**4**
	Benefit	0	0	0	0	0	0	57,390	**57,390**
85 & Over	Count	0	0	0	0	0	0	6	**6**
	Benefit	0	0	0	0	0	0	30,997	**30,997**
Unknown Age	Count	0	0	0	0	0	0	0	**0**
	Benefit	0	0	0	0	0	0	0	**0**
Total	Count	**0**	**0**	**0**	**0**	**0**	**8**	**44**	**52**
	Benefit	**0**	**0**	**0**	**0**	**0**	**393,725**	**963,084**	**1,356,809**

This includes	36	retirees	with annual benefit of	$1,143,507	.
This includes	2	disableds	with annual benefit of	$40,110	.
This includes	14	survivors	with annual benefit of	$173,192	.

Exhibit 5

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

		Years Since Electing DROP						
Age		0-1	1-2	2-3	3-4	4-5	5-10	Total
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**
Unknown Age	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 6

PRINCIPLE PROVISIONS OF THE PLAN

EMPLOYEE	Member of Fire Department
EMPLOYER	Fayetteville Fire Department
MEMBERSHIP	Condition of Employment. Firefighters hired after 1982 must join the statewide Local Police and Firefighters Retirement System
CREDITABLE SERVICE	Determined on basis of service since employment
CONTRIBUTIONS	
Employee	6% of salary. Volunteers contribute $12/year. Refundable if member terminates before retirement eligibility.
Employer	1. Matching contribution equal to employee contribution 2. State Insurance Premium Tax turnback 3. Local Millage
FINAL SALARY	Salary attached to the rank of the member at time of retirement, based on regularly scheduled work-week.
DEFERRED RETIREMENT OPTION PLAN	This plan has elected to participate in the Deferred Retirement Option Plan effective 01/25/1996. Members who elect to participate have a DROP account that is increased by the monthly amount of their retirement as if they had retired as of the date DROP was elected. Has not elected coverage under Act 1457 of 1999.
RETIREMENT BENEFITS	
Eligibility	20 Years of Service regardless of age.
Benefit	90% of Final Salary, but not less than $4,200. ($1,200/year for volunteer/part-paid). If service exceeds 20 years, the annual benefit is increased by $240 for each year over 20, up to $1,200/year extra. ($120 for each year over 20 up to $600/year for volunteer/part-paid). 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 6 (Continued)

DEATH BENEFITS

Eligibility	Death before 20 Years of Service not occurring while performing work in gainful employment outside the fire department, or death after 20 years.
Benefit	1. Widow receives same amount as member is receiving or eligible for. 2. Each child under age 19 receives $1,500/year. ($300/year for volunteer/part-paid). If no surviving spouse, child receives spouse's benefit to 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 $4,200/year. Full Paid Duty related disability Retirement benefit but not less than 65% of Final Salary and not less than $4,200/year. Volunteer/Part-Paid: Computed as voluntary retirement benefit

EXHIBIT 6 (Continued)

CHANGES IN BENEFITS

December 6, 1996	Based on Cash Flow Valuation, increase from 50% base to 65% base benefit. Volunteers to $55 base.
June 6, 2001	Based on Cash Flow Valuation, increase from 65% base to 90% base benefit.
November 20, 2003	Temporary 3% Compound COLA for 3 years. Extend DROP to 10 years.
January 4, 2007	NO benefit increases available based on Cash Flow Valuation.

EXHIBIT 7

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:

Age	Mortality rate per 1,000
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:

Age	Males	Females
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 1971 Group Annuity Table for Males, set back five years for females was used before the 12/31/2007 Valuation.

VOLUNTARY TERMINATIONS

Annual termination rates at a few sample ages are:

Age	Termination rate per 1,000
20	40
25	35
30	29
35	15
40	6
45	5
50	5
55	5

EXHIBIT 7 (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:

Age	Disability rate per 1,000
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

EXHIBIT 7 (continued)

SALARY GROWTH

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

	ANNUAL SALARY INCREASE		
Age	Base	Merit	Total
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:

	Retirement rate per 1,000	
Age	Retirement	DROP
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.

EXHIBIT 7 (continued)

RETIREMENT PATTERN AFTER ELECTION OF DROP

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

Years on DROP	Retirement rate per 1,000
1	100
2	200
3	200
4	300
5 or more	1,000

EXHIBIT 7 (continued)

INCOME RELATED ASSUMPTIONS

LOCAL MILLAGE	The local millage was assumed to produce $525,000 in income per year increasing 1% per year. This amount averaged about $515,000 over the past five years and has grown about 8% (about 1.5% per year) over the last five years. The 1% future assumption is based on long term real estate projections tempered by recent results.
CITY CONTRIBUTION	The City's matching contribution was assumed to be 6% of covered payroll.
PREMIUM TAX	The actual insurance premium tax turnback of $221,178 (which includes additional allocation) was used for 2015. Act 979 of 2011 significantly changed the formula for allocation of premium taxes, though the amounts allocated under the new formula should be more stable as time passes.
INVESTMENT SIMULATIONS	The investment simulations were based on the actual portfolio of the plan as of December 31, 2014 and the projected portfolio anticipated by the investment policy. The simulations are based on the American Academy of Actuaries 2006 paper, "Construction and Use of Pre-packaged Scenarios". The pre-packaged scenarios were in general categories that we used. Money Market (MM) includes cash and money market instruments. Government (Gov) and Corporate (Corp) are intermediate term high quality bonds. There is a category for Large capitalization (LCap) and small capitalization (SCap) US stocks. The Mid Cap stocks in the portfolio were equally split between LCap and SCap. The international (Intl) stocks are also included.

EXHIBIT 7 (continued)

IMCOME RELATED ASSUMPTIONS

Portfolio makeup - current and projected - Fayetteville Fire from 12/31/2014

	MM	**Gov**	**RE**	**Corp**	**LCap**	**SCap**	**Intl**	**Total**
12/31/2014	5.50%	8.50%	0.00%	22.00%	48.00%	12.50%	3.50%	100.00%
12/31/2015	5.50%	8.50%	0.00%	22.00%	48.00%	12.50%	3.50%	100.00%
12/31/2016	5.50%	8.50%	0.00%	22.00%	48.00%	12.50%	3.50%	100.00%
12/31/2017	5.50%	8.50%	0.00%	22.00%	48.00%	12.50%	3.50%	100.00%
12/31/2018	5.50%	8.50%	0.00%	22.00%	48.00%	12.50%	3.50%	100.00%
12/31/2019	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2020	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2021	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2022	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2023	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2024	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2025	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2026	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2027	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2028	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2029	7.50%	10.00%	0.00%	25.00%	45.00%	10.00%	2.50%	100.00%
12/31/2030	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2031	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2032	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2033	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2034	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2035	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2036	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2037	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2038	10.00%	15.00%	0.00%	30.00%	35.00%	10.00%	0.00%	100.00%
12/31/2039	10.00%	20.00%	0.00%	40.00%	25.00%	5.00%	0.00%	100.00%
12/31/2040	10.00%	20.00%	0.00%	40.00%	25.00%	5.00%	0.00%	100.00%
12/31/2041	10.00%	20.00%	0.00%	40.00%	25.00%	5.00%	0.00%	100.00%
12/31/2042	10.00%	20.00%	0.00%	40.00%	25.00%	5.00%	0.00%	100.00%
12/31/2043	10.00%	20.00%	0.00%	40.00%	25.00%	5.00%	0.00%	100.00%

APPENDIX A

PROJECTION DETAILS – LOCAL PLAN

Scenario A
Local Plan Projection - 1% Millage growth, Additional Contributions To Cover Benefit Payments

