

ARKANSAS LOCAL POLICE AND FIRE RETIREMENT SYSTEM
COMPILED ANNUAL ACTUARIAL VALUATION REPORT
AS OF DECEMBER 31, 2016

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Compiled Actuarial Valuation Report

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June 27, 2017

Board of Trustees
Arkansas Local Police and Fire Retirement System
Little Rock, Arkansas

Dear Board Members:

Submitted in this report are the compiled results of the annual actuarial valuations for the Arkansas Local Police and Fire Retirement System (LOPFI). The date of the valuation was December 31, 2016.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board (including employers participating in LOPFI). This report may be provided to parties other than the System only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The purpose of the valuation is to measure the funding progress in relation to the actuarial cost method and to determine the employer contribution rate for the Fiscal Year beginning January 1, 2018. These measurements were made in accordance with the basic financial objective of the Arkansas Local Police and Fire Retirement System (LOPFI): to establish and receive contributions which, expressed as a percent of active member payroll, will remain approximately level from generation-to-generation and when combined with present assets and future investment return will be sufficient to meet the financial obligations of LOPFI to present and future benefit recipients. Calculations required for compliance with the Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68 has been issued in a separate report.

Results of the 2016 actuarial valuations indicate that aggregate actuarial accrued liabilities are 71% covered by assets. This result includes the 197 local police and fire pension and relief funds which are closed to new hires and for which LOPFI also serves as administrative agent. Continued receipt of computed employer and member contributions will improve this financial condition and allow LOPFI to continue to operate in sound condition in accordance with the actuarial principles of level cost financing.

The valuations were based upon data furnished to us concerning active and retired members and System assets as of December 31, 2016. The cooperation of the Executive Director and the LOPFI staff in furnishing the materials required for these valuations is acknowledged with appreciation. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the data provided by LOPFI staff.

The actuarial methods and assumptions used in making the valuations are shown in Section E of this report. The December 31, 2016 valuation was based upon assumptions that were recommended in connection with a study of experience covering the 2008-2011 period and, more recently, the economic assumptions adopted by the Board in December 2015. These assumptions were established by the Board after consulting with the actuary as outlined in A.C.A. 24-10-205(a)(1).

To the best of our knowledge, this report is complete and accurate and was made in accordance with standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries and in conformance with Title 24 of the Arkansas Code. In our opinion, the assumptions used for the valuation produce results which, individually and in the aggregate, are reasonable. Note that other assumptions and methods could also be reasonable and could result in materially different results. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are deemed to be immaterial. Each actuarial valuation takes into account all prior differences between actual and assumed experience in each risk area and adjusts the contribution rates as needed.

Please be aware that future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic and demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section E of this report. This report includes risk metrics on page B-20, but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment. We encourage a review and assessment of investment and other significant risks that may have a material effect on the plan's financial condition.

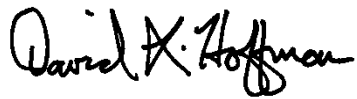
This valuation assumed the continuing ability of the plan sponsor to make contributions necessary to fund this plan. A determination of the ability of the plan sponsor to do so is outside our area of expertise and was not performed.

The individuals who prepared this report have substantial experience valuing public employee retirement systems and are independent of the plan sponsor. Heidi G. Barry is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Board of Trustees
June 27, 2017
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If you have any questions concerning this report or LOPFI in general, please contact the LOPFI office.

Respectfully submitted,

A handwritten signature in black ink that reads "David L. Hoffman". The signature is written in a cursive style with a large initial "D".

David L. Hoffman

A handwritten signature in black ink that reads "Heidi G. Barry". The signature is written in a cursive style with a large initial "H".

Heidi G. Barry, ASA, MAAA, FCA

DLH/HGB:mrb

SECTION A
EXECUTIVE SUMMARY

Executive Summary

Comment 1: The December 31, 2016 actuarial valuations establish employer contribution rates for the fiscal year beginning in calendar year 2018. Contribution rates for 283 paid service valuation groups were computed. In addition, Local Pension and Relief Fund groups under LOPFI administration were included to develop combined employer contribution rates for affected employers. The average contribution rate is 21.90% and is uncapped and based on a 16.8-year amortization period. This rate reflects the Board policy of increasing all individual location employer rates by 1% of pay until all or most employer rates can be merged into a single uniform paid service employer rate. The Board policy also reflects a maximum employer contribution rate of 23.50% for calendar year 2018. For Benefit Program 2 paid service employers participating in LOPFI, the uniform rate is the Benefit Program 1 rate plus a surcharge of 2.50%.

Comment 2: Due to changes enacted in the 2007 Session of the Arkansas General Assembly, all Benefit Program 3 volunteer service employers participating in LOPFI are charged a uniform rate for the calendar year. For calendar year 2018, that rate is \$55.62 per member per month based on an 18.5-year amortization period. This rate was computed as \$54.13 in the prior valuation based on a 21.2-year amortization period. For Benefit Program 4 volunteer service employers participating in LOPFI, the uniform rate is the Benefit Program 3 rate plus a surcharge of \$20.00.

Comment 3: Overall experience for the year ending December 31, 2016 was unfavorable. Experience losses totaled \$11,587,533 (see page B-19). The primary sources of the loss were the result of investment losses and mortality losses. The market value rate of return for the year ended December 31, 2016 was 5.76% while the recognized rate of return was 7.36%. The ratio of actuarial value of assets to market value of assets is currently 104.9%.

Comment 4: The actuarial value of assets exceeded the market value of assets by \$87 million. If near term experience matches expectations, in particular that market value returns of 7.75% are achieved each year for the next four years, the phase-in of these yet to be recognized losses will increase the paid service employer contribution rate by 1.73% of active member payroll.

Comment 5: Actuarial accrued liabilities, including both LOPFI and Local Pension and Relief Funds under LOPFI administration, totaled \$2,623,115,852 while actuarial valuation assets totaled \$1,857,485,451. Hence, actuarial accrued liabilities are 71% covered by actuarial valuation assets as of December 31, 2016. Excluding the Local Funds, accrued liabilities are 76% covered by valuation assets.

Comment 6: There were no changes in benefit provisions, assumptions or methods in the December 31, 2016 actuarial valuation.

Executive Summary

Recommendation 1: We recommend that the Section 24-10-405(h)(1) limits be removed (or at least increased). This limit hinders the complete implementation of the single paid service employer rate and may, over the long run, impair the ability to maintain a sound retirement plan.

Conclusion: The Retirement System's financial objective is to meet long-term benefit obligations through contributions that remain approximately level from year-to-year as a percent of active member payroll. Continued receipt of these contributions is the best guarantee that the Retirement System will be able to pay all promised benefits when due.

Executive Summary – Other Observations

General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.75% on the actuarial value of assets), it is expected that:

- 1) The employer normal cost is sufficient to cover the cost of benefits accruing each year;
- 2) The unfunded actuarial accrued liabilities will be fully amortized after 16.8 years for paid service and 18.5 years for volunteer service; and
- 3) The funded status of the plan will increase gradually towards a 100% funded ratio.

Limitations of Funded Status Measurements

Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the actuarial value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- 1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, in other words, of transferring the obligations to an unrelated third party in an arm's length market value type transaction.
- 2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. A funded status measurement in this report of 100% is not synonymous with no required future contributions. If the funded status were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).
- 3) The measurement would produce a different result if the market value of assets were used instead of the actuarial value of assets, unless the market value of assets is used in the measurement.

Limitations of Project Scope

Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.

Risks to Future Employer Contribution Requirements

There are ongoing risks to future employer contribution requirements to which the Retirement System is exposed, such as:

- Actual and Assumed Investment Rate of Return
- Actual and Assumed Wage Inflation
- Actual and Assumed Mortality Rates
- Amortization Policy

SECTION B

VALUATION RESULTS

LOPFI
Average Computed Employer Contribution Rate
for Paid Service Members

Computed December 31, 2016
for Plan Year Beginning January 1, 2018

Contributions	% of Active Payroll #
Normal Cost of Benefits:	
Age and Service	13.50%
Casualty	2.31%
Refunds	0.79%
Total	16.60%
Unfunded Accrued Liabilities *	11.96%
Total Contribution Requirement	28.56%
Member Portion @	6.66%
Employer Portion before Application of 24-10-405(h)(1) 1% Limit	21.90%
Employer Portion after Application of 24-10-405(h)(1) 1% Limit	21.90%

Includes DROP participant payroll.

* Unfunded actuarial accrued liabilities are amortized over an 16.8-year period.

@ Weighted average, Social Security covered members contribute 2.50% of pay while members not covered by Social Security contribute 8.50% of pay.

LOPFI
Computed Employer Contributions
for Paid Service Members by Valuation Groups
December 31, 2016@

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Percents of Active Member Payroll									Totals
		Under 9.00%	9.00% -9.99%	10.00% -10.99%	11.00% -11.99%	12.00% -12.99%	13.00% -13.99%	14.00% -14.99%	15.00% -15.99%	16.00% & Above	
Paid Police:											
W/SS	2,152	-	1	-	-	-	2	1	2	173	179
W/O SS	1,597	-	-	-	-	-	-	2	1	11	14
Paid Fire:											
W/SS	126	-	-	-	-	-	-	-	-	28	28
W/O SS	2,676	-	-	-	-	-	-	-	2	60	62
December 31, 2016	6,551	-	1	-	-	-	2	3	5	272	283
December 31, 2015 *	6,430	1	-	-	1	2	3	5	7	266	285
December 31, 2014	6,323	1	-	1	2	3	5	6	11	247	276
December 31, 2013	6,245	1	-	2	3	5	6	11	6	238	272
December 31, 2012 *#	6,139	1	2	3	6	6	11	7	16	220	272
December 31, 2011	6,016	3	3	6	6	12	6	17	19	203	275
December 31, 2010	5,949	7	6	6	13	6	17	18	27	174	274
December 31, 2009	5,907	8	8	8	5	11	20	17	33	159	269
December 31, 2008 *#	5,640	13	7	4	12	17	17	27	26	135	258
December 31, 2007	5,603	16	7	3	12	16	17	31	23	136	261

* After changes in actuarial valuation assumptions.

After legislated benefit changes.

@ Rules established by Board policy to implement uniform paid service rule applied on and after December 31, 2011. All paid service employer rates increased by the maximum allowed under law.

LOPFI
Computed Employer Contribution Rate
for Volunteer Service Members

Computed December 31, 2016
for Plan Year Beginning January 1, 2018

Contributions	\$ Per Member Per Month
Normal Cost of Benefits:	
Age and Service	\$ 22.45
Casualty	1.65
Refunds	-
Total	<u>24.10</u>
Unfunded Accrued Liabilities *	<u>31.52</u>
Total Contribution Requirement	55.62
Member Portion	-
Employer Portion	\$ 55.62

* *Unfunded actuarial accrued liabilities were amortized over a 18.5-year period.*

LOPFI
Computed Employer Contributions
for Volunteer Service Members by Valuation Groups
December 31, 2016

Group	Number of Active Members	Number of Valuation Groups with Indicated Computed Employer Contributions Expressed as Dollars Per Month Per Active Member												Totals
		Under \$10	From \$10 to \$15	From \$15 to \$20	From \$20 to \$25	From \$25 to \$30	From \$30 to \$35	From \$35 to \$40	From \$40 to \$45	From \$45 to \$50	From \$50 to \$55	From \$55 to \$60	\$60 and Over	
Volunteer Police	396	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	104
Volunteer Fire	<u>6,995</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>469</u>
December 31, 2016	7,391	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	573
December 31, 2015 *	7,304	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	566
December 31, 2014	7,347	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	554
December 31, 2013	7,140	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	534
December 31, 2012 *	7,029	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	511
December 31, 2011	7,034	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	512
December 31, 2010	6,734	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	485
December 31, 2009	6,551	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	468
December 31, 2008 *	6,603	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	457
December 31, 2007	6,620	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	461

* After changes in actuarial valuation assumptions.

LOPFI
Reported Accrued Assets Available for Benefits
December 31, 2016

Group Type	No. #	Employer Accumulation Account	Members' Deposit Account	Retirement Reserve Account &	Totals @
Paid Police W/SS	179	\$ 109,213,613	\$ 14,696,288	\$ -	\$ 123,909,901
Paid Police W/O SS	14	203,152,465	81,998,396	-	285,150,861
Paid Fire W/SS	28	5,905,322	1,838,105	-	7,743,427
Paid Fire W/O SS	62	339,080,324	121,582,499	-	460,662,823
Subtotal	283	657,351,724	220,115,288	-	877,467,012
Volunteer					
Police and Fire	573	35,052,689	6,340	-	35,059,029
Retirants and Beneficiaries	-	-	-	686,205,961	686,205,961
Total	856	\$ 692,404,413	\$ 220,121,628	\$ 686,205,961	\$ 1,598,732,002

The Employer Accumulation Account represents employer contributions accumulated for the payment of annuities.

The Members' Deposit Account represents employee contributions for (1) monthly annuities upon future retirements and (2) refunds upon termination if a monthly annuity is not payable.

The Retirement Reserve Account represents employer and employee contributions accumulated for monthly annuities being paid to present retired lives.

Number of employers with active participants as of December 31, 2016. Totals include accounts for employers with no active participants as of December 31, 2016.

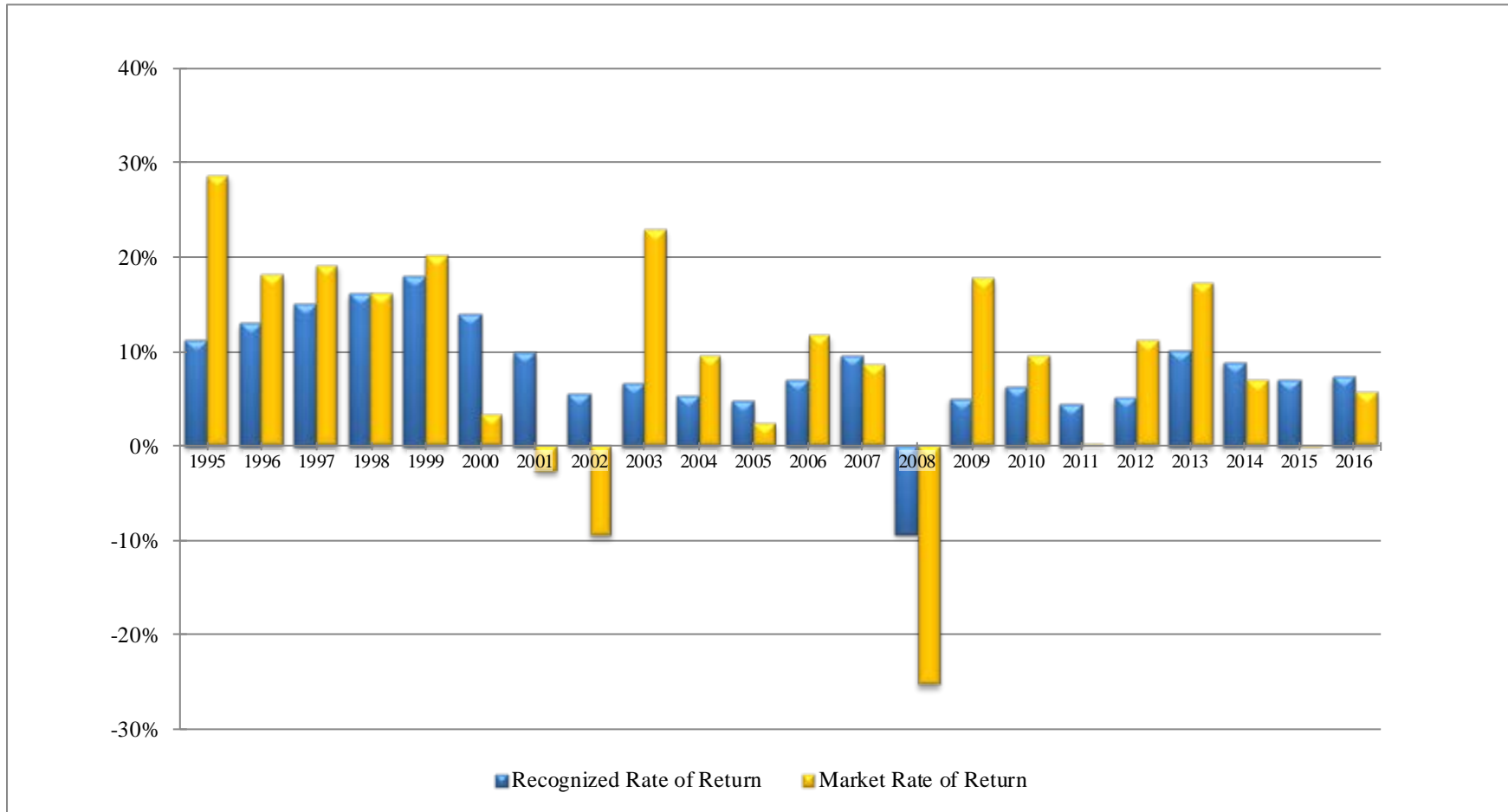
& Includes DROP Reserve Account.

@ Does not include assets of \$172,106,996 invested by LOPFI on behalf of Pension and Relief Funds under LOPFI administration.

LOPFI
Development of Actuarial Value of Retirement System Assets
(Including Assets of Pension and Relief Fund Plans under LOPFI Administration)

Year Ended December 31:	2012	2013	2014	2015	2016
A. Actuarial Value Beginning of Year	\$ 1,070,685,918	\$1,169,357,127	\$1,391,830,575	\$1,554,175,988	\$1,702,593,072
B. Market Value End of Year	1,158,753,904	1,467,975,980	1,610,091,699	1,646,678,312	1,770,838,998
C. Market Value Beginning of Year	1,001,672,848	1,158,753,904	1,467,975,980	1,610,091,699	1,646,678,312
D. Non-Investment Net Cash Flow	42,804,915	99,797,352	37,152,170	37,416,976	28,455,864
E. Investment Income					
E1. Market Total: B - C - D	114,276,141	209,424,724	104,963,549	(830,363)	95,704,822
E1(a). Assumed Rate of Return	8.0%	8.0%	8.0%	8.0%	7.75%
E2. Amount for Immediate Recognition	87,367,070	97,540,464	112,832,533	125,830,748	133,053,628
E3. Amount for Phased-In Recognition E1-E2	26,909,071	111,884,260	(7,868,984)	(126,661,111)	(37,348,806)
F. Phased-In Recognition of Investment Income					
F1. Current Year: 0.20 x E3	5,381,814	22,376,852	(1,573,797)	(25,332,222)	(7,469,761)
F2. First Prior Year	(15,683,289)	5,381,814	22,376,852	(1,573,797)	(25,332,222)
F3. Second Prior Year	1,859,130	(15,683,289)	5,381,814	22,376,852	(1,573,797)
F4. Third Prior Year	11,201,123	1,859,130	(15,683,289)	5,381,814	22,376,852
F5. Fourth Prior Year	<u>(34,259,554)</u>	<u>11,201,125</u>	<u>1,859,130</u>	<u>(15,683,287)</u>	<u>5,381,815</u>
F6. Total Recognized Investment Gain	(31,500,776)	25,135,632	12,360,710	(14,830,640)	(6,617,113)
G. Actuarial Value End of Year: A + D + E2 + F6	1,169,357,127	1,391,830,575	1,554,175,988	1,702,593,072	1,857,485,451
120% Corridor	1,390,504,685	1,761,571,176	1,932,110,039	1,976,013,974	2,125,006,798
80% Corridor	927,003,123	1,174,380,784	1,288,073,359	1,317,342,650	1,416,671,198
Actuarial Value End of Year:	1,169,357,127	1,391,830,575	1,554,175,988	1,702,593,072	1,857,485,451
H. Difference between Market & Actuarial Value	(10,603,223)	76,145,405	55,915,711	(55,914,760)	(86,646,453)
I. Recognized Rate of Return	5.12%	10.06%	8.88%	7.06%	7.36%
J. Market Rate of Return	11.17%	17.33%	7.06%	(0.05)%	5.76%
K. Ratio of Actuarial Value to Market Value	100.92%	94.81%	96.53%	103.40%	104.89%

LOPFI Comparison of Annual Market Rate to Recognized Rate



LOPFI
Summary of Valuation Assets, Actuarial Accrued Liabilities and Average Contribution Rate
Excluding Pension and Relief Funds under LOPFI Administration

Paid Participants

Valuation Date ^	Valuation Groups	Active Members	Actuarial Accrued Liabilities	Actuarial Valuation Assets	Assets/Liabilities*	Average Contribution Rate¹	Average Contribution Rate²	Amortization Period
12/31/2002 +	236	4,720	\$ 291,184,122	\$ 367,122,230	126 %	10.38 %		30
12/31/2003 #	233	4,849	370,735,495	399,726,460	108	11.09		30
12/31/2004 +	236	4,966	470,078,530	429,104,830	91	14.82		30
12/31/2005	236	5,115	526,635,441	483,789,282	92	15.04		30
12/31/2006	247	5,328	603,842,363	555,752,156	92	15.11		30
12/31/2007	261	5,603	699,800,039	644,631,782	92	15.16	15.44 %	30
12/31/2008 #+	258	5,640	825,417,767	662,380,764	80	15.30	15.69	30
12/31/2009	269	5,907	946,423,135	622,560,540	66	17.25	18.79	30
12/31/2010	274	5,949	1,012,194,055	664,246,931	66	17.03	19.21	30
12/31/2011	275	6,016	1,077,498,958	698,331,958	65	18.01	19.63	30
12/31/2012 #+	272	6,139	1,144,065,505	741,339,106	65	18.97	18.97	22.3
12/31/2013	272	6,245	1,234,260,098	830,390,612	67	19.39	19.39	19.5
12/31/2014	276	6,323	1,309,948,715	911,335,468	70	20.12	20.12	16.3
12/31/2015 #	285	6,430	1,411,113,518	937,319,676	66	21.04	21.04	18.8
12/31/2016	283	6,551	1,469,152,456	974,820,813	66	21.90	21.90	16.8

* If this ratio approximates 100%, it indicates that financial activity is operating within an expected range of reasonableness.

After changes in actuarial valuation assumptions.

+ After legislated benefit changes and Board policy changes.