Fayetteville Fire Pension Fund
Details of Local Plan Projections from 1/1/2015

Year	Valuation Date	Present Val Benefits Old Plan Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage inc 1.00%	Premium Taxes	Additional to cover Payments	Voluntary Additional 0	Expected Benefits	Expected Investment Income 5%	MVA at EoY	Expected City Sources	First Year Expected LOPFI Contribution	Additional Contribution for LOPFI
					Projection of MVA under Local Plan Assumptions, 5% Investment Income										
0	12/31/2014	18,040,985	4,377,557	13,663,428	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	17,560,828	3,984,260	13,576,568	3,984,260	530,250	207,470	0	0	-1,335,052	184,280	3,571,208	737,720	543,431	0
2	12/31/2016	17,065,275	3,571,208	13,494,067	3,571,208	535,553	207,641	0	0	-1,325,172	164,011	3,153,241	743,194	549,062	0
3	12/31/2017	16,555,109	3,153,241	13,401,868	3,153,241	540,908	208,306	0	0	-1,313,820	143,547	2,732,182	749,214	554,970	0
4	12/31/2018	16,031,115	2,732,182	13,298,933	2,732,182	546,317	208,957	0	0	-1,301,050	122,965	2,309,371	755,274	560,315	0
5	12/31/2019	15,494,060	2,309,371	13,184,689	2,309,371	551,780	209,555	0	0	-1,286,874	102,330	1,886,163	761,335	565,012	0
6	12/31/2020	14,944,738	1,886,163	13,058,575	1,886,163	557,298	210,076	0	0	-1,271,232	81,712	1,464,016	767,374	569,002	0
7	12/31/2021	14,384,042	1,464,016	12,920,026	1,464,016	562,871	210,494	0	0	-1,254,038	61,184	1,044,528	773,365	572,228	0
8	12/31/2022	13,813,003	1,044,528	12,768,475	1,044,528	568,500	210,781	0	0	-1,235,235	40,828	629,401	779,281	574,629	0
9	12/31/2023	13,232,757	629,401	12,603,356	629,401	574,185	210,904	0	0	-1,214,725	20,729	220,495	785,089	576,146	0
10	12/31/2024	12,644,602	220,495	12,424,107	220,495	579,927	210,826	181,140	0	-1,192,387	984	984	971,892	576,719	0
11	12/31/2025	12,050,021	984	12,049,037	984	585,726	210,510	370,903	0	-1,168,123	-9,248	-9,248	1,167,139	576,288	0
12	12/31/2026	11,450,675	-9,248	11,459,923	-9,248	591,583	209,911	349,605	0	-1,141,852	-8,971	-8,971	1,151,100	564,288	0
13	12/31/2027	10,848,393	-8,971	10,857,364	-8,971	597,499	208,982	316,036	0	-1,113,545	-8,125	-8,125	1,122,517	539,638	0
14	12/31/2028	10,245,119	-8,125	10,253,244	-8,125	603,474	207,671	280,068	0	-1,083,087	-7,205	-7,205	1,091,213	513,942	0
15	12/31/2029	9,643,019	-7,205	9,650,224	-7,205	609,509	205,922	242,212	0	-1,050,438	-6,235	-6,235	1,057,643	487,864	0
16	12/31/2030	9,044,406	-6,235	9,050,641	-6,235	615,604	203,676	202,678		-1,015,723	-5,223	-5,223	1,021,958	461,535	0
17	12/31/2031	8,451,580	-5,223	8,456,802	-5,223	621,760	200,871	161,560		-978,968	-4,170	-4,170	984,191	435,068	0
18	12/31/2032	7,866,928	-4,170	7,871,097	-4,170	627,977	197,440	119,033		-940,281	-3,080	-3,080	944,450	408,579	0
19	12/31/2033	7,292,848	-3,080	7,295,928	-3,080	634,257	193,315	75,375		-899,867	-1,961	-1,961	902,947	382,187	0
20	12/31/2034	6,731,644	-1,961	6,733,605	-1,961	640,600	188,426	30,859		-857,923	-820	-820	859,884	356,018	0
21	12/31/2035	6,185,535	-820	6,186,355	-820	647,006	182,700	0		-814,728	333	14,490	829,706	330,194	0
22	12/31/2036	5,656,562	14,490	5,642,072	14,490	653,476	176,065	0		-770,492	2,201	75,739	829,541	304,835	0
23	12/31/2037	5,146,654	75,739	5,070,915	75,739	660,011	168,446	0		-725,426	6,363	185,132	828,457	279,235	0
24	12/31/2038	4,657,617	185,132	4,472,485	185,132	666,611	159,771	0		-679,845	12,920	344,589	826,382	251,659	0
25	12/31/2039	4,191,026	344,589	3,846,437	344,589	673,277	149,966	0		-633,971	21,961	555,823	823,243	222,086	0

Scenario B

Local Plan Projection - 2% Millage growth, Additional Contributions To Cover Benefit Payments

Fayetteville Fire Pension Fund

Details of Local Plan Projections from 1/1/2015

					Projection of MVA under Local Plan Assumptions, 5% Investment Income									First Year	
Year	Valuation Date	Present Val Benefits Old Plan Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage inc 2.00%	Premium Taxes	Additional to cover Payments	Voluntary Additional 0	Expected Benefits	Expected Investment Income 5%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	18,040,985	4,377,557	13,663,428	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	17,560,828	3,984,260	13,576,568	3,984,260	535,500	207,470	0	0	-1,335,052	184,411	3,576,589	742,970	543,431	0
2	12/31/2016	17,065,275	3,576,589	13,488,685	3,576,589	546,210	207,641	0	0	-1,325,172	164,546	3,169,815	753,851	549,062	0
3	12/31/2017	16,555,109	3,169,815	13,385,294	3,169,815	557,134	208,306	0	0	-1,313,820	144,781	2,766,217	765,440	554,658	0
4	12/31/2018	16,031,115	2,766,217	13,264,899	2,766,217	568,277	208,957	0	0	-1,301,050	125,215	2,367,616	777,234	559,354	0
5	12/31/2019	15,494,060	2,367,616	13,126,444	2,367,616	579,642	209,555	0	0	-1,286,874	105,939	1,975,879	789,197	563,038	0
6	12/31/2020	14,944,738	1,975,879	12,968,859	1,975,879	591,235	210,076	0	0	-1,271,232	87,046	1,593,004	801,311	565,625	0
7	12/31/2021	14,384,042	1,593,004	12,791,038	1,593,004	603,060	210,494	0	0	-1,254,038	68,638	1,221,158	813,554	567,025	0
8	12/31/2022	13,813,003	1,221,158	12,591,844	1,221,158	615,121	210,781	0	0	-1,235,235	50,825	862,650	825,902	567,150	0
9	12/31/2023	13,232,757	862,650	12,370,107	862,650	627,424	210,904	0	0	-1,214,725	33,723	519,976	838,328	565,904	0
10	12/31/2024	12,644,602	519,976	12,124,626	519,976	639,972	210,826	0	0	-1,192,387	17,459	195,846	850,798	563,194	0
11	12/31/2025	12,050,021	195,846	11,854,175	195,846	652,772	210,510	108,995	0	-1,168,123	2,171	2,171	972,277	558,922	0
12	12/31/2026	11,450,675	2,171	11,448,504	2,171	665,827	209,911	263,942	0	-1,141,852	-6,544	-6,544	1,139,680	552,989	0
13	12/31/2027	10,848,393	-6,544	10,854,937	-6,544	679,143	208,982	231,964	0	-1,113,545	-5,963	-5,963	1,120,090	538,976	0
14	12/31/2028	10,245,119	-5,963	10,251,082	-5,963	692,726	207,671	188,653	0	-1,083,087	-4,865	-4,865	1,089,050	513,801	0
15	12/31/2029	9,643,019	-4,865	9,647,884	-4,865	706,581	205,922	142,801	0	-1,050,438	-3,692	-3,692	1,055,304	487,739	0
16	12/31/2030	9,044,406	-3,692	9,048,097	-3,692	720,712	203,676	95,026	0	-1,015,723	-2,468	-2,468	1,019,414	461,399	0
17	12/31/2031	8,451,580	-2,468	8,454,048	-2,468	735,127	200,871	45,439	0	-978,968	-1,198	-1,198	981,436	434,921	0
18	12/31/2032	7,866,928	-1,198	7,868,125	-1,198	749,829	197,440	0	0	-940,281	115	5,906	947,269	408,419	0
19	12/31/2033	7,292,848	5,906	7,286,942	5,906	764,826	193,315	0	0	-899,867	1,752	65,932	958,141	382,014	0
20	12/31/2034	6,731,644	65,932	6,665,712	65,932	780,122	188,426	0	0	-857,923	6,062	182,619	968,548	355,497	0
21	12/31/2035	6,185,535	182,619	6,002,916	182,619	795,725	182,700	0	0	-814,728	13,223	359,539	978,425	326,257	0
22	12/31/2036	5,656,562	359,539	5,297,023	359,539	811,639	176,065	0	0	-770,492	23,407	600,158	987,704	294,198	0
23	12/31/2037	5,146,654	600,158	4,546,496	600,158	827,872	168,446	0	0	-725,426	36,780	907,830	996,318	259,227	0
24	12/31/2038	4,657,617	907,830	3,749,787	907,830	844,430	159,771	0	0	-679,845	53,500	1,285,686	1,004,201	221,251	0
25	12/31/2039	4,191,026	1,285,686	2,905,340	1,285,686	861,318	149,966	0	0	-633,971	73,717	1,736,717	1,011,284	180,180	0

Scenario C

Local Plan Projection - 1% Millage growth, Additional Contributions To Reduce Risk of Ruin

Fayetteville Fire Pension Fund

Details of Local Plan Projections from 1/1/2015

					Projection of MVA under Local Plan Assumptions, 5% Investment Income									First Year	
Year	Valuation Date	Present Val Benefits Old Plan Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage inc 1.00%	Premium Taxes	Additional to cover Payments	Voluntary Additional 150,000	Expected Benefits	Expected Investment Income 5%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	18,040,985	4,377,557	13,663,428	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	17,560,828	3,984,260	13,576,568	3,984,260	530,250	207,470	0	150,000	-1,335,052	188,030	3,724,958	737,720	543,431	0
2	12/31/2016	17,065,275	3,724,958	13,340,317	3,724,958	535,553	207,641	0	150,000	-1,325,172	175,448	3,468,428	743,194	549,062	0
3	12/31/2017	16,555,109	3,468,428	13,086,681	3,468,428	540,908	208,306	0	150,000	-1,313,820	163,056	3,216,879	749,214	546,055	0
4	12/31/2018	16,031,115	3,216,879	12,814,236	3,216,879	546,317	208,957	0	150,000	-1,301,050	150,950	2,972,053	755,274	542,039	0
5	12/31/2019	15,494,060	2,972,053	12,522,007	2,972,053	551,780	209,555	0	150,000	-1,286,874	139,214	2,735,729	761,335	536,906	0
6	12/31/2020	14,944,738	2,735,729	12,209,009	2,735,729	557,298	210,076	0	150,000	-1,271,232	127,940	2,509,810	767,374	530,576	0
7	12/31/2021	14,384,042	2,509,810	11,874,232	2,509,810	562,871	210,494	0	150,000	-1,254,038	117,224	2,296,361	773,365	522,965	0
8	12/31/2022	13,813,003	2,296,361	11,516,641	2,296,361	568,500	210,781	0	150,000	-1,235,235	107,169	2,097,577	779,281	513,988	0
9	12/31/2023	13,232,757	2,097,577	11,135,180	2,097,577	574,185	210,904	0	150,000	-1,214,725	97,888	1,915,829	785,089	503,558	0
10	12/31/2024	12,644,602	1,915,829	10,728,773	1,915,829	579,927	210,826	0	150,000	-1,192,387	89,501	1,753,695	790,753	491,586	0
11	12/31/2025	12,050,021	1,753,695	10,296,326	1,753,695	585,726	210,510	0	150,000	-1,168,123	82,138	1,613,946	796,236	477,983	0
12	12/31/2026	11,450,675	1,613,946	9,836,730	1,613,946	591,583	209,911	0	150,000	-1,141,852	75,938	1,499,527	801,494	462,657	0
13	12/31/2027	10,848,393	1,499,527	9,348,866	1,499,527	597,499	208,982	0	150,000	-1,113,545	71,050	1,413,512	806,481	445,516	0
14	12/31/2028	10,245,119	1,413,512	8,831,607	1,413,512	603,474	207,671	0	150,000	-1,083,087	67,627	1,359,196	811,145	426,471	0
15	12/31/2029	9,643,019	1,359,196	8,283,823	1,359,196	609,509	205,922	0	150,000	-1,050,438	65,835	1,340,023	815,431	405,430	0
16	12/31/2030	9,044,406	1,340,023	7,704,382	1,340,023	615,604	203,676	0	150,000	-1,015,723	65,840	1,359,421	819,280	382,304	0
17	12/31/2031	8,451,580	1,359,421	7,092,159	1,359,421	621,760	200,871	0	150,000	-978,968	67,813	1,420,896	822,631	357,005	0
18	12/31/2032	7,866,928	1,420,896	6,446,032	1,420,896	627,977	197,440	0	150,000	-940,281	71,923	1,527,956	825,417	329,449	0
19	12/31/2033	7,292,848	1,527,956	5,764,892	1,527,956	634,257	193,315	0	150,000	-899,867	78,340	1,684,001	827,572	299,554	0
20	12/31/2034	6,731,644	1,684,001	5,047,643	1,684,001	640,600	188,426	0	150,000	-857,923	87,228	1,892,332	829,026	267,240	0
21	12/31/2035	6,185,535	1,892,332	4,293,203	1,892,332	647,006	182,700	0	150,000	-814,728	98,741	2,156,050	829,706	232,432	0
22	12/31/2036	5,656,562	2,156,050	3,500,512	2,156,050	653,476	176,065	0	150,000	-770,492	113,029	2,478,127	829,541	195,060	0
23	12/31/2037	5,146,654	2,478,127	2,668,527	2,478,127	660,011	168,446	0	150,000	-725,426	130,232	2,861,389	828,457	155,056	0
24	12/31/2038	4,657,617	2,861,389	1,796,228	2,861,389	666,611	159,771	0	150,000	-679,845	150,483	3,308,409	826,382	112,356	0
25	12/31/2039	4,191,026	3,308,409	882,617	3,308,409	673,277	149,966	0	150,000	-633,971	173,902	3,821,584	823,243	66,902	0

Scenario D
Local Plan Projection - 1% Millage growth, Additional Contributions To Reduce Risk of Ruin

Fayetteville Fire Pension Fund
Details of Local Plan Projections from 1/1/2015

					Projection of MVA under Local Plan Assumptions, 5% Investment Income									**First Year**	
Year	Valuation Date	Present Val Benefits Old Plan Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage inc 1.00%	Premium Taxes	Additional to cover Payments	Voluntary Additional 200,000	Expected Benefits	Expected Investment Income 5%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	18,040,985	4,377,557	13,663,428	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	17,560,828	3,984,260	13,576,568	3,984,260	530,250	207,470	0	200,000	-1,335,052	189,280	3,776,208	737,720	543,431	0
2	12/31/2016	17,065,275	3,776,208	13,289,067	3,776,208	535,553	207,641	0	200,000	-1,325,172	179,261	3,573,491	743,194	549,062	0
3	12/31/2017	16,555,109	3,573,491	12,981,618	3,573,491	540,908	208,306	0	200,000	-1,313,820	169,559	3,378,444	749,214	543,083	0
4	12/31/2018	16,031,115	3,378,444	12,652,671	3,378,444	546,317	208,957	0	200,000	-1,301,050	160,278	3,192,947	755,274	535,947	0
5	12/31/2019	15,494,060	3,192,947	12,301,114	3,192,947	551,780	209,555	0	200,000	-1,286,874	151,509	3,018,917	761,335	527,538	0
6	12/31/2020	14,944,738	3,018,917	11,925,821	3,018,917	557,298	210,076	0	200,000	-1,271,232	143,349	2,858,409	767,374	517,768	0
7	12/31/2021	14,384,042	2,858,409	11,525,634	2,858,409	562,871	210,494	0	200,000	-1,254,038	135,904	2,713,639	773,365	506,544	0
8	12/31/2022	13,813,003	2,713,639	11,099,363	2,713,639	568,500	210,781	0	200,000	-1,235,235	129,283	2,586,969	779,281	493,775	0
9	12/31/2023	13,232,757	2,586,969	10,645,789	2,586,969	574,185	210,904	0	200,000	-1,214,725	123,608	2,480,940	785,089	479,362	0
10	12/31/2024	12,644,602	2,480,940	10,163,661	2,480,940	579,927	210,826	0	200,000	-1,192,387	119,006	2,398,312	790,753	463,209	0
11	12/31/2025	12,050,021	2,398,312	9,651,709	2,398,312	585,726	210,510	0	200,000	-1,168,123	115,618	2,342,044	796,236	445,215	0
12	12/31/2026	11,450,675	2,342,044	9,108,632	2,342,044	591,583	209,911	0	200,000	-1,141,852	113,593	2,315,279	801,494	425,278	0
13	12/31/2027	10,848,393	2,315,279	8,533,113	2,315,279	597,499	208,982	0	200,000	-1,113,545	113,087	2,321,302	806,481	403,297	0
14	12/31/2028	10,245,119	2,321,302	7,923,817	2,321,302	603,474	207,671	0	200,000	-1,083,087	114,267	2,363,626	811,145	379,169	0
15	12/31/2029	9,643,019	2,363,626	7,279,393	2,363,626	609,509	205,922	0	200,000	-1,050,438	117,306	2,445,925	815,431	352,791	0
16	12/31/2030	9,044,406	2,445,925	6,598,481	2,445,925	615,604	203,676	0		-1,015,723	117,385	2,366,867	819,280	324,061	0
17	12/31/2031	8,451,580	2,366,867	6,084,712	2,366,867	621,760	200,871	0		-978,968	114,435	2,324,965	822,631	292,879	0
18	12/31/2032	7,866,928	2,324,965	5,541,963	2,324,965	627,977	197,440	0		-940,281	113,377	2,323,478	825,417	271,032	0
19	12/31/2033	7,292,848	2,323,478	4,969,370	2,323,478	634,257	193,315	0		-899,867	114,367	2,365,550	827,572	247,131	0
20	12/31/2034	6,731,644	2,365,550	4,366,094	2,365,550	640,600	188,426	0		-857,923	117,555	2,454,207	829,026	221,111	0
21	12/31/2035	6,185,535	2,454,207	3,731,328	2,454,207	647,006	182,700	0		-814,728	123,085	2,592,270	829,706	192,913	0
22	12/31/2036	5,656,562	2,592,270	3,064,293	2,592,270	653,476	176,065	0		-770,492	131,090	2,782,408	829,541	162,479	0
23	12/31/2037	5,146,654	2,782,408	2,364,246	2,782,408	660,011	168,446	0		-725,426	141,696	3,027,134	828,457	129,761	0
24	12/31/2038	4,657,617	3,027,134	1,630,483	3,027,134	666,611	159,771	0		-679,845	155,020	3,328,691	826,382	94,712	0
25	12/31/2039	4,191,026	3,328,691	862,335	3,328,691	673,277	149,966	0		-633,971	171,166	3,689,129	823,243	57,291	0