^ Rules established by Board policy to implement uniform paid service rule applied on and after December 31, 2011. All paid service employer rates increased by the maximum allowed under law.

1 With Section 24-10-405(h)(1) cap on rate increases as a result of plan experience.

2 Without Section 24-10-405(h)(1) cap on rate increases as a result of plan experience.

LOPFI
Summary of Valuation Assets, Actuarial Accrued Liabilities and Average Contribution Rate
Excluding Pension and Relief Funds under LOPFI Administration (Continued)

Volunteer Participants

Valuation Date	Valuation Groups	Active Members	Actuarial Accrued Liabilities	Actuarial Valuation Assets	Assets/ Liabilities*	Average Contribution Rate &	Amortization Period
12/31/2002 +	280	3,858	\$ 14,587,662	\$ 11,956,886	82 %	\$ 24.02	30
12/31/2003 #	290	4,088	19,207,277	13,069,692	68	27.46	30
12/31/2004	306	4,406	22,136,019	13,673,013	62	30.72	30
12/31/2005	325	4,650	26,240,543	16,517,560	63	32.30	30
12/31/2006	341	4,905	30,139,607	18,430,385	61	33.91	30
12/31/2007	461	6,620	42,720,023	22,236,583	52	39.15	30
12/31/2008 #	457	6,603	47,019,246	17,508,921	37	46.14	30
12/31/2009	468	6,551	48,890,402	17,034,083	35	49.15	29
12/31/2010	485	6,734	52,068,716	19,655,706	38	49.62	28
12/31/2011	512	7,034	56,421,727	21,564,055	38	51.56	27
12/31/2012 #	511	7,029	60,215,143	23,703,257	39	53.75	26
12/31/2013	534	7,140	63,106,093	28,084,402	45	52.68	25
12/31/2014	554	7,347	65,739,819	32,649,827	50	52.68	20.7
12/31/2015 #	566	7,304	68,670,319	33,878,371	49	54.13	21.2
12/31/2016	573	7,391	72,092,819	38,164,014	53	55.62	18.5

* *If this ratio approximates 100%, it indicates that financial activity is operating within an expected range of reasonableness.*

After changes in actuarial valuation assumptions.

+ *After legislated benefit changes and Board policy changes.*

& *Beginning with the December 31, 2006 valuation, volunteer employers are not separately experience rated for employer contribution rate purposes.*

LOPFI
Summary of Valuation Assets, Actuarial Accrued Liabilities and Average Contribution Rate
Excluding Pension and Relief Funds under LOPFI Administration (Continued)

Retirants and Beneficiaries

Valuation Date	Valuation Groups	Active Members	Actuarial Accrued Liabilities	Actuarial Valuation Assets	Assets/ Liabilities*
12/31/2002 +	-	-	\$ 28,897,704	\$ 27,629,725	96 %
12/31/2003 #	-	-	38,810,117	39,864,734	103
12/31/2004	-	-	48,878,672	48,455,552	99
12/31/2005	-	-	65,530,656	65,115,240	99
12/31/2006	-	-	79,179,485	80,827,514	102
12/31/2007	-	-	95,286,950	100,568,257	106
12/31/2008 #	-	-	122,445,893	122,445,893	100
12/31/2009	-	-	152,859,019	152,859,019	100
12/31/2010	-	-	189,166,801	189,166,801	100
12/31/2011	-	-	245,094,370	245,094,370	100
12/31/2012 #	-	-	308,554,826	308,554,826	100
12/31/2013	-	-	379,284,767	379,284,767	100
12/31/2014	-	-	449,064,235	449,064,235	100
12/31/2015 #	-	-	554,983,611	554,983,611	100
12/31/2016	-	-	664,379,492	664,379,492	100

* If this ratio approximates 100%, it indicates that financial activity is operating within an expected range of reasonableness.

After changes in actuarial valuation assumptions.

+ After legislated benefit changes and Board policy changes.

LOPFI
Summary of Valuation Assets, Actuarial Accrued Liabilities and Average Contribution Rate
Excluding Pension and Relief Funds under LOPFI Administration (Concluded)

Total Plan

Valuation Date	Valuation Groups	Active Members	Actuarial Accrued Liabilities	Actuarial Valuation Assets	Assets/ Liabilities*
12/31/2002 +	516	8,578	\$ 334,669,488	\$ 406,708,841	122 %
12/31/2003 #	523	8,937	428,752,889	452,660,886	106
12/31/2004 +	542	9,372	541,093,221	491,233,395	91
12/31/2005	561	9,765	618,406,640	565,422,082	91
12/31/2006	588	10,233	713,161,455	655,010,055	92
12/31/2007	722	12,223	837,807,012	767,436,622	92
12/31/2008 #+	715	12,243	994,882,906	802,335,578	81
12/31/2009	737	12,458	1,148,172,556	792,453,642	69
12/31/2010	759	12,683	1,253,429,572	873,069,438	70
12/31/2011	787	13,050	1,379,015,055	964,990,383	70
12/31/2012 #+	783	13,168	1,512,835,474	1,073,597,189	71
12/31/2013	806	13,385	1,676,650,958	1,237,759,781	74
12/31/2014	830	13,670	1,824,752,769	1,393,049,530	76
12/31/2015 #	851	13,734	2,034,767,448	1,526,181,658	75
12/31/2016	856	13,942	2,205,624,767	1,677,364,319	76

* If this ratio approximates 100%, it indicates that financial activity is operating within an expected range of reasonableness.

After changes in actuarial valuation assumptions.

+ After legislated benefit changes.

**Other Results Associated with the
Determination of Employer Contribution Rates
Excluding Pension and Relief Funds under LOPFI Administration**

Terminated Vested Results*

The following table contains information regarding terminated vested member data used in the December 31, 2016 valuation. It includes projected benefits and the actuarial accrued liabilities associated with these benefits. The projected benefit reflects our best estimate of the ultimate benefit. The ultimate benefit will be based on the final average pay at termination increased for the total change (one half the change for paid service benefits) in the Consumer Price Index (CPI) for the period from 3 months immediately preceding the date of termination to the CPI for the period 3 months immediately preceding the benefit commencement date.

The December 31, 2016 valuation included 7,132 terminated vested members from 782 political subdivisions.

<u>Service Type</u>	<u>Number</u>	<u>Projected Benefits</u>	<u>Actuarial Accrued Liabilities</u>	<u>Average Age</u>
Paid	3,481	\$ 12,174,699	\$ 75,061,431	41.9
Volunteer	3,651	3,469,524	20,934,589	47.6
Total	7,132	\$ 15,644,223	\$ 95,996,020	44.8

* The terminated vested data contains non-terminated vested members who are entitled to, but have not yet received, a refund from the System.

Active Inactive Results

Active Inactive refers to members who have terminated service with an employer, but are currently active with a different employer in LOPFI. The following table contains information regarding the active inactive member data used in the December 31, 2016 valuation. It includes the actuarial accrued liabilities associated with the service accrued from the terminated employer.

The December 31, 2016 valuation included 3,923 active inactive members from 696 political subdivisions.

<u>Service Type</u>	<u>Number</u>	<u>Actuarial Accrued Liabilities</u>	<u>Average Age</u>
Paid	1,733	\$ 87,784,530	40.4
Volunteer	2,190	4,310,176	40.0
Total	3,923	\$ 92,094,706	40.2

**Other Results Associated with the
Determination of Employer Contribution Rates
Excluding Pension and Relief Funds under LOPFI Administration
(Concluded)**

Retired Results

The following table contains information regarding retired member data used in the December 31, 2016 valuation. When a member retires, a reserve transfer is made to the Retirement Reserve Account to fully fund the liabilities associated with the benefit recipient.

The December 31, 2016 valuation included 4,569 retired members from 735 political subdivisions.

<u>Service Type</u>	<u>Number</u>	<u>Annual Benefits</u>	<u>Actuarial Accrued Liabilities</u>	<u>Average Age at Valuation Date</u>	<u>Average Age at Retirement</u>
Paid	2,211	\$ 46,605,730	\$ 632,757,349	57.1	52.3
Volunteer	2,358	2,671,012	31,622,143	62.6	58.7
Total	4,569	\$ 49,276,742	\$ 664,379,492	59.9	55.6

Deferred Retirement Option Plan (DROP) Results

The following table contains information regarding DROP member data used in the December 31, 2016 valuation. It includes current DROP account deposits, expected benefits at retirement and the actuarial accrued liabilities associated with these benefits.

The December 31, 2016 valuation included 337 DROP members from 87 political subdivisions.

<u>Service Type</u>	<u>Number</u>	<u>Annual DROP Benefits</u>	<u>Expected Annual Benefits at Retirement</u>	<u>Actuarial Accrued Liabilities</u>	<u>Average Age at Valuation Date</u>	<u>Average Age at DROP</u>
Paid	337	\$ 10,146,660	\$ 13,581,900	\$ 186,731,459	56.3	54.2

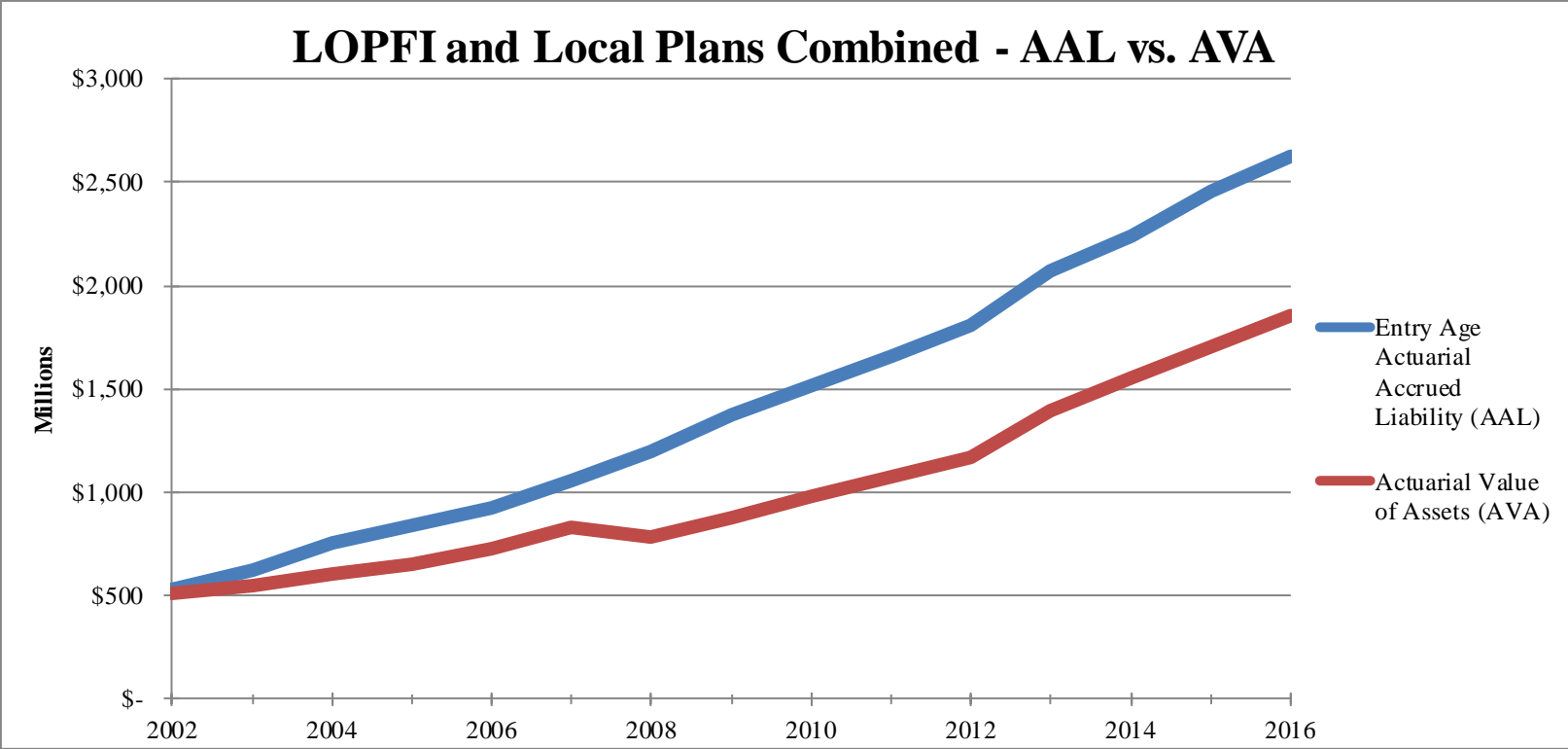
LOPFI and Local Plans

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Entry Age Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (c) = (b) - (a)	Funded Ratio (d) = (a)/(b)	Annual Valuation Payroll (e)	UAAL as a Percentage of Valuation Payroll (f) = (c)/(e)
12/31/2002 *	\$ 515,600,263	\$ 534,533,175	\$ 18,932,912	96%	\$ 163,420,616	12%
12/31/2003 +	553,057,228	625,021,624	71,964,396	88%	178,850,477	40%
12/31/2004 *	601,798,909	754,004,285	152,205,376	80%	193,670,943	79%
12/31/2005	653,546,976	842,926,984	189,380,008	78%	207,890,440	91%
12/31/2006	724,746,827	927,816,659	203,069,832	78%	222,107,556	91%
12/31/2007	827,546,002	1,054,599,720	227,053,718	78%	235,337,218	96%
12/31/2008 *+	788,633,082	1,200,515,663	411,882,581	66%	245,775,341	168%
12/31/2009	878,958,364	1,379,093,412	500,135,048	64%	265,123,993	189%
12/31/2010	982,154,992	1,519,527,855	537,372,863	65%	268,424,127	200%
12/31/2011	1,070,685,918	1,654,156,087	583,470,169	65%	275,850,081	212%
12/31/2012 *+	1,169,357,127	1,805,815,641	636,458,514	65%	284,595,308	224%
12/31/2013	1,391,830,575	2,069,345,139	677,514,564	67%	298,805,693	227%
12/31/2014	1,554,175,988	2,235,441,597	681,265,609	70%	307,760,404	221%
12/31/2015 +	1,702,593,072	2,455,768,287	753,175,215	69%	317,133,046	237%
12/31/2016	1,857,485,451	2,623,115,852	765,630,401	71%	326,307,029	235%

+ After changes in actuarial valuation assumptions.

* After legislated benefit changes and Board policy changes.



LOPFI and Local Plans

Schedule of Employer Contributions

<u>Fiscal Year</u> <u>Ending</u>	<u>Annual Required</u> <u>Contribution</u>	<u>Percent</u> <u>Contributed</u>
12/31/2000	\$ 22,321,326	100%
12/31/2001	22,420,300	100%
12/31/2002	18,261,057	100%
12/31/2003	18,712,140	100%
12/31/2004	26,925,018	100%
12/31/2005	30,184,341	100%
12/31/2006	39,758,875	100%
12/31/2007	43,362,966	100%
12/31/2008	49,518,628	100%
12/31/2009	53,051,887	100%
12/31/2010	58,654,842	100%
12/31/2011	61,818,119	100%
12/31/2012	66,648,849	100%
12/31/2013	73,092,900	100%
12/31/2014	82,447,373	100%
12/31/2015	85,473,297	100%
12/31/2016	89,923,898	100%

Short Condition Test Comparative Statement

LOPFI Plans

LOPFI Paid Service

Valuation Date December 31	Actuarial Accrued Liabilities for			Actuarial Value of Assets	Portion of Present Values Covered by Assets		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)		(1)	(2)	(3)
2007	\$ 95,667,812	\$ 90,980,880	\$ 675,497,118	\$ 740,968,085	100 %	100 %	92 %
2008 +*	107,486,154	116,390,986	717,931,676	778,148,309	100	100	77
2009	126,212,081	142,789,842	820,211,054	765,350,382	100	100	61
2010	142,979,396	176,648,898	869,214,659	840,895,829	100	100	60
2011	159,770,407	229,845,487	917,728,551	928,182,921	100	100	59
2012 +*	176,658,387	290,143,869	967,407,118	1,031,482,975	100	100	58
2013	189,555,199	357,817,076	1,044,704,899	1,188,207,688	100	100	61
2014	202,036,742	424,620,753	1,107,911,973	1,335,956,221	100	100	64
2015 +	211,502,055	526,188,884	1,199,611,463	1,463,508,560	100	100	61
2016	220,115,288	632,757,349	1,249,037,168	1,607,578,162	100	100	60

LOPFI Volunteer Service

Valuation Date December 31	Actuarial Accrued Liabilities for			Actuarial Value of Assets	Portion of Present Values Covered by Assets		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)		(1)	(2)	(3)
2007	\$ -	\$ 4,306,070	\$ 42,720,023	\$ 26,468,537	- %	100 %	52 %
2008 +	-	6,054,907	47,019,246	24,187,269	-	100	39
2009	-	10,069,177	48,890,402	27,103,260	-	100	35
2010	-	12,517,903	52,068,716	32,173,609	-	100	38
2011	-	15,248,883	56,421,727	36,807,462	-	100	38
2012 +	-	18,410,957	60,215,143	42,114,214	-	100	39
2013	-	21,467,691	63,106,093	49,552,093	-	100	45
2014	-	24,443,482	65,739,819	57,093,309	-	100	50
2015 +	-	28,794,727	68,670,319	62,673,098	-	100	49
2016	-	31,622,143	72,092,819	69,786,157	-	100	53

+ After changes in actuarial valuation assumptions.

* After legislated benefit changes and Board policy changes.

Short Condition Test Comparative Statement

Local Plans

Local Paid Service

Valuation Date December 31	Actuarial Accrued Liabilities for				Actuarial Value of Assets	Portion of Present Values Covered by Assets		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)			(1)	(2)	(3)
2007	\$ 6,087,324	\$ 201,530,961	\$ 927,380	\$ 58,271,540	100 %	26 %	- %	
2008 +	4,586,196	189,690,459	725,693	(14,784,011)	-	-	-	
2009	3,163,233	185,486,259	29,522,904	80,902,787	100	42	-	
2010	2,849,033	215,795,003	34,266,295	102,556,180	100	46	-	
2011	2,450,310	226,494,886	32,836,591	99,201,212	100	43	-	
2012 +	2,123,678	248,990,760	28,111,237	88,851,483	100	35	-	
2013	1,647,055	347,697,141	29,055,445	146,413,041	100	42	-	
2014	1,734,546	357,077,348	36,767,436	152,308,676	100	42	-	
2015 +	1,455,029	371,571,160	32,666,704	167,837,218	100	45	-	
2016	1,595,793	372,340,632	27,740,698	171,109,243	100	46	-	

Local Volunteer Service

Valuation Date December 31	Actuarial Accrued Liabilities for				Actuarial Value of Assets	Portion of Present Values Covered by Assets		
	Member Contributions (1)	Current Retirees and Beneficiaries (2)	Active and Inactive Members, Employer Financed Portion (3)			(1)	(2)	(3)
2007	\$ 2,194	\$ 8,036,483	\$ 208,366	\$ 1,837,840	100 %	23 %	- %	
2008 +	2,279	10,495,474	132,593	1,081,515	100	10	-	
2009	3,065	12,395,214	350,181	5,601,935	100	45	-	
2010	12,433	12,964,889	210,630	6,529,374	100	50	-	
2011	16,968	13,046,463	295,814	6,494,323	100	50	-	
2012 +	17,401	13,196,487	540,604	6,908,455	100	52	-	
2013	17,759	13,940,442	336,339	7,657,753	100	55	-	
2014	17,778	14,706,680	385,040	8,817,782	100	60	-	
2015 +	4,398	14,991,823	308,725	8,574,196	100	57	-	
2016	6,919	15,514,259	292,784	9,011,889	100	58	-	

+ After changes in actuarial valuation assumptions.

**Derivation of Actuarial Gain (Loss)
Year Ended December 31, 2016
(LOPFI and Local Plans Combined)**

The actuarial gains or losses realized in the operation of the Retirement System provide an experience test. Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is expected that gains and losses will cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a year-by-year comparative schedule.

(1)	UAAL at start of year	\$ 753,175,215
(2)	Employer normal cost from last valuation	34,236,933
(3)	Actual employer contributions	89,923,898
(4)	Interest accrual: (1) x 0.0775 + [(2)-(3)] x (0.0775/2)	56,213,209
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	753,701,459
(6)	Change from benefit changes*	341,409
(7)	Change from revised actuarial assumptions	-
(8)	Expected UAAL after changes	754,042,868
(9)	Actual UAAL at end of year	765,630,401
(10)	Gain (Loss) (8) - (9)	(11,587,533)
(11)	Gain (Loss) as percent of actuarial accrued liabilities at start of year	\$2,455,768,287 (0.5)%

* Includes unfunded liability associated with Local Pension Funds added during the year.

Valuation Date December 31	Actuarial Gain (Loss) as a Percentage of Beginning Accrued Liabilities
2007	0.4 %
2008	(12.8)
2009	(2.9)
2010	(0.7)
2011	(1.9)
2012	(1.1)
2013	0.7
2014	(0.1)
2015	(0.3)
2016	(0.5)

LOPFI and Local Plans

Risk Measures

Valuation Date Dec. 31	(1) Accrued Liabilities (AAL)	(2) Market Value of Assets	(3) Unfunded AAL (1)-(2)	(4) Valuation Payroll	(5) Funded Ratio (2)/(1)	(6) Liability/ Payroll (1)/(4)	(7) Assets/ Payroll (2)/(4)	(8) Unfunded/ Payroll (3)/(4)	(9) Portfolio Rate of Return	(10) 10-Year Trailing Average
2007	\$ 1,054,600	\$ 833,279	\$ 221,321	\$ 235,337	79.0%	448.1%	354.1%	94.0%	8.6%	
2008#+	1,200,516	657,194	543,322	245,775	54.7%	488.5%	267.4%	221.1%	-25.2%	
2009	1,379,093	827,769	551,324	265,124	60.0%	520.2%	312.3%	207.9%	17.8%	
2010	1,519,528	955,782	563,746	268,424	62.9%	566.1%	356.1%	210.0%	9.6%	3.6%
2011	1,654,156	1,001,673	652,483	275,850	60.6%	599.7%	363.2%	236.5%	0.2%	3.9%
2012#+	1,805,816	1,158,754	647,062	284,595	64.2%	634.5%	407.1%	227.4%	11.2%	6.1%
2013	2,069,345	1,467,976	601,369	298,806	70.9%	692.5%	491.2%	201.3%	17.3%	5.6%
2014	2,235,442	1,610,092	625,350	307,760	72.0%	726.4%	523.2%	203.2%	7.1%	5.3%
2015#	2,455,768	1,646,678	809,090	317,133	67.1%	774.4%	519.3%	255.1%	-0.1%	5.1%
2016	2,623,116	1,770,839	852,277	326,307	67.5%	803.9%	542.7%	261.2%	5.8%	4.5%

LOPFI had experience studies and/or assumption changes in these years leading to a change or "true up" in actuarial assumptions. A pattern of periodic studies is a sign of a well-run system and suggests the extent to which the liability measures the actuary provides are likely to be realistic.