APPENDIX B

PROJECTION DETAILS – LOPFI ADMINISTRATION

Scenario E
LOPFI 25 year Amortization Projection - 3% Millage growth

Fayetteville Fire Pension Fund
Details of Projections using 1/1/2016 Consolidation with LOPFI

Projection of MVA under LOPFI 25 year consolidation

Year	Valuation Date	Present Val Benefits LOPFI Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage Inc. 3.00%	Premium Taxes	Voluntary Additional 0	Additional for LOPFI	Expected Benefits	Expected Investment Income @8%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	13,749,406	4,377,557	9,371,849	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	13,453,233	3,984,260	9,468,973	3,984,260	540,750	207,470	0	0	-1,335,052	295,268	3,692,696	748,220	543,431	0
2	12/31/2016	13,142,065	3,692,696	9,449,370	3,692,696	556,973	207,641	0	0	-1,325,172	272,993	3,405,131	764,614	564,547	0
3	12/31/2017	12,816,272	3,405,131	9,411,141	3,405,131	573,682	208,306	0	0	-1,313,820	251,137	3,124,436	781,988	580,232	0
4	12/31/2018	12,476,212	3,124,436	9,351,776	3,124,436	590,892	208,957	0	0	-1,301,050	229,907	2,853,142	799,849	596,258	0
5	12/31/2019	12,122,219	2,853,142	9,269,076	2,853,142	608,619	209,555	0	0	-1,286,874	209,503	2,593,946	818,174	612,556	0
6	12/31/2020	11,754,638	2,593,946	9,160,692	2,593,946	626,877	210,076	0	0	-1,271,232	190,145	2,349,812	836,953	629,076	0
7	12/31/2021	11,373,905	2,349,812	9,024,094	2,349,812	645,684	210,494	0	0	-1,254,038	172,071	2,124,022	856,178	645,753	0
8	12/31/2022	10,980,583	2,124,022	8,856,561	2,124,022	665,054	210,781	0	0	-1,235,235	155,546	1,920,169	875,835	662,500	0
9	12/31/2023	10,575,337	1,920,169	8,655,168	1,920,169	685,006	210,904	0	0	-1,214,725	140,861	1,742,215	895,910	679,209	0
10	12/31/2024	10,158,985	1,742,215	8,416,770	1,742,215	705,556	210,826	0	0	-1,192,387	128,337	1,594,547	916,382	695,735	0
11	12/31/2025	9,732,539	1,594,547	8,137,991	1,594,547	726,723	210,510	0	0	-1,168,123	118,328	1,481,985	937,233	711,889	0
12	12/31/2026	9,297,193	1,481,985	7,815,208	1,481,985	748,524	209,911	0	0	-1,141,852	111,222	1,409,791	958,435	727,421	0
13	12/31/2027	8,854,321	1,409,791	7,444,530	1,409,791	770,980	208,982	0	0	-1,113,545	107,440	1,383,648	979,962	741,995	0
14	12/31/2028	8,405,437	1,383,648	7,021,789	1,383,648	794,110	207,671	0	0	-1,083,087	107,440	1,409,781	1,001,781	755,154	0
15	12/31/2029	7,952,294	1,409,781	6,542,513	1,409,781	817,933	205,922	0	0	-1,050,438	111,719	1,494,917	1,023,855	766,265	0
16	12/31/2030	7,496,830	1,494,917	6,001,914	1,494,917	842,471	203,676	0	0	-1,015,723	120,810	1,646,151	1,046,147	774,429	0
17	12/31/2031	7,041,007	1,646,151	5,394,856	1,646,151	867,745	200,871	0	0	-978,968	135,278	1,871,077	1,068,616	778,333	0
18	12/31/2032	6,586,913	1,871,077	4,715,837	1,871,077	893,777	197,440	0	0	-940,281	155,724	2,177,737	1,091,217	775,993	0
19	12/31/2033	6,136,698	2,177,737	3,958,961	2,177,737	920,591	193,315	0	0	-899,867	182,781	2,574,556	1,113,906	764,270	0
20	12/31/2034	5,692,465	2,574,556	3,117,909	2,574,556	948,208	188,426	0	0	-857,923	217,113	3,070,381	1,136,634	737,910	0
21	12/31/2035	5,256,282	3,070,381	2,185,902	3,070,381	976,655	182,700	0	0	-814,728	259,415	3,674,422	1,159,355	687,419	0
22	12/31/2036	4,830,094	3,674,422	1,155,672	3,674,422	1,005,954	176,065	0	0	-770,492	310,415	4,396,364	1,182,019	593,776	0
23	12/31/2037	4,415,782	4,396,364	19,418	4,396,364	1,036,133	168,446	0	0	-725,426	370,875	5,246,392	1,204,579	412,532	0
24	12/31/2038	4,015,160	5,246,392	-1,231,232	5,246,392	1,067,217	159,771	0	0	-679,845	441,597	6,235,132	1,226,988	10,247	0
25	12/31/2039	3,629,857	6,235,132	-2,605,275	6,235,132	1,099,233	149,966	0	0	-633,971	523,420	7,373,780	1,249,199	0	0

Scenario F

LOPFI 25 year Amortization Projection - 2% Millage growth

Fayetteville Fire Pension Fund

Details of Projections using 1/1/2016 Consolidation with LOPFI

Projection of MVA under LOPFI 25 year consolidation

Year	Valuation Date	Present Val Benefits LOPFI Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage Inc. 2.00%	Premium Taxes	Voluntary Additional 0	Additional for LOPFI	Expected Benefits	Expected Investment Income @8%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	13,749,406	4,377,557	9,371,849	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	13,453,233	3,984,260	9,468,973	3,984,260	535,500	207,470	0	0	-1,335,052	295,058	3,687,236	742,970	543,431	0
2	12/31/2016	13,142,065	3,687,236	9,454,830	3,687,236	546,210	207,641	0	0	-1,325,172	272,126	3,388,041	753,851	564,547	0
3	12/31/2017	12,816,272	3,388,041	9,428,231	3,388,041	557,134	208,306	0	0	-1,313,820	249,108	3,088,770	765,440	580,567	0
4	12/31/2018	12,476,212	3,088,770	9,387,442	3,088,770	568,277	208,957	0	0	-1,301,050	226,149	2,791,103	777,234	597,341	0
5	12/31/2019	12,122,219	2,791,103	9,331,116	2,791,103	579,642	209,555	0	0	-1,286,874	203,381	2,496,808	789,197	614,892	0
6	12/31/2020	11,754,638	2,496,808	9,257,830	2,496,808	591,235	210,076	0	0	-1,271,232	180,948	2,207,835	801,311	633,287	0
7	12/31/2021	11,373,905	2,207,835	9,166,071	2,207,835	603,060	210,494	0	0	-1,254,038	159,007	1,926,358	813,554	652,600	0
8	12/31/2022	10,980,583	1,926,358	9,054,225	1,926,358	615,121	210,781	0	0	-1,235,235	137,735	1,654,761	825,902	672,923	0
9	12/31/2023	10,575,337	1,654,761	8,920,575	1,654,761	627,424	210,904	0	0	-1,214,725	117,325	1,395,689	838,328	694,368	0
10	12/31/2024	10,158,985	1,395,689	8,763,296	1,395,689	639,972	210,826	0	0	-1,192,387	97,992	1,152,092	850,798	717,069	0
11	12/31/2025	9,732,539	1,152,092	8,580,447	1,152,092	652,772	210,510	0	0	-1,168,123	79,974	927,224	863,282	741,198	0
12	12/31/2026	9,297,193	927,224	8,369,969	927,224	665,827	209,911	0	0	-1,141,852	63,533	724,644	875,738	766,970	0
13	12/31/2027	8,854,321	724,644	8,129,677	724,644	679,143	208,982	0	0	-1,113,545	48,955	548,179	888,125	794,665	0
14	12/31/2028	8,405,437	548,179	7,857,258	548,179	692,726	207,671	0	0	-1,083,087	36,547	402,035	900,397	824,654	0
15	12/31/2029	7,952,294	402,035	7,550,259	402,035	706,581	205,922	0	0	-1,050,438	26,645	290,745	912,503	857,437	0
16	12/31/2030	7,496,830	290,745	7,206,085	290,745	720,712	203,676	0	0	-1,015,723	19,606	219,018	924,388	893,714	0
17	12/31/2031	7,041,007	219,018	6,821,989	219,018	735,127	200,871	0	0	-978,968	15,803	191,850	935,998	934,491	0
18	12/31/2032	6,586,913	191,850	6,395,064	191,850	749,829	197,440	0	34,002	-940,281	16,988	249,828	947,269	981,271	34,002
19	12/31/2033	6,136,698	249,828	5,886,871	249,828	764,826	193,315	0	78,273	-899,867	25,448	411,823	958,141	1,036,414	78,273
20	12/31/2034	5,692,465	411,823	5,280,642	411,823	780,122	188,426	0	128,704	-857,923	42,519	693,671	968,548	1,097,252	128,704
21	12/31/2035	5,256,282	693,671	4,562,612	693,671	795,725	182,700	0	185,822	-814,728	69,474	1,112,664	978,425	1,164,247	185,822
22	12/31/2036	4,830,094	1,112,664	3,717,431	1,112,664	811,639	176,065	0	251,679	-770,492	107,769	1,689,323	987,704	1,239,383	251,679
23	12/31/2037	4,415,782	1,689,323	2,726,459	1,689,323	827,872	168,446	0	330,666	-725,426	159,208	2,450,089	996,318	1,326,984	330,666
24	12/31/2038	4,015,160	2,450,089	1,565,071	2,450,089	844,430	159,771	0	434,510	-679,845	226,362	3,435,317	1,004,201	1,438,711	434,510
25	12/31/2039	3,629,857	3,435,317	194,540	3,435,317	861,318	149,966	0	616,390	-633,971	314,573	4,743,593	1,011,284	1,627,674	616,390

Scenario G

LOPFI 25 year Amortization Projection - 2% Millage growth, Additional Contributions of $30,000 per year

Fayetteville Fire Pension Fund

Details of Projections using 1/1/2016 Consolidation with LOPFI

Year	Valuation Date	Present Val Benefits LOPFI Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage Inc. 2.00%	Premium Taxes	Voluntary Additional 30,000	Additional for LOPFI	Expected Benefits	Expected Investment Income @8%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
					Projection of MVA under LOPFI 25 year consolidation										
0	12/31/2014	13,749,406	4,377,557	9,371,849	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	13,453,233	3,984,260	9,468,973	3,984,260	535,500	207,470	30,000	0	-1,335,052	295,058	3,717,236	772,970	543,431	0
2	12/31/2016	13,142,065	3,717,236	9,424,830	3,717,236	546,210	207,641	30,000	0	-1,325,172	274,526	3,450,441	783,851	564,547	0
3	12/31/2017	12,816,272	3,450,441	9,365,831	3,450,441	557,134	208,306	30,000	0	-1,313,820	254,100	3,186,162	795,440	578,725	0
4	12/31/2018	12,476,212	3,186,162	9,290,050	3,186,162	568,277	208,957	30,000	0	-1,301,050	233,940	2,926,286	807,234	593,387	0
5	12/31/2019	12,122,219	2,926,286	9,195,932	2,926,286	579,642	209,555	30,000	0	-1,286,874	214,196	2,672,806	819,197	608,513	0
6	12/31/2020	11,754,638	2,672,806	9,081,832	2,672,806	591,235	210,076	30,000	0	-1,271,232	195,028	2,427,913	831,311	624,112	0
7	12/31/2021	11,373,905	2,427,913	8,945,993	2,427,913	603,060	210,494	30,000	0	-1,254,038	176,614	2,194,042	843,554	640,194	0
8	12/31/2022	10,980,583	2,194,042	8,786,541	2,194,042	615,121	210,781	30,000	0	-1,235,235	159,150	1,973,860	855,902	656,767	0
9	12/31/2023	10,575,337	1,973,860	8,601,477	1,973,860	627,424	210,904	30,000	0	-1,214,725	142,853	1,770,316	868,328	673,839	0
10	12/31/2024	10,158,985	1,770,316	8,388,669	1,770,316	639,972	210,826	30,000	0	-1,192,387	127,962	1,586,689	880,798	691,419	0
11	12/31/2025	9,732,539	1,586,689	8,145,850	1,586,689	652,772	210,510	30,000	0	-1,168,123	114,741	1,426,589	893,282	709,512	0
12	12/31/2026	9,297,193	1,426,589	7,870,604	1,426,589	665,827	209,911	30,000	0	-1,141,852	103,483	1,293,958	905,738	728,123	0
13	12/31/2027	8,854,321	1,293,958	7,560,364	1,293,958	679,143	208,982	30,000	0	-1,113,545	94,500	1,193,038	918,125	747,254	0
14	12/31/2028	8,405,437	1,193,038	7,212,399	1,193,038	692,726	207,671	30,000	0	-1,083,087	88,135	1,128,483	930,397	766,904	0
15	12/31/2029	7,952,294	1,128,483	6,823,811	1,128,483	706,581	205,922	30,000	0	-1,050,438	84,761	1,105,309	942,503	787,066	0
16	12/31/2030	7,496,830	1,105,309	6,391,521	1,105,309	720,712	203,676	30,000	0	-1,015,723	84,771	1,128,746	954,388	807,725	0
17	12/31/2031	7,041,007	1,128,746	5,912,261	1,128,746	735,127	200,871	30,000	0	-978,968	88,581	1,204,356	965,998	828,858	0
18	12/31/2032	6,586,913	1,204,356	5,382,557	1,204,356	749,829	197,440	30,000	0	-940,281	96,628	1,337,973	977,269	850,416	0
19	12/31/2033	6,136,698	1,337,973	4,798,725	1,337,973	764,826	193,315	30,000	0	-899,867	109,369	1,535,615	988,141	872,322	0
20	12/31/2034	5,692,465	1,535,615	4,156,849	1,535,615	780,122	188,426	30,000	0	-857,923	127,274	1,803,515	998,548	894,433	0
21	12/31/2035	5,256,282	1,803,515	3,452,767	1,803,515	795,725	182,700	30,000	0	-814,728	150,829	2,148,041	1,008,425	916,479	0
22	12/31/2036	4,830,094	2,148,041	2,682,054	2,148,041	811,639	176,065	30,000	0	-770,492	180,532	2,575,784	1,017,704	937,906	0
23	12/31/2037	4,415,782	2,575,784	1,839,998	2,575,784	827,872	168,446	30,000	0	-725,426	216,898	3,093,574	1,026,318	957,393	0
24	12/31/2038	4,015,160	3,093,574	921,585	3,093,574	844,430	159,771	30,000	0	-679,845	260,460	3,708,390	1,034,201	970,939	0
25	12/31/2039	3,629,857	3,708,390	-78,533	3,708,390	861,318	149,966	30,000	0	-633,971	311,764	4,427,467	1,041,284	958,449	0