+ LOPFI had benefit changes in these years. Benefit increases cause liabilities to rise; benefit decreases cause liabilities to fall. In either case, benefit changes affect the year-by-year comparability of the measures on this page.

(5) The funded ratio is the most widely known measure of a plan's financial strength, but the trend in the funded ratio is much more important than the absolute ratio. The funded ratio should trend to 100%. As it approaches 100%, it is important to re-evaluate the level of investment risk in the portfolio and potentially to re-evaluate the assumed rate of return.

(6) and (7) The ratios of liabilities and assets to payroll gives an indication of both maturity and volatility. Many systems have values between 500% and 700%. Values significantly above that range may indicate difficulty in supporting the benefit level as a level % of payroll.

(8) The ratio of unfunded liability to payroll gives an indication of the plan sponsor's ability to actually pay off the unfunded liability. A value above approximately 300% or 400% may indicate difficulty in discharging the unfunded liability within a reasonable time frame.

(9) and (10) Investment return is probably the largest single risk that most systems face. The year-by-year return and the 10-year geometric average give an indicator of the realism of the System's assumed return. The averages are of course distorted by the extraordinary events of 2008.

**Results for Local Plans under LOPFI Administration
Paid Service Plans as of December 31, 2016**

Political Subdivision	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2018 Total Monthly Employer Rate*
Bald Knob Partial-Paid Fire	\$ 62,663	\$ 74,288	\$ (11,625)	\$ -
Barling Fire	309,807	271,325	38,482	386
Bella Vista Fire	4,873,033	2,695,195	2,177,838	13,115
Benton Police	2,802,173	2,023,733	778,440	7,735
Bentonville Fire	5,754,080	7,716,762	(1,962,682)	-
Blytheville Police	3,119,802	2,558,776	561,026	6,057
Brinkley Police	509,702	525,451	(15,749)	-
Cabot Police	1,021,335	3,054,324	(2,032,989)	-
Camden Fire	4,118,546	2,113,419	2,005,127	15,494
Camden Police	4,525,325	3,002,340	1,522,985	12,060
Clarendon Police	105,477	174,957	(69,480)	-
Clinton Fire	180,566	161,312	19,254	220
Conway Fire	8,889,891	4,901,184	3,988,707	43,606
Conway Police	9,386,721	5,324,961	4,061,760	42,252
Crossett Police	1,167,123	1,340,883	(173,760)	-
El Dorado Fire	6,419,152	1,253,525	5,165,627	44,597
El Dorado Police	4,190,003	(2,761,042)	6,951,045	49,478
Forrest City Fire	2,936,167	2,544,898	391,269	4,069
Forrest City Police	1,991,792	(95,809)	2,087,601	15,051
Fort Smith Fire	32,284,383	13,719,696	18,564,687	119,920
Fort Smith Police	26,513,645	8,245,913	18,267,732	111,248
Heber Springs Police	1,808,881	1,452,099	356,782	3,490
Helena - West Helena Fire	3,133,433	709,055	2,424,378	21,202
Helena - West Helena Police	2,476,041	998,064	1,477,977	15,180
Hot Springs Fire	17,694,473	(300,446)	17,994,919	109,812
Hot Springs Police	21,958,332	14,649,270	7,309,062	68,647
Hot Springs Village Fire	598,266	56,254	542,012	3,309
Hoxie Fire	115,163	87,504	27,659	403
Jonesboro Fire	13,718,116	(1,106,038)	14,824,154	89,704
Jonesboro Police	11,688,728	10,199,418	1,489,310	15,073
Lincoln Paid Fire	116,510	112,127	4,383	31
Little Rock Police	90,467,270	38,044,442	52,422,828	316,545

* The Total Monthly Employer Rate is the fixed monthly dollar amount charged to the Employer to cover Local Plan unfunded actuarial accrued liabilities.

Results for Local Plans under LOPFI Administration
Paid Service Plans as of December 31, 2016
(Concluded)

Political Subdivision	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2018 Total Monthly Employer Rate*
Lonoke Police	\$ 41,694	\$ (23,709)	\$ 65,403	\$ 703
Lowell Fire	1,098,672	727,276	371,396	5,849
Lowell Police	68,232	(117,544)	185,776	1,521
Magnolia Fire	2,554,888	2,202,288	352,600	3,970
Magnolia Police	1,776,710	1,300,362	476,348	3,157
Malvern Police	1,161,815	1,581,766	(419,951)	-
Marianna Police	722,141	557,484	164,657	2,984
McGehee Fire	362,240	408,108	(45,868)	-
McGehee Police	207,817	477,140	(269,323)	-
Mena Paid Fire	629,130	718,308	(89,178)	-
Mountain Home Fire	4,003,562	1,899,705	2,103,857	12,873
Newport Police	1,686,099	710,883	975,216	5,496
North Little Rock Fire	27,927,252	8,731,300	19,195,952	121,530
North Little Rock Police	24,323,248	1,476,706	22,846,542	142,380
Osceola Police	2,594,737	3,059,924	(465,187)	-
Paragould Fire	1,699,829	959,599	740,230	4,512
Paragould Police	2,586,826	619,448	1,967,378	11,912
Pine Bluff Fire	17,725,267	8,596,010	9,129,257	55,318
Pocahontas Fire	987,505	633,216	354,289	4,537
Searcy Fire	4,264,404	22,177	4,242,227	27,187
Searcy Police	4,036,012	1,578,598	2,457,414	15,023
Stuttgart Fire	4,185,670	1,698,909	2,486,761	24,550
Stuttgart Police	1,857,379	1,891,375	(33,996)	-
Texarkana Paid Fire	6,136,130	5,952,946	183,184	1,040
Trumann Fire	452,674	281,240	171,434	1,077
Van Buren Fire	1,962,434	604,666	1,357,768	14,718
Walnut Ridge Fire	1,205,166	506,043	699,123	4,363
Wynne Fire	482,991	307,159	175,832	1,068

* The Total Monthly Employer Rate is the fixed monthly dollar amount charged to the Employer to cover Local Plan unfunded actuarial accrued liabilities.

**Results for Local Plans under LOPFI Administration
Volunteer Service Plans as of December 31, 2016**

Political Subdivision	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2018 Total Monthly Employer Rate*
Altheimer Volunteer Fire	\$ 68,113	\$ 17,918	\$ 50,195	\$ 690
Altus Volunteer Fire	67,195	39,647	27,548	228
Arkansas City Volunteer Fire	32,936	(31,550)	64,486	418
Atkins Volunteer Fire	195,345	218,777	(23,432)	-
Bald Knob Volunteer Fire	133,263	53,922	79,341	1,012
Barling Volunteer Fire	84,624	138,207	(53,583)	-
Bay Volunteer Fire	75,630	99,487	(23,857)	-
Bearden Volunteer Fire	89,366	104,665	(15,299)	-
Bella Vista Volunteer Fire	60,012	17,365	42,647	276
Belleville Volunteer Fire	81,924	153,677	(71,753)	-
Bentonville Volunteer Fire	95,363	95,538	(175)	-
Biscoe Volunteer Fire	96,447	(3,346)	99,793	654
Caddo Valley Volunteer Fire	136,032	114,212	21,820	252
Caldwell Volunteer Fire	58,582	107,481	(48,899)	-
Calico Rock Volunteer Fire	76,528	104,741	(28,213)	-
Calion Volunteer Fire	86,343	115,804	(29,461)	-
Camden Volunteer Fire	152,271	92,996	59,275	486
Caraway Volunteer Fire	176,285	(139,851)	316,136	2,057
Carthage Volunteer Fire	108,747	67,287	41,460	536
Cash Volunteer Fire	10,393	8,011	2,382	32
Cave City Volunteer Fire	151,478	17,143	134,335	864
Chidester Volunteer Fire	59,562	40,289	19,273	231
Clinton Volunteer Fire	400,979	322,581	78,398	975
Coal Hill Volunteer Fire	80,786	6,220	74,566	481
Cooterneck Volunteer Fire	146,668	(31,278)	177,946	1,166
Cotter Volunteer Fire	38,252	33,720	4,532	60
Cotton Plant Volunteer Fire	96,165	59,457	36,708	438
Danville Volunteer Fire	108,713	47,235	61,478	400
Devalls Bluff Volunteer Fire	162,569	17,746	144,823	988
Diaz Volunteer Fire	132,194	74,556	57,638	860
Dover Volunteer Fire	104,322	46,458	57,864	752
Emmett Volunteer Fire	81,407	73,374	8,033	63
England Volunteer Fire	304,438	244,745	59,693	513
Eudora Volunteer Fire	143,987	176,762	(32,775)	-
Farmington Volunteer Fire	182,519	158,888	23,631	312
Fisher Volunteer Fire	44,122	5,430	38,692	252

* The Total Monthly Employer Rate is the fixed monthly dollar amount charged to the Employer to cover Local Plan unfunded actuarial accrued liabilities.

**Results for Local Plans under LOPFI Administration
Volunteer Service Plans as of December 31, 2016
(Continued)**

Political Subdivision	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2018 Total Monthly Employer Rate*
Forrest City Volunteer Fire	\$ 5,213	\$ (2,710)	\$ 7,923	\$ 91
Garland Volunteer Fire	51,295	54,565	(3,270)	-
Gillett Volunteer Fire	213,216	242,037	(28,821)	-
Gosnell Volunteer Fire	41,273	7,671	33,602	224
Gould Volunteer Fire	55,581	53,649	1,932	13
Green Forest Volunteer Fire	127,903	100,360	27,543	240
Grover Township Volunteer Fire	116,982	69,372	47,610	663
Grubbs Volunteer Fire	42,186	24,943	17,243	208
Hampton Volunteer Fire	247,842	97,682	150,160	976
Hardin Volunteer Fire	86,177	61,180	24,997	330
Hardy Volunteer Fire	218,804	168,914	49,890	684
Harrisburg Volunteer Fire	64,685	229,729	(165,044)	-
Hartford Volunteer Fire	30,898	55,188	(24,290)	-
Helena - West Helena Volunteer Fire	148,572	24,021	124,551	822
Hermitage Volunteer Fire	71,009	(16,717)	87,726	549
Holiday Island Volunteer Fire	23,756	11,682	12,074	180
Holly Grove Volunteer Fire	50,317	49,504	813	15
Hot Springs Village Volunteer Fire	63,086	(19,263)	82,349	540
Hoxie Volunteer Fire	40,050	1,087	38,963	592
Humphrey Volunteer Fire	31,786	42,421	(10,635)	-
Huntsville Volunteer Fire	171,890	212,432	(40,542)	-
Imboden Volunteer Fire	254,967	58,761	196,206	1,290
Jasper Volunteer Fire	129,924	24,344	105,580	708
Joiner Volunteer Fire	63,842	35,535	28,307	280
Junction City Volunteer Fire	163,869	169,366	(5,497)	-
Lake City Volunteer Fire	138,075	90,653	47,422	312
Lake Village Volunteer Fire	152,086	150,758	1,328	18
Lavaca Volunteer Fire	96,894	57,750	39,144	518
Leachville Volunteer Fire	97,754	120,420	(22,666)	-
Lincoln Volunteer Fire	111,339	106,871	4,468	44
Lockesburg Volunteer Fire	119,591	101,705	17,886	240
Lowell Volunteer Fire	31,254	58,491	(27,237)	-
Luxora Volunteer Fire	46,842	173,154	(126,312)	-
Magazine Volunteer Fire	132,630	(11,943)	144,573	948
Magnolia Volunteer Fire	134,082	102,738	31,344	333
Mansfield Volunteer Fire	85,183	73,053	12,130	99

* The Total Monthly Employer Rate is the fixed monthly dollar amount charged to the Employer to cover Local Plan unfunded actuarial accrued liabilities.

Results for Local Plans under LOPFI Administration
Volunteer Service Plans as of December 31, 2016
(Continued)

Political Subdivision	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2018 Total Monthly Employer Rate*
Marked Tree Volunteer Fire	\$ 183,467	\$ 333,858	\$ (150,391)	\$ -
Marshall Volunteer Fire	305,747	14,556	291,191	1,926
Marvell Volunteer Fire	156,697	106,591	50,106	608
McGehee Volunteer Fire	77,175	73,173	4,002	42
McNeil Volunteer Fire	71,169	88,681	(17,512)	-
McRae Volunteer Fire	44,546	12,511	32,035	336
Melbourne Volunteer Fire	117,383	(67,726)	185,109	1,216
Mena Volunteer Fire	74,164	141,465	(67,301)	-
Mineral Springs Volunteer Fire	46,338	69,537	(23,199)	-
Monette Volunteer Fire	152,776	(12,756)	165,532	1,050
Montrose Volunteer Fire	38,138	19,400	18,738	259
Moro Volunteer Fire	63,558	39,916	23,642	312
Mountain Home Volunteer Fire	87,760	(100,605)	188,365	1,206
Mountain View Volunteer Fire	632,463	242,823	389,640	2,520
Murfreesboro Volunteer Fire	158,403	(120,118)	278,521	1,833
Norman Volunteer Fire	83,424	49,641	33,783	270
Norphlet Volunteer Fire	45,128	62,293	(17,165)	-
North Crossett Volunteer Fire	70,618	(43,148)	113,766	738
Paragould Volunteer Fire	22,445	(29,957)	52,402	340
Parkin Volunteer Fire	88,922	23,176	65,746	432
Perryville Volunteer Fire	96,755	86,261	10,494	135
Plainview Volunteer Fire	125,117	91,047	34,070	400
Plumerville Volunteer Fire	379,171	70,356	308,815	2,025
Pocahontas Volunteer Fire	104,135	26,998	77,137	1,020
Portland Volunteer Fire	136,446	166,545	(30,099)	-
Prescott Volunteer Fire	167,023	178,628	(11,605)	-
Pulaski County Fire Protection District	149,877	21,290	128,587	740
Rison Volunteer Fire	371,811	153,403	218,408	1,430
Russell Volunteer Fire	58,540	26,440	32,100	380
Searcy Volunteer Fire	84,001	(154,544)	238,545	1,556
Shannon Hills FD Volunteer Fire	82,052	9,632	72,420	480
Sheridan Volunteer Fire	154,204	144,392	9,812	96
Smackover Volunteer Fire	400,049	370,567	29,482	280
Sparkman Volunteer Fire	233,600	172,720	60,880	672
St. Francis Volunteer Fire	45,238	(2,838)	48,076	316

* The Total Monthly Employer Rate is the fixed monthly dollar amount charged to the Employer to cover Local Plan unfunded actuarial accrued liabilities.

**Results for Local Plans under LOPFI Administration
Volunteer Service Plans as of December 31, 2016
(Concluded)**

Political Subdivision	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	2018 Total Monthly Employer Rate*
Stephens Volunteer Fire	\$ 144,852	\$ 195,141	\$ (50,289)	\$ -
Strong Volunteer Fire	76,774	86,278	(9,504)	-
Stuttgart Volunteer Fire	80,266	8,364	71,902	790
Sulphur Springs Volunteer Fire	60,423	44,768	15,655	72
Swifton Volunteer Fire	121,884	63,374	58,510	705
Taylor Volunteer Fire	188,499	60,454	128,045	792
Thornton Volunteer Fire	201,103	(31,700)	232,803	1,526
Tillar Volunteer Fire	58,270	50,341	7,929	70
Tracy Area Volunteer Fire	35,939	21,375	14,564	221
Trumann Volunteer Fire	57,757	53,092	4,665	30
Tuckerman Volunteer Fire	79,471	1,698	77,773	522
Turrell Volunteer Fire	20,427	9,207	11,220	149
Tyronza Volunteer Fire	177,822	(11,545)	189,367	1,246
Vilonia Volunteer Fire	164,660	119,684	44,976	609
Viola Volunteer Fire	133,668	(36,275)	169,943	1,136
Wabbeska Volunteer Fire	70,540	8,984	61,556	402
Waldo Volunteer Fire	50,870	22,448	28,422	456
Walnut Ridge Volunteer Fire	342,591	62,854	279,737	1,834
Washington Volunteer Fire	36,339	20,610	15,729	104
West Point Volunteer Fire	60,252	51,183	9,069	99
Wheatley Volunteer Fire	87,130	86,278	852	14
White Hall Volunteer Fire	151,945	115,089	36,856	289
Wilmot Volunteer Fire	61,401	79,563	(18,162)	-
Wilson Volunteer Fire	107,808	95,078	12,730	144
Wynne Volunteer Fire	167,063	103,565	63,498	416

* The Total Monthly Employer Rate is the fixed monthly dollar amount charged to the Employer to cover Local Plan unfunded actuarial accrued liabilities.

**Results for Local Plans under LOPFI Administration
Local Plan Level Dollar Contributions
For Employers with No Active Members
as of December 31, 2016**

Political Subdivision	Actuarial Accrued Liability	Actuarial Valuation Assets	Unfunded Actuarial Accrued Liability	UAAL Amortization Annual Level Dollar Contribution	
				Years	\$ Contributions
Bryant Volunteer Fire	\$ 130,425	\$ 77,880	\$ 52,545	24	\$ 390
Cammack Village Volunteer Fire	12,711	71,973	(59,262)	9	-
Conway Volunteer Fire	20,444	(5,505)	25,949	9	306
Jonesboro Volunteer Fire	5,378	(98,284)	103,662	20	811
Perla Volunteer Fire	14,497	(26,006)	40,503	6	637

LOPFI Level Dollar Contributions December 31, 2016

For Employers with Active Members in Other Departments

Department		Actuarial	Actuarial	Unfunded	UAAL Amortization	
		Accrued	Value	Accrued	Annual Level	
Name	Number	Liabilities	Assets	Liabilities (UAAL)	Years	\$ Contributions
City of Altus Paid Police	20522	\$ 51,362	\$ 4,189	\$ 47,173	14	\$ 5,856
City of Bethel Heights Paid Fire	168633	97,521	149,118	(51,597)	14	-
City of Caddo Valley Paid Fire	268233	100,069	67,173	32,896	8	5,880
City of Coal Hill Paid Police	375122	78,369	59,674	18,695	14	2,316
City of Flippin Paid Fire	630032	35,491	92,111	(56,620)	11	-
City of Gentry Paid Fire	704832	2,848	3,452	(604)	8	-
City of Hector Paid Police	865622	69,917	127,649	(57,732)	14	-
City of Higginson Paid Police	884222	5,465	8,947	(3,482)	12	-
Town of Highfill Paid Fire	885032	47,772	64,127	(16,355)	10	-
Tontitown Area VFD Paid Fire	1909732	11,325	53,732	(42,407)	13	-

For Employers with No Active Members

Department		Actuarial	Actuarial	Unfunded	UAAL Amortization	
		Accrued	Value	Accrued	Annual Level	
Name	Number	Liabilities	Assets	Liabilities (UAAL)	Years	\$ Contributions
City of Altheimer Paid Police	24822	\$ 241,565	\$ 155,772	\$ 85,793	13	\$ 11,112
Bono FID Paid Police	189922	-	481	(481)	15	-
City of Calion Paid Police	276322	14,381	17,778	(3,397)	8	-
Central City Paid Police	319022	38,502	53,218	(14,716)	14	-
City of Chidester Paid Police	338723	18,113	23,375	(5,262)	8	-
Town of Concord Paid Police	377822	72,509	108,567	(36,058)	15	-
City of Cushman Paid Police	431622	16,380	31,313	(14,933)	8	-
City of Dyess Paid Police	526622	3,211	14,047	(10,836)	10	-
City of East Camden Paid Police	536322	116,691	144,599	(27,908)	15	-
City of Foreman Paid Police	635122	186,629	237,530	(50,901)	14	-
City of Friendship Paid Police	665322	41,180	32,683	8,497	8	1,524
City of Joiner Paid Police	1040522	52,531	72,037	(19,506)	11	-
City of Junction City Paid Police	1061822	87,665	152,930	(65,265)	8	-
City of Montrose Paid Police	1418422	24,029	13,044	10,985	12	1,488
City of Mountain Pine Paid Police	1447822	94,823	188,525	(93,702)	15	-
City of Mount Ida Paid Police	1448622	8,349	96,508	(88,159)	8	-
City of Newark Paid Police	1497422	30,135	66,863	(36,728)	8	-
City of Perla Paid Police	1628422	62,028	50,816	11,212	8	2,004
City of Pleasant Plains Paid Police	1643822	67,836	145,164	(77,328)	14	-
City of Portland Paid Police	1671322	24,637	28,246	(3,609)	10	-
City of Tontitown Paid Fire	1908932	306,562	13,147	293,415	14	36,396
City of Wilmot Paid Police	2100822	51,721	(238,004)	289,725	24	27,960
City of Yellville Paid Police	2139322	93,026	137,738	(44,712)	8	-

- (1) These results assume contributions begin January 1, 2018 and are applicable in periods where no active members are reported.
- (2) Departments currently with their reported assets exceeding their actuarial accrued liabilities could still be liable for contributions at a later date, depending upon future economic and demographic experience.
- (3) In addition, reports were provided for Bryant Volunteer Fire, Cammack Village Volunteer Fire, Conway Volunteer Fire, Jonesboro Volunteer Fire and Perla Volunteer Fire. These are all combined plans with no active members.
- (4) These departments were identified for inclusion in this calculation, by LOPFI Staff.
- (5) New calculations are needed, as of December 31, 2017, for any of these departments that again are without active members.