Scenario H

LOPFI 25 year Amortization Projection - 1% Millage growth

Fayetteville Fire Pension Fund

Details of Projections using 1/1/2016 Consolidation with LOPFI

Projection of MVA under LOPFI 25 year consolidation

Year	Valuation Date	Present Val Benefits LOPFI Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage Inc. 1.00%	Premium Taxes	Voluntary Additional 0	Additional for LOPFI	Expected Benefits	Expected Investment Income @8%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	13,749,406	4,377,557	9,371,849	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	13,453,233	3,984,260	9,468,973	3,984,260	530,250	207,470	0	0	-1,335,052	294,848	3,681,776	737,720	543,431	0
2	12/31/2016	13,142,065	3,681,776	9,460,290	3,681,776	535,553	207,641	0	0	-1,325,172	271,263	3,371,061	743,194	564,547	0
3	12/31/2017	12,816,272	3,371,061	9,445,211	3,371,061	540,908	208,306	0	0	-1,313,820	247,101	3,053,555	749,214	580,903	0
4	12/31/2018	12,476,212	3,053,555	9,422,657	3,053,555	546,317	208,957	0	0	-1,301,050	222,453	2,730,233	755,274	598,416	0
5	12/31/2019	12,122,219	2,730,233	9,391,985	2,730,233	551,780	209,555	0	0	-1,286,874	197,397	2,402,092	761,335	617,199	0
6	12/31/2020	11,754,638	2,402,092	9,352,546	2,402,092	557,298	210,076	0	0	-1,271,232	172,013	2,070,247	767,374	637,418	0
7	12/31/2021	11,373,905	2,070,247	9,303,658	2,070,247	562,871	210,494	0	0	-1,254,038	146,393	1,735,967	773,365	659,277	0
8	12/31/2022	10,980,583	1,735,967	9,244,616	1,735,967	568,500	210,781	0	0	-1,235,235	120,639	1,400,652	779,281	683,024	0
9	12/31/2023	10,575,337	1,400,652	9,174,684	1,400,652	574,185	210,904	0	0	-1,214,725	94,867	1,065,883	785,089	708,969	0
10	12/31/2024	10,158,985	1,065,883	9,093,101	1,065,883	579,927	210,826	0	0	-1,192,387	69,205	733,454	790,753	737,496	0
11	12/31/2025	9,732,539	733,454	8,999,084	733,454	585,726	210,510	0	0	-1,168,123	43,801	405,368	796,236	769,093	0
12	12/31/2026	9,297,193	405,368	8,891,825	405,368	591,583	209,911	0	2,896	-1,141,852	18,931	86,838	801,494	804,391	2,896
13	12/31/2027	8,854,321	86,838	8,767,483	86,838	597,499	208,982	0	37,731	-1,113,545	-3,826	-186,322	806,481	844,212	37,731
14	12/31/2028	8,405,437	-186,322	8,591,759	-186,322	603,474	207,671	0	78,206	-1,083,087	-22,655	-402,713	811,145	889,351	78,206
15	12/31/2029	7,952,294	-402,713	8,355,008	-402,713	609,509	205,922	0	122,160	-1,050,438	-36,731	-552,292	815,431	937,591	122,160
16	12/31/2030	7,496,830	-552,292	8,049,122	-552,292	615,604	203,676	0	169,691	-1,015,723	-45,253	-624,297	819,280	988,971	169,691
17	12/31/2031	7,041,007	-624,297	7,665,304	-624,297	621,760	200,871	0	221,186	-978,968	-47,350	-606,799	822,631	1,043,817	221,186
18	12/31/2032	6,586,913	-606,799	7,193,712	-606,799	627,977	197,440	0	277,156	-940,281	-42,052	-486,558	825,417	1,102,573	277,156
19	12/31/2033	6,136,698	-486,558	6,623,257	-486,558	634,257	193,315	0	338,274	-899,867	-28,285	-248,865	827,572	1,165,847	338,274
20	12/31/2034	5,692,465	-248,865	5,941,329	-248,865	640,600	188,426	0	405,481	-857,923	-4,846	122,874	829,026	1,234,507	405,481
21	12/31/2035	5,256,282	122,874	5,133,409	122,874	647,006	182,700	0	480,206	-814,728	29,637	647,694	829,706	1,309,912	480,206
22	12/31/2036	4,830,094	647,694	4,182,400	647,694	653,476	176,065	0	564,893	-770,492	76,773	1,348,409	829,541	1,394,434	564,893
23	12/31/2037	4,415,782	1,348,409	3,067,374	1,348,409	660,011	168,446	0	664,504	-725,426	138,574	2,254,517	828,457	1,492,961	664,504
24	12/31/2038	4,015,160	2,254,517	1,760,643	2,254,517	666,611	159,771	0	792,225	-679,845	217,912	3,411,190	826,382	1,618,606	792,225
25	12/31/2039	3,629,857	3,411,190	218,667	3,411,190	673,277	149,966	0	1,007,826	-633,971	320,779	4,929,067	823,243	1,831,068	1,007,826

Scenario I

LOPFI 25 year Amortization Projection - 1% Millage growth, Additional Contributions of $90,000 per year

Fayetteville Fire Pension Fund

Details of Projections using 1/1/2016 Consolidation with LOPFI

Projection of MVA under LOPFI 25 year consolidation

Year	Valuation Date	Present Val Benefits LOPFI Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage Inc. 1.00%	Premium Taxes	Voluntary Additional 90,000	Additional for LOPFI	Expected Benefits	Expected Investment Income @8%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	13,749,406	4,377,557	9,371,849	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	13,453,233	3,984,260	9,468,973	3,984,260	530,250	207,470	90,000	0	-1,335,052	294,848	3,771,776	827,720	543,431	0
2	12/31/2016	13,142,065	3,771,776	9,370,290	3,771,776	535,553	207,641	90,000	0	-1,325,172	278,463	3,558,261	833,194	564,547	0
3	12/31/2017	12,816,272	3,558,261	9,258,011	3,558,261	540,908	208,306	90,000	0	-1,313,820	262,077	3,345,731	839,214	575,376	0
4	12/31/2018	12,476,212	3,345,731	9,130,481	3,345,731	546,317	208,957	90,000	0	-1,301,050	245,827	3,135,783	845,274	586,556	0
5	12/31/2019	12,122,219	3,135,783	8,986,435	3,135,783	551,780	209,555	90,000	0	-1,286,874	229,841	2,930,086	851,335	598,061	0
6	12/31/2020	11,754,638	2,930,086	8,824,551	2,930,086	557,298	210,076	90,000	0	-1,271,232	214,253	2,730,481	857,374	609,894	0
7	12/31/2021	11,373,905	2,730,481	8,643,425	2,730,481	562,871	210,494	90,000	0	-1,254,038	199,212	2,539,019	863,365	622,058	0
8	12/31/2022	10,980,583	2,539,019	8,441,564	2,539,019	568,500	210,781	90,000	0	-1,235,235	184,883	2,357,949	869,281	634,554	0
9	12/31/2023	10,575,337	2,357,949	8,217,388	2,357,949	574,185	210,904	90,000	0	-1,214,725	171,450	2,189,764	875,089	647,383	0
10	12/31/2024	10,158,985	2,189,764	7,969,221	2,189,764	579,927	210,826	90,000	0	-1,192,387	159,116	2,037,245	880,753	660,545	0
11	12/31/2025	9,732,539	2,037,245	7,695,294	2,037,245	585,726	210,510	90,000	0	-1,168,123	148,104	1,903,462	886,236	674,036	0
12	12/31/2026	9,297,193	1,903,462	7,393,731	1,903,462	591,583	209,911	90,000	0	-1,141,852	138,663	1,791,767	891,494	687,850	0
13	12/31/2027	8,854,321	1,791,767	7,062,554	1,791,767	597,499	208,982	90,000	0	-1,113,545	131,059	1,705,762	896,481	701,979	0
14	12/31/2028	8,405,437	1,705,762	6,699,675	1,705,762	603,474	207,671	90,000	0	-1,083,087	125,583	1,649,402	901,145	716,407	0
15	12/31/2029	7,952,294	1,649,402	6,302,892	1,649,402	609,509	205,922	90,000	0	-1,050,438	122,552	1,626,947	905,431	731,114	0
16	12/31/2030	7,496,830	1,626,947	5,869,883	1,626,947	615,604	203,676	90,000	0	-1,015,723	122,298	1,642,802	909,280	746,065	0
17	12/31/2031	7,041,007	1,642,802	5,398,205	1,642,802	621,760	200,871	90,000	0	-978,968	125,171	1,701,635	912,631	761,211	0
18	12/31/2032	6,586,913	1,701,635	4,885,278	1,701,635	627,977	197,440	90,000	0	-940,281	131,536	1,808,308	915,417	776,475	0
19	12/31/2033	6,136,698	1,808,308	4,328,390	1,808,308	634,257	193,315	90,000	0	-899,867	141,773	1,967,786	917,572	791,731	0
20	12/31/2034	5,692,465	1,967,786	3,724,679	1,967,786	640,600	188,426	90,000	0	-857,923	156,267	2,185,156	919,026	806,767	0
21	12/31/2035	5,256,282	2,185,156	3,071,126	2,185,156	647,006	182,700	90,000	0	-814,728	175,412	2,465,545	919,706	821,197	0
22	12/31/2036	4,830,094	2,465,545	2,364,549	2,465,545	653,476	176,065	90,000	0	-770,492	199,606	2,814,199	919,541	834,238	0
23	12/31/2037	4,415,782	2,814,199	1,601,584	2,814,199	660,011	168,446	90,000	0	-725,426	229,257	3,236,486	918,457	844,056	0
24	12/31/2038	4,015,160	3,236,486	778,674	3,236,486	666,611	159,771	90,000	0	-679,845	264,780	3,737,803	916,382	845,131	0
25	12/31/2039	3,629,857	3,737,803	-107,946	3,737,803	673,277	149,966	90,000	0	-633,971	306,595	4,323,670	913,243	809,821	0

Scenario J
LOPFI 15 year Amortization Projection - 3% Millage growth

Fayetteville Fire Pension Fund
Details of Projections using 1/1/2016 Consolidation with LOPFI

Projection of MVA under LOPFI 15 year consolidation

Year	Valuation Date	Present Val Benefits LOPFI Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage Inc. 3.00%	Premium Taxes	Voluntary Additional 0	Additional for LOPFI	Expected Benefits	Expected Investment Income @8%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	13,749,406	4,377,557	9,371,849	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	13,453,233	3,984,260	9,468,973	3,984,260	540,750	207,470	0	0	-1,335,052	295,268	3,692,696	748,220	792,670	44,450
2	12/31/2016	13,142,065	3,692,696	9,449,370	3,692,696	556,973	207,641	0	81,778	-1,325,172	276,264	3,490,180	764,614	846,392	81,778
3	12/31/2017	12,816,272	3,490,180	9,326,091	3,490,180	573,682	208,306	0	115,159	-1,313,820	262,548	3,336,055	781,988	897,146	115,159
4	12/31/2018	12,476,212	3,336,055	9,140,157	3,336,055	590,892	208,957	0	146,166	-1,301,050	252,683	3,233,703	799,849	946,015	146,166
5	12/31/2019	12,122,219	3,233,703	8,888,516	3,233,703	608,619	209,555	0	179,262	-1,286,874	247,119	3,191,384	818,174	997,436	179,262
6	12/31/2020	11,754,638	3,191,384	8,563,254	3,191,384	626,877	210,076	0	215,168	-1,271,232	246,546	3,218,819	836,953	1,052,122	215,168
7	12/31/2021	11,373,905	3,218,819	8,155,086	3,218,819	645,684	210,494	0	254,312	-1,254,038	251,764	3,327,035	856,178	1,110,490	254,312
8	12/31/2022	10,980,583	3,327,035	7,653,549	3,327,035	665,054	210,781	0	297,188	-1,235,235	263,674	3,528,497	875,835	1,173,023	297,188
9	12/31/2023	10,575,337	3,528,497	7,046,839	3,528,497	685,006	210,904	0	344,460	-1,214,725	283,306	3,837,448	895,910	1,240,370	344,460
10	12/31/2024	10,158,985	3,837,448	6,321,536	3,837,448	705,556	210,826	0	397,076	-1,192,387	311,839	4,270,358	916,382	1,313,458	397,076
11	12/31/2025	9,732,539	4,270,358	5,462,180	4,270,358	726,723	210,510	0	456,505	-1,168,123	350,653	4,846,627	937,233	1,393,738	456,505
12	12/31/2026	9,297,193	4,846,627	4,450,566	4,846,627	748,524	209,911	0	525,305	-1,141,852	401,406	5,589,922	958,435	1,483,741	525,305
13	12/31/2027	8,854,321	5,589,922	3,264,400	5,589,922	770,980	208,982	0	608,724	-1,113,545	466,199	6,531,262	979,962	1,588,686	608,724
14	12/31/2028	8,405,437	6,531,262	1,874,175	6,531,262	794,110	207,671	0	720,793	-1,083,087	548,080	7,718,829	1,001,781	1,722,574	720,793
15	12/31/2029	7,952,294	7,718,829	233,466	7,718,829	817,933	205,922	0	925,287	-1,050,438	653,454	9,270,987	1,023,855	1,949,142	925,287
16	12/31/2030	7,496,830	9,270,987	-1,774,157	9,270,987	842,471	203,676	0	0	-1,015,723	742,896	10,044,307	1,046,147		0
17	12/31/2031	7,041,007	10,044,307	-3,003,300	10,044,307	867,745	200,871	0	0	-978,968	807,130	10,941,085	1,068,616		0
18	12/31/2032	6,586,913	10,941,085	-4,354,172	10,941,085	893,777	197,440	0	0	-940,281	881,324	11,973,346	1,091,217		0
19	12/31/2033	6,136,698	11,973,346	-5,836,648	11,973,346	920,591	193,315	0	0	-899,867	966,429	13,153,814	1,113,906		0
20	12/31/2034	5,692,465	13,153,814	-7,461,349	13,153,814	948,208	188,426	0	0	-857,923	1,063,454	14,495,979	1,136,634		0
21	12/31/2035	5,256,282	14,495,979	-9,239,696	14,495,979	976,655	182,700	0	0	-814,728	1,173,463	16,014,068	1,159,355		0
22	12/31/2036	4,830,094	16,014,068	-11,183,974	16,014,068	1,005,954	176,065	0	0	-770,492	1,297,587	17,723,182	1,182,019		0
23	12/31/2037	4,415,782	17,723,182	-13,307,399	17,723,182	1,036,133	168,446	0	0	-725,426	1,437,021	19,639,355	1,204,579		0
24	12/31/2038	4,015,160	19,639,355	-15,624,195	19,639,355	1,067,217	159,771	0	0	-679,845	1,593,034	21,779,532	1,226,988		0
25	12/31/2039	3,629,857	21,779,532	-18,149,675	21,779,532	1,099,233	149,966	0	0	-633,971	1,766,972	24,161,732	1,249,199		0