SECTION C

BENEFIT PROVISIONS AND VALUATION DATA

Arkansas LOcal Police and Fire Retirement System
Brief Summary as of December 31, 2016 of LOPFI Coverage for
BENEFIT PROGRAM 1 PAID SERVICE
Benefits and Conditions Evaluated and/or Considered
(Section references are to Arkansas Code of 1987, including
amendments from 2017 General Assembly Session)

Voluntary Retirement. Section 24-10-604. A member may retire with an age & service annuity after both (i) completing 5 years (10 years for members hired on or after July 1, 2013) of credited service, and (ii) attaining his normal retirement age. The normal retirement age is age 60 for a member with less than 20 years credited service, age 55 for a member with at least 20 years credited service or any age for a member with 28 or more years of credited service.

Compulsory Retirement. Section 24-10-605. Established by each employer.

Paid Service. Section 24-10-102(13). Covered employment which is half-time employment or more, and for which a minimum dollar amount is paid. For each calendar month in 1981, the minimum is \$500 for the month. For each later calendar year, the \$500 is indexed for inflation (Consumer Price Index). Accordingly, the monthly minimum during 2016 was \$1,367.

Volunteer Service. Section 24-10-102(14). Covered employment which cannot be classified as Paid Service.

Final Average Pay. Section 24-10-102(16)(A). The average of a member's monthly pay during the period of 36 consecutive months of credited Paid Service producing the highest monthly average, which period is contained within the 120 consecutive months of credited Paid Service immediately preceding retirement. Not applicable to Volunteer Service.

Age & Service Annuity. Section 24-10-602. The annuity, payable monthly for life, equals a specified amount multiplied by the member's number of years of credited service. The amount depends upon the conditions related to covered employment:

- A. ***Paid Service Not Covered by Social Security.*** For each year of such service, 2.94% of the member's final average pay.
- B. ***Paid Service Also Covered by Social Security.*** For each year of such service, 1.94% of the member's final average pay. In addition, there is a temporary annuity equal to 1.0% of the member's final average pay for each year of service, payable to normal Social Security retirement age.
- C. At time of retirement, the total of A plus B cannot exceed 100% of final average pay.

Early Annuity. Section 24-10-606. A member may retire with an early annuity after both (i) completing 20 years of credited service, and (ii) attaining age 50 or (iii) after completing 25 years of credited paid service. The early annuity amount, payable monthly for life, is computed in the same manner as an age & service annuity, based upon his service and pay record to time of early retirement, but reduced to reflect the fact that his age when payments begin is younger than his normal retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month his age at early retirement is younger than his normal retirement age (age 55 for members with 25 years of credited paid service).

Vested Termination Annuity. Section 24-10-611. If a member leaves LOPFI-covered employment (i) before attaining his early retirement age, and (ii) after completing 5 years (10 years for members hired on or after July 1, 2013) of credited service, he becomes eligible for a vested termination annuity; provided he lives to his normal retirement age and does not withdraw his accumulated contributions. The vested annuity amount, payable monthly for life from his normal retirement age, is computed in the same manner as an age & service annuity, based upon his service and pay record to time of leaving LOPFI coverage. However, final average pay is increased by one-half of any increase in the inflation index for the period from termination of employment to beginning of annuity payments.

Non-Duty Disability Annuity. Section 24-10-607(a)(1)(A). A member with 5 or more years (10 or more years for members hired on or after July 1, 2013) of credited service who becomes totally and permanently disabled from other than duty-connected causes receives a non-duty disability annuity computed in the same manner as an age & service annuity, based upon his service and pay record to time of disability.

Duty Disability Annuity. Section 24-10-607(c)(1)(A). A member who becomes totally and permanently disabled from duty-connected causes receives a duty disability annuity computed in the same manner as an age & service annuity, based upon his service and pay record to time of disability. The minimum annuity payable is 65% of the member's final average pay.

Non-Duty Death-in-Service. Paid Member. Section 24-10-608(a)(1). Upon the death, from other than duty-connected causes, of a Paid Service member who had completed 5 years (10 years for members hired on or after July 1, 2013) of paid service, his eligible surviving dependents receive the following benefits:

- (a) The surviving spouse receives an annuity equal to the Option B50 annuity (joint and 50% survivor benefit) computed based upon the deceased member's service (and pay) record to time of death. Minimum of 20% of member's final average pay, or \$125 monthly if greater.
- (b) While a spouse benefit is payable, each dependent child under age 18 (age 23 if full time student) receives 10% of member's final average pay, or \$25 monthly if greater. The totals for 4 or more children cannot exceed 30% of final average pay, or \$125 monthly if greater.
- (c) While no spouse benefit is payable, each dependent child under age 18 (age 23 if full time student) receives 20% of member's final average pay, or \$25 monthly if greater. The total for 3 or more children cannot exceed 50% of final average pay, or \$125 monthly if greater.
- (d) If there is neither spouse nor child at time of member's death, each dependent parent receives 20% of final average pay.

Duty Death-in-Service. Section 24-10-608(b)(1). Upon the death of a Paid Service member from duty-connected causes, regardless of length of service, his eligible surviving dependents receive the same benefits as for Non-Duty Death, except that if credited service at time of death is less than 25 years, credited service is increased to 25 years.

Benefit Changes After Retirement. Section 24-10-612. There is an annual redetermination of monthly benefit amount, beginning the July first following 12 months of retirement. The redetermined amount is 3.0% of the monthly benefit from the preceding July.

Member Contributions. Sections 24-10-404 and 24-10-613. Each member contributes 8.5% of his covered pay if his covered employment is resulting in Paid Service credit and is not covered by Social Security. For other covered employment conditions, each member contributes 2.5% of his covered pay. Individual member deposit accounts do not receive interest credit. If a member leaves LOPFI-covered employment before an annuity is payable on his behalf, the member may choose to have his accumulated contributions refunded to him. If he dies, his accumulated contributions are refunded to his designated beneficiary.

Employer Contributions. Section 24-10-405. Each employer contributes the remainder amounts necessary to finance its employees' participation in LOPFI. Contributions to LOPFI are determined based upon level-rate principles, so that contribution rates do not have to increase over decades of time.

DROP (Deferred Retirement Option Plan). Sections 24-10-701 through 24-10-708. Paid service members who have attained age 55 with at least 20 years of service or members with at least 28 years of service may participate. A participant with 28 years of service will receive 75% of his accrued benefit at time of DROP election while in the DROP, payable into the participant's DROP account (which will be credited with 6% interest annually). A participant with less than 28 years of service will receive 72% of his accrued benefit at time of DROP election while in the DROP, payable into the participant's DROP account (which will be credited with 6% interest annually). The duration of participation in the DROP shall not exceed 7 years. When a member has reached year 6 of participation in the DROP, the amount of the accrued benefit at the time of DROP election shall be redetermined. The redetermined amount shall be the amount of the benefit as of the immediately preceding July 1 increased by 3%. The redetermined amount shall be payable only when the member elects to cease employment and receive a service retirement and shall not be added to the plan account. Employer and employee contributions continue and are used to finance System benefits (i.e., they are not deposited to the participant's DROP account). For additional details please refer to Arkansas Code, Title 24, Chapter 10, Subchapter 7.

LOPFI
Illustrations of Normal Benefit Amounts
for Sample Combinations of Service & Pay

Illustration 1
FOR PAID SERVICE WHICH IS NOT COVERED BY
SOCIAL SECURITY

**(The Applicable Benefit Program is Years of Paid Service
times 2.94% of FAP ⁽¹⁾)**

Final Average Pay (FAP) ⁽¹⁾	LOPFI BENEFIT ⁽²⁾	
	\$	% of FAP
<u>32 Years of Service ⁽³⁾</u>		
\$ 1,800	\$ 1,693	94 %
2,200	2,070	94
2,600	2,446	94
3,000	2,822	94
3,400	3,199	94
<u>28 Years of Service ⁽³⁾</u>		
\$ 1,800	\$ 1,482	82 %
2,200	1,811	82
2,600	2,140	82
3,000	2,470	82
3,400	2,799	82
<u>20 Years of Service ⁽³⁾</u>		
\$ 1,800	\$ 1,058	59 %
2,200	1,294	59
2,600	1,529	59
3,000	1,764	59
3,400	1,999	59

(1) "Final Average Pay" means the monthly average of an employee's pays during the period of 36 consecutive months when they were highest, contained within his last 120 months of paid service.

(2) Amounts shown are rounded to the nearest dollar; actual amounts will be calculated to the nearest cent.

(3) With 28 or more years of service the employee is eligible for normal retirement. With 20 or more years of service the employee is eligible for normal retirement at age 55. With fewer than 20 years, the eligibility age is 60.

LOPFI
Illustrations of Normal Benefit Amounts
for Sample Combinations of Service & Pay

Illustration 2 ⁽⁵⁾

FOR PAID SERVICE WHICH IS COVERED BY SOCIAL SECURITY

(The Applicable Benefit Program is Years of Paid Service times: 1.94% of FAP ⁽¹⁾ for life, plus 1.0% of FAP ⁽¹⁾ temporary to full Social Security retirement age)

Final Average Pay (FAP) ⁽¹⁾	LOPFI Benefit ⁽³⁾		Estimated Social Security ⁽²⁾	Estimated Monthly Total		Percent of FAP	
	To SSRA	At SSRA		To SSRA	At SSRA	To SSRA	At SSRA
<u>32 Years of Service ⁽⁴⁾</u>							
\$1,800	\$ 1,693	\$ 1,117	\$ 966	\$ 1,693	\$ 2,083	94 %	116 %
2,200	2,070	1,366	1,076	2,070	2,442	94	111
2,600	2,446	1,614	1,185	2,446	2,799	94	108
3,000	2,822	1,862	1,294	2,822	3,156	94	105
3,400	3,199	2,111	1,404	3,199	3,515	94	103
<u>28 Years of Service ⁽⁴⁾</u>							
\$1,800	\$ 1,482	\$ 978	\$ 966	\$ 1,482	\$ 1,944	82 %	108 %
2,200	1,811	1,195	1,076	1,811	2,271	82	103
2,600	2,140	1,412	1,185	2,140	2,597	82	100
3,000	2,470	1,630	1,294	2,470	2,924	82	97
3,400	2,799	1,847	1,404	2,799	3,251	82	96
<u>20 Years of Service ⁽⁴⁾</u>							
\$1,800	\$ 1,058	\$ 698	\$ 966	\$ 1,058	\$ 1,664	59 %	92 %
2,200	1,294	854	1,076	1,294	1,930	59	88
2,600	1,529	1,009	1,185	1,529	2,194	59	84
3,000	1,764	1,164	1,294	1,764	2,458	59	82
3,400	1,999	1,319	1,404	1,999	2,723	59	80

- (1) "Final Average Pay" means the monthly average of an employee's pays during the period of 36 consecutive months when they were highest, contained within his last 120 months of paid service.
- (2) "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit is based upon an estimated "average indexed monthly earnings" for an employee retiring at normal Social Security Retirement Age (SSRA). It does not include any amounts which might be payable to an eligible spouse or children. Final average pay is assumed to be equal to Average Indexed Monthly Earnings. The results assume no Social Security covered earnings after retirement. Note that a member may draw a reduced Social Security benefit as early as age 62. This is an estimate. Individuals can receive an estimate from the Social Security Administration based on their actual earnings history.
- (3) Amounts shown are rounded to the nearest dollar; actual amounts will be calculated to the nearest cent.
- (4) With 28 or more years of service the employee is eligible for normal retirement. With 20 or more years of service the employee is eligible for normal retirement at age 55. With fewer than 20 years, the eligibility age is 60.
- (5) This illustration shows 2017 Social Security estimates for a participant who retired in 2008 at age 56.

LOPFI
Illustrations of Normal Benefit Amounts
for Sample Combinations of Service & Pay

Illustration 3 ⁽⁵⁾

FOR PAID SERVICE WHICH IS COVERED BY SOCIAL SECURITY

**(The Applicable Benefit Program is Years of Paid Service times: 1.94% of FAP ⁽¹⁾
for life, plus 1.0% of FAP ⁽¹⁾ temporary to full Social Security retirement age)**

Final Average Pay (FAP) ⁽¹⁾	LOPFI Benefit ⁽³⁾		Estimated Social Security ⁽²⁾	Estimated Monthly Total		Percent of FAP	
	To SSRA	At SSRA		To SSRA	At SSRA	To SSRA	At SSRA
<u>32 Years of Service ⁽⁴⁾</u>							
\$2,400	\$ 2,258	\$ 2,063	\$ 1,517	\$ 2,258	\$ 3,580	94 %	125 %
3,000	2,822	2,577	1,718	2,822	4,295	94	120
3,600	3,387	3,094	1,916	3,387	5,010	94	117
4,200	3,951	3,609	2,117	3,951	5,726	94	114
4,800	4,516	4,125	2,316	4,516	6,441	94	112
<u>28 Years of Service ⁽⁴⁾</u>							
\$2,400	\$ 1,976	\$ 1,805	\$ 1,517	\$ 1,976	\$ 3,322	82 %	116 %
3,000	2,470	2,256	1,718	2,470	3,974	82	111
3,600	2,964	2,708	1,916	2,964	4,624	82	108
4,200	3,457	3,157	2,117	3,457	5,274	82	105
4,800	3,951	3,609	2,316	3,951	5,925	82	103
<u>20 Years of Service ⁽⁴⁾</u>							
\$2,400	\$ 1,411	\$ 1,289	\$ 1,517	\$ 1,411	\$ 2,806	59 %	98 %
3,000	1,764	1,611	1,718	1,764	3,329	59	93
3,600	2,117	1,934	1,916	2,117	3,850	59	90
4,200	2,470	2,256	2,117	2,470	4,373	59	87
4,800	2,822	2,577	2,316	2,822	4,893	59	85

- (1) "Final Average Pay" means the monthly average of an employee's pays during the period of 36 consecutive months when they were highest, contained within his last 120 months of paid service.
- (2) "Estimated Social Security" means, for an employee covered by Social Security, an employee's estimated OASDI retirement benefit is based upon an estimated "average indexed monthly earnings" for an employee retiring at normal Social Security Retirement Age (SSRA). It does not include any amounts which might be payable to an eligible spouse or children. Final average pay is assumed to be equal to Average Indexed Monthly Earnings. The results assume no Social Security covered earnings after retirement. Note that a member may draw a reduced Social Security benefit as early as age 62. This is an estimate. Individuals can receive an estimate from the Social Security Administration based on their actual earnings history.
- (3) Amounts shown are rounded to the nearest dollar; actual amounts will be calculated to the nearest cent.
- (4) With 28 or more years of service the employee is eligible for normal retirement. With 20 or more years of service the employee is eligible for normal retirement at age 55. With fewer than 20 years, the eligibility age is 60.
- (5) This illustration shows 2028 Social Security estimates for a participant who retires in 2017 at age 56. All future benefits are in future dollars.

Arkansas Local Police and Fire Retirement System
Brief Summary as of December 31, 2016 of LOPFI Coverage for
BENEFIT PROGRAM 2 PAID SERVICE
Benefits and Conditions Evaluated and/or Considered
(Section references are to Arkansas Code of 1987, including
amendments from 2017 General Assembly Session)

The provisions for Benefit Program 2 employers are the same as those for Benefit Program 1 employers with the following exception:

Age & Service Annuity. Section 24-10-602. The annuity, payable monthly for life, equals a specified amount multiplied by the member's number of years of credited service. The amount depends upon the conditions related to covered employment:

A. *Paid Service Not Covered by Social Security.*

- **Paid Service Before Adoption of Benefit Program 2.** For each year of such service, 2.94% of the member's final average pay.
- **Paid Service After Adoption of Benefit Program 2.** For each year of such service, 3.28% of the member's final average pay.
- At time of retirement, the total cannot exceed 100% of final average pay.

B. *Paid Service Also Covered by Social Security.*

- **Paid Service Before Adoption of Benefit Program 2.** For each year of such service, 1.94% of the member's final average pay, plus a temporary annuity equal to 1.0% of the member's final average pay for each year of service, payable to normal Social Security retirement age.
- **Paid Service After Adoption of Benefit Program 2.** For each year of such service, 2.94% of the member's final average pay.
- At time of retirement, the total cannot exceed 100% of final average pay.

Arkansas Local Police and Fire Retirement System
Brief Summary as of December 31, 2016 of LOPFI Coverage for
VOLUNTEER SERVICE

Benefits and Conditions Evaluated and/or Considered
(Section references are to Arkansas Code of 1987, including
amendments from 2017 General Assembly Session)

Voluntary Retirement. Section 24-10-604. A member may retire with an age & service annuity after both (i) completing 5 years (10 years for members hired on or after July 1, 2013) of credited service, and (ii) attaining his normal retirement age. The normal retirement age is age 60 for a member with less than 20 years credited service, age 55 for a member with at least 20 years credited service or any age for a member with 28 or more years of credited service.

Compulsory Retirement. Section 24-10-605. Established by each employer.

Paid Service. Section 24-10-102(13). Covered employment which is half-time employment or more, and for which a minimum dollar amount is paid. For each calendar month in 1981, the minimum is \$500 for the month. For each later calendar year, the \$500 is indexed for inflation (Consumer Price Index). Accordingly, the monthly minimum during 2016 was \$1,367.

Volunteer Service. Section 24-10-102(14). Covered employment which cannot be classified as Paid Service.

Age & Service Annuity. Section 24-10-102(16)(A). The annuity, payable monthly for life, equals a specified amount multiplied by the member's number of years of credited service. The amount depends upon the conditions related to covered employment:

Volunteer Service. For each year of Benefit Program 3 Volunteer Service, \$5.00 monthly, to a maximum of \$200 monthly for all volunteer service. Beginning in 2003, each July 1 these amounts are indexed for inflation by any percentage increase in the inflation index for the period from December 2003 to the December immediately preceding July 1, for members retiring in the next 12 months. Accordingly, the basic benefit factor reflected in the December 31, 2016 valuations was \$6.54 monthly.

For each year of Benefit Program 4 Volunteer Service, \$10.00 monthly, to a maximum benefit of \$400 monthly for all volunteer service. Beginning in 2013, each July 1 these amounts are indexed for inflation by any percentage increase in the inflation index for the period from December 2011 to the December immediately preceding July 1, for members retiring in the next 12 months. Accordingly, the basic benefit factor reflected in the December 31, 2016 valuations was \$10.60 monthly.

Early Annuity. Section 24-10-606. A member may retire with an early annuity after both (i) completing 20 years of credited service, and (ii) attaining age 50. The early annuity amount, payable monthly for life, is computed in the same manner as an age & service annuity, based upon his service record to time of early retirement, but reduced to reflect the fact that his age when payments begin is younger than his normal retirement age. The amount of the reduction is 1/2 of 1% (.005) for each month his age at early retirement is younger than his normal retirement age.

Vested Termination Annuity. Section 24-10-611. If a member leaves LOPFI-covered employment (i) before attaining his early retirement age, and (ii) after completing 5 years (10 years for members hired on or after July 1, 2013) of credited service, he becomes eligible for a vested termination annuity; provided he lives to his normal retirement age (and does not withdraw any accumulated contributions). The vested annuity amount, payable monthly for life from his normal retirement age, is computed in the same manner as an age & service annuity, based upon his service record to time of leaving LOPFI coverage.

Non-Duty Disability Annuity. Section 24-10-607(a)(1)(A). A member with 5 or more years (10 or more years for members hired on or after July 1, 2013) of credited service who becomes totally and permanently disabled from other than duty-connected causes receives a non-duty disability annuity computed in the same manner as an age & service annuity, based upon his service record to time of disability.

Duty Disability Annuity. Section 24-10-607(c)(1)(A). A member who becomes totally and permanently disabled from duty-connected causes receives a duty disability annuity computed in the same manner as an age & service annuity, based upon his service and pay record to time of disability. If the member had less than 25 years of service at time of disability, credited service is increased to 25 years.

Non-Duty Death-in-Service. Volunteer Member. Section 24-10-609. Upon the death, from other than duty-connected causes, of a Volunteer member who had completed 5 years (10 years for members hired on or after July 1, 2013) of volunteer service, or who was eligible for normal retirement, his eligible surviving dependents receive the following benefits:

(a) The surviving spouse receives an annuity equal to the Option B50 annuity (joint and 50% survivor benefit) computed based upon the deceased member's service record to time of death.

(b) Each dependent child under age 18 (age 23 if full time student) receives \$15 monthly. The totals for 3 or more children cannot exceed \$40 monthly.

Duty Death-in-Service. Section 24-10-608(b)(1). Upon the death of a Paid Service member from duty-connected causes, regardless of length of service, his eligible surviving dependents receive the same benefits as for Non-Duty Death, except that if credited service at the time of death is less than 25 years, credited service is increased to 25 years.

Benefit Changes After Retirement. Section 24-10-612. There is an annual redetermination of monthly benefit amount, beginning the July first following 12 months of retirement. The redetermined amount is 3.0% of the monthly benefit from the preceding July.

Member Contributions. For Volunteer Service credit, members do not contribute.

Employer Contributions. Section 24-10-405. Each employer contributes the amounts necessary to finance all employees participation in LOPFI. Contributions to LOPFI are determined based upon level-rate principles, so that contribution rates do not have to increase over decades of time.

**LOPFI Covered Groups and Covered Persons
(Excluding Local Plan Members)**

Paid Police Covered by Social Security	Valuation Groups	Active Members*				Inflation Increase % (CPI)
		Number	Annual Payroll	Average Pay	% Increase	
12/31/1997	128	1,211	\$ 28,971,065	\$23,923	4.7 %	1.7 %
12/31/1998	134	1,346	33,301,863	24,741	3.4	1.6
12/31/1999	141	1,480	38,187,948	25,803	4.3	2.7
12/31/2000	150	1,493	39,080,134	26,176	1.4	3.4
12/31/2001	152	1,497	42,193,903	28,186	7.7	1.6
12/31/2002	158	1,556	46,480,114	29,872	6.0	2.4
12/31/2003	154	1,583	49,757,738	31,433	5.2	1.9
12/31/2004	154	1,583	51,235,812	32,366	3.0	3.3
12/31/2005	154	1,614	53,061,186	32,876	1.6	3.4
12/31/2006	161	1,680	57,466,068	34,206	4.0	2.5
12/31/2007	167	1,795	62,586,228	34,867	1.7	4.1
12/31/2008	164	1,846	66,703,415	36,134	3.6	0.1
12/31/2009	173	1,913	72,174,542	37,728	4.4	2.7
12/31/2010	176	1,914	73,414,879	38,357	1.6	1.5
12/31/2011	177	1,939	74,641,764	38,495	0.3	3.0
12/31/2012	176	1,956	76,050,618	38,881	1.0	1.7
12/31/2013	173	1,994	80,319,179	40,280	3.6	1.5
12/31/2014	177	2,029	83,740,919	41,272	2.5	0.8
12/31/2015	183	2,122	89,826,406	42,331	2.9	0.7
12/31/2016	179	2,152	91,581,947	42,557	0.5	2.1

* Includes DROP participants, if any.

**LOPFI Covered Groups and Covered Persons
(Excluding Local Plan Members)
(Continued)**

Paid Police Not Covered by Social Security	Valuation Groups	Active Members*				Inflation
		Number	Annual Payroll	Average Pay	% Increase	Increase % (CPI)
12/31/1997	14	1,154	\$ 35,468,514	\$30,735	6.4 %	1.7 %
12/31/1998	14	1,220	39,052,564	32,010	4.1	1.6
12/31/1999	14	1,257	42,319,350	33,667	5.2	2.7
12/31/2000	15	1,300	45,395,466	34,920	3.7	3.4
12/31/2001	15	1,310	47,997,431	36,639	4.9	1.6
12/31/2002	14	1,309	51,013,420	38,971	6.4	2.4
12/31/2003	14	1,344	54,363,935	40,449	3.8	1.9
12/31/2004	15	1,369	57,397,946	41,927	3.7	3.3
12/31/2005	15	1,410	60,652,180	43,016	2.6	3.4
12/31/2006	14	1,455	64,982,903	44,662	3.8	2.5
12/31/2007	14	1,479	68,484,220	46,304	3.7	4.1
12/31/2008	14	1,507	72,880,723	48,361	4.4	0.1
12/31/2009	14	1,544	77,374,468	50,113	3.6	2.7
12/31/2010	14	1,562	76,993,476	49,292	(1.6)	1.5
12/31/2011	14	1,558	79,332,711	50,920	3.3	3.0
12/31/2012	14	1,604	83,272,934	51,916	2.0	1.7
12/31/2013	14	1,635	87,087,216	53,264	2.6	1.5
12/31/2014	14	1,632	89,441,845	54,805	2.9	0.8
12/31/2015	14	1,599	87,090,401	54,466	(0.6)	0.7
12/31/2016	14	1,597	88,602,540	55,481	1.9	2.1

* Includes DROP participants, if any.

**LOPFI Covered Groups and Covered Persons
(Excluding Local Plan Members)
(Continued)**

Paid Fire Covered by Social Security	Valuation Groups	Active Members*				Inflation
		Number	Annual Payroll	Average Pay	% Increase	Increase % (CPI)
12/31/1997	2	16	\$ 413,344	\$25,834	(5.8) %	1.7 %
12/31/1998	2	15	427,149	28,477	10.2	1.6
12/31/1999	2	15	443,877	29,592	3.9	2.7
12/31/2000	3	20	550,930	27,547	(6.9)	3.4
12/31/2001	4	34	1,091,894	32,115	16.6	1.6
12/31/2002	5	34	1,236,009	36,353	13.2	2.4
12/31/2003	6	34	1,297,597	38,165	5.0	1.9
12/31/2004	7	58	1,881,084	32,432	(15.0)	3.3
12/31/2005	10	62	2,137,350	34,473	6.3	3.4
12/31/2006	13	71	2,459,152	34,636	0.5	2.5
12/31/2007	19	84	3,224,208	38,383	10.8	4.1
12/31/2008	20	85	3,310,078	38,942	1.5	0.1
12/31/2009	21	90	3,794,410	42,160	8.3	2.7
12/31/2010	23	99	4,092,787	41,341	(1.9)	1.5
12/31/2011	23	104	4,155,015	39,952	(3.4)	3.0
12/31/2012	22	101	4,221,364	41,796	4.6	1.7
12/31/2013	25	102	4,331,413	42,465	1.6	1.5
12/31/2014	25	114	4,689,955	41,140	(3.1)	0.8
12/31/2015	27	124	5,239,454	42,254	2.7	0.7
12/31/2016	28	126	5,375,073	42,659	1.0	2.1

* Includes DROP participants, if any.

**LOPFI Covered Groups and Covered Persons
(Excluding Local Plan Members)
(Continued)**

Paid Fire Not Covered by Social Security	Valuation Groups	Active Members*				Inflation Increase % (CPI)
		Number	Annual Payroll	Average Pay	% Increase	
12/31/1997	58	1,334	\$ 37,011,225	\$27,745	4.8 %	1.7 %
12/31/1998	58	1,417	41,048,974	28,969	4.4	1.6
12/31/1999	58	1,549	47,249,417	30,503	5.3	2.7
12/31/2000	60	1,680	52,268,378	31,112	2.0	3.4
12/31/2001	59	1,732	57,430,283	33,158	6.6	1.6
12/31/2002	59	1,821	64,691,073	35,525	7.1	2.4
12/31/2003	59	1,888	70,635,697	37,413	5.3	1.9
12/31/2004	60	1,956	76,826,671	39,277	5.0	3.3
12/31/2005	57	2,029	81,650,944	40,242	2.5	3.4
12/31/2006	59	2,122	88,041,571	41,490	3.1	2.5
12/31/2007	61	2,245	95,882,874	42,710	2.9	4.1
12/31/2008	60	2,202	98,780,987	44,860	5.0	0.1
12/31/2009	61	2,360	108,383,023	45,925	2.4	2.7
12/31/2010	61	2,374	110,404,238	46,506	1.3	1.5
12/31/2011	61	2,415	114,640,275	47,470	2.1	3.0
12/31/2012	60	2,478	118,625,189	47,871	0.8	1.7
12/31/2013	60	2,514	124,879,563	49,674	3.8	1.5
12/31/2014	60	2,548	129,532,480	50,837	2.3	0.8
12/31/2015	61	2,585	134,740,985	52,124	2.5	0.7
12/31/2016	62	2,676	140,445,733	52,483	0.7	2.1

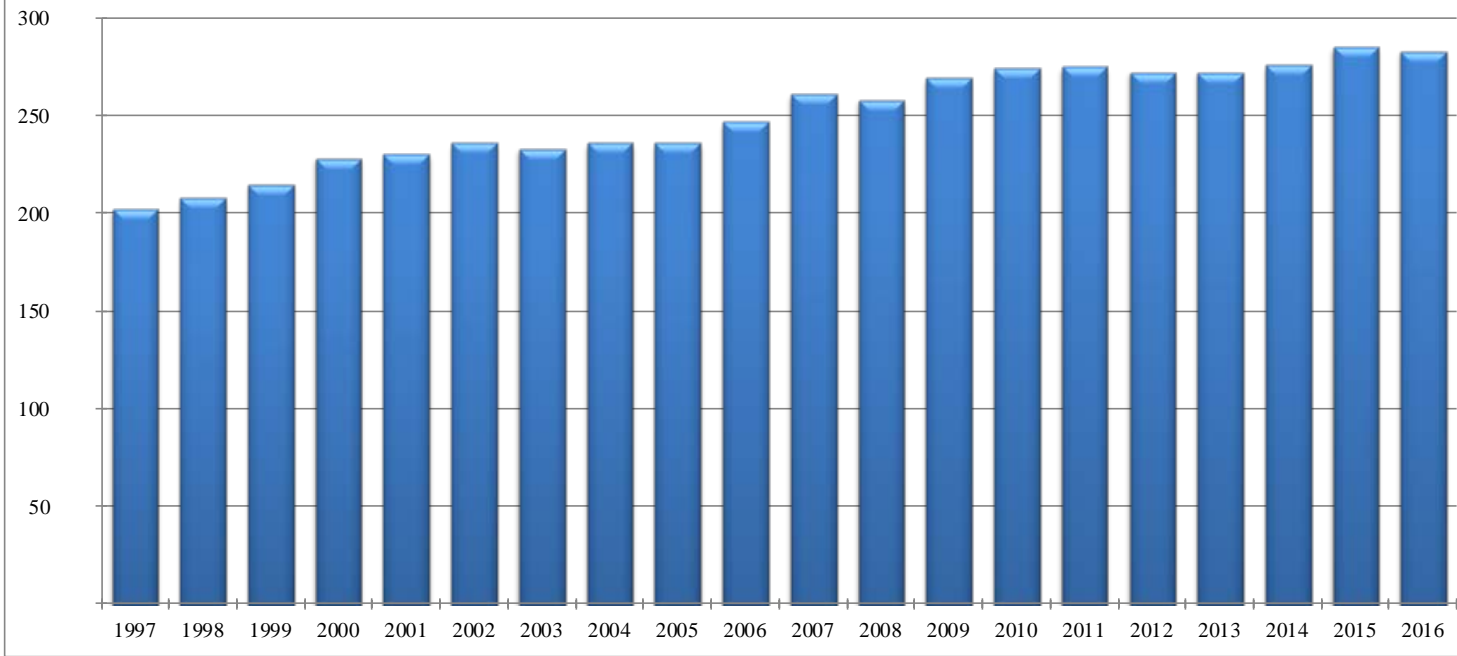
* Includes DROP participants, if any.

**LOPFI Covered Groups and Covered Persons
(Excluding Local Plan Members)
(Continued)**

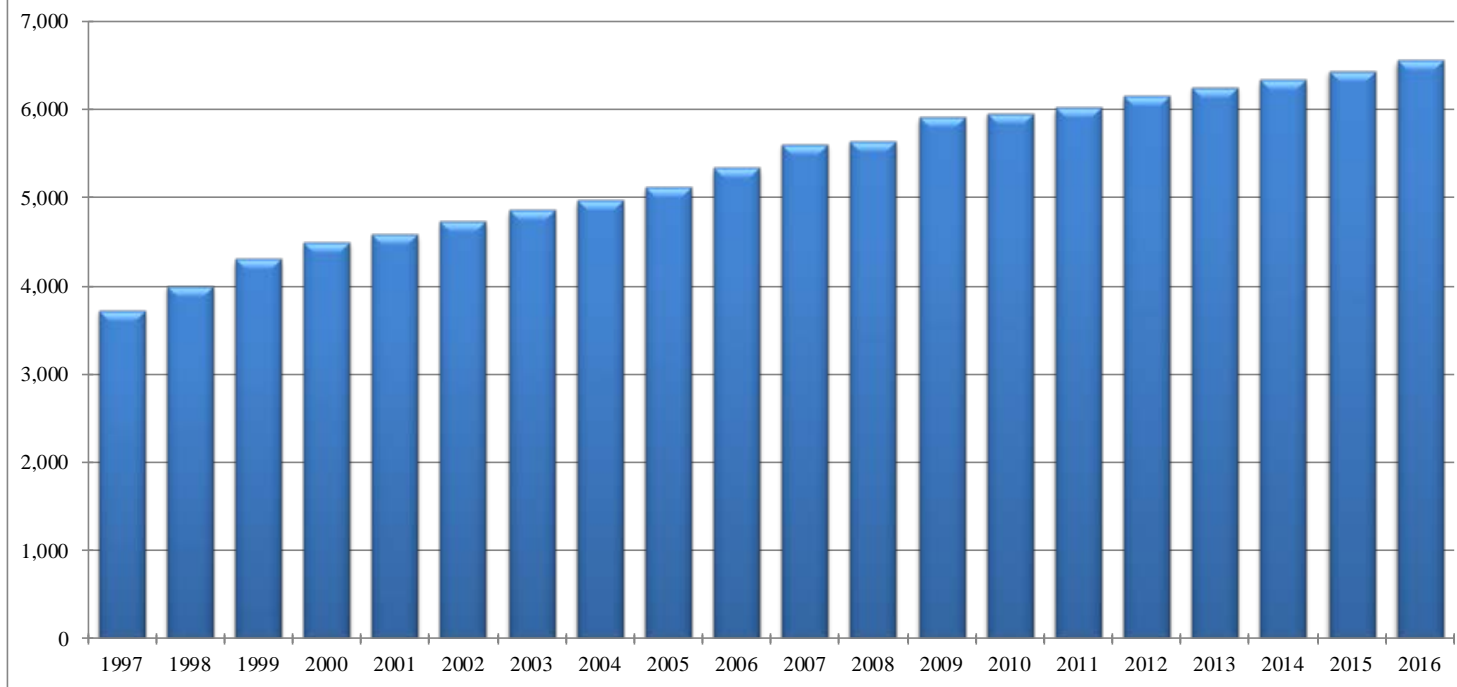
Total Paid	Valuation Groups	Active Members*				Inflation
		Number	Annual Payroll	Average Pay	% Increase	Increase % (CPI)
12/31/1997	202	3,715	\$ 101,864,148	\$27,420	5.3 %	1.7 %
12/31/1998	208	3,998	113,830,550	28,472	3.8	1.6
12/31/1999	215	4,301	128,200,592	29,807	4.7	2.7
12/31/2000	228	4,493	137,294,908	30,558	2.5	3.4
12/31/2001	230	4,573	148,713,511	32,520	6.4	1.6
12/31/2002	236	4,720	163,420,616	34,623	6.5	2.4
12/31/2003	233	4,849	176,054,967	36,307	4.9	1.9
12/31/2004	236	4,966	187,341,513	37,725	3.9	3.3
12/31/2005	236	5,115	197,501,660	38,612	2.4	3.4
12/31/2006	247	5,328	212,949,694	39,968	3.5	2.5
12/31/2007	261	5,603	230,177,530	41,081	2.7	4.1
12/31/2008	258	5,640	241,675,203	42,850	4.3	0.1
12/31/2009	269	5,907	261,726,443	44,308	3.4	2.7
12/31/2010	274	5,949	264,905,380	44,529	0.5	1.5
12/31/2011	275	6,016	272,769,765	45,341	1.8	3.0
12/31/2012	272	6,139	282,170,105	45,964	1.4	1.7
12/31/2013	272	6,245	296,617,371	47,497	3.3	1.5
12/31/2014	276	6,323	307,405,199	48,617	2.4	0.8
12/31/2015	285	6,430	316,897,246	49,284	1.4	0.7
12/31/2016	283	6,551	326,005,293	49,764	1.0	2.1

* Includes DROP participants, if any.

LOPFI Covered Groups - Paid Service



LOPFI Active Member Count - Paid Service



**LOPFI Covered Groups and Covered Persons
(Excluding Local Plan Members)
(Continued)**

Volunteer Police	Valuation Groups	Active Members				Inflation Increase % (CPI)
		Number	Annual Payroll	Average Pay	% Increase	
12/31/1997	10	14				1.7%
12/31/1998	7	8				1.6
12/31/1999	8	10				2.7
12/31/2000	8	9				3.4
12/31/2001	10	16				1.6
12/31/2002	19	49				2.4
12/31/2003	24	55				1.9
12/31/2004	24	55				3.3
12/31/2005	32	70				3.4
12/31/2006	38	91				2.5
12/31/2007	51	118				4.1
12/31/2008	42	123				0.1
12/31/2009	44	139				2.7
12/31/2010	58	174				1.5
12/31/2011	72	230				3.0
12/31/2012	69	224				1.7
12/31/2013	85	293				1.5
12/31/2014	98	335				0.8
12/31/2015	105	366				0.7
12/31/2016	104	396				2.1

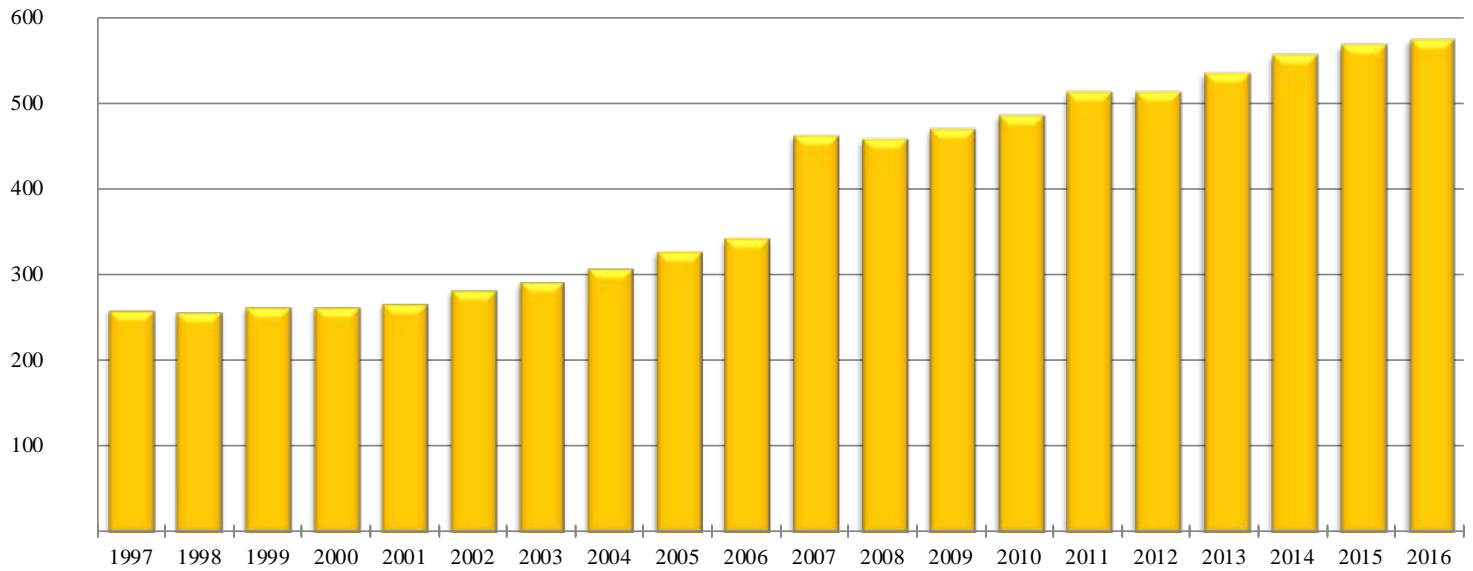
**LOPFI Covered Groups and Covered Persons
(Excluding Local Plan Members)
(Continued)**

Volunteer Fire	Valuation Groups	Active Members			Inflation Increase % (CPI)
		Number	Annual Payroll	Average Pay	
12/31/1997	248	3,063			1.7%
12/31/1998	249	3,175			1.6
12/31/1999	253	3,397			2.7
12/31/2000	254	3,481			3.4
12/31/2001	255	3,585			1.6
12/31/2002	261	3,809			2.4
12/31/2003	266	4,033			1.9
12/31/2004	282	4,351			3.3
12/31/2005	293	4,580			3.4
12/31/2006	303	4,814			2.5
12/31/2007	410	6,502			4.1
12/31/2008	415	6,480			0.1
12/31/2009	424	6,412			2.7
12/31/2010	427	6,560			1.5
12/31/2011	440	6,804			3.0
12/31/2012	442	6,805			1.7
12/31/2013	449	6,847			1.5
12/31/2014	456	7,012			0.8
12/31/2015	461	6,938			0.7
12/31/2016	469	6,995			2.1

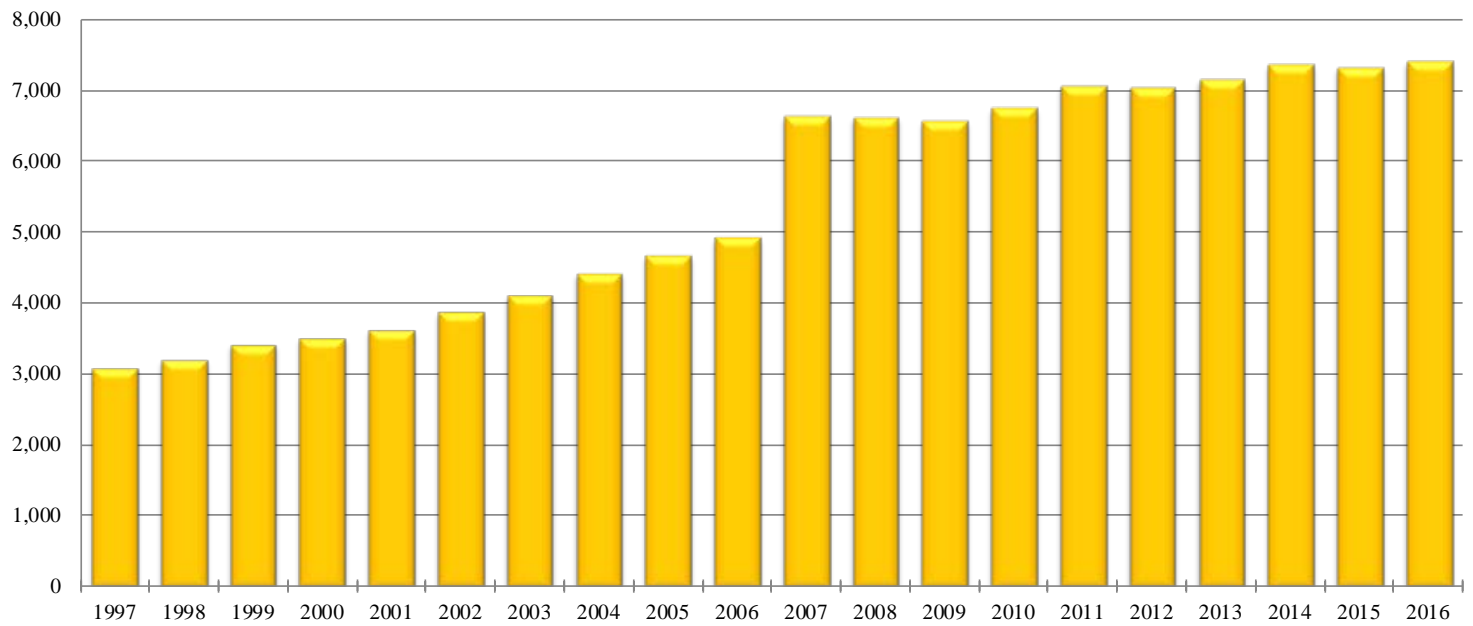
**LOPFI Covered Groups and Covered Persons
(Excluding Local Plan Members)
(Concluded)**