Scenario K

LOPFI 15 year Amortization Projection - 2% Millage growth

Fayetteville Fire Pension Fund

Details of Projections using 1/1/2016 Consolidation with LOPFI

Projection of MVA under LOPFI 15 year consolidation

Year	Valuation Date	Present Val Benefits LOPFI Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage Inc. 2.00%	Premium Taxes	Voluntary Additional 0	Additional for LOPFI	Expected Benefits	Expected Investment Income @8%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	13,749,406	4,377,557	9,371,849	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	13,453,233	3,984,260	9,468,973	3,984,260	535,500	207,470	0	0	-1,335,052	295,058	3,687,236	742,970	792,670	49,700
2	12/31/2016	13,142,065	3,687,236	9,454,830	3,687,236	546,210	207,641	0	92,541	-1,325,172	275,828	3,484,284	753,851	846,392	92,541
3	12/31/2017	12,816,272	3,484,284	9,331,988	3,484,284	557,134	208,306	0	132,225	-1,313,820	262,096	3,330,225	765,440	897,665	132,225
4	12/31/2018	12,476,212	3,330,225	9,145,987	3,330,225	568,277	208,957	0	169,379	-1,301,050	252,241	3,228,029	777,234	946,613	169,379
5	12/31/2019	12,122,219	3,228,029	8,894,189	3,228,029	579,642	209,555	0	208,874	-1,286,874	246,690	3,185,918	789,197	998,072	208,874
6	12/31/2020	11,754,638	3,185,918	8,568,720	3,185,918	591,235	210,076	0	251,482	-1,271,232	246,136	3,213,614	801,311	1,052,793	251,482
7	12/31/2021	11,373,905	3,213,614	8,160,291	3,213,614	603,060	210,494	0	297,644	-1,254,038	251,376	3,322,150	813,554	1,111,198	297,644
8	12/31/2022	10,980,583	3,322,150	7,658,433	3,322,150	615,121	210,781	0	347,870	-1,235,235	263,314	3,524,001	825,902	1,173,772	347,870
9	12/31/2023	10,575,337	3,524,001	7,051,335	3,524,001	627,424	210,904	0	402,834	-1,214,725	282,978	3,833,416	838,328	1,241,161	402,834
10	12/31/2024	10,158,985	3,833,416	6,325,569	3,833,416	639,972	210,826	0	463,498	-1,192,387	311,550	4,266,875	850,798	1,314,296	463,498
11	12/31/2025	9,732,539	4,266,875	5,465,664	4,266,875	652,772	210,510	0	531,345	-1,168,123	350,410	4,843,789	863,282	1,394,627	531,345
12	12/31/2026	9,297,193	4,843,789	4,453,404	4,843,789	665,827	209,911	0	608,949	-1,141,852	401,217	5,587,841	875,738	1,484,687	608,949
13	12/31/2027	8,854,321	5,587,841	3,266,480	5,587,841	679,143	208,982	0	701,574	-1,113,545	466,073	6,530,068	888,125	1,589,699	701,574
14	12/31/2028	8,405,437	6,530,068	1,875,369	6,530,068	692,726	207,671	0	823,274	-1,083,087	548,029	7,718,681	900,397	1,723,672	823,274
15	12/31/2029	7,952,294	7,718,681	233,613	7,718,681	706,581	205,922	0	1,037,880	-1,050,438	653,492	9,272,119	912,503	1,950,383	1,037,880
16	12/31/2030	7,496,830	9,272,119	-1,775,288	9,272,119	720,712	203,676	0	0	-1,015,723	738,116	9,918,901	924,388		0
17	12/31/2031	7,041,007	9,918,901	-2,877,894	9,918,901	735,127	200,871	0	0	-978,968	791,793	10,667,723	935,998		0
18	12/31/2032	6,586,913	10,667,723	-4,080,810	10,667,723	749,829	197,440	0	0	-940,281	853,697	11,528,409	947,269		0
19	12/31/2033	6,136,698	11,528,409	-5,391,711	11,528,409	764,826	193,315	0	0	-899,867	924,604	12,511,287	958,141		0
20	12/31/2034	5,692,465	12,511,287	-6,818,822	12,511,287	780,122	188,426	0	0	-857,923	1,005,328	13,627,240	968,548		0
21	12/31/2035	5,256,282	13,627,240	-8,370,958	13,627,240	795,725	182,700	0	0	-814,728	1,096,727	14,887,663	978,425		0
22	12/31/2036	4,830,094	14,887,663	-10,057,569	14,887,663	811,639	176,065	0	0	-770,492	1,199,702	16,304,577	987,704		0
23	12/31/2037	4,415,782	16,304,577	-11,888,795	16,304,577	827,872	168,446	0	0	-725,426	1,315,202	17,890,670	996,318		0
24	12/31/2038	4,015,160	17,890,670	-13,875,511	17,890,670	844,430	159,771	0	0	-679,845	1,444,228	19,659,254	1,004,201		0
25	12/31/2039	3,629,857	19,659,254	-16,029,397	19,659,254	861,318	149,966	0	0	-633,971	1,587,833	21,624,400	1,011,284		0

Scenario L

LOPFI 15 year Amortization Projection - 1% Millage growth

Fayetteville Fire Pension Fund

Details of Projections using 1/1/2016 Consolidation with LOPFI

Projection of MVA under LOPFI 15 year consolidation

Year	Valuation Date	Present Val Benefits LOPFI Rates	Market Value Assets	Unfunded Accrued Liability	MVA at BoY	Millage Inc. 1.00%	Premium Taxes	Voluntary Additional 0	Additional for LOPFI	Expected Benefits	Expected Investment Income @8%	MVA at EoY	Expected City Sources	Expected LOPFI Contribution	Additional Contribution for LOPFI
0	12/31/2014	13,749,406	4,377,557	9,371,849	4,377,557	525,000	221,178	0		-1,343,422	203,947	3,984,260			
1	12/31/2015	13,453,233	3,984,260	9,468,973	3,984,260	530,250	207,470	0	0	-1,335,052	294,848	3,681,776	737,720	792,670	54,950
2	12/31/2016	13,142,065	3,681,776	9,460,290	3,681,776	535,553	207,641	0	103,198	-1,325,172	275,391	3,478,387	743,194	846,392	103,198
3	12/31/2017	12,816,272	3,478,387	9,337,885	3,478,387	540,908	208,306	0	148,969	-1,313,820	261,645	3,324,396	749,214	898,183	148,969
4	12/31/2018	12,476,212	3,324,396	9,151,816	3,324,396	546,317	208,957	0	191,937	-1,301,050	251,798	3,222,355	755,274	947,211	191,937
5	12/31/2019	12,122,219	3,222,355	8,899,863	3,222,355	551,780	209,555	0	237,373	-1,286,874	246,262	3,180,452	761,335	998,708	237,373
6	12/31/2020	11,754,638	3,180,452	8,574,186	3,180,452	557,298	210,076	0	286,091	-1,271,232	245,725	3,208,410	767,374	1,053,465	286,091
7	12/31/2021	11,373,905	3,208,410	8,165,496	3,208,410	562,871	210,494	0	338,542	-1,254,038	250,988	3,317,266	773,365	1,111,907	338,542
8	12/31/2022	10,980,583	3,317,266	7,663,317	3,317,266	568,500	210,781	0	395,240	-1,235,235	262,953	3,519,505	779,281	1,174,521	395,240
9	12/31/2023	10,575,337	3,519,505	7,055,832	3,519,505	574,185	210,904	0	456,864	-1,214,725	282,650	3,829,383	785,089	1,241,953	456,864
10	12/31/2024	10,158,985	3,829,383	6,329,602	3,829,383	579,927	210,826	0	524,382	-1,192,387	311,261	4,263,391	790,753	1,315,134	524,382
11	12/31/2025	9,732,539	4,263,391	5,469,148	4,263,391	585,726	210,510	0	599,280	-1,168,123	350,167	4,840,951	796,236	1,395,516	599,280
12	12/31/2026	9,297,193	4,840,951	4,456,242	4,840,951	591,583	209,911	0	684,139	-1,141,852	401,027	5,585,760	801,494	1,485,634	684,139
13	12/31/2027	8,854,321	5,585,760	3,268,561	5,585,760	597,499	208,982	0	784,231	-1,113,545	465,947	6,528,875	806,481	1,590,712	784,231
14	12/31/2028	8,405,437	6,528,875	1,876,562	6,528,875	603,474	207,671	0	913,625	-1,083,087	547,977	7,718,534	811,145	1,724,770	913,625
15	12/31/2029	7,952,294	7,718,534	233,760	7,718,534	609,509	205,922	0	1,136,194	-1,050,438	653,530	9,273,251	815,431	1,951,625	1,136,194
16	12/31/2030	7,496,830	9,273,251	-1,776,420	9,273,251	615,604	203,676	0	0	-1,015,723	734,002	9,810,810	819,280		0
17	12/31/2031	7,041,007	9,810,810	-2,769,803	9,810,810	621,760	200,871	0	0	-978,968	778,611	10,433,084	822,631		0
18	12/31/2032	6,586,913	10,433,084	-3,846,170	10,433,084	627,977	197,440	0	0	-940,281	830,052	11,148,273	825,417		0
19	12/31/2033	6,136,698	11,148,273	-5,011,575	11,148,273	634,257	193,315	0	0	-899,867	888,970	11,964,948	827,572		0
20	12/31/2034	5,692,465	11,964,948	-6,272,483	11,964,948	640,600	188,426	0	0	-857,923	956,040	12,892,091	829,026		0
21	12/31/2035	5,256,282	12,892,091	-7,635,808	12,892,091	647,006	182,700	0	0	-814,728	1,031,966	13,939,034	829,706		0
22	12/31/2036	4,830,094	13,939,034	-9,108,940	13,939,034	653,476	176,065	0	0	-770,492	1,117,485	15,115,567	829,541		0
23	12/31/2037	4,415,782	15,115,567	-10,699,785	15,115,567	660,011	168,446	0	0	-725,426	1,213,367	16,431,964	828,457		0
24	12/31/2038	4,015,160	16,431,964	-12,416,804	16,431,964	666,611	159,771	0	0	-679,845	1,320,419	17,898,920	826,382		0
25	12/31/2039	3,629,857	17,898,920	-14,269,063	17,898,920	673,277	149,966	0	0	-633,971	1,439,484	19,527,676	823,243		0