Total Volunteer Police and Fire	Valuation Groups	Active Members			Inflation Increase % (CPI)
		Number	Annual Payroll	Average Pay	
12/31/1997	258	3,077			1.7%
12/31/1998	256	3,183			1.6
12/31/1999	261	3,407			2.7
12/31/2000	262	3,490			3.4
12/31/2001	265	3,601			1.6
12/31/2002	280	3,858			2.4
12/31/2003	290	4,088			1.9
12/31/2004	306	4,406			3.3
12/31/2005	325	4,650			3.4
12/31/2006	341	4,905			2.5
12/31/2007	461	6,620			4.1
12/31/2008	457	6,603			0.1
12/31/2009	468	6,551			2.7
12/31/2010	485	6,734			1.5
12/31/2011	512	7,034			3.0
12/31/2012	511	7,029			1.7
12/31/2013	534	7,140			1.5
12/31/2014	554	7,347			0.8
12/31/2015	566	7,304			0.7
12/31/2016	573	7,391			2.1

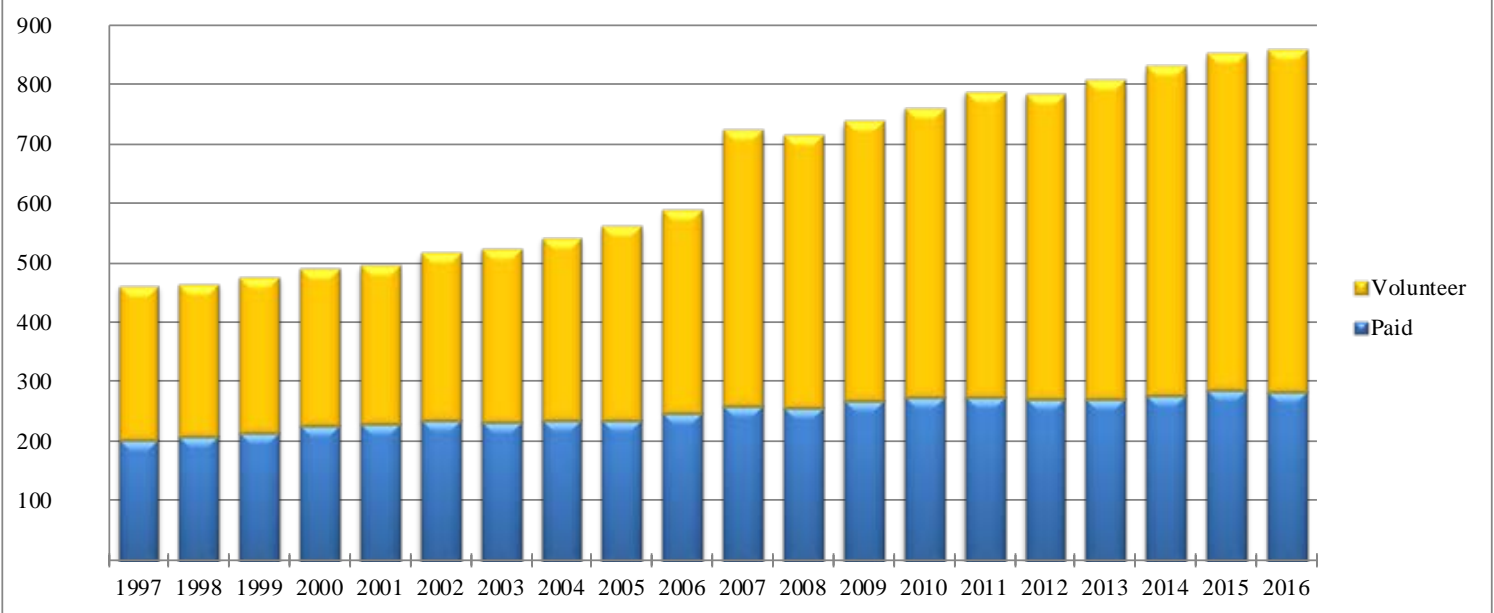
LOPFI Covered Groups - Volunteer Service



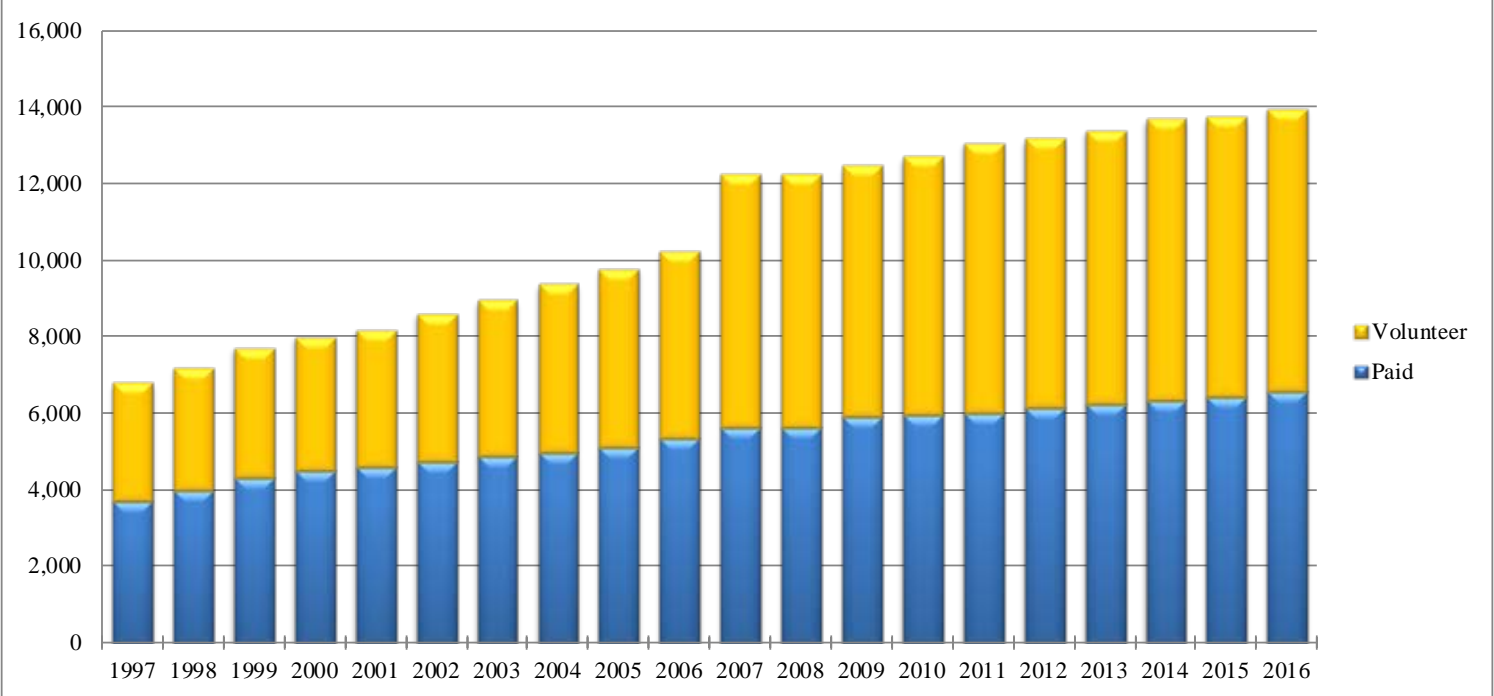
LOPFI Active Member Count - Volunteer Service



LOPFI Covered Groups - Paid and Volunteer Combined



LOPFI Active Member Count - Paid and Volunteer Combined



**LOPFI (Excluding Local Plan Members)
Paid Service Active Members – December 31, 2016
Attained Age and Years of Service**

Attained Age	Years of Service at Valuation Date							Totals*	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Annual Payroll
Under 20	5							5	\$ 124,172
20-24	306	16						322	11,102,760
25-29	708	191	52					951	36,740,385
30-34	420	372	198	79				1,069	47,343,842
35-39	230	235	324	175	91			1,055	52,557,043
40-44	109	122	221	334	185	88		1,059	58,215,391
45-49	67	91	99	218	293	169	42	979	56,860,389
50-54	28	26	56	77	162	224	63	636	38,229,755
55-59	27	26	50	49	60	111	37	360	18,979,561
60-64	4	11	11	17	19	20	15	97	4,915,924
65-69	2	3	3	4	2	2		16	858,089
70+	1						1	2	77,982
Totals	1,907	1,093	1,014	953	812	614	158	6,551	\$ 326,005,293

* Includes DROP participants.

Average Age: 39.3 years

Average Service: 12.5 years

Average Pay: \$49,764

As a comparison, 6,430 paid service members participated in LOPFI on December 31, 2015.

LOPFI Staff is included in the table above.

**LOPFI (Excluding Local Plan Members)
Volunteer Service Active Members – December 31, 2016
Attained Age and Years of Service**

Attained Age	Years of Service at Valuation Date							Total Number
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	
Under 20	92							92
20-24	562	61						623
25-29	461	286	74					821
30-34	392	272	224	79				967
35-39	303	224	164	162	73			926
40-44	255	188	156	146	130	60		935
45-49	193	170	155	139	151	117	34	959
50-54	166	122	127	128	137	94	63	837
55-59	111	85	94	97	68	56	53	564
60-64	65	64	50	74	38	24	34	349
65-69	46	33	28	25	15	13	17	177
70+	43	34	22	22	8	4	8	141
Totals	2,689	1,539	1,094	872	620	368	209	7,391

Average Age: 41.5 years

Average Service: 10.4 years

As a comparison, 7,304 Volunteer Service members participated in LOPFI on December 31, 2015.

**Benefit Program 2 Employers
December 31, 2016
(Included in Paid Service Schedules)**

Employer	Number of Active Members*	Payroll
Bella Vista Paid Police	28	\$ 1,445,146
Bella Vista Paid Fire	51	2,578,639
Fayetteville Paid Police	124	6,721,961
Fayetteville Paid Fire	121	7,125,553
Hot Springs Paid Police	108	5,423,743
Hot Springs Paid Fire	92	4,016,437
Marion Paid Police	29	1,053,089
Total BP2	553	\$ 28,364,568

** Includes DROP participants, if any.*

Retirants and Beneficiaries* Added to and Removed from Rolls Comparative Statement

LOPFI Paid Service

		Added		Removed		End of Year		% Increase in Annual Allowance	Average	
		No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		Annual Allowance	% Increase in Allowance
December 31, 2011	Retirement	193	\$4,940,414	12	\$ 88,382	1,019	\$ 18,871,152	34.61	\$18,519	10.70 %
	Survivor of active	11	63,152	4	28,540	95	577,234	6.38	6,076	(1.46)
	Survivor of retired	7	66,463	1	6,838	35	263,095	29.30	7,517	7.14
December 31, 2012	Retirement	244	4,714,486	14	140,145	1,249	23,445,493	24.24	18,771	1.36
	Survivor of active	6	60,138	9	30,482	92	606,890	5.14	6,597	8.57
	Survivor of retired	9	107,013	3	44,081	41	326,027	23.92	7,952	5.79
December 31, 2013	Retirement	266	6,777,411	14	186,507	1,501	30,036,397	28.11	20,011	6.61
	Survivor of active	8	67,790	1	4,286	99	670,394	10.46	6,772	2.65
	Survivor of retired	8	71,254	2	48,476	47	348,805	6.99	7,421	(6.68)
December 31, 2014	Retirement	282	7,947,806	28	409,987	1,755	37,574,216	25.10	21,410	6.99
	Survivor of active	6	59,054	5	23,887	100	705,561	5.25	7,056	4.19
	Survivor of retired	12	223,965	1	2,251	58	570,519	63.56	9,837	32.56
December 31, 2015	Retirement	311	8,567,006	17	369,053	2,049	45,772,169	21.82	22,339	4.34
	Survivor of active	5	52,935	8	38,557	97	719,939	2.04	7,422	5.19
	Survivor of retired	13	217,911	4	18,596	67	769,834	34.94	11,490	16.80
December 31, 2016	Retirement	358	9,667,785	33	412,922	2,374	55,027,032	20.22	23,179	3.76
	Survivor of active	1	41,255	3	21,630	95	739,564	2.73	7,785	4.89
	Survivor of retired	16	236,963	4	21,003	79	985,794	28.05	12,478	8.60

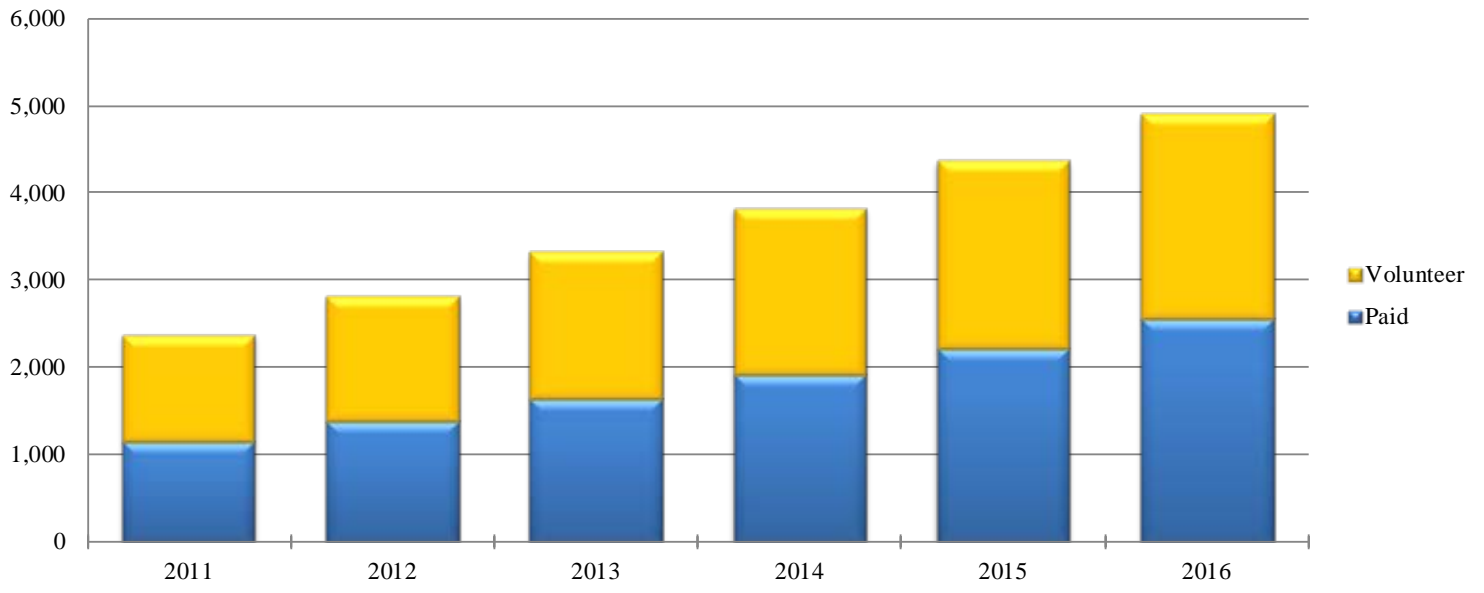
* Includes DROP participants.

**Retirants and Beneficiaries Added to and Removed from Rolls
Comparative Statement
(Continued)**

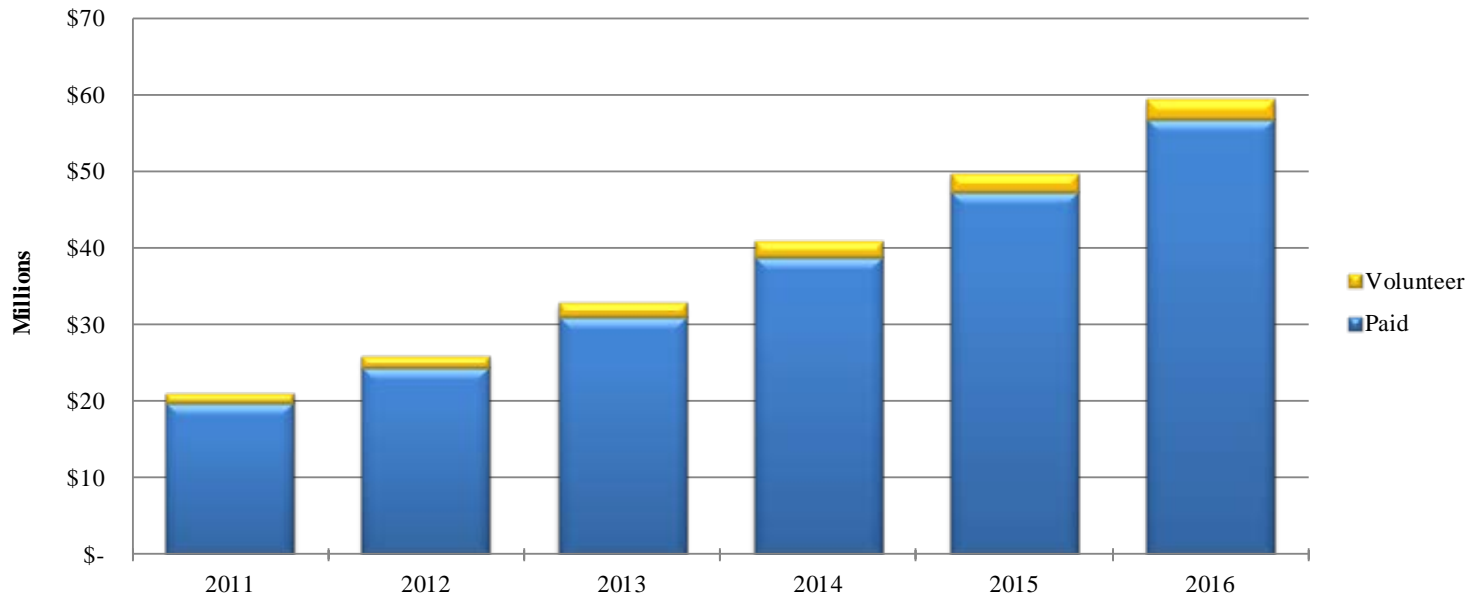
LOPFI Volunteer Service

		Added		Removed		End of Year		% Increase in Annual Allowance	Average	
		No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		Annual Allowance	% Increase in Allowance
December 31, 2011	Retirement	195	\$232,470	18	\$ 17,746	1,064	\$ 1,240,040	20.94	\$1,165	0.78 %
	Survivor of active	21	9,896	-	-	96	36,089	37.78	376	7.74
	Survivor of retired	18	16,523	2	771	58	53,405	41.83	921	2.68
December 31, 2012	Retirement	215	229,048	24	25,481	1,255	1,443,607	16.42	1,150	(1.29)
	Survivor of active	15	3,735	3	868	108	38,956	7.94	361	(3.99)
	Survivor of retired	14	15,241	4	3,162	68	65,484	22.62	963	4.56
December 31, 2013	Retirement	234	274,185	27	30,879	1,462	1,686,913	16.85	1,154	0.35
	Survivor of active	21	7,185	7	2,099	122	44,042	13.06	361	0.00
	Survivor of retired	26	29,008	3	1,758	91	92,734	41.61	1,019	5.82
December 31, 2014	Retirement	241	276,068	22	24,459	1,681	1,938,522	14.92	1,153	(0.09)
	Survivor of active	16	4,151	6	2,208	132	45,985	4.41	348	(3.60)
	Survivor of retired	18	18,571	10	13,075	99	98,230	5.93	992	(2.65)
December 31, 2015	Retirement	251	339,418	33	36,715	1,899	2,241,225	15.62	1,180	2.34
	Survivor of active	11	3,182	7	1,574	136	47,593	3.50	350	0.57
	Survivor of retired	22	20,746	5	2,910	116	116,066	18.16	1,001	0.91
December 31, 2016	Retirement	218	283,941	42	48,527	2,075	2,476,639	10.50	1,194	1.19
	Survivor of active	22	10,936	6	1,251	152	57,278	20.35	377	7.71
	Survivor of retired	29	35,094	14	14,065	131	137,095	18.12	1,047	4.60

LOPFI Retirants and Beneficiaries - Member Count



LOPFI Retirants and Beneficiaries - Total Annual Benefits



**Retirants and Beneficiaries* Added to and Removed from Rolls
Comparative Statement
(Continued)**

Local Paid Service

		Added		Removed		End of Year		% Increase in Annual Allowance	Average	
		No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		Annual Allowance	% Increase in Allowance
December 31, 2011	Retirement	34	\$ 991,101	21	\$ 321,147	901	\$19,487,695	3.56	\$21,629	2.07 %
	Survivor of active	3	24,618	2	25,746	24	345,205	(0.33)	14,384	(4.48)
	Survivor of retired	15	287,361	12	139,014	243	3,582,379	4.32	14,742	3.03
December 31, 2012	Retirement	35	1,122,749	25	431,333	911	20,179,111	3.55	22,151	2.41
	Survivor of active	-	2,005	1	4,214	23	342,996	(0.64)	14,913	3.68
	Survivor of retired	28	631,844	19	210,681	252	4,003,542	11.76	15,887	7.77
December 31, 2013	Retirement	300	8,003,688	22	403,589	1,189	27,779,210	37.66	23,364	5.48
	Survivor of active	3	70,252	4	51,330	22	361,918	5.52	16,451	10.31
	Survivor of retired	102	2,151,973	7	76,301	347	6,079,214	51.85	17,519	10.27
December 31, 2014	Retirement	34	1,037,839	41	795,906	1,182	28,021,143	0.87	23,707	1.47
	Survivor of active	-	3,226	-	-	22	365,144	0.89	16,597	0.89
	Survivor of retired	27	612,017	18	273,656	356	6,417,575	5.57	18,027	2.90
December 31, 2015	Retirement	48	1,585,403	39	668,103	1,191	28,938,443	3.27	24,298	2.49
	Survivor of active	1	11,069	2	39,490	21	336,723	(7.78)	16,034	(3.39)
	Survivor of retired	39	736,035	23	370,013	372	6,783,597	5.70	18,235	1.15
December 31, 2016	Retirement	28	663,817	42	808,519	1,177	28,793,741	(0.50)	24,464	0.68
	Survivor of active	1	8,712	-	-	22	345,435	2.59	15,702	(2.07)
	Survivor of retired	28	593,043	23	347,147	377	7,029,493	3.62	18,646	2.25

* Includes DROP participants.

Retirants and Beneficiaries Added to and Removed from Rolls Comparative Statement (Concluded)

Local Volunteer Service

		Added		Removed		End of Year		% Increase in Annual Allowance	Average	
		No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance		Annual Allowance	% Increase in Allowance
December 31, 2011	Retirement	21	\$37,674	25	\$ 35,673	655	\$ 1,086,448	0.18	\$1,659	0.79 %
	Survivor of active	-	217	-	-	14	21,685	1.01	1,549	1.04
	Survivor of retired	25	35,876	15	18,322	210	289,833	6.45	1,380	1.40
December 31, 2012	Retirement	9	24,510	24	38,642	640	1,072,316	(1.30)	1,675	0.96
	Survivor of active	-	185	2	2,511	12	19,359	(10.73)	1,613	4.13
	Survivor of retired	14	24,689	22	30,267	202	284,255	(1.92)	1,407	1.96
December 31, 2013	Retirement	49	93,001	20	31,531	669	1,133,786	5.73	1,695	1.19
	Survivor of active	3	3,730	1	1,800	14	21,289	9.97	1,521	(5.70)
	Survivor of retired	33	57,346	18	27,045	217	314,556	10.66	1,450	3.06
December 31, 2014	Retirement	47	88,609	22	32,882	694	1,189,513	4.92	1,714	1.12
	Survivor of active	-	232	-	-	14	21,521	1.09	1,537	1.05
	Survivor of retired	32	56,045	11	14,792	238	355,809	13.11	1,495	3.10
December 31, 2015	Retirement	27	50,934	30	46,371	691	1,194,076	0.38	1,728	0.82
	Survivor of active	1	1,439	1	1,200	14	21,760	1.11	1,554	1.11
	Survivor of retired	27	41,171	19	26,369	246	370,611	4.16	1,507	0.80
December 31, 2016	Retirement	37	80,525	40	60,439	688	1,214,162	1.68	1,765	2.14
	Survivor of active	1	2,526	2	2,340	13	21,946	0.85	1,688	8.62
	Survivor of retired	45	76,922	16	22,294	275	425,239	14.74	1,546	2.59

**LOPFI (Excluding Local Plan Members)
Paid Service Retirants and Beneficiaries* – December 31, 2016
Tabulated by Attained Ages**

Attained Ages	Age & Service Retirants		Disability Retirants		Survivor Beneficiaries	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 10					3	\$ 16,447
10-14					11	50,765
15-19					18	85,451
20-24					3	62,718
25-29			3	\$ 57,867	4	14,287
30-34			9	267,104	1	13,644
35-39	6	\$ 62,217	38	867,839	6	60,871
40-44	41	482,704	68	1,652,840	9	107,341
45-49	116	2,788,302	119	3,220,348	23	241,246
50-54	364	11,166,063	123	3,321,740	20	216,108
55-59	524	14,608,901	88	2,250,427	21	346,650
60-64	384	7,293,613	40	1,008,542	15	151,888
65-69	244	3,143,814	32	801,301	29	195,485
70-74	103	1,093,469	13	276,140	9	146,378
75-79	43	520,005	1	22,221	1	8,088
80-84	14	98,705	1	22,870	1	7,991
85-89						
90 & Over						
Totals	1,839	\$ 41,257,793	535	\$ 13,769,239	174	\$ 1,725,358

* Includes DROP participants.

**LOPFI (Excluding Local Plan Members)
 Volunteer Service Retirants and Beneficiaries – December 31, 2016
 Tabulated by Attained Ages**

Attained Ages	Age & Service Retirants		Disability Retirants		Survivor Beneficiaries	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 10					12	\$ 1,510
10-14					18	2,486
15-19					26	3,884
20-24					1	180
25-29						
30-34			2	\$ 64	3	2,701
35-39	5	\$ 3,669	10	1,545	10	5,507
40-44	24	15,078	23	10,570	11	4,915
45-49	75	55,293	26	11,108	18	10,592
50-54	168	170,459	25	14,748	23	15,201
55-59	305	424,862	17	13,862	30	23,700
60-64	428	528,405	7	6,429	29	25,422
65-69	412	500,790	10	10,257	43	35,850
70-74	254	335,928	1	1,222	24	18,718
75-79	169	220,645			19	22,387
80-84	84	106,416	1	1,118	9	12,000
85-89	25	37,576			7	9,320
90 & Over	4	6,595				
Totals	1,953	\$ 2,405,716	122	\$ 70,923	283	\$ 194,373

**LOPFI (Local Plan Members)
Paid Service Retirants and Beneficiaries* – December 31, 2016
Tabulated by Attained Ages**

Attained Ages	Age & Service Retirants		Disability Retirants		Survivor Beneficiaries	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 10						
10-14						
15-19					1	\$ 1,500
20-24					1	1,500
25-29						
30-34						
35-39					1	22,411
40-44					2	38,948
45-49	2	\$ 12,975			1	14,911
50-54	9	146,231			5	141,663
55-59	108	2,955,048	11	\$ 288,813	13	293,991
60-64	249	6,512,524	16	392,526	29	745,785
65-69	249	6,458,103	31	710,920	60	1,302,390
70-74	194	4,634,621	24	532,932	64	1,362,323
75-79	147	3,358,867	9	180,491	67	1,093,656
80-84	69	1,602,535	11	222,867	71	1,127,683
85-89	31	510,240	3	51,025	63	955,855
90 & Over	11	187,092	3	35,931	21	272,312
Totals	1,069	\$ 26,378,236	108	\$ 2,415,505	399	\$ 7,374,928

* Includes DROP members.

**LOPFI (Local Plan Members)
 Volunteer Service Retirants and Beneficiaries – December 31, 2016
 Tabulated by Attained Ages**

Attained Ages	Age & Service Retirants		Disability Retirants		Survivor Beneficiaries	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 10						
10-14						
15-19					1	\$ 900
20-24						
25-29						
30-34						
35-39	1	\$ 2,492				
40-44						
45-49						
50-54	5	10,140				
55-59	54	102,366			6	9,981
60-64	107	185,204	2	\$ 2,711	11	17,666
65-69	129	227,406	6	7,440	29	44,126
70-74	138	239,503	2	2,400	52	80,300
75-79	101	183,846	1	1,200	44	68,361
80-84	65	117,671	2	3,000	49	76,689
85-89	55	89,557			59	89,519
90 & Over	20	39,226			37	59,643
Totals	675	\$ 1,197,411	13	\$ 16,751	288	\$ 447,185

LOPFI Participating Group by Type
December 31, 2016

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
Alma						X	
Alzheimer						X	
Altus			X			X	
Amity	X		X			X	
Antioch						X	
Appleton Rural Volunteer Fire						X	
Arch Street FPD #16						X	
Arkadelphia					X	X	
Arkansas City						X	
Ash Flat	X		X		X	X	
Ashdown	X		X			X	
Atkins	X		X			X	
Augusta	X					X	
Austin	X					X	
Avoca						X	
Bald Knob	X		X			X	
Barling	X		X	X		X	
Barton-Lexa Fire Department, Inc.						X	
Batesville	X		X		X	X	
Bauxite	X		X				
Bay	X		X			X	
Bay Village						X	
BDR FD#1						X	
Bearden						X	
Beaver Lake				X		X	
Beaverfork						X	
Bee Branch Fire Department						X	
Beebe				X		X	
Bella Vista	X			X		X	
Belleville						X	
Benton	X				X		
Bentonville	X				X	X	
Bergman						X	
Berryville	X					X	
Bethel Heights	X		X			X	
Bethesda Area						X	
Big Creek						X	
Bigelow						X	
Bigger-Reyno						X	
Biscoe						X	
Bismarck Fire Pro Association						X	
Black Rock	X		X				
Blytheville	X				X		
Bonanza						X	
Bono	X		X				
Bono FID						X	
Booneville						X	
Boston Mountain						X	
Bradford	X		X			X	

LOPFI Participating Group by Type
December 31, 2016 (Continued)

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
Bradley	X					X	
Bradley County						X	
Brinkley		X	X		X	X	
Brookland						X	
Brookland	X		X				
Bruno Fire Protection District						X	
Bryant	X		X		X		
Buena Vista						X	
Buford						X	
Bull Shoals	X		X	X		X	
Burnt Ridge						X	
Butterfield						X	
Cabot	X				X	X	
Caddo Valley	X		X			X	
Cairo						X	
Caldwell						X	
Calico Rock						X	
Calion						X	
Calvert Township						X	
Camden		X			X	X	
Cammack Village	X		X				
Camp						X	
Cane Creek						X	
Capps-Batavia						X	
Caraway	X					X	
Carlisle	X					X	
Carthage						X	
Cash						X	
Cave City	X			X		X	
Cave Springs	X		X			X	
Center						X	
Center Grove						X	
Centerton	X		X		X	X	
Central City						X	
Chambersville						X	
Charleston						X	
Charlotte						X	
Cherokee Village	X		X	X			
Cherry Hill						X	
Cherry Valley	X					X	
Chidester						X	
Chimes						X	
Choctaw						X	
Cincinnati						X	
Clarendon	X					X	
Clarksville	X					X	
Clinton	X			X		X	
Coal Hill			X			X	

LOPFI Participating Group by Type
December 31, 2016 (Continued)

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
Collegeville						X	
Colt						X	
Compton						X	
Conway	X				X		
Conway County						X	
Cooterneck						X	
Cord						X	
Corning	X					X	
Cotter	X		X			X	
Cotter/Gassville Rural						X	
Cotton Plant	X					X	
Cottonwood Rural Fire Assoc						X	
County Line						X	
Cove Rural						X	
Crawfordsville						X	
Crossett	X		X		X	X	
Crow Mountain Fire Protection District						X	
Crystal Fire Protection District						X	
Curtis Rural						X	
Dalton						X	
Damascus						X	
Danville						X	
Dardanelle						X	
De Queen	X				X	X	
Deann						X	
Decatur	X					X	
Deer						X	
Delaware						X	
Dermott	X					X	
Des Arc	X					X	
Desha						X	
Devalls Bluff	X					X	
DeWitt	X					X	
Diaz	X		X			X	
Dierks	X		X				
District 7 Crawford Co. Volunt						X	
Dodd Mountain						X	
Dover	X		X			X	
Dumas						X	
Dyess						X	
Earle						X	
East Camden						X	
East End Fire Protection District						X	
El Dorado		X	X		X		
Elaine						X	
Elkins	X		X	X		X	
Elm Springs	X		X				
Emmet						X	

LOPFI Participating Group by Type
December 31, 2016 (Continued)

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
EMP Rural Fire Association						X	
England						X	
Etowah						X	
Eudora						X	
Eureka Springs	X		X		X	X	
Evansville						X	
Evening Shade						X	
Faircrest						X	
Fairfield Bay	X					X	
Fairview Fire Protection District						X	
Fairview Rural Fire District						X	
Farmington	X		X	X		X	
Fayetteville		X			X		
Fire District #6 Crawford Co						X	
Fisher						X	
Flippin	X		X			X	
Floral						X	
Fordyce						X	
Foreman						X	
Forrest City	X		X		X	X	
Fort Smith		X	X		X		
Fox						X	
Frenchport						X	
Gallatin						X	
Gamaliel						X	
Garland						X	
Gassville	X		X	X		X	
Gentry	X		X			X	
Gillett	X					X	
Glenwood	X		X			X	
Goshen	X		X				
Goshen Fire Dist Assoc						X	
Gosnell	X					X	
Gould						X	
Grady						X	
Gravel Ridge					X	X	
Gravette	X		X	X		X	
Grayson Fire Assoc						X	
Green Forest	X					X	
Greenbrier				X		X	
Greenland	X		X				
Greenwood	X		X		X	X	
Greenwood Rural						X	
Greers Ferry	X					X	
Grover Township						X	
Grubbs						X	
Gum Springs						X	
Gurdon						X	

LOPFI Participating Group by Type
December 31, 2016 (Continued)

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
Guy Community						X	
Hackett	X		X			X	
Hagarville RFD #3						X	
Halley						X	
Hamburg						X	
Hampton	X		X			X	
Hand Cove Fire Prot District						X	
Hardin						X	
Hardy	X					X	
Harmon						X	
Harrell						X	
Harrisburg	X					X	
Harrison	X		X		X	X	
Hartford	X		X			X	
Haskell	X		X	X		X	
Hatfield						X	
Hazen						X	
Heber Springs	X				X	X	
Hector			X				
Helena-West Helena		X	X		X	X	
Hensley						X	
Hermitage	X		X			X	
Hickory Creek						X	
Hickory Ridge						X	
Higginson			X			X	
Highfill	X		X			X	
Highland						X	
Highway 15 South						X	
Highway 286 East						X	
Highway 70 West FPA						X	
Hilltop						X	
Hilltop Fire District# 51						X	
Holiday Island					X	X	
Holland						X	
Hollis						X	
Holly Grove	X		X			X	
Hon						X	
Hope					X	X	
Hopewell Fire District						X	
Horatio						X	
Hot Springs		X			X		
Hot Springs Village	X			X		X	
Hoxie	X		X		X	X	
Hughes	X		X			X	
Humphrey	X		X			X	
Huntington	X					X	
Huntsville	X		X			X	
Huttig	X					X	

**LOPFI Participating Group by Type
December 31, 2016 (Continued)**

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
Imboden						X	
Inspiration Point Rural Fire Protection						X	
Ione Community						X	
Jacksonville	X				X		
Jasper	X					X	
Johnson	X						
Johnson Area				X		X	
Johnson County Rfd #1						X	
Johnson County Rfd #2						X	
Johnson County Rfd #4						X	
Johnson County Rfd #5						X	
Johnson County Rfd #7						X	
Johnson County Rfd #8						X	
Joiner						X	
Jonesboro		X	X		X		
Joplin						X	
Judsonia	X		X			X	
Junction City						X	
Keiser						X	
Kensett	X		X			X	
Keo						X	
Kibler	X						
Knoxville						X	
Krooked Kreek						X	
Lake City	X					X	
Lake Hamilton				X		X	
Lake Maumelle Area RFD						X	
Lake Village	X					X	
Lakeview		X	X				
Lamar	X					X	
Landis						X	
Lavaca	X		X			X	
Lawson-Urbana						X	
Lazy Acres						X	
Leachville	X					X	
Lead Hill						X	
Lepanto	X					X	
Leslie						X	
Lewisville	X					X	
Liberty						X	
Lincoln	X			X		X	
Linwood-Moscow						X	
Little Flock	X		X			X	
Little Rock		X			X		
Lockesburg						X	
London Rural						X	
Lone Rock						X	
Lonoke	X					X	

LOPFI Participating Group by Type
December 31, 2016 (Continued)

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
LOPFI Staff							X
Louann						X	
Lowell	X		X		X	X	
Luxora	X					X	
Lynne						X	
Magazine						X	
Magnolia	X		X		X	X	
Malvern	X				X	X	
Mammoth Spring						X	
Manila	X		X			X	
Mansfield	X		X			X	
Marble						X	
Marianna	X		X	X		X	
Marion	X		X	X		X	
Marked Tree	X					X	
Marmaduke	X					X	
Marshall	X		X			X	
Marvell	X		X			X	
Maumelle		X			X	X	
Mayflower	X		X	X		X	
Maynard						X	
McCroy	X		X			X	
McGehee	X				X	X	
McNeil						X	
McRae	X					X	
Melbourne						X	
Melrose						X	
Mena					X	X	
Midland						X	
Mineral Springs	X					X	
Monette	X					X	
Monticello					X	X	
Montrose						X	
Morning Star						X	
Morning Star FPA				X		X	
Moro						X	
Morrilton						X	
Morrow						X	
Mount Holly						X	
Mount Ida						X	
Mountain Home	X		X		X	X	
Mountain Pine	X						
Mountain View	X		X			X	
Mountainburg	X		X			X	
Mt Judea Area						X	
Mulberry	X					X	
Murfreesboro	X					X	
Nashville					X	X	

LOPFI Participating Group by Type
December 31, 2016 (Continued)

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
Natural Dam						X	
New Blaine Rural						X	
Newark						X	
Newport	X		X		X	X	
Nimrod/Aplin						X	
Nob Hill					X	X	
Norman						X	
Norphlet			X			X	
North Crossett						X	
North Little Rock		X			X		
North Pulaski FPD						X	
Northeast Benton Co.						X	
Northeast Greene County Fire District						X	
Northeast Lakeside						X	
Northeast Saline County Fire						X	
Northside						X	
Northside						X	
Oak Grove						X	
Oak Grove					X	X	
Oil Trough						X	
Ola	X		X			X	
Oppelo	X					X	
Osceola	X		X		X	X	
Ouachita Co FD #1						X	
Oxley						X	
Ozark	X		X	X		X	
Pangburn	X					X	
Paragould	X		X		X	X	
Paris						X	
Parkin						X	
Parks						X	
Parthenon						X	
Patterson	X		X			X	
Pea Ridge	X		X			X	
Peel						X	
Perryville	X					X	
Philadelphia						X	
Piggott						X	
Pine Bluff		X	X		X		
Pine Ridge						X	
Pine Village						X	
Pineville						X	
Plainview	X					X	
Pleasant Plains						X	
Plumerville						X	
Pocahontas	X		X		X	X	
Ponca						X	
Portland						X	
Pottsville	X		X			X	

LOPFI Participating Group by Type
December 31, 2016 (Continued)

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
Prairie Grove	X		X	X		X	
Prescott						X	
Pulaski Co					X	X	
Pyatt Rural Fire & Def Assoc						X	
Quail Creek						X	
Ravenden	X					X	
Rector	X		X			X	
Redfield	X		X			X	
Richwood						X	
Rison	X					X	
Riverdale						X	
Rockport	X						
Rockport						X	
Rogers	X				X		
Rondo						X	
Rose Bud						X	
Ross Van Ness - Wellford						X	
Round Mountain						X	
Ruddell Hill						X	
Rudd's Crossing						X	
Russell						X	
Russellville	X				X		
Salem	X					X	
Salem-Saline County						X	
Saratoga						X	
Sardis Fire Protection District						X	
Scotland						X	
Scott						X	
Scranton Rural						X	
SE Jefferson Co						X	
Searcy	X		X		X	X	
Sedgwick Fire Improvement Dist						X	
Shady Grove Fire & Rescue						X	
Shannon Hills	X		X				
Shannon Hills						X	
Shaw						X	
Sheridan				X		X	
Sherwood	X						
Siloam Springs	X				X	X	
Sixth District						X	
Smackover	X					X	
Smyrna						X	
Snowball						X	
South Carroll Co Fire Assoc						X	
South Greene County						X	
South Mountain						X	
Southbend						X	
Southside						X	
Sparkman			X			X	

LOPFI Participating Group by Type
December 31, 2016 (Continued)

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	<u>Paid with SS</u>	<u>Paid w/o SS</u>	<u>Volunteer Service</u>	
Springdale	X				X		
St. Francis						X	
Stamps	X					X	
Star City	X					X	
Stephens						X	
Strawberry						X	
Strickler						X	
Strong	X					X	
Stuttgart	X				X	X	
Sulphur	X					X	
Summit						X	
Sunnyland Rural						X	
Sunset Rural						X	
Sweet Home						X	
Swifton	X					X	
Taylor						X	
Texarkana		X			X		
Thornton						X	
Tillar						X	
Timbo						X	
Tinsman						X	
Tontitown	X		X				
Tontitown Area						X	
Town of St. Charles						X	
Tracy Area						X	
Trumann	X				X	X	
Tuckerman	X		X			X	
Tull Fire & Rescue						X	
Turrell						X	
Tyronza	X					X	
Umpire						X	
Valley Springs						X	
Van Buren	X		X		X		
Vandervoort Rural						X	
Velvet Ridge Fire Protection District						X	
Vilonia	X		X	X		X	
Viola						X	
Wabaseka						X	
Waldo	X		X			X	
Waldron	X					X	
Walnut Ridge	X		X		X	X	
Ward	X		X	X		X	
Warren					X	X	
Washington						X	
Water Valley						X	
Watson Chapel						X	
Wedington						X	
Weiner	X					X	
Wescon						X	

**LOPFI Participating Group by Type
December 31, 2016 (Concluded)**

<u>Political Subdivision</u>	<u>POLICE</u>			<u>FIRE</u>			<u>OTHER</u>
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Wesley						X	
West Fork	X		X	X		X	
West Memphis	X		X		X		
West Point						X	
West Pulaski						X	
Western Greene Co						X	
Western Grove						X	
Wheatley	X					X	
Wheeler						X	
White Bluff-Rye Hill						X	
White Hall	X					X	
Whitehouse						X	
Wickes RVFD #2						X	
Williams Junction						X	
Wilmar						X	
Wilmot						X	
Wilson	X					X	
Wilton						X	
Woodlawn						X	
Wright-Pastoria						X	
Wynne	X				X	X	
Y-City						X	
Yellville						X	
Zinc						X	

SECTION D

FINANCIAL PRINCIPLES

Financial Principles and Operational Techniques of LOPFI

Local Police and Fire Retirement System

Promises Made, and To Be Paid For. As each year is completed, the System in effect hands an "IOU" to each member then acquiring a year of service credit -- the "IOU" says: "The Arkansas Local Police and Fire Retirement System owes you one year's worth of retirement benefits, payments in cash commencing when you qualify for retirement."

The related *key financial questions* are:

Which generation of taxpayers contributes the money to cover the IOU?

The present taxpayers, who receive the benefit of the member's present year of service?

Or the future taxpayers, who happen to be in Arkansas at the time the IOU becomes a cash demand?

LOPFI intends that this year's taxpayers contribute the money to cover the IOUs being handed out this year. By following this principle, ***the employer contribution rate will remain approximately level from generation to generation*** -- our children and our grandchildren will contribute the same percents of pay we contribute now.

(There are systems which have a design for deferring contributions to future taxpayers lured by a lower contribution rate now and putting aside the fact that the contribution rate must relentlessly grow much greater over decades of time -- consume now, and let your children face your financial pollution after you've retired).

An inevitable by-product of the level-cost design is the accumulation of reserve assets, for decades, and the income produced when the assets are invested. ***Invested assets are a by-product and not the objective.*** ***Investment income*** becomes in effect ***the third contributor*** for benefits to employees, and is interlocked with the contribution amounts required from employees and employers.

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

Normal Cost (the cost of members' service being rendered this year)

... plus ...

Interest on Unfunded Actuarial Accrued Liabilities (unfunded actuarial accrued liabilities are the difference between: liabilities for members' service already rendered; and the accrued assets of the governmental unit in the plan).

Computing Contributions to Support System Benefits. From a given schedule of benefits and from the employee data and asset data furnished, the actuary determines the contribution rates to support the benefits, by means of ***an actuarial valuation and a funding method.***

An actuarial valuation has a number of ingredients such as: the rate of investment return which plan assets will earn; the rates of withdrawal of active members who leave covered employment before qualifying for any monthly benefit; the rates of mortality; the rates of disability; the rates of pay increases; and the assumed age or ages at actual retirement.

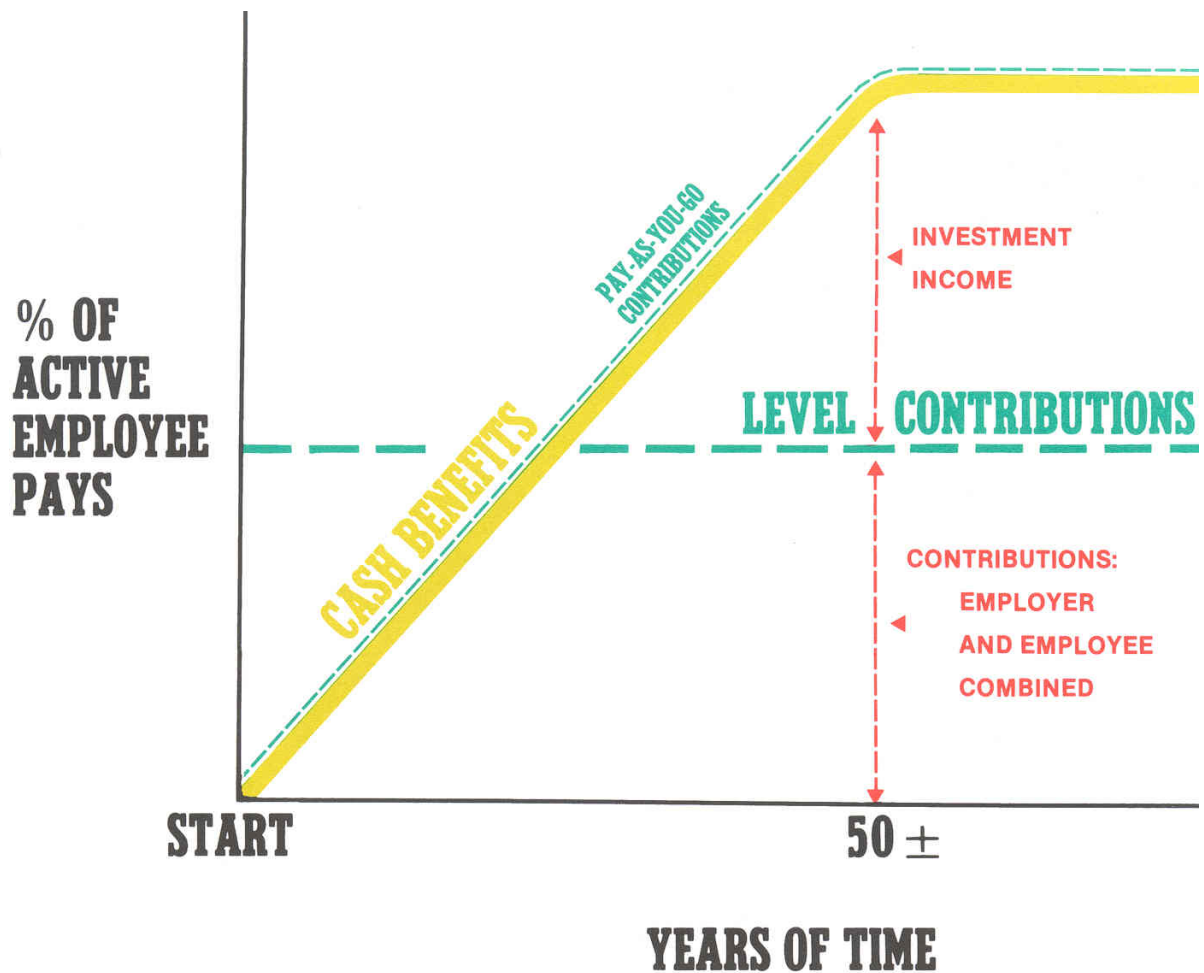
In making an actuarial valuation, the system must assume what the above experience will be for the next year and for decades in the future. Only the subsequent actual experience of the System can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the wisdom of the assumptions and regardless of the skill of the actuary and the calculations made. The future can be predicted with considerable but not complete precision, except that inflation seems to defy reliable prediction.

LOPFI copes with these continually changing differences by having ***annual actuarial valuations***, separately for each participating paid employer group and in aggregate for participating volunteer employer groups. Each annual actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continually changing employer contribution rates.

The size of an annual change in a paid plan employer contribution rate is usually less than one percent of payroll (up or down), particularly for the larger groups, where happenings to one or two employees have little effect on the group's status.

To avoid causing employer budget problems, LOPFI provides a maximum annual increase of one percent of payroll for any one participating employer (not including the effect of any benefit changes throughout the year).



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas

- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

The Actuarial Valuation Process

The *actuarial valuation* is the mathematical process by which the contribution rate is determined, and the flow of activity constituting the valuation may be summarized as follows:

- A. ***Covered people data***, furnished by plan administrator, including:
 - Retired lives now receiving benefits
 - Former employees with vested benefits not yet payable
 - Active employees
- + B. ***Asset data*** (cash & investments), furnished by plan administrator
- + C. ***Assumptions concerning future financial experiences in various risk areas***, which assumptions are established by the Board of Trustees after consulting with the actuary
- + D. ***The funding method*** for determining employer contributions (the long-term, planned pattern for employer contributions)
- + E. ***Mathematically combining the assumptions, the funding method, and the data***
- = F. Determination of:
 - Plan financial position***
 - and/or ***New Employer Contribution Rate***

SECTION E

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

**SUMMARY OF
ASSUMPTIONS USED FOR LOPFI ACTUARIAL VALUATIONS
Assumptions Adopted by Board of Trustees After Consulting With Actuary**

The actuarial assumptions used in making the valuations are shown in this section of the report. The assumptions are established by the Board after consulting with the actuary as outlined in A.C.A. 24-10-205(a)(1).

ECONOMIC ASSUMPTIONS

The investment return rate used in making the valuation was 7.75% per year, compounded annually (net after administrative expenses). This rate of return is not the assumed real rate of return. The real rate of return is defined to be the portion of investment return which is more than the wage inflation rate. With a 3.75% wage inflation assumption, the 7.75% investment return rate translates to an assumed real rate of return of 4.0%.

Price inflation was assumed to be 2.75% a year. This assumption was utilized to increase the basic benefit factor for volunteer members.

Pay increase assumptions for individual active members are summarized in Schedule A-5. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.75% recognizes wage inflation.

Total active member payroll is assumed to increase 3.75% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation.

The number of active members is assumed to continue at the present number for LOPFI plans.

NON-ECONOMIC ASSUMPTIONS

The mortality table used to measure retired life mortality was the RP-2000 Combined Projected to 2017 Table, set forward two years for men. Related values are shown in Schedule A-1. Disability post-retirement mortality was assumed to be the same as standard post-retirement mortality set forward an additional 10 years. For death-in-service mortality, one hundred percent of the post-retirement mortality tables were used. Fifty percent of deaths-in-service were assumed to be duty related. These assumptions include a margin for future mortality improvements.

The probabilities of retirement for members eligible to retire are shown in Schedule A-3.

The probabilities of withdrawal from service are summarized in Schedule A-4, and the *probabilities of disability* are summarized in Schedule A-2.

An individual entry age actuarial cost method of valuation was used in determining age & service allowance normal costs and the allocation of actuarial present values between service rendered before and after the valuation date. The entry-age actuarial cost method has the following characteristics:

- (i) the annual normal costs for each individual active member, payable from the member's actual date of employment to the member's projected date of retirement are sufficient to accumulate the actuarial present value of the member's benefit at the time of retirement; and
- (ii) each annual normal cost is: (a) a constant percentage of the member's year by year projected covered pay for paid service plans, or (b) an increasing dollar amount for volunteer service plans.

Differences in the past between assumed experience and actual experience ("actuarial gains and losses") are inevitable and become part of accrued liabilities. In LOPFI, cumulative actuarial losses and gains are the same as unfunded (or overfunded) accrued liabilities.

Unfunded accrued liabilities are amortized to produce contribution amounts (principal and interest) which are (a) level percent of payroll contributions over a period of future years for paid service plans, or (b) increasing dollar amounts for volunteer service plans.

For Benefit Program 3 volunteer service plans, the contribution rates from the December 31, 2002 valuation were developed based on a \$5.00 per month basic benefit factor. This factor is \$6.54 effective July 1, 2017 and is assumed to increase at the assumed rate of price inflation in future years. For Benefit Program 4 volunteer service plans, the contribution rates from the December 31, 2012 valuation were developed based on a \$10.00 per month basic benefit factor. This factor is \$10.60 effective July 1, 2017 and is assumed to increase at the assumed rate of price inflation in future years.

OTHER TECHNICAL ASSUMPTIONS -----

Decrements are assumed to occur at the middle of the valuation year.

The probability of being married, for death-in-service benefits, is assumed to be 90%.

Members who are eligible to participate in the DROP are assumed to participate in the DROP program in such a manner that is the most advantageous to them.

Future service credit is always assumed to accrue at the rate of 1 year of credit every 12 calendar months. Lower service accrual rates (service breaks or less-than-full-time employment) or higher service accrual rates (addition of military credit or reinstatement of prior service) are reflected as they are reported. Any lower or higher accrual rates may result in small financial gains or losses when reported.

The form of benefit payment assumed in the valuation for paid service and volunteer service plans is the Five Year Certain and Life Option. For local plans under LOPFI administration, the assumed form of benefit payment is 100% joint and survivor for police plans and the Life Option for fire plans. For local fire plans under LOPFI administration who have adopted Act 397, the assumed form of benefit payment is 100% joint and survivor.

Employer contribution dollars were assumed to be *paid in equal installments* throughout the employer fiscal year.

Present assets (cash & investments) were used based on a smoothed market value.

The data about persons now covered and about present assets were furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic and demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

**Illustration of Computed Employer Contributions
16.8-Year Closed Amortization Period**

**LOPFI Paid Service
(Based on Projected Future Payroll)**

Year Ended December 31,	Illustrative Payroll	Normal Cost	Payment for Amortization of UAL	Computed Employer Rate	Annual Employer Dollar Contribution
2016	\$ 100,000	9.94%	11.96%	21.90%	\$ 21,900
2017	103,750	9.94%	11.96%	21.90%	22,721
2018	107,641	9.94%	11.96%	21.90%	23,573
2019	111,677	9.94%	11.96%	21.90%	24,457
2020	115,865	9.94%	11.96%	21.90%	25,374
2021	120,210	9.94%	11.96%	21.90%	26,326
2022	124,718	9.94%	11.96%	21.90%	27,313
2023	129,395	9.94%	11.96%	21.90%	28,337
2024	134,247	9.94%	11.96%	21.90%	29,400
2025	139,281	9.94%	11.96%	21.90%	30,503
2026	144,504	9.94%	11.96%	21.90%	31,646
2027	149,923	9.94%	11.96%	21.90%	32,833
2028	155,545	9.94%	11.96%	21.90%	34,064
2029	161,378	9.94%	11.96%	21.90%	35,342
2030	167,430	9.94%	11.96%	21.90%	36,667
2031	173,709	9.94%	11.96%	21.90%	38,042
2032	180,223	9.94%	11.96%	21.90%	39,469
2033	186,981	9.94%	11.96%	21.90%	40,949
2034	193,993	9.94%	11.96%	21.90%	42,484
2035	201,268	9.94%	0.00%	9.94%	20,006
2036	208,815	9.94%	0.00%	9.94%	20,756
2037	216,646	9.94%	0.00%	9.94%	21,535
2038	224,770	9.94%	0.00%	9.94%	22,342
2039	233,199	9.94%	0.00%	9.94%	23,180
2040	241,944	9.94%	0.00%	9.94%	24,049
2041	251,017	9.94%	0.00%	9.94%	24,951
2042	260,430	9.94%	0.00%	9.94%	25,887
2043	270,196	9.94%	0.00%	9.94%	26,857
2044	280,328	9.94%	0.00%	9.94%	27,865

This illustration is not intended to exactly predict future employer contributions, but instead is intended to illustrate the general trend of future contributions based upon current benefit structure and assumed future economic and demographic activity. It is unlikely that future contributions will match exactly for any given year those rates shown above.

**Illustration of Computed Employer Contributions
18.5-Year Closed Amortization Period**

**LOPFI Benefit Program 3 Volunteer Service
(Based on Projected Benefit Factors)**

Year Ended December 31,	Basic Benefit Factor@	Illustrative Monthly Active Member Count	Normal Cost	Payment for Amortization of UAL	Computed Monthly Employer Rate	Annual Employer Dollar Contribution
2016	\$ 6.54	10	\$ 24.10	\$ 31.52	\$ 55.62	\$ 6,674
2017	6.72	10	24.76	31.52	56.28	6,754
2018	6.90	10	25.44	31.52	56.96	6,835
2019	7.09	10	26.14	31.52	57.66	6,919
2020	7.28	10	26.86	31.52	58.38	7,006
2021	7.48	10	27.60	31.52	59.12	7,094
2022	7.69	10	28.36	31.52	59.88	7,186
2023	7.90	10	29.14	31.52	60.66	7,279
2024	8.12	10	29.94	31.52	61.46	7,375
2025	8.34	10	30.76	31.52	62.28	7,474
2026	8.57	10	31.61	31.52	63.13	7,576
2027	8.81	10	32.48	31.52	64.00	7,680
2028	9.05	10	33.37	31.52	64.89	7,787
2029	9.30	10	34.29	31.52	65.81	7,897
2030	9.56	10	35.23	31.52	66.75	8,010
2031	9.82	10	36.20	31.52	67.72	8,126
2032	10.09	10	37.20	31.52	68.72	8,246
2033	10.37	10	38.22	31.52	69.74	8,369
2034	10.66	10	39.27	31.52	70.79	8,495
2035	10.95	10	40.35	31.52	71.87	8,624
2036	11.25	10	41.46	31.52	72.98	8,758
2037	11.56	10	42.60	0.00	42.60	5,112
2038	11.88	10	43.77	0.00	43.77	5,252
2039	12.21	10	44.97	0.00	44.97	5,396
2040	12.55	10	46.21	0.00	46.21	5,545
2041	12.90	10	47.48	0.00	47.48	5,698
2042	13.25	10	48.79	0.00	48.79	5,855

@ Basic benefit factor - \$5.00 per month for each year of service beginning July 1, 2003. Increased by price inflation on July 1, 2004 and every July 1 thereafter. This factor is \$6.54 effective July 1, 2017. For purposes for this illustration, the factor was assumed to increase by 2.75% a year, compounded.

This illustration is not intended to exactly predict future employer contributions, but instead is intended to illustrate the general trend of future contributions based upon current benefit structure and assumed future economic and demographic activity. It is unlikely that future contributions will match exactly for any given year those rates shown above.

Schedule A-1
Single Life Retirement Values
Based on the RP-2000 Combined Projected to 2017 Table
and 7.75% Interest
(First used for December 31, 2012 Valuations)

Sample Attained Ages	Value at Retirement: \$1.00 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
45	\$144.21	\$148.44	35.48	40.05
50	138.33	143.93	30.80	35.29
55	130.68	137.91	26.25	30.61
60	121.14	130.04	21.90	26.04
65	109.70	120.24	17.83	21.70
70	96.21	108.70	14.07	17.68
75	81.16	95.55	10.72	14.02
80	65.31	80.99	7.83	10.76

Sample Attained Ages	Benefit Increasing 2.75% Yearly	Portion of Age 55 Lives Still Alive	Sample Attained Ages
55	\$100	100 %	55
60	115	97	60
65	131	92	65
70	150	84	70
75	172	73	75
80	197	56	80

Schedule A-2
Probabilities of Disability Retirement

Paid Service Members
(First used for December 31, 2012 Valuations)

Sample Ages	Percent Becoming Disabled within Next Year	
	Non-Duty	Duty
20	0.07 %	0.09 %
25	0.07	0.09
30	0.10	0.11
35	0.13	0.16
40	0.20	0.24
45	0.31	0.37
50	0.52	0.63
55	0.91	1.09
60	1.36	1.63

Volunteer Service Members
(First used for December 31, 2003 Valuations)

Sample Ages	Percent Becoming Disabled within Next Year	
	Non-Duty	Duty
20	0.07 %	0.00 %
25	0.07	0.00
30	0.07	0.00
35	0.07	0.00
40	0.18	0.01
45	0.23	0.01
50	0.43	0.02
55	0.79	0.04
60	1.24	0.06

Schedule A-3
Probabilities of Retirement for Members Eligible to Retire
(First used for December 31, 2012 Valuations)

Paid Service Members

Retirement Ages	Percents of Active Members Retiring within Next Year		Years of Service	Percents of Active Members Retiring within Next Year
	Early	Normal		
45-49	3 %			
50-54	3			
55		20 %	28	25 %
56		20	29	15
57		20	30	15
58		20	31	20
59		20	32	35
60		20	33	40
61		20	34	100
62		25		
63		25		
64		25		
65		50		
66		60		
67		70		
68		80		
69		90		
70+		100		

A member was assumed eligible for retirement after attaining age 55 with 20 years of service or age 60 with 5 years of service or any age with 28 or more years of service. A member was assumed to retire with 100% probability at 34 or more years of service credit.

A member was assumed eligible for a reduced benefit after attaining age 50 with 20 or more years of service or any age with 25 or more years of paid service credit.

The probabilities of retirement shown above represent ultimate termination of employment (whether or not the member participates in the DROP).

Schedule A-3
Probabilities of Retirement for Members Eligible to Retire (Concluded)
(First used for December 31, 2012 Valuations)

Volunteer Service Members

Retirement Ages	Percents of Active Members Retiring within Next Year	
	Early	Normal
Under 50		20 %
50-54	2 %	20
55-59		15
60-64		15
65-69		20
70-74		30
75+		100

A member was assumed to be eligible for retirement after 28 years of service, attaining age 55 with 20 years of service, or age 60 with 5 years of service.

A member was assumed eligible for a reduced benefit after attaining age 50 with 20 or more years of service.

Schedule A-4
Rates of Separation (Excluding Deaths and Disability)
from Active Employment Before Retirement
(First used for December 31, 2012 Valuations)

Paid Service Members

Sample Ages	Years of Service	% of Active Members Separating within Next Year
ALL	0	18.00 %
	1	16.00
	2	13.00
	3	11.00
	4	10.00
25	5 & Over	8.56
30		7.20
35		5.52
40		4.40
45		3.52
50		2.80
55		0.80
60		0.00

Volunteer Service Members

Sample Ages	Years of Service	% of Active Members Separating within Next Year
ALL	0	23.00 %
	1	21.00
	2	19.00
	3	17.00
	4	15.00
25	5 & Over	8.50
30		8.50
35		8.50
40		8.50
45		8.50
50		8.50
55		8.50
60		8.50

Schedule A-5
Pay Increase Assumptions
for an Individual Paid Service Member
(First used for December 31, 2012 Valuations)

Pay Increase Assumptions			
for an Individual Member			
Service Years	Merit and Seniority	Base (Economic)	Increase Next Year
1	15.00%	3.75%	18.75%
2	9.00%	3.75%	12.75%
3	4.00%	3.75%	7.75%
4	3.00%	3.75%	6.75%
5	2.00%	3.75%	5.75%
6	1.50%	3.75%	5.25%
7	1.50%	3.75%	5.25%
8	1.50%	3.75%	5.25%
9	1.00%	3.75%	4.75%
10	1.00%	3.75%	4.75%
11	0.50%	3.75%	4.25%
12	0.50%	3.75%	4.25%
13	0.50%	3.75%	4.25%
14	0.50%	3.75%	4.25%
15	0.50%	3.75%	4.25%
16	0.50%	3.75%	4.25%
17	0.50%	3.75%	4.25%
18	0.50%	3.75%	4.25%
19	0.50%	3.75%	4.25%
20+	0.50%	3.75%	4.25%

Investment Return and Inflation

Long-Term Expected Return on Plan Assets

The assumed rate of investment return was adopted by the plan's trustees after considering input from the plan's investment consultant(s) and actuary(s). Additional information about the assumed rate of investment return is included in the 2008-2011 four-year experience study. The assumed rate of investment return falls within a reasonable range of the long-term expected rate of return.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These real rates of return are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. For each major asset class that is included in the pension plan's target asset allocation, these best estimates are summarized in the following table:

Asset Allocation

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Allocation-Weighted Long-Term Expected Real Rate of Return
Domestic Fixed Income	30.00%	2.97%	0.89%
International Fixed Income	6.00%	1.50%	0.09%
Domestic Equity	33.00%	5.88%	1.94%
Foreign Equity	7.00%	6.25%	0.44%
Index	11.00%	6.73%	0.74%
Alternative Investments	10.00%	6.13%	0.61%
Cash	3.00%	-0.40%	-0.01%
Total	100.00%		4.70%
Expected Inflation			3.00%
Total Return			7.70%

The figures in the above table were from the four-year experience study ending December 31, 2011. Gabriel, Roeder, Smith & Company does not provide investment advice.

Investment Return and Inflation (Concluded)

The Trustees of the Social Security system prepare and publish an annual report. Social Security's economists develop a forecast of future CPI-W (for Urban Wage Earners and Clerical Workers). The following table presents their forecasts in the 2016 annual report.

Social Security Trustees' Ultimate CPI-W Assumption for 2019 and later

Low-cost	3.20%
Intermediate	2.60%
High-cost	2.00%

Source: 2016 Social Security Trustees' Report (p. 9)